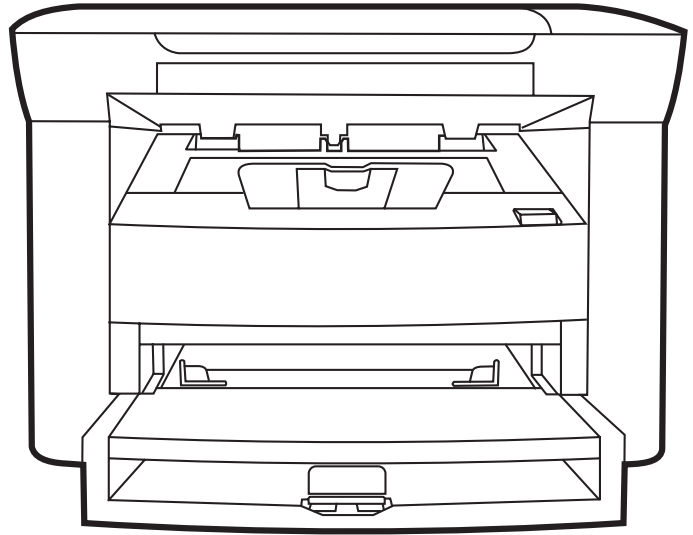


# HP LaserJet M1005 MFP

## Service Manual





# HP LaserJet M1005 MFP

---

Service Manual



## Copyright and License

© 2006 Copyright Hewlett-Packard Development Company, L.P.

Reproduction, adaptation, or translation without prior written permission is prohibited, except as allowed under the copyright laws.

The information contained in this document is subject to change without notice.

The only warranties for HP products and services are set forth in the express warranty statements accompanying such products and services. Nothing herein should be construed as constituting an additional warranty. HP shall not be liable for technical or editorial errors or omissions contained herein.

Part number CB376-90929

Edition 1, 8/2006

## Trademark credits

Microsoft®, Windows®, and Windows NT® are U.S. registered trademarks of Microsoft Corporation.

Linux is a U.S. registered trademark of Linus Torvalds.

PostScript® is a trademarks of Adobe Systems Incorporated.

UNIX® is a registered trademark of The Open Group.

Energy Star® and the Energy Star® logo are U.S. registered marks of the United States Environmental Protection Agency.



# Table of contents

## 1 Device information

Quick access to device information .....	2
Model and serial number label .....	3
Features at a glance .....	4
Walkaround .....	5
General guidelines .....	6
Choosing paper and other media .....	6
HP media .....	6
Media to avoid .....	6
Media that can damage the device .....	7
Guidelines for using media .....	8
Paper .....	8
Colored paper .....	9
Custom-size media .....	9
Labels .....	9
Label construction .....	9
Transparencies .....	9
Envelopes .....	10
Envelope construction .....	10
Envelopes with double-side seams .....	10
Envelopes with adhesive strips or flaps .....	11
Envelope storage .....	11
Card stock and heavy media .....	11
Card stock construction .....	11
Card stock guidelines .....	11
Letterhead and preprinted forms .....	12
Supported media weights and sizes .....	13
Printing and storage environment .....	14

## 2 Installation

What is in the box .....	16
Site requirements .....	17
Physical specifications .....	17
Space requirements .....	17
Loading media .....	18
Loading documents to copy or scan .....	18
Loading input trays .....	18
Main input tray (tray 1) .....	18
Priority input tray .....	19

Connect power .....	20
Minimum system requirements .....	21
Supported operating systems .....	21
Software installation .....	22
Printer driver .....	23
Printer-driver Help .....	23
Changing printer-driver settings .....	24
Software for Windows .....	25
HP LaserJet Scan software .....	25
Installing Windows device software .....	25
Uninstalling Windows device software .....	25
Uninstalling Macintosh device software .....	25

### 3 Managing the device

Control panel .....	28
Information pages .....	29
Managing supplies .....	30
Checking supplies status .....	30
Storing supplies .....	30
Replacing and recycling supplies .....	30
HP policy on non-HP supplies .....	30
HP fraud hotline .....	31
Supplies .....	32
Cable and interface accessories .....	32
User-replaceable parts .....	32
Paper and other print media .....	32

### 4 Maintenance

Cleaning the device .....	36
To clean the exterior .....	36
To clean the scanner glass .....	36
To clean the lid backing .....	36
To clean the paper path .....	37
Print cartridge .....	38
Approximate print-cartridge replacement intervals .....	38
Managing the print cartridge .....	38
Print-cartridge life expectancy .....	38
Print-cartridge storage .....	38
HP policy on non-HP print cartridges .....	38
HP fraud hotline .....	38
Replacing supplies and parts .....	40
Supply replacement guidelines .....	40
Changing the print cartridge .....	40

### 5 Theory of Operation

Basic functions .....	44
Basic sequence of operation .....	45
Formatter system .....	46
Central processing unit .....	46

Standard boot process .....	46
Device startup messages .....	46
RAM .....	47
Universal serial bus (USB) interface .....	47
Control panel .....	47
EconoMode .....	47
Device functions .....	48
Engine control system (engine control unit and power-supply assembly) .....	48
Device engine control system .....	49
Device laser/scanner unit .....	49
Power system on the power-supply assembly .....	49
Image-formation system .....	51
The seven image-formation processes .....	52
Print cartridge .....	53
Device paper-feed system .....	53
Jam detection in the device .....	54
Conditions of jam detection .....	54
HP LaserJet M1005 MFP unique components .....	56
Scanner functions and operation .....	56
Scanner functions .....	56
Scanner operation .....	57

## 6 Removal and replacement

Removal and replacement strategy .....	60
Admonitions .....	60
Required tools .....	60
Before performing service .....	61
After performing service .....	61
Parts removal order .....	61
Flatbed lid .....	63
Control-panel overlay .....	64
Control panel .....	65
Scanner assembly .....	67
Device separation pad .....	73
Print cartridge .....	74
Device pickup roller .....	75
Media input tray .....	78
Transfer roller .....	80
Device side covers .....	82
Print-cartridge door .....	85
Rear cover and fuser cover .....	86
Front cover .....	88
Installing the scanner cushions .....	90
Power supply .....	91
Formatter .....	94
Scanner support frame .....	95
Engine controller unit .....	98
Laser/scanner assembly .....	102
Main motor .....	103
Fuser .....	105

Paper-pickup assembly .....	107
-----------------------------	-----

## 7 Troubleshooting

Basic troubleshooting .....	110
Control-panel messages .....	113
Alert and warning messages .....	113
Critical error messages .....	113
Event-log codes .....	115
Solving image-quality problems .....	116
Checking the print cartridge .....	116
To redistribute the toner in the print cartridge .....	116
Solving print image-quality problems .....	116
Print image-quality problems .....	116
Solving scanning (copying) image-quality problems .....	124
Scanning (copying) image-quality problems .....	124
Repetitive image defect ruler .....	130
Solving paper-feed problems .....	131
Jams occur in the device .....	131
To clear a jam .....	131
Solving print paper-feed problems .....	132
Print paper-feed problems .....	133
Functional checks .....	135
Half self-test functional check .....	135
To perform a half self-test check .....	135
To perform other checks .....	135
Drum rotation functional check .....	136
High-voltage contacts check .....	137
To check the print-cartridge contacts .....	137
To check the high-voltage connector pins .....	138
Firmware update using a flash executable file .....	139
Troubleshooting tools .....	140
Printing a configuration report, demonstration page, or menu structure .....	140
Service-mode functions .....	141
Secondary service menu .....	141
To gain access to the secondary service menu .....	141
Adjusting the country/region code parameters .....	142
To change the country/region from one location to another .....	142
To set the language and location if none is set .....	142
NVRAM init .....	142
To perform NVRAM init .....	143
System settings for localized products .....	143
Main wiring .....	146
Component locations .....	148

## 8 Parts and diagrams

Ordering parts and supplies .....	152
Parts that wear .....	152
Parts .....	152
World-wide customer support .....	152
Accessories .....	153



Common hardware .....	153
How to use the parts lists and diagrams .....	154
Scanner assembly .....	156
Formatter .....	158
Whole unit replacement part .....	160
Alphabetical parts list .....	176
Numerical parts list .....	180
<b>Appendix A Device specifications</b>	
Physical specifications .....	186
Electrical specifications .....	186
Power consumption .....	186
Environmental specifications .....	186
Acoustic emissions .....	187
<b>Appendix B Product warranty</b>	
Hewlett-Packard Limited Warranty Statement .....	190
Availability of support and service .....	191
HP maintenance agreements .....	192
Next-Day Onsite Service .....	192
<b>Appendix C Regulatory information</b>	
FCC compliance .....	194
Declaration of conformity .....	195
Country-/region-specific safety statements .....	196
Laser safety statement .....	196
Canadian DOC statement .....	196
Korean EMI statement .....	196
Finnish laser statement .....	197
<b>Index .....</b>	<b>199</b>



# List of tables

Table 1-1	Device guides .....	2
Table 1-2	Features .....	4
Table 1-3	Priority input tray specifications .....	13
Table 1-4	Tray 1 specifications .....	13
Table 2-1	Physical dimensions for the HP LaserJet M1005 MFP .....	17
Table 5-1	HP LaserJet M1005 MFP .....	45
Table 5-2	Device startup messages .....	46
Table 5-3	Dc power distribution .....	49
Table 7-1	Event-log codes .....	115
Table 7-2	System settings .....	143
Table 8-1	Technical support websites and related documentation .....	152
Table 8-2	Accessories .....	153
Table 8-3	Common fasteners .....	153
Table 8-4	Scanner assembly .....	157
Table 8-5	Formatter .....	159
Table 8-6	Whole unit replacement part .....	161
Table 8-7	Pickup- and delivery- tray assemblies .....	163
Table 8-8	External covers .....	165
Table 8-9	Internal components (1 of 3) .....	167
Table 8-10	Internal components (2 of 3) .....	169
Table 8-11	Internal components (3 of 3) .....	171
Table 8-12	Paper-pickup assembly .....	173
Table 8-13	Fuser (fixing assy) assembly .....	175
Table 8-14	Alphabetical parts list .....	176
Table 8-15	Numerical parts list .....	180
Table A-1	Physical specifications .....	186
Table A-2	Electrical specifications .....	186
Table A-3	Power consumption (average, in watts), .....	186
Table A-4	Environmental specifications .....	186
Table A-5	Acoustic emissions , .....	187



# List of figures

Figure 1-1	Model and serial number label .....	3
Figure 1-2	Front view .....	5
Figure 1-3	Back view .....	5
Figure 2-1	What is in the shipping box .....	16
Figure 2-2	Space requirements .....	17
Figure 2-3	Loading documents to copy or scan .....	18
Figure 2-4	Loading the main input tray (tray 1) (1 of 2) .....	18
Figure 2-5	Loading the main input tray (tray 1) (2 of 2) .....	19
Figure 2-6	Loading the priority input tray (1 of 2) .....	19
Figure 2-7	Loading the priority input tray (2 of 2) .....	19
Figure 2-8	Connect power .....	20
Figure 3-1	Control panel .....	28
Figure 4-1	Cleaning the scanner glass .....	36
Figure 4-2	Cleaning the lid backing .....	37
Figure 4-3	Changing the print cartridge (1 of 5) .....	40
Figure 4-4	Changing the print cartridge (2 of 5) .....	40
Figure 4-5	Changing the print cartridge (3 of 5) .....	41
Figure 4-6	Changing the print cartridge (4 of 5) .....	41
Figure 4-7	Changing the print cartridge (5 of 5) .....	41
Figure 5-1	Device configuration .....	44
Figure 5-2	Device functional block diagram .....	48
Figure 5-3	High-voltage power supply circuit .....	51
Figure 5-4	Image-formation block diagram .....	52
Figure 5-5	Device paper path .....	54
Figure 5-6	HP LaserJet M1005 MFP optical system (1 of 2) .....	56
Figure 5-7	HP LaserJet M1005 MFP optical system (2 of 2) .....	57
Figure 6-1	Parts removal order for the HP LaserJet M1005 MFP .....	62
Figure 6-2	Remove the flatbed lid (1 of 2) .....	63
Figure 6-3	Remove the control-panel overlay .....	64
Figure 6-4	Remove the control panel (1 of 4) .....	65
Figure 6-5	Remove the control panel (2 of 4) .....	65
Figure 6-6	Remove the control panel (3 of 4) .....	66
Figure 6-7	Remove the control panel (4 of 4) .....	66
Figure 6-8	Remove the scanner assembly (1 of 11) .....	67
Figure 6-9	Remove the scanner assembly (2 of 11) .....	67
Figure 6-10	Remove the scanner assembly (3 of 11) .....	68
Figure 6-11	Remove the scanner assembly (4 of 11) .....	68
Figure 6-12	Remove the scanner assembly (5 of 11) .....	69
Figure 6-13	Remove the scanner assembly (6 of 11) .....	69
Figure 6-14	Remove the scanner assembly (7 of 11) .....	70

Figure 6-15	Remove the scanner assembly (8 of 11)	70
Figure 6-16	Remove the scanner assembly (9 of 11)	71
Figure 6-17	Remove the scanner assembly (10 of 11)	71
Figure 6-18	Remove the scanner assembly (11 of 11)	72
Figure 6-19	Remove the device separation pad (1 of 2)	73
Figure 6-20	Remove the device separation pad (2 of 2)	73
Figure 6-21	Remove the print cartridge (1 of 2)	74
Figure 6-22	Remove the print cartridge (2 of 2)	74
Figure 6-23	Remove the device pickup roller (1 of 5)	75
Figure 6-24	Remove the device pickup roller (2 of 5)	75
Figure 6-25	Remove the device pickup roller (3 of 5)	76
Figure 6-26	Remove the device pickup roller (4 of 5)	76
Figure 6-27	Remove the device pickup roller (5 of 5)	77
Figure 6-28	Remove the media input tray (1 of 3)	78
Figure 6-29	Remove the media input tray (2 of 3)	78
Figure 6-30	Remove the media input tray (3 of 3)	79
Figure 6-31	Remove the transfer roller (1 of 3)	80
Figure 6-32	Remove the transfer roller (2 of 3)	81
Figure 6-33	Remove the transfer roller (3 of 3)	81
Figure 6-34	Remove the device side covers (1 of 3)	82
Figure 6-35	Remove the device side covers (2 of 3)	83
Figure 6-36	Remove the device side covers (2 of 3)	83
Figure 6-37	Remove the device side covers (3 of 3)	84
Figure 6-38	Remove the print-cartridge door (1 of 2)	85
Figure 6-39	Remove the print-cartridge door (2 of 2)	85
Figure 6-40	Remove the rear cover and fuser cover (1 of 3)	86
Figure 6-41	Remove the rear cover and fuser cover (2 of 3)	86
Figure 6-42	Remove the rear cover and fuser cover (3 of 3)	87
Figure 6-43	Remove the front cover (1 of 3)	88
Figure 6-44	Remove the front cover (2 of 3)	88
Figure 6-45	Remove the front cover (3 of 3)	89
Figure 6-46	Reinstalling the front cover	89
Figure 6-47	Installing the scanner cushions	90
Figure 6-48	Remove the power supply (1 of 3)	91
Figure 6-49	Remove the power supply (2 of 3)	92
Figure 6-50	Remove the power supply (3 of 3)	92
Figure 6-51	Remove the formatter (1 of 2)	94
Figure 6-52	Remove the formatter (2 of 2)	94
Figure 6-53	Remove the scanner support frame (1 of 3)	95
Figure 6-54	Remove the scanner support frame (2 of 3)	96
Figure 6-55	Remove the scanner support frame (3 of 3)	96
Figure 6-56	Remove the ECU (1 of 6)	98
Figure 6-57	Remove the ECU (2 of 6)	99
Figure 6-58	Remove the ECU (3 of 6)	99
Figure 6-59	Remove the ECU (4 of 6)	100
Figure 6-60	Remove the ECU (5 of 6)	100
Figure 6-61	Remove the ECU (6 of 6)	101
Figure 6-62	Remove the laser/scanner assembly	102
Figure 6-63	Remove the main motor (1 of 2)	103
Figure 6-64	Remove the main motor (2 of 2)	104

Figure 6-65	Remove the fuser assembly (1 of 2)	105
Figure 6-66	Remove the fuser assembly (2 of 2)	106
Figure 6-67	Fragile tab on fuser assembly	106
Figure 6-68	Remove the paper-pickup assembly	107
Figure 7-1	Repetitive image defect ruler	130
Figure 7-2	Clear a jam in the device base (1 of 3)	131
Figure 7-3	Clear a jam in the device base (2 of 3)	132
Figure 7-4	Clear a jam in the device base (3 of 3)	132
Figure 7-5	Check the fuser connectors on the fuser	136
Figure 7-6	Check the fuser connectors on the power supply	136
Figure 7-7	Print-cartridge high-voltage contacts	137
Figure 7-8	High-voltage contacts	138
Figure 7-9	Main wiring, HP LaserJet M1005 MFP scanner assembly	146
Figure 7-10	Main wiring, HP LaserJet M1005 MFP device base	147
Figure 7-11	HP LaserJet M1005 MFP component locations (1 of 2)	148
Figure 7-12	HP LaserJet M1005 MFP component locations (2 of 2)	149
Figure 8-1	Scanner assembly	156
Figure 8-2	Formatter	158
Figure 8-3	Whole unit replacement part	160
Figure 8-4	Pickup- and delivery-tray assemblies	162
Figure 8-5	External covers	164
Figure 8-6	Internal components (1 of 3)	166
Figure 8-7	Internal components (2 of 3)	168
Figure 8-8	Internal components (3 of 3)	170
Figure 8-9	Paper-pickup assembly	172
Figure 8-10	Fuser (fixing assy) assembly	174





# 1 Device information

- [Quick access to device information](#)
- [Model and serial number label](#)
- [Features at a glance](#)
- [Walkaround](#)
- [General guidelines](#)
- [Choosing paper and other media](#)
- [Guidelines for using media](#)
- [Supported media weights and sizes](#)
- [Printing and storage environment](#)

## Quick access to device information

Several references are available for use with this device.

- **HP LaserJet M1005 MFP:** [www.hp.com/support/LJm\\_1005](http://www.hp.com/support/LJm_1005).

**Table 1-1** Device guides

Guide	Description
<b>Getting started guide</b>	Provides step-by-step instructions for installing and setting up the device.
<b>User guide</b>	Provides detailed information for using and troubleshooting the device. Available on the device CD.
<b>Online Help</b>	Provides information about options that are available in the device drivers. To view a Help file, open the online Help through the printer driver.

# Model and serial number label

The model and serial number are located on a label found on the back of the device.



Figure 1-1 Model and serial number label

# Features at a glance

Table 1-2 Features

Feature	Description
<b>Print</b>	<ul style="list-style-type: none"><li>• Prints letter-size pages at speeds up to 15 pages per minute (ppm) and A4-size pages at speeds up to 14 ppm</li><li>• Prints at 600 dots per inch (dpi) and FastRes 1200 dpi</li><li>• Includes adjustable settings to optimize print quality</li><li>• Average yield for the standard black print cartridge is 2,000 pages in accordance with ISO/IEC 19752. Actual yield depends on specific use.</li></ul>
<b>Copy</b>	<ul style="list-style-type: none"><li>• Copies at 600 dots per inch (dpi)</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>• Priority input tray holds up to 10 pages</li><li>• Tray 1 holds up to 150 sheets of print media or 10 envelopes</li><li>• Output bin holds up to 100 sheets of print media</li></ul>
<b>Scan</b>	<ul style="list-style-type: none"><li>• Provides 1200 pixels per inch (ppi) full-color scanning</li></ul>
<b>Printer driver</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>• Includes a Hi-Speed USB 2.0 port</li></ul>
<b>Environmental features</b>	<ul style="list-style-type: none"><li>• ENERGY STAR®-qualified</li></ul>
<b>Economical printing</b>	<ul style="list-style-type: none"><li>• Provides N-up printing (printing more than one page on a sheet)</li><li>• Provides an EconoMode setting, which uses less toner</li></ul>
<b>Supplies</b>	<ul style="list-style-type: none"><li>• Uses a print cartridge that has a no-shake design</li></ul>
<b>Accessibility</b>	<ul style="list-style-type: none"><li>• Online user guide is compatible with text screen-readers</li><li>• Print cartridge can be installed and removed by using one hand</li><li>• All doors and covers can be opened by using one hand</li></ul>

# Walkaround

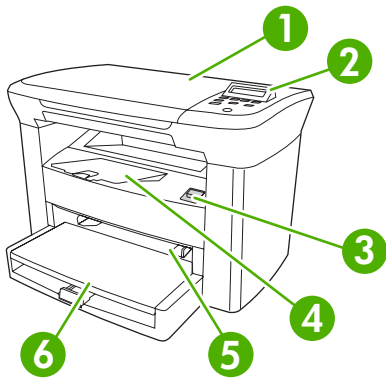


Figure 1-2 Front view

1	Flatbed scanner cover
2	Control panel
3	Cartridge-door release
4	Output bin
5	Priority input tray
6	Tray 1

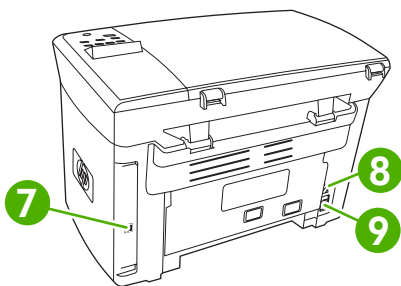


Figure 1-3 Back view

7	Hi-Speed USB 2.0 port
8	Power switch
9	Power receptacle

## General guidelines

Some media might meet all of the guidelines in this manual and still not produce satisfactory results. This problem might be the result of improper handling, unacceptable temperature and humidity levels, or other variables over which Hewlett-Packard has no control.

Before purchasing large quantities of print media, always test a sample and make sure that the print media meets the requirements specified in this service manual and in the *HP LaserJet Printer Family Print Media Guide*, which you can view on the Web at [www.hp.com/support/ljpaperguide](http://www.hp.com/support/ljpaperguide).



---

**CAUTION** Using media that does not meet HP specifications can cause problems for the device, requiring repair. This repair is not covered by the Hewlett-Packard warranty or service agreements.

---

The device accepts a variety of media, such as cut-sheet paper (including up to 100% recycled-fiber-content paper), envelopes, labels, transparencies, LaserJet glossy paper, HP LaserJet Tough paper, and custom-size paper. Properties such as weight, composition, grain, and moisture content are important factors that affect performance and output quality. Media that does not meet the guidelines outlined in this manual can cause the following problems:

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

## Choosing paper and other media

Properties such as weight, grain, and moisture content are important factors that affect performance and quality. To achieve the best possible print quality, only use high-quality media that is designed for laser printers.



---

**NOTE** Always test a sample of the media before you purchase large quantities. Your media supplier should understand the requirements specified in the *HP LaserJet Printer Family Print Media Guide* (HP part number 5963-7863).

---

### HP media

HP recommends that you use HP LaserJet media in the device.

### Media to avoid

The device can handle many types of media. Using media that is outside the specifications degrades print quality and increases the chance of jams occurring. See [Guidelines for using media on page 8](#).

- Do not use media that is too rough.
- Do not use media that contains cutouts or perforations other than standard 3-hole punched paper.
- Do not use multipart forms.
- Do not use paper that contains a watermark if you are printing solid patterns.

## Media that can damage the device

In rare circumstances media can damage the device. Avoid the following types of media to prevent possible damage:

- Do not use media with staples or paper clips attached.
- Do not use transparencies designed for inkjet printers or other low-temperature printers. Use only transparencies that are specified for use with HP LaserJet devices.
- Do not use photo paper intended for inkjet printers.
- Do not use paper that is embossed or coated and is not designed for the temperature of the image-fuser. Select media that can tolerate temperatures of 200°C (392°F) for 0.1 second. HP manufactures a media that is designed for the device.
- Do not use letterhead paper that was produced with low-temperature dyes or thermography. Preprinted forms or letterhead must use inks that can tolerate temperatures of 200°C (392°F) for 0.1 second.
- Do not use any media that produces emissions, or that melts, offsets, or discolors when exposed to 200°C (392°F) for 0.1 second.

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

## Guidelines for using media

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

### Paper

For best results, use conventional 80-g/m<sup>2</sup> or 20-lb paper. Make sure that the paper is of good quality and free of cuts, nicks, tears, spots, loose particles, dust, wrinkles, voids, and curled or bent edges.

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

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

Symptom	Problem with paper	Solution
Poor print quality or toner adhesion Problems with feeding	Too moist, too rough, too smooth, or embossed	Try another kind of paper that has a smoothness rating of 100-250 Sheffield and has 4-6% moisture content.  Check the device and make sure that the appropriate media type has been selected.
Dropouts, jamming, or curl	Stored improperly	Store paper flat in its moisture-proof wrapping.
Increased gray background shading	Might be too heavy	Use lighter paper.
Excessive curl Problems with feeding	Too moist, wrong grain direction, or short-grain construction	Use long-grain paper.  Check the device and make sure that the appropriate media type has been selected.
Jamming or damage to device	Cutouts or perforations	Do not use paper with cutouts or perforations.
Problems with feeding	Ragged edges	Use good quality paper.



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

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

Do not use raised letterhead.

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



**CAUTION** Failure to follow these guidelines could cause jams or damage to the device.



## Colored paper

- Colored paper should be of the same high quality as white xerographic paper.
- Pigments used must be able to withstand the fuser temperature of 200°C (392°F) for 0.1 second without deterioration.
- Do not use paper with a colored coating that was added after the paper was produced.

## Custom-size media

Use the main input tray for multiple sheets.



---

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

---

## Labels

HP recommends that you print labels from the priority input tray.



---

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

---

## Label construction

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

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

## Transparencies

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



---

**CAUTION** You can print transparencies from the 150-sheet tray (tray 1). However, do not load more than 75 transparencies at one time into the tray.

---

# Envelopes

HP recommends that you print envelopes from the priority input tray.

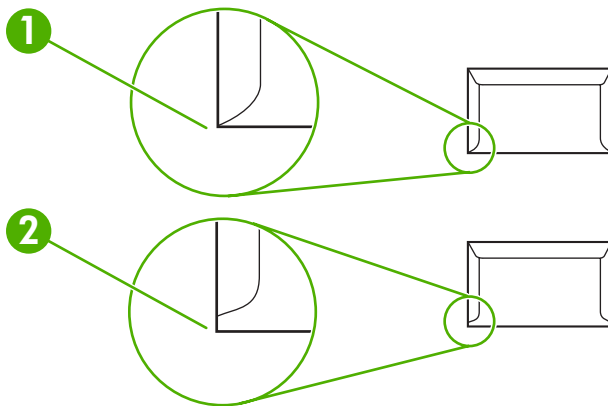
## Envelope construction

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

- **Weight:** The weight of the envelope paper should not exceed 90 g/m<sup>2</sup> (24 lb), or jamming might result.
- **Construction:** Before printing, envelopes should lie flat with less than 6 mm (0.25 inch) of curl, and should not contain air. Envelopes that trap air can cause problems. Do not use envelopes that contain clasps, snaps, tie strings, transparent windows, holes, perforations, cutouts, synthetic materials, stamping, or embossing. Do not use envelopes with adhesives that require pressure to seal them.
- **Condition:** Make sure that the envelopes are not wrinkled, nicked, or otherwise damaged. Make sure that the envelopes do not have any exposed adhesive.

## Envelopes with double-side seams

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



- 
- |   |                                    |
|---|------------------------------------|
| 1 | Acceptable envelope construction   |
| 2 | Unacceptable envelope construction |

## Envelopes with adhesive strips or flaps

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

## Envelope storage

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

## Card stock and heavy media

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

For optimum performance, do not use paper heavier than 157 g/m<sup>2</sup> (42 lb). Paper that is too heavy might cause misfeeds, stacking problems, jams, poor toner fusing, poor print quality, or excessive mechanical wear.



---

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

---

In either the software program or the printer driver, select **Heavy** (106 g/m<sup>2</sup> to 163 g/m<sup>2</sup>; 28- to 43-lb bond) or **Cardstock** (135 g/m<sup>2</sup> to 216 g/m<sup>2</sup>; 50- to 80-lb cover) as the media type, or print from a tray that is configured for heavy paper. Because this setting affects all print jobs, it is important to return the device back to its original settings after the job has printed.

## Card stock construction

- **Smoothness:** 135-157 g/m<sup>2</sup> (36-42 lb) card stock should have a smoothness rating of 100-180 Sheffield. 60-135 g/m<sup>2</sup> (16-36 lb) card stock should have a smoothness rating of 100-250 Sheffield.
- **Construction:** Card stock should lie flat with less than 5 mm (0.2 inch) of curl.
- **Condition:** Make sure that the card stock is not wrinkled, nicked, or otherwise damaged.

## Card stock guidelines

- Set margins at least 2 mm (0.08 inch) away from the edges.
- Use tray 1 for card stock (135 g/m<sup>2</sup> to 216 g/m<sup>2</sup>; 50- to 80-lb cover).

## Letterhead and preprinted forms

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

Many manufacturers now design these grades of paper with properties optimized for laser printing and advertise the paper as laser compatible or laser guaranteed. Some of the rougher surface finishes, such as cockle, laid, or linen, might require the special fuser modes that are available on some device models to achieve adequate toner adhesion.



---

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

---

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

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



---

**NOTE** To print a single-page cover letter on letterhead, followed by a multiple-page document, feed the letterhead face up in the priority input tray, and load the standard paper in the main input tray (tray 1). The device automatically prints from the priority input tray first.

---

# Supported media weights and sizes

For optimum results, use conventional 80 to 90 g/m<sup>2</sup> (20 to 24 lb) photocopy paper. Verify that the paper is of good quality and is free of cuts, nicks, tears, spots, loose particles, dust, wrinkles, curls, and bent edges.



**NOTE** The device supports a wide range of standard and custom sizes of print media. The capacity of trays and bins can vary depending on media weight and thickness and on environmental conditions. Use only transparencies that are designed for use with HP LaserJet printers. Inkjet and monochrome transparencies are not supported for the device.

**Table 1-3** Priority input tray specifications

Media	Dimensions <sup>1</sup>	Weight	Capacity <sup>2</sup>
Paper	Minimum: 89 x 44 mm (3.5 x 1.75 inches) Maximum: 216 x 356 mm (8.5 x 14 inches)	42 to 260 g/m <sup>2</sup> (11 to 69 lb)	Up to 10 sheets of 80 g/m <sup>2</sup> or 20 lb paper
HP Cover paper <sup>3</sup>	Same as the preceding listed minimum and maximum sizes	203 g/m <sup>2</sup> (75 lb cover)	1 sheet
Transparencies and opaque film		Thickness: 0.10 to 0.13 mm (3.9 to 5.1 mils)	1 transparency
Labels <sup>4</sup>		Thickness: up to 0.23 mm (up to 9 mils)	1 sheet of labels
Envelopes		Up to 90 g/m <sup>2</sup> (16 to 24 lb)	Up to 10

<sup>1</sup> The device supports a wide range of standard and custom sizes of print media. Check the printer driver for supported sizes.

<sup>2</sup> Capacity can vary depending on media weight and thickness, and environmental conditions.

<sup>3</sup> Hewlett-Packard does not guarantee results when printing with other types of heavy paper.

<sup>4</sup> Smoothness: 100 to 250 (Sheffield).

**Table 1-4** Tray 1 specifications

Media	Dimensions <sup>1</sup>	Weight	Capacity <sup>2</sup>
Minimum size	76 x 127 mm (3 x 5 inches)	60 to 163 g/m <sup>2</sup> (16 to 43 lb)	150 sheets of 80 g/m <sup>2</sup> (20 lb) paper
Maximum size	216 x 356 mm (8.5 x 14 inches)		
Letter	216 x 279 mm (8.5 x 11 inches)		
A4	210 x 297 mm (8.3 x 11.7 inches)		
Legal	216 x 356 mm (8.5 x 14 inches)		
A5	148 x 210 mm (5.8 x 8.3 inches)		
B5 (ISO)	176 x 250 mm (6.9 x 9.9 inches)		
B5 (JIS)	182 x 257 mm (7.2 x 10 inches)		
Executive	191 x 267 mm (7.3 x 10.5 inches)		
8.5 x 13 inches	216 x 330 mm (8.5 x 13 inches)		

<sup>1</sup> The device supports a wide range of standard sizes of print media. Check the printer driver for supported sizes.

<sup>2</sup> Capacity can vary depending on the media weight and thickness, and environmental conditions.

## Printing and storage environment

Ideally, the printing and media-storage environment should be at or near room temperature, and not too dry or too humid. Remember that paper absorbs and loses moisture rapidly.

Heat works with humidity to damage paper. Heat causes the moisture in paper to evaporate, while cold causes it to condense on the sheets. Heating systems and air conditioners remove most of the humidity from a room. As paper is opened and used, it loses moisture, causing streaks and smudging. Humid weather or water coolers can cause the humidity to increase in a room. As paper is opened and used it absorbs any excess moisture, causing light print and dropouts. Also, as paper loses and gains moisture it can distort. This issue can cause jams.

As a result, paper storage and handling are as important as the paper-making process itself. Paper storage environmental conditions directly affect the feed operation and print quality.

Care should be taken not to purchase more paper than can be easily used in a short time (about three months). Paper stored for long periods can experience heat and moisture extremes, which can cause damage. Planning is important to prevent damage to a large supply of paper.

Unopened paper in sealed reams can remain stable for several months before use. Opened packages of paper have more potential for environmental damage, especially if they are not wrapped with a moisture-proof barrier.

The media-storage environment should be maintained to ensure optimum performance. The required condition is 20° to 24°C (68° to 75°F), with a relative humidity of 45% to 55%. The following guidelines are helpful when evaluating the storage environment:

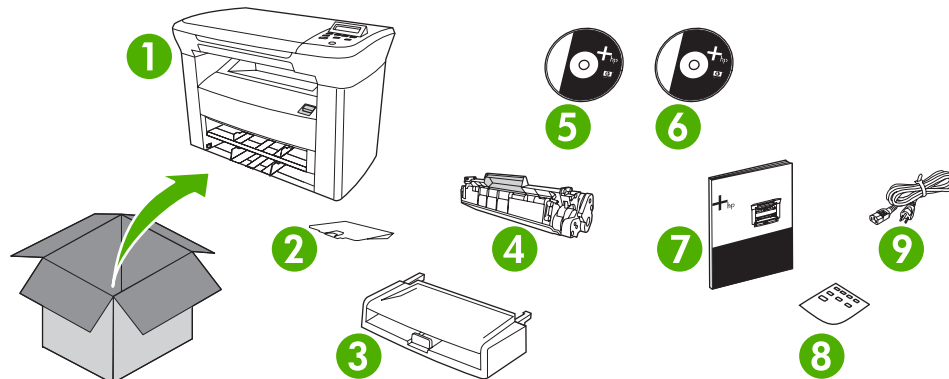
- Print media should be stored at or near room temperature.
- The air should not be too dry or too humid.
- The best way to store an opened ream of paper is to rewrap it tightly in its moisture-proof wrapping. If the device environment is subject to extremes, unwrap only the amount of paper to be used during the day's operation to prevent unwanted moisture changes.
- Avoid storing paper and print media near heating and air conditioning vents or near windows and doors that are frequently open.

## 2 Installation

- [What is in the box](#)
- [Site requirements](#)
- [Loading media](#)
- [Connect power](#)
- [Minimum system requirements](#)
- [Supported operating systems](#)
- [Software installation](#)
- [Printer driver](#)
- [Software for Windows](#)

## What is in the box

The following items come in the box with the device.



**Figure 2-1** What is in the shipping box

1. HP LaserJet M1005 MFP
2. Output bin support
3. Main input tray (tray 1)
4. Print cartridge
5. Software and documentation CD-ROM
6. Readiris CD-ROM
7. Getting started guide
8. Control panel overlay
9. Power cord



## Site requirements

Select a sturdy, well-ventilated, dust-free area that is away from direct sunlight to position the device. Allow enough space around the device to open the doors and trays.

### Physical specifications



**NOTE** Device weight does not include the print cartridge, which weighs 0.7 kg (1.5 lb).

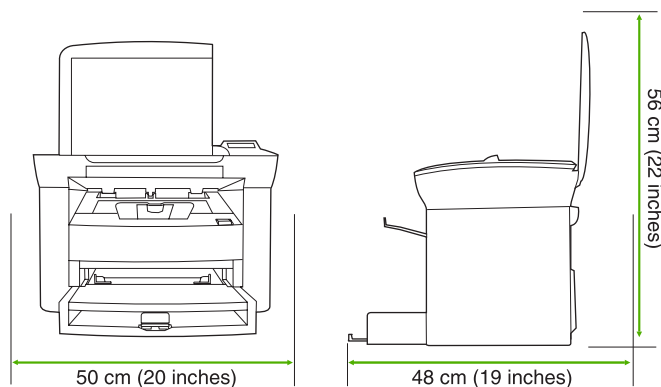
**Table 2-1** Physical dimensions for the HP LaserJet M1005 MFP

Device model	Height	Depth	Width	Weight
HP LaserJet M1005 MFP	308 mm (12.1 in)	363 mm (14.3 in)	437 mm (19.3 in)	8.3 kg (18.4 lb)

### Space requirements

The device must have the following amount of space above and around it for proper access and ventilation.

- Width: 500 mm (19.7 in)
- Depth: 480 mm (19 in)
- Height: 560 mm (22 in)



**Figure 2-2** Space requirements

# Loading media

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

 **CAUTION** Printing on wrinkled, folded, or damaged media can cause jams.

## Loading documents to copy or scan

Use these instructions to load originals into the device for scanning.

1. Lift the flatbed scanner cover.
2. Place the original document face-down on the flatbed scanner with the upper-left corner of the document at the lower-right corner of the glass.

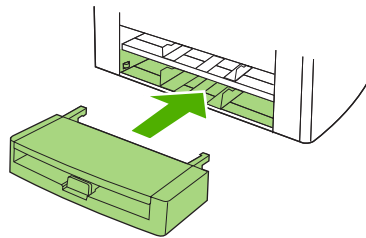


**Figure 2-3** Loading documents to copy or scan

3. Gently close the lid.  
The document is ready to be copied or scanned.

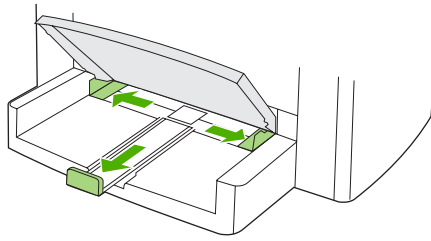
## Loading input trays

### Main input tray (tray 1)



**Figure 2-4** Loading the main input tray (tray 1) (1 of 2)

The main input tray holds up to 150 pages of 80 g/m<sup>2</sup> or 20 lb paper or fewer pages of heavier media (15 mm (0.6 in) or less stack height). Load media with the top forward and the side to be printed facing down. To prevent jams and skewing, always adjust the side and rear media guides.

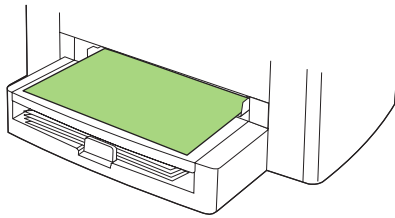


**Figure 2-5** Loading the main input tray (tray 1) (2 of 2)



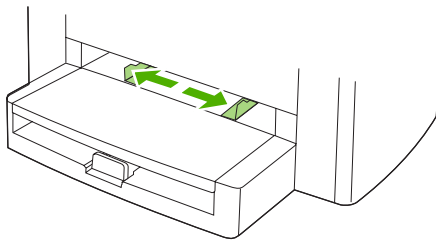
**NOTE** When you add new media, make sure that you remove all of the media from the input tray and straighten the stack of new media. This helps to prevent multiple sheets of media from feeding into the device, which can cause jams.

## Priority input tray



**Figure 2-6** Loading the priority input tray (1 of 2)

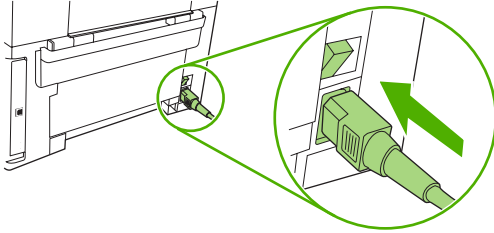
The priority input tray on the HP LaserJet M1005 MFP holds up to 10 sheets of media up to 80 g/m<sup>2</sup> (20 lb) in weight or one envelope, transparency, or card. Load media with the top forward and the side to be printed facing up. To prevent jams and skewing, always adjust the side media guides before feeding the media.



**Figure 2-7** Loading the priority input tray (2 of 2)

## Connect power

Make sure that the power cord is connected to the device and to a power supply.



**Figure 2-8** Connect power

## Minimum system requirements

In order to install and use the device software, your computer must meet the following minimum requirements:

### Windows requirements

- Pentium II (233 MHz) processor
- 64 MB of RAM
- 35 MB of disk space
- SVGA 800x600 16-bit color monitor

### Macintosh requirements

- G3, G4, or G5 PowerPC processor
- 128 MB of RAM
- 30 to 50 MB of disk space

## Supported operating systems

The device comes with software for the following operating systems:

- Windows XP
- Windows 2000
- Windows Server 2003
- Mac OS X V10.3 and later (print/twain drivers only)

# Software installation

If the computer meets the recommended minimum requirements, the installation process includes the following software.

## **Windows**

- HP LaserJet Scan software program and driver (twain)
- Readiris OCR (not installed with other software; separate installation is required)
- Printer drivers (Windows and Mac)

## **Macintosh**

- Readiris OCR (not installed with other software; separate installation is required)
- Printer drivers (Windows and Mac)
- TWAIN driver (Mac)

# Printer driver

The device comes with software for Windows and Macintosh that allows the computer to communicate with the device. This software is called a printer driver. Printer drivers provide access to device features, such as printing on custom-sized paper, resizing documents, and inserting watermarks.



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

## Printer-driver Help

Printer-driver Help is separate from program Help. The printer-driver Help provides explanations for the buttons, check boxes, and drop-down lists that are in the printer driver. It also includes instructions for performing common printing tasks, such as printing on both sides, printing multiple pages on one sheet, and printing the first page or covers on different paper.

Activate the printer-driver Help screens in one of the following ways:

Windows	Macintosh
<ul style="list-style-type: none"><li>• In the printer driver <b>Properties</b> dialog box, click the <b>Help</b> button.</li><li>• Press the <b>F1</b> key on the computer keyboard.</li><li>• Click the question-mark symbol in the upper-right corner of the printer driver.</li><li>• Right-click on any item in the driver, and then click <b>What's This?</b>.</li></ul>	<ul style="list-style-type: none"><li>• In the <b>Print</b> dialog box, click the <b>?</b> button.</li></ul>

## Changing printer-driver settings

Use one of the following methods to open the printer drivers from the computer in order to change settings:

Operating System	To change the settings for all print jobs until the software program is closed	To change the print job default settings (for example, select a specific media type or size by default)	To change the configuration settings (for example, enable or disable manual duplexing)
Windows 2000, XP, and Server 2003	<ol style="list-style-type: none"> <li>1. On the <b>File</b> menu in the software program, click <b>Print</b>.</li> <li>2. Select the name of the device, and then click <b>Properties</b> or <b>Preferences</b>.</li> </ol> <p>The steps can vary; this procedure is most common.</p>	<ol style="list-style-type: none"> <li>1. Click <b>Start</b>, click <b>Settings</b>, and then click <b>Printers</b> or <b>Printers and Faxes</b>.</li> <li>2. Right-click the printer icon, and then select <b>Printing Preferences</b>.</li> </ol>	<ol style="list-style-type: none"> <li>1. Click <b>Start</b>, click <b>Settings</b>, and then click <b>Printers</b> or <b>Printers and Faxes</b>.</li> <li>2. Right-click the printer icon, and then select <b>Properties</b>.</li> <li>3. Click the <b>Device Settings</b> tab.</li> </ol>
Mac OS X V10.3 and Mac OS X V10.4	<ol style="list-style-type: none"> <li>1. On the <b>File</b> menu, click <b>Print</b>.</li> <li>2. Change the settings that you want on the various pop-up menus.</li> </ol>	<ol style="list-style-type: none"> <li>1. On the <b>File</b> menu, click <b>Print</b>.</li> <li>2. Change the settings that you want on the various pop-up menus.</li> <li>3. On the <b>Presets</b> pop-up menu, click <b>Save as</b> and type a name for the preset.</li> </ol> <p>These settings are saved in the <b>Presets</b> menu. To use the new settings, you must select the saved preset option every time you open a program and print.</p>	<ol style="list-style-type: none"> <li>1. Open <b>Printer Setup Utility</b> by selecting the hard drive, clicking <b>Applications</b>, clicking <b>Utilities</b>, then double-clicking <b>Printer Setup Utility</b>.</li> <li>2. Click on the print queue.</li> <li>3. On the <b>Printers</b> menu, click <b>Show Info</b>.</li> <li>4. Click the <b>Installable Options</b> menu.</li> </ol>



# Software for Windows

See the HP LaserJet M1005 MFP getting started guide for installation instructions, and see the Readme file for the latest software information.

## HP LaserJet Scan software

The software CD includes the HP LaserJet Scan software. See the Readme file that is provided on the CD for additional included software and for supported languages.

## Installing Windows device software

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



---

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

---

## Uninstalling Windows device software

1. Click **Start**, and then click **All Programs**.
2. Click **HP**, and then click **HP LaserJet M1005 MFP**.
3. Click **Uninstall HP LaserJet M1005 MFP**, and then follow the onscreen instructions to remove the software.

## Uninstalling Macintosh device software

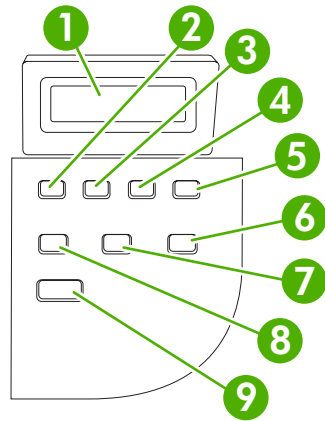
1. Double-click the hard drive icon on the desktop.
2. Open the **Applications** folder, and then open the **Utilities** folder.
3. Double-click **Printer Setup Utility**.
4. In the Printer Setup Utility, select the device, and then click **Delete** on the toolbar.



# 3 Managing the device

- [Control panel](#)
- [Information pages](#)
- [Managing supplies](#)
- [Supplies](#)
- [Cable and interface accessories](#)
- [User-replaceable parts](#)
- [Paper and other print media](#)

# Control panel



**Figure 3-1** Control panel

1	Control-panel display	<ul style="list-style-type: none"> <li>Shows status information, menus, and error messages</li> </ul>
2	Left arrow button	<ul style="list-style-type: none"> <li>Navigates to the previous item in the list, or decreases the value of numeric items. With some numeric items, pressing the button once decreases the value by 1, while pressing and holding the button decreases the value by 10.</li> </ul>
3	Menu/Enter/OK button	<ul style="list-style-type: none"> <li>Activates the control-panel menu</li> <li>Clears an error condition when the condition is clearable</li> <li>Saves the selected value for an item</li> <li>Performs the action that is associated with the item that is highlighted on the control-panel display</li> </ul>
4	Right arrow button	<ul style="list-style-type: none"> <li>Navigates to the next item in the list, or increases the value of numeric items. With some numeric items, pressing the button once increases the value by 1, while pressing and holding the button increases the value by 10.</li> </ul>
5	Cancel button	<ul style="list-style-type: none"> <li> Cancels the current print, copy, or scan job in process and expels all of the active pages from the paper path. The time that it takes to cancel the job depends on the size of the print job. (Press the button only once.) Also clears continuable errors that are associated with the canceled job.</li> <li> Exits the control-panel menus</li> </ul>
6	More Copy Settings button	<ul style="list-style-type: none"> <li>Provides access to copy settings for the current copy job</li> </ul>
7	Lighter/Darker button	<ul style="list-style-type: none"> <li>Provides access to copy contrast settings for the current copy job</li> </ul>
8	# Copies button	<ul style="list-style-type: none"> <li>Provides a way to change the number of copies printed for a the current copy job</li> </ul>
9	Start Copy button	<ul style="list-style-type: none"> <li>Starts a copy job</li> </ul>

# Information pages

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

Page name	Description	Instructions
Demo page	The Demo page prints a sample page that allows you to inspect the device print quality.	<ol style="list-style-type: none"><li>1. On the device control panel, press <b>Menu</b>.</li><li>2. Use the &lt; or the &gt; button to select <b>Reports</b>, and then press <b>Menu</b>.</li><li>3. Press <b>Menu</b> to select <b>Demo page</b>.</li></ol>
Menu structure	The Menu structure is a “map” of the control-panel menu commands.	<ol style="list-style-type: none"><li>1. On the device control panel, press <b>Menu</b>.</li><li>2. Use the &lt; or the &gt; button to select <b>Reports</b>, and then press <b>Menu</b>.</li><li>3. Use the &lt; or the &gt; button to select <b>Menu structure</b>, and then press <b>Menu</b>.</li></ol>
Configuration report	<p>The Configuration report lists the current settings and properties of the device.</p> <ol style="list-style-type: none"><li>1. <b>Product Information.</b> This section contains basic information about the device, such as the device name, the serial number, and memory information.</li><li>2. <b>Product Settings.</b> This section lists <b>Language, Jam Recovery, and I/O Timeout.</b></li><li>3. <b>Paper Settings.</b> This section lists information about the media type for each tray and about the type settings for all of the media that the device supports.</li><li>4. <b>Copy Settings.</b> This section lists the device default copy settings.</li><li>5. <b>Usage.</b> This section shows the number of print, copy, and scan jobs performed by the device.</li><li>6. <b>Status Log.</b> This section contains information about device errors.</li></ol>	<ol style="list-style-type: none"><li>1. On the device control panel, press <b>Menu</b>.</li><li>2. Use the &lt; or the &gt; button to select <b>Reports</b>, and then press <b>Menu</b>.</li><li>3. Use the &lt; or the &gt; button to select <b>Config report</b>, and then press <b>Menu</b>.</li></ol>

# Managing supplies

## Checking supplies status

If the supply levels are low, you can order supplies through your local HP dealer, by telephone, or online. See chapter 7 for part numbers. See [www.hp.com/go/ljsupplies](http://www.hp.com/go/ljsupplies) to order online.

## Storing 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.

---

- Store the supply in a horizontal position.
- Store the supply in a dark, dry location away from heat and magnetic sources.

## Replacing and recycling supplies

To install a new HP print cartridge, see [Changing the print cartridge on page 40](#).

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.

## 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 are *not* covered under the warranty.

## HP fraud hotline

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

Your print cartridge might not be genuine HP 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 translates between you and the representative for the HP fraud hotline.

## Supplies

Product name	Description	Part number
Black print cartridge	The average yield for the standard print cartridge is approximately 2,000 pages in accordance with ISO/IEC 19752. Actual yield depends on specific use.	Q2612A

## Cable and interface accessories

Product name	Description	Part number
USB cable	2-meter standard USB-compatible device connector	C6518A

## User-replaceable parts

Product name	Description	Part number
Separation pad and pickup rollers	Replace when the device is picking up multiple sheets or no sheets. Trying different paper did not resolve the problem.	Contact HP Customer Care to order parts.

## Paper and other print media



**NOTE** Inkjet paper is not recommended for the device.

Product name	Description	Part number
HP LaserJet paper	Premium HP-brand paper for use with HP LaserJet printers.	HPJ1124 (letter)
HP Premium Choice LaserJet paper	HP bond paper with a weight of 120 g/m <sup>2</sup> (32 lb).	HPU1132 (letter)
HP Printing paper	HP-brand paper for use with HP LaserJet printers.	HPP1122 (letter)
HP Multipurpose paper	HP-brand paper for a variety of uses.	HPM1120 (letter)
HP LaserJet Tough paper	Robust paper with a satin finish. Paper does not tear and withstands the weather. For documents requiring durability and longevity.	Q1298A (letter)
HP High Gloss laser paper	High-gloss finish coating on both sides. Use for brochures, catalogs, photographs, and whenever a high-gloss finish is desired.	Q2419A (letter) 200 sheets
HP Soft Gloss laser paper	Satin finish coating on both sides, 105 g/m <sup>2</sup> (28 lb).	Q2415A (letter) 500 sheets



Product name	Description	Part number
HP Brochure Laser Paper, Matte	High opacity for two-sided printing with no show-through, 44 lb.	Q6543A (letter) 150 sheets
HP Photo and Imaging Laser Paper, Glossy	High-contrast glossy finish, 32 lb.	Q6545A (letter) 200 sheets
HP Photo and Imaging Laser Paper, Matte	High-contrast matte finish, 52 lb.	Q6549A (letter) 100 sheets
HP Presentation Laser Paper, Soft Gloss	Bright white for high contrast, 32 lb.	Q6541A (letter) 200 sheets
HP Recycled Content Paper	Matte finish on both sides, contains 30 percent post-consumer content (satisfies US Executive Order 13101), 75 g/m <sup>2</sup> (20-lb bond).	HPE1120 (letter) 500 sheets



# 4 Maintenance

- [Cleaning the device](#)
- [Print cartridge](#)
- [Replacing supplies and parts](#)

# Cleaning the device

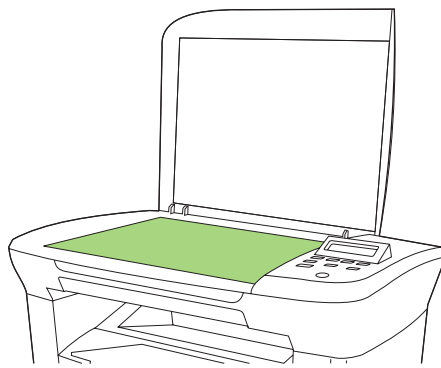
## To clean the exterior

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

## To clean the scanner glass

Dirty glass, from fingerprints, smudges, hair, and so on, affects the accuracy of special features such as fit-to-page and copy.

1. Turn off the device, unplug the power cord from the electrical socket, and raise the lid.
2. Clean the glass by using a soft cloth or sponge that has been moistened with nonabrasive glass cleaner.



**Figure 4-1** Cleaning the scanner glass



---

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

---

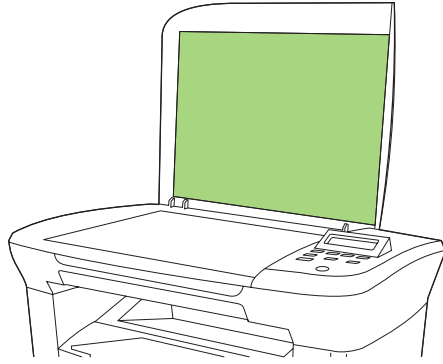
3. To prevent spotting, dry the glass by using a chamois or cellulose sponge.

## To clean the lid backing

Minor debris can accumulate on the white document lid backing that is located underneath the scanner lid.

1. Turn off the device, unplug the power cord from the electrical socket, and raise the lid.

2. Clean the white document lid backing by using a soft cloth or sponge that has been moistened with a mild soap and warm water.



**Figure 4-2** Cleaning the lid backing

3. Wash the backing gently to loosen debris; do not scrub the backing.
4. Dry the backing by using a chamois or soft cloth.



---

**CAUTION** Do not use paper-based wipes because they might scratch the backing.

---

5. If this does not clean the backing well enough, repeat the previous steps and use isopropyl alcohol to dampen the cloth or sponge, and then wipe the backing thoroughly with a damp cloth to remove any residual alcohol.

## To clean the paper path

The device features a special cleaning mode to clean the paper path.

1. On the device control panel, press **Menu**.
2. Use the < or the > button to select **Service**, and then press **Menu**.
3. Use the < or the > button to select **Cleaning Mode**, and then press **Menu**.  
A page feeds through the device slowly. Discard the page when the process is completed.
4. Load plain letter or A4 paper when you are prompted.
5. Press **Menu** again to confirm and begin the cleaning process.  
A page feeds through the device slowly. Discard the page when the process is completed.

# Print cartridge

Using, storing, and monitoring the print cartridge can help ensure high-quality device output.

## Approximate print-cartridge replacement intervals

Print cartridge	Page count
Black	2,000 pages

To order supplies online, go to [www.hp.com/support/LJm\\_1005](http://www.hp.com/support/LJm_1005).

## Managing the print cartridge

### Print-cartridge life expectancy

The average cartridge yield is 2,000 pages in accordance with ISO/IEC 19752. Actual cartridge yield depends on specific use.



**CAUTION** Hewlett-Packard does not recommend full-time use of EconoMode. (If EconoMode is used consistently to print media with less than 5% toner coverage, the toner supply might outlast the mechanical parts in the print cartridge.)

### Print-cartridge storage

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



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

### HP policy on non-HP print cartridges

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



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

To install a new HP print cartridge, see [Changing the print cartridge on page 40](#). To recycle the used cartridge, follow the instructions included with the new cartridge.

### HP fraud hotline

Call the HP fraud hotline if the device 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.

Your print cartridge might not be genuine HP 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 translates between you and the representative for the HP fraud hotline.

# Replacing supplies and parts

Carefully follow the guidelines in this section when replacing device supplies.

## Supply replacement guidelines

To facilitate the replacement of supplies, keep the following guidelines in mind when setting up the device.

- Sufficient space is required above and in the front of the device for removing supplies.
- The device should be located on a flat, sturdy surface.

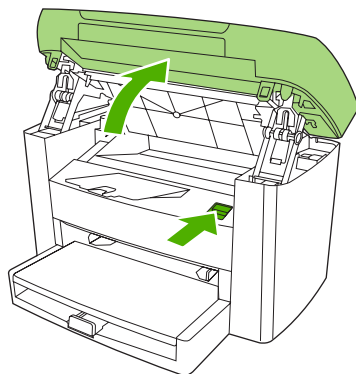
For instructions on installing supplies, see the installation guides provided with each supply item or see more information at [www.hp.com/support/LJm\\_1005](http://www.hp.com/support/LJm_1005).



**CAUTION** Hewlett-Packard recommends the use of HP products in this device. Use of non-HP products might cause problems requiring service that is not covered by the HP warranty or service agreements.

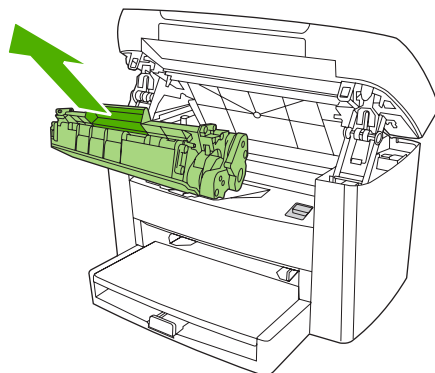
## Changing the print cartridge

1. Open the print-cartridge door.



**Figure 4-3** Changing the print cartridge (1 of 5)

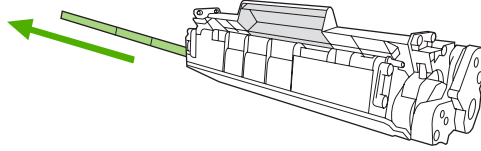
2. Grasp the handle on the print cartridge and then pull the cartridge straight out to remove it. See the recycling information inside the print cartridge box.



**Figure 4-4** Changing the print cartridge (2 of 5)

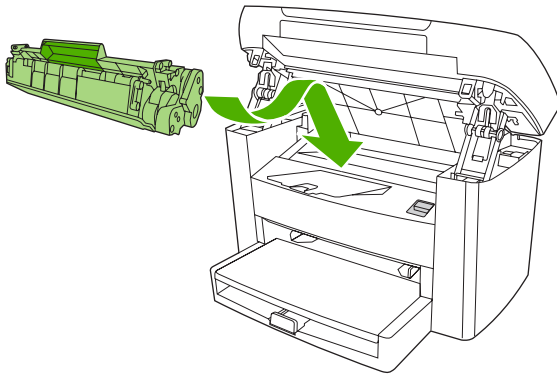


3. Remove the new print cartridge from its packaging, remove the cover from the print cartridge, and then remove the sealing tape.



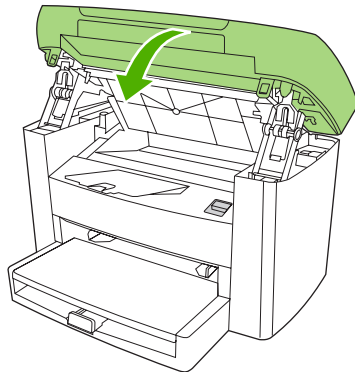
**Figure 4-5** Changing the print cartridge (3 of 5)

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



**Figure 4-6** Changing the print cartridge (4 of 5)

5. Close the print-cartridge door.



**Figure 4-7** Changing the print cartridge (5 of 5)



---

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

---



# 5 Theory of Operation

- [Basic functions](#)
- [Basic sequence of operation](#)
- [Formatter system](#)
- [Device functions](#)
- [HP LaserJet M1005 MFP unique components](#)

## Basic functions

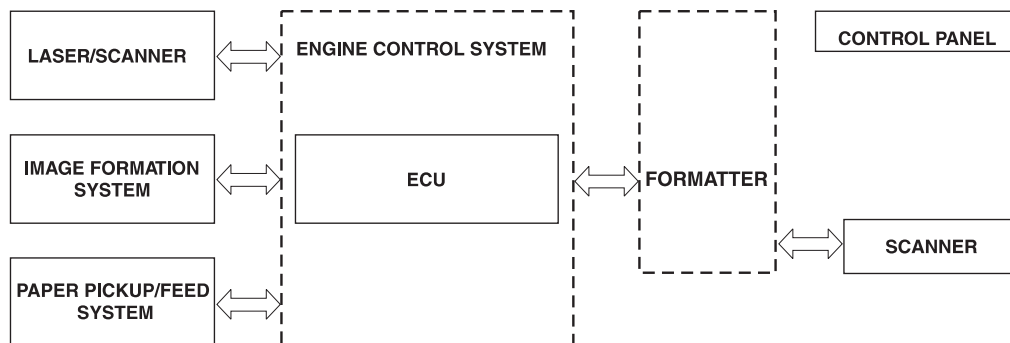
This chapter presents a functional overview of the HP LaserJet M1005 MFP. The following systems are discussed:

- device functions and operation
  - engine controller unit (ECU) system/power system
  - laser/scanner system
  - image-formation system
  - paper-feed system (device) and document-feed system (document scanner)
- formatter functions
- scanner functions and operation

The full device consists of the following components:

- the scanner (the HP LaserJet M1005 MFP uses a flatbed contact image scanner (CIS))
- the printer
- the formatter

The ECU controls the operation sequences of the device.



**Figure 5-1** Device configuration

# Basic sequence of operation

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

**Table 5-1** HP LaserJet M1005 MFP

Period	Purpose	Remarks
WAIT. After the device is turned on until <b>Ready</b> appears on the control-panel display.	To perform the firmware initialization.	Tests RAM and establishes communication with the control panel.
READY. From the end of the WAIT period until the user initiates action.	To keep the device ready to print, copy, or scan.	
CALIBRATION. From the time the copy or scan button is pressed until the SCAN period.	To compensate for variables in the scanning system.	This occurs before the scan bar moves past the media.
SCAN. From the end of the CALIBRATION period until the scan bar returns to the home position.	To scan one page of the original document.	

# 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 device interface
- monitoring the control panel and relaying device-status information
- developing and coordinating data placement and timing with the print engine
- communicating with the host computer through the bidirectional interface

The formatter receives print data from the universal serial bus (USB) interface in a compressed raster format. The firmware decompresses the raster data and sends the data to the ECU. The ECU initiates the printing processes to transfer the data to the page.

## Central processing unit

The formatter incorporates an embedded Tensilica processor operating at 230 MHz.

## Standard boot process

When the device 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 device control code.

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

## Device startup messages

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

**Table 5-2** Device 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 device off. Check all wire-harness connectors and FFCs to make sure that they are firmly connected.  Replace the formatter. See <a href="#">Formatter on page 94</a> .
<b>Contact Service</b>	Control-code failure.	Replace the formatter. See <a href="#">Formatter on page 94</a> .
<b>Hewlett Packard</b>	The device is starting up.	Wait for the <b>Ready</b> message.
<b>Ready.....</b>	Device startup is complete and the device is ready for use.	Begin using the device.

## RAM

The device 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 device program code along with copy, scan, and print data.

## Universal serial bus (USB) interface

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

## Control panel

The control panel consists of the following features:

- groups of buttons to control copy and menu navigation
- a 2-by-16 LCD display that shows status, menus, and messages

## EconoMode

Select EconoMode to do the following:

- enable the device to use less toner
- extend the life of the toner supply
- possibly reduce cost-per-page



---

**NOTE** Using EconoMode reduces print quality because the printed image is lighter.

---

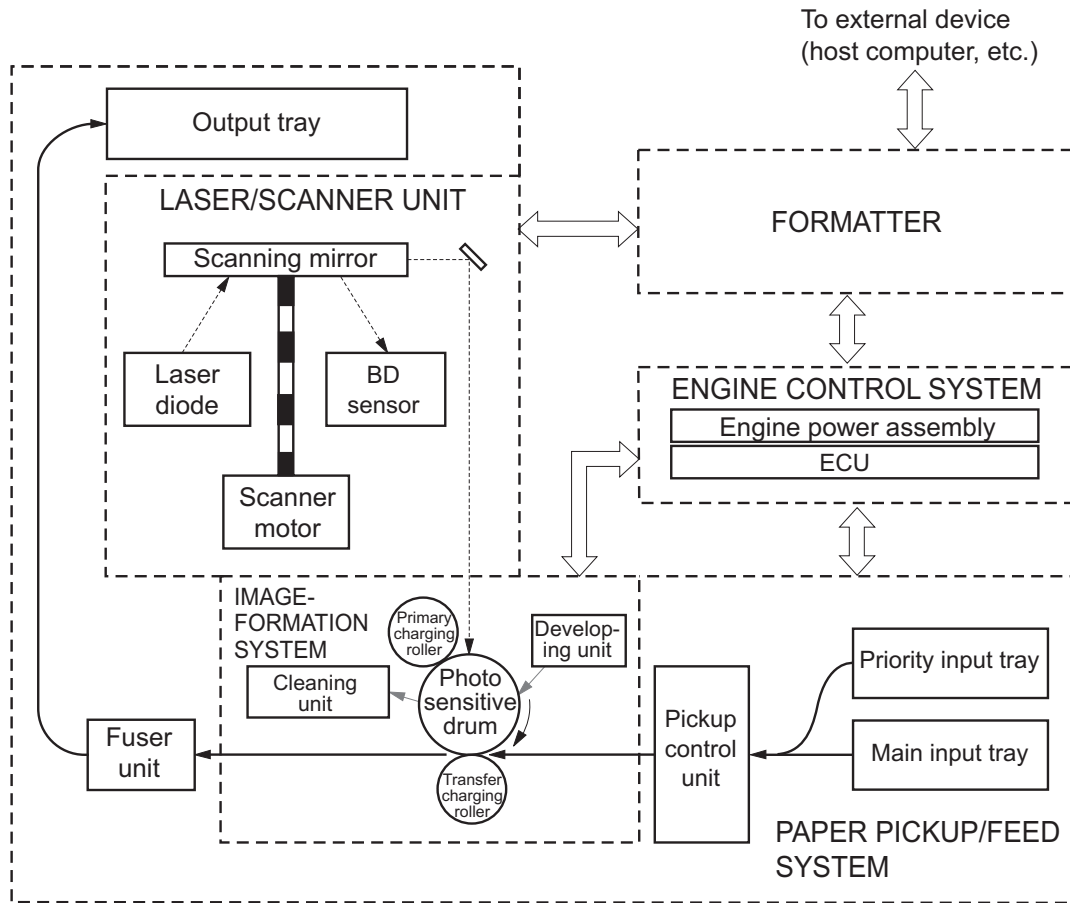
HP does not recommend full-time use of EconoMode. If EconoMode is used full-time, the toner supply can outlast the mechanical parts in the print cartridge. If print quality degrades under these circumstances, you must install a new toner cartridge, even if toner remains in the existing cartridge.

## Device functions

Device functions are divided into five groups:

- engine control
- formatter
- image formation
- laser/scanner
- pickup and feed

The following figure is a block diagram of the device:



**Figure 5-2** Device functional block diagram

### 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 devices, the ECU and power functions are combined onto one PCA known as the controller PCA or the DC controller PCA. In the HP LaserJet M1005 MFP, 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:

- **Device engine control**
  - paper-motion monitoring and control (printing)
  - motor
- **Device laser/scanner unit**

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

### Device engine control system

**Paper motion monitoring and control.** The ECU controls paper motion in the device 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 device paper movement.

### Device laser/scanner unit

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.

### Power system on the power-supply assembly

The ac, dc, and high-voltage power supply circuits are all provided by the power-supply assembly.

#### 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 engine power assembly, distributes +3.3 Vdc, +5 Vdc, and +24 Vdc as follows:

**Table 5-3** Dc power distribution

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

## Overcurrent/overvoltage

There are two overvoltage devices in this device:

- Fuse F101 provides overcurrent protection for the fusing system circuitry.
- Fuse F102 (110 V devices only) provides overcurrent protection to the device dc power supply circuitry.

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



---

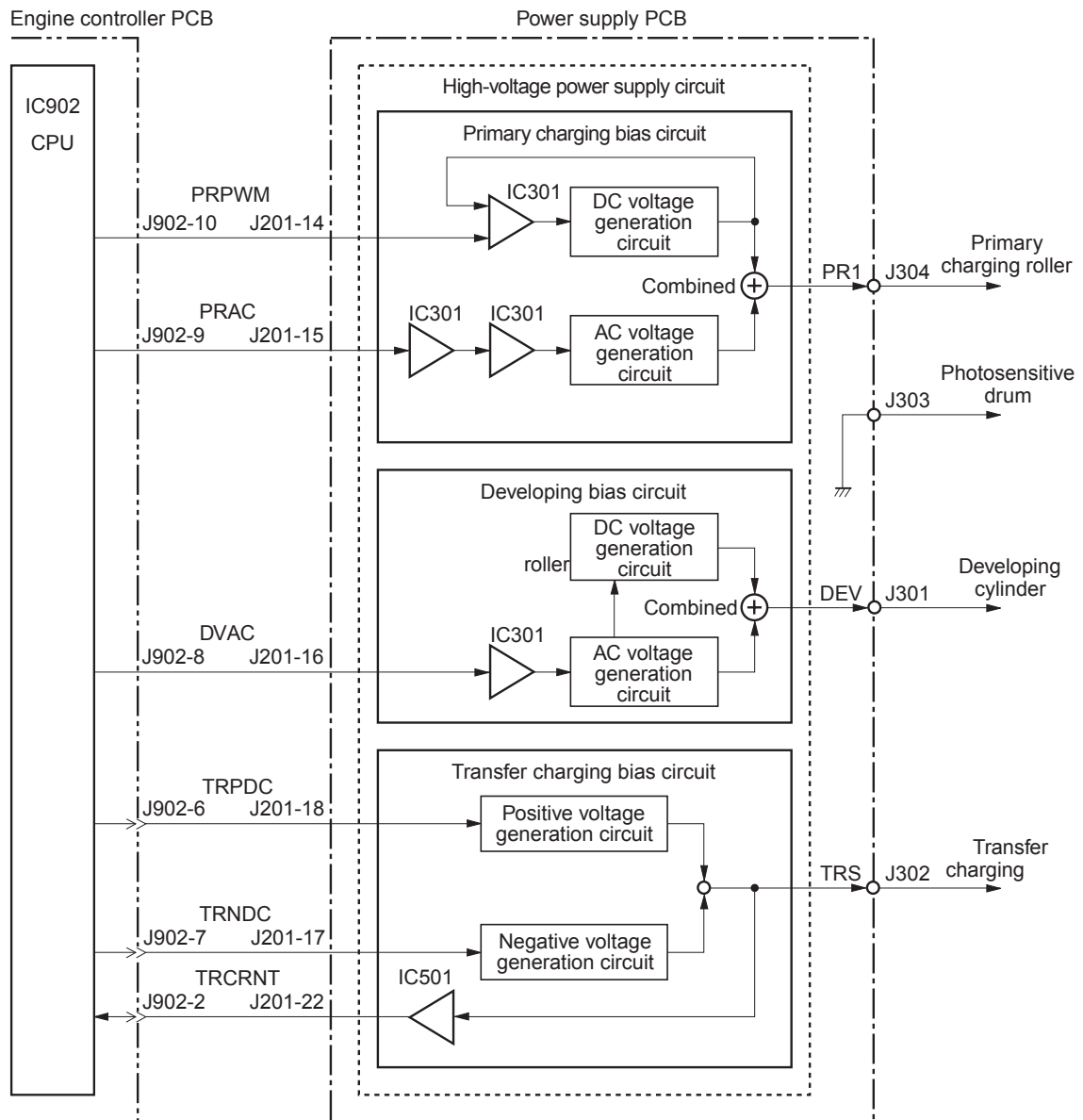
**NOTE** If either of these fuses fail, replace the engine power supply. See [Power supply on page 91](#).

---

## 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 engine control unit.

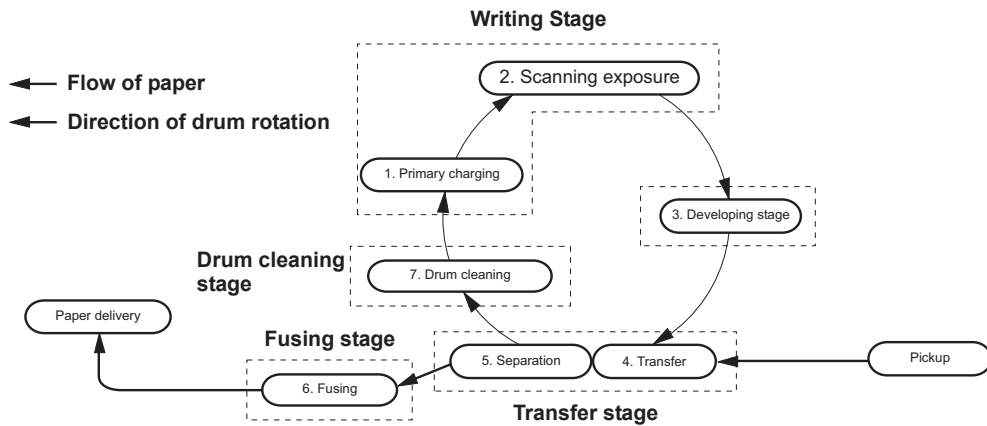
This circuit also controls the image density by changing the primary ac voltage and the developing ac bias according to the print density setting. High voltage is disabled when the print-cartridge door is open. The following figure shows this process.



**Figure 5-3** 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 device processes. Image formation consists of seven processes:



**Figure 5-4** 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 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, 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.

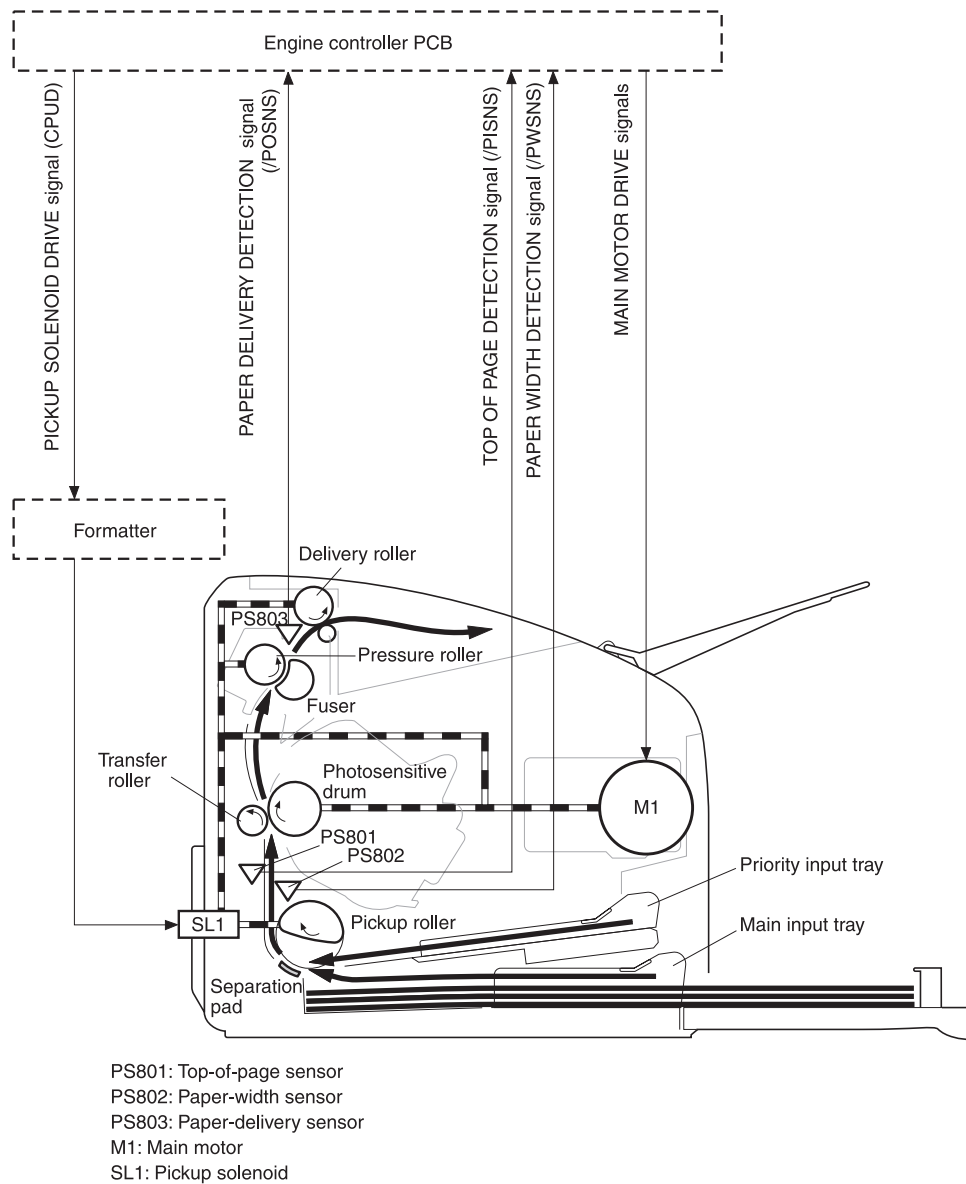


**CAUTION** The print cartridge does not include a light-blocking shutter. Do not expose the drum to light, which can permanently damage the drum. Protect the print cartridge whenever you remove it by covering it with paper.

## Device paper-feed system

The main input tray and the priority input tray merge into one main input area. The device 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 device receives a print job:

Step 1	The ECU activates the motor (M1). Paper motion begins when the ECU energizes the pick-up solenoid (SL1).
Step 2	The paper-pickup roller rotates once. The paper-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 5-5** Device paper path

## Jam detection in the device

The top-of-page sensor (PS801) and the paper-delivery sensor (PS803) detect media moving through the device. 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 M1005 MFP unique components

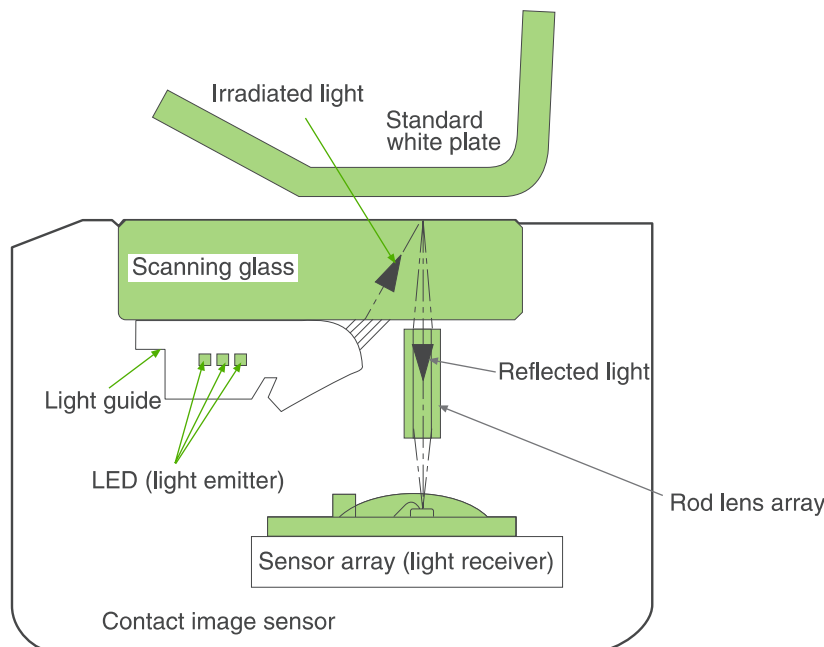
This section presents an overview of the relationships between unique major components in the HP LaserJet M1005 MFP. This section describes the optical scanning system used in the device.

## Scanner functions and operation

The following sections describe how the document scanner functions.

### Scanner functions

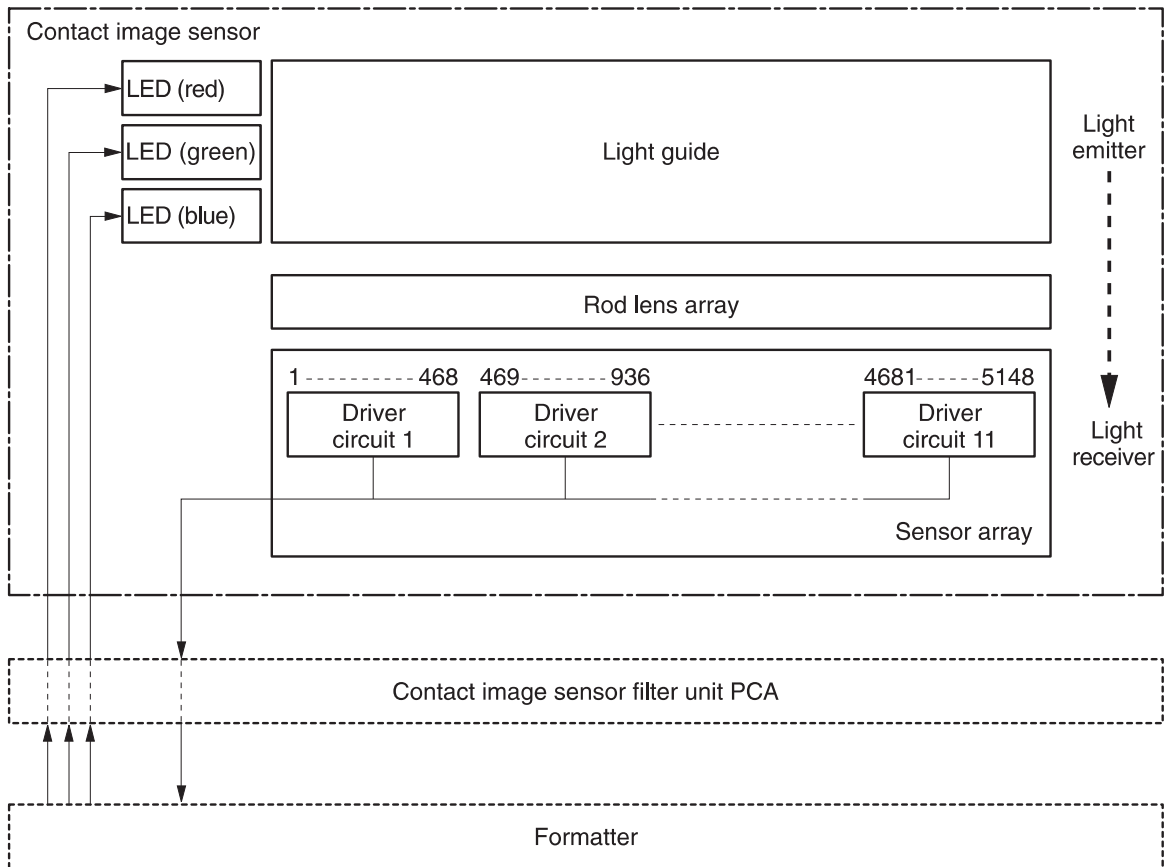
The contact image sensor (CIS) is the major component of the optical scanning system. The CIS consists of three LEDs (red, green, and blue), a light guide, the scanning glass, the rod lens array, and a sensor array. When the CIS scans a document, the CIS moves and the paper is stationary.



**Figure 5-6** HP LaserJet M1005 MFP 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 5-7** HP LaserJet M1005 MFP optical system (2 of 2)

### Scanner operation

At startup and periodically at other times, the scanner assembly moves systematically to locate its home position. It then calibrates to a white strip located under the glass at the right end of the scan tub.



# 6 Removal and replacement

This chapter provides information about the following topics.

- [Removal and replacement strategy](#)

# Removal and replacement strategy

---



**NOTE** Some photos show a device other than the HP LaserJet M1005 MFP. Repair and replacement procedures in this chapter are for the HP LaserJet M1005 MFP and are not affected by cosmetic differences (for example, the color of the covers) shown in these photos.

---

This chapter documents the removal and replacement of field replaceable parts (FRUs) only. Reinstallation is generally the reverse of removal. Occasionally, notes and hints are included to provide directions for difficult or critical replacement procedures.

## Admonitions

---



**WARNING!** Unplug the power cord from the power outlet (at the wall receptacle) before attempting to service the device. If this warning is not followed, severe injury can result. Certain functional checks during troubleshooting must be performed with power supplied to the device. However, the power supply should be disconnected during removal.

Sheet-metal and plastic edges in the device can be sharp. Use caution when servicing this device.

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

---



**CAUTION** The device contains components that are sensitive to electrostatic discharge (ESD). Always perform service work at an ESD-protected workstation. If an ESD-protected workstation is not available, discharge body static by grasping the print engine chassis before touching an ESD-sensitive component. Ground the print engine chassis *before* servicing the device.

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

---



**NOTE** For service purposes, the upper part of the HP LaserJet M1005 MFP is, in effect, the "scanner" and the lower part is the "printer". Together, they also act as a photocopier, but the service description here is simplified by referring to copier functionality only when specifically necessary.

---



**Tip** To install a self-tapping screw, first turn it counterclockwise to align it with the existing thread pattern, then carefully turn it clockwise to tighten. Do not overtighten.

---

## Required tools

- #2 Phillips screwdriver with magnetic tip
- Small flat-blade screwdriver
- #8 and #10 torx screwdrivers
- Needle-nose pliers
- ESD mat (if available)
- Penlight (optional)
- Long flat-blade screwdriver (optional)



---

**CAUTION** Do not use a pozidrive screwdriver or any motorized screwdriver. These can damage screws or screw threads on the device.

---

## Before performing service

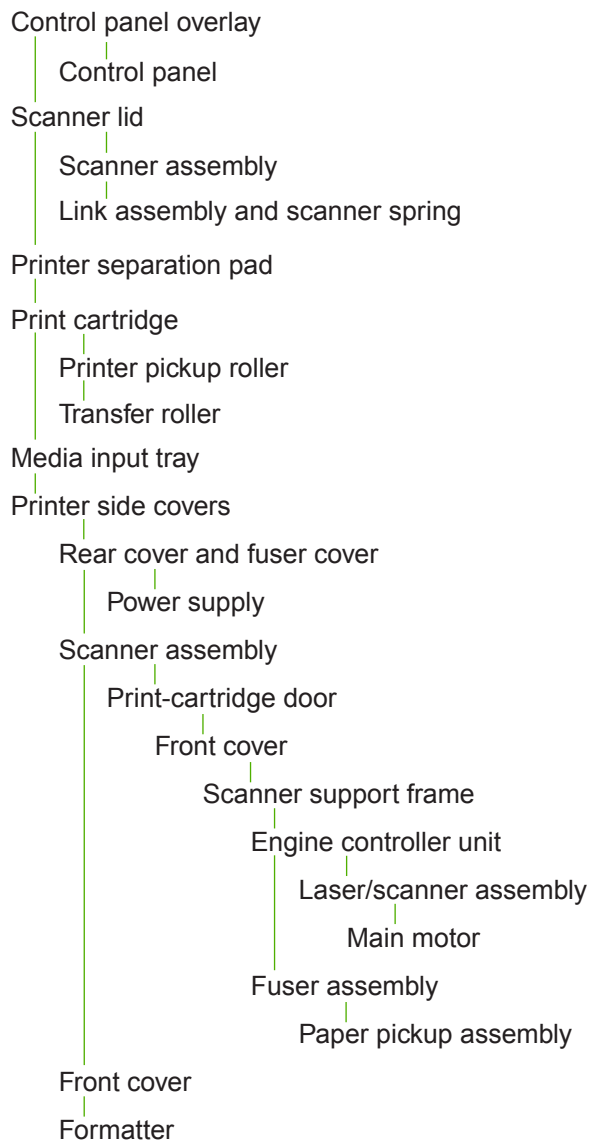
- If possible, print a configuration page (to record customer settings) and menu structure report. See [Troubleshooting tools on page 140](#).
- Remove all media from the device and remove the media input tray. See [Media input tray on page 78](#).
- Turn off the power by using the power switch.
- Unplug the power cord from the wall receptacle.
- Place the device on an ESD mat, if available. If an ESD-protected workstation is not available, discharge body static and ground the print engine chassis *before* servicing the device.
- Remove the print cartridge.

## After performing service

- Replace the print cartridge.
- Reload the input tray with media.
- Restore customer configuration settings.

## Parts removal order

Use the following diagrams to determine which parts of the device must be removed before servicing.



**Figure 6-1** Parts removal order for the HP LaserJet M1005 MFP

## Flatbed lid

1. Open the flatbed lid.
2. Lift the lid up and off of the scanner assembly to remove it.



**NOTE** The lid must be in the fully opened position to release the hinge pins from the hinge brackets.



**Figure 6-2** Remove the flatbed lid (1 of 2)



**Tip** When the flatbed lid is reinstalled, make sure that the hinge pins are fully seated in the hinge brackets on the scanner flatbed assembly.

## Control-panel overlay

Use a small flat blade screwdriver to lift up the control-panel overlay and then remove it.



**CAUTION** Be careful to not damage the overlay if it will be reinstalled after servicing the device.



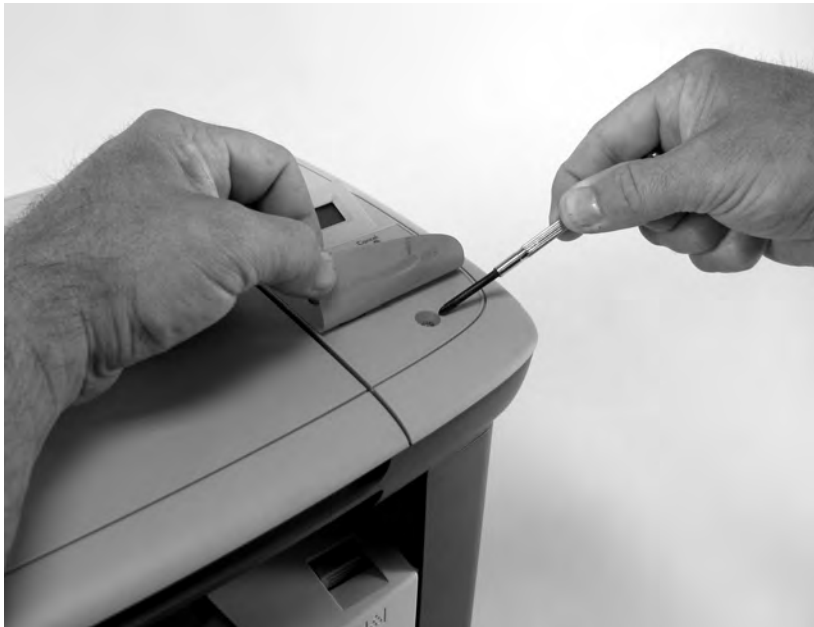
**Figure 6-3** Remove the control-panel overlay



## Control panel



**Tip** Lift up the control-panel overlay to see the screw. See [Control-panel overlay on page 64](#).



**Figure 6-4** Remove the control panel (1 of 4)

1. Remove one screw.



**Figure 6-5** Remove the control panel (2 of 4)

2. Slide the control panel toward you and slightly lift up the control panel.



**Figure 6-6** Remove the control panel (3 of 4)

3. Disconnect one flat flexible cable (callout 1) and remove the control panel.



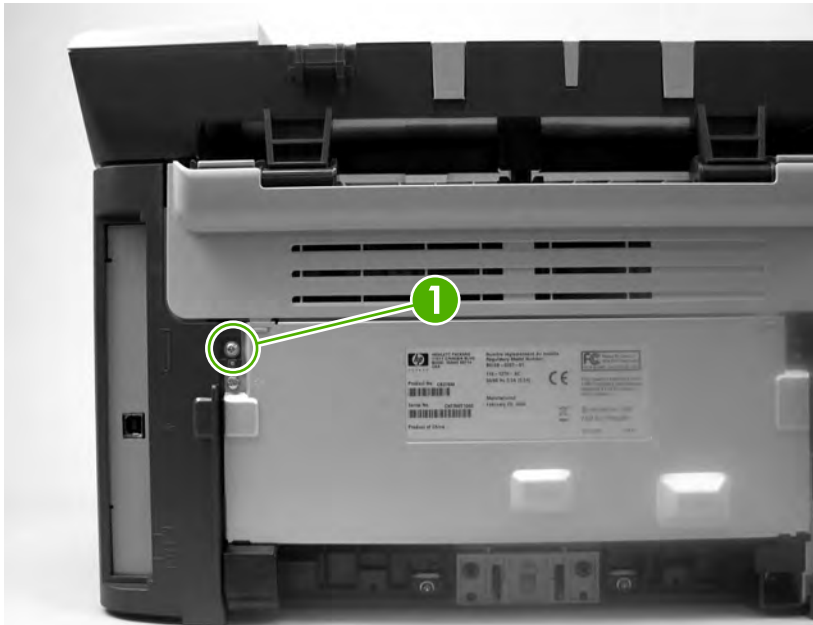
**Figure 6-7** Remove the control panel (4 of 4)



**Tip** When reinstalling the control panel, make sure the rear mounting tabs on the bottom rear of the control panel engage the holes in the scanner assembly, and then slide the control panel toward the rear of the device.

## Scanner assembly

1. Remove the flatbed lid. See [Flatbed lid on page 63](#).
2. Remove one screw (callout 1).



**Figure 6-8** Remove the scanner assembly (1 of 11)

3. Gently pry the side cover away from the device chassis.



**Figure 6-9** Remove the scanner assembly (2 of 11)

4. Release the side cover bottom locking tab and remove the cover.



**Figure 6-10** Remove the scanner assembly (3 of 11)

5. Disconnect two FFCs (callout 2).



**Figure 6-11** Remove the scanner assembly (4 of 11)

6. Push the print-cartridge-door button and raise the scanner assembly.

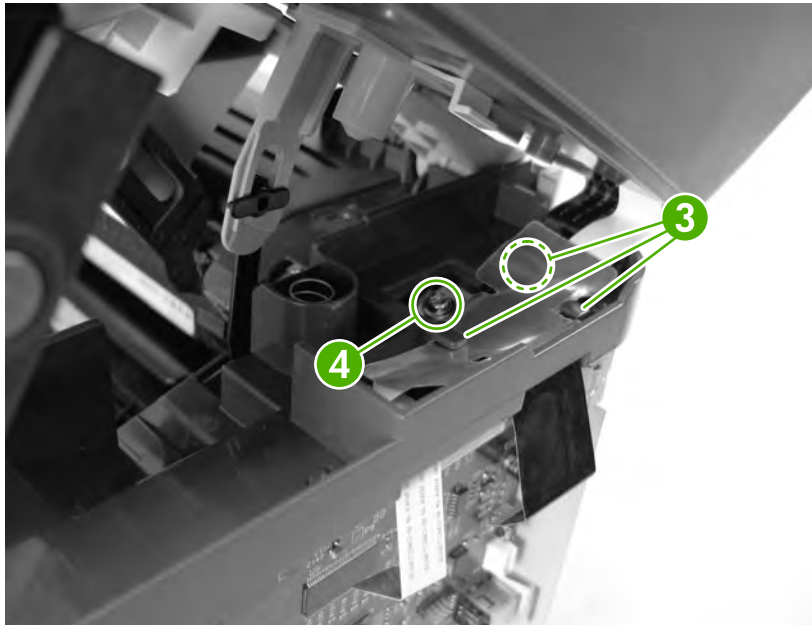


**Figure 6-12** Remove the scanner assembly (5 of 11)

7. Remove the shield and the FFCs from the guide (callout 3).



**NOTE** The screw (callout 4) that fastens the shield to the device chassis *does not* need to be removed.



**Figure 6-13** Remove the scanner assembly (6 of 11)

8. Release the tab on the gear-drive arm bracket and carefully flex it away from the scanner assembly.



**Figure 6-14** Remove the scanner assembly (7 of 11)

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



**Figure 6-15** Remove the scanner assembly (8 of 11)



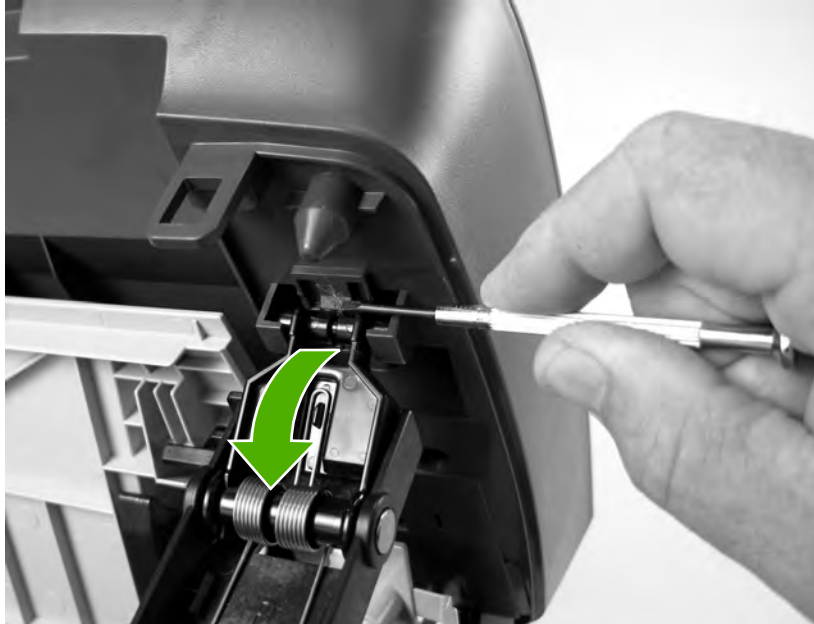
10. Use a small flat-blade screwdriver to release the hinge tabs on each front hinge (right side shown).



**WARNING!** When the front hinges are disengaged, the scanner assembly can easily fall off of the device base if it is rotated too far toward the back of the product.



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



**Figure 6-16** Remove the scanner assembly (9 of 11)

11. Remove the hinges (right side shown).



**Figure 6-17** Remove the scanner assembly (10 of 11)

12. Rotate the scanner assembly toward the rear of the product until the rear hinges clear the chassis hinge pins. Lift the scanner assembly up and off of the device base.



**Figure 6-18** Remove the scanner assembly (11 of 11)

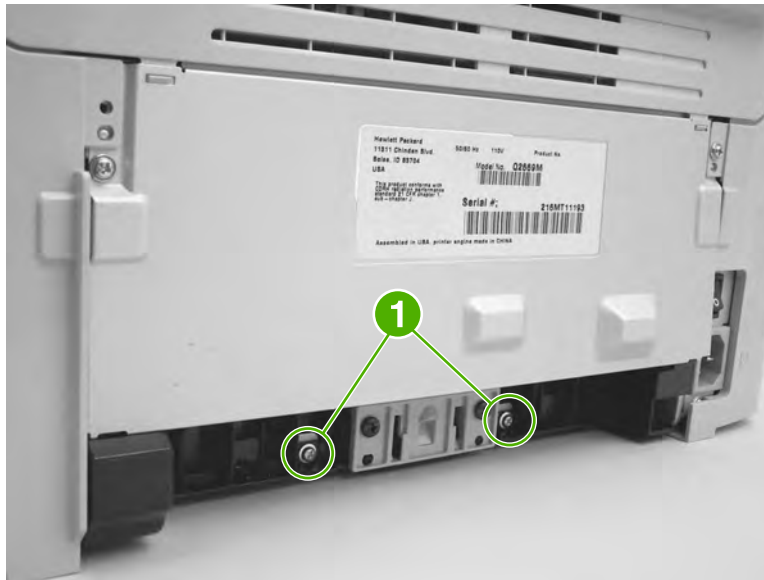


## Device separation pad



**NOTE** Some photos show a device other than the HP LaserJet M1005 MFP. Repair and replacement procedures in this chapter are for the HP LaserJet M1005 MFP and are not affected by cosmetic differences (for example, the color of the covers) shown in these photos.

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




**Figure 6-19** Remove the device separation pad (1 of 2)

2. Remove the device separation pad and frame.



**Figure 6-20** Remove the device 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 button to release the print-cartridge door.



**Figure 6-21** Remove the print cartridge (1 of 2)

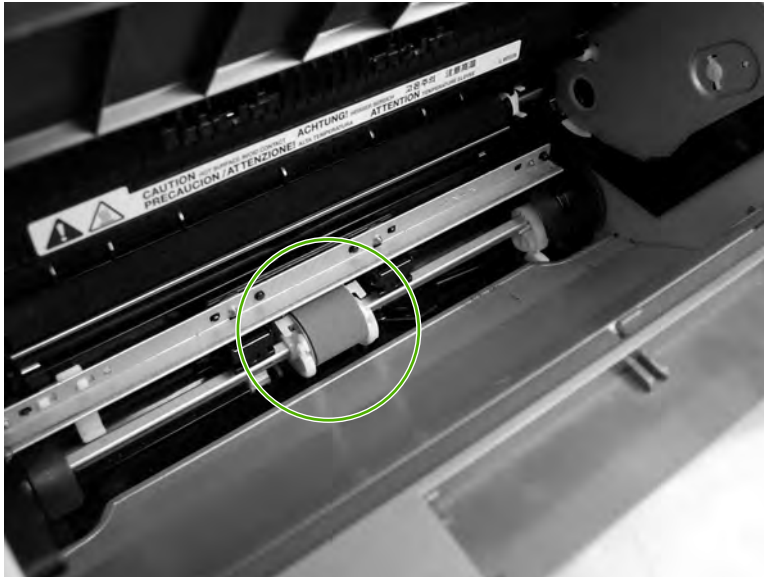
2. Pull the print cartridge up and out of the device.



**Figure 6-22** Remove the print cartridge (2 of 2)

## Device pickup roller

1. Remove the print cartridge and locate the device pickup roller. See [Print cartridge on page 74](#).



**Figure 6-23** Remove the device 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 transfer roller inside the device. Touching the transfer roller can damage the device.

Use gentle pressure to release the small white tabs to avoid breaking them.



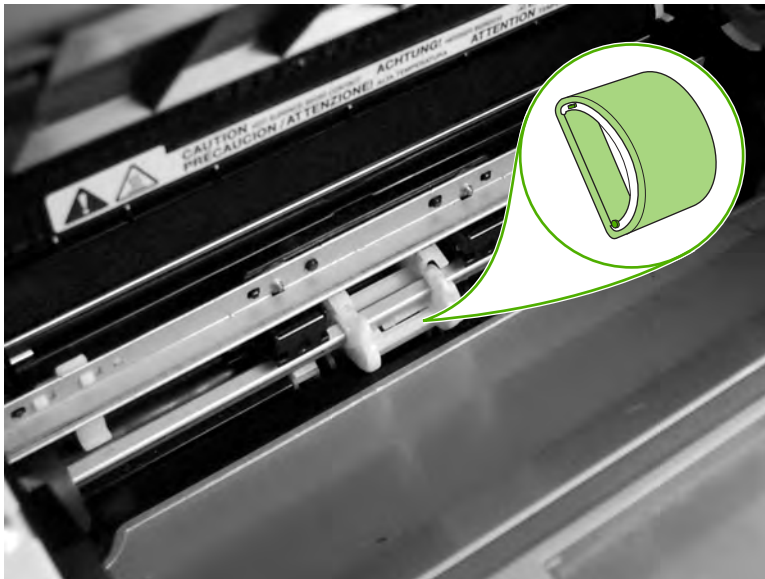
**Figure 6-24** Remove the device pickup roller (2 of 5)

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



**Figure 6-25** Remove the device 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 to prevent the roller from being incorrectly installed. Position the replacement pickup roller in the slots on the pickup-roller frame.



**Figure 6-26** Remove the device 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.



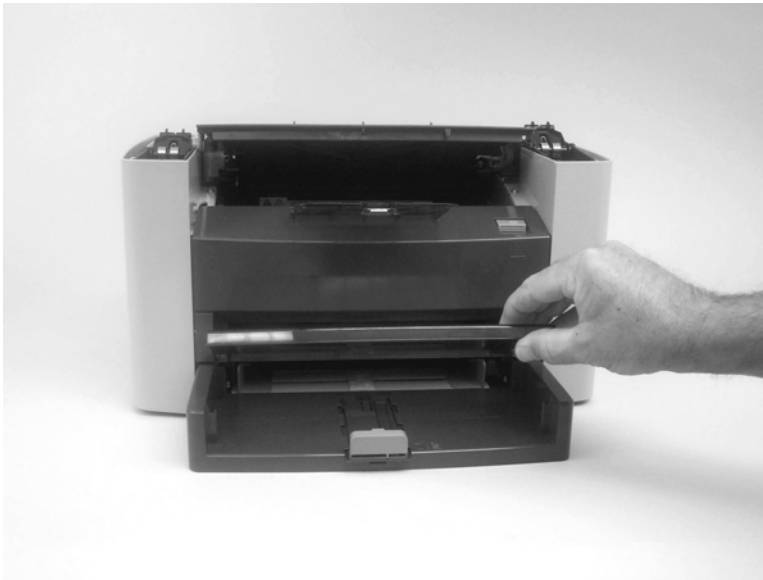
**Figure 6-27** Remove the device pickup roller (5 of 5)

## Media input tray



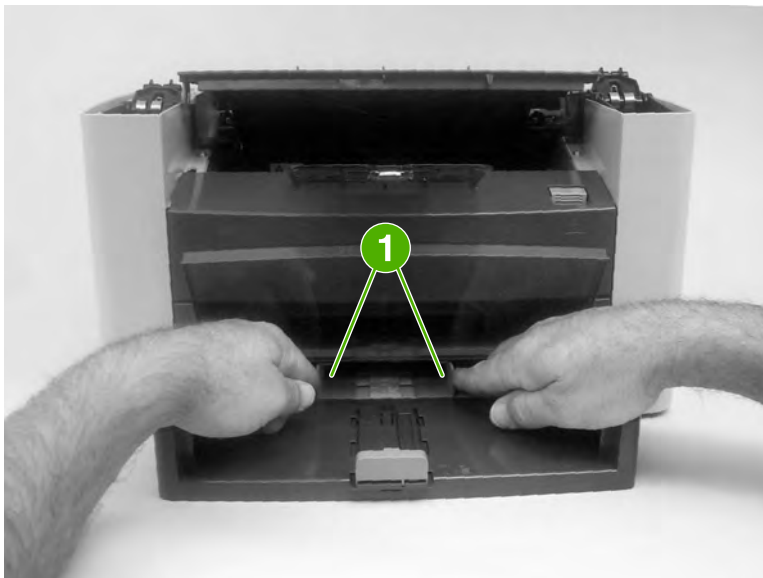
**NOTE** Some photos show a device other than the HP LaserJet M1005 MFP. Repair and replacement procedures in this chapter are for the HP LaserJet M1005 MFP and are not affected by cosmetic differences (for example, the color of the covers) shown in these photos.

1. Open the media input tray lid.



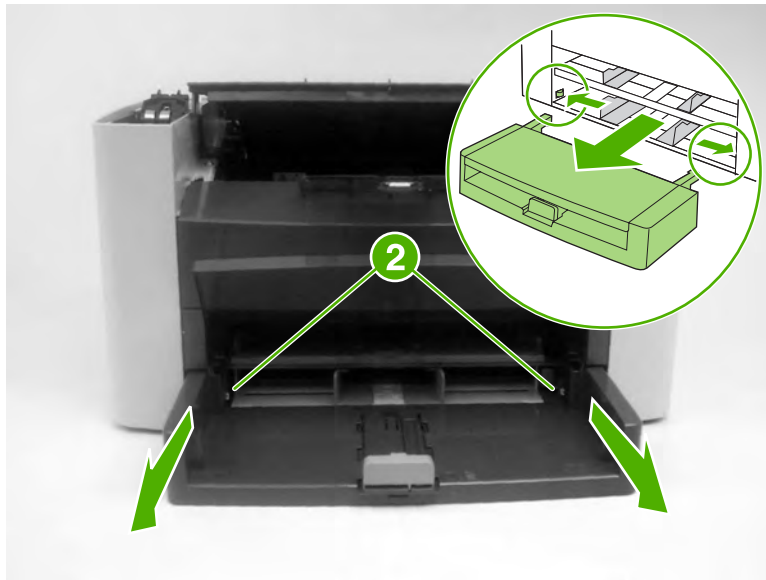
**Figure 6-28** Remove the media input tray (1 of 3)

2. Slide the adjustable media guides (callout 1) to the center of the tray.



**Figure 6-29** Remove the media input tray (2 of 3)

3. Depress the pickup-tray locking tabs (callout 2) to release the media input tray, and then pull it out and away from the device.



**Figure 6-30** Remove the media input tray (3 of 3)

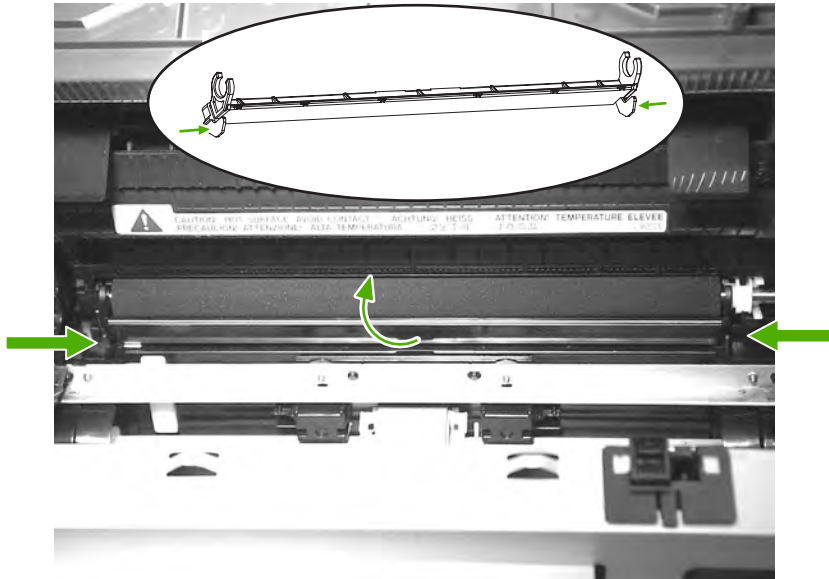


## Transfer roller

**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 during replacement of the transfer roller. Because the paper guide is not a FRU, the entire device will have to be replaced.

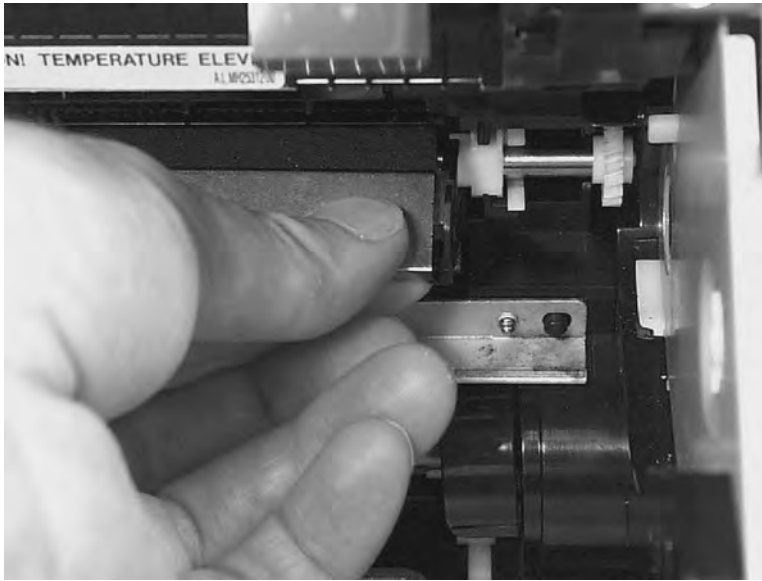
1. Open the print-cartridge door and remove the print cartridge.
2. Release the two locking tabs on the paper guide and rotate the guide up.



**Figure 6-31** Remove the transfer roller (1 of 3)

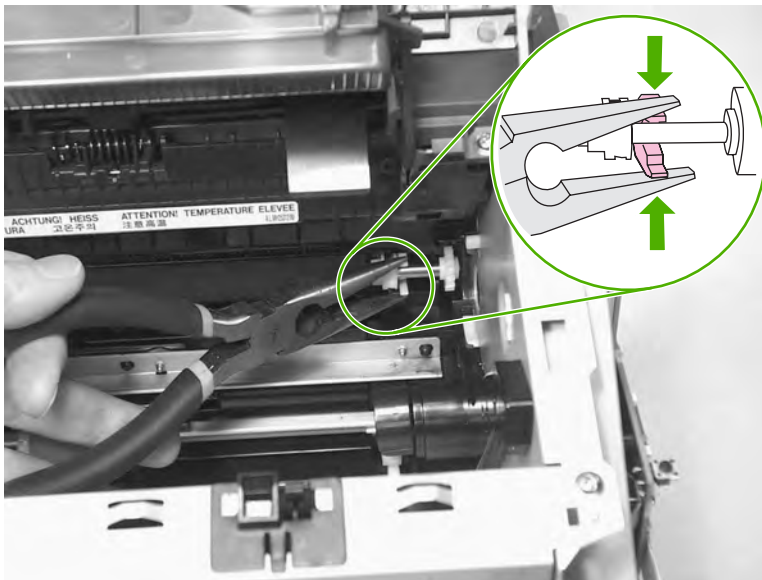


3. The clamps on the paper guide fit over the bearings on each end of the transfer roller. Do not touch the black-sponge portion of the transfer roller. Grasp the right end of the paper guide and pull the clamp off the bearing on the right side of the transfer roller. Then slide the clamp slightly to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



**Figure 6-32** Remove the transfer roller (2 of 3)

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



**Figure 6-33** Remove the transfer roller (3 of 3)

## Device side covers

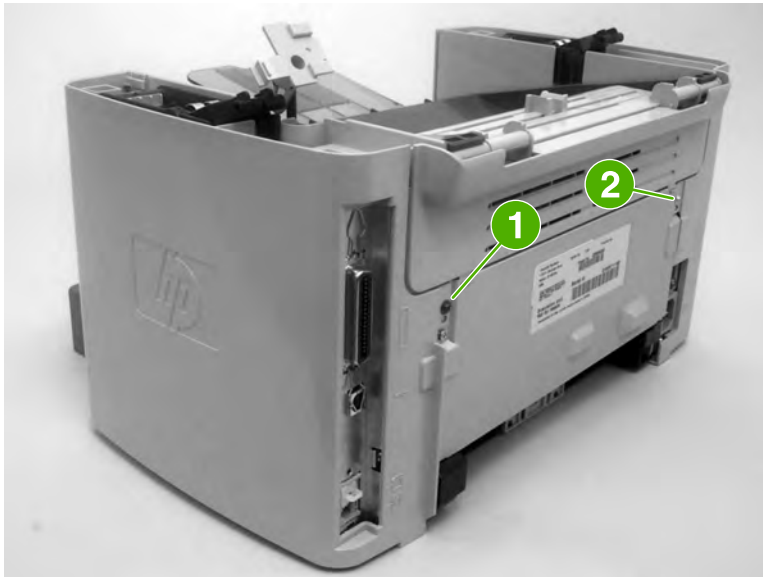


**NOTE** Some photos show a device other than the HP LaserJet M1005 MFP. Repair and replacement procedures in this chapter are for the HP LaserJet M1005 MFP and are not affected by cosmetic differences (for example, the color of the covers) shown in these photos.



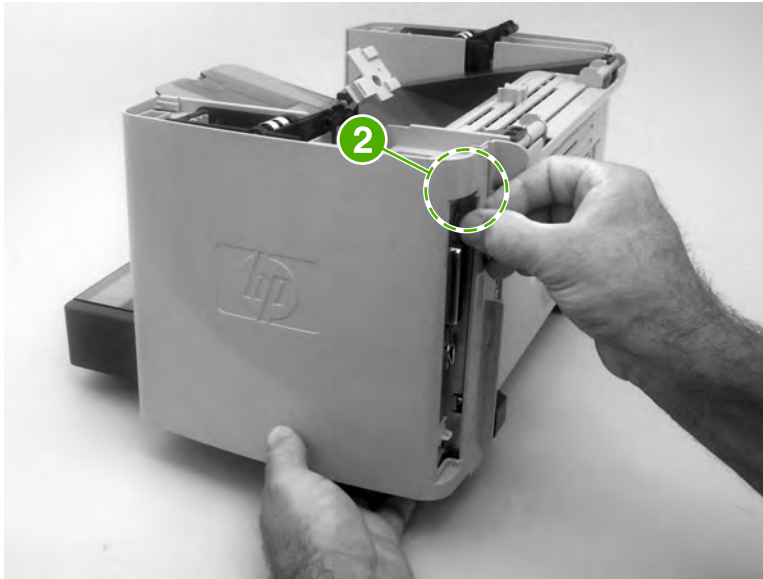
**NOTE** The procedure for removing the right-side and left-side covers is identical, with the exception of the location of the screw that fastens the cover to the device. The right-side cover is shown in the following procedure.

1. Remove one screw (callout 1; the right-side cover uses a black screw). Callout 2 is on the left-side cover.



**Figure 6-34** Remove the device side covers (1 of 3)

2. Release the locking tabs on the upper-back (callout 2).

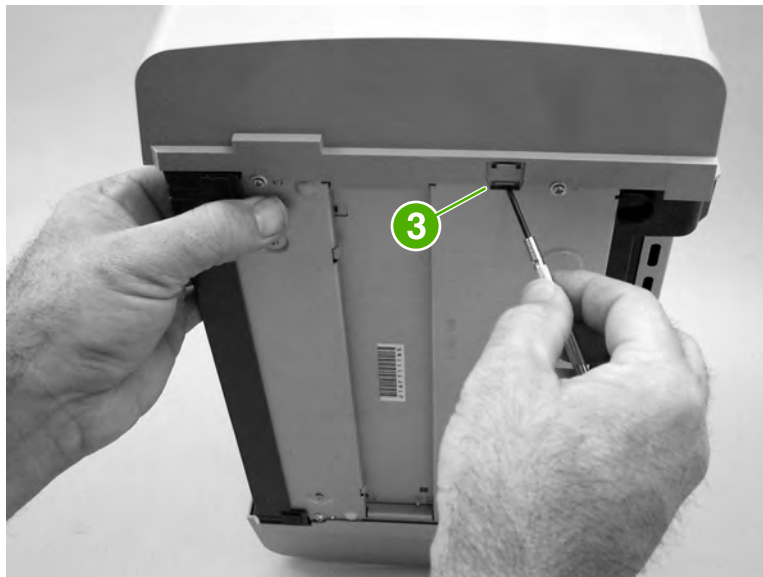


**Figure 6-35** Remove the device side covers (2 of 3)

3. Release the bottom tab (callout 3).

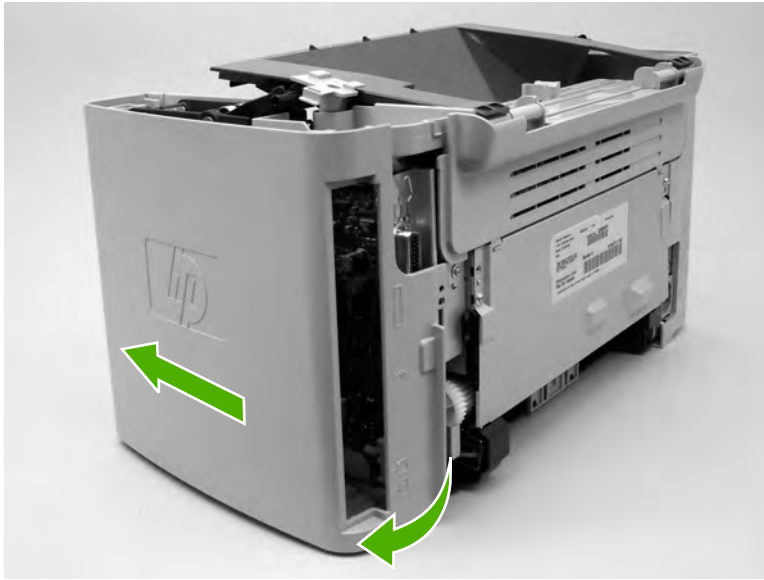


**CAUTION** When removing the left-side cover hang the device off of the table to gain access to the bottom tab. This prevents the I/O shield from being damaged if the right-side cover is off and the device is tilted too far up.



**Figure 6-36** Remove the device side covers (2 of 3)

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



**Figure 6-37** Remove the device side covers (3 of 3)



**Tip** When reinstalling the device side covers, hook the front of the cover onto the device and rotate the rear of the cover over the device chassis.

## Print-cartridge door

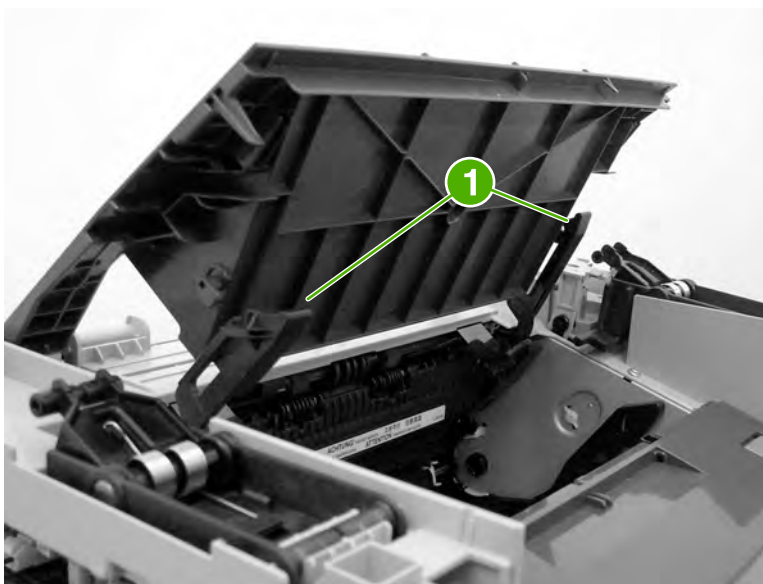


**NOTE** Some photos show a device other than the HP LaserJet M1005 MFP. Repair and replacement procedures in this chapter are for the HP LaserJet M1005 MFP and are not affected by cosmetic differences (for example, the color of the covers) shown in these photos.

1. Remove the scanner assembly. See [Scanner assembly on page 67](#).
2. Fully open the print-cartridge door and gently pull downward on both print-cartridge swing arms (callout 1) to release them (the left arm is shown disengaged).



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



**Figure 6-38** Remove the print-cartridge door (1 of 2)

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



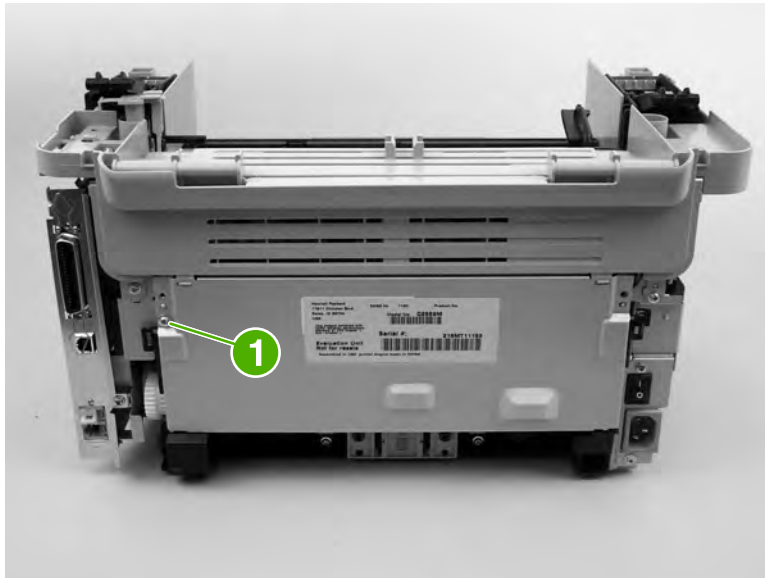
**Figure 6-39** Remove the print-cartridge door (2 of 2)

## Rear cover and fuser cover



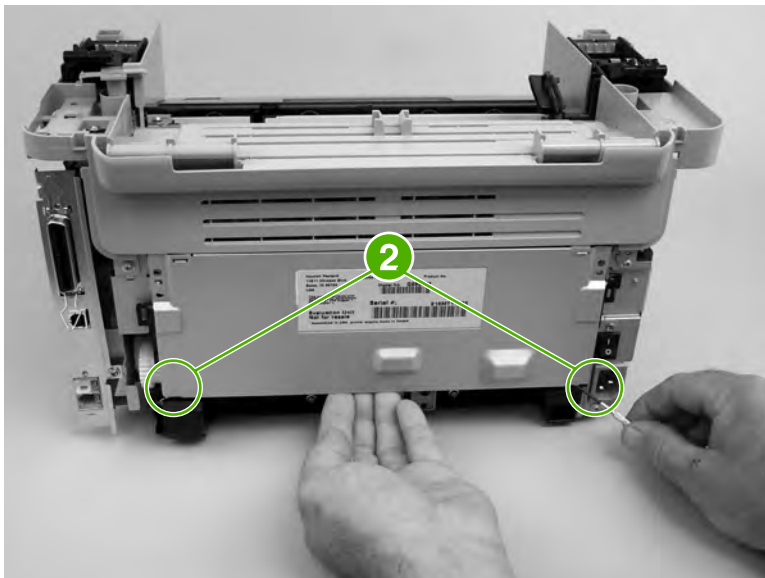
**NOTE** Some photos show a device other than the HP LaserJet M1005 MFP. Repair and replacement procedures in this chapter are for the HP LaserJet M1005 MFP and are not affected by cosmetic differences (for example, the color of the covers) shown in these photos.

1. Remove the right-side and left-side covers. See [Device side covers on page 82](#)
2. Remove one screw (callout 1).



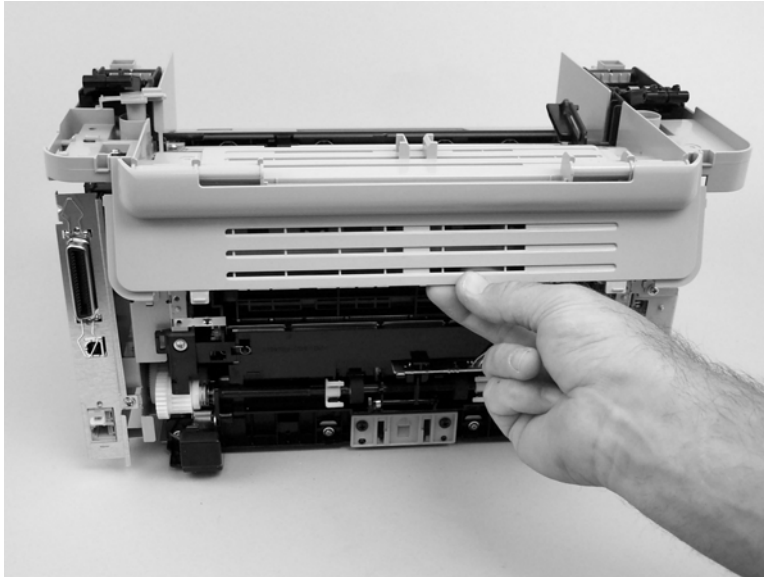
**Figure 6-40** Remove the rear cover and fuser cover (1 of 3)

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



**Figure 6-41** Remove the rear cover and fuser cover (2 of 3)

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



**Figure 6-42** Remove the rear cover and fuser cover (3 of 3)

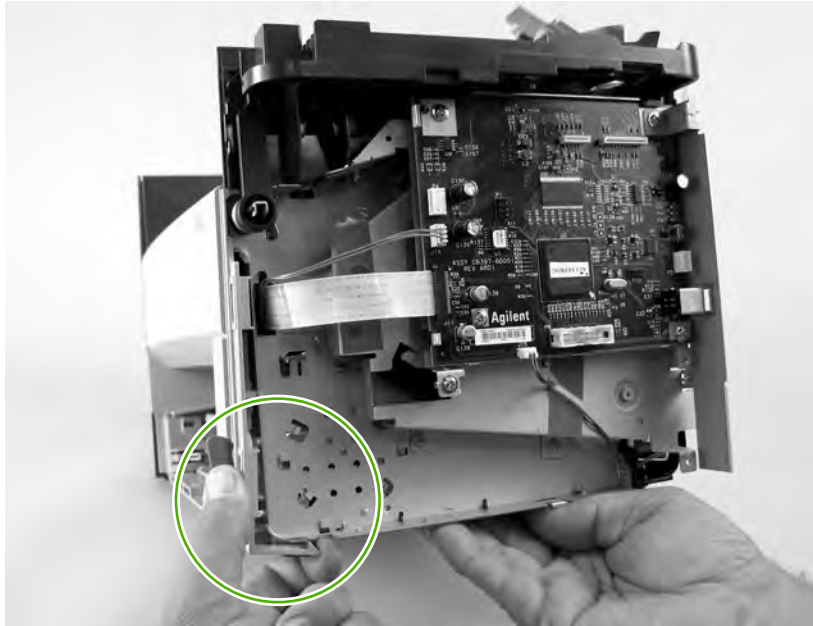


## Front cover



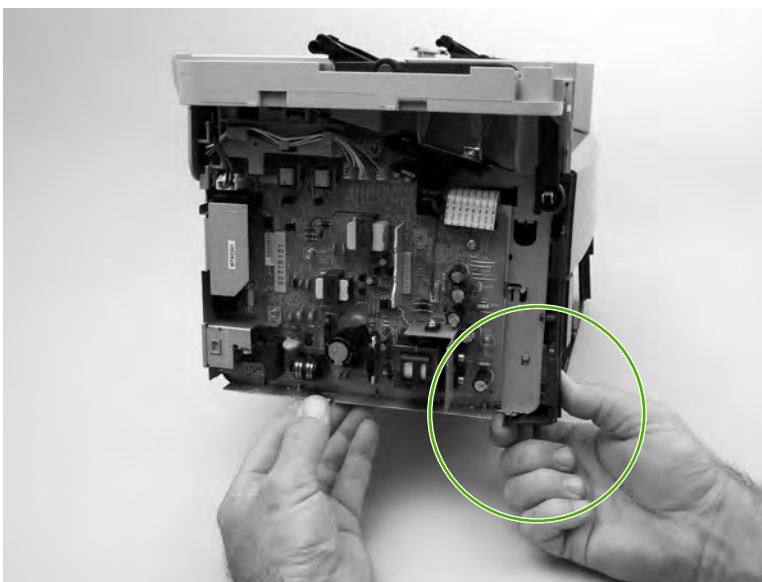
**NOTE** Some photos show a device with the same print engine as the HP LaserJet M1005 MFP. Repair and replacement procedures in this chapter are for the HP LaserJet M1005 MFP and are not affected by cosmetic differences (for example, the color of the covers) shown in these photos.

1. Remove the right-side and left-side covers. See [Device side covers on page 82](#).
2. Release the lower right-side front-cover locking tab and slightly pry the lower-right corner of the front cover away from the device.



**Figure 6-43** Remove the front cover (1 of 3)

3. Release the lower left-side front-cover locking tab (located near the corner of the power supply) and slightly pry the lower-left corner of the front cover away from the device.



**Figure 6-44** Remove the front cover (2 of 3)



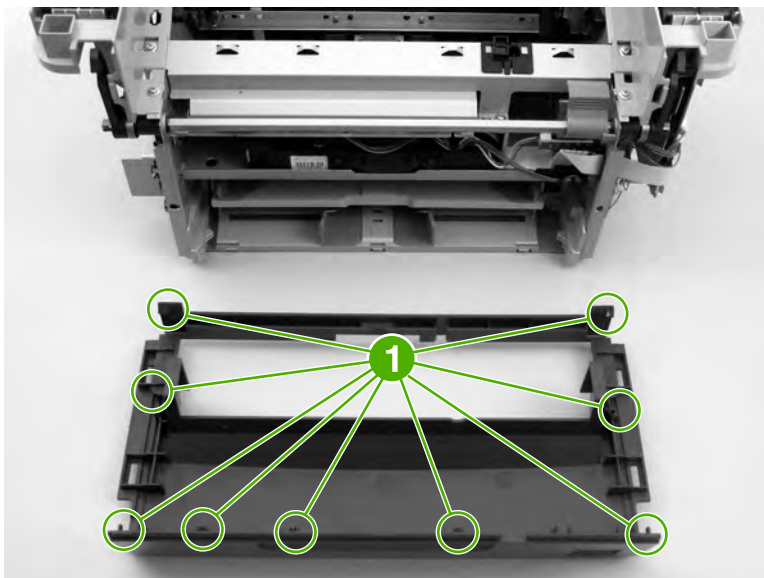
4. Pry up and pull out on the front cover to release it from the device. Remove the front cover.



**Figure 6-45** Remove the front cover (3 of 3)



**Tip** Note the location of the front-cover tabs (callout 1). Make sure that all of the front cover tabs are fully seated when the cover is installed.



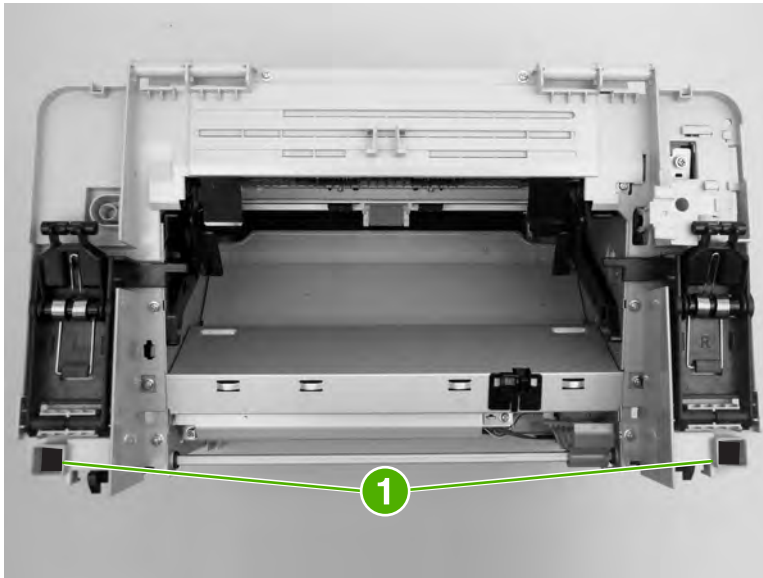
**Figure 6-46** Reinstalling the front cover

## Installing the scanner cushions



**NOTE** Some photos show a device other than the HP LaserJet M1005 MFP. Repair and replacement procedures in this chapter are for the HP LaserJet M1005 MFP and are not affected by cosmetic differences (for example, the color of the covers) shown in these photos.

1. Open the print-cartridge door.
2. Place a scanner cushion in the wells 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.



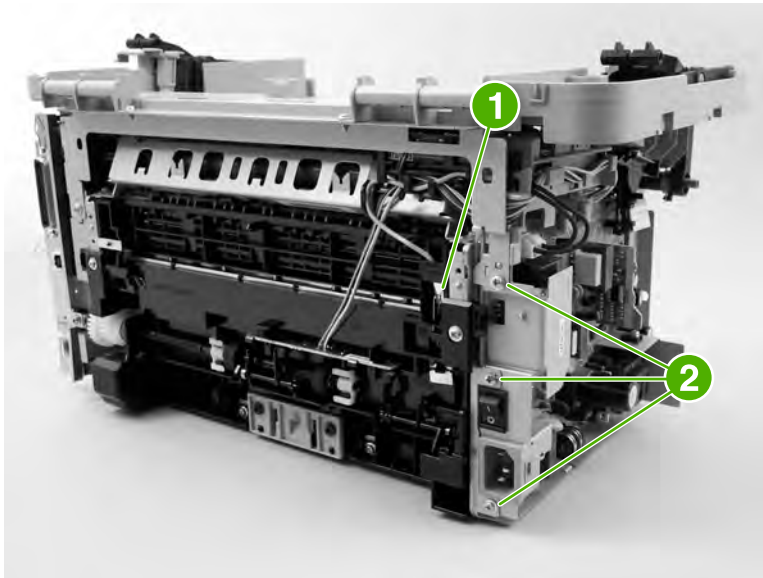
**Figure 6-47** Installing the scanner cushions

## Power supply

1. Remove the rear cover and fuser cover. See [Rear cover and fuser cover on page 86](#).
2. Disconnect one spade connector (callout 1) and remove three screws (callout 2).



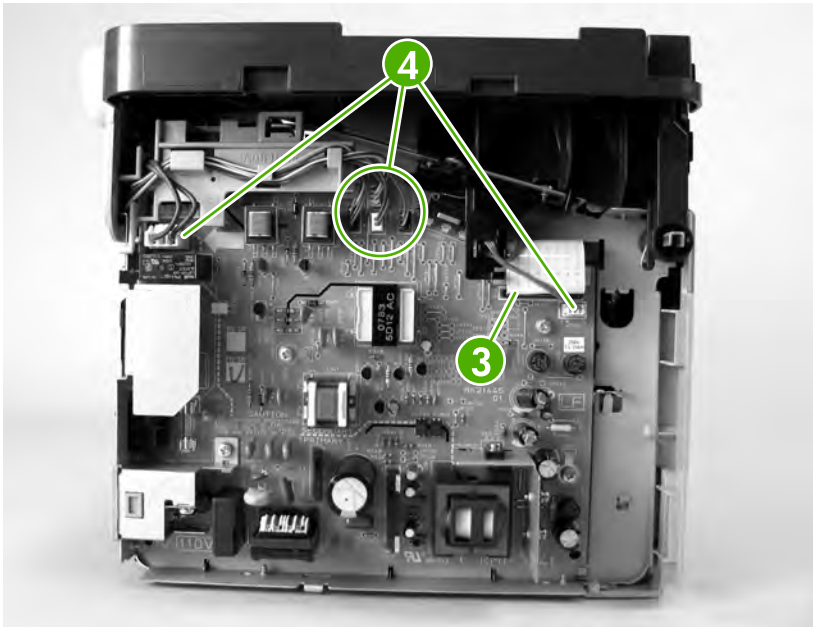
**Reinstallation tip** The center screw in callout 2 is a ground screw and is a different type than the others. When reinstalling the power supply, make sure that this screw is used in the center hole.



**Figure 6-48** Remove the power supply (1 of 3)

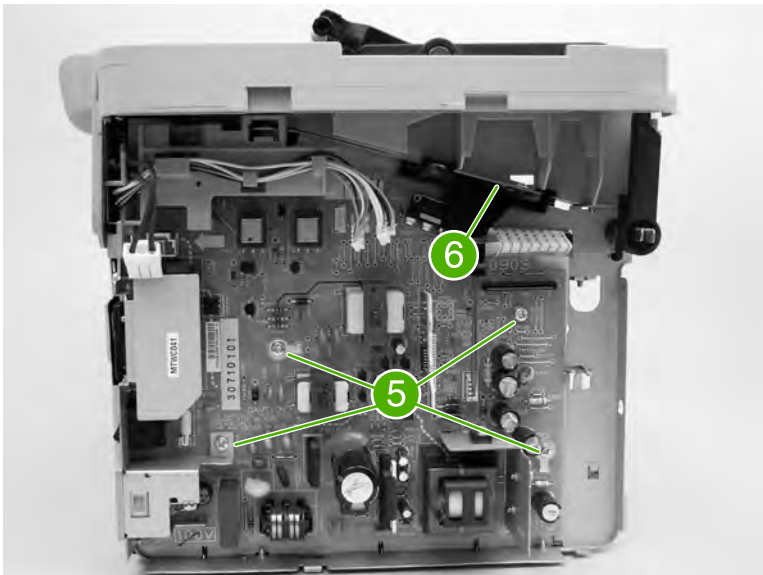
3. Disconnect one FFC (callout 3) and six wire-harness connectors (callout 4) and remove them from the wire loom.

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



**Figure 6-49** Remove the power supply (2 of 3)

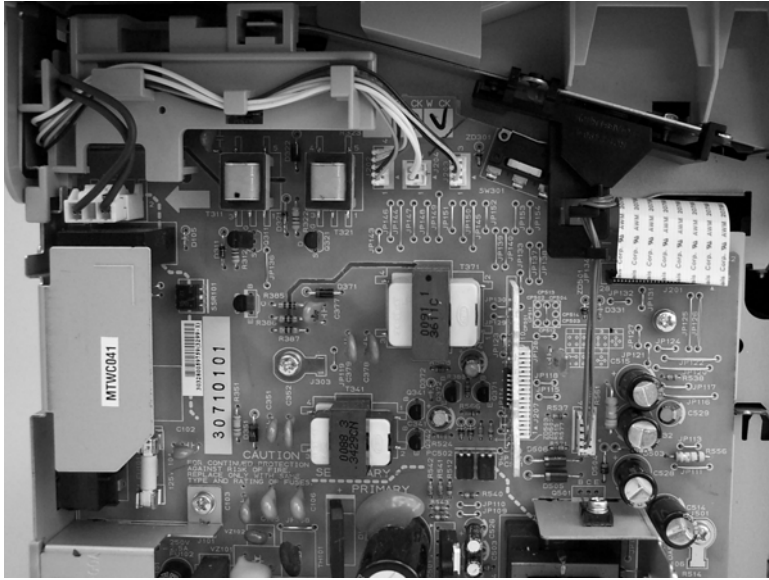
4. Remove four screws (callout 5) and remove the wire-harness from the wire loom (callout 6) and unclip the wire loom from the chassis (remove the wire-harness from this wire loom). Remove the power supply.



**Figure 6-50** Remove the power supply (3 of 3)

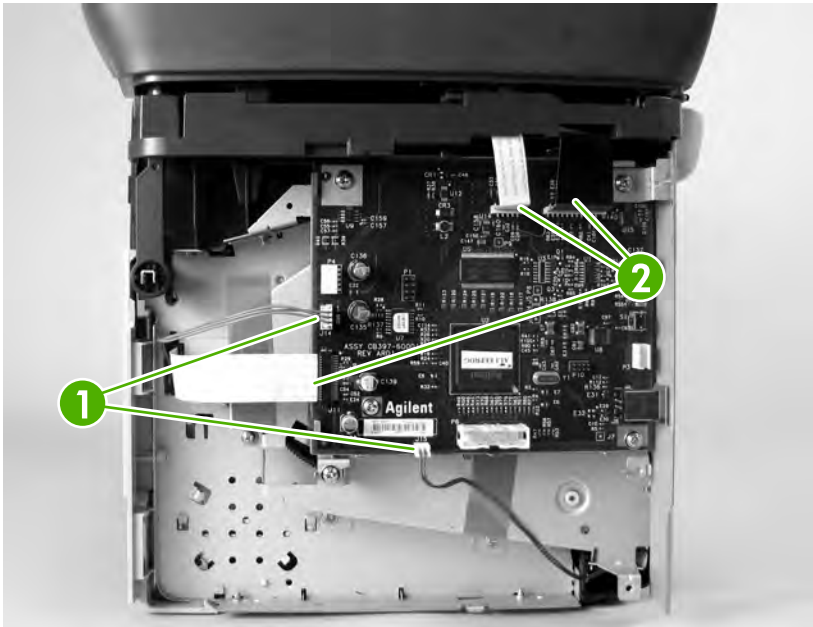


**Tip** When reinstalling the power supply, make sure that the wire-harnesses are routed correctly.



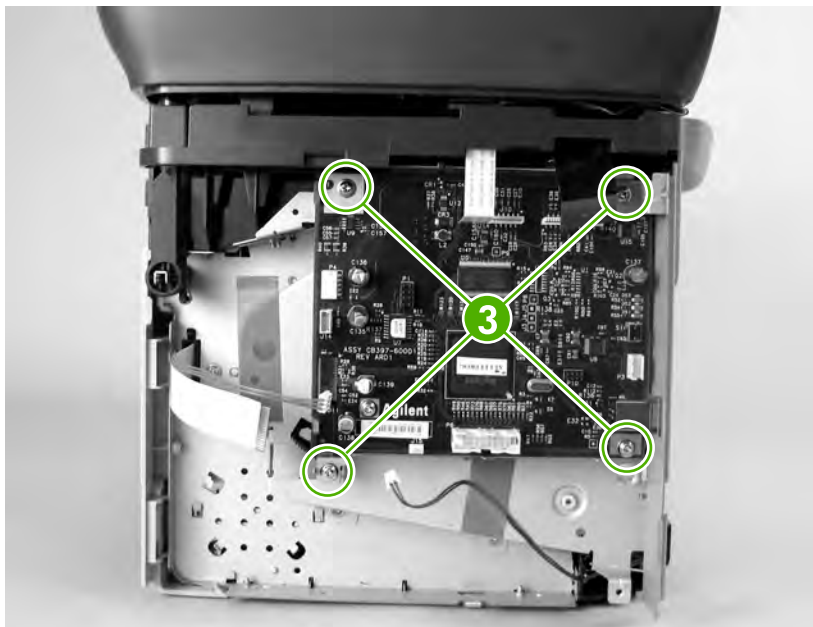
## Formatter

1. Remove the right cover. See [Device side covers on page 82](#).
2. Disconnect two connectors (callout 1) and three FFCs (callout 2).



**Figure 6-51** Remove the formatter (1 of 2)

3. Remove four screws (callout 3) and remove the formatter.



**Figure 6-52** Remove the formatter (2 of 2)

## Scanner support frame



**NOTE** Some photos show a device other than the HP LaserJet M1005 MFP. Repair and replacement procedures in this chapter are for the HP LaserJet M1005 MFP and are not affected by cosmetic differences (for example, the color of the covers) shown in these photos.

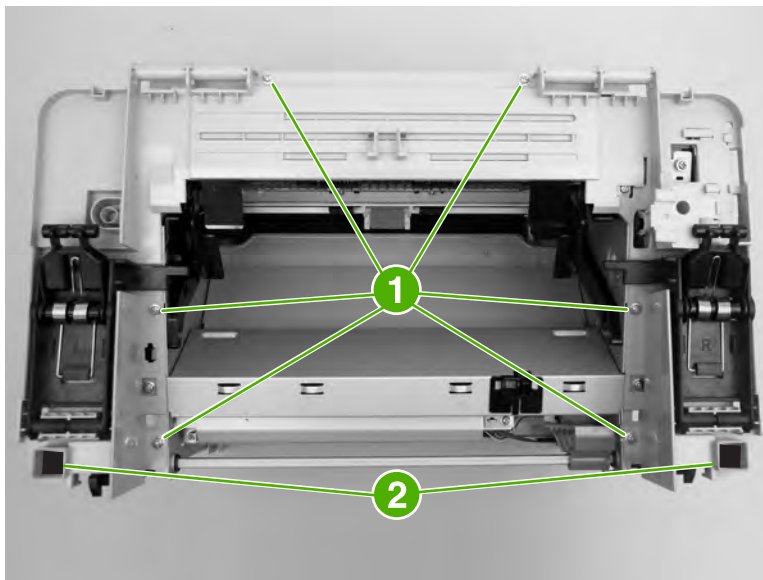
1. Remove the following assemblies
  - Scanner assembly. See [Scanner assembly on page 67](#).
  - Left cover. See [Device side covers on page 82](#).
  - Rear cover and fuser cover. See [Rear cover and fuser cover on page 86](#).
  - Print cartridge door. See [Print-cartridge door on page 85](#).
  - Front cover. See [Front cover on page 88](#).
2. Remove six screws (callout 1).



**CAUTION** Be careful not to drop any screws into the device.



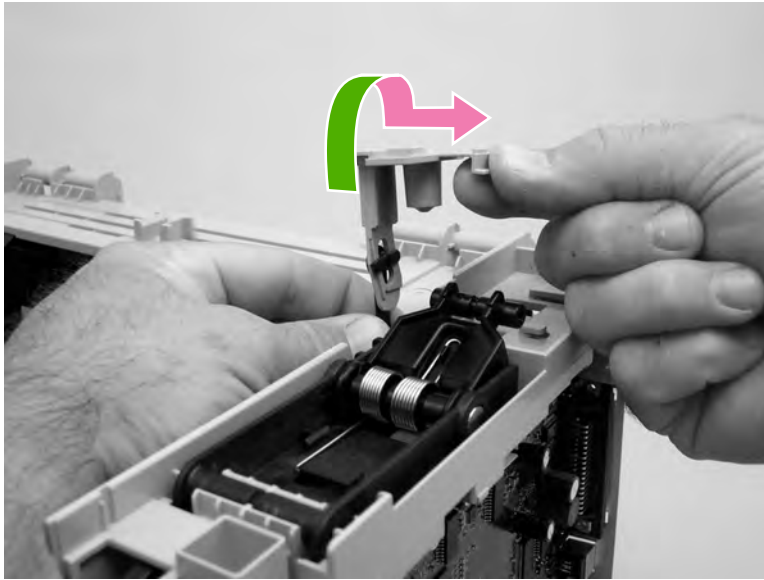
**NOTE** If the scanner support frame is turned over after it is removed, the two scanner cushions (callout 2) might fall out and be misplaced.



**Figure 6-53** Remove the scanner support frame (1 of 3)

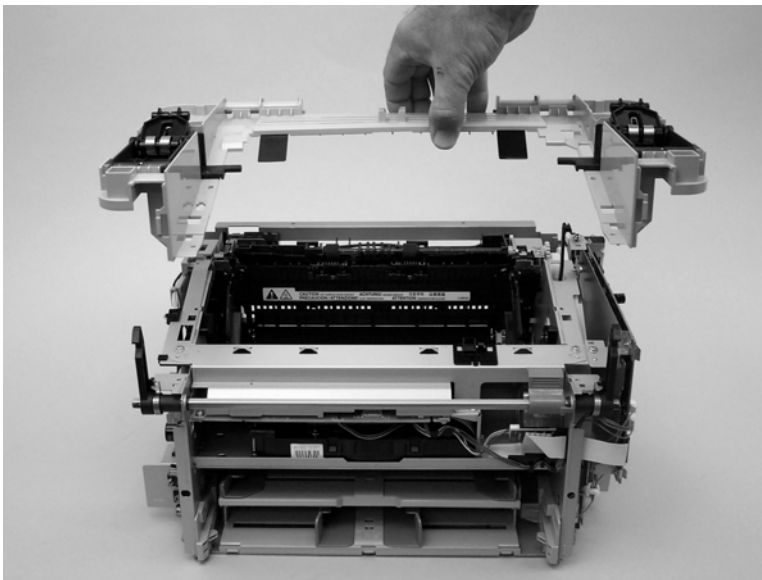


3. Rotate the gear-drive bracket until the retainer on the gear-drive arm aligns with the opening in the bracket, and remove the bracket.



**Figure 6-54** Remove the scanner support frame (2 of 3)

4. Lift the scanner support frame up and off of the device.

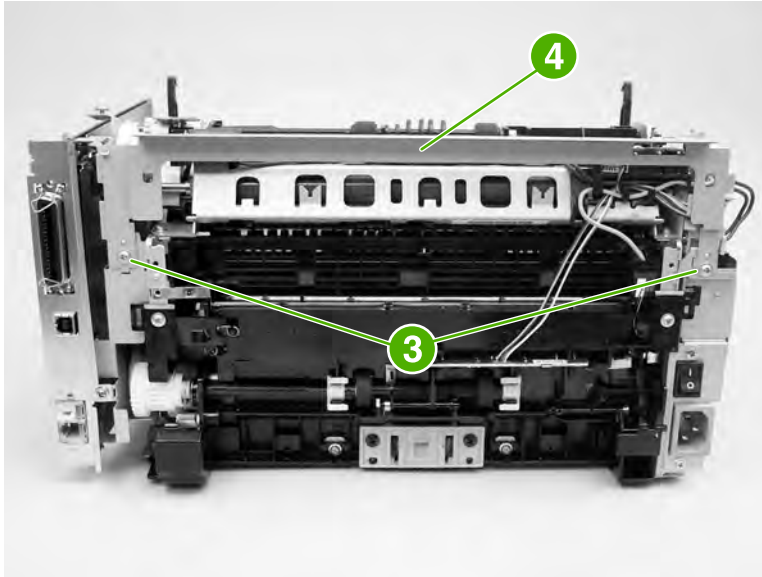


**Figure 6-55** Remove the scanner support frame (3 of 3)



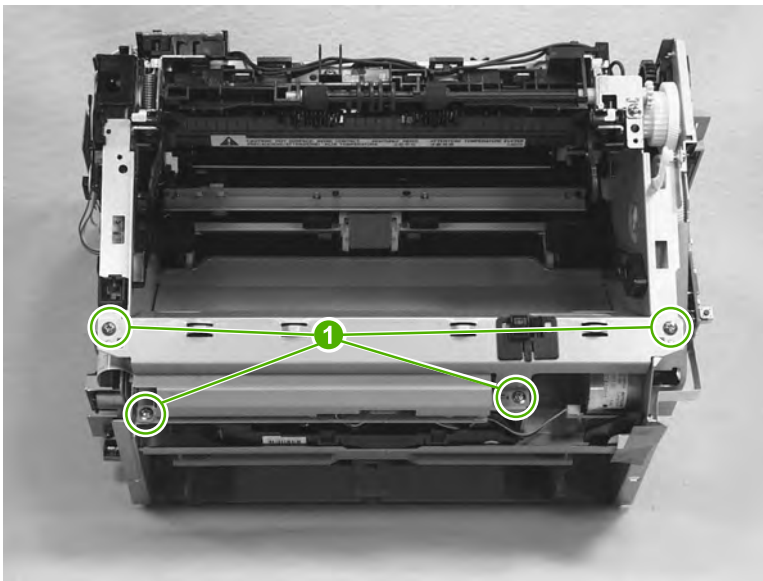


**NOTE** If the scanner support frame is being removed to gain access to the fuser, remove two screws (callout 3) and the chassis reinforcement plate (callout 4).



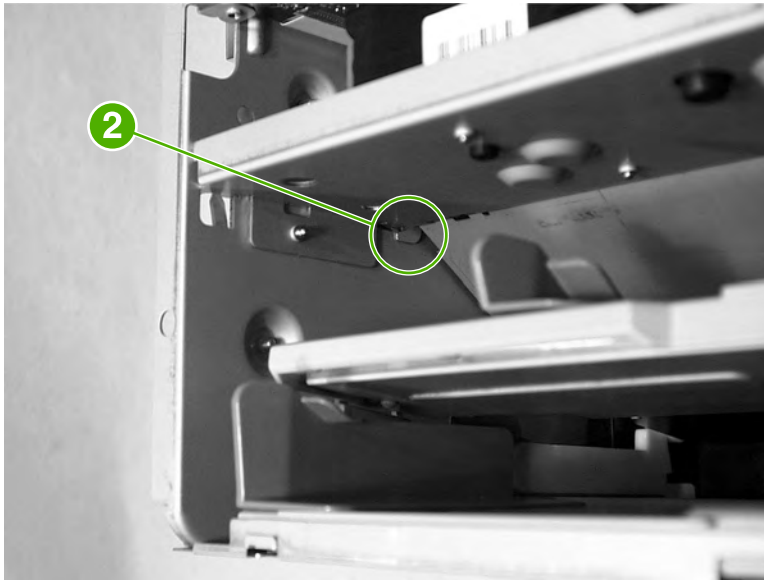
## Engine controller unit

1. Remove the following assemblies.
  - Scanner assembly. See [Scanner assembly on page 67](#).
  - Left cover. See [Device side covers on page 82](#).
  - Rear cover and fuser cover. See [Rear cover and fuser cover on page 86](#).
  - Print cartridge door. See [Print-cartridge door on page 85](#).
  - Front cover. See [Front cover on page 88](#).
  - Scanner support frame. See [Scanner support frame on page 95](#).
2. Remove four screws (callout 1).



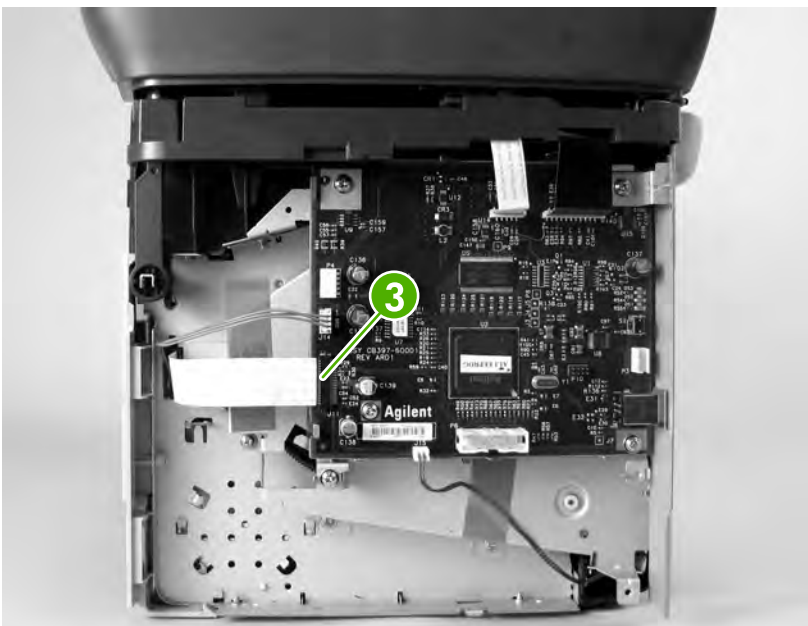
**Figure 6-56** Remove the ECU (1 of 6)

3. Use a long flat-blade screwdriver to disengage the engine control unit (ECU) shield retainer hooks (left hook shown; callout 2) inside the device. Push the hooks into the device to disengage them.



**Figure 6-57** Remove the ECU (2 of 6)

4. Disconnect one FFC (callout 3) from the formatter.

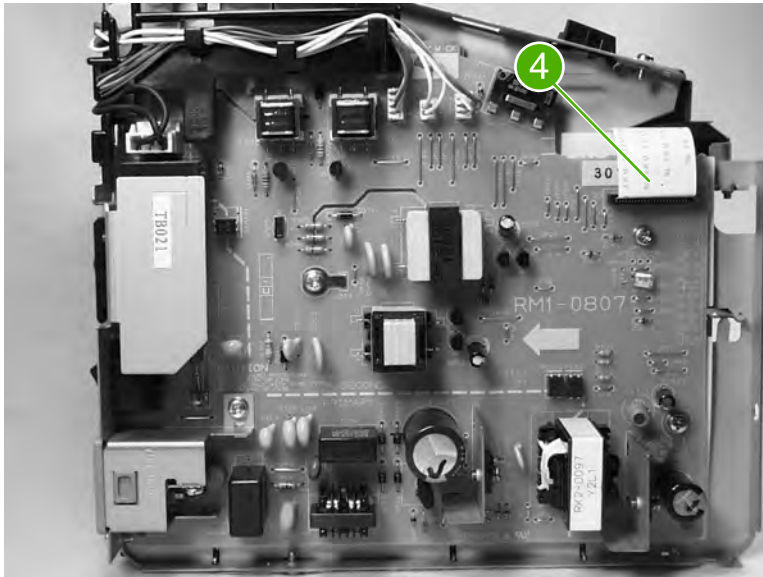


**Figure 6-58** Remove the ECU (3 of 6)

5. Disconnect one FFC (callout 4) from the power supply.



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

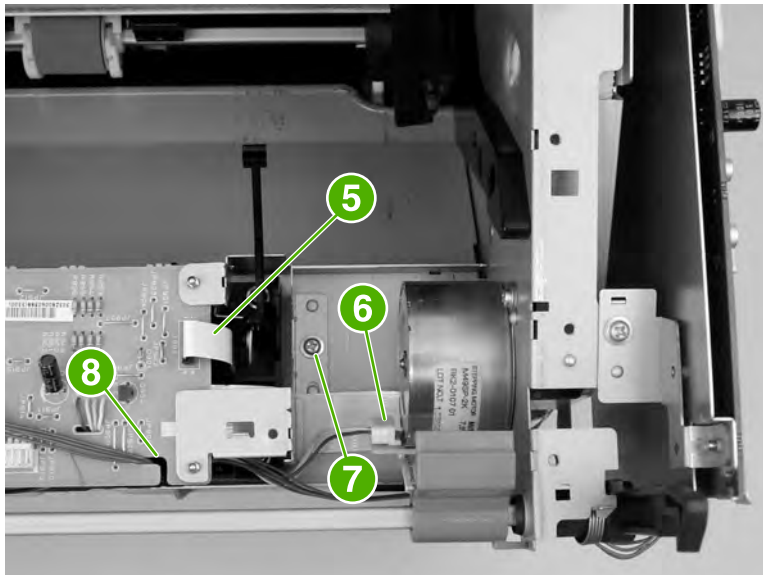


**Figure 6-59** Remove the ECU (4 of 6)

6. Disconnect one FFC (callout 5) from the ECU and the wire-harness connector to the main motor (callout 6). Remove one screw (callout 7). Release the wire-harness (callout 8) from the retainer slot on the ECU.

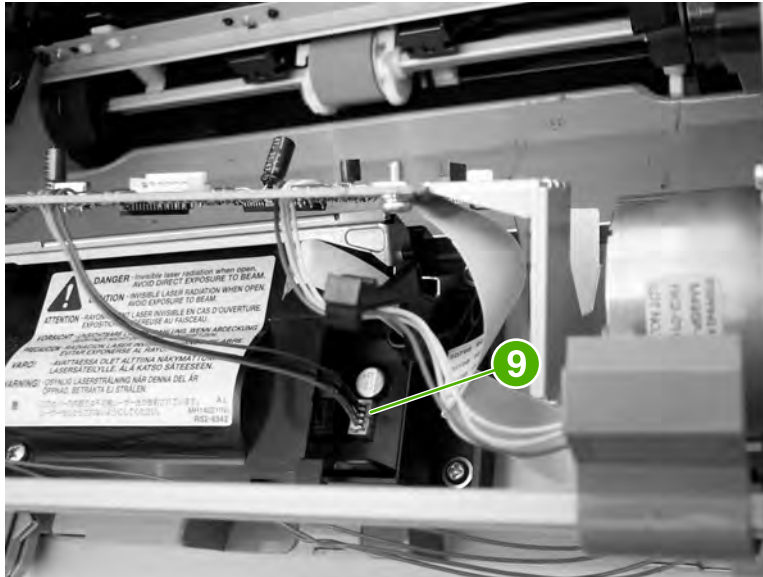


**Tip** Unweave this wire-harness from additional wire looms to have enough slack to disengage it from the slot on the ECU.



**Figure 6-60** Remove the ECU (5 of 6)

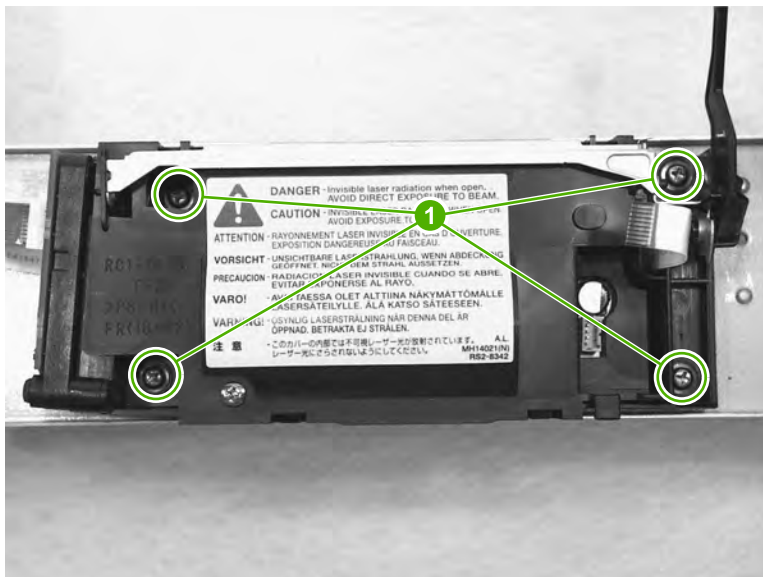
7. Carefully remove the ECU from the device. As it is removed, unweave the wire-harnesses and FFCs from the wire looms, and disconnect one wire-harness connector (callout 9) from the laser/scanner. Remove the ECU.



**Figure 6-61** Remove the ECU (6 of 6)

## Laser/scanner assembly

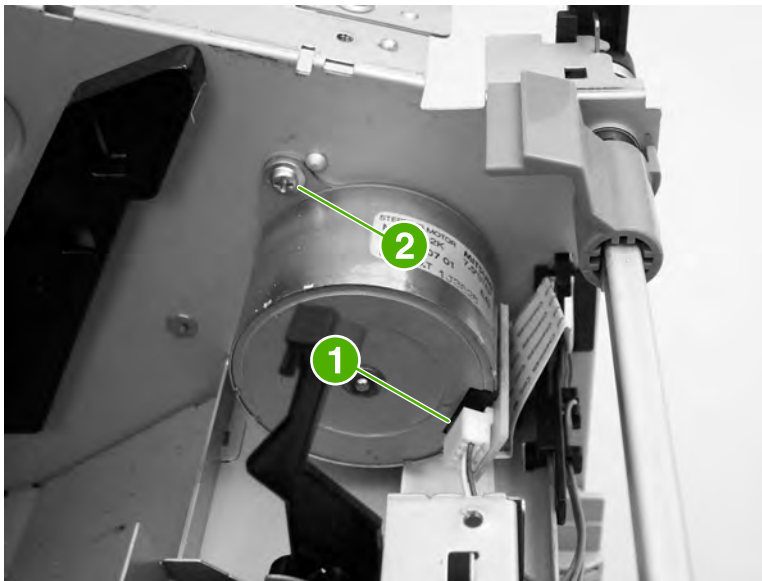
1. Remove the following assemblies.
  - Scanner assembly. See [Scanner assembly on page 67](#).
  - Left cover. See [Device side covers on page 82](#).
  - Rear cover and fuser cover. See [Rear cover and fuser cover on page 86](#).
  - Print cartridge door. See [Print-cartridge door on page 85](#).
  - Front cover. See [Front cover on page 88](#).
  - Scanner support frame. See [Scanner support frame on page 95](#).
  - ECU. See [Engine controller unit on page 98](#).
2. Remove four screws (callout 1). Remove the laser/scanner assembly.



**Figure 6-62** Remove the laser/scanner assembly

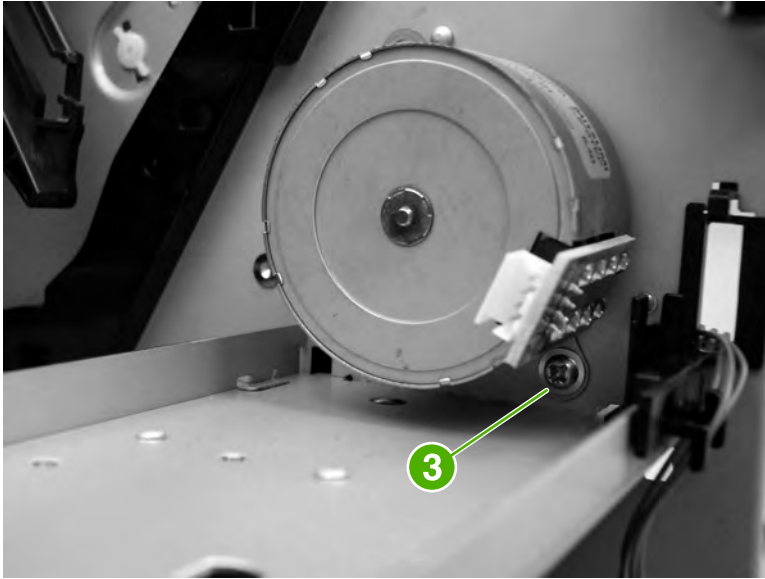
## Main motor

1. Remove the following assemblies.
  - Scanner assembly. See [Scanner assembly on page 67](#).
  - Formatter. See [Formatter on page 94](#).
  - Left cover. See [Device side covers on page 82](#).
  - Rear cover and fuser cover. See [Rear cover and fuser cover on page 86](#).
  - Print cartridge door. See [Print-cartridge door on page 85](#).
  - Front cover. See [Front cover on page 88](#).
  - Scanner support frame. See [Scanner support frame on page 95](#).
  - ECU. See [Engine controller unit on page 98](#).
  - Laser/scanner assembly. See [Laser/scanner assembly on page 102](#).
2. Disconnect the motor wire-harness connector (callout 1) and remove one screw (callout 2).



**Figure 6-63** Remove the main motor (1 of 2)

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

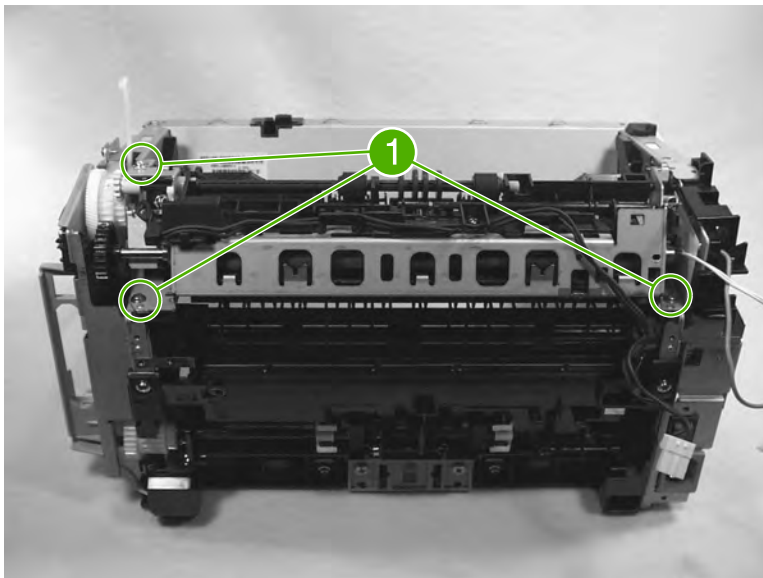


**Figure 6-64** Remove the main motor (2 of 2)



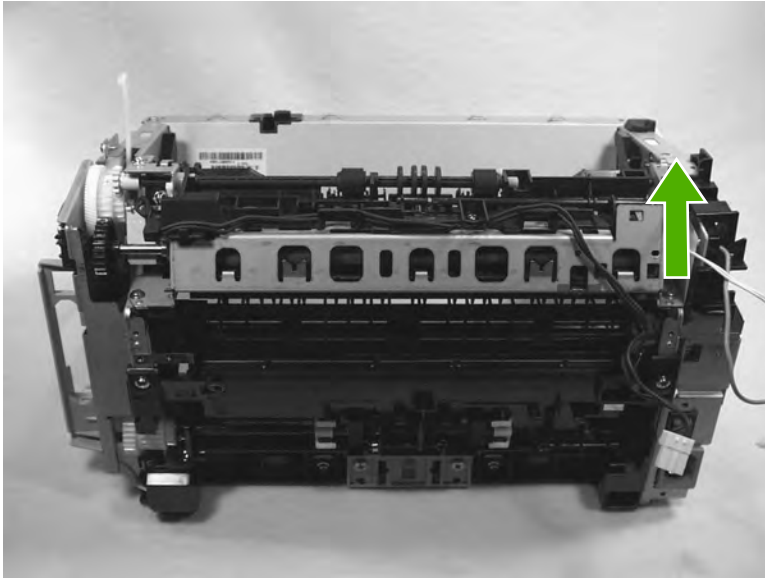
## Fuser

1. Remove the following assemblies.
  - Scanner assembly. See [Scanner assembly on page 67](#).
  - Left cover. See [Device side covers on page 82](#).
  - Rear cover and fuser cover. See [Rear cover and fuser cover on page 86](#).
  - Print cartridge door. See [Print-cartridge door on page 85](#).
  - Front cover. See [Front cover on page 88](#).
  - Scanner support frame and chassis reinforcement plate. See [Scanner support frame on page 95](#).
2. Disconnect cables from near the top of the engine power assembly and disconnect the large grounding wire from the back of the device.
3. Disengage the wire-harnesses from the wire retainers to release the fuser assembly.
4. Remove three screws (callout 1; this figure shows the delivery-sensor PCB removed, which is not necessary).



**Figure 6-65** Remove the fuser assembly (1 of 2)

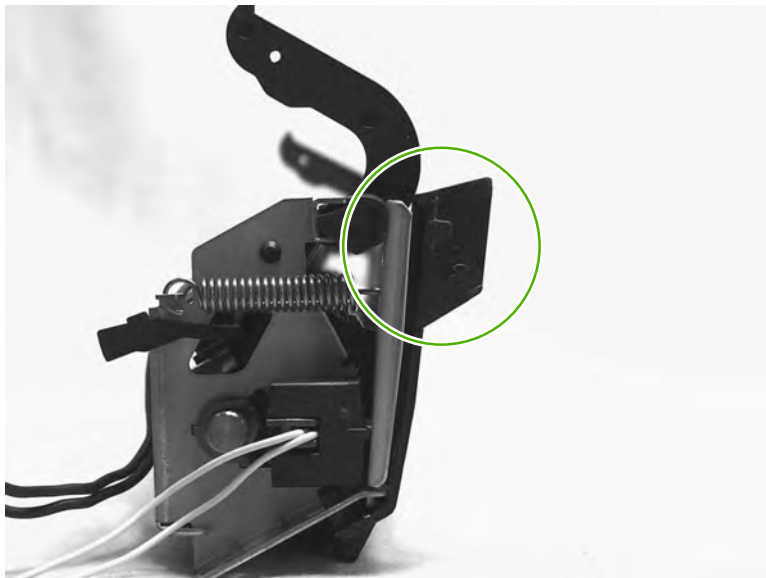
5. Lift the fuser assembly at the right and remove the fuser assembly.



**Figure 6-66** Remove the fuser assembly (2 of 2)



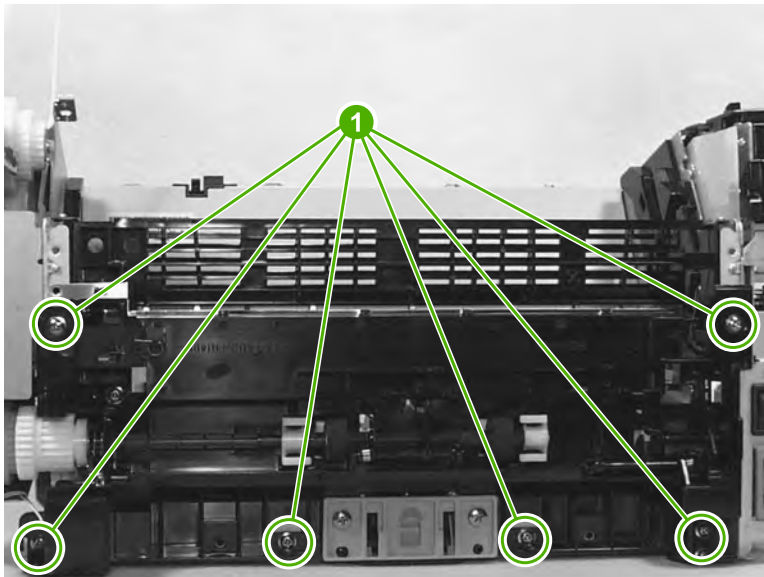
**NOTE** When replacing the fuser assembly, be sure to transfer the delivery-sensor PCB from the old fuser to the new one.



**Figure 6-67** Fragile tab on fuser assembly

## Paper-pickup assembly

1. Remove the following assemblies.
  - Scanner assembly. See [Scanner assembly on page 67](#).
  - Left cover. See [Device side covers on page 82](#).
  - Rear cover and fuser cover. See [Rear cover and fuser cover on page 86](#).
  - Print cartridge door. See [Print-cartridge door on page 85](#).
  - Front cover. See [Front cover on page 88](#).
  - Transfer roller. See [Transfer roller on page 80](#).
  - Fuser. See [Fuser on page 105](#).
2. 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.
3. Remove six screws (callout 1) and remove the assembly.



**Figure 6-68** Remove the paper-pickup assembly



# 7 Troubleshooting

This chapter provides information about the following topics.

- [Basic troubleshooting](#)
- [Control-panel messages](#)
- [Solving image-quality problems](#)
- [Solving scanning \(copying\) image-quality problems](#)
- [Repetitive image defect ruler](#)
- [Solving paper-feed problems](#)
- [Functional checks](#)
- [Firmware update using a flash executable file](#)
- [Troubleshooting tools](#)
- [Service-mode functions](#)
- [Main wiring](#)
- [Component locations](#)

# Basic troubleshooting

When the device is connected to a grounded power source, the words **Hewlett Packard** appear with moving cursors to indicate that the firmware code is loading, and the device motor rotates for approximately 5 seconds.



**NOTE** The flashing wavy lines that appear on the control-panel display during this period are normal.

## Is Power-on successful?

Cause	Solution
No power is available because of a failed power source, cable, switch. (The control panel display is blank.)	<ol style="list-style-type: none"><li>1. Verify that the device is plugged in to a functional power source.</li><li>2. Verify that the power cable is functional and that the power switch is on.</li><li>3. Verify that FU101 on the power supply is not open (also check FU102 if present). See <a href="#">Main wiring on page 146</a>.</li><li>4. If all of these conditions are correct, replace the power supply. See <a href="#">Power supply on page 91</a>.</li></ol>
Device motor does not rotate.	<ol style="list-style-type: none"><li>1. Verify that the print cartridge is present.</li><li>2. Verify that the device doors are closed.</li><li>3. Verify that media is loaded in the paper input tray. See <a href="#">Loading input trays on page 18</a>.</li><li>4. Verify that the device-path-paper sensors are functional.</li><li>5. Verify that the wire-harness from the ECU is seated into the motor connector.</li><li>6. Verify that the motor is correctly mounted to the device chassis.</li><li>7. If all of these conditions are correct, replace the ECU. See <a href="#">Engine controller unit on page 98</a>.</li><li>8. If, after replacing the ECU, the device motor still does not rotate, replace the motor. See <a href="#">Main motor on page 103</a>.</li></ol>

## The motor rotates, but the lights are not on.

### Does the device achieve the ready state?

Cause	Solution
The formatter is damaged or has a loose connection.	Verify that the formatter cables are properly connected. If all cables are undamaged and seated correctly but the problem persists, replace the formatter. See <a href="#">Formatter on page 94</a> .

### The control panel should function without error messages.

#### Is the device ready?

Cause	Solution
An error message appears on the control-panel display.	Consult the list of common messages that appears later in this chapter, to correct the error.
Control panel is not functional.	Verify that the control panel cable is seated into both the control panel and the scanner formatter. Also check the connections between the scanner motor controller board and the formatter. If all cables are undamaged and seated correctly but the problem persists, replace the control panel.

### Print a demo page by selecting the reports menu and select Demo Page.

#### Does the demo page print?

Cause	Solution
The media does not move smoothly through the paper path.	Make sure that the media meets specifications detailed in the <i>HP LaserJet Printer Family Print Media Guide</i> .  If the media is consistently jamming and the paper path is clear, replace either the paper-pickup assembly or the fuser, depending on where the jam occurs. See <a href="#">Paper-pickup assembly on page 107</a> or <a href="#">Fuser on page 105</a> .
The documents print with poor print quality.	See <a href="#">Solving image-quality problems on page 116</a> .

#### Is the software installed correctly?

Cause	Solution
Software is not installed or an error occurred during software installation.	Uninstall and then reload the device software. Make sure that the correct installation procedure and the correct port setting are used.

### Connect the USB cable between the device and the computer. Use a word-processing program to send a print job to the device.

#### Does the device print from the computer?

Cause	Solution
The cable is not connected correctly.	Reconnect the cable.
An incorrect driver is selected.	Select the correct driver.
Other devices are connected to the USB port.	Disconnect the other devices and try again to print.
A problem exists in the device manager.	Check the computer system settings and fix any device problems.
The formatter has failed.	Replace the formatter. See <a href="#">Formatter on page 94</a> .

Initiate a scan from either the computer's basic desktop software or from the device.

Does the device scan to the computer?

Cause	Solution
Other devices are connected to the USB port.	Disconnect the other devices and try again to scan.



# 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 device 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.

## Alert and warning messages

Alert and warning messages appear temporarily and might require the user to acknowledge the message by pressing **Menu/Enter** 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 device will attempt to resume the printing job after the warning has appeared for 10 seconds without acknowledgement.

Control panel message	Description	Recommended action
<b>Device error Press [OK]</b>	The device experienced an internal communication error.	This is a warning message only. Job output might be affected.
<b>Jam in print paper path</b> alternates with <b>Open door and clear jam</b>	The device has detected a jam in the paper path.	Clear the jam from the area indicated on the device control panel, and then follow the control panel instructions.
<b>Page too complex Press [OK]</b>	The device could not print the current page because of its complexity.	Press <b>Menu/Enter</b> to clear the message. Allow the device to finish the job, or press <b>Cancel</b> to cancel the job.
<b>Printer jam clear paper path</b>	The device has detected a jam in the input trays.	Clear the jam from the area indicated on the device control panel, and then follow the control panel instructions.
<b>Scanner error</b>	The device has detected a scan module error	Turn the device off and then on again.
<b>Settings cleared</b>	The device has cleared job settings.	Re-enter any appropriate job settings.

## Critical error messages

Critical error messages can indicate some kind of failure. Restarting the device might fix the problem.

Control-panel display	Error code number	Description	Action
<b>Engine comm. Error</b>	None	The device 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 device directly into the wall socket.</li><li>3. Turn on the power and wait for the device to initialize.</li></ol>
<b>Error Turn off then on</b>	<b>54.1C</b>	The device has experienced an internal hardware error.	Turn off the power by using the power switch, wait at least 30

Control-panel display	Error code number	Description	Action
			seconds, and then turn on the power and wait for the device to initialize.  If a surge protector is being used, remove it. Plug the device directly into the wall socket. Use the power switch to turn the device on.
Fuser Error Turn off then on	50.1	The device 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 device directly into the wall socket.</li> <li>3. Turn on the power and wait for the device to initialize.</li> </ol>
Fuser Error Turn off then on	50.2	The device 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 device to initialize.</li> <li>2. If a surge protector is being used, remove it. Plug the device directly into the wall socket. Use the power switch to turn the device on.</li> </ol>
Fuser Error Turn off then on	50.3	The device 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 device to initialize.</li> <li>2. If a surge protector is being used, remove it. Plug the device directly into the wall socket. Use the power switch to turn the device on.</li> </ol>
Fuser Error Turn off then on	50.8	The device 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 device to initialize.</li> <li>2. If a surge protector is being used, remove it. Plug the device directly into the wall socket. Use the power switch to turn the device on.</li> </ol>

Control-panel display	Error code number	Description	Action
Fuser Error Turn off then on	50.9	The device 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 device to initialize.</li> <li>2. If a surge protector is being used, remove it. Plug the device directly into the wall socket. Use the power switch to turn the device on.</li> </ol>
Scanner Error Turn off then on	52.2	The device has experienced a laser scanner error.	<ol style="list-style-type: none"> <li>1.</li> <li>2.</li> </ol> <p>Turn off the power by using the power switch, wait at least 30 seconds, and then turn on the power and wait for the device to initialize.</p> <p>If a surge protector is being used, remove it. Plug the device directly into the wall socket. Use the power switch to turn the device on.</p>

## Event-log codes

These codes appear in the event-log section of the configuration report. Use this table to associate an event-log code with a description of the event.

**Table 7-1** Event-log codes

Event code	Description
13.0002	<b>Paper Jam</b> Paper jam in input path
13.0004	<b>Paper Jam</b> Paper jam in output path
13.000D	<b>Paper Out</b> Tray empty
21.0000	<b>Page Too Complex</b> Video under run
21.0000	<b>Page Too Complex</b>
55.0000	<b>Eng. Comm. Errorx</b> Engine communication fatal error

# Solving image-quality problems

If the problem occurs when printing, see [Solving print image-quality problems on page 116](#).

If the problem occurs when copying or scanning, see [Solving scanning \(copying\) image-quality problems on page 124](#).



**NOTE** Some image-quality problems can be isolated by performing device functional tests. See [Functional checks on page 135](#). Image quality problems can also be caused by using cables that are not certified USB-Hi speed cables.

## Checking the print cartridge

Image-formation defects are frequently the result of problems in the print cartridge. If the source of the defect is not immediately evident, always replace the print cartridge before troubleshooting image defects.

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

- Make sure that the print cartridge is seated properly.
- 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.

## To redistribute the toner in the print cartridge

Before installing a new print cartridge or when the toner begins to run low, redistribute the toner by rotating the cartridge back and forth five or six times.

## Solving print image-quality problems

Use the following tables to help solve problems with printed pages.



**NOTE** Some image-quality problems can be isolated by performing device functional tests. See [Functional checks on page 135](#). Image-quality problems can also be caused by using cables that are not certified USB-Hi speed cables.

## Print image-quality problems

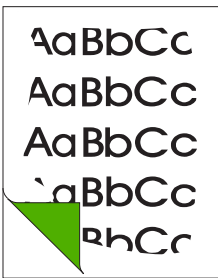
**Pages do not print.**

Cause	Solution
The device is not plugged in, or the power switch is not on.	Make sure that the device is plugged into a working wall outlet or power strip and that the power switch is turned on.

**Pages do not print.**

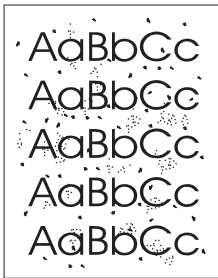
Cause	Solution
The computer cable is loose.	Check that the USB cable between the device and the computer is securely connected.
The tape was not removed from the print cartridge.	Remove the print cartridge, remove the tape, and reinstall the print cartridge.
The print cartridge has reached end of life.	Replace the print cartridge.
The media does not meet HP specifications (for example, it is too moist or too rough).	Make sure that the media meets specifications detailed in the <i>HP LaserJet Printer Family Print Media Guide</i> .

**Parts of the page around the edges are not printing.**



Cause	Solution
The device cannot print to the edge of the paper. The device has minimum margins on each edge of 6 mm (0.25 inch).	To fit the image into this printable area, slightly reduce the size of the image.
The reduction setting is set incorrectly.	Check the reduction setting in the "Print" or "Setup" window from within the program that you are using.

**Toner specks appear on the printed page.**



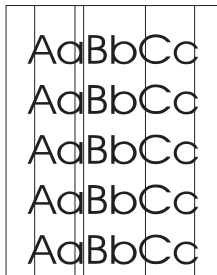
Cause	Solution
The media does not meet HP specifications (for example, it is too moist or too rough).	Make sure that the media meets specifications detailed in the <i>HP LaserJet Printer Family Print Media Guide</i> .
The print path needs to be cleaned.	Clean the print path. See <a href="#">Cleaning the device on page 36</a> .

Characters are only partially printed (also referred to as dropouts).



Cause	Solution
A single sheet of paper is defective.	Try reprinting the job.
The print density needs to be adjusted.	Adjust the print density.
The moisture content of the paper is inconsistent, or the paper has moist or wet spots on the surface.	Make sure that the media meets specifications detailed in the <i>HP LaserJet Printer Family Print Media Guide</i> .
The paper was damaged by inconsistent manufacturing processes.	Make sure that the media meets specifications detailed in the <i>HP LaserJet Printer Family Print Media Guide</i> .
<b>Draft</b> mode or <b>EconoMode</b> is selected in the driver.	Try the normal or best setting.
The print cartridge is defective.	Replace the print cartridge.

Vertical lines appear on the printed page.



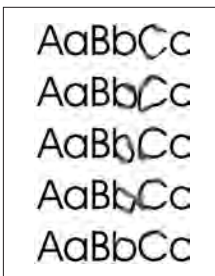
Cause	Solution
The priority input tray is not in place.	Adjust the priority input tray.
The photosensitive drum inside the print cartridge is scratched.	Replace the print cartridge.
The fuser is damaged or has an obstruction.	Replace the fuser. See, <a href="#">Fuser on page 105</a> .

**The printed page has a gray background.**



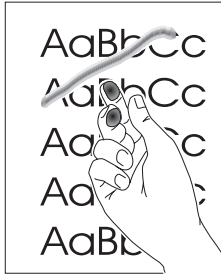
Cause	Solution
The priority input tray is not in place.	Adjust the priority input tray.
The print density setting is too high.	Decrease the amount of background shading.
The media basis-weight is too high.	Change the media to a lower basis-weight.
The humidity level is too low.	Very low humidity can increase the amount of background shading. Move the device to a different location, or decrease the background shading. If this happens during copying, set the light/dark setting to a light value.
The print cartridge needs to be replaced.	Replace the print cartridge.

**Toner smears appear on the printed page.**



Cause	Solution
If the toner smears appear on the leading edge of the media, the media guides are dirty.	Wipe the media guides with a dry, lint-free cloth.
The media does not meet HP specifications (for example, it is too moist or too rough).	Make sure that the media meets specifications detailed in the <i>HP LaserJet Printer Family Print Media Guide</i> .
The print cartridge needs to be replaced.	Replace the print cartridge.
The fuser temperature is too low. The fuser temperature varies according to the type of media being used.	In the <b>Paper/Quality</b> tab of the driver, under <b>Type is:</b> , select the appropriate media type from the drop-down list.  If the error persists, replace the ECU. See <a href="#">Engine controller unit on page 98</a> .

The toner is loose, and it does not stay attached to the printed page.



Cause	Solution
The inside of the device is dirty.	Clean the print path. See <a href="#">Cleaning the device on page 36</a> .
The media does not meet HP specifications (for example, it is too moist or too rough).	Make sure that the media meets specifications detailed in the <i>HP LaserJet Printer Family Print Media Guide</i> .
The driver is not set for the correct media.	<input type="checkbox"/> On the <b>Paper/Quality</b> tab of the printer driver, under <b>Type is:</b> , select the correct media type from the drop-down list.
The power strip is not working correctly.	Plug the device directly into an working ac outlet.
The fuser temperature is too low. The fuser temperature varies according to the media type being used.	In the <b>Paper/Quality</b> tab of the printer driver, under <b>Type is:</b> , select the correct media type from the drop-down list.  If the error persists, replace the ECU. See <a href="#">Engine controller unit on page 98</a> .
The fuser film is torn or has holes.	Replace the fuser. See <a href="#">Fuser on page 105</a> .
The fuser film is damaged.	Check the fuser film for tears or holes. Replace the fuser if necessary. See <a href="#">Fuser on page 105</a> .
The print cartridge needs to be replaced.	Replace the print cartridge.

Repetitive vertical defects appear on the printed page.



Cause	Solution
If the repetitive mark occurs at equal distance between marks, either the print cartridge or a device roller is damaged.	Use the defect ruler to identify the spacing. Check the appropriate component and replace if necessary. See <a href="#">Repetitive image defect ruler on page 130</a> .

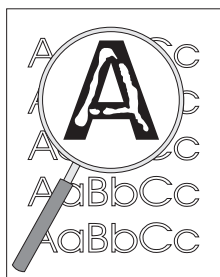


Repetitive vertical defects appear on the printed page.



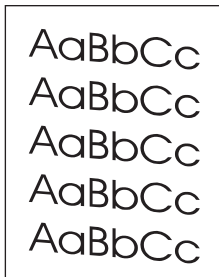
Cause	Solution
The internal parts have toner on them.	If the defects occur on the back of the page, the problem will probably correct itself after a few more printed pages. Otherwise, clean the device. See <a href="#">Cleaning the device on page 36</a> .
The driver is not set for the correct media.	<input type="checkbox"/> In the <b>Paper/Quality</b> tab of the printer driver, under <b>Type is:</b> , select the correct media type from the drop-down list. (This affects the current print job only.)

Characters are poorly formed and are producing hollow images.



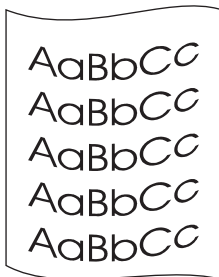
Cause	Solution
The media is too slick.	Try a different media. Make sure that the media meets specifications detailed in the <i>HP LaserJet Printer Family Print Media Guide</i> .
The driver is not set for the correct media.	<input type="checkbox"/> In the <b>Paper/Quality</b> tab of the printer driver, under <b>Type is:</b> , select the correct media type from the drop-down list. (This affects the current print job only.)

**Pages are skewed (crooked).**



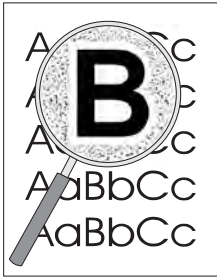
Cause	Solution
The media is loaded incorrectly.	Reload the media, and make sure that the media guides are not too tight or too loose against the media stack.
The media guides are broken or missing.	Replace the media input tray or the paper-pickup assembly. See, <a href="#">Media input tray on page 78</a> or <a href="#">Paper-pickup assembly on page 107</a> .
The input tray is too full.	Remove some of the sheets. The HP LaserJet M1005 MFP main input tray can hold up to 150 sheets of 75-g/m <sup>2</sup> (20-lb) bond-weight paper (less for heavier paper).
The type and quality of media does not meet HP specifications.	Make sure that the media meets specifications detailed in the <i>HP LaserJet Printer Family Print Media Guide</i> .

**The printed page has curls or waves.**



Cause	Solution
Paper curl is inherent to the laser printing process; it occurs when paper is subjected to heat.	Curled paper tends to relax as it cools. Place the paper on a flat surface while it is cooling.
The environment is too warm or too humid.	<ol style="list-style-type: none"> <li>Both high temperatures and high humidity levels cause media to curl. Move the device to a different environment.</li> <li>Use a different media. Make sure that the media meets specifications detailed in the <i>HP LaserJet Printer Family Print Media Guide</i>.</li> </ol>
The media was in the input tray for too long.	Turn the stack of media over and put it back in the tray. Rotate the media 180° and put it back in the tray.
The fuser temperature is too high. The fuser temperature varies according to the type of media being used.	Select a lighter-weight media type from the printer driver.

Large amounts of toner are scattered around the characters.



---

**Cause**

The media resistivity is too high.

**Solution**

1. Use a different media. Make sure that the media meets specifications detailed in the *HP LaserJet Printer Family Print Media Guide*.
  2. Turn the stack of media over and put it back in the tray.
  3. Use media that is designed for laser printers.
- 

Vertical white stripes appear.



---

**Cause**

The media does not meet HP specifications (for example, it is too moist or too rough).

**Solution**

Make sure that the media meets specifications detailed in the *HP LaserJet Printer Family Print Media Guide*.

The toner is low.

Gently shake the print cartridge back and forth to redistribute the toner.

---

# Solving scanning (copying) image-quality problems

Use the following tables to help solve problems with scanned or copied pages.



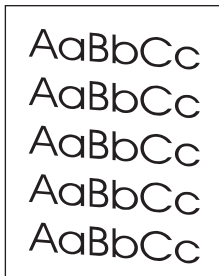
**NOTE** Some image-quality problems can be isolated by performing device functional tests. See [Functional checks on page 135](#). Image quality problems can also be caused by using cables that are not certified USB-Hi speed cables.

## Scanning (copying) image-quality problems

### Pages do not print.

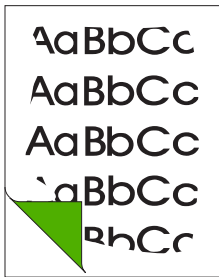
Cause	Solution
The device is not plugged in, or the power switch is not on.	Make sure that the device is plugged into a working wall outlet or power strip and that the power switch is turned on.
The computer cable is loose.	Check that the cable between the device and the computer is securely connected.
The tape was not removed from the print cartridge.	Remove the print cartridge, remove the tape, and reinstall the print cartridge.
The print cartridge has reached end of life.	Replace the print cartridge.
The media does not meet HP specifications (for example, it is too moist or too rough).	Make sure that the media meets specifications detailed in the <i>HP LaserJet Printer Family Print Media Guide</i> .
The original was loaded upside-down.	Load the original with the side to be scanned facing down on the flatbed.

### Pages are skewed (crooked).



Cause	Solution
The media is loaded incorrectly.	Reload the media, and make sure that the media guides are not too tight or too loose against the media stack.
The media guides are broken or missing.	Replace the media input tray or the paper-pickup unit. See <a href="#">Media input tray on page 78</a> or <a href="#">Paper-pickup assembly on page 107</a> .
The type and quality of media does not meet HP specifications.	Make sure that the media meets specifications detailed in the <i>HP LaserJet Printer Family Print Media Guide</i> .

Parts of the page around the edges are not printing.



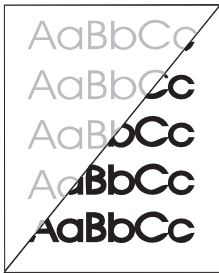
Cause	Solution
The device cannot print to the edge of the paper. The device has minimum margins on each edge of 6 mm (0.25 inch).	To fit the image into this printable area, slightly reduce the size of the image.
If copying, the reduction setting is incorrect.	Copied images will be clipped if the image on the original is too close to the edge of the original.
The paper size setting is incorrect.	Set the correct page size on the control-panel menu.

Vertical white stripes appear.



Cause	Solution
The media does not meet HP specifications (for example, it is too moist or too rough).	Make sure that the media meets specifications detailed in the <i>HP LaserJet Printer Family Print Media Guide</i> .
The toner is low.	Gently shake the print cartridge back and forth to redistribute the toner.

**Copies or scanned images are too light or too dark.**



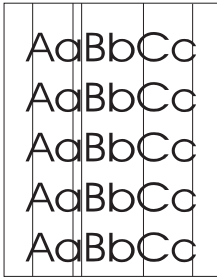
Cause	Solution
The contrast is not set correctly.	<ol style="list-style-type: none"><li>1. Adjust the contrast and resolution settings on the control-panel menu.</li><li>2. Check that the contrast and resolution settings are correct. See the user guide for more information.</li></ol>
The original image is very light or very dark.	Adjust the resolution and contrast setting(s) on the control-panel menu.
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, contrast, and brightness settings.

**The printed page has a gray background.**



Cause	Solution
The priority input tray is not in place.	Adjust the priority input tray.
The print density setting is too high.	Decrease the amount of background shading by using the print driver.
The lighter/darker setting is incorrect. Some "white" media might produce a greyish background at the default lighter/darker settings.	Adjust the lighter/darker setting to a lighter level.
The media basis-weight is too high.	Change the media to a lower basis-weight.
The humidity level is too low.	Very low humidity can increase the amount of background shading. Move the device to a different location.
The print cartridge needs to be replaced.	Replace the print cartridge.

Vertically-aligned black streaks or smears appear on successive pages.



Cause	Solution
A component is damaged. (For example, the photosensitive drum inside the print cartridge is scratched.)	<ol style="list-style-type: none"><li>1. Replace the print cartridge if it is damaged and if maintenance procedures do not improve print quality.</li><li>2. Replace the scanner assembly. See <a href="#">Scanner assembly on page 67</a>.</li></ol>

Scanned images have black dots or streaks.



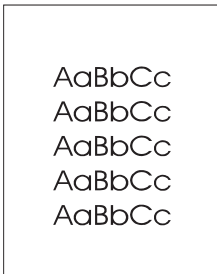
Cause	Solution
The scanner glass is dirty.	Clean the flatbed glass. See <a href="#">Cleaning the device on page 36</a> .
The toner drum in the print cartridge is damaged.	Replace the print cartridge.
A problem exists with the scanner assembly.	Replace the scanner assembly. See <a href="#">Scanner assembly on page 67</a> .

**Scanned text is not clear.**



Cause	Solution
The contrast, resolution, or brightness needs to be adjusted before scanning.	<ol style="list-style-type: none"><li>1. Adjust the contrast and resolution settings.</li><li>2. Check that the contrast and resolution settings are correct. See the user guide section for more information.</li></ol>
The original is on colored paper.	If the original is on colored paper, including brown recycled paper, the text might not be clear. Try adjusting the resolution, contrast, and brightness settings from the scan application.
There is a problem with the scanner assembly.	Replace the scanner assembly. See <a href="#">Scanner assembly on page 67</a> .

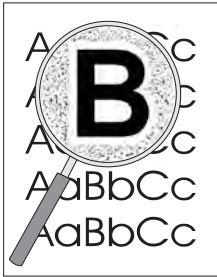
**Images are scanning at a reduced size.**



Cause	Solution
The HP software settings are set to reduce the scanned image.	<input type="checkbox"/> Adjust the settings in the HP LaserJet Scan software.



Large amounts of toner are scattered around the characters.



---

**Cause**

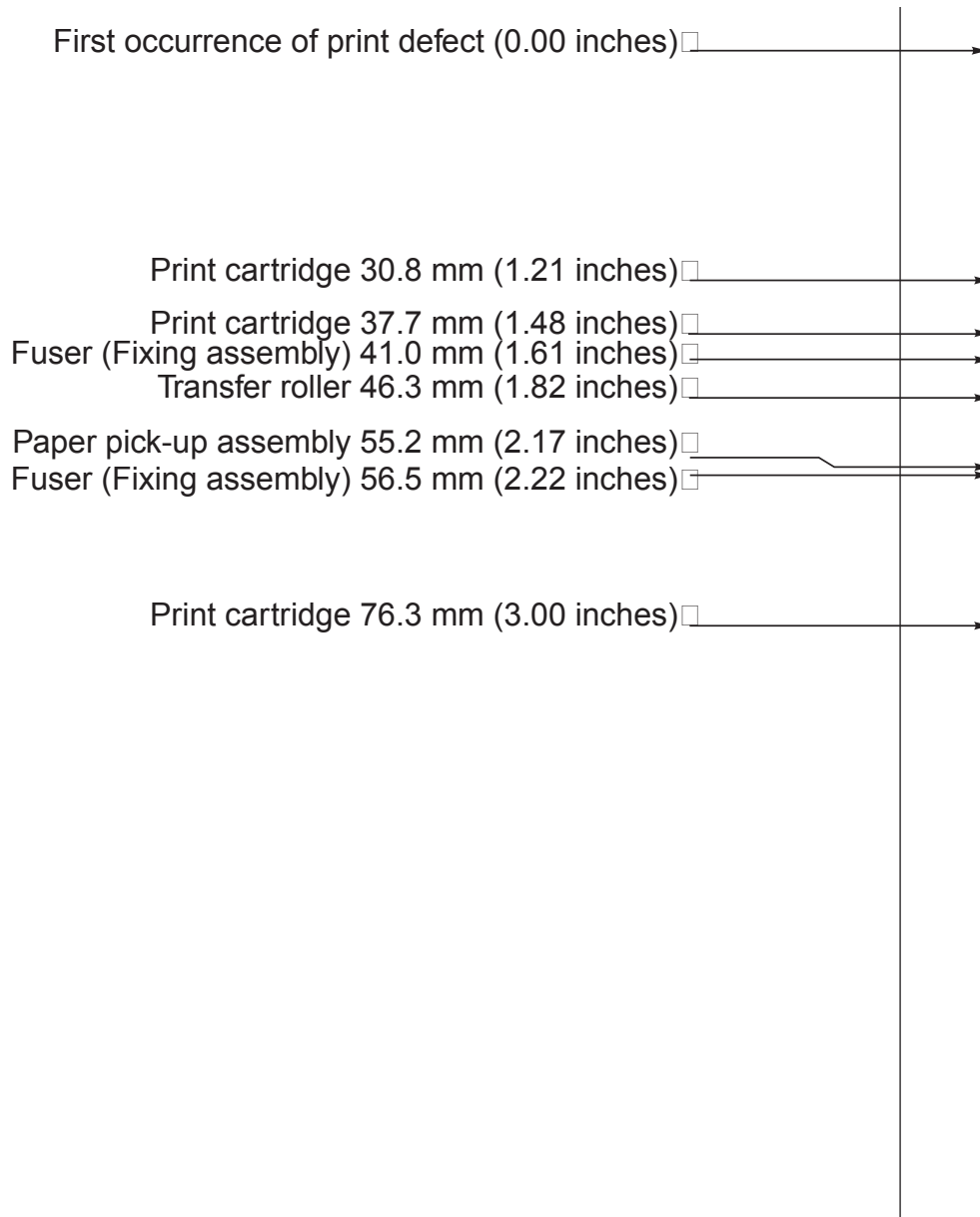
The media resistivity is too high.

**Solution**

1. Use a different media type. Make sure that the media meets specifications detailed in the *HP LaserJet Printer Family Print Media Guide*.
  2. Turn the stack of media over and put it back in the tray.
  3. Use media that is designed for laser printers.
-

## Repetitive image defect ruler

Use the repetitive image-defect ruler to help solve image quality problems. Place the top line on the ruler next to the first occurrence of the defect on the page. Find the mark that points to the next instance of the defect to identify the component that is causing the defect.



**Figure 7-1** Repetitive image defect ruler



**NOTE** The repetitive image defect ruler is for reference only and may not display or print to exact scale. Use a measuring device to determine the spacing between repeating image defects.

# Solving paper-feed problems

Use the information in this section to solve problems that are related to moving paper or documents through the device.



**CAUTION** Always try to remove a jam in the direction that the media feeds through the device.

## Jams occur in the device

Occasionally, media becomes jammed during a print job. Try the following remedies before you attempt to clear the jam:

- Make sure that the media meets specifications.
- Make sure that the media is not wrinkled, folded, or damaged.
- Make sure that the device is clean. See [Cleaning the device on page 36](#).
- Make sure that the input trays are loaded properly and are not too full. See [Loading input trays on page 18](#).

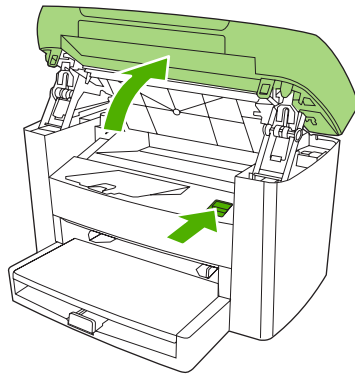
## To clear a jam



**CAUTION** Jams might result in loose toner on the page. If toner falls on clothing, wash it in cold water. Hot water will permanently set the toner into the fabric. If toner is on your hands, wash them in cold water.

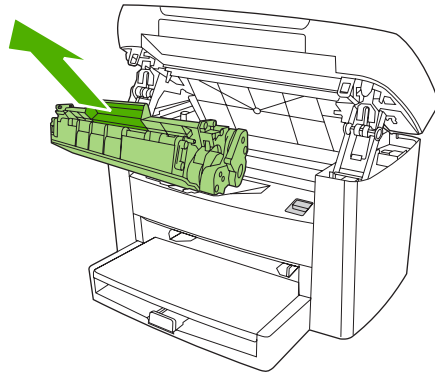
*Never use a sharp object, such as a pencil or scissors, to remove jammed media.*

1. Open the print-cartridge door.



**Figure 7-2** Clear a jam in the device base (1 of 3)

2. Grasp the handle on the print cartridge, remove the print cartridge, and set it aside.



**Figure 7-3** Clear a jam in the device base (2 of 3)

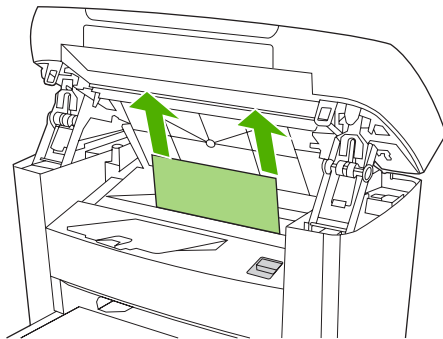


**CAUTION** To prevent damage to the print cartridge, do not expose it to light any longer than necessary. Place the print cartridge in a paper bag or other opaque container until you can place it back in the device.

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



**NOTE** Always try to remove a jam towards the way it would move through the paper path.



**Figure 7-4** Clear a jam in the device base (3 of 3)

4. After the jammed media is removed, replace the print cartridge, and close the print-cartridge door.
5. After clearing a jam, turn off the device, and then turn it on again.

## Solving print paper-feed problems

Use the following tables to solve paper-feed problems when printing.

## Print paper-feed problems

### Pages are coming out curled or wrinkled.

Cause	Solution
Paper curl is inherent to the laser printing processes, and occurs when paper is subjected to heat. Paper curl tends to relax as the paper cools while resting on a flat surface.	Make sure that the media meets specifications detailed in the <i>HP LaserJet Printer Family Print Media Guide</i> . Remove the media, turn it over, and reload it.
Paper is curled or wrinkled when printing.	In the printer driver, on the <b>Paper/Quality</b> tab, select a lighter-weight media type, such as <b>Light &lt;75 g/m<sup>2</sup></b> , to reduce the fuser temperature.
Paper is curled when copying.	Try an alternate media.
Paper is not stored properly.	Whenever possible, store paper in its sealed ream at room temperature.
The media is too long for the device output bin.	Use the long media extension.

### Print is misaligned on the page (skewed pages).

Cause	Solution
The media input tray is overfilled.	Remove some of the media.
The paper guides are not set correctly, are broken, or are missing.	Be sure to center the paper with the side media guides. Verify that the guides are not adjusted too tightly or too loosely against the paper. Check for broken or missing guides and replace as necessary.
The paper weight or surface finish does not meet HP specifications.	Make sure that the media meets specifications detailed in the <i>HP LaserJet Printer Family Print Media Guide</i> .

### The device feeds multiple sheets or jams frequently from the main input tray or priority input tray.

Cause	Solution
Paper guides are not adjusted properly.	Slide the guides against the sides of the stack in the media input tray or the priority input tray to center the paper. Make sure the guides are not adjusted too tightly.
Paper was not removed from the main input tray before refilling the tray.	Always remove paper from the main input tray before refilling it.
The main input tray or priority input tray is overfilled.	Remove some of the sheets. The main input tray can hold up to 150 sheets of 60-g/m <sup>2</sup> (16-lb) bond-weight paper.
The paper was poorly cut by the manufacturer and is sticking together.	“Break” the ream of paper by curving it into an upside-down u-shape; this can effectively decrease multifeeds. Also try turning the paper around to feed the opposite end first, or use a different type of paper.
The paper does not meet HP specifications for print media.	Make sure that the media meets specifications detailed in the <i>HP LaserJet Printer Family Print Media Guide</i> .
The output capacity was exceeded in the paper output bin.	Do not allow more than 125 sheets of 75 g/m <sup>2</sup> (20-lb) bond-weight paper (less for heavier paper) to fill the paper output bin.
The pickup roller is dirty or damaged.	Clean the pickup roller.

**The device feeds multiple sheets or jams frequently from the main input tray or priority input tray.**

Cause	Solution
	Replace the pickup roller. See <a href="#">Device pickup roller on page 75</a> .
The separation pad is dirty or damaged.	Clean the separation pad.  Replace the separation pad. See <a href="#">Device separation pad on page 73</a> .
A sensor is not operating properly.	Check the sensors to make sure that none are jammed. If a sensor cannot be corrected, replace the sensor.

# Functional checks

Use the following procedures to help diagnose and solve problems that occur in the print engine.

## Half self-test functional check

The purpose of the half self-test check is to determine which image-formation process is malfunctioning. The image-formation process can be subdivided into the following stages:

- conditioning stage (charges the drum)
- writing stage (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 paper)
- separation stage (separates the media from the drum)
- fusing stage (applies heat and pressure to make the image on paper permanent)
- cleaning stage (removes excess toner from the drum)

## To perform a half self-test check

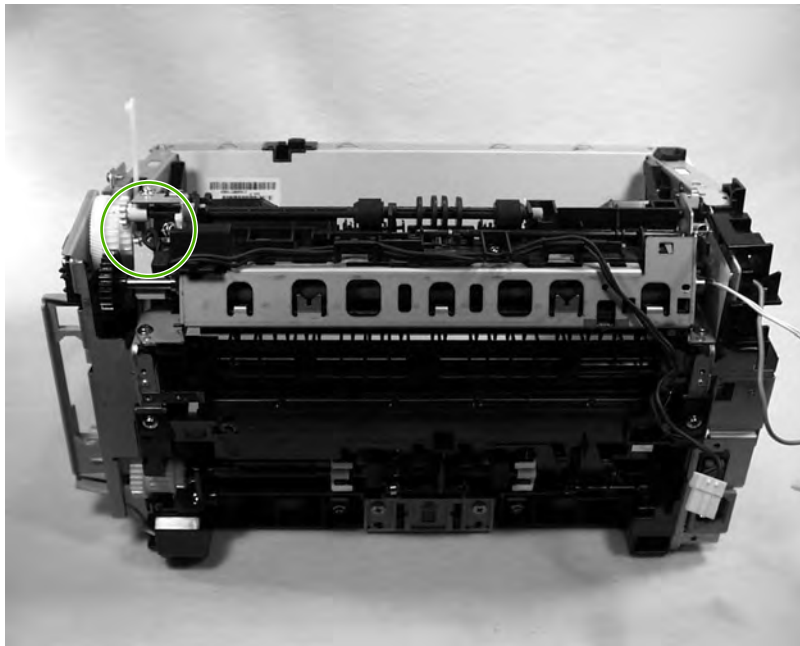
1. Print a configuration report. See [Troubleshooting tools on page 140](#).
2. Open the print cartridge door after the paper advances halfway through the device (about 5 seconds after the motor begins rotation). The leading edge of the paper should have advanced past the print cartridge.
3. Remove the 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 three functions of the image-formation process are functioning (through the development stage). Troubleshoot the failure as a transfer or fusing problem.

## To perform other checks

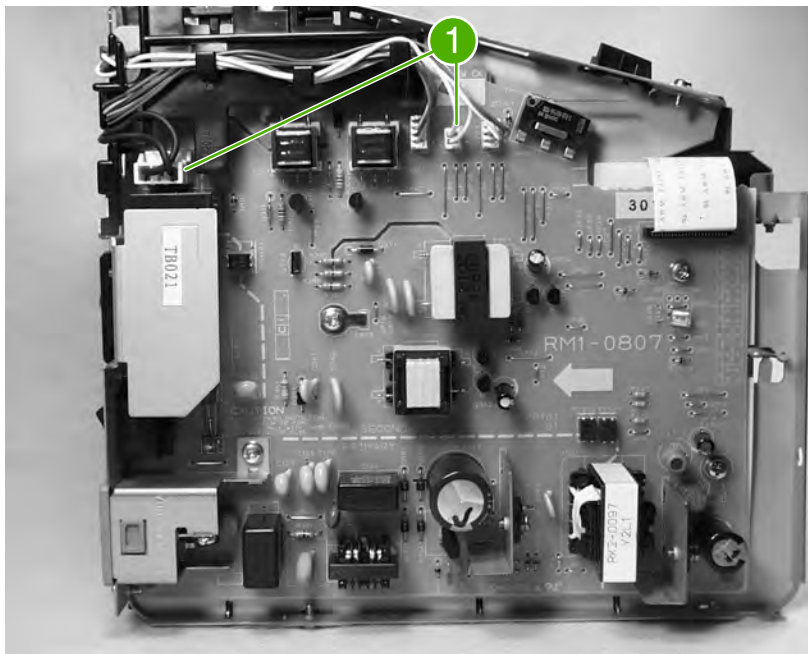
If, during the half self-test check, no image is present on the photosensitive drum, perform these checks:

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. (See [Drum rotation functional check on page 136](#).)
3. Perform a high-voltage power-supply check. (See [High-voltage contacts check on page 137](#).)

If the checks indicate a transfer problem, replace the transfer roller. If the checks indicate a fuser problem, first make sure to check the two wire-harness connectors (J102 and J204; callout 1) on the power supply.



**Figure 7-5** Check the fuser connectors on the fuser



**Figure 7-6** Check the fuser connectors on the power supply

## Drum rotation functional check

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.





---

**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.

## High-voltage contacts check

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

### To check the print-cartridge contacts

Remove the print cartridge and visually inspect the three connection points (callout 1) on the end of the print cartridge. 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.

---



**Figure 7-7** Print-cartridge high-voltage contacts



## Firmware update using a flash executable file

The configuration page lists the firmware version of the device. On the flash-memory-based device, update the firmware code by downloading the latest flash executable file for the device and running the program according to the readme instructions that come with it (see <http://www.hp.com/support/LJm1050>). Turn the device off and then on before running the executable file. If the firmware becomes corrupted or fails (usually because of an interruption when attempting to update the firmware), try to upgrade the firmware a second time. If the device still does not function, it will require a formatter replacement.

## Troubleshooting tools

Use the control panel to print configuration reports and demonstration pages. The configuration report shows the settings that have been selected from the control panel. Printing a configuration report is also considered a "self test" for the device, although any of the reports can serve this purpose. A printout of the control-panel menu structure is a useful reference if you alter settings in the menu.

### Printing a configuration report, demonstration page, or menu structure





1. Press **Menu/Enter**.
2. Use the **<** or **>** button to select **Reports** and then press **Menu/Enter**.
3. Use the **<** or **>** button to select either **Config report** , **Demo Page** , or **Menu Structure** and then press **Menu/Enter**. The device exits the Menu settings and prints the report.

# Service-mode functions

Use the following information to perform system-wide reset procedures and to adjust certain global settings such as the country/region.

## Secondary service menu

Use the secondary service menu to perform various tests and print service reports. The following is a hierarchical diagram of the secondary service menu.

Main menu	Submenu	Submenu
2ndary Service	Service Reports	Cont. Self-Test
		Cont Copy
		Error Report
	Cal graphics	 <b>NOTE</b> Prints graphics used for calibrating the scanner.
	High speed USB	Off On
	Show firmware version	 <b>NOTE</b> Displays the date code of the installed firmware.
	Button test	 <b>NOTE</b> Use this item to test the control-panel buttons.
	Display test	 <b>NOTE</b> Use this item to test the control-panel display.

### To gain access to the secondary service menu

1. Make sure that the control-panel display reads **Ready**.
2. Press **Menu/Enter**.
3. Press **<** and **OK** buttons simultaneously.
4. When the message **Main Menu 2ndary Service** appears on the display, press **OK**.
5. Use the **<** or **>** button to navigate the secondary service menu.
6. To exit the secondary service menu, press **Cancel** to return to the **Ready** display, and then press **cancel** again.

## Adjusting the country/region code parameters

Three situations can occur that necessitate changing the country/region or language settings for the device:

1. The customer has moved to a different country/region from where the device was purchased.
2. The information has been erased because of an NVRAM initialization, or the parameters are set to "undefined."
3. The formatter was replaced.

Use the information in the following sections to adjust the country/region and language settings.

### To change the country/region from one location to another



---

**NOTE** This procedure will restore the NVRAM defaults.

---

1. Turn off the device.
2. Hold down > and **Cancel**, and then turn on the device.
3. Release > and **Cancel**.
4. Select **Language**, and then press **OK**.
5. Select **Location**, and then press **OK**.

### To set the language and location if none is set

If the language and location have been erased because NVRAM has been initialized or the formatter is replaced, the device automatically prompts for the language and the location when it is turned on.

1. Press < or > until the correct language appears.
2. When the correct language appears, press **Menu/Enter**, and then press **1** to confirm the selection. If the location also needs to be set, the device automatically prompts for the location.
3. Press < or > until the correct country/region appears.
4. When the correct country/region appears, press **Menu/Enter**, and then press **1** to confirm the selection.

### NVRAM init

NVRAM init returns most stored parameters to the factory settings. All menu settings are reset to factory default values. Items that are *not* reset include:

- page counts
- factory settings such as formatter number and serial number
- all localization settings, including language and country/region

## To perform NVRAM init

1. Press **OK** to enter the menu.
2. Press **<** or **>** until **Service** appears.
3. Press **OK**.
4. If Restore Defaults is displayed, press **OK**.
5. Press **OK** to reset the defaults.
6. When **Ready** appears on the control-panel display, the NVRAM init is complete.

## System settings for localized products



**NOTE** The list of available country/regions includes all of the country/regions listed in [Table 7-2 System settings on page 143](#) and Chile (default media size letter, default date format ddmmyy, and default time format am/pm), North Africa (default media size A4, default date format ddmmyy, and default time format 24 hour), Jordan (default media size A4, default date format ddmmyy, and default time format am/pm), and Lebanon (default media size A4, default date format ddmmyy, and default time format am/pm).

The default system settings vary for each country/region. The following table lists the default system settings for each country/region. Be sure to reset any user-defined settings that differ from these settings.

**Table 7-2** System settings

Country/region	Default media size <sup>1</sup>
Argentina	Letter
Australia	A4
Austria	A4
Belgium	A4
Brazil	A4
Bulgaria	A4
Canada	Letter
Chile	Letter
China	A4
Croatia	A4
Czech Republic	A4
Denmark	A4
Finland	A4
France	A4
Germany	A4
Greece	A4
Hong Kong SAR	A4

**Table 7-2** System settings (continued)

Country/region	Default media size <sup>1</sup>
Hungary	A4
India	A4
Indonesia	A4
Ireland	A4
Israel	A4
Italy	A4
Jordan	A4
Korea	A4
Lebanon	A4
Luxemburg	A4
Malaysia	A4
Mexico	Letter
Netherlands	A4
New Zealand	A4
North Africa	A4
Norway	A4
Pakistan	A4
Peru	Letter
Philippines	Letter
Poland	A4
Portugal	A4
Romania	A4
Russia	A4
Singapore	A4
Slovak Republic	A4
South Africa	A4
Spain	A4
Sri Lanka	A4
Sweden	A4
Switzerland	A4
Taiwan	A4
Thailand	A4
Turkey	A4
United Kingdom	A4

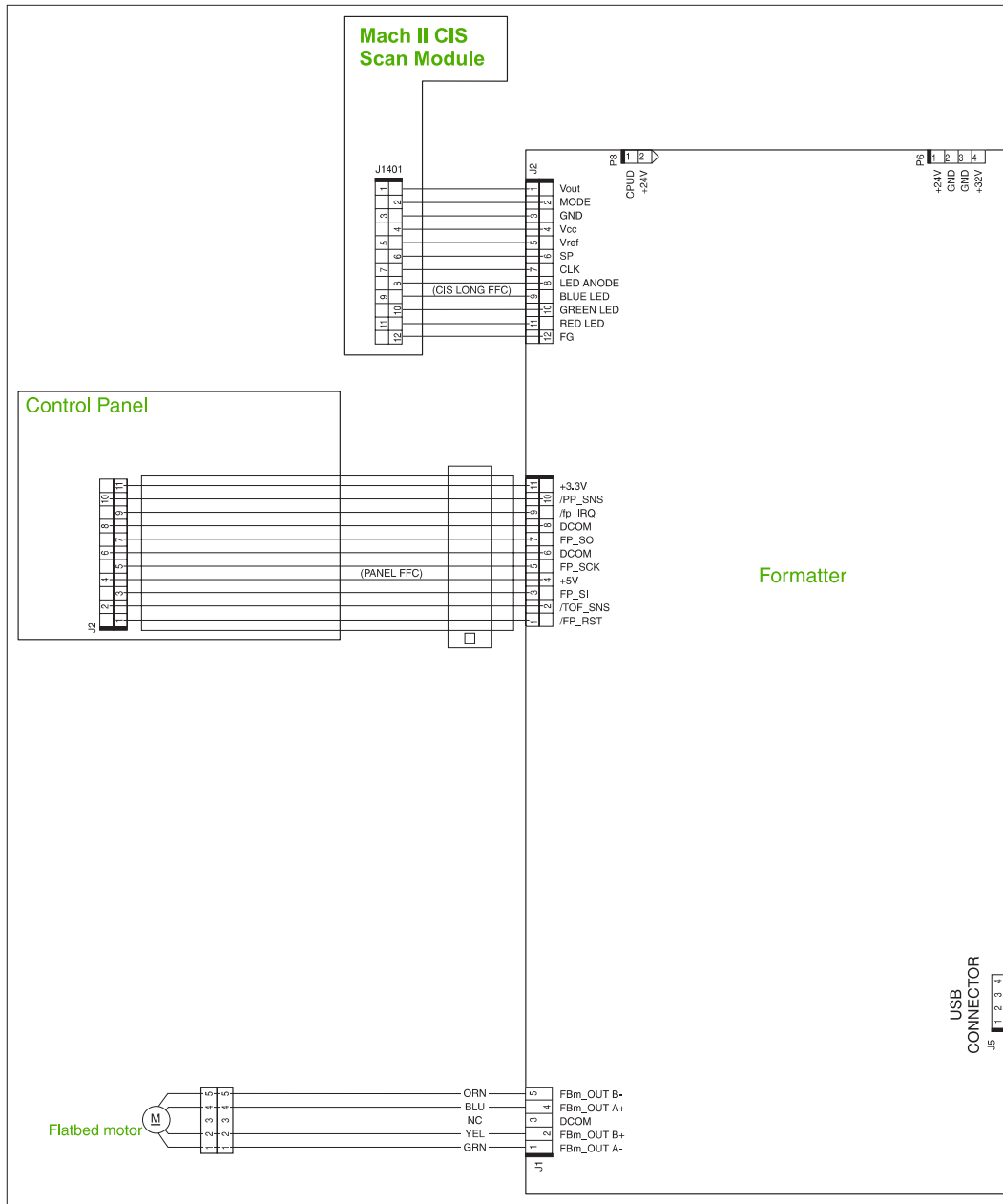


**Table 7-2** System settings (continued)

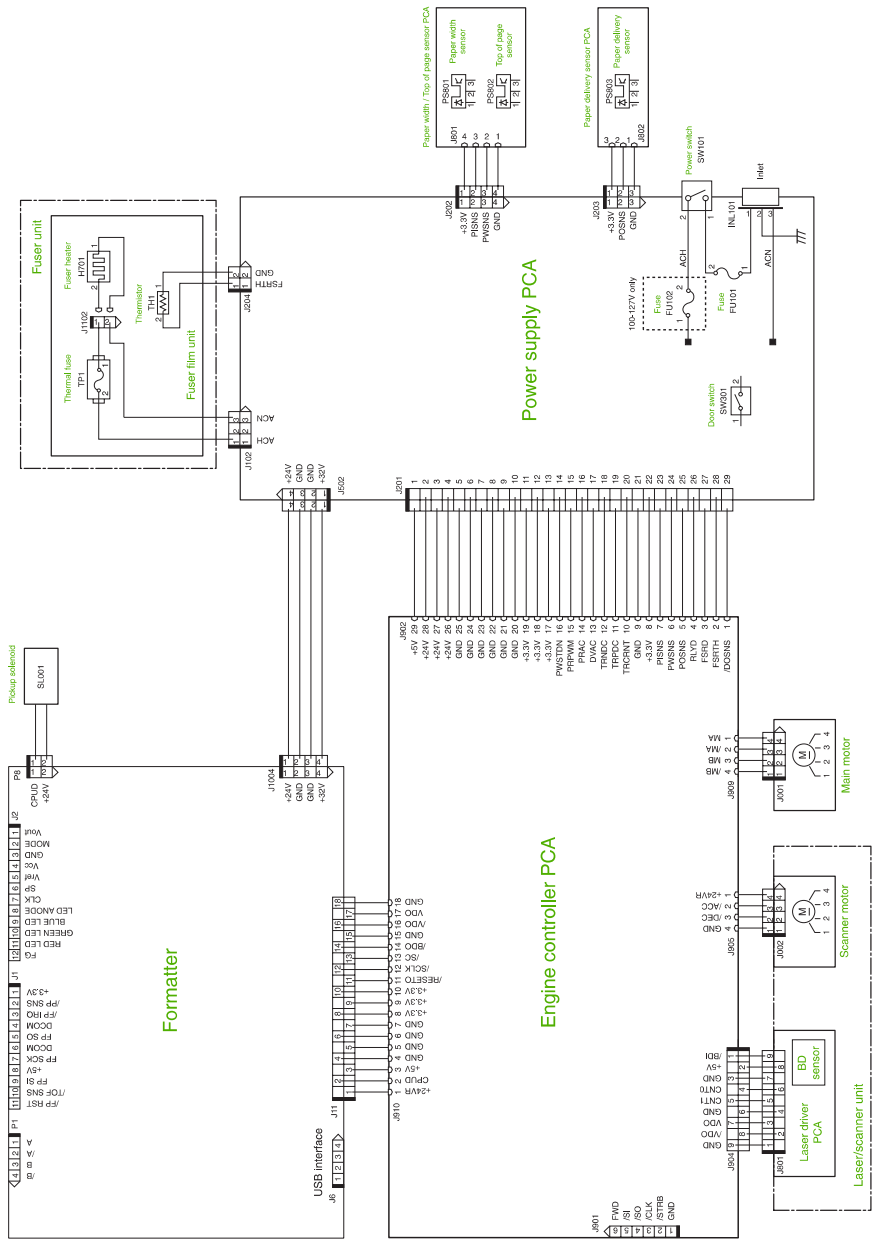
Country/region	Default media size <sup>1</sup>
United States	Letter
Vietnam	A4

<sup>1</sup> The default media-size setting that is listed is the same for the printer input trays.

# Main wiring

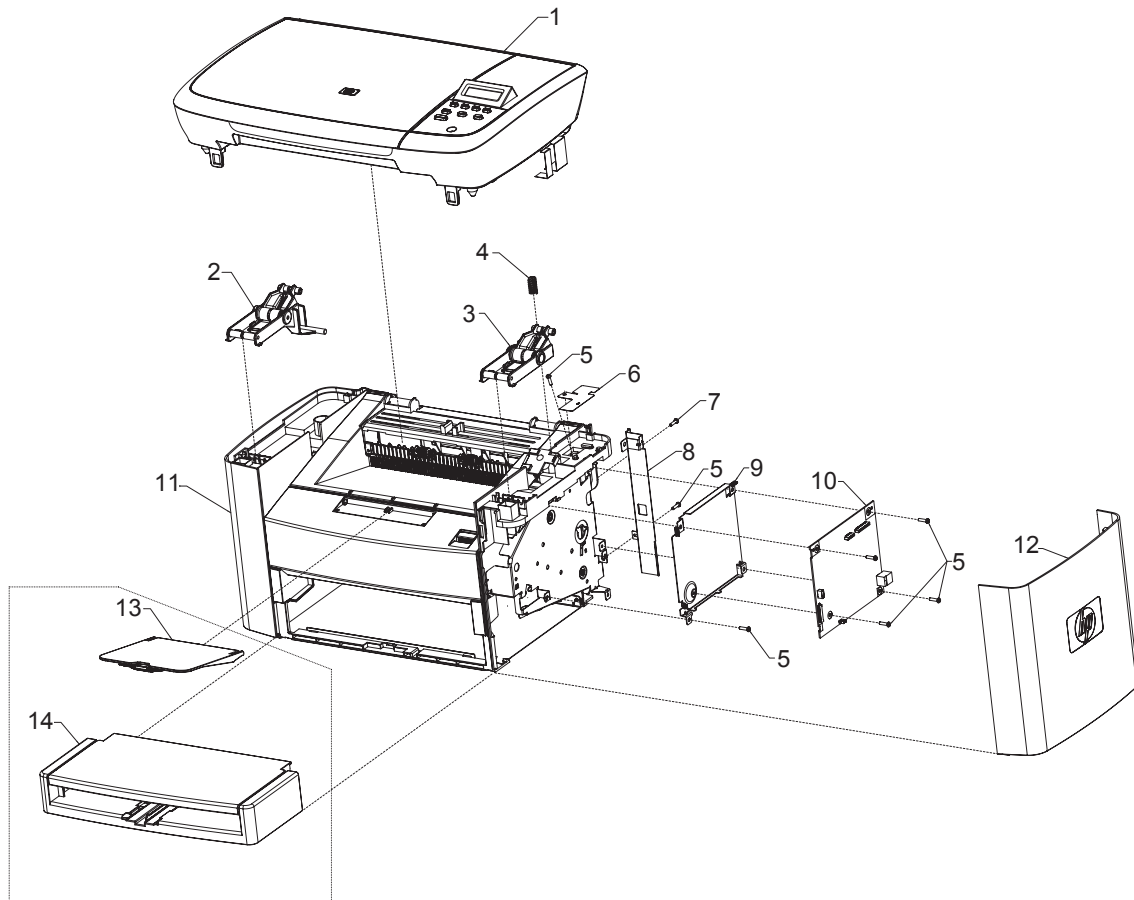


**Figure 7-9** Main wiring, HP LaserJet M1005 MFP scanner assembly



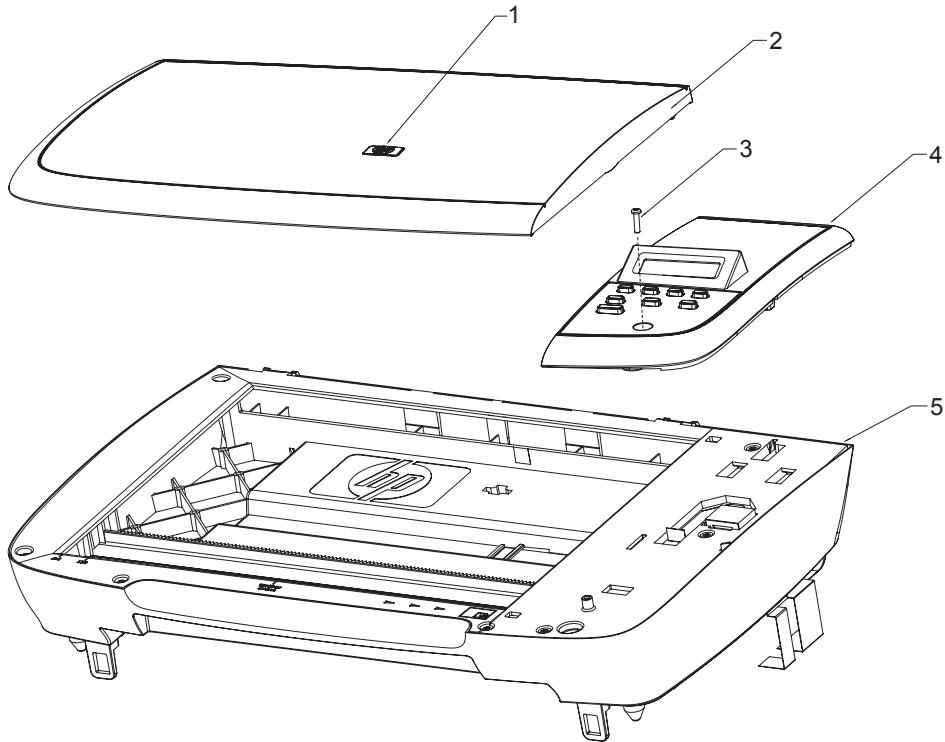
**Figure 7-10** Main wiring, HP LaserJet M1005 MFP device base

## Component locations



**Figure 7-11** HP LaserJet M1005 MFP component locations (1 of 2)

1	Scanner assembly
2	Assembly link, left
3	Assembly link, right
4	Spring, pop-up
5	Screw, M3X0.5
6	ESD shield
7	Screw, M3X0.5
8	Plate, I/O
9	Shield, safety
10	PCA, formatter
11	Printer base
12	Cover, right
13	Output support bin
14	Main input tray (tray 1)



**Figure 7-12** HP LaserJet M1005 MFP component locations (2 of 2)

1	Scanner lid
2	Control panel
3	LJM1005 scanner flatbed assembly



# 8 Parts and diagrams

This chapter contains the following sections.

- [Ordering parts and supplies](#)
- [Accessories](#)
- [Scanner assembly](#)
- [Formatter](#)
- [Whole unit replacement part](#)
- [Alphabetical parts list](#)
- [Numerical parts list](#)
- [Ordering parts and supplies](#)
- [Accessories](#)
- [Scanner assembly](#)
- [Formatter](#)
- [Whole unit replacement part](#)
- [Alphabetical parts list](#)
- [Numerical parts list](#)

# Ordering parts and supplies

## Parts that wear

The parts on the device that wear are listed in [User-replaceable parts on page 32](#) in this manual. Parts are available directly from Hewlett-Packard at the following URL: <http://partsdirect.hp.com>.

## Parts

Order replacement parts from the following website: <https://partsdirect.hp.com/epdo/default/mainmenu.asp>

## World-wide customer support

Order documentation and software from the websites listed in [Table 8-1 Technical support websites and related documentation on page 152](#):

**Table 8-1** Technical support websites and related documentation

<b>HP Connect Online</b> (for HP partners)	<a href="http://www.connect-online.hp.com">http://www.connect-online.hp.com</a>
<b>HP Customer Care Call Centers</b> Information for contacting HP call centers in specific countries/ regions.	<a href="http://www.hp.com/support/callcenters">http://www.hp.com/support/callcenters</a>
<b>HP Online Technical Support</b> Software drivers, support documentation, and answers to frequently asked questions	<a href="http://www.hp.com/support">http://www.hp.com/support</a>
<b>HP Technical Training (North America)</b> Classes and schedules	<a href="http://www.compaq.com/training">http://www.compaq.com/training</a> Note: Select your country/region in the "select a country or region" field at the top, right corner of the page.
<b>Parts</b> Parts information	<a href="http://partsurfer.hp.com">http://partsurfer.hp.com</a>



# Accessories

The following accessories are available for the HP LaserJet M1005 MFP.

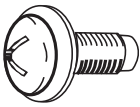
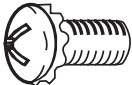
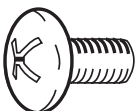
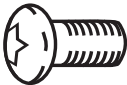
**Table 8-2** Accessories

Product name	Description	Part number
Print cartridge	2,000-page cartridge	Q2612A
Toner cloth	Ideal for wiping up toner spills	5090-3379
Scanner hinge tool	Use this tool to keep the scanner assembly from falling off of the printer when the entire assembly is being removed.	5185-7441
USB cable	2-meter (6.6-foot) USB cable	8121-0539
USB cable	0.6-meter (2-foot) USB cable	8121-0549
Power cord 1.8-meter (6 feet)	U.S./Canada	8120-8382
Power cord 1.8-meter (6 feet)	Europe	8121-0516
Power cord 1.8-meter (6 feet)	UK	8121-0517
Power cord 1.8-meter (6 feet)	Danish	8121-0518
Power cord 1.8-meter (6 feet)	Switzerland	8121-0519
Power cord 1.8-meter (6 feet)	South America	8121-0520
Power cord 1.8-meter (6 feet)	Israel	8121-0521

## Common hardware

The device has four common fasteners. See [Table 8-3 Common fasteners on page 153](#) for a description of these screw types.

**Table 8-3** Common fasteners

Example	Description
	Screw, machine, truss head
	Screw, star
	Screw, self-tapping
	Screw, torx

## How to use the parts lists and diagrams

The figures in this chapter illustrate the major subassemblies in the device and their component parts. A table (material list) follows each detailed assembly diagram. Each table lists the reference designator, the associated part number for the item, and a description of the part.

Parts that have no reference designator or part number are not field-replaceable units (FRUs) and cannot be ordered.

While looking for a part number, pay careful attention to the voltage listed in the description column to make sure that the part number selected is for the correct product model.



# Scanner assembly

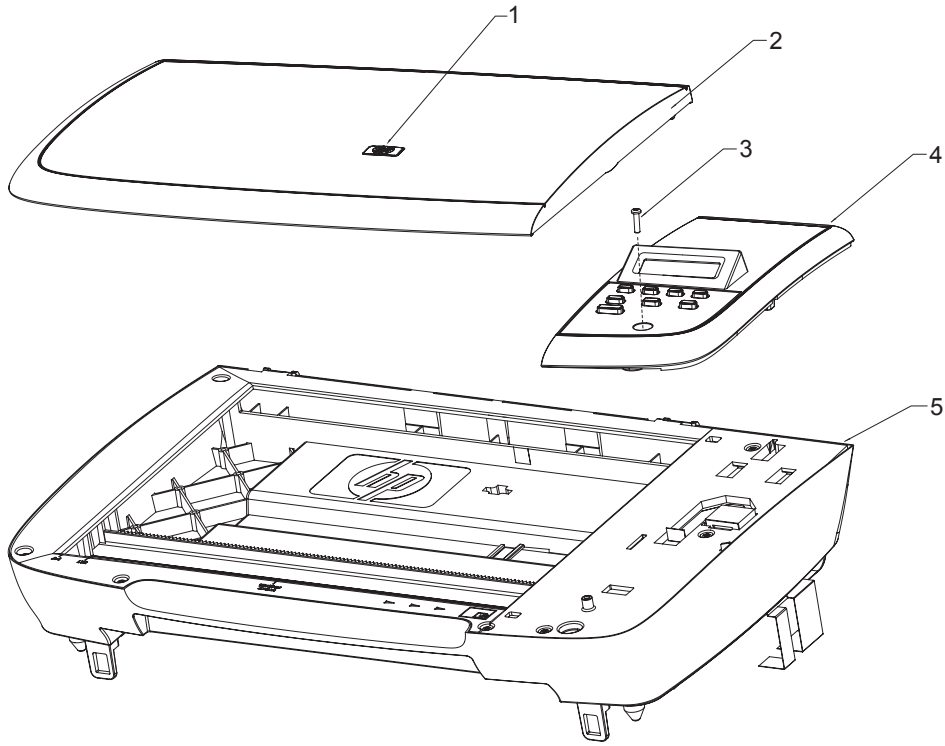


Figure 8-1 Scanner assembly

**Table 8-4** Scanner assembly

Ref	Description	Part number	Qty
1	HP jewel	7121-8285	1
2	Scanner lid	CB376-60105	1
3	Screw	0515-4671	1
4	Control panel	CB376-60101	1
5	LJM1005 scanner assembly	CB376-67901	1
Not Shown	Control-panel overlay; English	CB376-00001	1
Not Shown	Control-panel overlay; French	CB376-00002	1
Not Shown	Control-panel overlay; German	CB376-00003	1
Not Shown	Control-panel overlay; Italian	CB376-00004	1
Not Shown	Control-panel overlay; Spanish	CB376-00005	1
Not Shown	Control-panel overlay; Danish	CB376-00006	1
Not Shown	Control-panel overlay; Dutch	CB376-00007	1
Not Shown	Control-panel overlay; Finnish	CB376-00008	1
Not Shown	Control-panel overlay; Norwegian	CB376-00009	1
Not Shown	Control-panel overlay; Portuguese	CB376-00010	1
Not Shown	Control-panel overlay; Swedish	CB376-00011	1
Not Shown	Control-panel overlay; Czech	CB376-00012	1
Not Shown	Control-panel overlay; Hungarian	CB376-00013	1
Not Shown	Control-panel overlay; Polish	CB376-00014	1
Not Shown	Control-panel overlay; Russian	CB376-00015	1
Not Shown	Control-panel overlay; Slovak	CB376-00016	1
Not Shown	Control-panel overlay; Turkish	CB376-00017	1
Not Shown	Control-panel overlay; Arabic	CB376-00018	1
Not Shown	Control-panel overlay; Greek	CB376-00019	1
Not Shown	Control-panel overlay; Hebrew	CB376-00020	1
Not Shown	Control-panel overlay; Korean	CB376-00021	1
Not Shown	Control-panel overlay; Simplified Chinese	CB376-00022	1
Not Shown	Control-panel overlay; Traditional Chinese	CB376-00023	1
Not Shown	Control-panel overlay; Thai	CB376-00024	1
Not Shown	Control-panel overlay; Vietnamese	CB376-00025	1

# Formatter

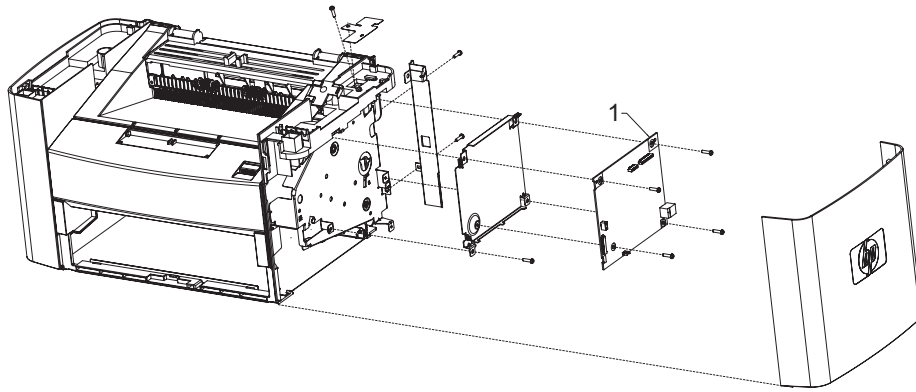
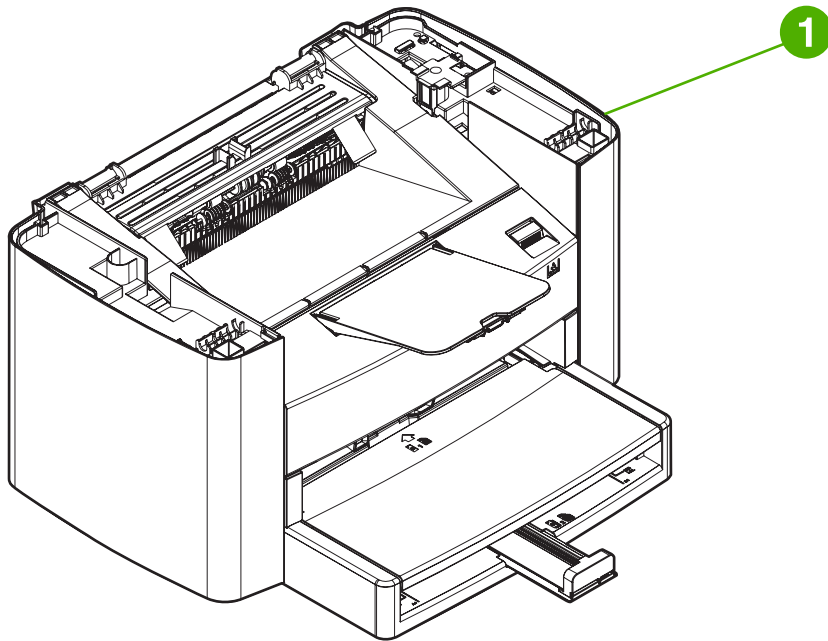


Figure 8-2 Formatter

**Table 8-5** Formatter

<b>Ref</b>	<b>Description</b>	<b>Part number</b>	<b>Qty</b>
1	Formatter	CB397-60001	1

## Whole unit replacement part

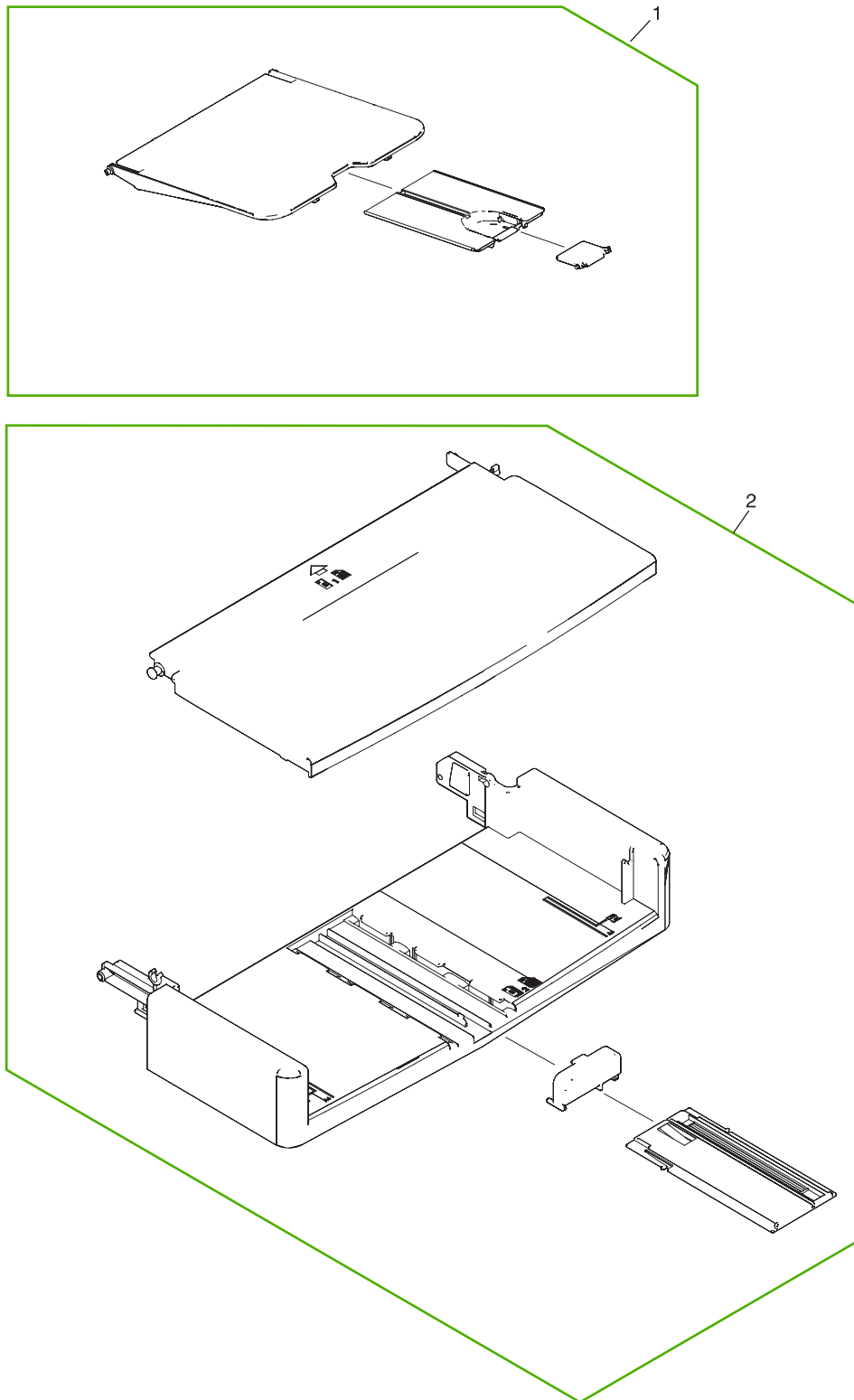


**Figure 8-3** Whole unit replacement part



**Table 8-6** Whole unit replacement part

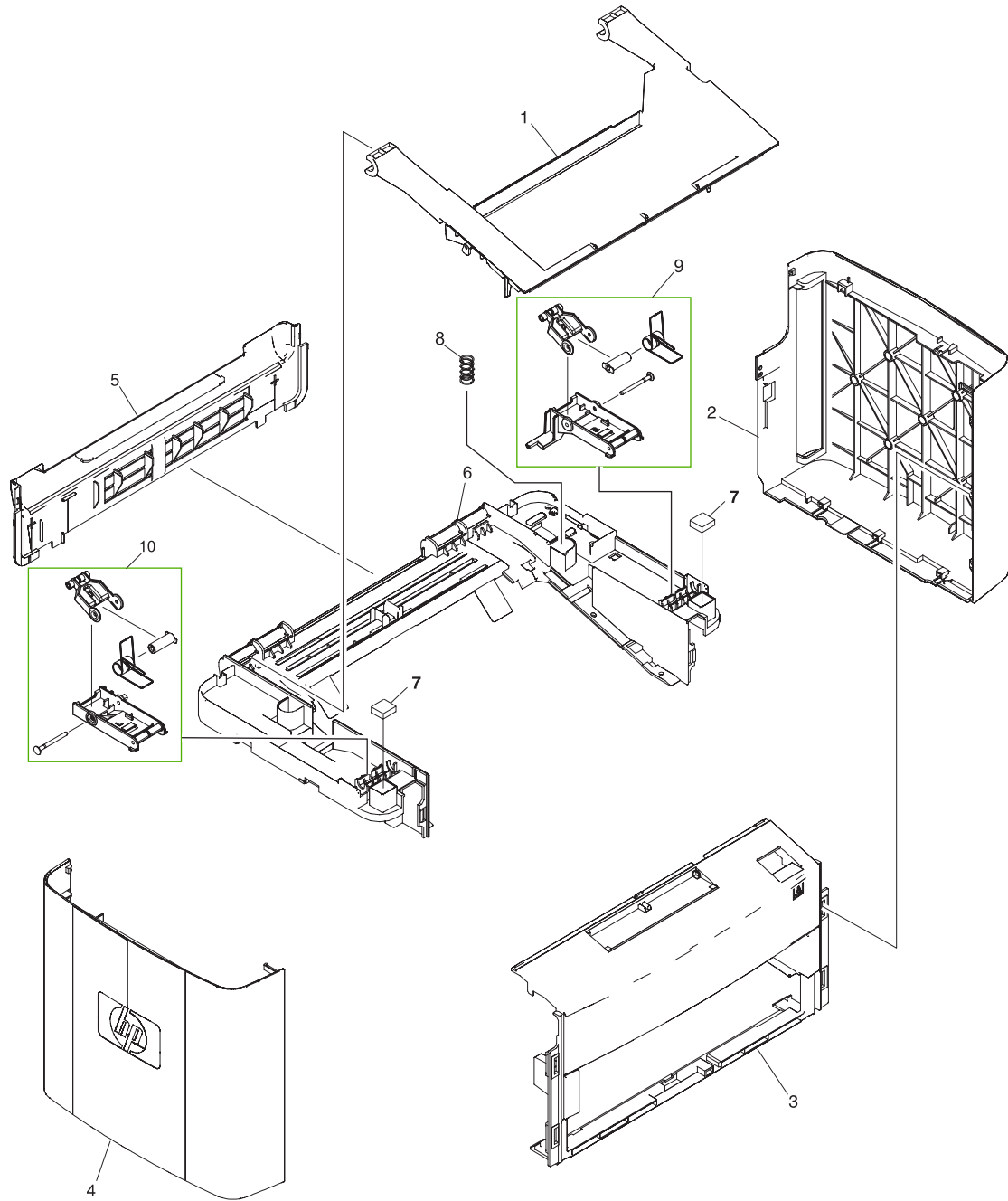
<b>Ref</b>	<b>Description</b>	<b>Part number</b>	<b>Qty</b>
1	HP LaserJet M1005 MFP, replacement 110 V	CB376-67001	1
1	HP LaserJet M1005 MFP, replacement 220 V	CB376-67002	1
1	HP LaserJet M1005 MFP, refurbished 110 V	CB376-69001	1
1	HP LaserJet M1005 MFP, refurbished 220 V	CB376-69002	1
1	HP LaserJet M1005 MFP (complete unit), replacement 110 V	CB376-67056	1
1	HP LaserJet M1005 MFP (complete unit), replacement 220 V	CB376-67055	1
1	HP LaserJet M1005 MFP (complete unit), refurbished 110 V	CB376-69056	1
1	HP LaserJet M1005 MFP (complete unit), refurbished 220 V	CB376-69055	1
1	Print cartridge	Q2612-67901	1



**Figure 8-4** Pickup- and delivery-tray assemblies

**Table 8-7** Pickup- and delivery- tray assemblies

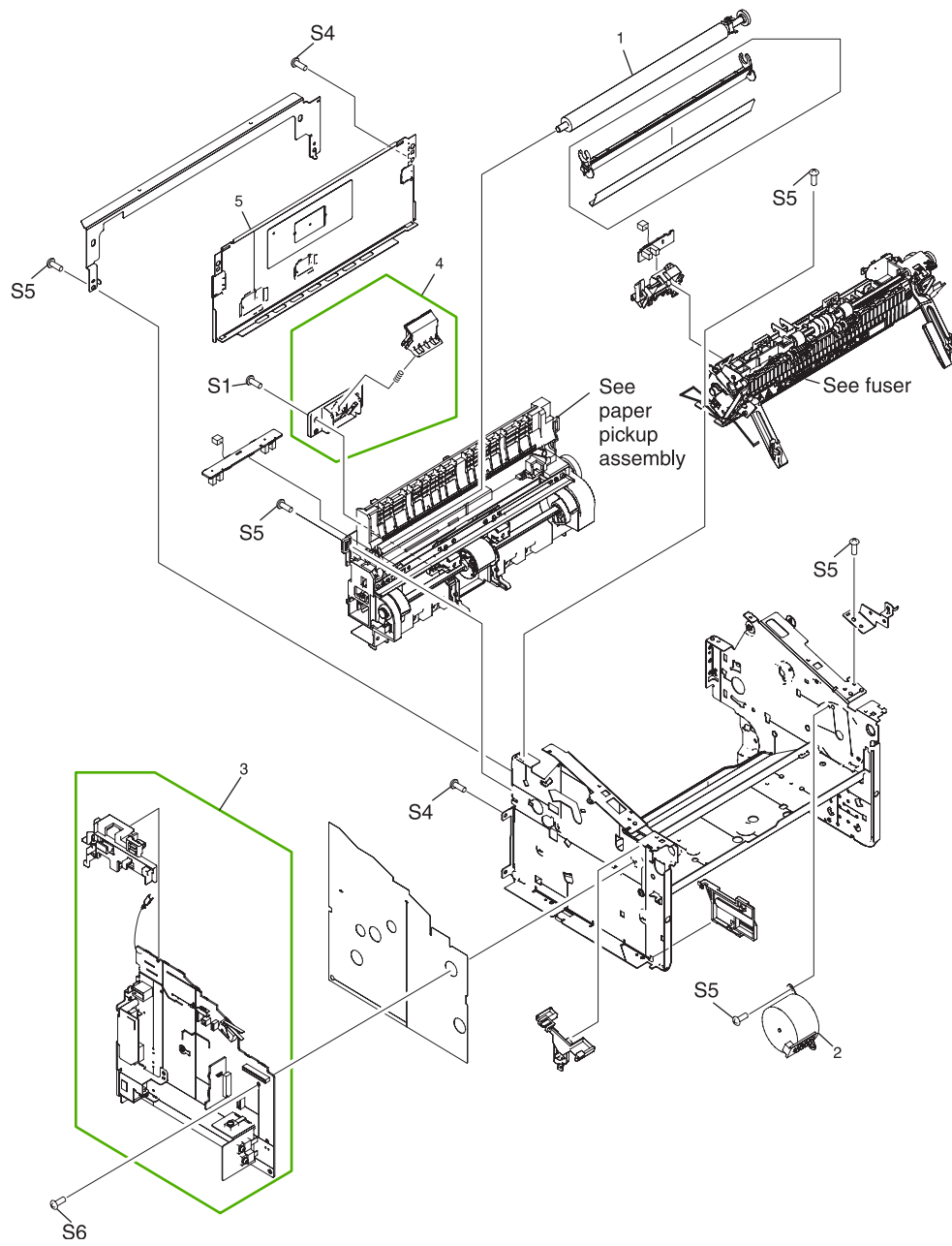
<b>Ref</b>	<b>Description</b>	<b>Part number</b>	<b>Qty</b>
1	Delivery-tray assembly (device output bin)	RM1-0859-000CN	1
2	Pickup-tray assembly	RM1-4305-000CN	1



**Figure 8-5** External covers

**Table 8-8** External covers

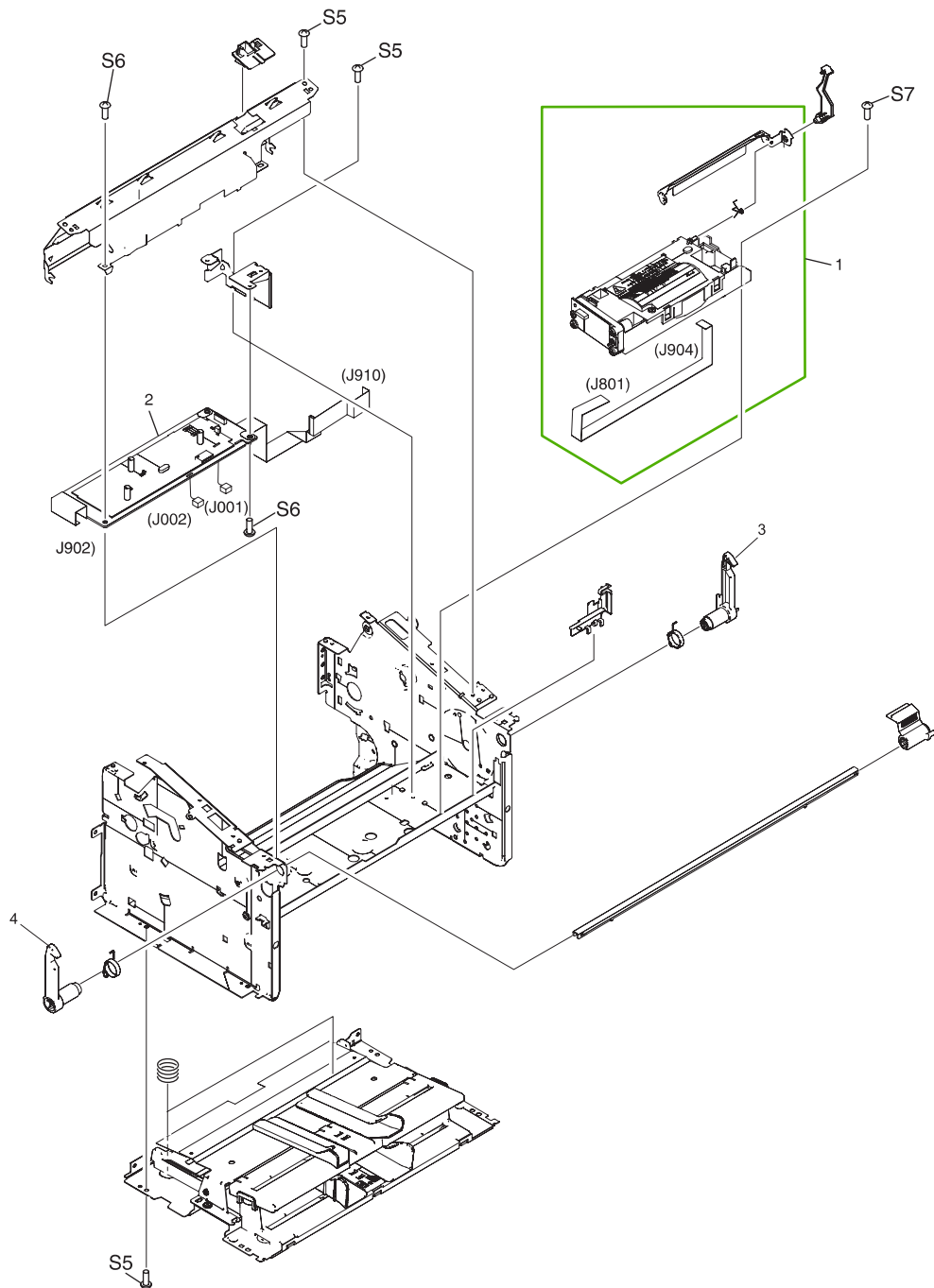
<b>Ref</b>	<b>Description</b>	<b>Part number</b>	<b>Qty</b>
1	Door, print cartridge	RC2-1027-000CN	1
2	Cover, right	RC2-1026-000CN	1
3	Cover, front	RL1-1430-000CN	1
4	Cover, left	RC2-1025-000CN	1
5	Cover, rear	RC1-2474-020CN	1
6	Cover, top (scanner support frame), printer	RL1-1431-000CN	1
7	Scanner cushion	RC1-2476-000CN	1
8	Scanner spring, tension	RU5-2885-000CN	1
9	Scanner-link assembly, right	RM1-3954-000CN	1
10	Scanner-link assembly, left	RM1-3953-000CN	1



**Figure 8-6** Internal components (1 of 3)

**Table 8-9** Internal components (1 of 3)

<b>Ref</b>	<b>Description</b>	<b>Part number</b>	<b>Qty</b>
1	Transfer-roller assembly	RM1-2083-000CN	1
2	Motor, stepping	RK2-0799-000CN	1
3	Power-supply assembly, 110-127 V	RM1-3941-000CN	1
3	Power-supply assembly, 220-240 V	RM1-3942-000CN	1
4	Separation-pad assembly, printer	RL1-0648-000CN	1
5	Panel, rear	RC1-1985-000CN	1
S1	Screw, tap M4X10	XB4-5401-009CN	1
S4	Screw, with washer M3X6	XB2-7300-605CN	2
S5	Screw, rs M3X6	XA9-1495-000CN	5
S6	Screw, rs M3X8	XA9-1420-000CN	1

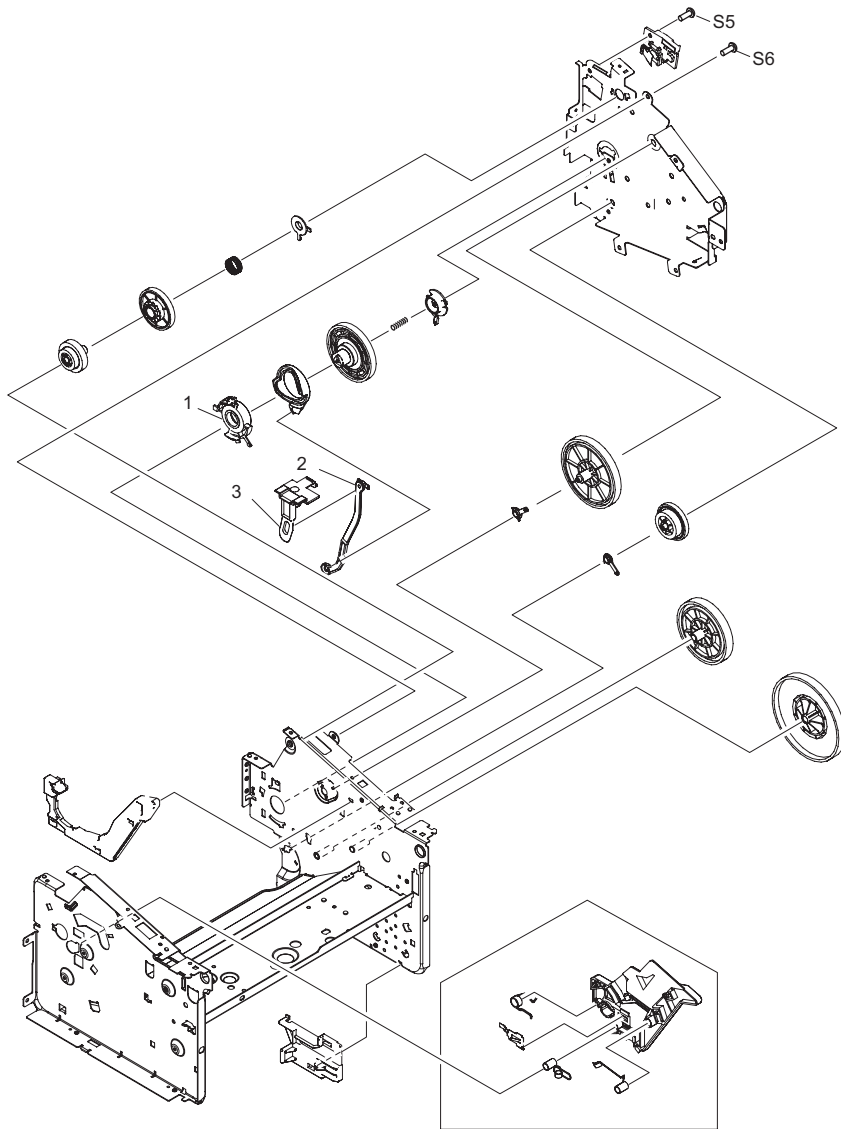


**Figure 8-7** Internal components (2 of 3)



**Table 8-10** Internal components (2 of 3)

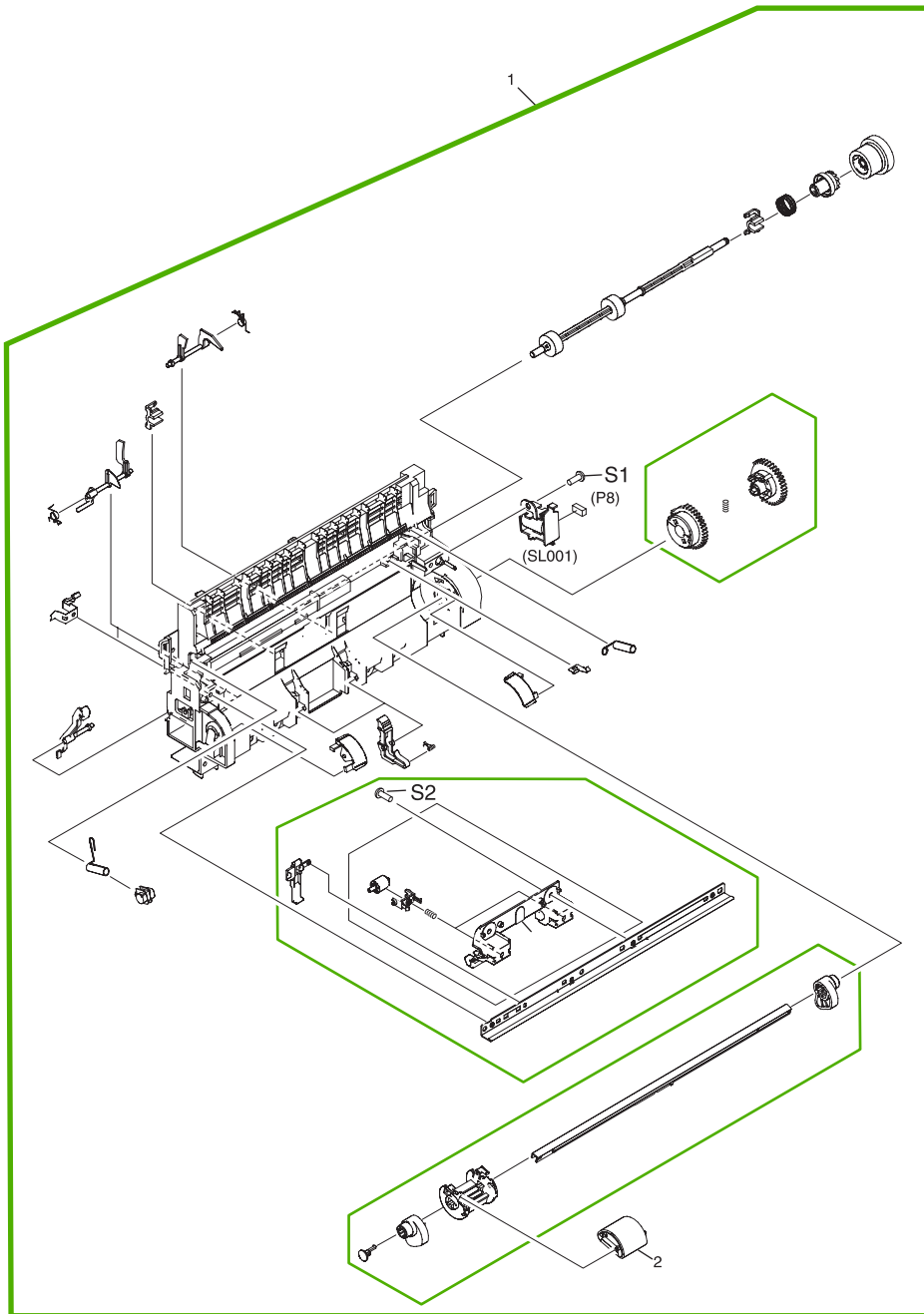
<b>Ref</b>	<b>Description</b>	<b>Part number</b>	<b>Qty</b>
1	Laser-scanner assembly	RM1-2084-000CN	1
2	Engine-controller-PCB assembly (ECU)	RM1-3943-000CN	1
3	Latch, right	RC1-2499-000CN	1
4	Latch, left	RC1-2498-000CN	1
S5	Screw, rs M3X6	XA9-1495-000CN	3
S6	Screw, rs M3X8	XA9-1420-000CN	2
S7	Screw, rs M2X10	XA9-1501-000CN	1



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

**Table 8-11** Internal components (3 of 3)

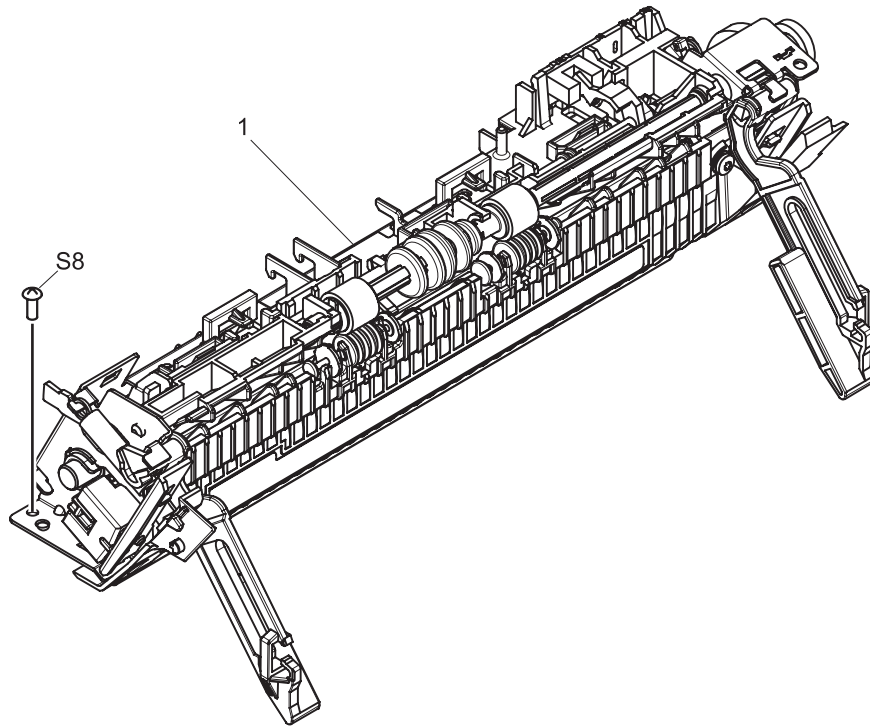
<b>Ref</b>	<b>Description</b>	<b>Part number</b>	<b>Qty</b>
1	Bushing	RC1-1953-000CN	1
2	Link, coupling lower	RC1-2485-000CN	1
3	Link, coupling top	RC1-2494-000CN	1
S5	Screw, rs M3X6	XA9-1495-000CN	2
S6	Screw, rs M3X8	XA9-1420-000CN	1



**Figure 8-9** Paper-pickup assembly

**Table 8-12** Paper-pickup assembly

<b>Ref</b>	<b>Description</b>	<b>Part number</b>	<b>Qty</b>
1	Paper-pickup assembly	RM1-2091-000CN	1
2	Roller, pickup	RL1-0266-000CN	1
S1	Screw, tap M4X10	XB4-5401-009CN	1
S2	Screw, tap BH3X8	XA9-1503-000CN	1



**Figure 8-10** Fuser (fixing assy) assembly

**Table 8-13** Fuser (fixing assy) assembly

<b>Ref</b>	<b>Description</b>	<b>Part number</b>	<b>Qty</b>
1	Fuser (fixing assy) assembly 110-127 V	RM1-3952-000CN	1
1	Fuser (fixing assy) assembly 220-240 V	RM1-3955-000CN	1
S8	Screw, with washer M3X6	XB2-8300-609CN	1

# Alphabetical parts list

**Table 8-14** Alphabetical parts list

Description	Part number	Table and page
Bushing	RC1–1953–000CN	<a href="#">Internal components (3 of 3) on page 171</a>
Control panel	CB376–60101	<a href="#">Scanner assembly on page 157</a>
Control-panel overlay; Arabic	CB376–00018	<a href="#">Scanner assembly on page 157</a>
Control-panel overlay; Czech	CB376–00012	<a href="#">Scanner assembly on page 157</a>
Control-panel overlay; Danish	CB376–00006	<a href="#">Scanner assembly on page 157</a>
Control-panel overlay; Dutch	CB376–00007	<a href="#">Scanner assembly on page 157</a>
Control-panel overlay; English	CB376–00001	<a href="#">Scanner assembly on page 157</a>
Control-panel overlay; Finnish	CB376–00008	<a href="#">Scanner assembly on page 157</a>
Control-panel overlay; French	CB376–00002	<a href="#">Scanner assembly on page 157</a>
Control-panel overlay; German	CB376–00003	<a href="#">Scanner assembly on page 157</a>
Control-panel overlay; Greek	CB376–00019	<a href="#">Scanner assembly on page 157</a>
Control-panel overlay; Hebrew	CB376–00020	<a href="#">Scanner assembly on page 157</a>
Control-panel overlay; Hungarian	CB376–00013	<a href="#">Scanner assembly on page 157</a>
Control-panel overlay; Italian	CB376–00004	<a href="#">Scanner assembly on page 157</a>
Control-panel overlay; Korean	CB376–00021	<a href="#">Scanner assembly on page 157</a>
Control-panel overlay; Norwegian	CB376–00009	<a href="#">Scanner assembly on page 157</a>
Control-panel overlay; Polish	CB376–00014	<a href="#">Scanner assembly on page 157</a>
Control-panel overlay; Portuguese	CB376–00010	<a href="#">Scanner assembly on page 157</a>
Control-panel overlay; Russian	CB376–00015	<a href="#">Scanner assembly on page 157</a>
Control-panel overlay; Simplified Chinese	CB376–00022	<a href="#">Scanner assembly on page 157</a>



**Table 8-14** Alphabetical parts list (continued)

Description	Part number	Table and page
Control-panel overlay; Slovak	CB376-00016	<a href="#">Scanner assembly on page 157</a>
Control-panel overlay; Spanish	CB376-00005	<a href="#">Scanner assembly on page 157</a>
Control-panel overlay; Swedish	CB376-00011	<a href="#">Scanner assembly on page 157</a>
Control-panel overlay; Thai	CB376-00024	<a href="#">Scanner assembly on page 157</a>
Control-panel overlay; Traditional Chinese	CB376-00023	<a href="#">Scanner assembly on page 157</a>
Control-panel overlay; Turkish	CB376-00017	<a href="#">Scanner assembly on page 157</a>
Control-panel overlay; Vietnamese	CB376-00025	<a href="#">Scanner assembly on page 157</a>
Cover, front	RL1-1430-000CN	<a href="#">External covers on page 165</a>
Cover, left	RC2-1025-000CN	<a href="#">External covers on page 165</a>
Cover, rear	RC1-2474-020CN	<a href="#">External covers on page 165</a>
Cover, right	RC2-1026-000CN	<a href="#">External covers on page 165</a>
Cover, top (scanner support frame), printer	RL1-1431-000CN	<a href="#">External covers on page 165</a>
Delivery-tray assembly (device output bin)	RM1-0859-000CN	<a href="#">Pickup- and delivery- tray assemblies on page 163</a>
Door, print cartridge	RC2-1027-000CN	<a href="#">External covers on page 165</a>
Engine-controller-PCB assembly (ECU)	RM1-3943-000CN	<a href="#">Internal components (2 of 3) on page 169</a>
Formatter	CB397-60001	<a href="#">Formatter on page 159</a>
Fuser (fixing assy) assembly 110-127 V	RM1-3952-000CN	<a href="#">Fuser (fixing assy) assembly on page 175</a>
Fuser (fixing assy) assembly 220-240 V	RM1-3955-000CN	<a href="#">Fuser (fixing assy) assembly on page 175</a>
HP jewel	7121-8285	<a href="#">Scanner assembly on page 157</a>
HP LaserJet M1005 MFP (complete unit), refurbished 110 V	CB376-69056	<a href="#">Whole unit replacement part on page 161</a>
HP LaserJet M1005 MFP (complete unit), refurbished 220 V	CB376-69055	<a href="#">Whole unit replacement part on page 161</a>
HP LaserJet M1005 MFP (complete unit), replacement 110 V	CB376-67056	<a href="#">Whole unit replacement part on page 161</a>
HP LaserJet M1005 MFP (complete unit), replacement 220 V	CB376-67055	<a href="#">Whole unit replacement part on page 161</a>
HP LaserJet M1005 MFP, refurbished 110 V	CB376-69001	<a href="#">Whole unit replacement part on page 161</a>

**Table 8-14** Alphabetical parts list (continued)

Description	Part number	Table and page
HP LaserJet M1005 MFP, refurbished 220 V	CB376–69002	<a href="#">Whole unit replacement part on page 161</a>
HP LaserJet M1005 MFP, replacement 110 V	CB376–67001	<a href="#">Whole unit replacement part on page 161</a>
HP LaserJet M1005 MFP, replacement 220 V	CB376–67002	<a href="#">Whole unit replacement part on page 161</a>
Laser-scanner assembly	RM1–2084–000CN	<a href="#">Internal components (2 of 3) on page 169</a>
Latch, left	RC1-2498-000CN	<a href="#">Internal components (2 of 3) on page 169</a>
Latch, right	RC1-2499-000CN	<a href="#">Internal components (2 of 3) on page 169</a>
Link, coupling lower	RC1-2485–000CN	<a href="#">Internal components (3 of 3) on page 171</a>
Link, coupling top	RC1–2494–000CN	<a href="#">Internal components (3 of 3) on page 171</a>
LJM1005 scanner assembly	CB376-67901	<a href="#">Scanner assembly on page 157</a>
Motor, stepping	RK2–0799–000CN	<a href="#">Internal components (1 of 3) on page 167</a>
Panel, rear	RC1–1985–000CN	<a href="#">Internal components (1 of 3) on page 167</a>
Paper-pickup assembly	RM1–2091–000CN	<a href="#">Paper-pickup assembly on page 173</a>
Pickup-tray assembly	RM1–4305–000CN	<a href="#">Pickup- and delivery- tray assemblies on page 163</a>
Power-supply assembly, 110–127 V	RM1–3941–000CN	<a href="#">Internal components (1 of 3) on page 167</a>
Power-supply assembly, 220–240 V	RM1–3942–000CN	<a href="#">Internal components (1 of 3) on page 167</a>
Print cartridge	Q2612–67901	<a href="#">Whole unit replacement part on page 161</a>
Roller, pickup	RL1-0266–000CN	<a href="#">Paper-pickup assembly on page 173</a>
Scanner cushion	RC1-2476-000CN	<a href="#">External covers on page 165</a>
Scanner lid	CB376–60105	<a href="#">Scanner assembly on page 157</a>
Scanner spring, tension	RU5-2885-000CN	<a href="#">External covers on page 165</a>
Scanner-link assembly, left	RM1-3953-000CN	<a href="#">External covers on page 165</a>
Scanner-link assembly, right	RM1-3954-000CN	<a href="#">External covers on page 165</a>
Screw	0515–4671	<a href="#">Scanner assembly on page 157</a>

**Table 8-14** Alphabetical parts list (continued)

Description	Part number	Table and page
Screw, rs M2X10	XA9-1501-000CN	<a href="#">Internal components (2 of 3) on page 169</a>
Screw, rs M3X6	XA9-1495-000CN	<a href="#">Internal components (1 of 3) on page 167</a>
Screw, rs M3X6	XA9-1495-000CN	<a href="#">Internal components (2 of 3) on page 169</a>
Screw, rs M3X6	XA9-1495-000CN	<a href="#">Internal components (3 of 3) on page 171</a>
Screw, rs M3X8	XA9-1420-000CN	<a href="#">Internal components (1 of 3) on page 167</a>
Screw, rs M3X8	XA9-1420-000CN	<a href="#">Internal components (2 of 3) on page 169</a>
Screw, rs M3X8	XA9-1420-000CN	<a href="#">Internal components (3 of 3) on page 171</a>
Screw, tap BH3X8	XA9-1503-000CN	<a href="#">Paper-pickup assembly on page 173</a>
Screw, tap M4X10	XB4-5401-009CN	<a href="#">Internal components (1 of 3) on page 167</a>
Screw, tap M4X10	XB4-5401-009CN	<a href="#">Paper-pickup assembly on page 173</a>
Screw, with washer M3X6	XB2-7300-605CN	<a href="#">Internal components (1 of 3) on page 167</a>
Screw, with washer M3X6	XB2-8300-609CN	<a href="#">Fuser (fixing assy) assembly on page 175</a>
Separation-pad assembly, printer	RL1-0648-000CN	<a href="#">Internal components (1 of 3) on page 167</a>
Transfer-roller assembly	RM1-2083-000CN	<a href="#">Internal components (1 of 3) on page 167</a>

# Numerical parts list

**Table 8-15** Numerical parts list

Part number	Description	Table and page
0515-4671	Screw	<a href="#">Scanner assembly on page 157</a>
7121-8285	HP jewel	<a href="#">Scanner assembly on page 157</a>
CB376-00024	Control-panel overlay; Thai	<a href="#">Scanner assembly on page 157</a>
CB376-00025	Control-panel overlay; Vietnamese	<a href="#">Scanner assembly on page 157</a>
CB376-67901	LJM1005 scanner assembly	<a href="#">Scanner assembly on page 157</a>
CB376-00001	Control-panel overlay; English	<a href="#">Scanner assembly on page 157</a>
CB376-00002	Control-panel overlay; French	<a href="#">Scanner assembly on page 157</a>
CB376-00003	Control-panel overlay; German	<a href="#">Scanner assembly on page 157</a>
CB376-00004	Control-panel overlay; Italian	<a href="#">Scanner assembly on page 157</a>
CB376-00005	Control-panel overlay; Spanish	<a href="#">Scanner assembly on page 157</a>
CB376-00006	Control-panel overlay; Danish	<a href="#">Scanner assembly on page 157</a>
CB376-00007	Control-panel overlay; Dutch	<a href="#">Scanner assembly on page 157</a>
CB376-00008	Control-panel overlay; Finnish	<a href="#">Scanner assembly on page 157</a>
CB376-00009	Control-panel overlay; Norwegian	<a href="#">Scanner assembly on page 157</a>
CB376-00010	Control-panel overlay; Portuguese	<a href="#">Scanner assembly on page 157</a>
CB376-00011	Control-panel overlay; Swedish	<a href="#">Scanner assembly on page 157</a>
CB376-00012	Control-panel overlay; Czech	<a href="#">Scanner assembly on page 157</a>
CB376-00013	Control-panel overlay; Hungarian	<a href="#">Scanner assembly on page 157</a>
CB376-00014	Control-panel overlay; Polish	<a href="#">Scanner assembly on page 157</a>
CB376-00015	Control-panel overlay; Russian	<a href="#">Scanner assembly on page 157</a>

**Table 8-15** Numerical parts list (continued)

<b>Part number</b>	<b>Description</b>	<b>Table and page</b>
CB376-00016	Control-panel overlay; Slovak	<a href="#">Scanner assembly on page 157</a>
CB376-00017	Control-panel overlay; Turkish	<a href="#">Scanner assembly on page 157</a>
CB376-00018	Control-panel overlay; Arabic	<a href="#">Scanner assembly on page 157</a>
CB376-00019	Control-panel overlay; Greek	<a href="#">Scanner assembly on page 157</a>
CB376-00020	Control-panel overlay; Hebrew	<a href="#">Scanner assembly on page 157</a>
CB376-00021	Control-panel overlay; Korean	<a href="#">Scanner assembly on page 157</a>
CB376-00022	Control-panel overlay; Simplified Chinese	<a href="#">Scanner assembly on page 157</a>
CB376-00023	Control-panel overlay; Traditional Chinese	<a href="#">Scanner assembly on page 157</a>
CB376-60101	Control panel	<a href="#">Scanner assembly on page 157</a>
CB376-60105	Scanner lid	<a href="#">Scanner assembly on page 157</a>
CB376-67001	HP LaserJet M1005 MFP, replacement 110 V	<a href="#">Whole unit replacement part on page 161</a>
CB376-67002	HP LaserJet M1005 MFP, replacement 220 V	<a href="#">Whole unit replacement part on page 161</a>
CB376-67055	HP LaserJet M1005 MFP (complete unit), replacement 220 V	<a href="#">Whole unit replacement part on page 161</a>
CB376-67056	HP LaserJet M1005 MFP (complete unit), replacement 110 V	<a href="#">Whole unit replacement part on page 161</a>
CB376-69001	HP LaserJet M1005 MFP, refurbished 110 V	<a href="#">Whole unit replacement part on page 161</a>
CB376-69002	HP LaserJet M1005 MFP, refurbished 220 V	<a href="#">Whole unit replacement part on page 161</a>
CB376-69055	HP LaserJet M1005 MFP (complete unit), refurbished 220 V	<a href="#">Whole unit replacement part on page 161</a>
CB376-69056	HP LaserJet M1005 MFP (complete unit), refurbished 110 V	<a href="#">Whole unit replacement part on page 161</a>
CB397-60001	Formatter	<a href="#">Formatter on page 159</a>
Q2612-67901	Print cartridge	<a href="#">Whole unit replacement part on page 161</a>
RC1-2474-020CN	Cover, rear	<a href="#">External covers on page 165</a>
RC1-2476-000CN	Scanner cushion	<a href="#">External covers on page 165</a>
RC1-2485-000CN	Link, coupling lower	<a href="#">Internal components (3 of 3) on page 171</a>

**Table 8-15** Numerical parts list (continued)

Part number	Description	Table and page
RC1-2498-000CN	Latch, left	<a href="#">Internal components (2 of 3) on page 169</a>
RC1-2499-000CN	Latch, right	<a href="#">Internal components (2 of 3) on page 169</a>
RC1-1953-000CN	Bushing	<a href="#">Internal components (3 of 3) on page 171</a>
RC1-1985-000CN	Panel, rear	<a href="#">Internal components (1 of 3) on page 167</a>
RC1-2494-000CN	Link, coupling top	<a href="#">Internal components (3 of 3) on page 171</a>
RC2-1025-000CN	Cover, left	<a href="#">External covers on page 165</a>
RC2-1026-000CN	Cover, right	<a href="#">External covers on page 165</a>
RC2-1027-000CN	Door, print cartridge	<a href="#">External covers on page 165</a>
RK2-0799-000CN	Motor, stepping	<a href="#">Internal components (1 of 3) on page 167</a>
RL1-0266-000CN	Roller, pickup	<a href="#">Paper-pickup assembly on page 173</a>
RL1-1430-000CN	Cover, front	<a href="#">External covers on page 165</a>
RL1-1431-000CN	Cover, top (scanner support frame), printer	<a href="#">External covers on page 165</a>
RL1-0648-000CN	Separation-pad assembly, printer	<a href="#">Internal components (1 of 3) on page 167</a>
RM1-3943-000CN	Engine-controller-PCB assembly (ECU)	<a href="#">Internal components (2 of 3) on page 169</a>
RM1-3952-000CN	Fuser (fixing assy) assembly 110-127 V	<a href="#">Fuser (fixing assy) assembly on page 175</a>
RM1-3953-000CN	Scanner-link assembly, left	<a href="#">External covers on page 165</a>
RM1-3954-000CN	Scanner-link assembly, right	<a href="#">External covers on page 165</a>
RM1-3955-000CN	Fuser (fixing assy) assembly 220-240 V	<a href="#">Fuser (fixing assy) assembly on page 175</a>
RM1-0859-000CN	Delivery-tray assembly (device output bin)	<a href="#">Pickup- and delivery- tray assemblies on page 163</a>
RM1-2083-000CN	Transfer-roller assembly	<a href="#">Internal components (1 of 3) on page 167</a>
RM1-2084-000CN	Laser-scanner assembly	<a href="#">Internal components (2 of 3) on page 169</a>
RM1-2091-000CN	Paper-pickup assembly	<a href="#">Paper-pickup assembly on page 173</a>
RM1-3941-000CN	Power-supply assembly, 110-127 V	<a href="#">Internal components (1 of 3) on page 167</a>
RM1-3942-000CN	Power-supply assembly, 220-240 V	<a href="#">Internal components (1 of 3) on page 167</a>

**Table 8-15** Numerical parts list (continued)

<b>Part number</b>	<b>Description</b>	<b>Table and page</b>
RM1-4305-000CN	Pickup-tray assembly	<a href="#">Pickup- and delivery- tray assemblies on page 163</a>
RU5-2885-000CN	Scanner spring, tension	<a href="#">External covers on page 165</a>
XA9-1420-000CN	Screw, rs M3X8	<a href="#">Internal components (1 of 3) on page 167</a>
XA9-1420-000CN	Screw, rs M3X8	<a href="#">Internal components (2 of 3) on page 169</a>
XA9-1420-000CN	Screw, rs M3X8	<a href="#">Internal components (3 of 3) on page 171</a>
XA9-1495-000CN	Screw, rs M3X6	<a href="#">Internal components (1 of 3) on page 167</a>
XA9-1495-000CN	Screw, rs M3X6	<a href="#">Internal components (2 of 3) on page 169</a>
XA9-1495-000CN	Screw, rs M3X6	<a href="#">Internal components (3 of 3) on page 171</a>
XA9-1501-000CN	Screw, rs M2X10	<a href="#">Internal components (2 of 3) on page 169</a>
XA9-1503-000CN	Screw, tap BH3X8	<a href="#">Paper-pickup assembly on page 173</a>
XB2-8300-609CN	Screw, with washer M3X6	<a href="#">Fuser (fixing assy) assembly on page 175</a>
XB2-7300-605CN	Screw, with washer M3X6	<a href="#">Internal components (1 of 3) on page 167</a>
XB4-5401-009CN	Screw, tap M4X10	<a href="#">Internal components (1 of 3) on page 167</a>
XB4-5401-009CN	Screw, tap M4X10	<a href="#">Paper-pickup assembly on page 173</a>





# A Device specifications

This section contains the following information about the device:

- [Physical specifications](#)
- [Electrical specifications](#)
- [Power consumption](#)
- [Environmental specifications](#)
- [Acoustic emissions](#)

## Physical specifications

**Table A-1** Physical specifications

Height	Depth	Width	Weight <sup>1</sup>
308 mm (12.13 inches)	363 mm (14.3 inches)	437 mm (17.2 inches)	8.3 kg (18.4 lb)

<sup>1</sup> Weight does not include print cartridge, which weighs 0.7 kg (1.5 lb).

## Electrical specifications



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

**Table A-2** Electrical specifications

Item	110-volt models	220-volt models
Power requirements	110 to 127 V (+/- 10%)	220 to 240 V (+/- 10%)
	50 / 60 Hz (+/- 2 Hz)	50 / 60X Hz (+/- 2 Hz)
Rated current	3.5 A	2.5 A

## Power consumption

**Table A-3** Power consumption (average, in watts)<sup>1,2</sup>

Printing	Copying	Ready/Sleep <sup>3</sup>	Off
227 W	227 W	6 W	0.1 W

<sup>1</sup> Values are based on preliminary data. For updated information, go to [www.hp.com/support/LJm\\_1005](http://www.hp.com/support/LJm_1005).

<sup>2</sup> Power reported is highest values measured for monochrome printing/copying using all standard voltages.

<sup>3</sup> The default time from Ready mode to Sleep mode and the recovery time from Sleep mode to start of printing is less than 10 seconds because of instant-on fusing.

<sup>4</sup> Maximum heat dissipation for all models in Ready mode = 24 BTU/hour.

<sup>5</sup> Print speed is 15 ppm letter-size and 14 ppm A4-size.

## Environmental specifications

**Table A-4** Environmental specifications

	Recommended <sup>1</sup>	Operating <sup>1</sup>	Storage <sup>1</sup>
(Device and print cartridge)	20° to 27°C	15° to 32.5°C	0° to 40°C
Temperature	(68° to 81°F)	(59° to 90.5°F)	(32° to 104°F)
Relative humidity	20% to 70%	10% to 80%	90% or less

<sup>1</sup> Values are subject to change. For updated information, go to [www.hp.com/support/LJm\\_1005](http://www.hp.com/support/LJm_1005).

# Acoustic emissions

**Table A-5** Acoustic emissions <sup>1,2</sup>

<b>Sound Power Level</b>	<b>Declared per ISO 9296</b>
Printing (15 ppm) <sup>3</sup>	$L_{WA_d} = 6.3$ Bels (A) [63 dB (A)]
Copying (14 ppm)	$L_{WA_d} = 6.1$ Bels (A) [61 dB (A)]
Ready	Essentially Inaudible
<b>Sound Pressure Level - Bystander Position</b>	<b>Declared per ISO 9296</b>
Printing (15 ppm) <sup>3</sup>	$L_{pA_m} = 49$ dB (A)
Copying (14 ppm)	$L_{pA_m} = 48$ dB (A)
Ready	Essentially Inaudible

<sup>1</sup> Values are based on preliminary data. For updated information, go to [www.hp.com/support/LJm\\_1005](http://www.hp.com/support/LJm_1005).

<sup>2</sup> Configuration tested: HP LaserJet M1005 MFP, letter.

<sup>3</sup> Print speed is 15 ppm letter-size and 14 ppm A4-size.



## B Product warranty

- [Hewlett-Packard Limited Warranty Statement](#)
- [Availability of support and service](#)
- [HP maintenance agreements](#)

# Hewlett-Packard Limited Warranty Statement

HP PRODUCT	DURATION OF LIMITED WARRANTY
HP LaserJet M1005 MFP	1 year, Onsite service

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 might 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 might contain remanufactured parts equivalent to new in performance or might 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 might 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 might 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.

## Availability of support and service

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

## HP maintenance agreements

Hewlett-Packard Company has several types of maintenance agreements that meet a wide range of support needs. Maintenance agreements are not part of the standard warranty. Support services vary by location. Contact HP Customer Care to determine the services that are available and for more information about maintenance agreements. In general, the printer will have the following maintenance agreement:

### **Next-Day Onsite Service**

This agreement provides support by the next working day following a service request. Extended coverage hours and extended travel beyond HP's designated service zones are available on most onsite agreements (for additional charges).



# C Regulatory information

This section contains the following regulatory information:

- [FCC compliance](#)
- [Declaration of conformity](#)
- [Country-/region-specific 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.



**NOTE** Any changes or modifications to the printer that are not expressly approved by Hewlett-Packard could void the user's authority to operate this equipment.

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

---

# Declaration of conformity

## Declaration of Conformity

according to ISO/IEC Guide 22 and EN 45014

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

**declares, that the product**

**Product Names:** HP LaserJet M1005 MFP series  
**Regulatory Model Number<sup>3)</sup>** BOISB-0207-01  
**Print Cartridge** Q2612A  
**Product Options:** ALL

**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:** CISPR22:2003 +A1 / EN55022:2005 - Class B<sup>1)</sup>  
EN 61000-3-2:2000  
EN 61000-3-3:1995 +A1  
EN 55024:1998 +A1 +A2  
FCC Title 47 CFR, Part 15 Class B<sup>2)</sup> / ICES-003, Issue 4  
GB9254-1998, GB17625.1-2003

### Supplementary Information:

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

- 1) The product was tested in a typical configuration with Hewlett-Packard Personal Computer Systems.
- 2) This Device complies with Part 15 of the FCC Rules. Operation is subject to the following two Conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.
- 3) For regulatory purposes, this product is assigned a Regulatory model number. This number should not be confused with the marketing name or the product number(s).

Boise, Idaho 83713, USA

**January 1, 2006**

### For regulatory topics only:

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

**European Contact:** Your Local Hewlett-Packard Sales and Service Office or Hewlett-Packard GmbH, Department HQ-TRE / Standards Europe, Herrenberger Strasse 140, Böblingen, D-71034, Germany, (FAX: +49-7031-14-3143)

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

## Country-/region-specific safety statements

### Laser safety statement

The Center for Devices and Radiological Health (CDRH) of the U.S. Food and Drug Administration has implemented regulations for laser products manufactured since August 1, 1976. Compliance is mandatory for products marketed in the United States. The printer is certified as a "Class 1" laser product under the U.S. Department of Health and Human Services (DHHS) Radiation Performance Standard according to the Radiation Control for Health and Safety Act of 1968.

Since radiation emitted inside the printer is completely confined within protective housings and external covers, the laser beam cannot escape during any phase of normal user operation.



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

### Canadian DOC statement

Complies with Canadian EMC Class B requirements.

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

### Korean EMI statement

B급 기기 (가정용 정보통신기기)

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

# **Finnish laser statement**

## **LASERTURVALLISUUS**

### **LUOKAN 1 LASERLAITE**

#### **KLASS 1 LASER APPARAT**

HP LaserJet M1005 MFP - laserkirjoitin on käyttäjän kannalta turvallinen luokan 1 laserlaite. Normaalisissa käytössä kirjoittimen suojakotelointi estää lasersäteen pääsyn laitteen ulkopuolelle.

Laitteen turvallisuusluokka on määritetty standardin EN60825-1 (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 M1005 MFP -kirjoittimen sisällä ei ole käyttäjän huollettavissa olevia kohteita. Laitteen saa avata ja huoltaa ainoastaan sen huoltamiseen koulutettu henkilö. Tällaiseksi huoltotoimenpiteeksi ei katsota väriainekasetin vaihtamista, paperiradan puhdistusta tai muita käyttäjän käsikirjassa lueteltuja, käyttäjän tehtäväksi tarkoitettuja ylläpitotoimia, jotka voidaan suorittaa ilman erikoistyökaluja.

#### **VARO!**

Mikäli kirjoittimen suojakotelo avataan, olet alttiina näkymättömälle lasersäteilylle laitteen ollessa toiminnassa. Älä katso säteeseen.

#### **WARNING!**

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

Tiedot laitteessa käytettävän laserdiodin säteilyominaisuuksista:

Aallonpituus 770-800 nm

Teho 5 mW

Luokan 3B laser



# Index

## A

- ac power distribution 49
- accessibility features 4
- accessories 153
- acoustic emissions 187
- alert messages 113
- alignment, crooked pages 122, 133

## B

- background, gray 119
- bin, output
  - capacity 4
  - locating 5
  - part numbers 163
- black dots, troubleshooting
  - printed pages 117
  - scans or copies 127
- block diagram 48
- boot process 46
- box contents 16
- buttons, control panel 28

## C

- cable, USB 32, 153
- Canadian DOC statement 196
- capacity
  - output bin 4
  - priority input tray 13
  - tray 1 13
- card stock 11
- cartridge door
  - part number 165, 177, 182
  - removing 85
- cartridge-door release, locating 5
- cartridges
  - average yield 4
  - drum rotation check 136
  - EconoMode 47
  - features 4

- half self-test 135
- high-voltage contacts
  - check 137
- HP fraud hotline 31
- non-HP 30, 38
- operations 51, 53
- ordering 30
- part numbers 32, 153
- recycling 30
- redistributing toner 116
- removing 74
- replacement intervals 38
- replacing 40
- storing 30, 38, 186
- troubleshooting 116

- characters, troubleshooting
  - partially printed 118, 121
  - toner scatter 123
- checks
  - drum rotation 136
  - half self-test 135
  - high-voltage contacts 137
  - print cartridges 116
  - secondary service menu 141
- cleaning
  - exterior 36
  - lid backing 36
  - paper path 37
  - scanner glass 36
- colored paper 9
- component location
  - diagrams 148
- configuration report
  - event-log codes 115
  - printing 29, 140
- connecting power cord 20
- contact image sensor (CIS) 56
- contrast, troubleshooting 126
- control panel
  - blank 110

- buttons 28
- information pages 29
- language, setting 142
- locating 5
- menu map 29, 140
- messages,
  - troubleshooting 113
- operations 47
- overlay, part numbers 157, 176, 180
- overlay, removing 64
- removing 65
- secondary service menu 141
- startup messages 46

- copying
  - loading documents 18
  - quality, troubleshooting 124
  - resolution 4
- country/region settings
  - control panel overlay, part numbers 157, 176, 180
  - control panel overlay,
    - replacing 64
  - language 142
  - location 142
  - system 143
- covers
  - front, removing 88
  - fuser, removing 86
  - part numbers 165, 177, 182
  - print-cartridge door,
    - removing 85
  - rear, removing 86
  - side, removing 82
- CPU operations 45, 46
- critical error messages 113
- crooked pages 122, 133
- curled paper,
  - troubleshooting 122, 133

cushions, scanner  
installing 90  
part number 165, 178, 181  
custom-size media 9  
customer support 152

## D

dark copies or scans,  
troubleshooting 126  
DC controller PCA 49  
dc power distribution 49  
declaration of conformity 195  
demo page 29, 140  
device base  
wiring diagrams 147  
device control code 46  
device engine control  
system 49  
device side covers, removing 82  
device startup messages 46  
diagnostics  
drum rotation 136  
half self-test 135  
high-voltage contacts  
check 137  
print cartridges, checking 116  
secondary service menu 141  
dimensions, device 186  
documentation  
media guide 6  
Web sites 2  
dots, troubleshooting  
printed pages 117  
scans or copies 127  
downloading  
drivers 23  
drivers  
downloading 23  
Help 23  
operating systems  
supported 21  
settings 24  
software components 22  
system requirements 21  
dropouts 118  
drum rotation functional  
check 136

## E

EconoMode 47

## ECU

paper-feed operations 53  
part number 169, 177, 182  
removing 98  
sequence of operations 44,  
45  
systems and functions 48  
electrical specifications 186  
electrostatic discharge (ESD) 60  
Energy Star 4  
engine controller unit. See ECU  
envelopes  
priority input tray capacity 13  
specifications 10  
environmental specifications  
device 186  
error messages  
control panel 113  
critical 113  
event-log codes 115  
event-log codes 115

## F

factory settings, restoring 142  
fasteners 153  
FCC compliance 194  
features 4  
feed system, paper  
curled pages 122, 133  
jams 131  
multiple sheets feeding 133  
operations 53  
skewed pages 122, 133  
Finnish laser statement 197  
firmware  
boot process 46  
flatbed lid, removing 63  
formatter  
operations 46  
removing 94  
fraud hotline 31  
front cover  
part number 165, 177, 182  
removing 88  
fuser  
connectors, checking 135  
part numbers 175  
removing 105  
fuser cover, removing 86  
fuses, overvoltage/overcurrent 50

## G

Getting started guide 2  
glass, cleaning 36  
gray background 119  
guides, documentation  
media 6  
Web sites 2

## H

heavy media 11  
Help, driver 23  
high-voltage contacts check 137  
high-voltage power supply  
operations 50  
HP media  
ordering 7, 32  
recommended 6  
humidity specifications  
device environment 186

## I

image quality  
features 4  
print cartridges, checking 116  
print, troubleshooting 116  
repetitive defects 120, 130  
scan and copy,  
troubleshooting 124  
image-formation system  
operations 51  
testing 135  
information pages 29  
input trays. See trays  
installation  
box contents 16  
downloading drivers 23  
Getting started guide 2  
power cord, connecting 20  
print cartridges 40  
scanner cushions 90  
site requirements 17  
software components 22  
system requirements 21  
Windows software 25  
internal components, part  
numbers 166

## J

jams  
clearing 131  
detection operations 54



## K

keys, control panel 28  
Korea EMI statement 196

## L

labels  
    priority input tray capacity 13  
    specifications 9  
language, control panel  
    overlays 157, 176, 180  
    replacing overlay 64  
    setting 142  
laser safety statements 196  
laser/scanner assembly  
    cautions for servicing 60  
    operations 49  
    part number 169, 178, 182  
    removing 102  
left-side cover  
    part number 165, 177, 182  
    removing 82  
letterhead 12  
lid backing, cleaning 36  
lid, removing 63  
life expectancies, print  
    cartridges 38  
light copies or scans,  
    troubleshooting 126  
lines, troubleshooting  
    scans or copies 127  
    vertical black, on printed  
    pages 118  
    vertical white 123  
loading  
    documents to copy or scan 18  
    priority input tray 19  
    tray 1 18  
localized settings  
    control panel overlay, part  
    numbers 157, 176, 180  
    control panel overlay,  
    replacing 64  
    country/region 142  
    language 142  
    system 143  
loose toner 120

## M

Macintosh  
    driver settings 24

    software components 22  
    system requirements 21  
    uninstalling software 25  
    versions supported 21  
mailing labels 9  
main input tray. See tray 1  
main motor  
    removing 103  
    troubleshooting 110  
main wiring diagrams  
    device base 147  
    scanner 146  
maintenance agreements 192  
manuals  
    media guide 6  
    Web sites 2  
media  
    colored 9  
    curled 122, 133  
    custom-size 9  
    damaging printer 6  
    envelopes 10  
    feeding operations 53  
    guide 6  
    heavy 11  
    jam detection operations 54  
    jams, clearing 131  
    labels 9  
    letterhead 12  
    loading priority input tray 19  
    loading tray 1 18  
    multiple sheets feeding 133  
    ordering HP 7, 32  
    preprinted forms 12  
    priority input tray  
    specifications 13  
    recommended 6  
    selecting 6  
    skewed 122, 133  
    storing 14  
    transparencies 9  
    tray 1 specifications 13  
    troubleshooting 8  
media input trays. See trays  
media output bin. See output bin  
memory  
    boot process 46  
    included 4  
    NVRAM init 142  
    RAM, types of 47

menu map 29, 140  
messages  
    control panel 113  
    critical 113  
    event-log codes 115  
    startup 46  
misaligned pages 122, 133  
misfeeds  
    jams 131  
    multiple sheets feeding 133  
    skewed pages 122, 133  
motors  
    main, removing 103  
    part numbers 167, 178, 182  
    troubleshooting 110  
multiple sheets feeding,  
    troubleshooting 133  

## N

Next-Day Onsite Service 192  
noise specifications 187  
non-HP supplies 30, 38  
NVRAM init 142  

## O

on/off switch  
    locating 5  
online Help, driver 23  
operating environment,  
    specifications 186  
operating systems supported 21  
operations  
    block diagram 48  
    boot process 46  
    control panel 47  
    device engine control  
    system 49  
    ECU 44, 48  
    formatter 46  
    image-formation system 51  
    laser/scanner 49  
    paper-feed system 53  
    power-supply assembly 49  
    print cartridges 53  
    scanner 56  
    sequence of 45  
ordering  
    HP media 32  
    parts 152  
    supplies 30

- output bin
  - capacity 4
  - locating 5
  - part numbers 163
- output quality
  - features 4
  - print cartridges, checking 116
  - print, troubleshooting 116
  - repetitive defects 120, 130
  - scan and copy,
    - troubleshooting 124
- overcurrent/overvoltage protection 50
- overhead transparencies
  - priority input tray capacity 13
  - specifications 9
- overlay, control panel
  - part numbers 157, 176, 180
  - removing 64

## P

- pages not printing 116
- pages per minute 4
- paper
  - colored 9
  - curled 122, 133
  - custom-size 9
  - damaging printer 6
  - feeding operations 53
  - guide 6
  - heavy 11
  - jam detection operations 54
  - jams, clearing 131
  - letterhead 12
  - loading priority input tray 19
  - loading tray 1 18
  - multiple sheets feeding 133
  - ordering HP 7, 32
  - preprinted forms 12
  - priority input tray
    - specifications 13
  - recommended 6
  - selecting 6
  - skewed 122, 133
  - storing 14
  - tray 1 specifications 13
  - troubleshooting 8
- paper input trays. *See* trays
- paper output bin. *See* output bin

- paper path
  - cleaning 37
  - feeding operations 53
- paper-pickup assembly
  - part numbers 173, 178, 182
  - removing 107
- part numbers
  - HP media 32
  - internal components 166
  - print cartridges 32
  - scanner assembly 156
  - USB cable 32
  - whole unit replacement
    - part 160
- parts, ordering 152
- parts, replacing. *See* replacing parts
- parts, removing, HP fraud hotline 31
- photosensitive drum rotation check 136
- physical specifications 17, 186
- pickup rollers
  - operations 53
  - ordering 32
  - removing 75
- power
  - boot process 46
  - requirements 186
  - startup messages 46
  - troubleshooting 110
- power consumption 186
- power cord
  - connecting 20
  - disconnecting before
    - service 60
  - part numbers 153
- power receptacle, locating 5
- power switch
  - locating 5
- power-supply assembly
  - operations 49
  - part numbers 167, 178, 182
  - removing 91
- preprinted forms 12
- print cartridge-door release, locating 5
- print cartridges
  - average yield 4
  - drum rotation check 136

- EconoMode 47
- features 4
- half self-test 135
- high-voltage contacts
  - check 137
- HP fraud hotline 31
- non-HP 30, 38
- operations 51, 53
- ordering 30
- part numbers 32, 153
- recycling 30
- redistributing toner 116
- removing 74
- replacement intervals 38
- replacing 40
- storing 30, 38, 186
- troubleshooting 116
- print quality
  - features 4
  - print cartridges, checking 116
  - repetitive defects 120, 130
  - troubleshooting 116
- print-cartridge door
  - part number 165, 177, 182
  - removing 85
- printer base
  - wiring diagrams 147
- printer drivers. *See* drivers
- printing, troubleshooting 116
- priority input tray
  - capacity 4
  - feeding operations 53
  - loading 19
  - locating 5
  - media specifications 13
  - multiple sheets feeding,
    - troubleshooting 133
- problem-solving. *See* troubleshooting

## Q

- quality
  - features 4
  - print cartridges, checking 116
  - print, troubleshooting 116
  - repetitive defects 120, 130
  - scan and copy,
    - troubleshooting 124

## R

### RAM

- included 4
- types of 47

### rear cover

- part number 165, 177, 181
- removing 86

### recycling print cartridges 30

### redistributing toner 116

### reference materials

- media guide 6
- Web sites 2

### regional settings

- control panel overlay, part numbers 157, 176, 180
- control panel overlay, replacing 64
- language 142
- location 142
- system 143

### regulatory information 194

### removing parts

- after service checklist 61
- before service checklist 61
- cautions for 60
- control panel 65
- control panel overlay 64
- ECU (engine controller unit) 98
- flatbed lid 63
- formatter 94
- front, removing 88
- fuser 105
- fuser cover 86
- laser/scanner assembly 102
- main motor 103
- order of 61
- ordering replacements 152
- paper-pickup assembly 107
- pickup rollers 75
- power supply 91
- print cartridge 74
- print-cartridge door 85
- rear cover 86
- scanner assembly 67
- scanner support frame 95
- separation pad 73
- side covers 82
- tools, required 60

- transfer roller, removing 80
- tray 1 78

### repetitive defects

- ruler 130
- troubleshooting 120

### replacement intervals, print cartridges 38

### replacing parts

- after service checklist 61
- before service checklist 61
- cautions for 60
- control panel 65
- control panel overlay 64
- ECU (engine controller unit) 98
- flatbed lid 63
- formatter 94
- front, removing 88
- fuser 105
- fuser cover 86
- laser/scanner assembly 102
- main motor 103
- order of removal 61
- ordering 152
- paper-pickup assembly 107
- pickup rollers 75
- power supply 91
- print cartridges 40
- print-cartridge door 85
- rear cover 86
- scanner assembly 67
- scanner support frame 95
- separation pad 73
- side covers 82
- tools, required 60
- transfer roller, removing 80
- tray 1 78

### reports 29, 141

### resolution specifications 4

### restoring settings

- NVRAM init 142

### right-side cover

- part number 165, 177, 182
- removing 82

### rollers

- image-formation operations 51
- paper-feed system operations 53
- part numbers 167, 179, 182

- pickup, ordering 32
- pickup, removing 75
- repetitive defects 120, 130
- transfer, removing 80
- ruler, repetitive defect 130

## S

### scanner

- assembly, removing 67
  - cleaning glass 36
  - cleaning lid backing 36
  - component location diagrams 148
  - cover, locating 5
  - cushions, installing 90
  - hinge tool 153
  - loading documents 18
  - operations 56
  - part numbers 156
  - quality, troubleshooting 124
  - removing flatbed lid 63
  - resolution 4
  - size, troubleshooting image 128
  - support frame, removing 95
  - wiring diagrams 146
- ### scattered toner 123
- ### screwdrivers, required 60
- ### screws
- self-tapping 60
  - types of 153
- ### secondary service menu 141
- ### self-tapping screws 60
- ### sensors

- jam detection 54
- paper-feed system operations 53
- scanner operations 56

### separation pad

- operations 53
- ordering 32
- removing 73
- sequence of operations 45
- service agreements 192
- service menu 141
- settings
  - country/region code 142
  - language 142
  - localized 143
  - NVRAM init 142

- settings, driver 24
  - setup
    - box contents 16
    - downloading drivers 23
    - Getting started guide 2
    - installing print cartridges 40
    - power cord, connecting 20
    - scanner cushion
      - installation 90
    - site requirements 17
    - software components 22
    - system requirements 21
    - Windows software 25
  - side covers, removing 82
  - site requirements 17
  - size, device 186
  - skewed pages 122, 133
  - smear toner 119
  - software
    - components 22
    - drivers, downloading 23
    - installing on Windows 25
    - operating systems
      - supported 21
    - settings 24
    - system requirements 21
    - troubleshooting 111
    - uninstalling from
      - Macintosh 25
      - uninstalling from Windows 25
  - space requirements 17
  - specifications
    - acoustic emissions 187
    - electrical 186
    - environmental 186
    - features 4
    - media guidelines 6
    - physical 186
    - priority input tray media 13
    - site requirements 17
    - storing media 14
    - tray 1 media 13
  - specks, troubleshooting
    - printed pages 117
    - scans or copies 127
  - speed
    - CPU 46
    - specifications 4
  - startup messages 46
  - static, precautions for 60
  - storing
    - device 186
    - envelopes 11
    - paper 14
    - print cartridges 30, 38
  - streaks, troubleshooting
    - scans or copies 127
  - supplies
    - HP fraud hotline 31
    - non-HP 30, 38
    - ordering 30
    - recycling 30
    - replacement intervals 38
    - replacing 40
    - storing 30, 38
    - USB cable 32
    - See also print cartridges
  - support 152
  - support frame, scanner
    - part number 165, 177, 182
    - removing 95
  - system requirements 21
- T**
- technical support 152
  - telephone numbers, HP fraud
    - hotline 31
  - temperature specifications
    - device environment 186
  - tests
    - drum rotation 136
    - half self-test 135
    - high-voltage contacts 137
    - print cartridges 116
    - secondary service menu 141
  - text, troubleshooting
    - partially printed 118, 121
    - scanned 128
    - toner scatter 123
  - theory of operations. See operations
  - toner
    - EconoMode 47
    - image-formation
      - operations 51
    - loose 120
    - redistributing 116
    - scattered 123
    - smears 119
    - specks, troubleshooting 117
  - toner cartridges. See print cartridges
  - toner cloth 153
  - tools, required 60
  - transfer roller
    - image-formation
      - operations 51
    - part number 167, 179, 182
    - removing 80
  - transparencies
    - priority input tray capacity 13
    - specifications 9
  - tray 1
    - capacity 4
    - feeding operations 53
    - loading 18
    - locating 5
    - media specifications 13
    - multiple sheets feeding,
      - troubleshooting 133
    - removing 78
  - trays
    - capacity 4
    - feeding operations 53
    - loading 18
    - locating 5
    - media specifications 13
    - multiple sheets feeding,
      - troubleshooting 133
    - part numbers 163
    - skewed pages 122, 133
  - troubleshooting
    - basic steps 110
    - control panel messages 113
    - copy quality 124
    - critical error messages 113
    - curled paper 122, 133
    - drum rotation check 136
    - event-log codes 115
    - half self-test 135
    - high-voltage contacts
      - check 137
    - information pages 29
    - jam detection operations 54
    - jams 131
    - multiple sheets feeding 133
    - NVRAM init 142
    - paper 8
    - power 110
    - print cartridges 116

- print quality 116
- printing 116
- repetitive defects 120, 130
- scan quality 124
- secondary service menu 141
- skewed pages 122, 133
- software installation 111

- wiring diagrams
  - device base 147
  - scanner 146
- wrinkled paper,
  - troubleshooting 122, 133

## U

- uninstalling software
  - Macintosh 25
  - Windows 25
- USB cable, part number 32, 153
- USB interface 47
- USB port
  - included 4
  - locating 5
- user guide 2

## V

- vertical lines, troubleshooting
  - black, on printed pages 118
  - black, on scans or copies 127
  - white, on printed pages 123
- voltage requirements 186

## W

- warning messages 113
- warranty 189
- wavy paper,
  - troubleshooting 122, 133
- Web sites
  - documentation 2
  - drivers 23
  - media guide 6
  - ordering supplies 30
  - parts, ordering 152
  - support 152
- white stripes,
  - troubleshooting 123
- whole unit replacement part
  - part numbers 160
- Windows
  - driver settings 24
  - installing software 25
  - software components 22
  - system requirements 21
  - uninstalling software 25
  - versions supported 21





© 2006 Hewlett-Packard Development Company, L.P.

[www.hp.com](http://www.hp.com)



CB376-90929