

# HP LaserJet M3027 / M3035 MFP Service Manual





# HP LaserJet M3027/M3035 Multifunction

---

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 herein 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: CB414-90940

Edition 1, 10/2006

## Trademark Credits

Adobe®, Acrobat®, and PostScript® are trademarks of Adobe Systems Incorporated.

Intel® and Pentium® are trademarks or registered trademarks of Intel Corporation or its subsidiaries in the United States and other countries.

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

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

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 Product Information

Chapter contents .....	1
Device configurations .....	2
Features .....	3
Walkaround .....	5
Device parts .....	5
Interface ports .....	6
Device software .....	7
Supported operating systems .....	7
Minimum system requirements .....	7
Supported printer drivers .....	8
Select the correct printer driver .....	9
Universal printer drivers .....	9
Driver Autoconfiguration .....	9
Update Now .....	9
HP Driver Preconfiguration .....	9
Priority for print settings .....	10
Open the printer drivers .....	11
Software for Macintosh computers .....	12
Remove software from Macintosh operating systems .....	12
Utilities .....	13
HP Web Jetadmin .....	13
Embedded Web server .....	13
HP Easy Printer Care software .....	14
Supported operating systems .....	14
Supported browsers .....	14
Other components and utilities .....	14
Media specifications .....	15
General guidelines for media .....	15
Paper to avoid .....	16
Paper that can damage the device .....	16
General media specifications .....	17
Select print media .....	17
Supported media sizes .....	18
Supported media types .....	19

## 2 Installation and configuration

Chapter contents .....	21
Site preparation .....	22

Location specifications .....	22
Operating environment .....	22
Install trays .....	23
Load tray 1 (multipurpose tray) .....	23
Load tray 2 and optional tray 3 .....	25
Configure trays .....	26
Install supplies .....	27
Supply replacement guidelines .....	27
Change the print cartridge .....	27
Install accessories .....	30
Install memory .....	30
Install device memory .....	30
Check DIMM installation .....	34
Enable memory for Windows .....	34
Use HP Jetdirect print server cards .....	35
Install an HP Jetdirect print server card .....	35
Remove an HP Jetdirect print server card .....	36

### 3 Maintenance

Chapter contents .....	37
Manage supplies .....	38
Supplies life .....	38
Approximate print-cartridge replacement intervals .....	38
Manage the print cartridge .....	39
Print-cartridge storage .....	39
Use genuine HP print cartridges .....	39
HP policy on non-HP print cartridges .....	39
Print-cartridge authentication .....	39
HP fraud hotline and Web site .....	39
Clean the device .....	40
Clean the exterior .....	40
Clean the ADF .....	40
Clean the scanner lid backing .....	42
Clean the scanner glass .....	43
Clean the fuser .....	44
Clean spilled toner .....	44
Management tools .....	45
Use information pages .....	45
Use the HP Easy Printer Care software .....	47
Open the HP Easy Printer Care software .....	47
HP Easy Printer Care software sections .....	48
Use the embedded Web server .....	49
Open the embedded Web server by using a network connection .....	49
Embedded Web server sections .....	50
Use HP Web Jetadmin software .....	52
Use the HP Printer Utility for Macintosh .....	52
Open the HP Printer Utility .....	52
HP Printer Utility features .....	53

### 4 Theory of operation

Chapter contents .....	55
Basic operation .....	56
ADF/scanner system .....	57
ADF .....	57
Sensors in the ADF .....	57
ADF paper path .....	57
Scanner .....	58
Formatter .....	59
Engine control unit (ECU) .....	60
Pickup/feed/delivery system .....	62
Laser/scanner system .....	63
Image-formation system .....	64
Step 1: Primary charging .....	65
Step 2: Laser beam exposure .....	65
Step 3: Developing .....	65
Step 4: Transfer .....	66
Step 5: Separation .....	66
Step 6: Fusing .....	67
Step 7: Drum cleaning .....	67
Internal components .....	68
Timing .....	69
Print cartridge memory system .....	73

## 5 Removal and replacement

Chapter contents .....	75
Introduction .....	77
Removal and replacement strategy .....	77
Electrostatic discharge .....	77
User-replaceable parts .....	77
Required tools .....	78
Before performing service .....	78
Parts removal order .....	79
Automatic document feeder (ADF) and scanner assemblies .....	80
ADF assembly .....	80
ADF cover .....	80
ADF input tray .....	82
Control panel .....	84
ADF .....	87
Scanner assembly .....	90
Covers .....	94
Right-side cover .....	94
Formatter shield .....	95
Fax cover .....	96
Left-side cover .....	97
Legal cover (dust cover) .....	100
Back cover .....	101
I/O cover .....	103
Fax rail .....	104
Top cover .....	105
Front, right cover .....	109

Fax accessory .....	111
Disk drive .....	113
Formatter .....	116
Stapler .....	117
Stapler power-supply .....	123
Right-side fan .....	128
Engine control unit (ECU) .....	131
Left-side riser .....	138
Fuser .....	139
Laser/scanner .....	142
Access plate .....	144
Oblique-roller assembly .....	146
Left-side fan .....	148
High-voltage power supply (HVPS) .....	149
Feed-guide assembly .....	156
Main motor .....	159
Gear assembly .....	162
Reinstallation notes for the gear assembly .....	165
Tray 1 solenoid .....	166
Tray 2 solenoid .....	167
Pickup assembly .....	168
Tray 1 media-present sensor and top-of-page sensor .....	173
E-label reader (memory tag) .....	175
Face-down-roller shaft .....	177
Cartridge door .....	179
Transfer roller .....	182
Registration assembly .....	183
Tray 1 pickup roller .....	186
Tray 2 pickup roller .....	187
Separation pad .....	189

## 6 Troubleshooting

Chapter contents .....	191
Troubleshooting process .....	192
Troubleshooting tree .....	192
Troubleshooting flowchart .....	193
1. Does the control-panel display show READY? .....	193
2. Can you print a configuration page? .....	194
3. Does the device copy? .....	195
4. Does the device send a fax? .....	196
5. Does the device receive a fax? .....	197
6. Can you print from a program? .....	198
7. Does the job print as expected? .....	199
8. Does the device select the correct trays? .....	200
Control-panel messages .....	201
Control-panel message types .....	201
Resolve control-panel messages .....	201
Clear jams .....	214
Common causes of jams .....	214
Jam locations .....	215

Jam detection .....	216
Clear jams from the ADF .....	217
Clear jams from the print-cartridge area .....	219
Clear jams from the input-tray areas .....	220
Clear jams from the duplexer .....	222
Clear jams from the output-bin areas .....	223
Interface troubleshooting .....	225
Communications checks .....	225
LAN hardware test .....	225
Service mode functions .....	226
Boot-up key sequences .....	226
Low-level boot-up key sequence for selecting a language, performing a cold reset, and enabling and disabling embedded LAN .....	227
Medium-level boot-up key sequence for initializing disks .....	227
High-level boot-up key sequence for NVRAM initialization, manufacturing, and skipping disk-load and calibration .....	227
Service menu .....	228
Service ID .....	228
Restore the service ID .....	229
Convert the service ID to an actual date .....	229
Troubleshooting tools .....	230
Control-panel menus .....	230
Print Quality menu .....	230
Troubleshooting menu .....	231
Early-boot diagnostic test .....	233
Test pages .....	234
Engine-test page .....	234
Formatter test page .....	235
Embedded Web server .....	235
Gaining access to the embedded Web server .....	235
Information tab .....	235
Settings tab .....	236
Networking tab .....	236
Other links .....	236
Image defect ruler .....	238
Firmware updates and recovery .....	239
Determine the current level of firmware .....	239
Download the new firmware from the HP Web site .....	239
Transfer the new firmware to the device .....	240
Use FTP to upgrade the firmware on a network connection .....	240
Use HP Web Jetadmin to upgrade the firmware .....	241
Use MS-DOS commands to upgrade the firmware .....	242
Upgrade the HP Jetdirect firmware .....	242
Troubleshoot general printing problems .....	243
Troubleshoot media-handling problems .....	246
Multiple pages feed .....	246
Pages are wrinkled or folded .....	246
Pages are skewed .....	247
Troubleshoot print-quality problems .....	248
Print-quality checklist .....	248

Image-defect examples .....	249
Light print (partial page) .....	250
Light print (entire page) .....	251
Specks .....	251
Dropouts .....	252
Lines .....	252
Gray background .....	253
Toner smear .....	253
Loose toner .....	254
Repeating defects .....	254
Repeating image .....	255
Misformed characters .....	255
Page skew .....	256
Curl or wave .....	256
Wrinkles or creases .....	257
Vertical white lines .....	257
Tire tracks .....	258
White spots on black .....	258
Scattered lines .....	259
Blurred print .....	259
Random image repetition .....	260
Diagrams .....	261
Device component locations .....	261
Main assemblies .....	261
Main parts .....	262
Sensors and switches .....	263
Motors, fans, and solenoids .....	264
PCAs .....	265
Wiring diagrams .....	266

## 7 Parts and diagrams

Chapter contents .....	269
Ordering parts and supplies .....	270
Parts .....	270
Related documentation and software .....	270
Supplies .....	270
Consumables and accessories .....	271
Consumables and accessories .....	271
ADF/scanner assembly .....	272
Covers .....	274
Internal components .....	276
Tray 2 pickup assembly .....	290
Alphabetical parts list .....	292
Numerical parts list .....	302

## Appendix A Supplies and accessories

Order parts, accessories, and supplies .....	314
Order directly from HP .....	314
Order through service or support providers .....	314

Order directly through the embedded Web server (for printers that are connected to a network) .....	314
Order directly through the HP Easy Printer Care software .....	314
Part numbers .....	315
Paper-handling accessories .....	315
Print cartridge .....	315
Memory .....	315
Cables and interfaces .....	315
Stapler accessories .....	316
Print media .....	316

## Appendix B Service and support

Hewlett-Packard limited warranty statement .....	319
Customer self repair warranty service .....	320
Print cartridge limited warranty statement .....	320
HP Customer Care .....	322
Online Services .....	322
Telephone support .....	322
Software utilities, drivers, and electronic information .....	322
HP direct ordering for accessories or supplies .....	322
HP service information .....	322
HP service agreements .....	322
HP Easy Printer Care software .....	323
HP support and information for Macintosh computers .....	323
HP maintenance agreements .....	324
On-site service agreements .....	324
Next-day on-site service .....	324
Weekly (volume) on-site service .....	324
Repacking the device .....	324
Extended warranty .....	325

## Appendix C Specifications

Physical specifications .....	328
Electrical specifications .....	328
Acoustic emissions .....	329
Operating environment .....	329

## Appendix D Regulatory information

FCC regulations .....	332
Environmental product stewardship program .....	333
Protecting the environment .....	333
Ozone production .....	333
Power consumption .....	333
Toner consumption .....	333
Paper use .....	333
Plastics .....	333
HP LaserJet print supplies .....	333
HP print supplies returns and recycling program information .....	334
Paper .....	334

Material restrictions .....	334
Disposal of waste equipment by users in private households in the European Union ....	335
Material Safety Data Sheet (MSDS) .....	335
For more information .....	335
Telecom statement .....	337
Declaration of conformity .....	338
Safety statements .....	339
Laser safety .....	339
Canadian DOC regulations .....	339
VCCI statement (Japan) .....	339
Power cord statement (Japan) .....	339
EMI statement (Korea) .....	339
EMI statement (Taiwan) .....	340
Laser statement for Finland .....	340

**Appendix E Working with memory and print server cards**

Overview .....	342
----------------	-----

<b>Glossary .....</b>	<b>343</b>
-----------------------	------------

<b>Index .....</b>	<b>345</b>
--------------------	------------



---

# 1 Product Information

## Chapter contents

- [Device configurations](#)
- [Features](#)
- [Walkaround](#)
- [Device software](#)
- [Media specifications](#)

# Device configurations

HP LaserJet M3027	HP LaserJet M3027x	HP LaserJet M3035	HP LaserJet M3035xs
<ul style="list-style-type: none"><li>• Prints up to 27 pages-per-minute (ppm) on letter-sized media, and up to 25 ppm on A4-sized media</li><li>• 256 megabytes (MB) total of random access memory (RAM), upgradable up to 512 MB</li><li>• Internal 40 gigabyte (GB) or larger hard disk</li><li>• 100-sheet multipurpose tray (tray 1), 500-sheet input tray (tray 2), 50-sheet automatic document feeder (ADF), and 250-sheet output bin</li><li>• Hi-Speed universal serial bus (USB) 2.0 port and enhanced input/output (EIO) slot</li><li>• HP Jetdirect embedded print server for Ethernet 10/100Base-T network</li><li>• One open dual inline memory module (DIMM) slot</li></ul>	<p>HP LaserJet M3027, plus:</p> <ul style="list-style-type: none"><li>• Automatic two-sided printing accessory</li><li>• 33.6 kpbs analog fax</li></ul>	<ul style="list-style-type: none"><li>• Prints up to 35 ppm on letter-sized media, and up to 33 ppm on A4-sized media</li><li>• 256 MB total RAM, upgradable up to 512 MB</li><li>• Internal 40 GB or larger hard disk</li><li>• 100-sheet tray 1, 500-sheet tray 2, 50-sheet ADF, and 250-sheet output bin</li><li>• Hi-Speed USB 2.0 port and EIO slot</li><li>• HP Jetdirect embedded print server for Ethernet 10/100Base-T network</li><li>• One open DIMM slot</li><li>• Automatic two-sided printing accessory</li></ul>	<p>HP LaserJet M3035, plus:</p> <ul style="list-style-type: none"><li>• 33.6 kpbs analog fax</li><li>• 20-sheet convenience stapler</li><li>• 500-sheet input tray (tray 3)</li></ul>

# Features

Feature	Description
<b>Performance</b>	<ul style="list-style-type: none"><li>● 400 MHz processor</li></ul>
<b>User interface</b>	<ul style="list-style-type: none"><li>● Control-panel help</li><li>● Windows® and Macintosh printer drivers</li><li>● Embedded Web server to gain access to support and to order supplies (administrator tool for network-connected models only)</li><li>● HP Easy Printer Care software (a Web-based status and troubleshooting tool)</li></ul>
<b>Printer drivers</b>	<ul style="list-style-type: none"><li>● HP PCL 5</li><li>● HP PCL 6</li><li>● HP postscript level 3 emulation</li></ul>
<b>Resolution</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><li>● ProRes 1200—produces 1200-dpi printing for the best quality in line art and graphic images</li></ul>
<b>Storage features</b>	<ul style="list-style-type: none"><li>● Internal 40 GB or larger hard drive</li><li>● Fonts, forms, and other macros</li><li>● Job retention</li></ul>
<b>Fonts</b>	<ul style="list-style-type: none"><li>● 93 internal fonts available for PCL</li><li>● 80 printer-matching screen fonts in TrueType format available with the software solution</li><li>● Additional fonts can be added.</li></ul>
<b>Accessories</b>	<ul style="list-style-type: none"><li>● Optional 500-sheet input tray (tray 3) (standard on the HP LaserJet M3035xs MFP)</li><li>● 100-pin 133 MHz dual inline memory modules (DIMMs)</li></ul>
<b>Connectivity</b>	<ul style="list-style-type: none"><li>● Hi-Speed USB 2.0 connection</li><li>● HP Jetdirect full-featured embedded print server</li><li>● HP Web Jetadmin software</li><li>● Enhanced input/output (EIO) slot</li><li>● Foreign interface harness (FIH) port for attaching optional third-party paper-handling devices</li></ul>
<b>Environmental features</b>	<ul style="list-style-type: none"><li>● Sleep mode setting</li><li>● ENERGY STAR® qualified</li></ul>
<b>Supplies</b>	<ul style="list-style-type: none"><li>● The supplies status page contains information about toner level, page count, and estimated pages remaining.</li><li>● The product checks for an authentic HP print cartridge at cartridge installation.</li><li>● Internet-enabled supply-ordering capabilities (using HP Easy Printer Care software)</li></ul>
<b>Accessibility</b>	<ul style="list-style-type: none"><li>● The online user guide is compatible with text screen-readers.</li><li>● The print cartridge can be installed and removed by using one hand.</li></ul>

---

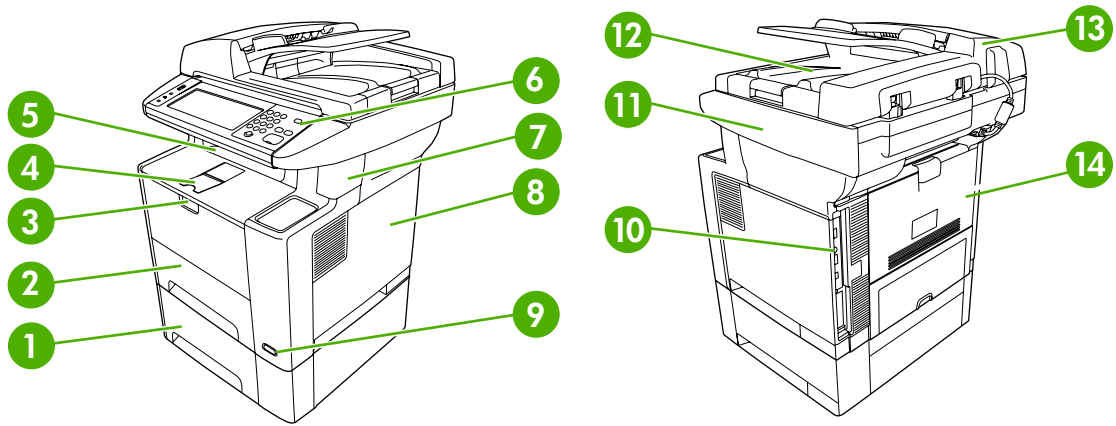
Feature	Description
	<ul style="list-style-type: none"><li data-bbox="320 222 898 254">• All doors and covers can be opened by using one hand.</li><li data-bbox="320 275 836 306">• Media can be loaded in tray 1 by using one hand.</li></ul>

---

# Walkaround

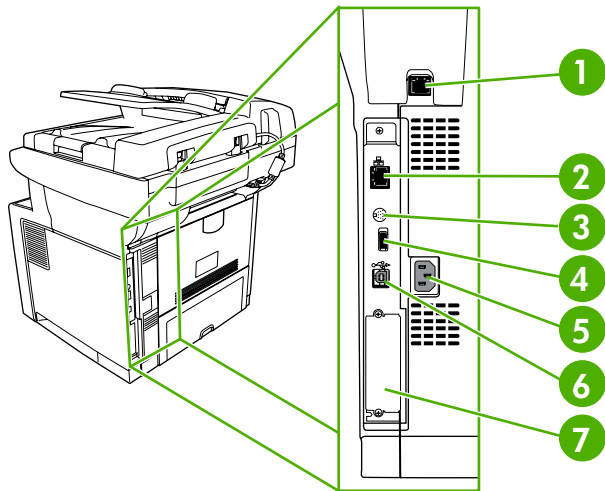
## Device parts

Before using the product, familiarize yourself with its components.



1	Optional tray 3
2	Tray 2
3	Tray 1 (pull to open)
4	Latch to open the front door (provides access to the print cartridge)
5	Top output bin
6	Control panel
7	Convenience stapler
8	Right-side cover (provides access to DIMMs)
9	On/off switch
10	Interface ports (see <a href="#">Interface ports on page 6</a> )
11	Scanner assembly
12	ADF output bin
13	Automatic document feeder (ADF)
14	Rear output bin (pull to open)

## Interface ports



1	Fax port (HP LaserJet M3027x and HP LaserJet M3035xs only)
2	Network connection
3	Foreign interface harness (FIH) port
4	Type A Hi-Speed USB 2.0 connection for adding accessories
5	Power connection
6	Type B Hi-Speed USB 2.0 connection for printing
7	EIO slot

# Device software

The printing-system software is included with the device. See the getting started guide for installation instructions.

The printing system includes software for end users and network administrators, and printer drivers for access to the device features and communication with the computer.



---

**NOTE** For a list of printer drivers and updated HP printer software, go to [www.hp.com/go/LJM3027mfp\\_software](http://www.hp.com/go/LJM3027mfp_software) or [www.hp.com/go/LJM3035mfp\\_software](http://www.hp.com/go/LJM3035mfp_software).

---

## Supported operating systems

The device supports the following operating systems:

### Full software installation

- Windows XP (32-bit and 64-bit)
- Windows Server 2003 (32-bit and 64-bit)
- Windows 2000
- Mac OS X V10.2.8, V10.3, V10.4 and later

### Printer driver only

- Linux (Web only)
- UNIX model scripts (Web only)



---

**NOTE** For Mac OS V10.4 and later, PPC and Intel Core Processor Macs are supported.

---

## 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 printer drivers

Operating system <sup>1</sup>	PCL 5	PCL 6	PS level 3 emulation
Windows <sup>2,3</sup>	✓	✓	✓
Mac OS X V10.2 and later			✓
Linux <sup>4</sup>			✓

<sup>1</sup> Not all device features are available from all drivers or operating systems.

<sup>2</sup> For Windows 2000 and Windows XP (32-bit and 64-bit), download the PCL 5 driver from [www.hp.com/go/LJM3027mfp\\_software](http://www.hp.com/go/LJM3027mfp_software) or [www.hp.com/go/LJM3035mfp\\_software](http://www.hp.com/go/LJM3035mfp_software).

<sup>3</sup> For Windows XP (64-bit), download the PCL 6 driver from [www.hp.com/go/LJM3027mfp\\_software](http://www.hp.com/go/LJM3027mfp_software) or [www.hp.com/go/LJM3035mfp\\_software](http://www.hp.com/go/LJM3035mfp_software).

<sup>4</sup> For Linux, download the postscript level 3 emulation driver from [www.hp.com/go/linuxprinting](http://www.hp.com/go/linuxprinting).

The printer drivers include online Help that has instructions for common printing tasks and also describes the buttons, checkboxes, and drop-down lists that are in the printer driver.



## Select the correct printer driver

Printer drivers allow you to gain access to the device features and allow the computer to communicate with the device (using a printer language). Check the installation notes and readme files on the device CD for additional software and languages.

The device uses the PCL 5, PCL 6, and HP postscript level 3 emulation printer description language (PDL) drivers.

- Use the PCL 6 printer driver for the best overall performance.
- Use the PCL 5 printer driver for general office printing.
- Use the HP postscript level 3 emulation driver for printing from postscript level 3 emulation needs, or for postscript flash font support.

## Universal printer drivers

The HP Universal Print Driver Series for Windows includes separate HP postscript level 3 emulation and HP PCL 5 versions of a single driver that provides access to almost any HP device while providing system administrator with tools to manage devices more effectively. The Universal Print Driver is included on the device CD, under the Optional Software section. For more information, go to [www.hp.com/go/universalprintdriver](http://www.hp.com/go/universalprintdriver).

## Driver Autoconfiguration

The HP LaserJet PCL 5, PCL 6, and PS level 3 emulation drivers for Windows 2000 and Windows XP feature automatic discovery and driver configuration for device accessories at the time of installation. Some accessories that the Driver Autoconfiguration supports are the duplexing unit, optional paper trays, and dual inline memory modules (DIMMs).

## Update Now

If you have modified the device configuration since installation, the driver can be automatically updated with the new configuration. In the **Properties** dialog box (see [Open the printer drivers on page 11](#)), on the **Device Settings** tab, click the **Update Now** button to update the driver.

## HP Driver Preconfiguration

HP Driver Preconfiguration is a software architecture and set of tools that you can use to customize and distribute HP software in managed corporate printing environments. Using HP Driver Preconfiguration, information technology (IT) administrators can preconfigure the printing and default settings for HP printer drivers before installing the drivers in the network environment. For more information, see the *HP Driver Preconfiguration Support Guide*, which is available at [www.hp.com/go/hpdpc\\_sw](http://www.hp.com/go/hpdpc_sw).

## Priority for print settings

Changes to print settings are prioritized depending on where the changes are made:



---

**NOTE** The names of commands and dialog boxes might vary depending on your software program.

---

- **Page Setup dialog box:** Click **Page Setup** or a similar command on the **File** menu of the program you are working in to open this dialog box. Settings changed here override settings changed anywhere else.
- **Print dialog box:** Click **Print**, **Print Setup**, or a similar command on the **File** menu of the program you are working in to open this dialog box. Settings changed in the **Print** dialog box have a lower priority and do *not* override changes made in the **Page Setup** dialog box.
- **Printer Properties dialog box (printer driver):** Click **Properties** in the **Print** dialog box to open the printer driver. Settings changed in the **Printer Properties** dialog box do not override settings anywhere else in the printing software.
- **Default printer driver settings:** The default printer driver settings determine the settings used in all print jobs, *unless* settings are changed in the **Page Setup**, **Print**, or **Printer Properties** dialog boxes.
- **Printer control panel settings:** Settings changed at the printer control panel have a lower priority than changes made anywhere else.

## Open the printer drivers

Operating System	To change the settings for all print jobs until the software program is closed	To change the default settings for all print jobs	To change the device configuration settings
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 driver, 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 driver 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 driver icon, and then select <b>Properties</b>.</li> <li>3. Click the <b>Device Settings</b> tab.</li> </ol>
Mac OS X V10.2.8, V10.3, V10.4 and later	<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. In the Finder, on the <b>Go</b> menu, click <b>Applications</b>.</li> <li>2. Open <b>Utilities</b>, and then open <b>Print Center</b> (OS X V10.2.8) or <b>Printer Setup Utility</b>.</li> <li>3. Click on the print queue.</li> <li>4. On the <b>Printers</b> menu, click <b>Show Info</b>.</li> <li>5. Click the <b>Installable Options</b> menu.</li> </ol>



**NOTE** Configuration settings might not be available in Classic mode.

## Software for Macintosh computers

The HP installer provides PostScript® Printer Description (PPD) files, Printer Dialog Extensions (PDEs), and the HP Printer Utility for use with Macintosh computers.

For network connections, use the embedded Web server (EWS) to configure the device. See [Embedded Web server on page 13](#).

The printing system software includes the following components:

- **PostScript Printer Description (PPD) files**

The PPDs, in combination with the Apple PostScript printer drivers, provide access to device features. Use the Apple PostScript printer driver that comes with the computer.

- **HP Printer Utility**

Use the HP Printer Utility to set up device features that are not available in the printer driver:

- Name the device.
- Assign the device to a zone on the network.
- Assign an internet protocol (IP) address to the device.
- Download files and fonts.
- Configure the device for IP or AppleTalk printing.

You can use the HP Printer Utility when your device uses a universal serial bus (USB) cable or is connected to a TCP/IP-based network. For more information, see [Use the HP Printer Utility for Macintosh on page 52](#).

## Remove software from Macintosh operating systems

To remove the software from a Macintosh computer, drag the PPD files to the trash can.

## Utilities

The device is equipped with several utilities that make it easy to monitor and manage the device on a network.

### HP Web Jetadmin

HP Web Jetadmin is a browser-based management tool for HP Jetdirect-connected printers within your intranet, and it should be installed only on the network administrator's computer.

To download a current version of HP Web Jetadmin and for the latest list of supported host systems, visit [www.hp.com/go/webjetadmin](http://www.hp.com/go/webjetadmin).

When installed on a host server, any client can gain access to HP Web Jetadmin by using a supported Web browser (such as Microsoft® Internet Explorer 4.x or Netscape Navigator 4.x or later) by navigating to the HP Web Jetadmin host.

### Embedded Web server

The device is equipped with an embedded Web server, which provides access to information about device and network activities. This information appears in a Web browser, such as Microsoft Internet Explorer or Netscape Navigator.

The embedded Web server resides on the device. It is not loaded on a network server.

The embedded Web server provides an interface to the device that anyone who has a network-connected computer and a standard Web browser can use. No special software is installed or configured, but you must have a supported Web browser on your computer. To gain access to the embedded Web server, type the IP address for the device in the address line of the browser. (To find the IP address, print a configuration page. For more information about printing a configuration page, see [Use information pages on page 45](#).)

For a complete explanation of the features and functionality of the embedded Web server, see [Use the embedded Web server on page 49](#).

## HP Easy Printer Care software

The HP Easy Printer Care software is a program that you can use for the following tasks:

- Discovering printers on the network and checking the status of each device
- Setting and viewing device and supplies alerts for multiple printers at the same time
- Shopping online for supplies
- Using HP online troubleshooting and maintenance tools

You can use the HP Easy Printer Care software when the device is directly connected to your computer or when it is connected to a network. To download the HP Easy Printer Care software, go to [www.hp.com/go/easyprintercare](http://www.hp.com/go/easyprintercare).

## Supported operating systems

For information about supported operating systems, go to [www.hp.com/go/easyprintercare](http://www.hp.com/go/easyprintercare).

## Supported browsers

To use the HP Easy Printer Care software, you must have one of the following browsers:

- Microsoft Internet Explorer 5.5 or later
- Netscape Navigator 7.0 or later
- Opera Software ASA Opera 6.05 or later

All pages can be printed from the browser.

## Other components and utilities

Windows	Macintosh OS
<ul style="list-style-type: none"><li>● Software installer — automates the printing system installation</li><li>● Online Web registration</li></ul>	<ul style="list-style-type: none"><li>● PostScript Printer Description files (PPDs) — use with the Apple PostScript drivers that come with the Mac OS</li><li>● The HP Printer Utility — change device settings, view status, and set up printer-event notification from a Mac. This utility is supported for Mac OS X V10.2.8, V10.3, V10.4 and later.</li></ul>

# Media specifications

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

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



---

**NOTE** Some media might meet all of media specifications and still not produce satisfactory results. Improper handling, unacceptable temperature and humidity levels, and other variables over which Hewlett-Packard has no control can affect print quality. Before purchasing large quantities of media, make sure that it meets the requirements that are specified in the user guide and in the *HP LaserJet Printer Family Print Media Guide*, which is available for download at <http://www.hp.com/support/ljpaperguide>. Always test paper before buying large quantities.

---



---

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

---

## General guidelines for media

Before purchasing any paper or specialized forms in quantity, verify that your paper supplier has obtained and understands the print-media requirements that are specified in the *HP LaserJet Printer Family Print Media Guide*.

See [HP Customer Care on page 322](#) to order the *HP LaserJet Printer Family Print Media Guide*. To download a copy of the guide, go to [www.hp.com/support/ljpaperguide](http://www.hp.com/support/ljpaperguide).

It is possible that paper could meet all of the guidelines in this chapter or the *HP LaserJet Printer Family Print Media Guide* and still not print satisfactorily. This can result from abnormal characteristics of the printing environment or other variables over which HP has no control (for example, extremes in temperature and humidity).

*Hewlett-Packard Company recommends testing any paper before buying it in large quantities.*



---

**CAUTION** Using paper that does not conform to the specifications listed here or in the print media guide can cause problems that require service. This service is not covered by the Hewlett-Packard warranty or service agreements.

---

## Paper to avoid

The product can handle many types of paper. Using paper that does not meet specifications will cause lower print quality and increase the chance of jams.

- Do not use paper that is too rough. Use paper with a tested smoothness rating of 100–250 Sheffield.
- Do not use paper, other than standard 3-hole punched paper, that contains cutouts or perforations.
- Do not use multipart forms.
- Do not use paper that has already been printed on, or that has been fed through a photocopier.
- Do not use paper that contains a watermark if you are printing solid patterns.
- Do not use heavily embossed or raised-letterhead papers.
- Do not use papers that have heavily textured surfaces.
- Do not use offset powders or other materials that prevent printed forms from sticking together.
- Do not use paper that has a colored coating that was added after the paper was produced.

## Paper that can damage the device

In rare circumstances, paper can damage the device. The following paper must be avoided to prevent possible damage to the device:

- Do not use paper with staples attached.
- Do not use transparencies, labels, or photo or glossy paper designed for Inkjet printers or other low temperature printers. Use only media that is specified for use with HP LaserJet printers.
- Do not use any media that produces hazardous emissions, or that melts, offsets, or discolors when exposed to the temperature of the fuser.
- Do not use paper that is embossed or coated, or any media that is not designed to withstand the fusing temperature of the device. Do not use letterhead paper or preprinted forms that are made with dyes or inks that cannot withstand the heat of the fuser.

To order HP LaserJet printing supplies, see [Order parts, accessories, and supplies on page 314](#).



## General media specifications

For complete paper specifications for all HP LaserJet devices, see the *HP LaserJet Printer Family Print Media Guide* (available at [www.hp.com/support/ljpaperguide](http://www.hp.com/support/ljpaperguide)) .

Category	Specifications
Acid content	5.5 pH to 8.0 pH
Caliper	0.094 to 0.18 mm (3.0 to 7.0 mils)
Curl in ream	Flat within 5 mm (0.02 in)
Cut edge conditions	Cut with sharp blades with no visible fray.
Fusing compatibility	Must not scorch, melt, offset, or release hazardous emissions when heated to 200° C (392°F) for 0.1 second.
Grain	Long grain
Moisture content	4% to 6% by weight
Smoothness	100 to 250 Sheffield

## Select print media

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

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



**NOTE** Some paper might meet all of the guidelines in this manual and still not produce satisfactory results. This might be the result of improper handling, unacceptable temperature and humidity levels, or other variables over which Hewlett-Packard has no control. Before purchasing large quantities of media, make sure that it meets the requirements that are specified in this user guide and in the *HP LaserJet Printer Family Print Media Guide*, which is available for download at [www.hp.com/support/ljpaperguide](http://www.hp.com/support/ljpaperguide). Always test paper before buying large quantities.



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

## Supported media sizes

**Table 1-1** Supported media sizes

Input tray	Letter	Legal	A4	A5	Executive (JIS)	B5 (JIS)	16K	Custom	Statement	S Postcard (JIS)	Envelope <sup>1</sup>
Tray 1	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Tray 2, tray 3	✓	✓	✓	✓	✓	✓					

<sup>1</sup> Supported envelope sizes are #10, Monarch, C5, DL, and B5.

**Table 1-2** Automatic 2-sided printing <sup>1</sup>

Media size	Dimensions	Weight and thickness
Letter	216 x 279 mm (8.5 x 11 in)	60 to 120 g/m <sup>2</sup> (16 to 32 lb bond)
Legal	216 x 356 mm (8.5 x 14 in)	
A4	211 x 297 mm (8.3 x 11.7 in)	
JIS	216 x 330 mm (8.5 x 13 in)	

<sup>1</sup> Automatic 2-sided printing on weights heavier than those shown can produce unexpected results.



**NOTE** Automatic 2-sided (duplex) printing is available with the HP LaserJet M3027x, HP LaserJet M3035, and HP LaserJet M3035xs models.

**Manual 2-sided printing.** Most of the supported media sizes and types listed for printing from tray 1 can be manually duplexed. See the user guide for more information.

## Supported media types

**Table 1-3** Tray 1 media types

Type	Dimensions	Weight or thickness	Capacity <sup>1</sup>
Plain	Minimum: 76 x 127 mm (3 x 5 in)	60 to 199 g/m <sup>2</sup> (16 to 53 lb)	100 sheets
Preprinted	Maximum: 216 x 356 mm (8.5 x 14 in)	60 to 120 g/m <sup>2</sup> (16 to 32 lb)	100 sheets
Letterhead		60 to 120 g/m <sup>2</sup> (16 to 32 lb)	100 sheets
Prepunched		60 to 120 g/m <sup>2</sup> (16 to 32 lb)	100 sheets
Bond		60 to 120 g/m <sup>2</sup> (16 to 32 lb bond)	100 sheets
Recycled		60 to 120 g/m <sup>2</sup> (16 to 32 lb)	100 sheets
Colored paper		60 to 120 g/m <sup>2</sup> (16 to 32 lb)	100 sheets
Rough		60 to 199 g/m <sup>2</sup> (16 to 53 lb)	Up to 100 sheets
Light		60 to 75 g/m <sup>2</sup> (16 to 20 lb)	100 sheets
Custom		60 to 199 g/m <sup>2</sup> (16 to 53 lb)	Up to 100 sheets
Transparencies <sup>2</sup>		0.10 to 0.14 mm thick (4.7 to 5 mils thick)	Up to 60 sheets
Envelopes		75 to 90 g/m <sup>2</sup> (20 to 24 lb)	10 envelopes
Labels		0.10 to 0.14 mm thick (4.7 to 5 mils thick)	Up to 60 sheets
Cardstock		Greater than 163 g/m <sup>2</sup> (greater than 43 lb)	Up to 100 sheets

<sup>1</sup> Capacity can vary depending on media weight and thickness and environmental conditions. Smoothness should be 100 to 250 (Sheffield). For ordering information, see [Supplies and accessories on page 313](#).

<sup>2</sup> Use only transparencies that are designed for use with HP LaserJet printers. This printer can detect transparencies that were not designed for use with HP LaserJet printers. For more information, see the user guide.

**Table 1-4** Tray 2 and tray 3 media types

Type	Dimensions	Weight or thickness	Capacity
Plain	Minimum: 140 x 216 mm (5.5 x 8.5 in)	60 to 120 g/m <sup>2</sup> (16 to 32 lb)	Up to 500 sheets
Preprinted	Maximum: 216 x 356 mm (8.5 x 14 in)	60 to 120 g/m <sup>2</sup> (16 to 32 lb)	Up to 500 sheets
Letterhead		60 to 120 g/m <sup>2</sup> (16 to 32 lb)	Up to 500 sheets
Prepunched		60 to 120 g/m <sup>2</sup> (16 to 32 lb bond)	Up to 500 sheets
Bond		60 to 120 g/m <sup>2</sup> (16 to 32 lb)	Up to 500 sheets
Recycled		60 to 120 g/m <sup>2</sup> (16 to 32 lb)	Up to 500 sheets
Colored paper		60 to 120 g/m <sup>2</sup> (16 to 32 lb)	Up to 500 sheets



---

# 2 Installation and configuration

## Chapter contents

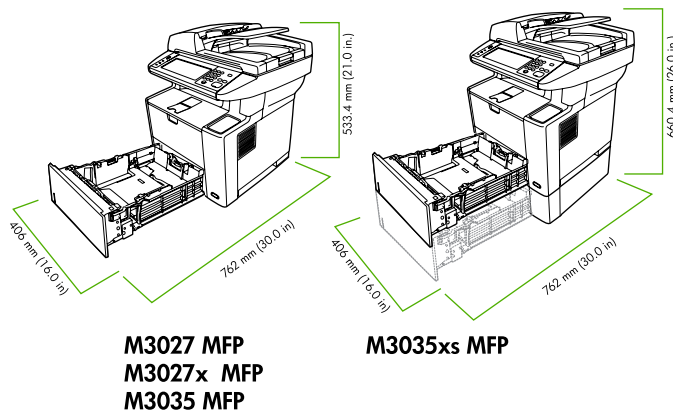
- [Site preparation](#)
- [Install trays](#)
- [Install supplies](#)
- [Install accessories](#)

# Site preparation

## Location specifications

Place the device on a sturdy, level surface in a well-ventilated area that meets the following environmental requirements:

- Temperature: 15° to 32°C (59° to 89°F)
- Humidity: 10% to 80% relative humidity (no condensation)
- Away from direct sunlight, open flames, and ammonia fumes
- Allow sufficient space around the device for access and ventilation. (See [Table C-2 Printer dimensions with all doors and trays fully opened on page 328](#) for the minimum space requirements.)



## Operating environment

Environmental condition	Recommended	Allowed
Temperature (device and print cartridge)	17° to 25°C (63° to 77°F)	15° to 32°C (59° to 89°F)
Relative humidity	30% to 70% (no condensation)	10% to 80% (no condensation)



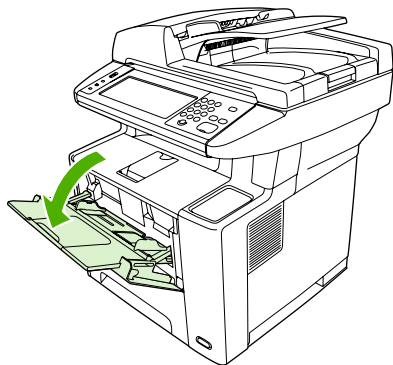
**NOTE** Optimum performance of the device is assured under the recommended temperature and humidity specifications. Print quality might deteriorate and occurrences of paper jams might increase when the device is operated within the allowed temperature and humidity specifications.

# Install trays

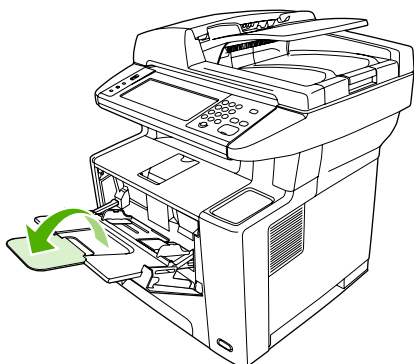
## Load tray 1 (multipurpose tray)

Tray 1 holds up to 100 sheets of paper, up to 75 transparencies, up to 50 sheets of labels, or up to 10 envelopes. For information about loading special media, see the user guide.

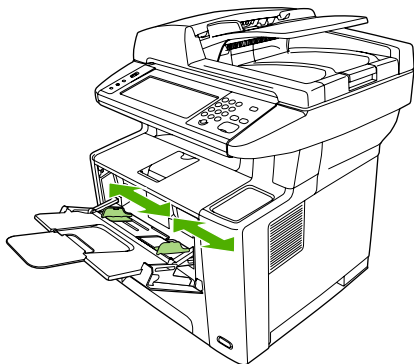
1. Open tray 1 by pulling the front cover down.



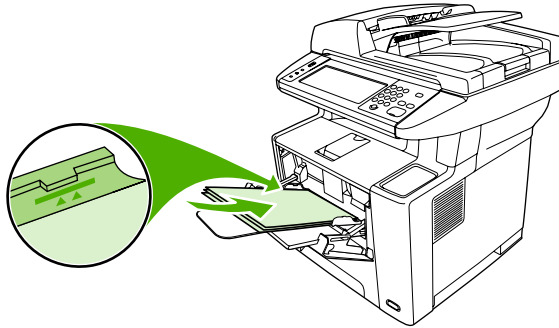
2. Slide out the plastic tray extender. If the media that is being loaded is longer than 229 mm (9 in), also flip open the additional tray extender.



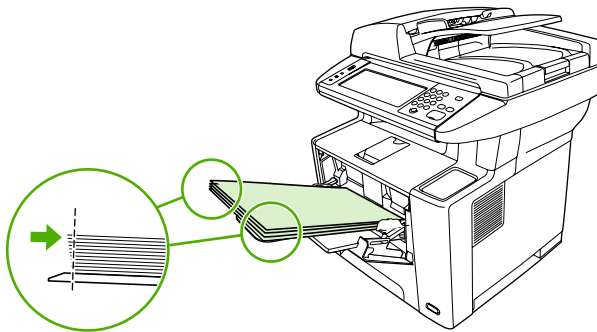
3. Slide the media-width guides slightly wider than the media.



4. Place media into the tray (short-edge in, print-side up). The media should be centered between the media-width guides and under the tabs on the media-width guides.



5. Slide the media-width guides inward until they lightly touch the media stack on both sides without bending it. Make sure that the media fits under the tabs on the media-width guides.



---

**NOTE** Do not add media to tray 1 while the device is printing. This could cause a jam. Do not close the front door when the device is printing.

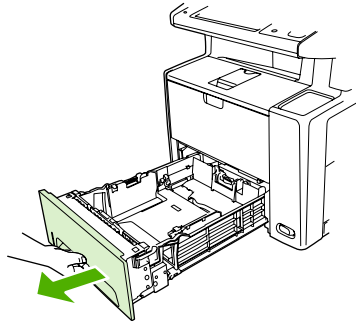
---



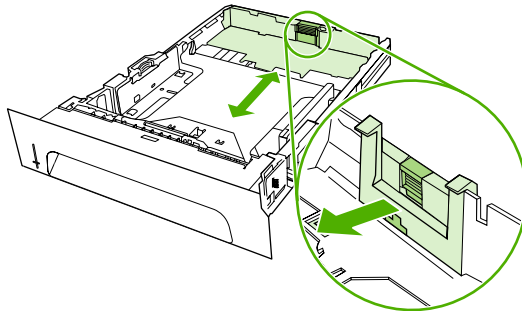
## Load tray 2 and optional tray 3

Trays 2 and 3 support only paper. For supported paper sizes, see [Media specifications on page 15](#).

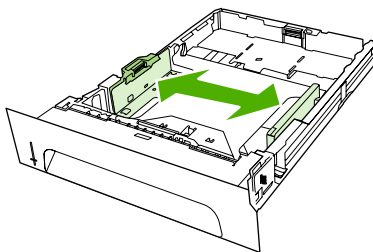
1. Pull the tray out of the device and remove any paper.



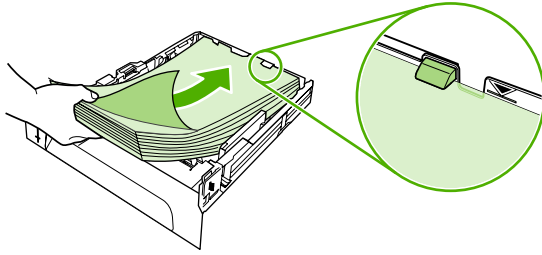
2. On the rear paper-length guide, press the tab and slide it so that the pointer matches the paper size that you are loading. Make sure that the guide clicks into place.



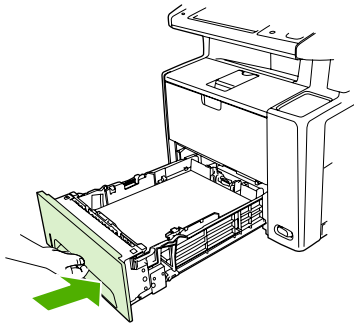
3. Adjust the side media-width guides outward so that the pointer matches the paper size that you are loading.



4. Place the paper in the tray and make sure that it is flat at all four corners. Keep the paper below the height tabs on the paper-length guide in the rear of the tray.



5. Push down on the paper to lock the metal paper-lift plate in place.
6. Slide the tray into the device.



## Configure trays

1. At the device control panel, touch **Supplies Status**.
2. Touch **Trays**.
3. Select the tray that you want to set and then touch **Modify Tray**.
4. Set the size and type of media that is loaded in the tray.

# Install supplies

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/LJM3027mfp](http://www.hp.com/support/LJM3027mfp) or [www.hp.com/support/LJM3035mfp](http://www.hp.com/support/LJM3035mfp).

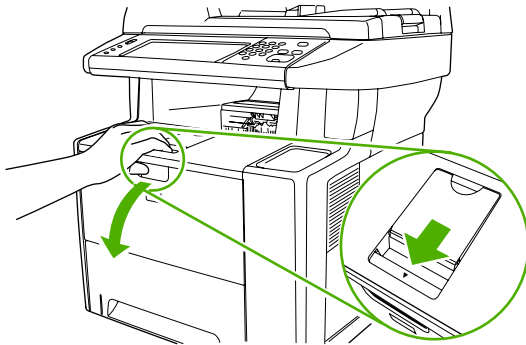


**NOTE** Hewlett-Packard recommends the use of HP products in this device. Use of non-HP products may cause problems requiring service that is not covered by the HP warranty or service agreements.

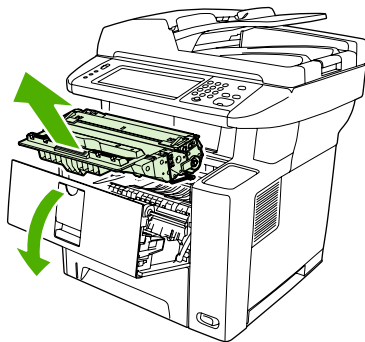
## Change the print cartridge

When a print cartridge approaches the end of useful life, a message appears on the control panel recommending that you order a replacement. The device can continue to print using the current print cartridge until a message appears instructing you to replace the cartridge.

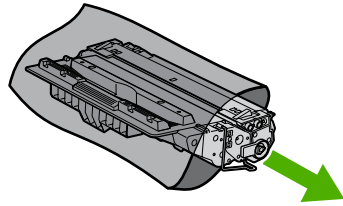
1. Open the front cover.



2. Remove the used print cartridge from the device.



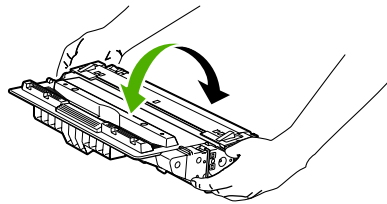
3. Remove the new print cartridge from the bag. Place the used print cartridge in the bag for recycling.



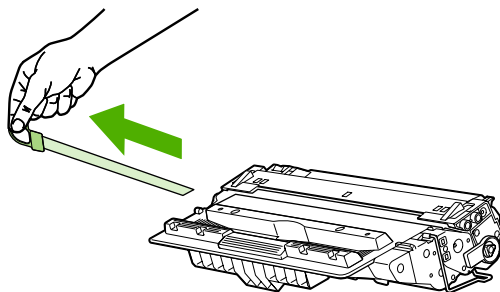
4. Grasp both sides of the print cartridge and distribute the toner by gently rocking the print cartridge.



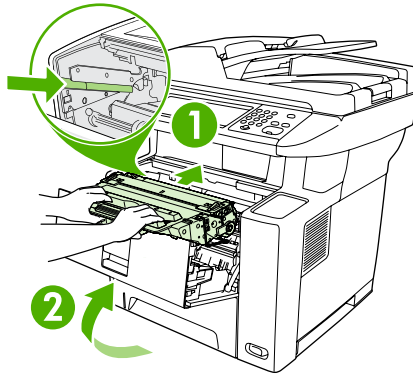
**CAUTION** Do not touch the shutter or the surface of the roller.



5. Remove the shipping tape from the new print cartridge. Discard the shipping tape according to local regulations.



6. Align the print cartridge with the tracks inside the device, and, using the handle, insert the print cartridge until it is firmly seated, and then close the front door.



After a short time, the control panel should display **Ready**.

7. Installation is complete. Place the used print cartridge in the box in which the new cartridge arrived. See the enclosed recycling guide for recycling instructions.
8. If you are using a non-HP print cartridge, check the device control panel for further instructions.

For additional help, go to [www.hp.com/support/LJM3027mfp](http://www.hp.com/support/LJM3027mfp) or [www.hp.com/support/LJM3035mfp](http://www.hp.com/support/LJM3035mfp).

# Install accessories

## Install memory

You might want to add more memory to the device if you often print complex graphics, print PostScript (PS) documents, or use many downloaded fonts. Added memory also gives you more flexibility in supporting job-storage features, such as quick copying.

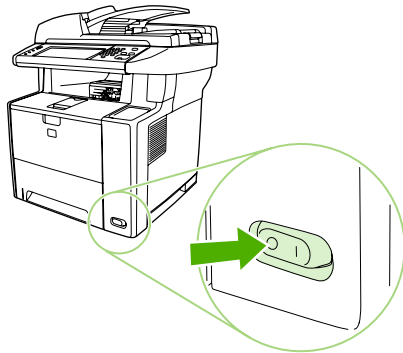
### Install device memory

**CAUTION** Static electricity can damage DIMMs. When handling DIMMs, either wear an antistatic wrist strap or frequently touch the surface of the DIMM antistatic package, then touch bare metal on the device.

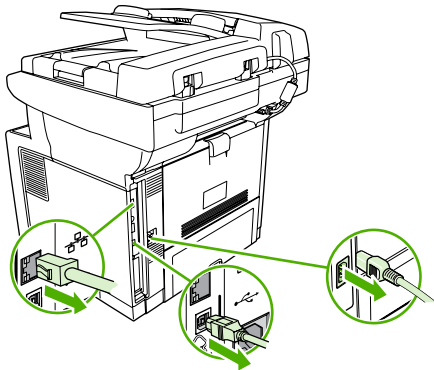
The HP LaserJet M3027/M3035 devices come with one DIMM slot. If desired, you can replace a DIMM installed in the slot with a higher memory DIMM.

If you have not already done so, print a configuration page to find out how much memory is installed in the device before adding more memory. See [Use information pages on page 45](#).

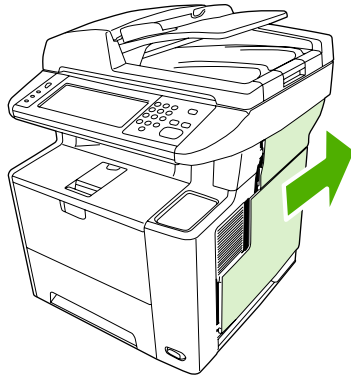
1. After the configuration page has printed, turn the device off and disconnect the power cord.



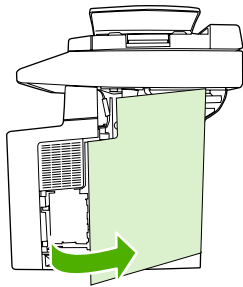
2. Disconnect all interface cables.



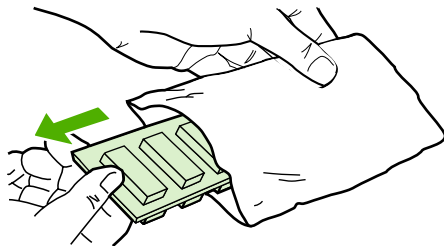
3. Remove the right side panel by sliding it towards the rear of the device until the side slides from the device.




4. Open the access door by pulling on the metal tab.



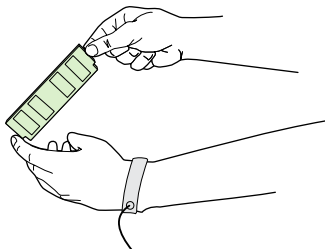
5. Remove the DIMM from the antistatic package.



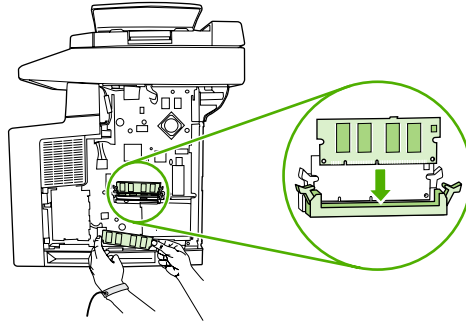
---

 **CAUTION** To reduce the possibility of damage caused by static electricity, always wear an electrostatic discharge (ESD) wrist strap or touch the surface of the antistatic package before handling DIMMs.

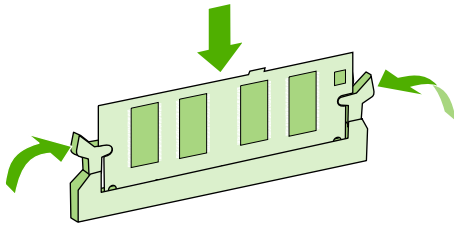
---



6. Hold the DIMM by the edges, and align the notches on the DIMM with the DIMM slot. (Check that the locks on each side of the DIMM slot are open.)



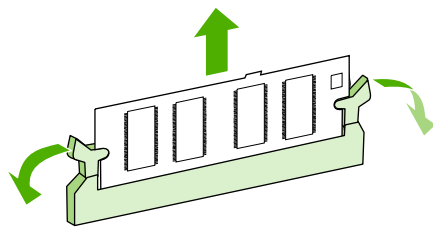
7. Press the DIMM straight into the slot, and press firmly. Make sure the locks on each side of the DIMM snap into place.



---

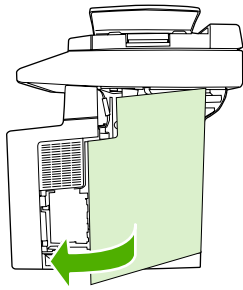
**NOTE** To remove a DIMM, first release the locks.

---

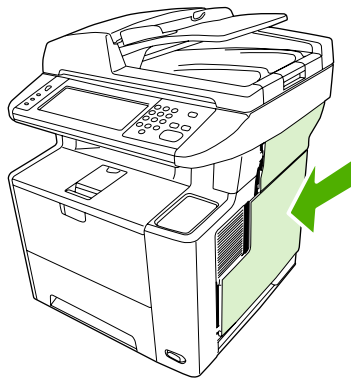




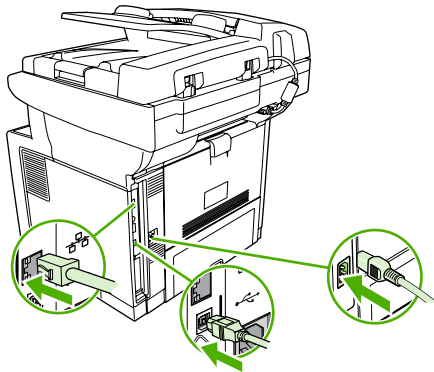
8. Close the access door, and press firmly until it snaps into place.



9. To replace the right side panel, line up the alignment arrows and slide the panel toward the front of the device until it latches into place.



10. Reconnect the interface cable(s) and the power cord.



11. Turn the device on.

## Check DIMM installation

After installing the DIMM, make sure that the installation was successful.

### Verify that DIMM is installed correctly

1. Turn the device on. Check that the Ready light is illuminated after the device has gone through the startup sequence. If an error message appears, a DIMM might have been incorrectly installed. See [Control-panel messages on page 201](#).
2. Print a configuration page (see [Use information pages on page 45](#)).
3. Check the memory section on the configuration page and compare it to the configuration page that was printed before the memory installation. If the amount of memory has not increased, the DIMM might not be installed correctly, or the DIMM might be defective. Repeat the installation procedure. If necessary, install a different DIMM.



---

**NOTE** If you installed a device language (personality), check the "Installed Personalities and Options" section on the configuration page. This area should list the new device language.

---

## Enable memory for Windows

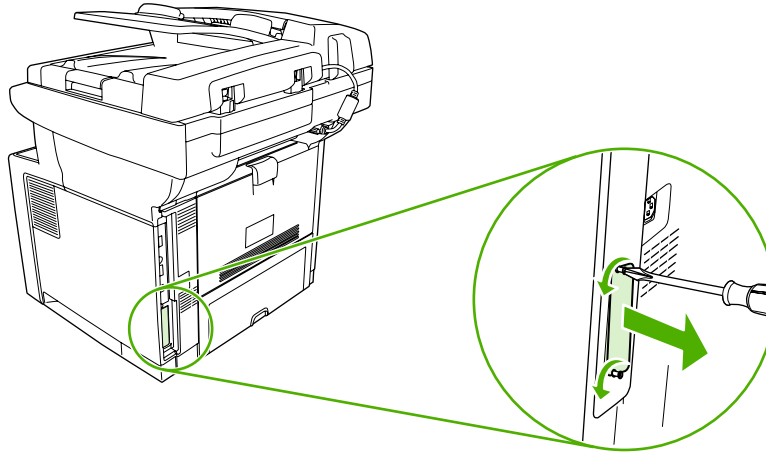
1. On the **Start** menu, **Settings**, and **Printers** or **Printers and Faxes**.
2. Select this device and select **Properties**.
3. On the **Configure** tab, click **More**.
4. In the **Total Memory** field, type or select the total amount of memory that is now installed.
5. Click **OK**.

## Use HP Jetdirect print server cards

Follow these procedures to install or remove an EIO card.

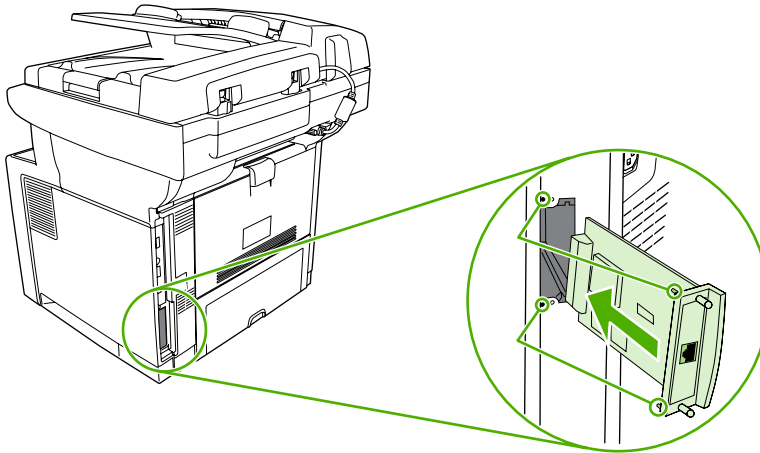
### Install an HP Jetdirect print server card

1. Turn off the device.
2. Remove the two screws and cover plate from the EIO slot on the back of the device.

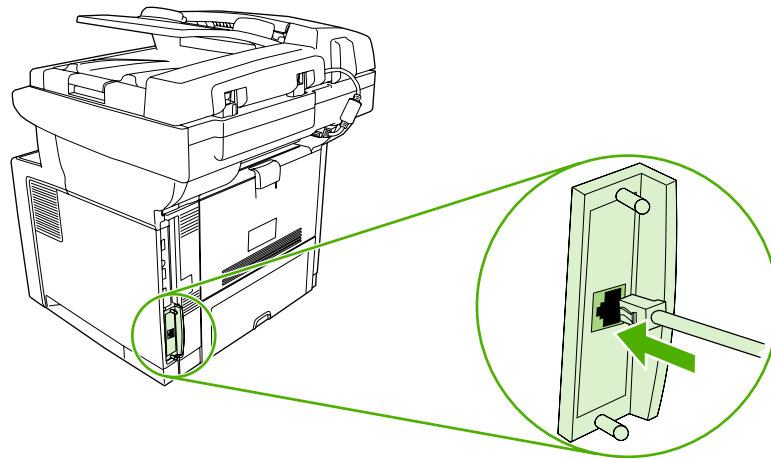


**NOTE** Do not discard the screws or the cover plate. Save them for future use if you remove the EIO card.

3. Install the EIO card in the EIO slot and tighten the screws.



4. Connect the network cable to the EIO card.



5. Turn on the device, and then print a configuration page to verify that the new EIO device is recognized. See [Use information pages on page 45](#).



---

**NOTE** When you print a configuration page, an HP Jetdirect configuration page that contains network configuration and status information also prints.

---

## Remove an HP Jetdirect print server card

1. Turn off the device.
2. Disconnect the network cable from the EIO card.
3. Loosen the two screws from the EIO card, and then remove the EIO card from the EIO slot.
4. Place the cover plate from the EIO slot onto the back of the device. Insert and tighten the two screws.
5. Turn on the device.

---

# 3 Maintenance

## Chapter contents

- [Manage supplies](#)
- [Clean the device](#)
- [Management tools](#)

# Manage supplies

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

## Supplies life

The average cartridge yield is 6,500 pages (for the Q7551A cartridge) or 13,000 pages (for the Q7551X cartridge), in accordance with ISO/IEC 19752. Actual cartridge yield depends on specific use.



**CAUTION** The Economode feature allows the device to use less toner per page. Selecting Economode extends the life of the toner supply and reduces the cost per page but reduces print quality. The printed image is lighter but is adequate for printing drafts or proofs. Hewlett-Packard does not recommend full-time use of Economode. If Economode is used full-time, the toner supply might outlast the mechanical parts in the print cartridge. If print quality begins to degrade under these circumstances, install a new print cartridge even if the print cartridge still contains toner.

## Approximate print-cartridge replacement intervals

Print cartridge	Page count	Approximate time period <sup>1</sup>
Black (Q7551A)	6,500 pages <sup>1</sup>	3 months
Black (Q7551X)	13,000 pages	6 months

<sup>1</sup> Approximate life is based on 2,000 pages per month.

To order supplies online, go to [www.hp.com/support/LJM3027mfp](http://www.hp.com/support/LJM3027mfp) or [www.hp.com/support/LJM3035mfp](http://www.hp.com/support/LJM3035mfp).

## Manage 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.

---

### Use genuine HP print cartridges

When you use a genuine new HP print cartridge, you can obtain the following supplies information:

- Percentage of supplies remaining
- Estimated number of pages remaining
- Number of pages printed

### 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 [Change the print cartridge on page 27](#). To recycle the used cartridge, follow the instructions included with the new cartridge.

### Print-cartridge authentication

The device automatically authenticates the print cartridge when it is inserted into the device. During authentication, the device notifies you whether a cartridge is a genuine HP print cartridge.

If the device control-panel message states that this is not a genuine HP print cartridge and you believe you purchased an HP print cartridge, see [HP fraud hotline and Web site on page 39](#).

### HP fraud hotline and Web site

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

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

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

## Clean the device

Over time, particles of toner and paper accumulate inside the device. This can cause print-quality problems during printing. Cleaning the device eliminates or reduces these problems.

Clean the paper path and print-cartridge areas every time that you change the print cartridge or whenever print-quality problems occur. As much as possible, keep the device from dust and debris.

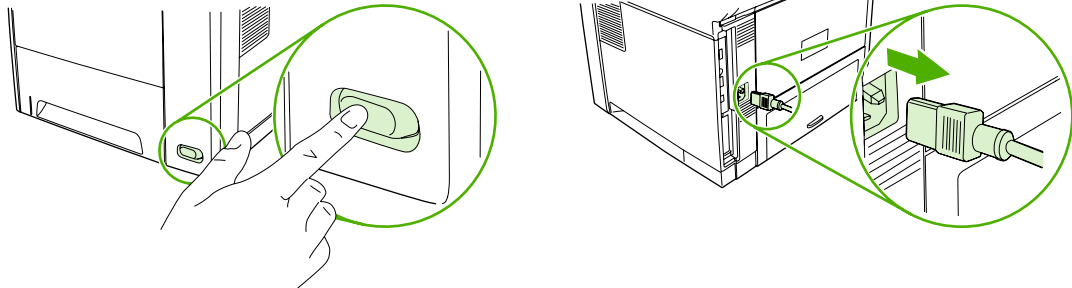
## Clean the exterior

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

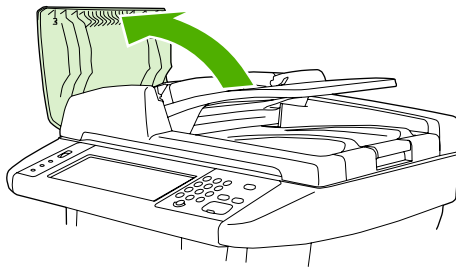
## Clean the ADF

If the ADF has trouble feeding documents, clean the ADF pickup roller assembly.

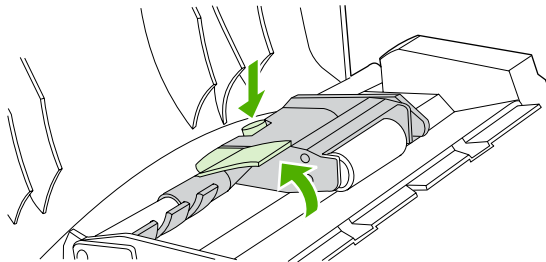
1. Turn off the device and unplug the power cord.



2. Open the ADF cover.

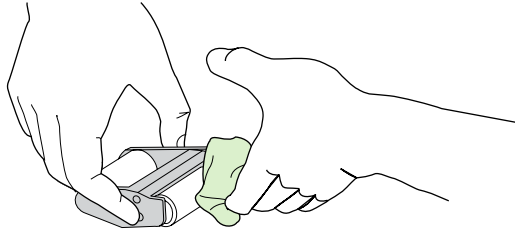


3. Press the round blue button while lifting the green lever. Rotate the green lever until it stops in the open position. The pickup roller assembly should remain on the surface.

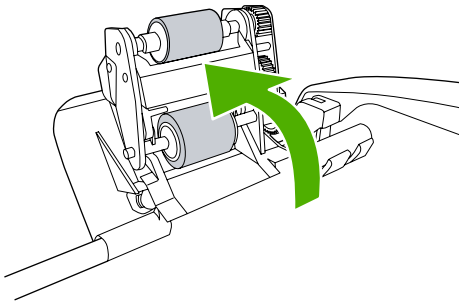




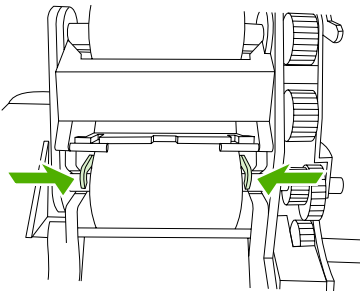
4. Remove the assembly, and then wipe the assembly with a soft, dry, lint-free cloth.



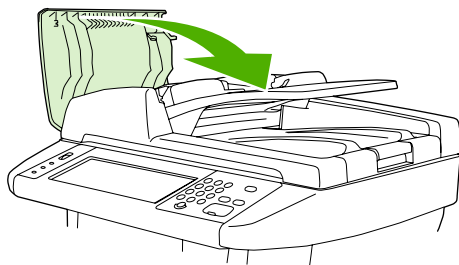
5. Replace the assembly, with the largest roller down, in the upright holder, and then press until the assembly snaps into place.



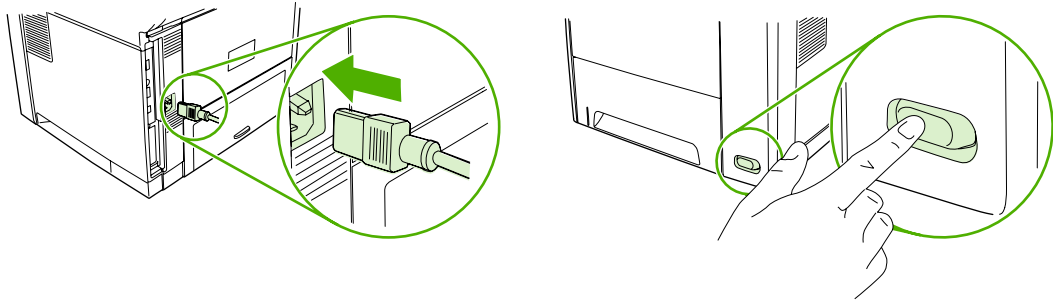
6. Make sure that both sides of the assembly are secured by the blue hooks.



7. Lower the roller assembly, and then close the ADF cover.



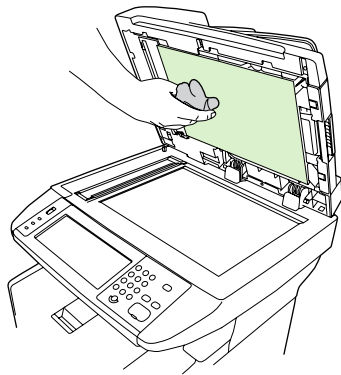
8. Plug in the device, and then turn on the device.



## Clean the scanner lid backing

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

1. Open the scanner 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.



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.

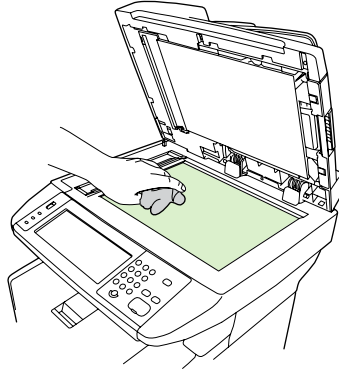
## Clean the scanner glass

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



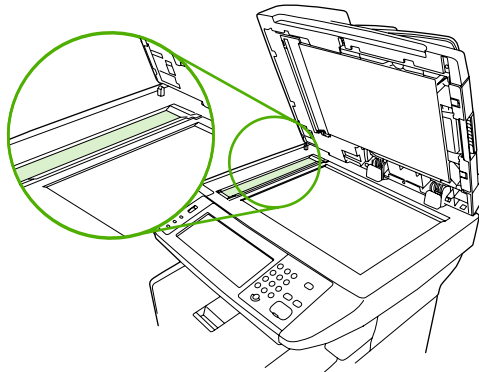
**NOTE** If streaks or other defects appear only on copies produced using the automatic document feeder (ADF), clean the scanner strip (step 3). It is not necessary to clean the scanner glass.

1. Open the scanner lid.
2. Clean the glass by using a damp, lint-free cloth.



**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. Clean the scanner strip by using a damp, lint-free cloth.



## Clean the fuser

Run the device cleaning page to keep the fuser free of toner and paper particles that can sometimes accumulate. Accumulation of toner and particles can cause specks to appear on the front or back side of your print jobs.

To ensure optimum print quality, HP recommends that you use the cleaning page every time that you replace the print cartridge.

The cleaning procedure takes about 2.5 minutes to complete. A **CLEANING** message appears on the device control panel display while the cleaning is taking place.

In order for the cleaning page to work correctly, print the page on copier-grade paper (not bond, heavy, or rough paper).

### Create and use the cleaning page

1. From the Home screen, touch **Administration**.
2. Touch **Print Quality**.
3. Touch **Calibration/Cleaning**.
4. Touch **Create Cleaning Page**.

The device prints a cleaning page.

5. Follow the instructions printed on the cleaning page.



## Clean spilled toner



If you spill toner on your clothes, wash them in *cold* water. Hot water sets the toner into the fabric.

# Management tools

## Use information pages

From the control panel, print pages that give details about the device and its current configuration. The table below provides the instructions for printing the information pages.

Page description	How to print the page
<b>Menu map</b> Shows the control-panel menus and available settings.	<ol style="list-style-type: none"><li>1. From the Home screen, touch <a href="#">Administration</a>.</li><li>2. Touch <a href="#">Information</a>.</li><li>3. Touch <a href="#">Configuration/Status Pages</a>.</li><li>4. Touch <a href="#">Administration Menu Map</a>.</li><li>5. Touch <a href="#">Print</a>.</li></ol> <p>The content of the menu map varies, depending on the options currently installed in the device.</p> <p>For a complete list of control panel menus and possible values, see the user guide.</p>
<b>Configuration page</b> Shows device settings and installed accessories.	<ol style="list-style-type: none"><li>1. From the Home screen, touch <a href="#">Administration</a>.</li><li>2. Touch <a href="#">Information</a>.</li><li>3. Touch <a href="#">Configuration/Status Pages</a>.</li><li>4. Touch <a href="#">Configuration Page</a>.</li><li>5. Touch <a href="#">Print</a>.</li></ol> <p> <b>NOTE</b> If the device contains an HP Jetdirect print server or an optional hard disk drive, additional configuration pages print that provide information about those devices.</p>
<b>Supplies status page</b> Shows print-cartridge toner levels.	<ol style="list-style-type: none"><li>1. From the Home screen, touch <a href="#">Administration</a>.</li><li>2. Touch <a href="#">Information</a>.</li><li>3. Touch <a href="#">Configuration/Status Pages</a>.</li><li>4. Touch <a href="#">Supplies Status Page</a>.</li><li>5. Touch <a href="#">Print</a>.</li></ol> <p> <b>NOTE</b> If you are using non-HP supplies, the supplies status page might not show the remaining life for those supplies. For more information, see <a href="#">HP policy on non-HP print cartridges on page 39</a>.</p>
<b>Usage page</b> Shows a page count for each size of paper printed, the number of one-sided (simplex) or two-sided (duplexed) pages, and the average percentage of coverage.	<ol style="list-style-type: none"><li>1. From the Home screen, touch <a href="#">Administration</a>.</li><li>2. Touch <a href="#">Information</a>.</li><li>3. Touch <a href="#">Configuration/Status Pages</a>.</li><li>4. Touch <a href="#">Usage Page</a>.</li><li>5. Touch <a href="#">Print</a>.</li></ol>

Page description	How to print the page
<p><b>File directory</b></p> <p>Contains information for any mass storage devices, such as flash drives, memory cards, or hard disks, that are installed in the device.</p>	<ol style="list-style-type: none"> <li>1. From the Home screen, touch <b>Administration</b>.</li> <li>2. Touch <b>Information</b>.</li> <li>3. Touch <b>Configuration/Status Pages</b>.</li> <li>4. Touch <b>File Directory</b>.</li> <li>5. Touch <b>Print</b>.</li> </ol>
<p><b>Fax reports</b></p> <p>Five reports show fax activity, fax calls, billing codes, blocked fax numbers, and speed-dial numbers.</p> <p> <b>NOTE</b> Fax reports are available only on device models that have fax capabilities.</p>	<ol style="list-style-type: none"> <li>1. From the Home screen, touch <b>Administration</b>.</li> <li>2. Touch <b>Information</b>.</li> <li>3. Touch <b>Fax Reports</b>.</li> <li>4. Touch one of the following buttons to print the corresponding report: <ul style="list-style-type: none"> <li>• <b>Fax Activity Log</b></li> <li>• <b>Fax Call Report</b></li> <li>• <b>Billing Codes Report</b></li> <li>• <b>Blocked Fax List</b></li> <li>• <b>Speed Dial List</b></li> </ul> </li> <li>5. Touch <b>Print</b>.</li> </ol> <p>For more information, see the fax guide that came with the device.</p>
<p><b>Font lists</b></p> <p>Shows which fonts are currently installed in the device.</p>	<ol style="list-style-type: none"> <li>1. From the Home screen, touch <b>Administration</b>.</li> <li>2. Touch <b>Information</b>.</li> <li>3. Touch <b>Sample Pages/Fonts</b>.</li> <li>4. Touch either <b>PCL Font List</b> or <b>PS Font List</b>.</li> <li>5. Touch <b>Print</b>.</li> </ol> <p> <b>NOTE</b> The font lists also show which fonts reside on a hard disk accessory or DIMM.</p>

## Use the HP Easy Printer Care software

The HP Easy Printer Care software is a program that you can use for the following tasks:

- Check the device status.
- Check supplies status.
- Set up alerts.
- Gain access to problem-solving and maintenance tools.

You can use the HP Easy Printer Care software when the device is directly connected to your computer or when it is connected to a network. You must perform a complete software installation to use the HP Easy Printer Care software.



**NOTE** You do not have to have Internet access to open and use the HP Easy Printer Care software. However, if you click a Web-based link, you must have Internet access to go to the site associated with the link.


---

## Open the HP Easy Printer Care software

Use one of the following methods to open HP Easy Printer Care software:

- On the **Start** menu, select **Programs**, select **Hewlett-Packard**, and then select **HP Easy Printer Care software**.
- In the Windows system tray (in the lower-right corner of the desktop), double-click the HP Easy Printer Care software icon.
- Double-click the desktop icon.

## HP Easy Printer Care software sections

Section	Options
<p><b>Device List</b> tab</p> <p>Shows information about each device in the <b>Devices</b> list</p>	<ul style="list-style-type: none"> <li>• Device information, including device name, make, and model</li> <li>• An icon (if the <b>View as</b> drop-down box is set to <b>Tiles</b>, which is the default setting)</li> <li>• Any current alerts for the device</li> </ul> <p>If you click a device in the list, the HP Easy Printer Care software opens the <b>Overview</b> tab for that device.</p>
<p><b>Supplies Ordering</b> window</p> <p>Provides access to online or e-mail supplies ordering</p>	<ul style="list-style-type: none"> <li>• <b>Ordering list:</b> Shows the supplies that you can order for each device. If you want to order a certain item, click the <b>Order</b> check box for that item in the supplies list.</li> <li>• <b>Shop Online for Supplies</b> button: Opens the HP SureSupply Web site in a new browser window. If you have checked the <b>Order</b> check box for any items, the information about those items can be transferred to the Web site, where you will receive information on options for purchasing your selected supplies.</li> <li>• <b>Print Shopping List</b> button: Prints the information for the supplies that have the <b>Order</b> check box selected.</li> </ul>
<p><b>Alert Settings</b> window</p> <p>Allows you to configure the device to automatically notify you of device issues</p>	<ul style="list-style-type: none"> <li>• <b>Alerts on or off:</b> Activates or deactivates the alerts feature.</li> <li>• <b>When alerts appear:</b> Sets when you want alerts to appear—either when you are printing to that particular device, or anytime there is a device event.</li> <li>• <b>Alert event type:</b> Sets whether you want alerts for only critical errors, or for any error, including continuable errors.</li> <li>• <b>Notification method:</b> Sets what type of alert should appear (pop-up message or desktop alert).</li> </ul>
<p><b>Overview</b> tab</p> <p>Contains basic status information for the device</p>	<ul style="list-style-type: none"> <li>• <b>Devices</b> list: Shows the devices that you can select.</li> <li>• <b>Device Status</b> section: Shows device status information. This section will indicate device alert conditions, such as an empty print cartridge. It also shows device-identification information, control-panel messages, and print-cartridge levels. After you correct a problem with the device, click the  button to update the section.</li> <li>• <b>Supplies Status</b> section: Shows detailed supplies status, such as the percentage of toner remaining in the print cartridge and the status of the media that is loaded in each tray.</li> <li>• <b>Supplies Details</b> link: Opens the supplies status page to view more detailed information about device supplies, ordering information, and recycling information.</li> </ul>
<p><b>Support</b> tab</p> <p>Provides help information and links</p>	<ul style="list-style-type: none"> <li>• Provides device information, including alerts for items needing attention.</li> <li>• Provides links to troubleshooting and maintenance tools.</li> </ul>
<p><b>Find Other Printers</b> window</p> <p>Allows you to add more printers to your printer list</p>	<p>Clicking the <b>Find Other Printers</b> link in the <b>Devices</b> list opens the <b>Find Other Printers</b> window. The <b>Find Other Printers</b> window provides a utility that detects other network printers so that you can add them to the <b>Devices</b> list and then monitor those devices from your computer.</p>



## Use the embedded Web server

When the device is connected to the network, the embedded Web server is automatically available.



---

**NOTE** When the device is directly connected to a computer, use the HP Easy Printer Care software to view the device status.

---

- View device control status information
- Set the type of paper loaded in each tray
- Determine the remaining life on all supplies and order new ones
- View and change tray configurations
- View and change the device control panel menu configuration
- View and print internal pages
- Receive notification of device and supplies events
- View and change network configuration
- View support content that is specific to the current state of the device

To use the embedded Web server, you must have Microsoft Internet Explorer 4 and later or Netscape Navigator 4 and later. The embedded Web server works when the device is connected to an IP-based network. The embedded Web server does not support IPX-based or AppleTalk device connections. You do not need Internet access to open and use the embedded Web server.

## Open the embedded Web server by using a network connection

1. In a supported Web browser on your computer, type the device IP address or host name in the address/URL field. To find the IP address or host name, print a configuration page. See [Use information pages on page 45](#).



---


**NOTE** After you open the URL, you can bookmark it so that you can return to it quickly in the future.



---

2. The embedded Web server has three tabs that contain settings and information about the device: the **Information** tab, the **Settings** tab, and the **Networking** tab. Click the tab that you want to view.

See [Embedded Web server sections on page 50](#) for more information about each tab.

## Embedded Web server sections

Tab or section	Options
<b>Information tab</b>  Provides device, status, and configuration information	<ul style="list-style-type: none"><li>● <b>Device Status:</b> Shows the device status and shows the life remaining of HP supplies, with 0% indicating that a supply is empty. The page also shows the type and size of print paper set for each tray. To change the default settings, click <b>Change Settings</b>.</li><li>● <b>Configuration Page:</b> Shows the information found on the configuration page.</li><li>● <b>Supplies Status:</b> Shows the life remaining of HP supplies, with 0 percent indicating that a supply is empty. This page also provides supplies part numbers. To order new supplies, click <b>Order Supplies</b> in the <b>Other Links</b> area on the left side of the window.</li><li>● <b>Event log:</b> Shows a list of all device events and errors.</li><li>● <b>Usage page:</b> Shows a summary of the number of pages the device has printed, grouped by size and type.</li><li>● <b>Device Information:</b> Shows the device network name, address, and model information. To change these entries, click <b>Device Information</b> on the <b>Settings</b> tab.</li><li>● <b>Control Panel:</b> Shows messages from the device control panel, such as <b>Ready</b> or <b>Sleep mode on</b>.</li><li>● <b>Print:</b> Allows you to send print jobs to the device.</li></ul>
<b>Settings tab</b>  Provides the ability to configure the device from your computer	<ul style="list-style-type: none"><li>● <b>Configure Device:</b> Allows you to configure device settings. This page contains the traditional menus found on devices using a control-panel display.</li><li>● <b>E-mail Server:</b> Network only. Used in conjunction with the <b>Alerts</b> page to set up incoming and outgoing e-mail, as well as to set e-mail alerts.</li><li>● <b>Alerts:</b> Network only. Allows you to set up to receive e-mail alerts for various device and supplies events.</li><li>● <b>AutoSend:</b> Allows you to configure the device to send automated e-mails regarding device configuration and supplies to specific e-mail addresses.</li><li>● <b>Security:</b> Allows you to set a password that must be entered to gain access to the <b>Settings</b> and <b>Networking</b> tabs. Enable and disable certain features of the embedded Web server.</li><li>● <b>Edit Other Links:</b> Allows you to add or customize a link to another Web site. This link is displayed in the <b>Other Links</b> area on all embedded Web server pages.</li><li>● <b>Device Information:</b> Allows you to name the device and assign an asset number to it. Enter the name and e-mail address for the primary contact who will receive information about the device.</li><li>● <b>Language:</b> Allows you to determine the language in which to display the embedded Web server information.</li><li>● <b>Date &amp; Time:</b> Allows time synchronization with a network time server.</li><li>● <b>Wake Time:</b> Allows you to set or edit a wake time for the device.</li></ul> <p> <b>NOTE</b> The <b>Settings</b> tab can be password-protected. If this device is on a network, always consult with the system administrator before changing settings on this tab.</p>

Tab or section	Options
<p><b>Digital Sending tab</b></p> <p>Provides the ability to configure digital sending options</p>	<ul style="list-style-type: none"> <li>● <b>General Settings:</b> Allows you to set digital-sending administrator information.</li> <li>● <b>Send to E-mail:</b> Allows you to configure SMTP settings, set the maximum e-mail attachment size, and set the default e-mail address for the device.</li> <li>● <b>Send to Fax:</b> Allows you to configure the send-to-fax features for the device.</li> <li>● <b>Send to Folder:</b> Allows you to send scanned documents to shared folders or FTP sites.</li> <li>● <b>Addressing:</b> Allows you to set features so that the device can obtain addresses directly from the database of an LDAP server instead of from a replicated LDAP Address Book.</li> <li>● <b>Address Book:</b> Allows you to add a predefined list of destination addresses, in the form of a comma-separated value (.CSV) file, to be imported into the internal address book of the device.</li> <li>● <b>Log:</b> Allows you to view digital sending job information, including any errors that occur.</li> <li>● <b>Preferences:</b> Allows you to configure general settings for the digital-sending features.</li> </ul>
<p><b>Networking tab</b></p> <p>Provides the ability to change network settings from your computer</p>	<p>Network administrators can use this tab to control network-related settings for the device when it is connected to an IP-based network. This tab does not appear if the device is directly connected to a computer, or if the device is connected to a network using anything other than an HP Jetdirect print server.</p> <hr/> <p> <b>NOTE</b> The <b>Networking</b> tab can be password-protected.</p>
<p><b>Other links</b></p> <p>Contains links that connect you to the Internet</p>	<ul style="list-style-type: none"> <li>● <b>HP Instant Support™:</b> Connects you to the HP Web site to help you find solutions. This service analyzes your device error log and configuration information to provide diagnostic and support information specific to your device.</li> <li>● <b>Order Supplies:</b> Connects to the HP SureSupply Web site, where you will receive information on options for purchasing original HP supplies, such as print cartridges and paper.</li> <li>● <b>Product Support:</b> Connects to the support site for the device, from which you can search for help regarding general topics.</li> </ul> <hr/> <p> <b>NOTE</b> You must have Internet access in order to use any of these links. If you use a dial-up connection and did not connect when you first opened the embedded Web server, you must connect before you can visit these Web sites. Connecting might require that you close the embedded Web server and reopen it.</p>

## Use HP Web Jetadmin software

HP Web Jetadmin is a Web-based software solution for remotely installing, monitoring, and troubleshooting network-connected peripherals. The intuitive browser interface simplifies cross-platform management of a wide range of devices, including HP and non-HP devices. Management is proactive, allowing network administrators the ability to resolve issues before users are affected. Download this free, enhanced-management software at [www.hp.com/go/webjetadmin\\_software](http://www.hp.com/go/webjetadmin_software).

To obtain plug-ins to HP Web Jetadmin, click **plug-ins**, and then click the **download** link that is next to the name of the plug-in that you want. The HP Web Jetadmin software can automatically notify you when new plug-ins are available. On the **Product Update** page, follow the directions to automatically connect to the HP Web site.

If installed on a host server, HP Web Jetadmin is available to any client through a supported Web browser, such as Microsoft Internet Explorer 6.0 for Windows or Netscape Navigator 7.1 for Linux. Browse to the HP Web Jetadmin host.



---

**NOTE** Browsers must be Java-enabled. Browsing from an Apple PC is not supported.

---

## Use the HP Printer Utility for Macintosh

Use the HP Printer Utility to configure and maintain a device from a Mac OS X computer.

### Open the HP Printer Utility

#### Open the HP Printer Utility in Mac OS X V10.2.8

1. Open the Finder, and then click **Applications**.
2. Click **Library**, and then click **Printers**.
3. Click **hp**, and then click **Utilities**.
4. Double-click **HP Printer Selector** to open the HP Printer Selector.
5. Select the device that you want to configure, and then click **Utility**.

#### Open the HP Printer Utility in Mac OS X V10.3, V10.4 and later

1. In the Dock, click the **Printer Setup Utility** icon.



---

**NOTE** If the **Printer Setup Utility** icon does not appear in the Dock, open the Finder, click **Applications**, click **Utilities**, and then double-click **Printer Setup Utility**.

---

2. Select the device that you want to configure, and then click **Utility**.

## HP Printer Utility features

The HP Printer Utility consists of pages that you open by clicking in the **Configuration Settings** list. The following table describes the tasks that you can perform from these pages.

Item	Description
<b>Configuration Page</b>	Prints a configuration page.
<b>Supplies Status</b>	Shows the device supplies status and provides links for online supplies-ordering.
<b>HP Support</b>	Provides access to technical assistance, online supplies ordering, online registration, and recycling and return information.
<b>File Upload</b>	Transfers files from the computer to the device.
<b>Upload Fonts</b>	Transfers font files from the computer to the device.
<b>Firmware Update</b>	Transfers updated firmware files from the computer to the device.
<b>Duplex Mode</b>	Turns on the automatic two-sided printing mode.
<b>Economode &amp; Toner Density</b>	Turns on the Economode setting to conserve toner, or adjusts toner density.
<b>Resolution</b>	Changes the resolution settings, including the REt setting.
<b>Lock Resources</b>	Locks or unlocks storage products, such as a hard disk.
<b>Stored Jobs</b>	Manages print jobs that are stored on the device hard disk.
<b>Trays Configuration</b>	Changes the default tray settings.
<b>IP Settings</b>	Changes the device network settings and provides access to the embedded Web server.
<b>Bonjour Settings</b>	Provides the ability to turn on or off Bonjour support or change the device service name that is listed on a network.
<b>Additional Settings</b>	Provides access to the embedded Web server.
<b>E-mail Alerts</b>	Configures the device to send e-mail notices for certain events.



---

# 4 Theory of operation

## Chapter contents

- [Basic operation](#)
- [Internal components](#)
- [Timing](#)
- [Print cartridge memory system](#)

# Basic operation

This chapter presents an overview of the relationships among major components in the device, and includes a detailed discussion of the image-formation system. The following systems are discussed:

- ADF/scanner system
- Formatter
- Engine control unit
- Laser/scanner system
- Pickup/feed/delivery system
- Image-formation system

Figure 4-1 Block diagram on page 56 illustrates the relationships between the systems.

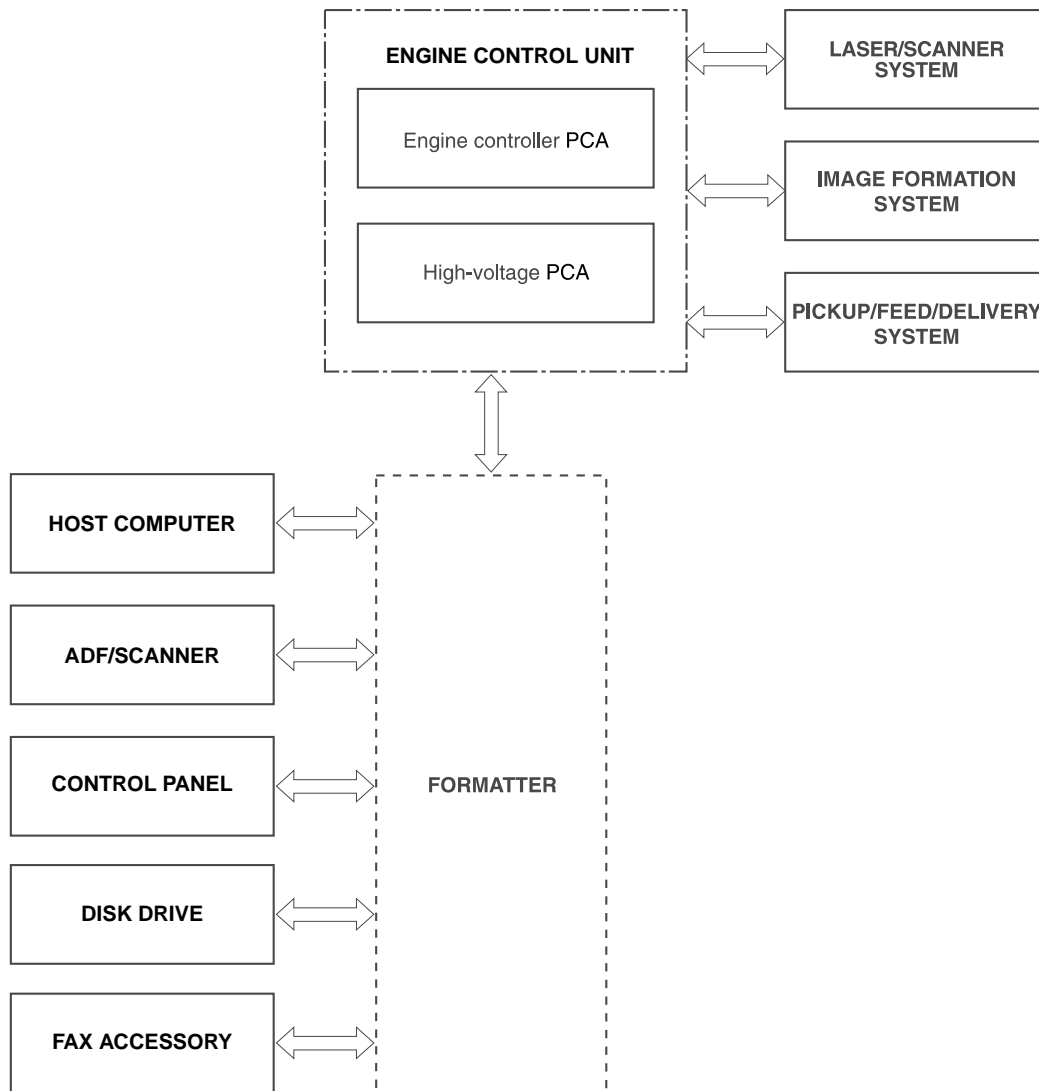


Figure 4-1 Block diagram



## ADF/scanner system

### ADF

If the ADF fails, it can be replaced as a whole-unit replacement part.

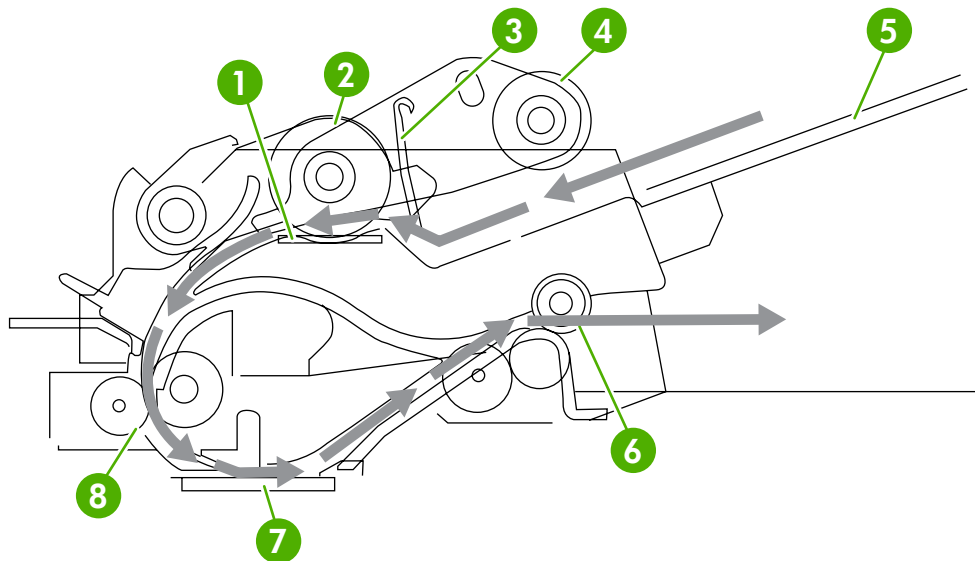
#### Sensors in the ADF

The ADF contains the following sensors:

- **ADF-cover sensor.** Detects whether the ADF cover is open or closed.
- **Top-of-page sensor.** Detects the top of the page before sending a page through the ADF and the end of the page after feeding/scanning is complete.
- **Paper-present sensor.** Detects whether a document is present in the ADF. If paper is present in the ADF when copies are made, the device scans the document using the ADF. If no paper is present when copies are made, the device scans the document using the scanner glass.

#### ADF paper path

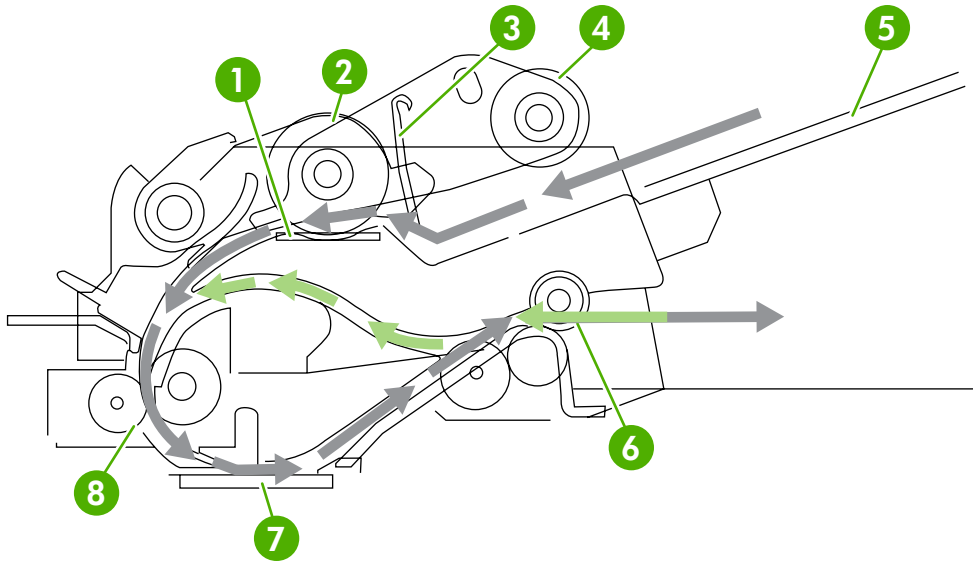
The ADF feeds documents past the ADF glass for scanning. [Figure 4-2 ADF path for single-sided documents on page 57](#) shows the path for single-sided documents.



**Figure 4-2** ADF path for single-sided documents

1	Separation pad	5	ADF input tray
2	Pickup roller	6	Delivery/duplex-feed rollers
3	Stack stop	7	ADF glass
4	Pre-pick roller	8	ADF feed rollers

For two-sided documents, the delivery rollers reverse the direction of each page to feed the second side of the document past the ADF glass. [Figure 4-3 ADF path for two-sided documents on page 58](#) shows the path for two-sided documents.



**Figure 4-3** ADF path for two-sided documents



**NOTE** Callouts in [Figure 4-3 ADF path for two-sided documents on page 58](#) are identical to callouts in [Figure 4-2 ADF path for single-sided documents on page 57](#).

## Scanner

If the scanner fails, it can be replaced as a whole-unit replacement part. The scanner replacement part does not include the ADF or the control panel.

The scanner is a carriage-type platen scanner, which includes the frame, glass, an internal power-supply, a scanner-controller PCA, and internal electronics and firmware. The ADF and control panel are attached to the scanner assembly.

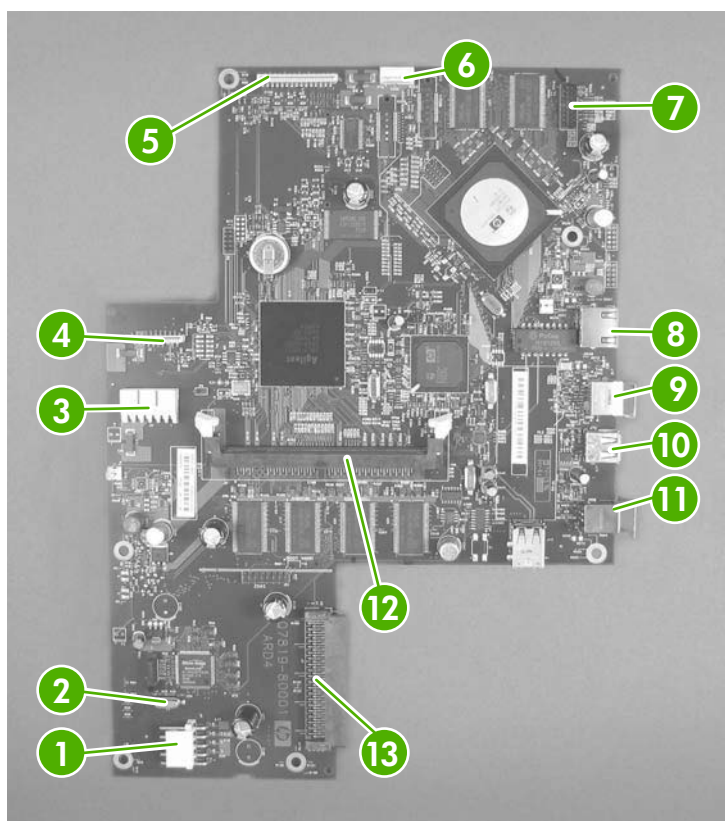
The scanner has a sensor that detects whether the scanner lid is open or closed.

## Formatter

The formatter is responsible for the following actions:

- Controlling the ADF/scanner assembly
- Formatting and controlling copies
- Receiving and processing print data from the computer interface
- Monitoring the control panel and relaying device status information
- Developing and coordinating data placement and timing with the print engine

[Figure 4-4 Formatter connections on page 59](#) shows the formatter connections.



**Figure 4-4** Formatter connections

1	Disk drive power	8	Network port
2	Disk drive interface	9	FIH port
3	ECU power	10	Type A Hi-Speed USB 2.0 connection for adding accessories
4	ECU interface	11	Type B Hi-Speed USB 2.0 port
5	ADF/scanner interface	12	DIMM slot
6	Control panel interface	13	EIO connection
7	Fax accessory interface		

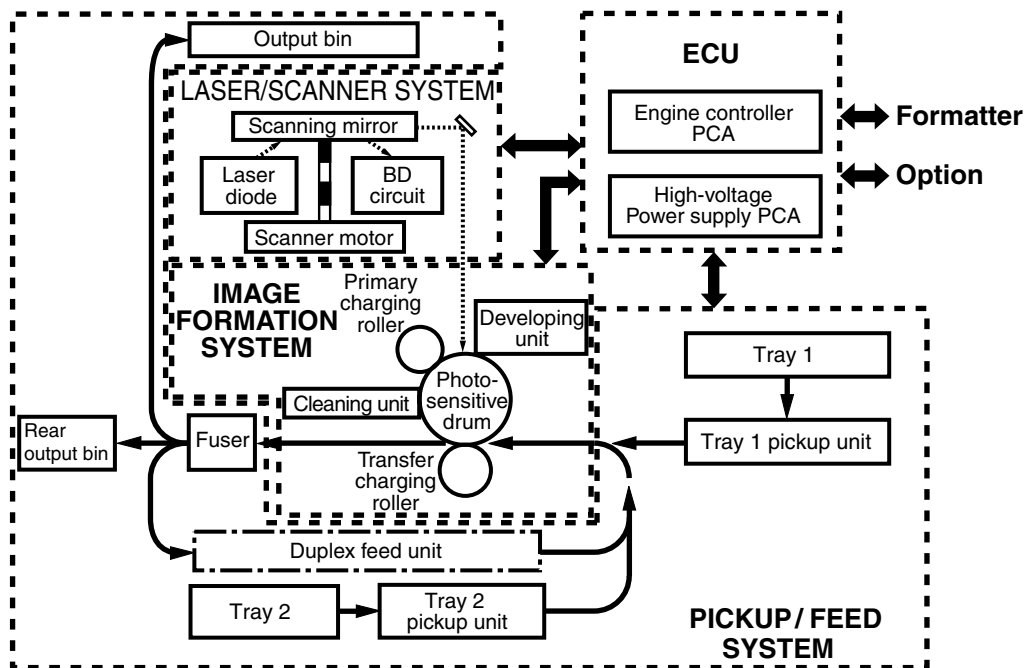
## Engine control unit (ECU)

The ECU coordinates all device functions, according to commands that the formatter sends. It drives the laser/scanner system, the image formation system, and the pickup/feed/delivery system.

The ECU contains the following components:

- Engine-controller PCA
- Low-voltage PCA

[Figure 4-5 Print engine general structure on page 60](#) shows the relationship of the ECU to the pickup/feed/delivery system, the laser/scanner system, and the image-formation system. [Figure 4-6 Engine control unit circuit diagram on page 61](#) provides the ECU circuit diagram. [Figure 4-7 LVPS circuit diagram on page 61](#) shows the low-voltage power supply circuit on the ECU.



**Figure 4-5** Print engine general structure

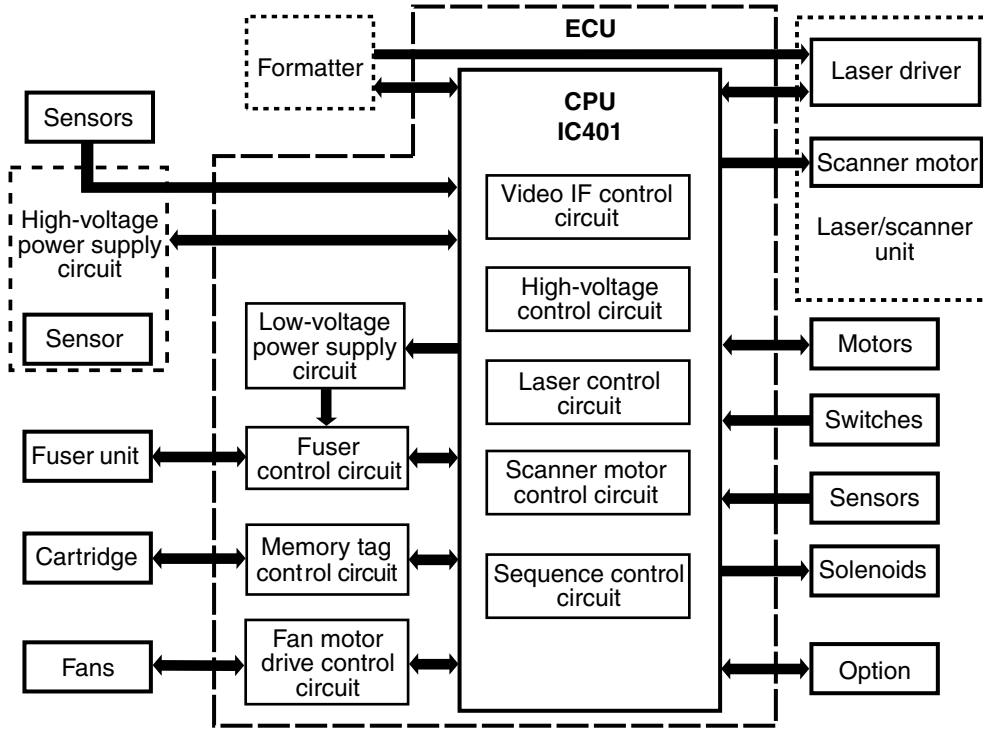


Figure 4-6 Engine control unit circuit diagram



**NOTE** Figure 6-11 ECU connections on page 268 shows the ECU connections.

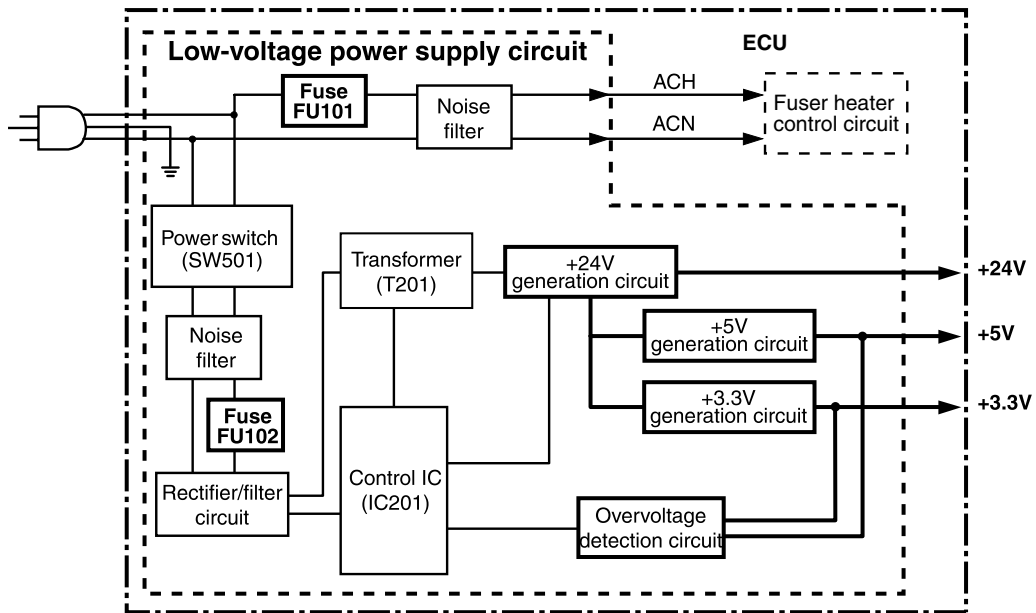


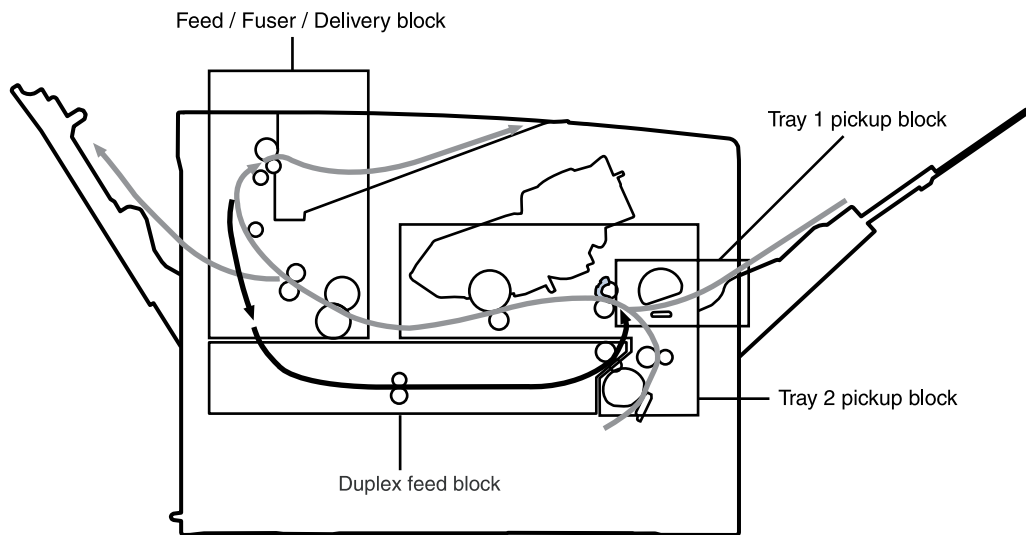
Figure 4-7 LVPS circuit diagram

## Pickup/feed/delivery system

The pickup/feed/delivery system consists of several types of feed rollers and sensors. The ECU uses two motors and two solenoids to drive the rollers. Three media-detection sensors detect media as it passes through the device. If media does not reach or pass each sensor within a specified time period, the ECU determines that a jam has occurred and alerts the formatter.

The following components work together to feed media through the device:

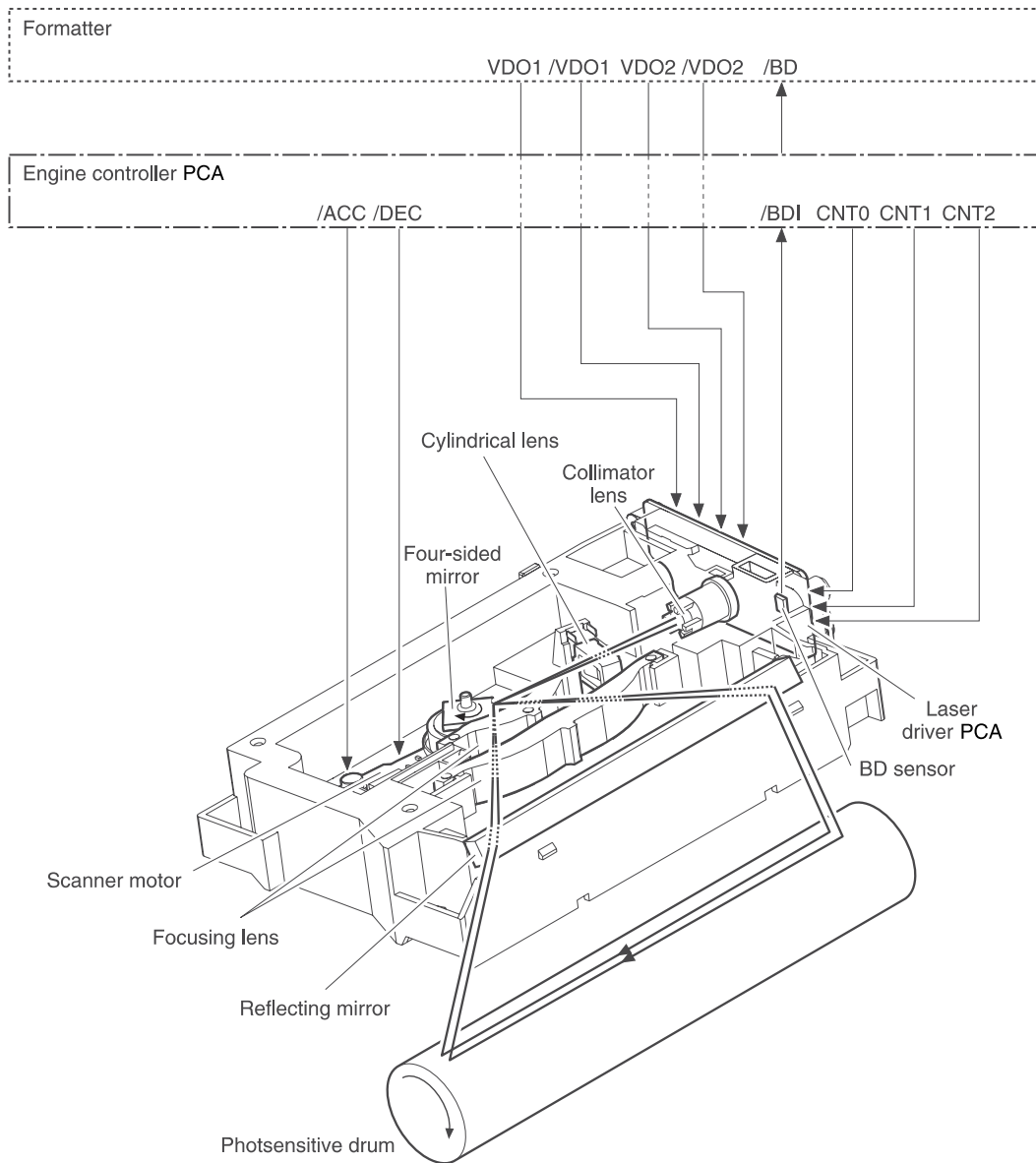
- M1, main motor
- M2, fuser motor
- SL1, tray 1 pickup solenoid
- SL2, tray 2 pickup solenoid
- PS502, duplexer media-detection sensor
- Output-bin-full sensor
- PS901, top-of-page sensor
- PS902, tray 1 media-detection sensor
- PS903, media-width sensor
- SR1, top output-bin delivery flag
- SR2, fuser-delivery flag



**Figure 4-8** Pickup/feed/delivery system block diagram

## Laser/scanner system

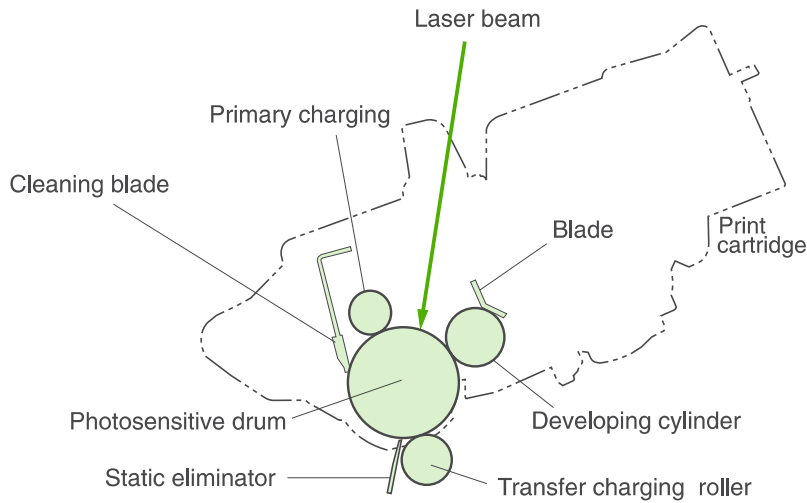
The laser/scanner system receives video signals from the ECU and the formatter and converts the signals into latent images on the photosensitive drum.



**Figure 4-9** Laser/scanner system

## Image-formation system

Laser printing requires the interaction of several different technologies, including electronics, optics, and electrophotographics, to provide a printed page.

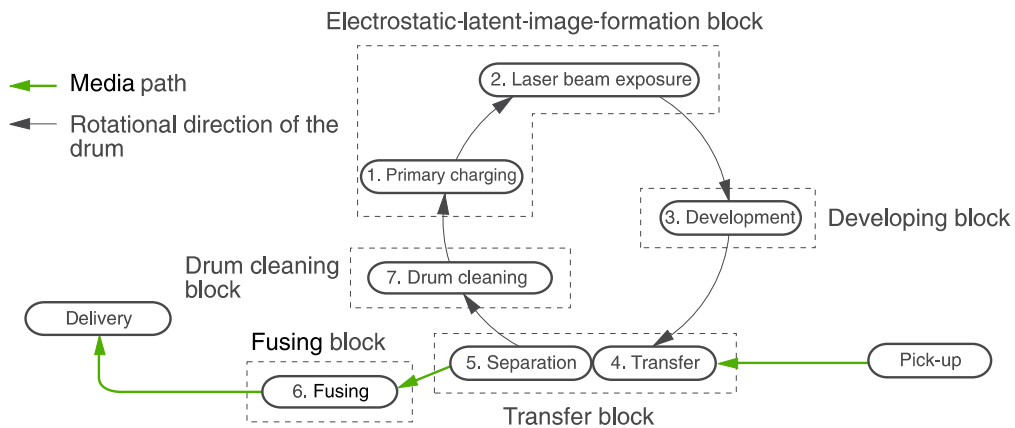


**Figure 4-10** Print cartridge diagram

Each process functions independently and must be coordinated with the other device processes. Image formation consists of the following five processes:

- Electrostatic latent-image formation
- Developing
- Transfer
- Fusing
- Drum cleaning

The five processes contain eight steps, which are shown in the figure [Figure 4-11 Image-formation system on page 64](#) and described in the following sections.



**Figure 4-11** Image-formation system



### Step 1: Primary charging

Dc and ac biases are applied to the primary charging roller, which transfers a uniform negative potential to the photosensitive drum.

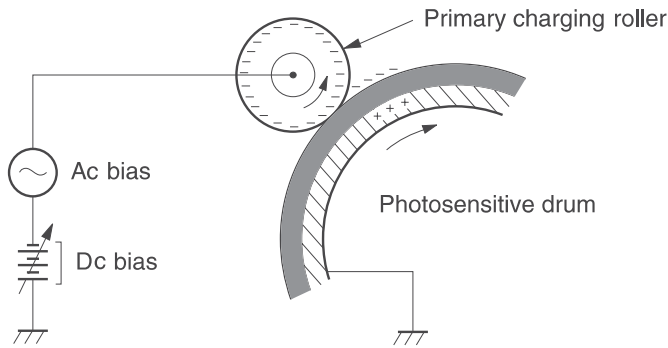


Figure 4-12 Primary charging

### Step 2: Laser beam exposure

The laser beam scans the photosensitive drum to neutralize negative charges on parts of the drum. An electrostatic latent image is formed on the drum where negative charges were neutralized.

### Step 3: Developing

The developing cylinder comes in contact with the photosensitive drum to deposit toner onto the electrostatic latent image.



**NOTE** The charges on the exposed area of the drum are shown as positive in [Figure 4-13 Developing on page 65](#). The charges are actually negative, but they are more positive than the charges on the developing cylinder.

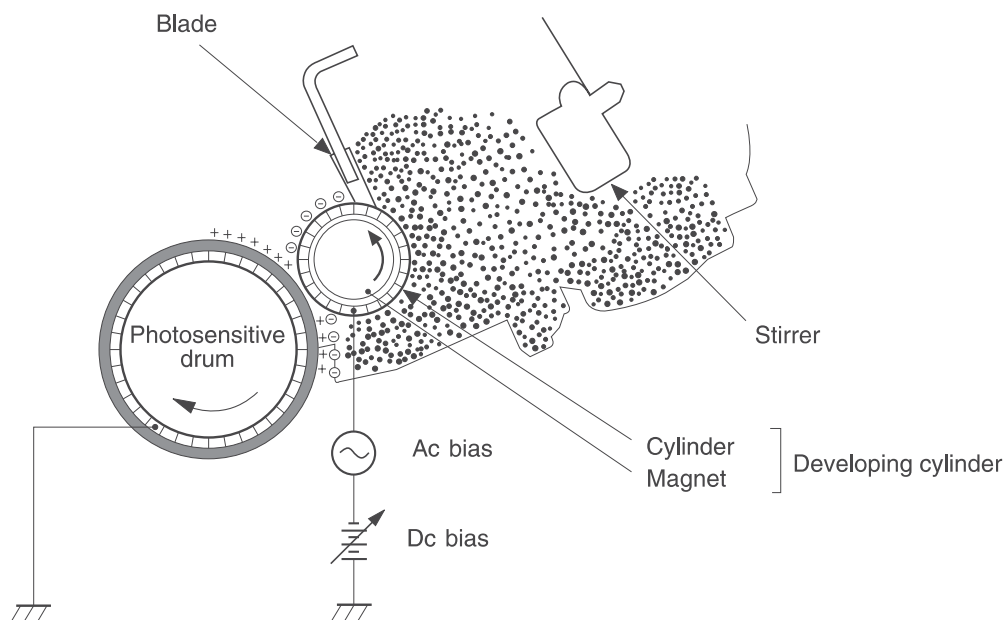


Figure 4-13 Developing

Toner acquires a negative charge through friction from the developing cylinder and the blade. When the negatively charged toner comes in contact with the drum, the toner adheres to the electrostatic latent image. The image on the drum becomes visible because of the toner.

#### Step 4: Transfer

The transfer charging roller, to which a dc positive bias is applied, imparts a positive charge on the print media. When the print media comes in contact with the photosensitive drum, the toner is transferred to the print media.

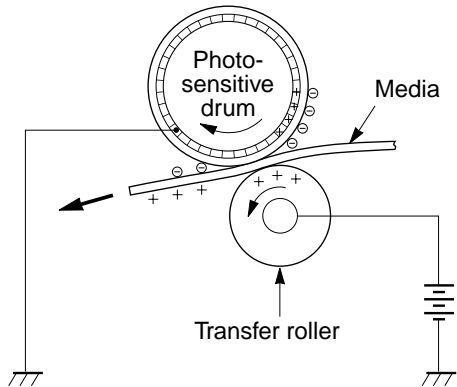


Figure 4-14 Transfer

#### Step 5: Separation

The elasticity of the print media causes its separation from the photosensitive drum. A static charge eliminator aids separation by weakening any electrostatic adhesion.

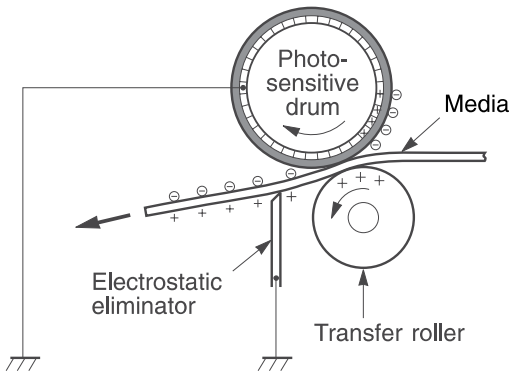


Figure 4-15 Separation

## Step 6: Fusing

The dc negative bias applied to the fusing film strengthens the holding force of the toner on the print media and prevents the toner from scattering.

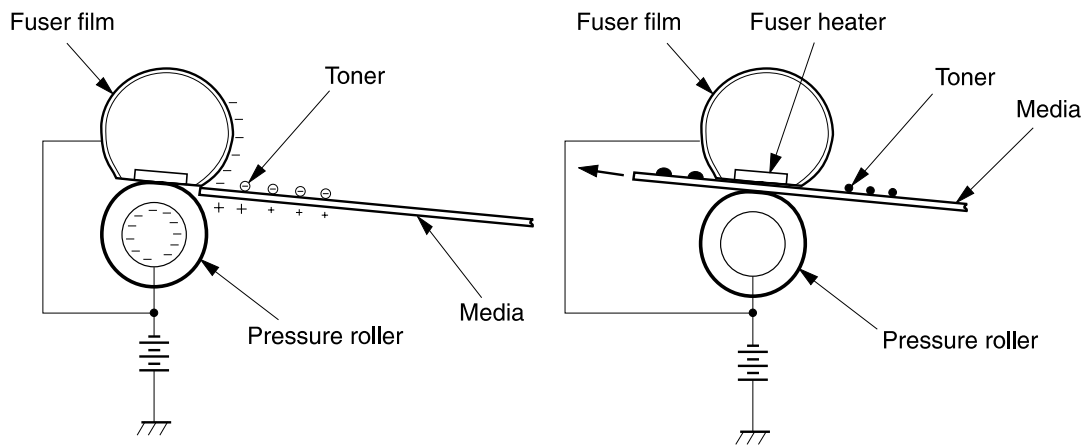


Figure 4-16 Fusing

## Step 7: Drum cleaning

The cleaning blade scrapes the residual toner off of the photosensitive drum and deposits it into the waste toner case.

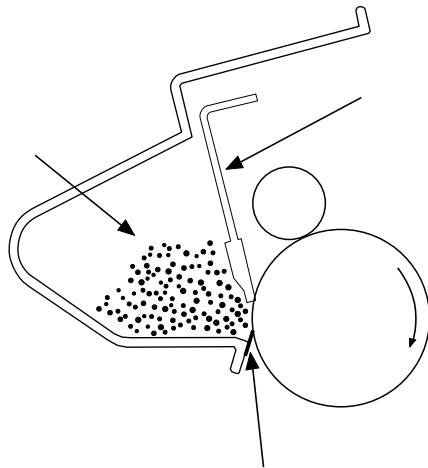


Figure 4-17 Drum cleaning

# Internal components

Figure 4-18 Cross-section of device on page 68 highlights the major internal components.

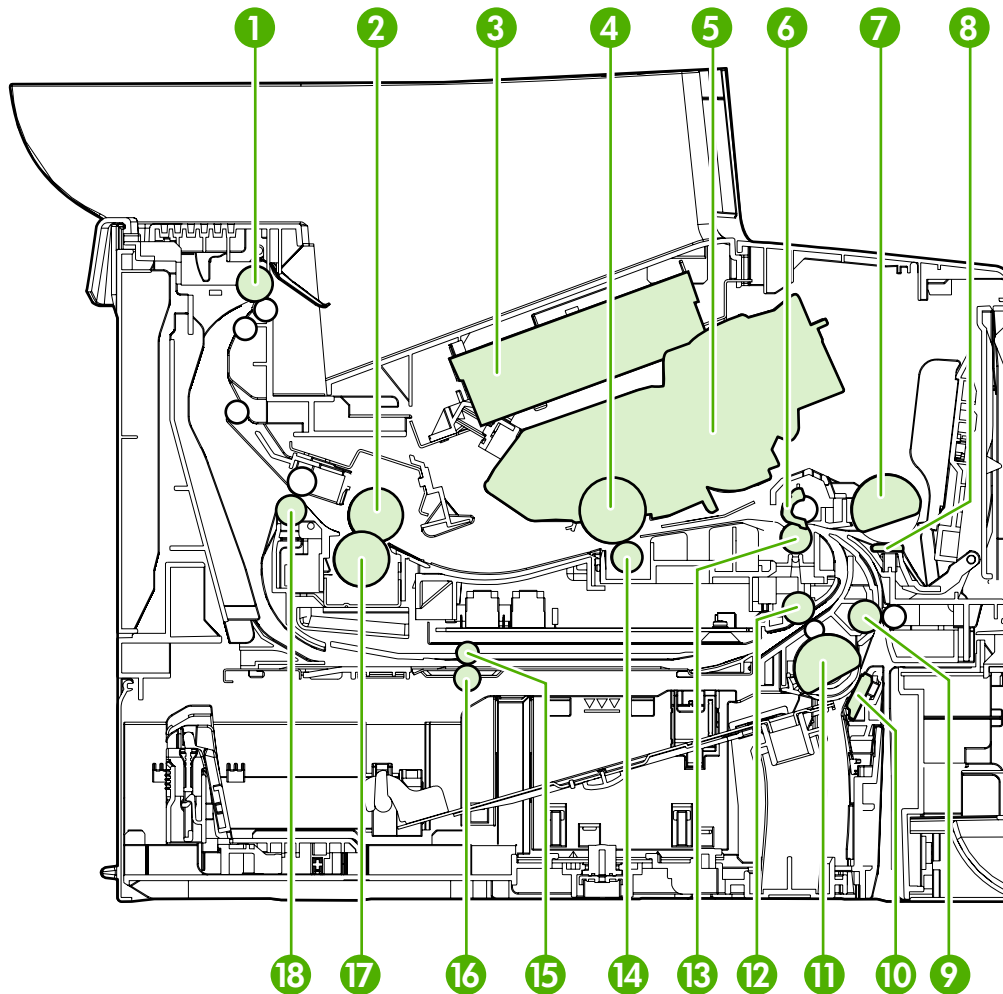


Figure 4-18 Cross-section of device

1	Top output-bin delivery roller	10	Tray 2 separation pad
2	Fusing roller	11	Tray 2 pickup roller
3	Laser/scanner	12	Duplexer pickup roller
4	Photosensitive drum	13	Feed roller
5	Print cartridge	14	Transfer roller
6	Registration shutter	15	Duplexer feed roller
7	Tray 1 pickup roller	16	Oblique roller
8	Tray 1 separation pad	17	Fuser pressure-roller
9	Tray 2 feed roller	18	Fuser delivery-roller

# Timing

The microprocessor on the ECU controls the device operation sequences. [Table 4-1 Operation sequences on page 69](#) describes engine operations for each period of a print operation. [Figure 4-19 Operational sequences on page 70](#) provides a graphical representation of the operation sequences. [Table 4-2 Power-on sequence on page 72](#) describes each step of the power-on sequence. [Table 4-3 Power-on sequence for the ADF/scanner assembly on page 72](#) describes the ADF power-on sequence.

**Table 4-1** Operation sequences

Name	Timing	Purpose
WAIT	From power-on until the end of the main motor initial drive	<p>Detects presence of a print cartridge. Clears potential from the drum surface and cleans the transfer roller.</p> <p>See <a href="#">Table 4-2 Power-on sequence on page 72</a> for a complete description of the WAIT (power-on) period. Also see <a href="#">Figure 4-20 Timing diagram, HP LaserJet M3027/M3035 on page 71</a> for detailed information about device timing.</p>
STBY (standby)	From the end of the WAIT or LSTR period until either a print command is sent from the formatter or the power is turned off.	Prepares the device to receive print commands
INTR (initial rotation)	From the time of the print command until the pickup solenoid is turned on.	Prepares the photosensitive drum for printing.
PRINT	From the end of the INTR period until the top-of-page sensor detects the trailing edge of the media.	Forms the image on the photosensitive drum and transfers the toner image to the media.
LSTR (last rotation)	From the end of the PRINT period until the main motor stops rotating.	<p>Delivers the last page of a print job.</p> <p>After LSTR, the device either returns to STBY or, if another print command was sent from the formatter, enters INTR.</p>

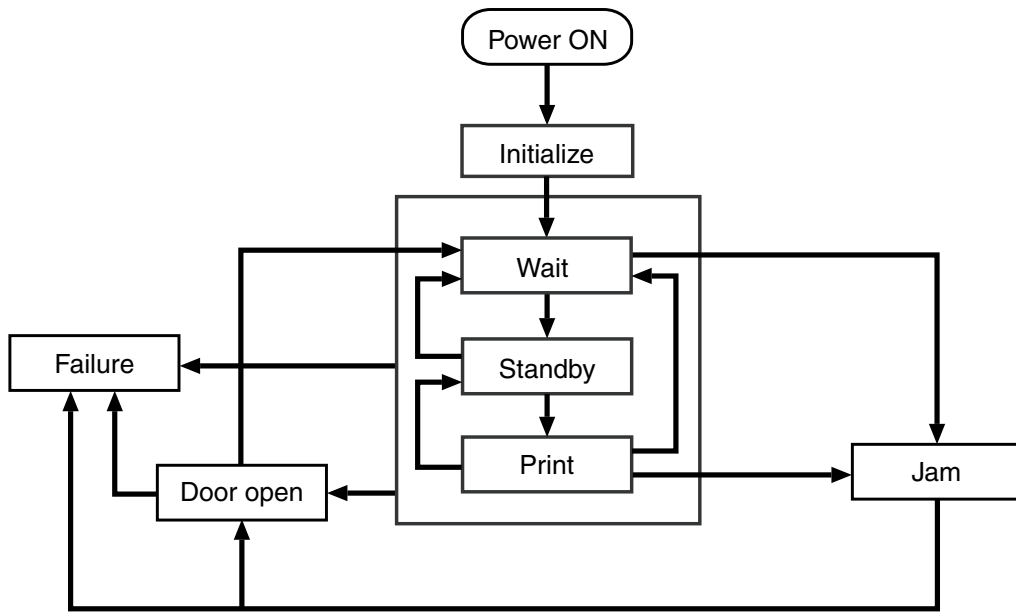


Figure 4-19 Operational sequences

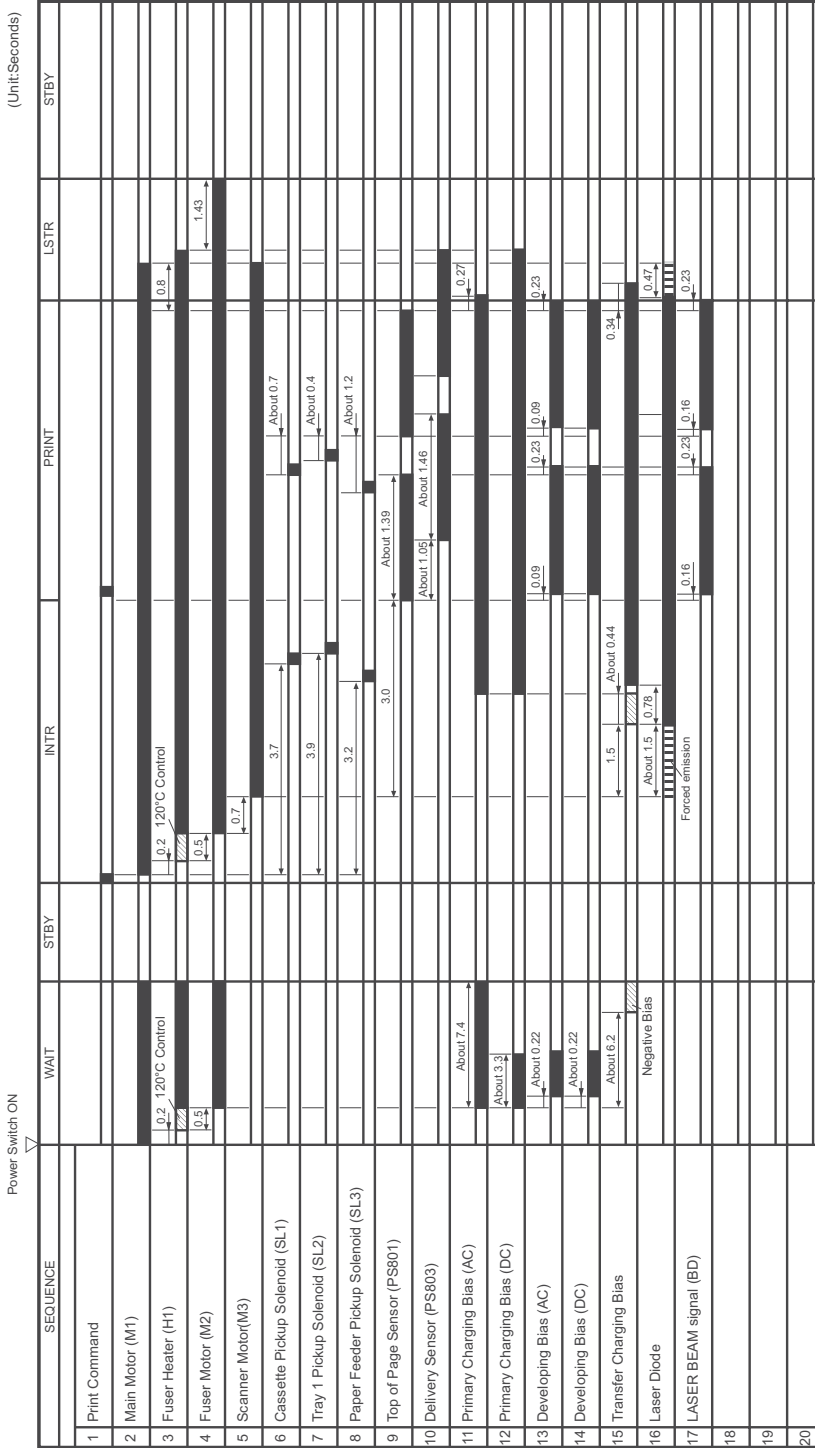


Figure 4-20 Timing diagram, HP LaserJet M3027/M3035

**Table 4-2** Power-on sequence

Step	Action
1	Power-on
2	CPU initialization
3	Video-interface communication start
4	Sensors check for residual media
5	Main motor initial drive
6	Fuser heater initial drive. The fuser heater reaches a surface temperature of 120°C.
7	Fuser-motor initial drive
8	Laser/scanner-motor initial drive
9	High-voltage control  Detection of the presence of a print cartridge  Cleaning of the transfer roller after the primary charging ac bias is turned on
10	Failure/abnormality check: detection of laser/scanner failure, fuser failure, and open covers
11	Communication with the memory tag

**Table 4-3** Power-on sequence for the ADF/scanner assembly

Step	Action
1	Power-on
2	Initialize ADF and jam check
3	Carriage-lock check
4	Lamp warm-up
5	Lamp-stability check
6	Find reference-mark (for scanner right-side-edge location)
7	AFE (analog front-end)
8	PRNU (photo-response non-uniformity) and DSNU (dark-signal non-uniformity) correction. This procedure is performed with the lamp on. The carriage moves under the white calibration strip.



**NOTE** The lamp profile changes after 10 minutes of non-use. The device again performs lamp warm-up and PRNU and DSNU correction.



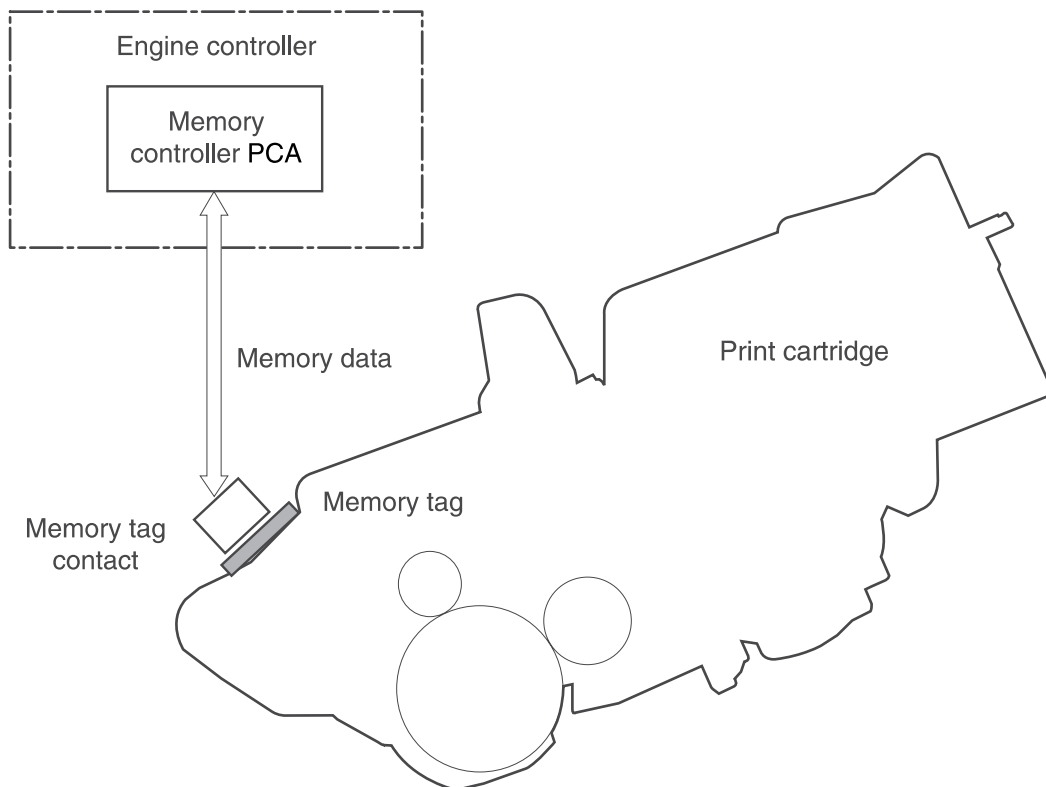
## Print cartridge memory system

The memory tag is a nonvolatile memory built into the print cartridge. The cartridge usage condition is detected as the engine controller reads or writes the data stored on the memory tag. The engine controller renews the information in the prescribed timing and reads or writes it from or to the memory tag.

The engine controller commands the memory tag to read or write with the following conditions:

- **Read**
  - Power is ON
  - The top cover is closed
  - A command has been received from the formatter
- **Write**
  - A page of media is printed.
  - A command has been received from the formatter

When the engine controller failed to read or write three times in a row, it determines that the memory tag is abnormal and notifies the formatter of a "cartridge memory abnormality warning".



**Figure 4-21** Print cartridge memory tag



---

# 5 Removal and replacement

## Chapter contents

- [Introduction](#)
- [Automatic document feeder \(ADF\) and scanner assemblies](#)
- [Covers](#)
- [Fax accessory](#)
- [Disk drive](#)
- [Formatter](#)
- [Stapler](#)
- [Stapler power-supply](#)
- [Right-side fan](#)
- [Engine control unit \(ECU\)](#)
- [Left-side riser](#)
- [Fuser](#)
- [Laser/scanner](#)
- [Access plate](#)
- [Oblique-roller assembly](#)
- [Left-side fan](#)
- [High-voltage power supply \(HVPS\)](#)
- [Feed-guide assembly](#)
- [Main motor](#)
- [Gear assembly](#)
- [Reinstallation notes for the gear assembly](#)
- [Tray 1 solenoid](#)
- [Tray 2 solenoid](#)

- [Pickup assembly](#)
- [Tray 1 media-present sensor and top-of-page sensor](#)
- [E-label reader \(memory tag\)](#)
- [Face-down-roller shaft](#)
- [Cartridge door](#)
- [Transfer roller](#)
- [Registration assembly](#)
- [Tray 1 pickup roller](#)
- [Tray 2 pickup roller](#)
- [Separation pad](#)

# Introduction

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

## Removal and replacement strategy

Replace parts in the reverse order of their removal. Directions for difficult or critical replacement procedures are included.



**WARNING!** The sheet-metal edges of the device can be sharp. Use caution when working on the device.



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

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

## Electrostatic discharge



**CAUTION** The device contains parts that are sensitive to electrostatic discharge (ESD). Always service the device at an ESD-protected workstation, or use an ESD mat.

Watch for the ESD symbol (shown at left) to identify the parts that are sensitive to ESD. Protect these parts by using an ESD wrist strap and by placing ESD-sensitive parts into protective ESD pouches.



## User-replaceable parts

To remove and replace the pickup roller or separation pad, see [Separation pad on page 189](#).

## Required tools

The following tools are needed to service this device:

- #2 Phillips screwdriver with magnetic tip
- Short Phillips screwdriver with magnetic tip (also known as a “stubby” screwdriver)
- Small flat-blade screwdriver
- Small needle-nose pliers
- ESD mat
- Small flashlight



**CAUTION** A pozidriv screwdriver will damage screw heads on the device. Use a #2 Phillips screwdriver.

If you use a multispeed screwdriver, use a torque limiter.

---

## Before performing service

Follow the pre-service procedures before you perform service.

### Pre-service procedures

1. Remove all media from the device.
2. Place the device on an ESD mat. If an ESD mat or an ESD-protected workstation is not available, discharge body static and ground the device chassis before servicing the device.
3. Unplug the power cord and the interface cable.
4. Lift the device off of any installed optional trays.
5. Remove the print cartridge.



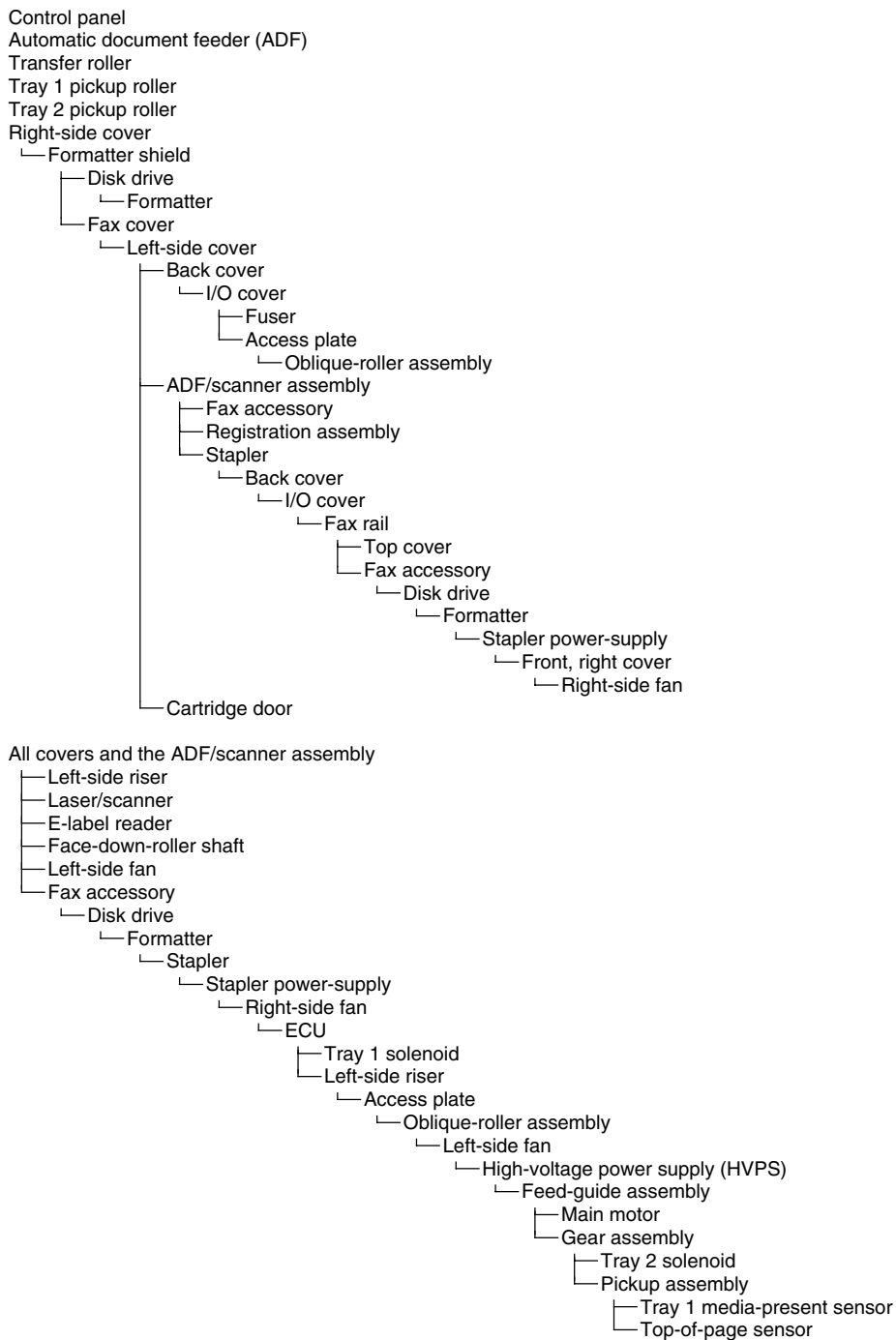
**CAUTION** To prevent light from degrading the surface of the photosensitive drum, cover the print cartridge after removing it from the device.

---

6. Remove tray 2.

## Parts removal order

Each section contains a list of covers and assemblies that have to be removed before working on the major assembly that is the subject of the section.



**Figure 5-1** Parts removal diagram

# Automatic document feeder (ADF) and scanner assemblies

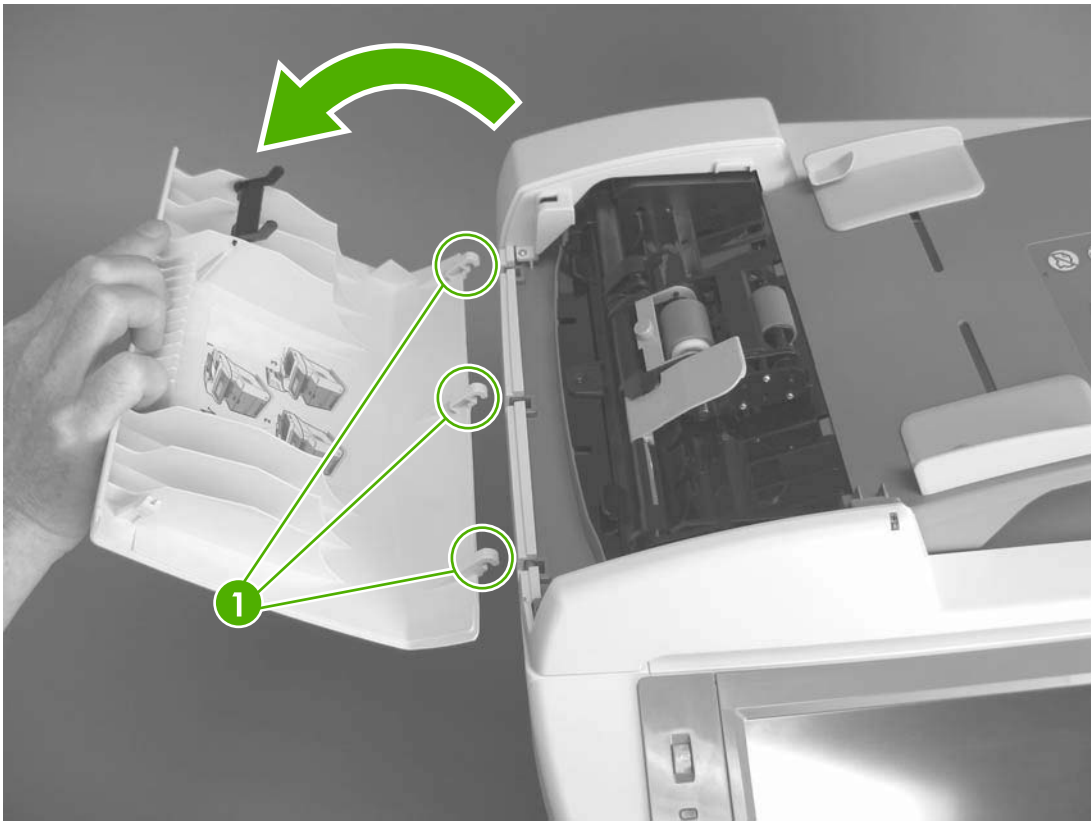
Automatic document feeder (ADF) and scanner assemblies

## ADF assembly

The ADF cover and the ADF input tray need not be removed unless they require service.

### ADF cover

1. Open the ADF cover.
2. Rotate the ADF cover firmly toward the left side of the device and down to release three tabs (callout 1).



**Figure 5-2** Removing the ADF cover





**Figure 5-3** Reinstalling the ADF cover



---

**Reinstallation tip** When reinstalling the ADF cover, firmly press the three tabs until they click into place. When the three tabs are installed correctly, the cover should close easily. If it does not, open the ADF cover and check the tabs. Do not force the ADF cover closed. Forcing the ADF cover closed can damage the cover.

---

## ADF input tray

1. Open the ADF cover.
2. Pull the ADF input tray up firmly to release one tab (callout 1).



**Figure 5-4** Removing the ADF input tray



**Figure 5-5** Reinstalling the ADF input tray



**Reinstallation tip** When reinstalling the ADF input tray, slide the tray straight into place. ADF jams and skew can result from incorrect reinstallation.

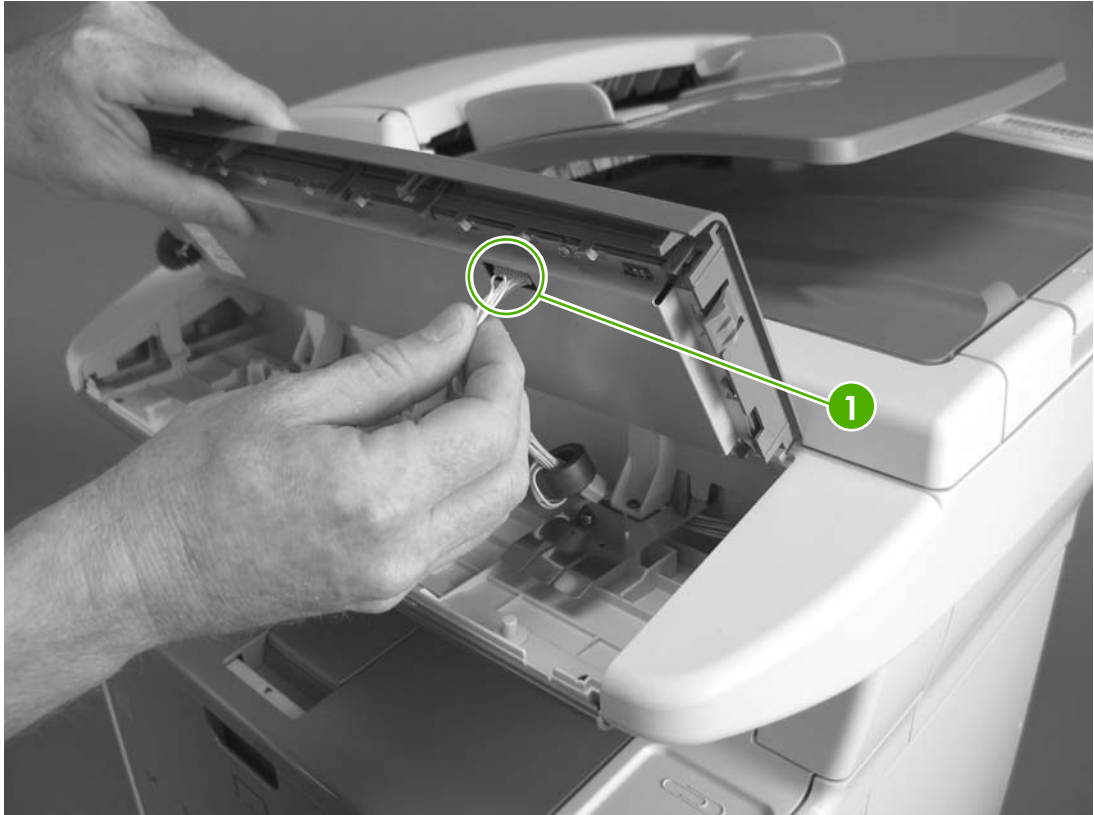
## Control panel

1. Insert a flat-blade screwdriver into the gap at the left side of the control panel to disengage the control panel and then lift up the front of the control panel.



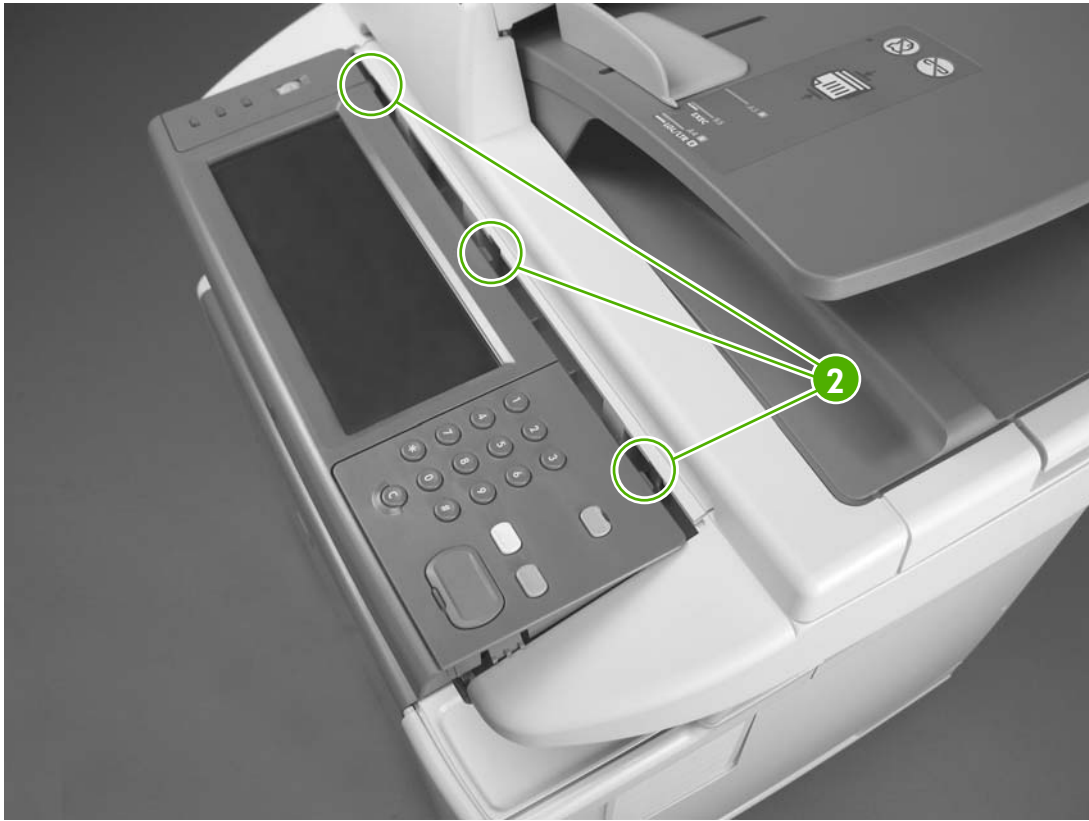
**Figure 5-6** Removing the control panel (1 of 2)

2. Disconnect one cable (callout 1).



**Figure 5-7** Removing the control panel (2 of 2)

3. Lift the control panel off of the device.



**Figure 5-8** Reinstalling the control panel



---

**Reinstallation tip** Make sure that you insert the tabs at the back of the control panel (callout 2) into the slots.

---

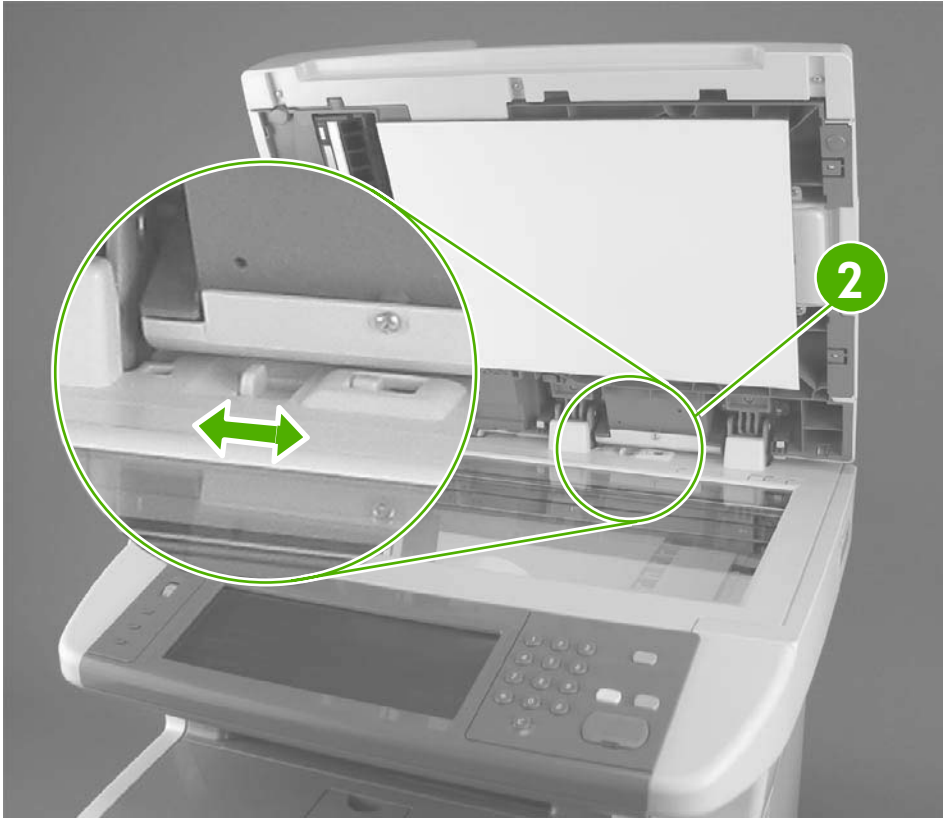
## ADF

1. Unscrew the thumb screws (callout 1) on the ADF cable at the back of the device and then unplug the cable.



**Figure 5-9** Removing the ADF (1 of 3)

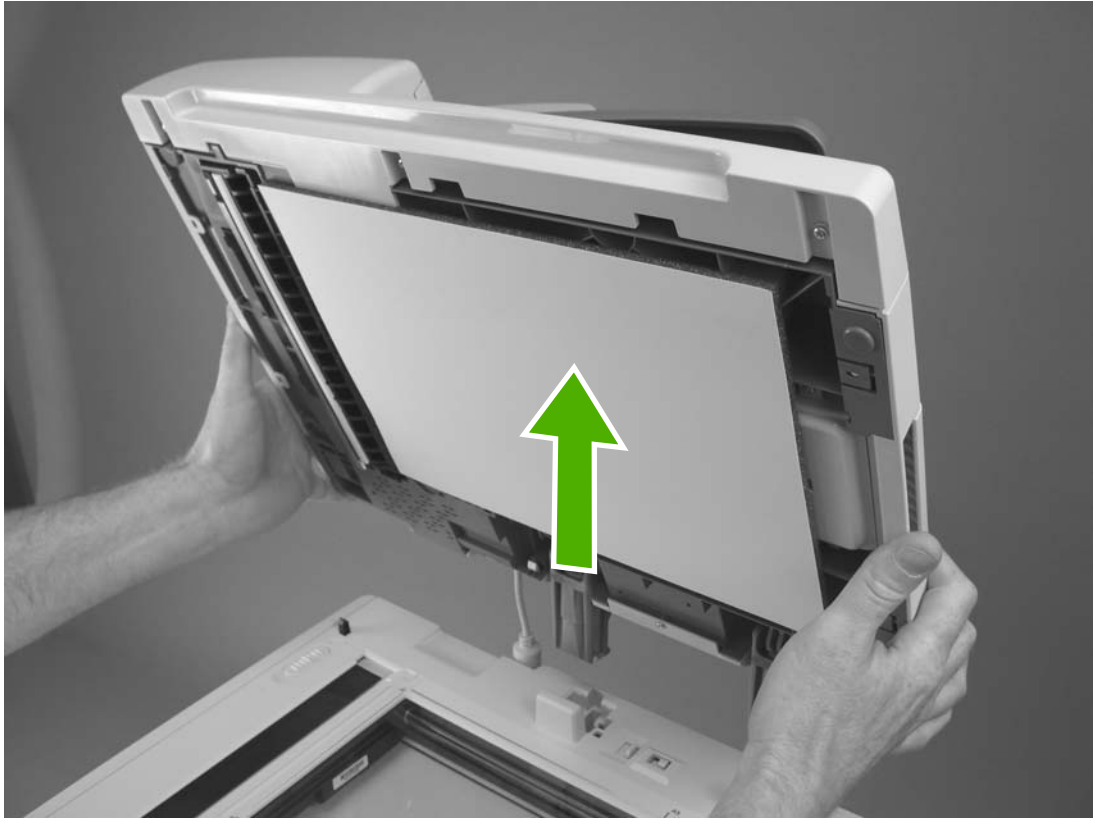
2. Lift the ADF lid and then press the hinge-release tab (callout 2) toward the right side of the device.



**Figure 5-10** Removing the ADF (2 of 3)



3. Lift the ADF off of the device.



**Figure 5-11** Removing the ADF (3 of 3)

## Scanner assembly



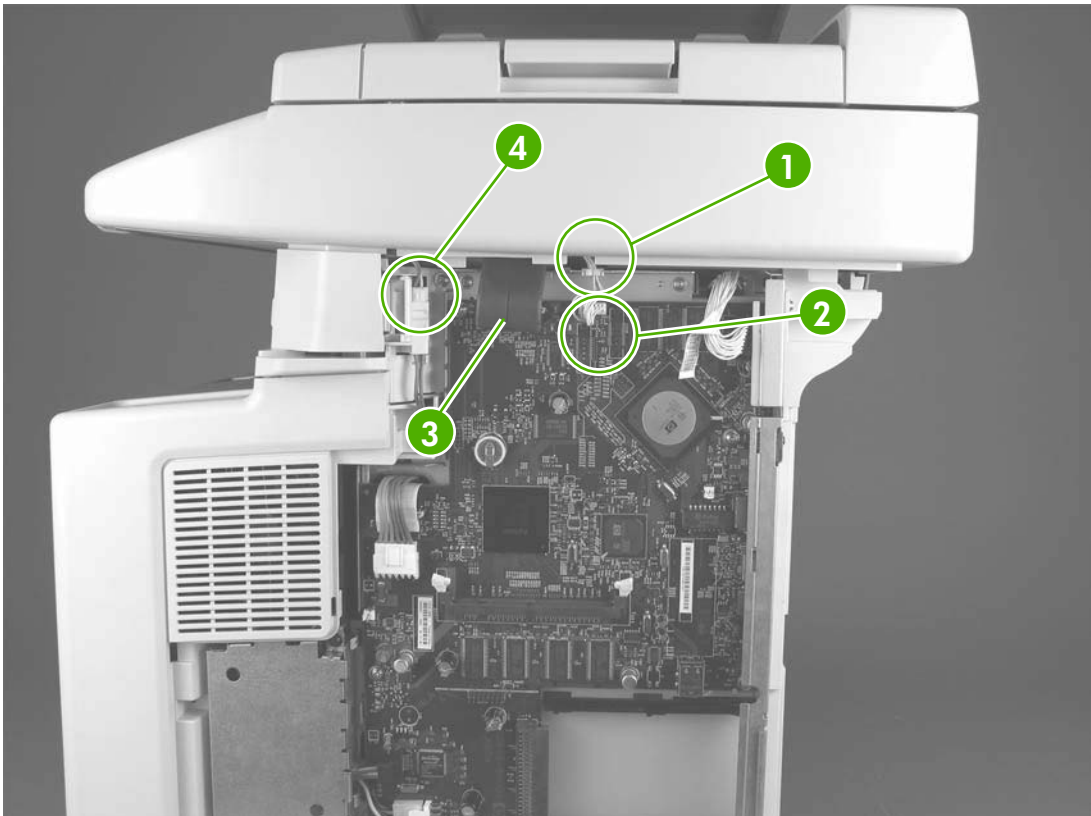
**NOTE** If you are not replacing the scanner assembly, but need to remove it in order to gain access to assemblies inside the printer portion of the device, you can remove the scanner assembly and ADF together. To remove the scanner assembly and ADF together, begin this procedure with step 2.

1. Remove the ADF (see [ADF assembly on page 80](#)).
2. Remove the right-side cover (see [Right-side cover on page 94](#)), the formatter shield (see [Formatter shield on page 95](#)), the fax cover (see [Fax cover on page 96](#)), and the left-side cover (see [Left-side cover on page 97](#)).
3. Remove one cable from the cable guide (callout 1) and then disconnect the cable (callout 2) from the formatter.



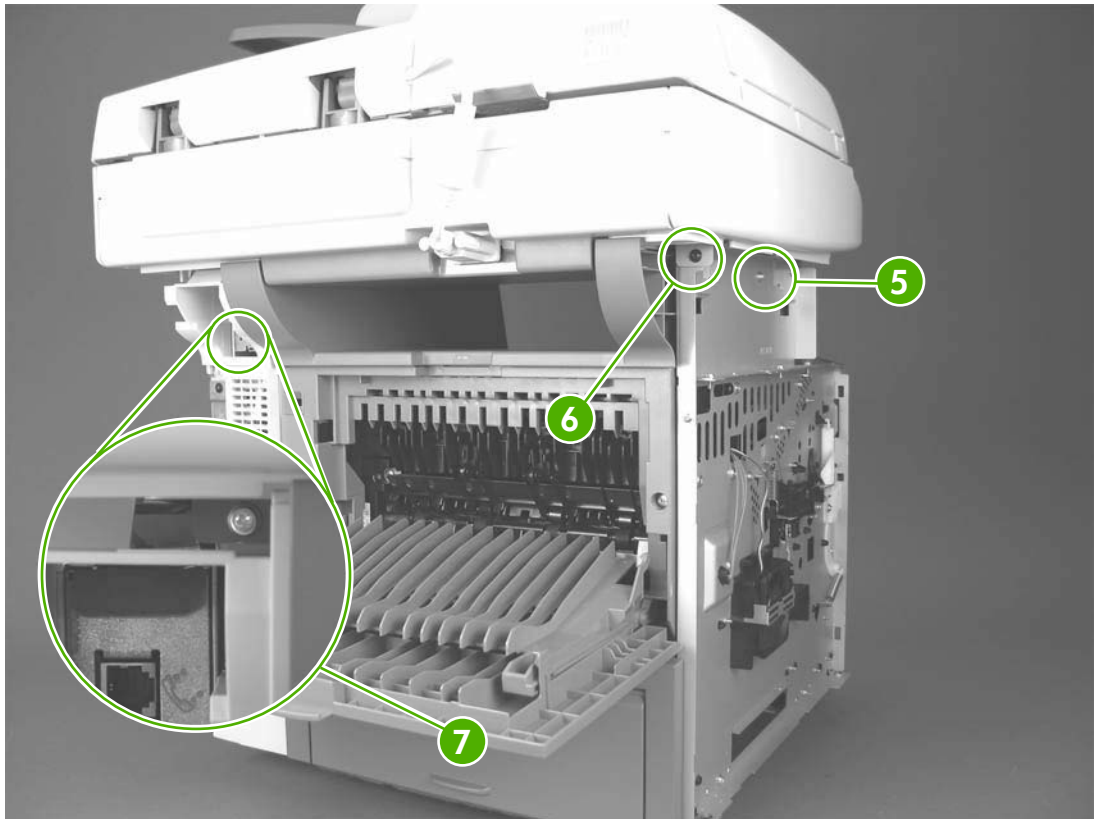
**CAUTION** Failure to remove the cable from the cable guide can cause damage to the cable.

4. Disconnect the ribbon cable (callout 3) and then separate the power-cable connector (callout 4).



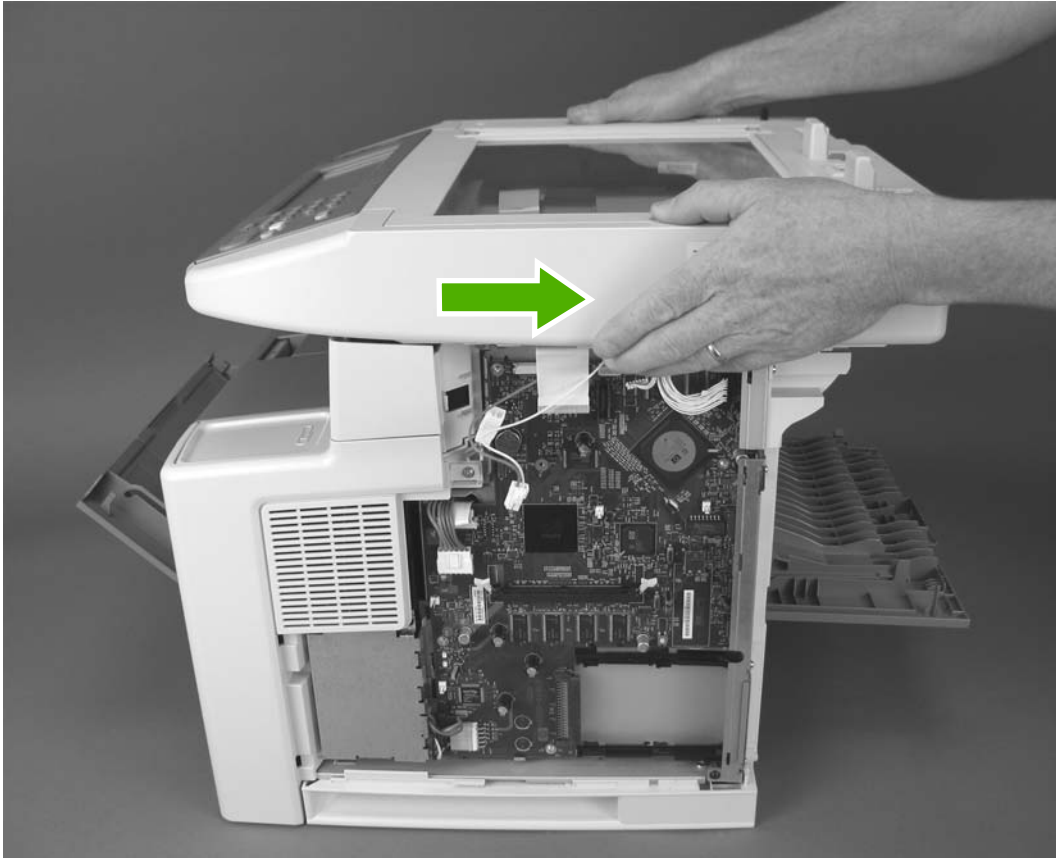
**Figure 5-12** Removing the scanner assembly (1 of 4)

5. Remove one screw (callout 5) at the left side and two screws (callouts 6 and 7) at the back of the device.



**Figure 5-13** Removing the scanner assembly (2 of 4)

6. Slide the scanner assembly toward the back of the device until it stops.



**Figure 5-14** Removing the scanner assembly (3 of 4)

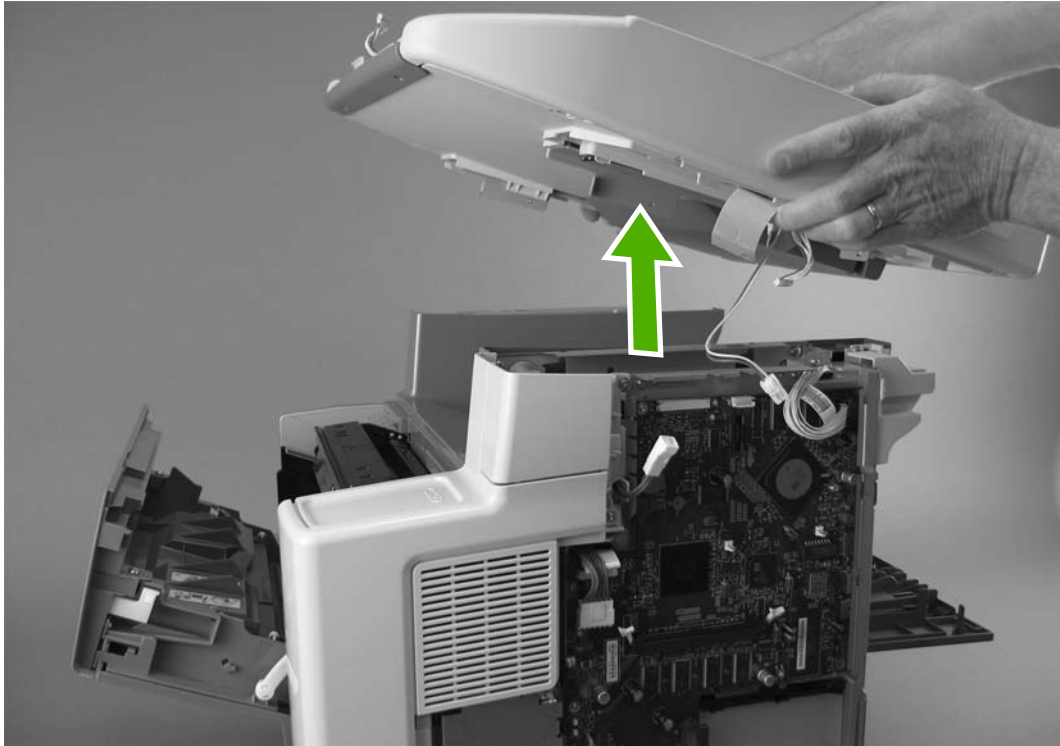


---

**Reinstallation tip** Upon reinstallation, the stapler can block the scanner assembly from moving into the correct position. If the assembly is blocked, open the stapler door and then press down on the stapler as you try to slide the scanner assembly toward the front of the device.

---

7. Lift the assembly straight up and off of the device.



**Figure 5-15** Removing the scanner assembly (4 of 4)

## Covers

Not all covers have to be removed to get to various FRUs. Use the list provided in each section to determine which covers and other components must be removed.

### Right-side cover

1. Slide the right-side cover toward the back of the device.

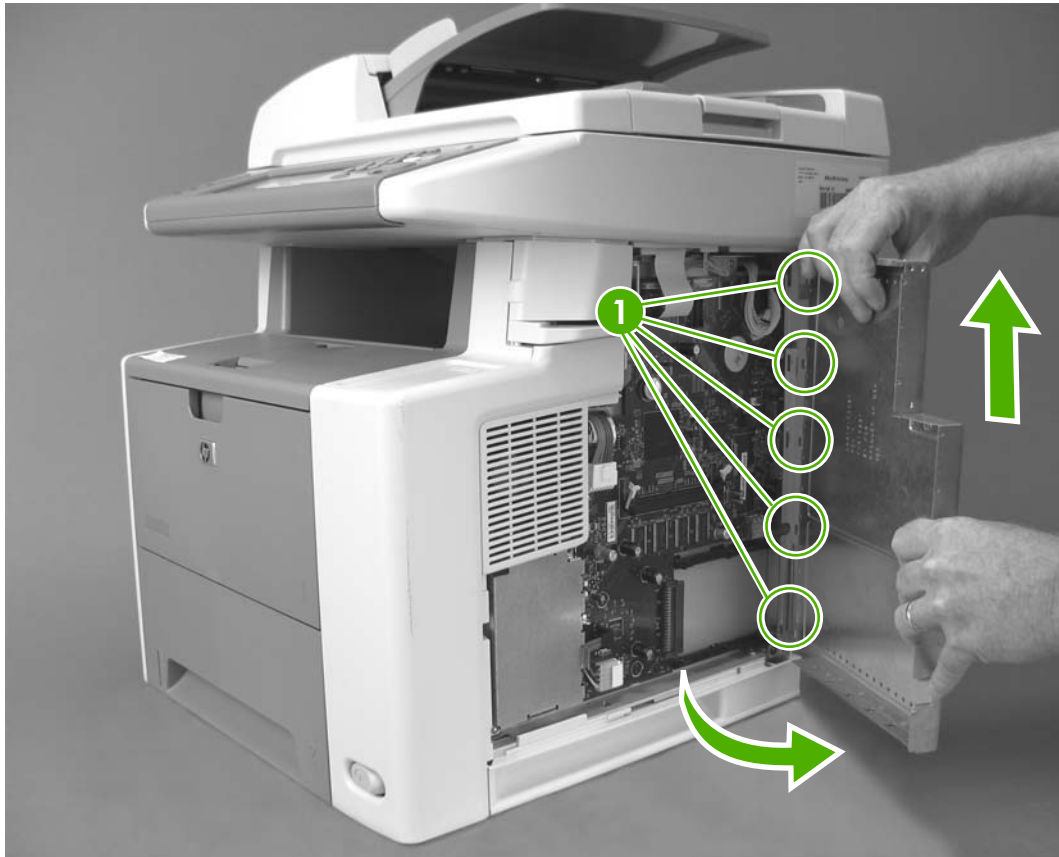


**Figure 5-16** Removing the right-side cover

2. Lift the cover away from the device.

## Formatter shield

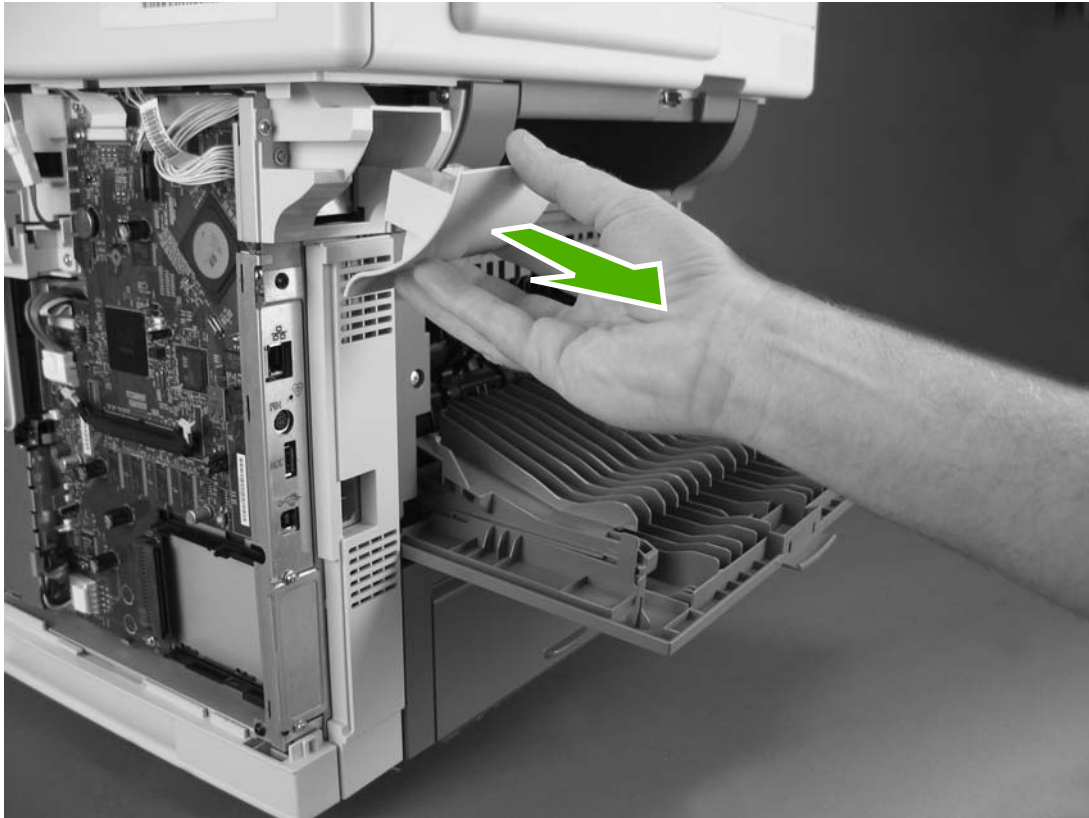
1. Remove the right-side cover (see [Right-side cover on page 94](#)).
2. Rotate the formatter shield away from the front of the device, and then lift it off of its hinges (callout 1) at the back of the device.



**Figure 5-17** Removing the formatter shield

## Fax cover

Pull the fax cover away from the back of the device.

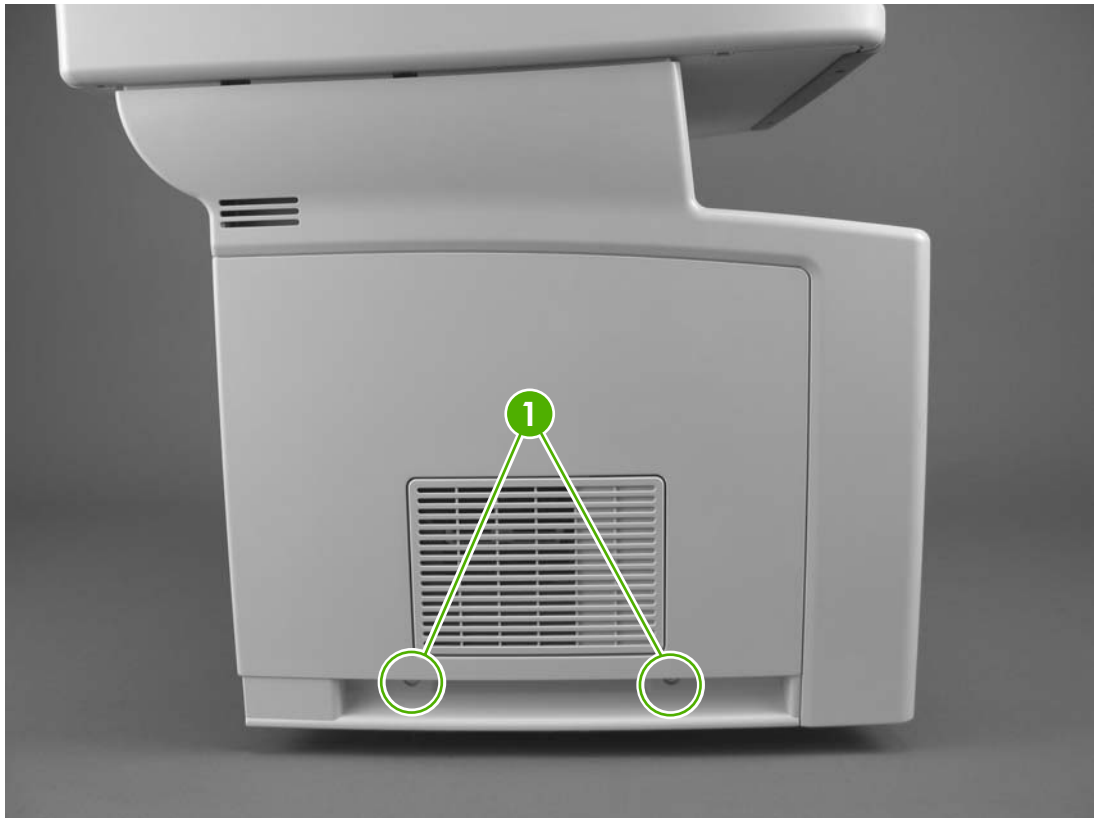


**Figure 5-18** Removing the fax cover



## Left-side cover

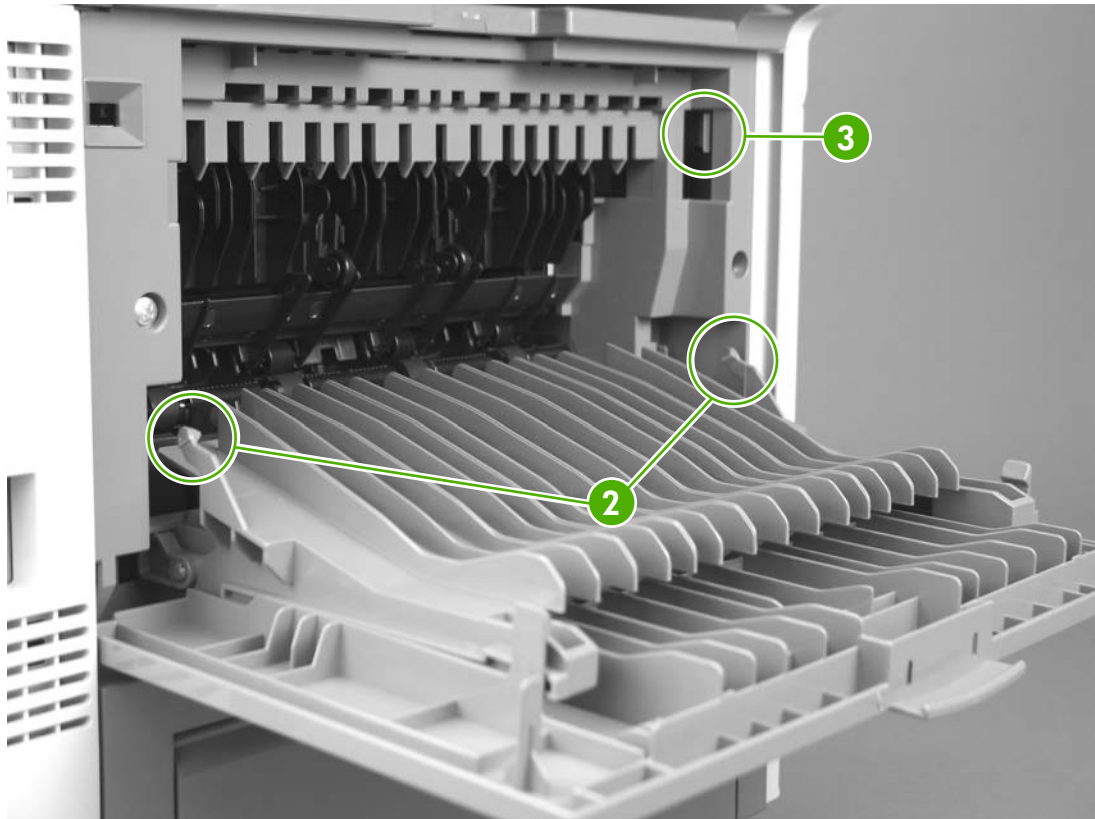
1. Remove two screws (callout 1).



**Figure 5-19** Removing the left-side cover (1 of 3)

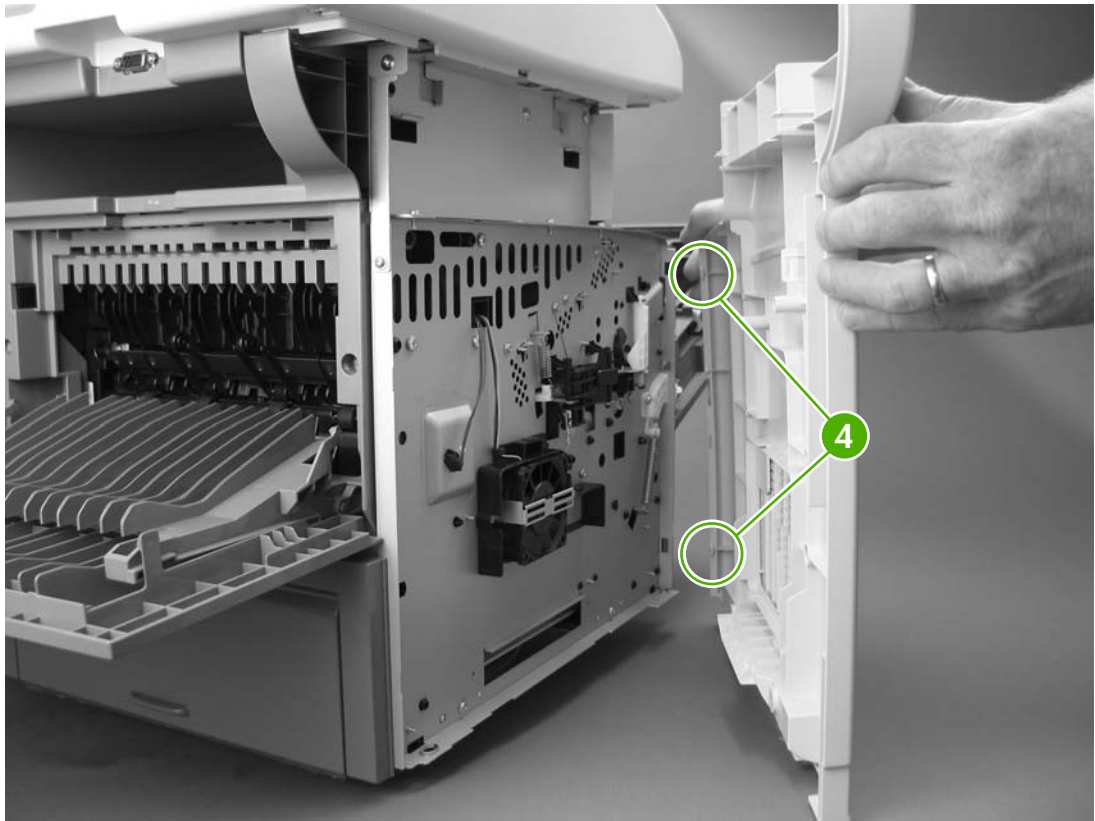
2. Open the cartridge door.
3. Open the rear output bin all the way, and then press the output bin down firmly to disengage two door-stops (callout 2 in [Figure 5-20 Removing the left-side cover \(2 of 3\) on page 98](#)).

4. Use a flat-blade screwdriver to press one tab (callout 3) toward the back of the device, and then rotate the cover away from the back of the device.



**Figure 5-20** Removing the left-side cover (2 of 3)

5. Slide the cover toward the front of the device to clear tabs at the front (callout 4), and then lift the cover away from the device.



**Figure 5-21** Removing the left-side cover (3 of 3)

## Legal cover (dust cover)

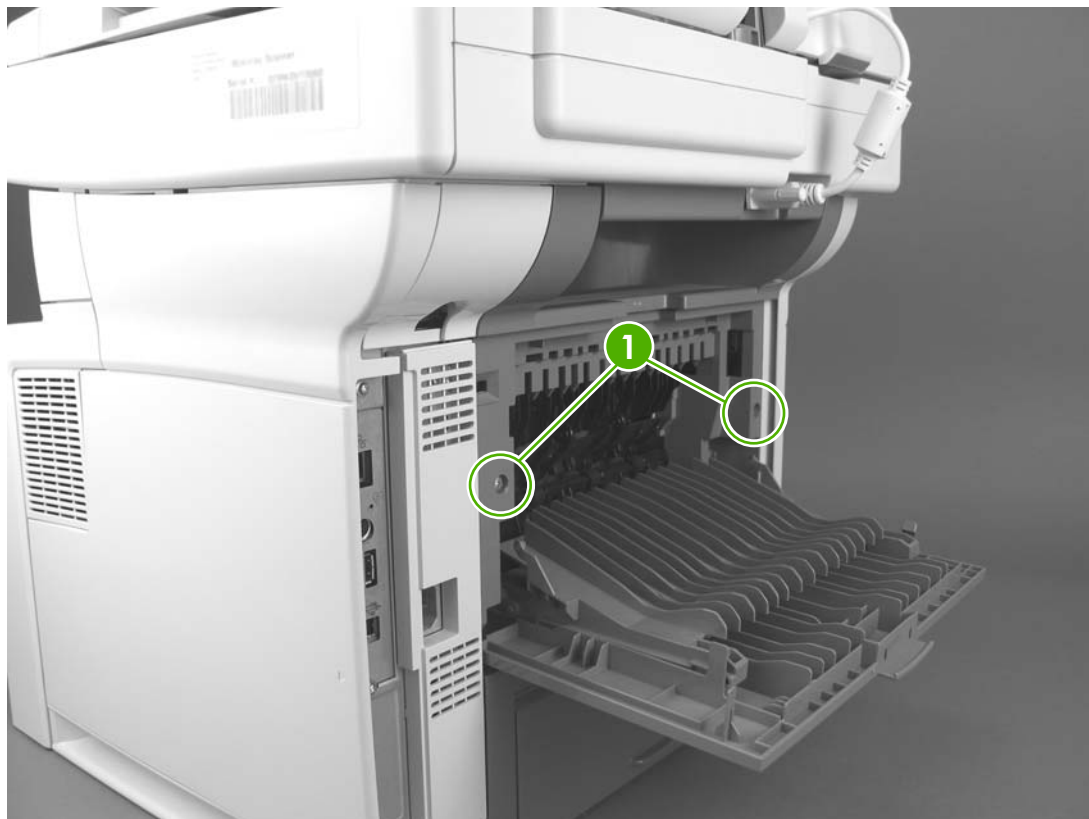
1. Rotate the cover up to the horizontal position.
2. Flex the middle of the cover until one of the hinges is released from its slot.



3. Slide the cover toward the released hinge to release the other hinge.

## Back cover

1. Remove the left-side cover (see [Left-side cover on page 97](#)) and leave the rear output bin all the way open.
2. Remove two screws (callout 1).



**Figure 5-22** Removing the back cover (1 of 2)

3. Release one tab (callout 2) inside the device and then rotate the bottom of the cover away from the device.

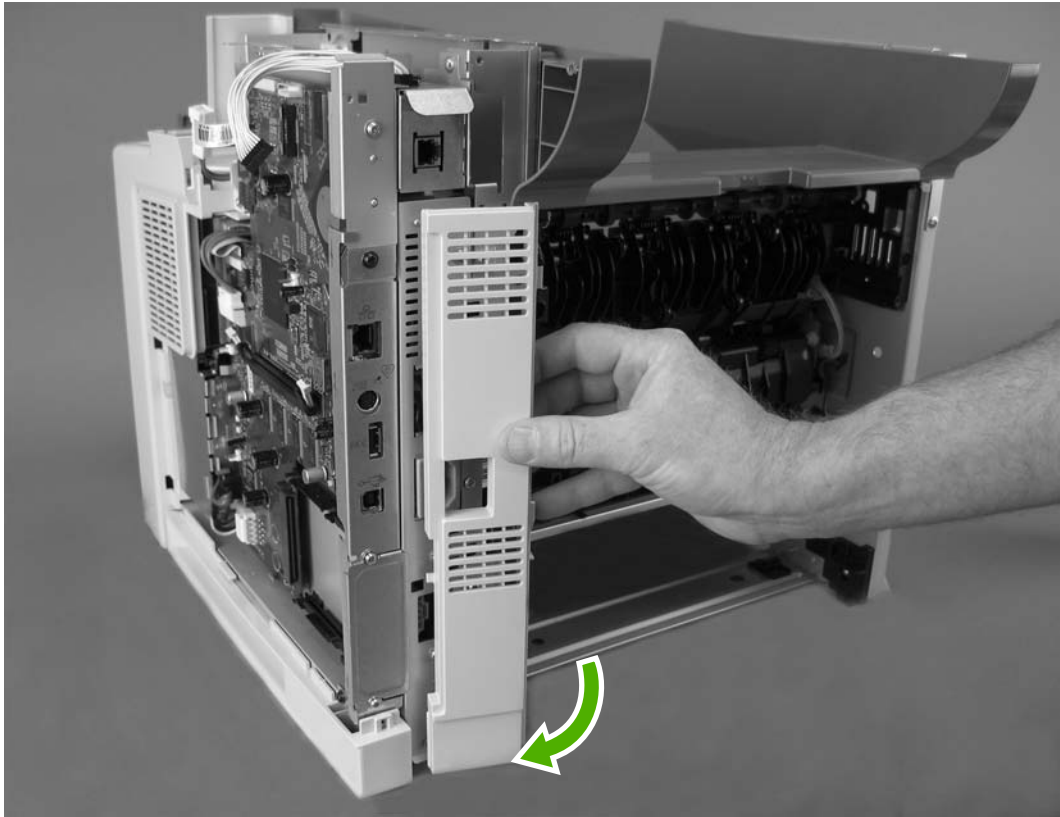


**Figure 5-23** Removing the back cover (2 of 2)

4. Lift the cover away from the device.

## I/O cover

1. Remove the back cover (see [Back cover on page 101](#)).
2. Rotate the I/O cover to clear tabs at the right side of the cover.

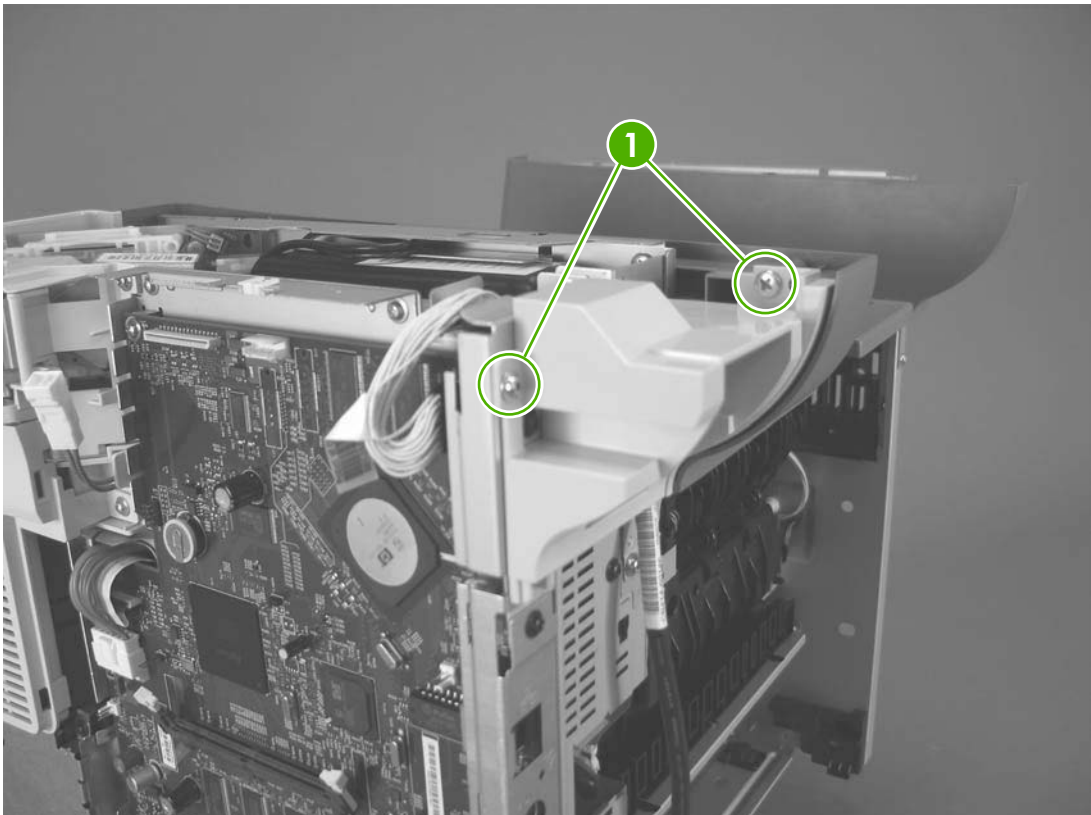


**Figure 5-24** Removing the I/O cover

3. Lift the cover off of the device.

## Fax rail

1. Remove the following components:
  - Right-side cover (see [Right-side cover on page 94](#))
  - Formatter shield (see [Formatter shield on page 95](#))
  - Fax cover (see [Fax cover on page 96](#))
  - Left-side cover (see [Left-side cover on page 97](#))
  - Back cover (see [Back cover on page 101](#))
  - I/O cover (see [I/O cover on page 103](#))
  - ADF/scanner assembly (see [Scanner assembly on page 90](#))
2. Remove two screws (callout 1).



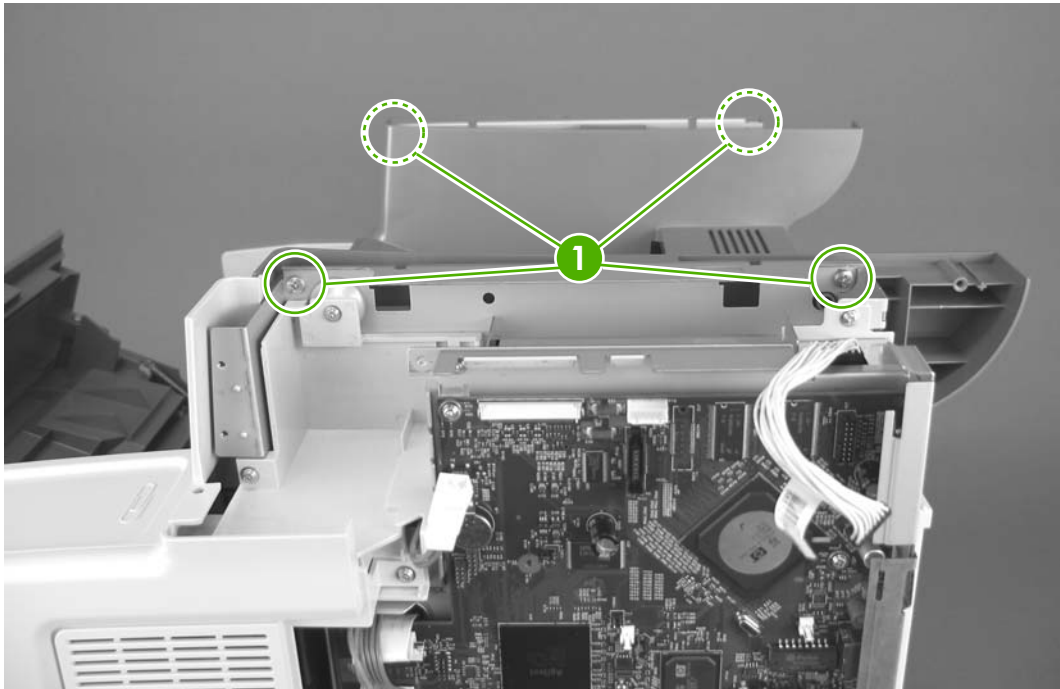
**Figure 5-25** Removing the fax rail

3. Lift the fax rail off of the device.



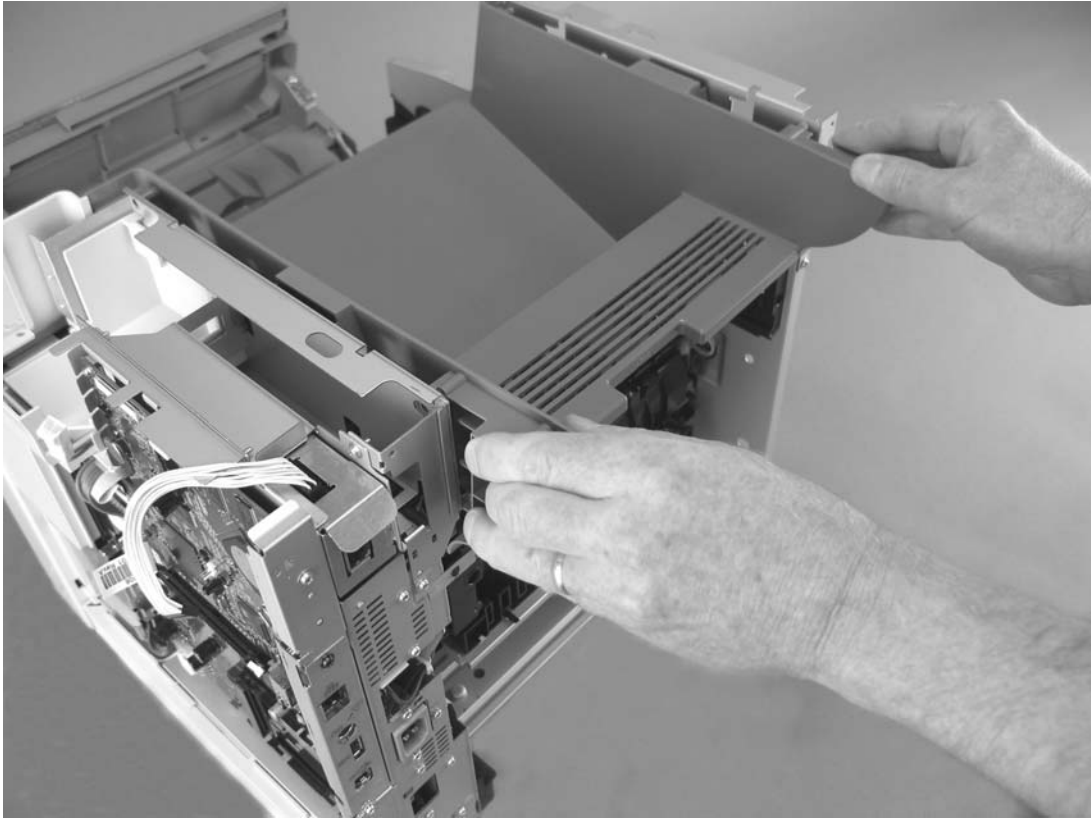
## Top cover

1. Remove the following components:
  - Right-side cover (see [Right-side cover on page 94](#))
  - Formatter shield (see [Formatter shield on page 95](#))
  - Fax cover (see [Fax cover on page 96](#))
  - Left-side cover (see [Left-side cover on page 97](#))
  - Back cover (see [Back cover on page 101](#))
  - I/O cover (see [I/O cover on page 103](#))
  - ADF/scanner assembly (see [Scanner assembly on page 90](#))
  - Fax rail (see [Fax rail on page 104](#))
2. Remove two screws (callout 1) from each side of the device (a total of four screws).



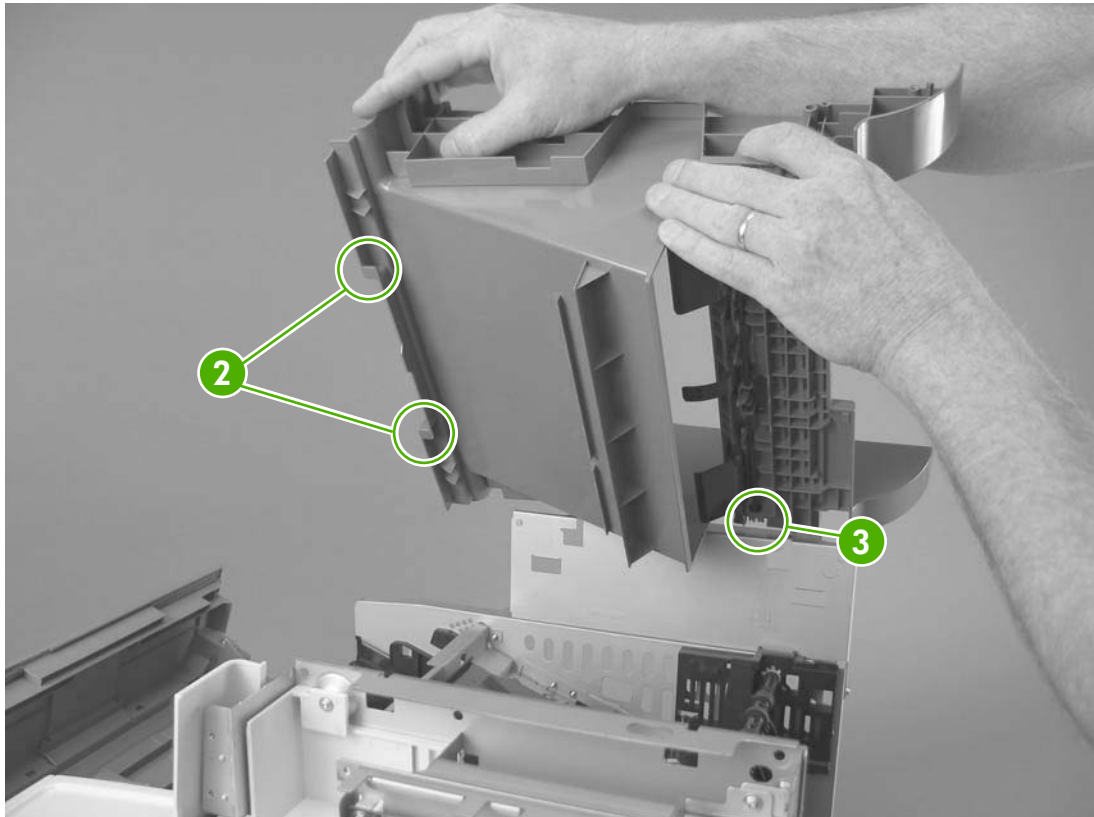
**Figure 5-26** Removing the top cover (1 of 3)

3. Squeeze the cover at the back of the device to release two tabs and lift up the cover slightly.



**Figure 5-27** Removing the top cover (2 of 3)

4. Slide the cover toward the front of the device to clear the tabs (callout 2) at the front of the device.

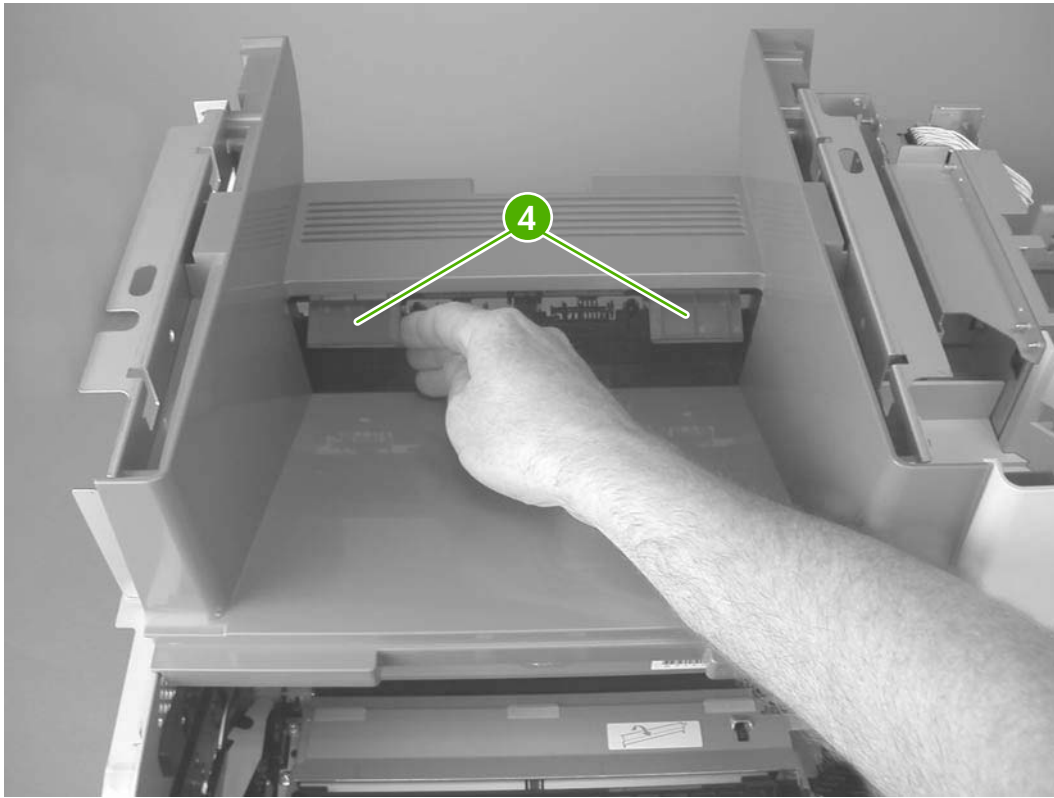


**Figure 5-28** Removing the top cover (3 of 3)

5. Lift the cover off of the device.



**Reinstallation tip** The grounding connection (callout 3) can become caught in the chassis when lifting the cover. Make sure that it is still attached to the cover before you reinstall the cover.



**Figure 5-29** Reinstalling the top cover



**Reinstallation tip** After reinstalling the cover, make sure that the exit-sensor flag (callout 4) moves freely.

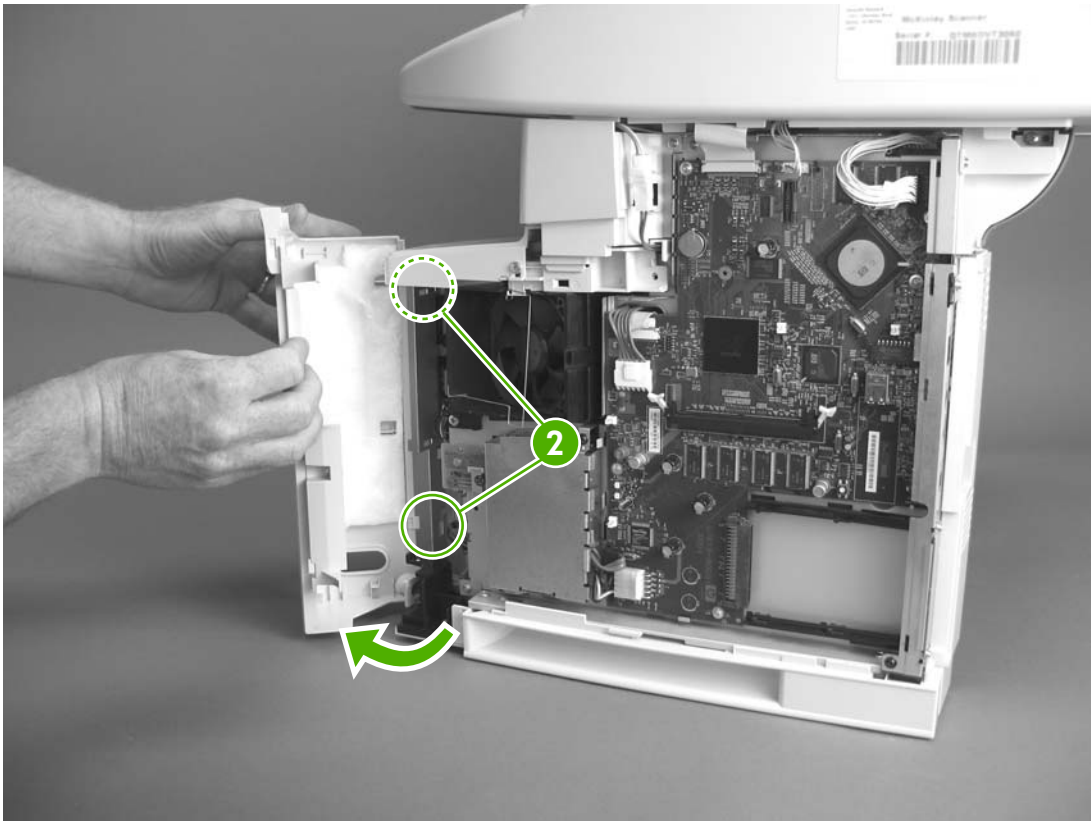
## Front, right cover

1. Remove the right-side cover (see [Right-side cover on page 94](#)).
2. Remove two screws (callout 1).



**Figure 5-30** Removing the front, right cover (1 of 2)

3. Rotate the cover away from the back of the device to clear two tabs (callout 2) at the front of the device.

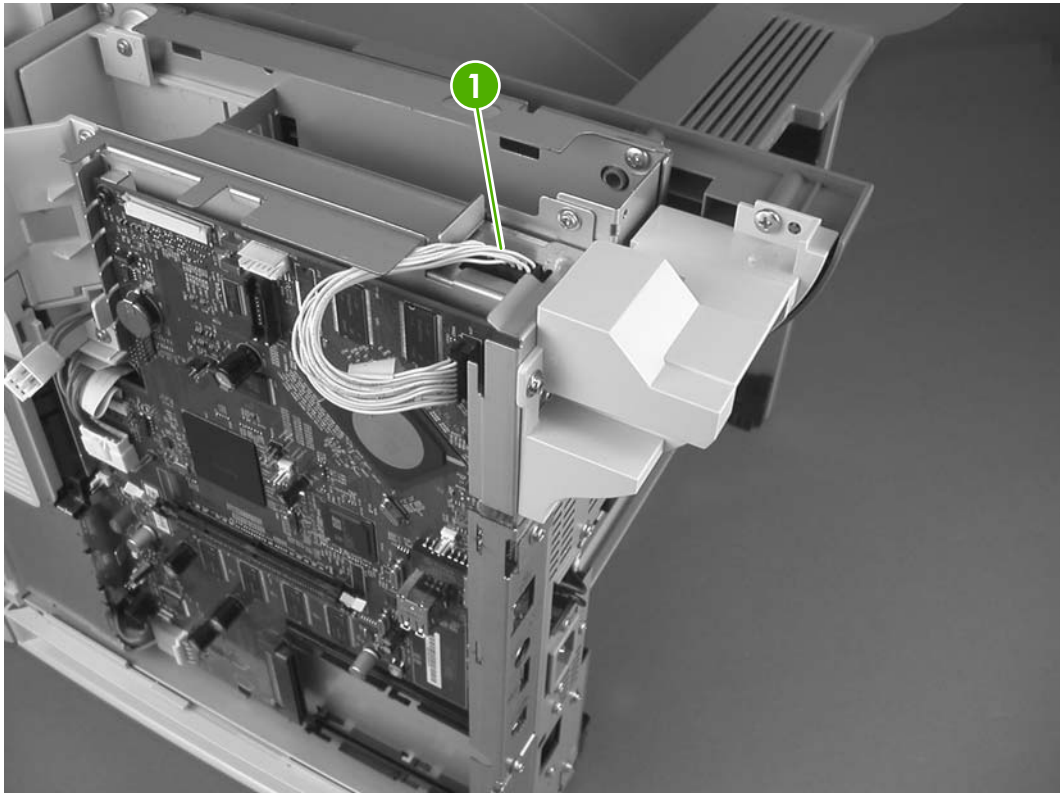


**Figure 5-31** Removing the front, right cover (2 of 2)

4. Lift the cover away from the device.

## Fax accessory

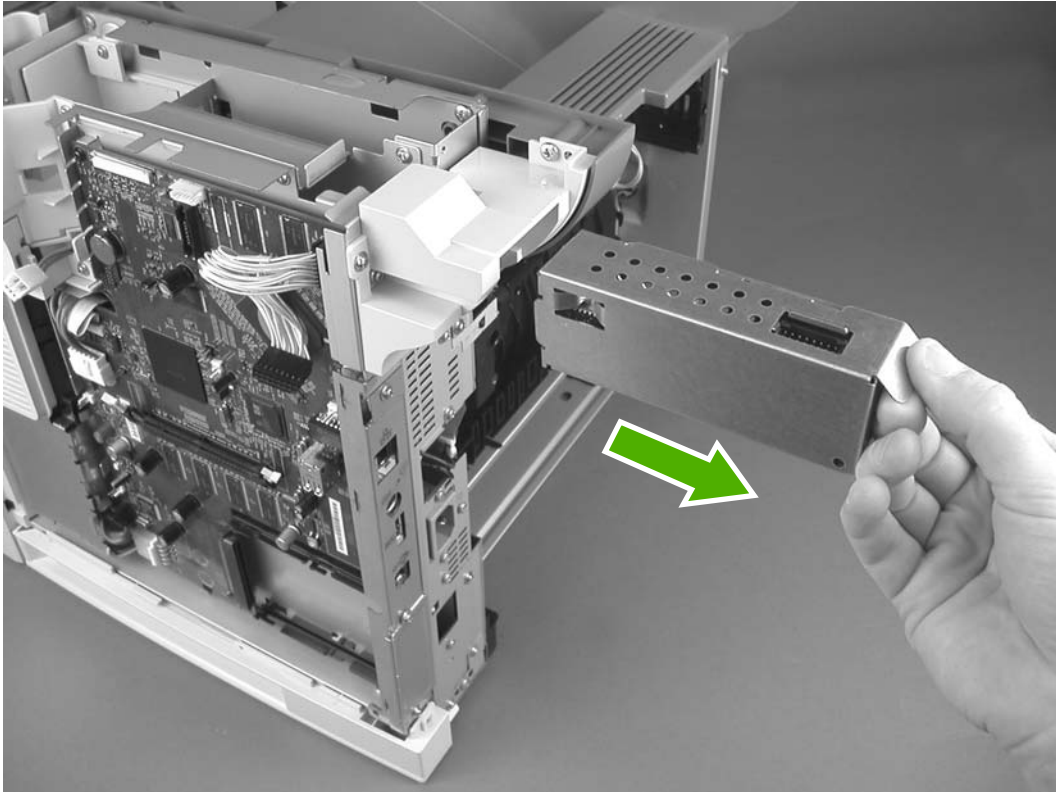
1. Remove the following components:
  - Right-side cover (see [Right-side cover on page 94](#))
  - Formatter shield (see [Formatter shield on page 95](#))
  - Fax cover (see [Fax cover on page 96](#))
  - ADF/scanner assembly (see [Scanner assembly on page 90](#))
2. Disconnect one cable (callout 1) from the fax accessory.



**Figure 5-32** Removing the fax accessory (1 of 2)



3. Slide the fax accessory toward the back and out of the device.

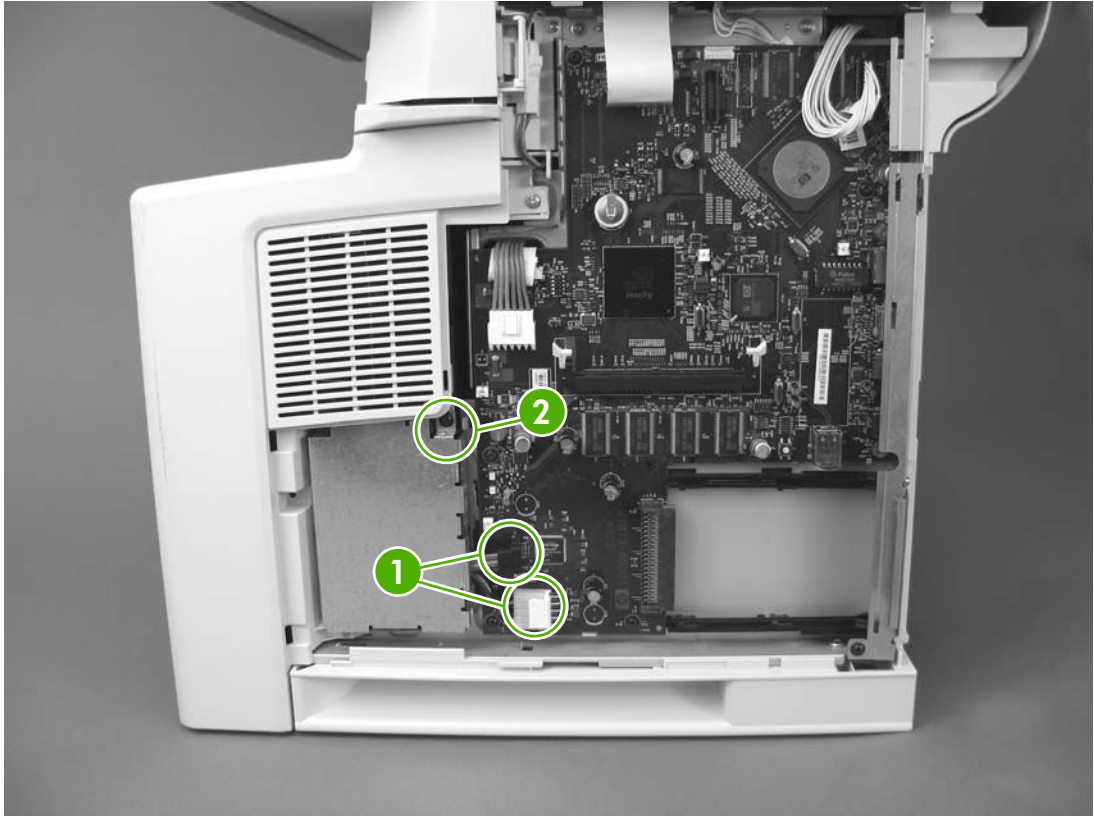


**Figure 5-33** Removing the fax accessory (2 of 2)



## Disk drive

1. Remove the right-side cover (see [Right-side cover on page 94](#)) and the formatter shield (see [Formatter shield on page 95](#)).
2. Disconnect two cables (callout 1) and remove one screw (callout 2).



**Figure 5-34** Removing the disk drive (1 of 3)

3. Slide the disk drive up slightly to clear three tabs from the tab slots (callout 3 in [Figure 5-35 Removing the disk drive \(2 of 3\) on page 114](#)), and then lift the disk drive away from the device.

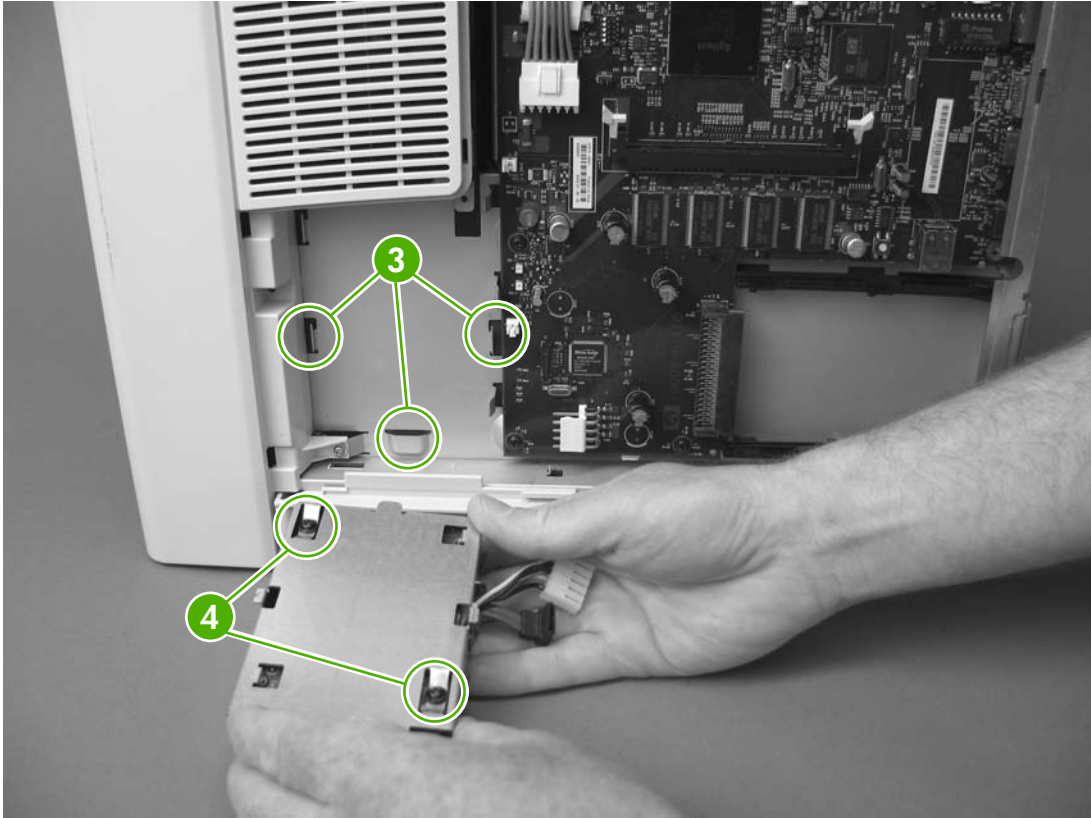


**Reinstallation tip** Upon reinstallation, make sure that all three tabs are inserted correctly into the slots. Also make sure that the screw-hole tab on the disk drive housing is on top of the tab in the device.



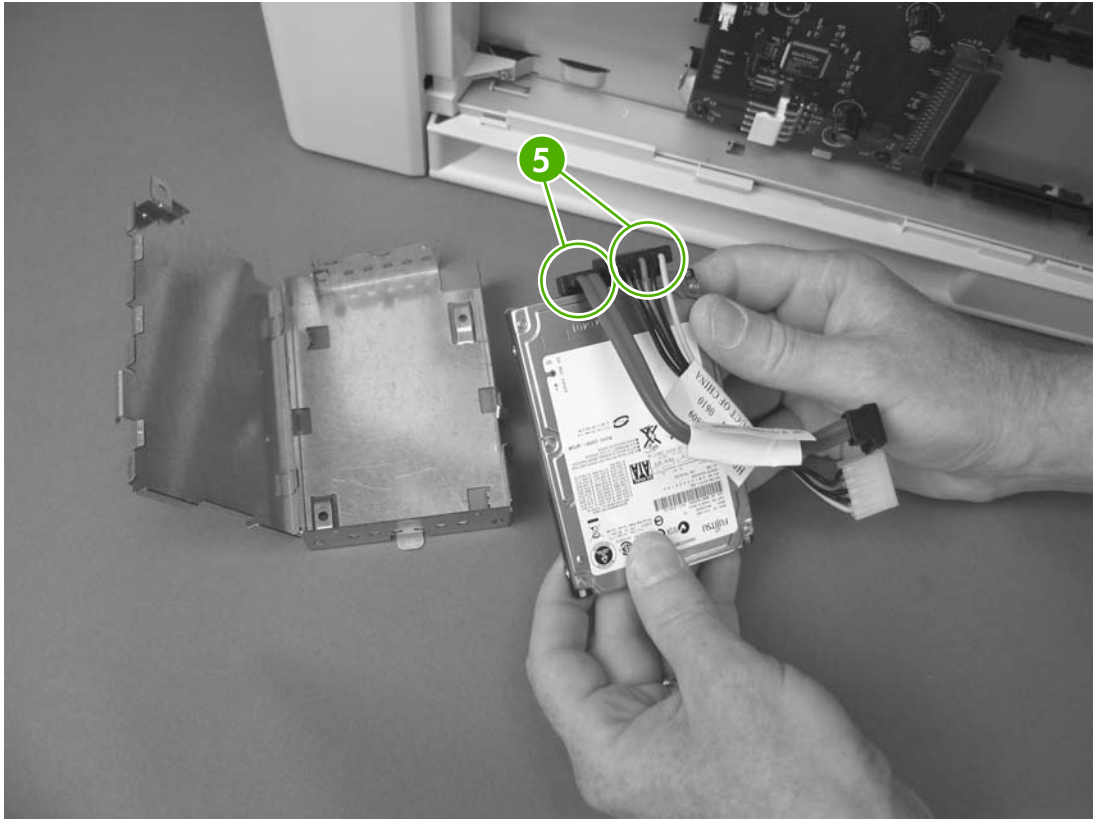
**NOTE** If you are replacing the disk drive, complete the additional steps below. If you are removing the disk drive in order to replace the formatter or other parts, there is no need to complete the remaining steps in this section.

4. Remove two screws (callout 4) from the metal housing.



**Figure 5-35** Removing the disk drive (2 of 3)

5. Open the metal-housing door, remove the disk drive from the metal housing, and then disconnect two cables (callout 5).



**Figure 5-36** Removing the disk drive (3 of 3)

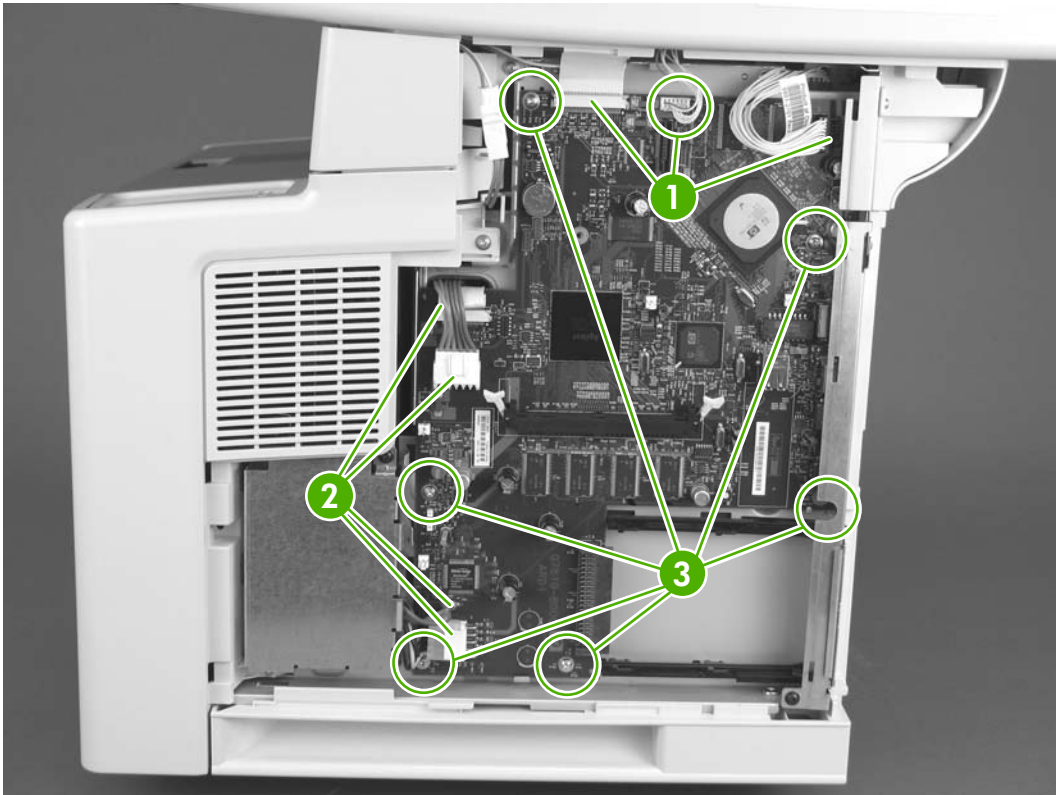
# Formatter

1. Remove the following components:
  - Right-side cover (see [Right-side cover on page 94](#))
  - Formatter shield (see [Formatter shield on page 95](#))
  - Disk drive (see [Disk drive on page 113](#))



**NOTE** Removing the disk drive is not a required step. However, you might find it easier to remove the formatter if you have already removed the disk drive.

2. Disconnect three cables (callout 1) from the top of the formatter.
3. Disconnect four cables (callout 2) from the left side (toward the front of the device) of the formatter.
4. Remove six screws (callout 3).

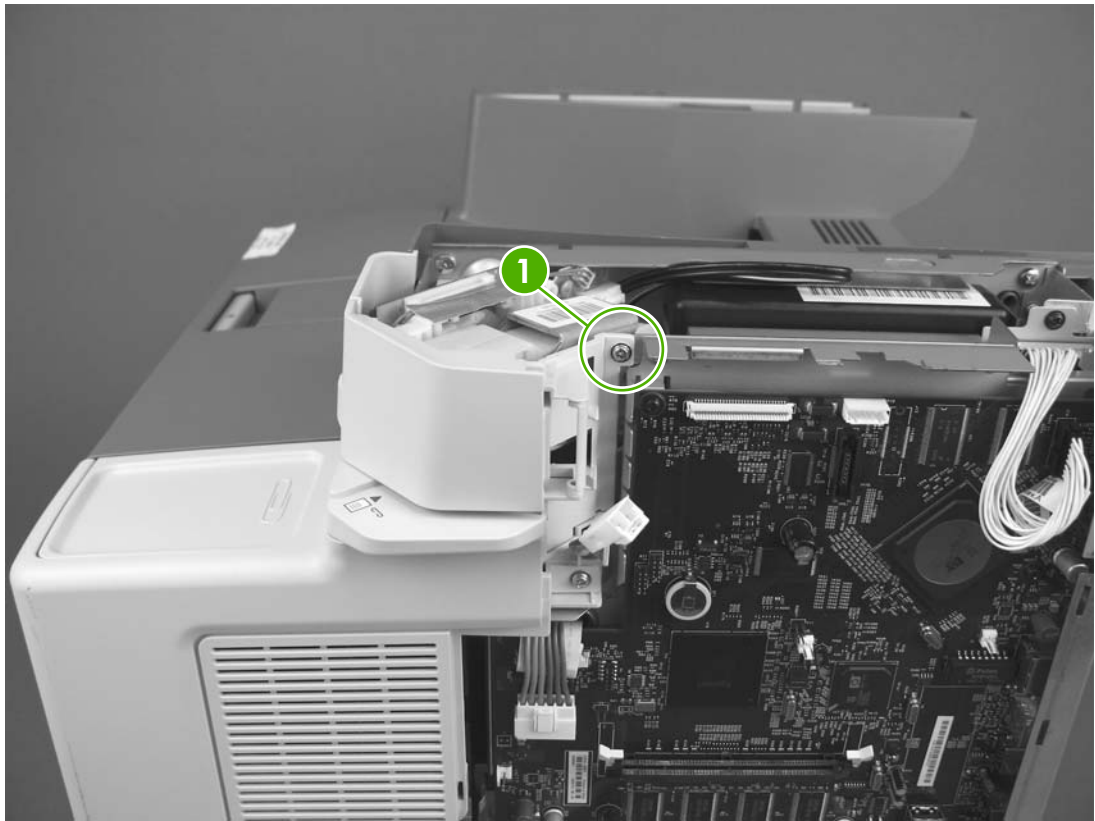


**Figure 5-37** Removing the formatter

5. Lift up the formatter slightly to clear one tab at the bottom, rotate the left edge of the formatter (at the front of the device) away from the device, and then slide the formatter toward the front of the device to remove it.

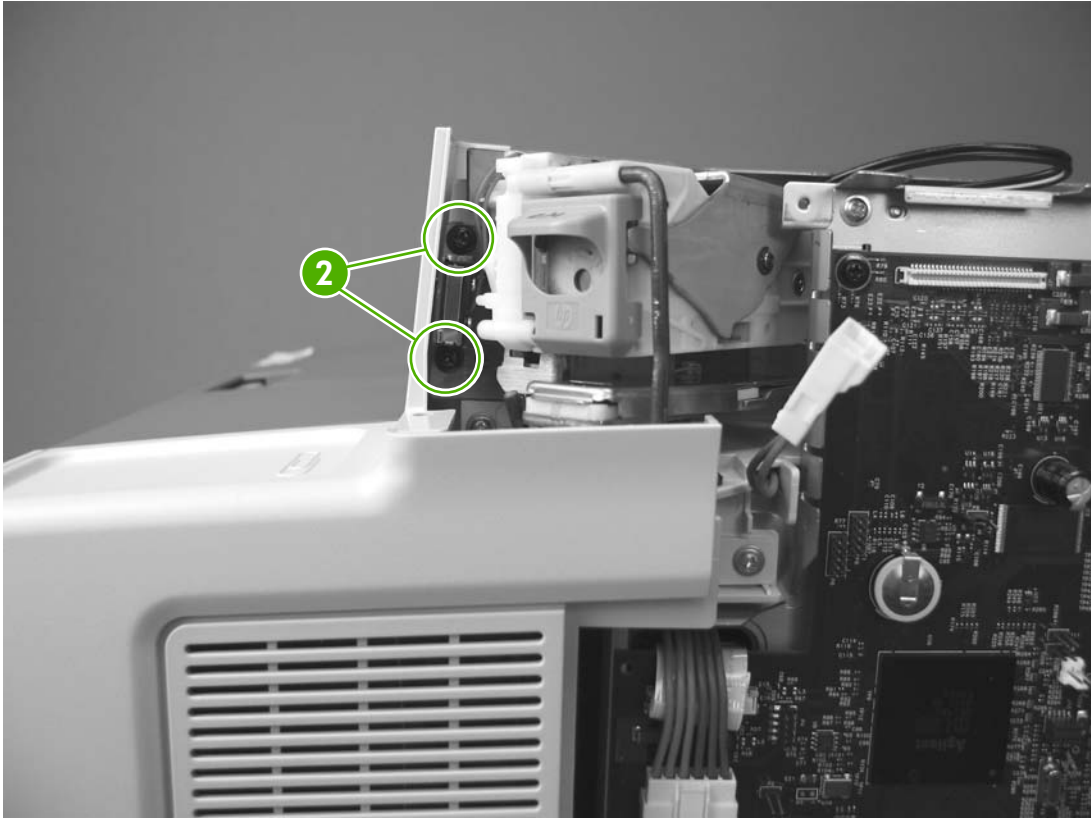
# Stapler

1. Remove the following components:
  - Right-side cover (see [Right-side cover on page 94](#))
  - Formatter shield (see [Formatter shield on page 95](#))
  - Fax cover (see [Fax cover on page 96](#))
  - Left-side cover (see [Left-side cover on page 97](#))
  - ADF/scanner assembly (see [Scanner assembly on page 90](#))
2. Remove one screw (callout 1) from the stapler cover and then lift the cover off of the device.



**Figure 5-38** Removing the stapler (1 of 3)

3. Remove two screws (callout 2) from the stapler bracket.

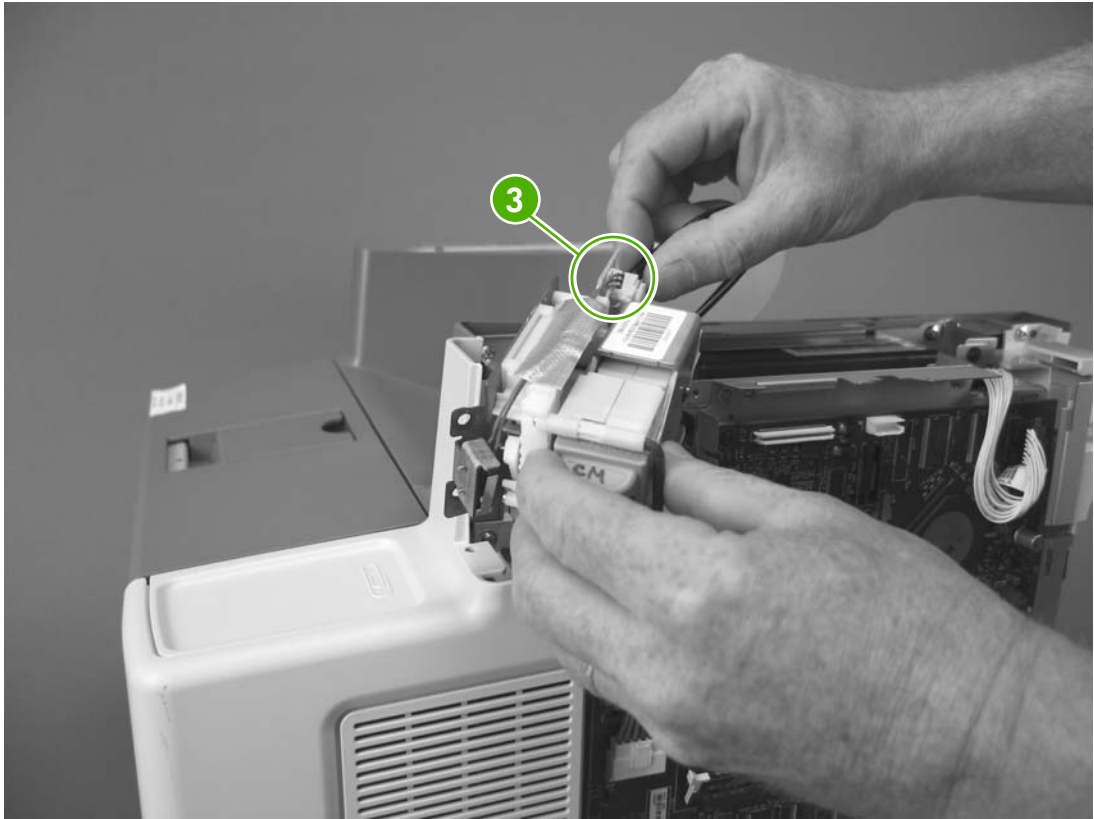


**Figure 5-39** Removing the stapler (2 of 3)



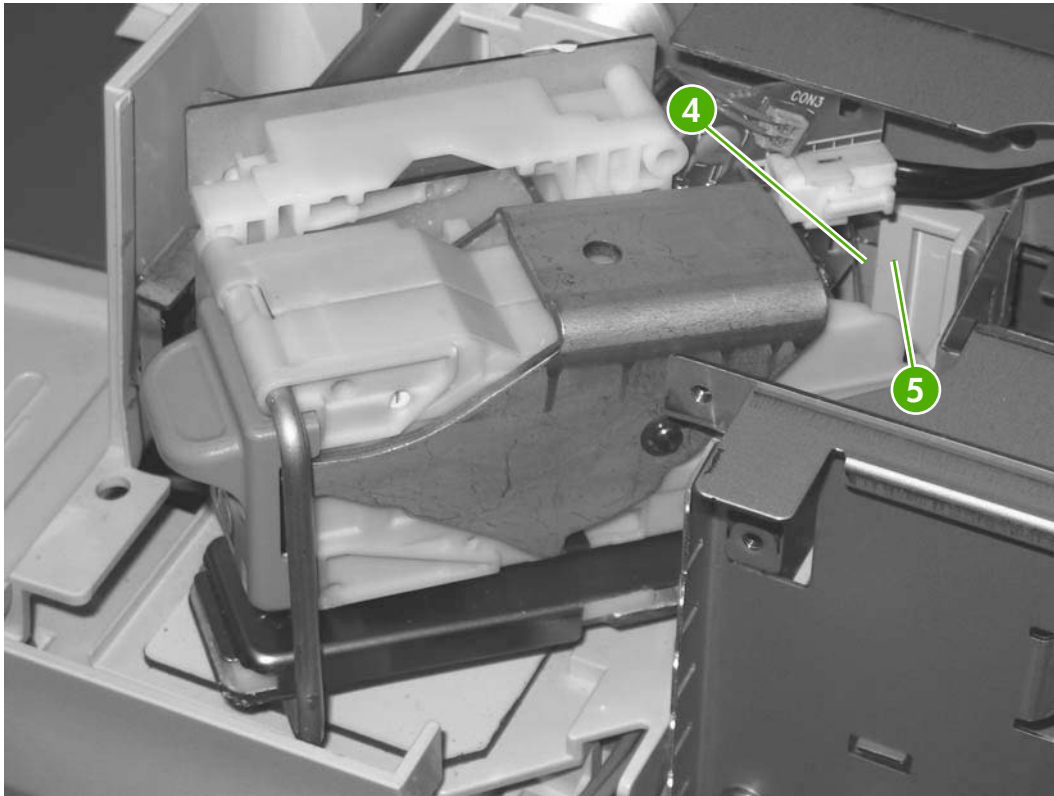
**Reinstallation tip** Be careful not to pinch the stapler cables when reinstalling and tightening the screws.

4. Lift the stapler out of the device and then disconnect one cable (callout 3) from the back of the stapler.




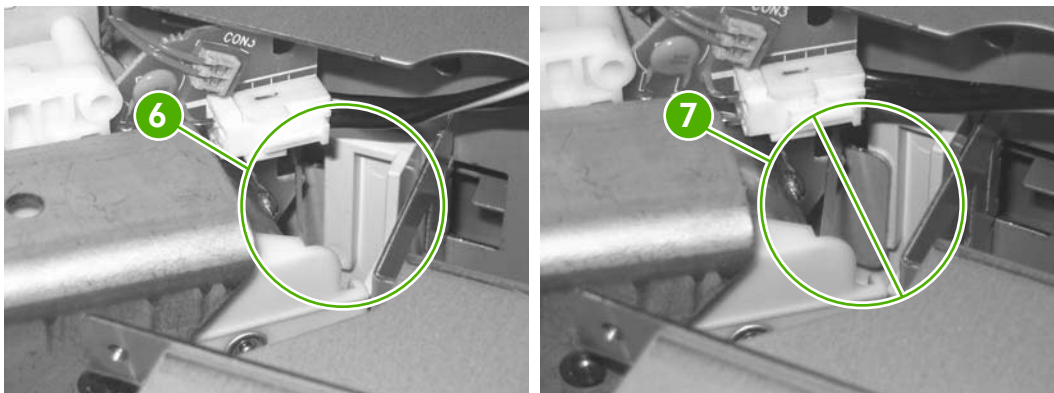
**Figure 5-40** Removing the stapler (3 of 3)





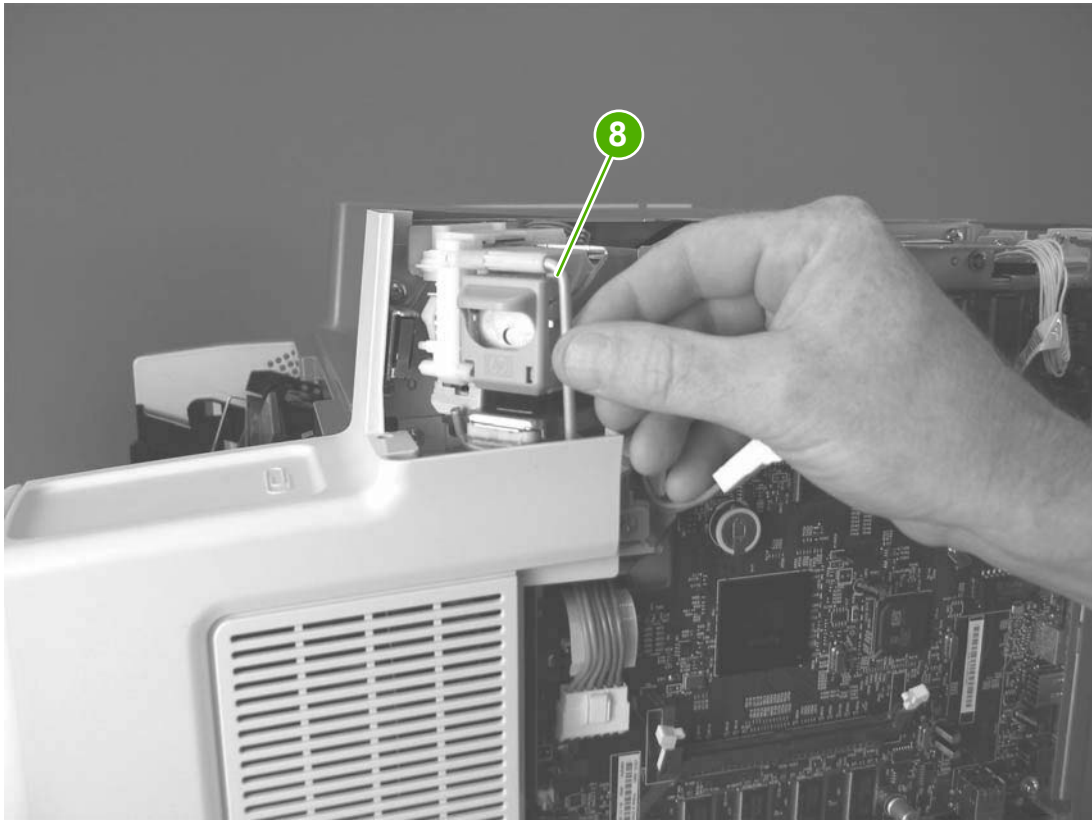
**Figure 5-41** Reinstalling the stapler (1 of 3)

 **Reinstallation tip** For correct placement, insert the metal tab at the back of the stapler (callout 4) into the slot in the chassis (callout 5). The following figure shows correct placement of the metal tab in callout 6 and incorrect placement of the metal tab in callout 7.



**Figure 5-42** Reinstalling the stapler (2 of 3) – correct (callout 6) and incorrect (callout 7) reinstallation of the metal tab.





**Figure 5-43** Reinstalling the stapler (3 of 3)



**Reinstallation tip** Make sure that the actuator rod (callout 8) is inserted into the hole in the stapler and that it moves freely.

### Stapler testing – to be performed after the device is fully reassembled



**WARNING!** Incorrect reinstallation of the stapler can cause the stapler-door switch to operate incorrectly, resulting in a safety hazard. Test the stapler for correct operation before releasing the device back to the customer.

#### Final stapler-test procedure

*Test #1: Does the stapler operate correctly when the stapler door is closed?*

With the stapler door closed, use the stapler to staple several sheets of paper together. The stapler should staple the sheets.

*Test #2 (safety-switch test): Does the stapler operate when the stapler door is open?*

Open the stapler door and attempt to use the stapler to staple several sheets of paper together. When the stapler and stapler door safety-switch are operating correctly, the open door cuts power to the stapler and the stapler does *not* staple the sheets.



---

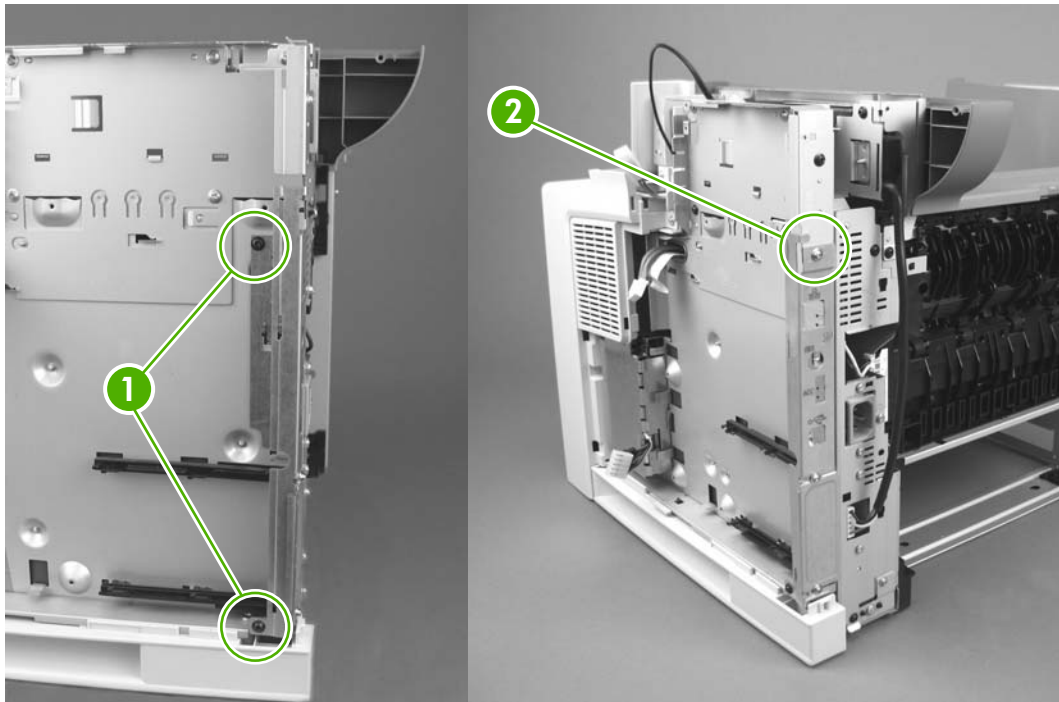
**WARNING!** Do *not* release the device back to the customer unless the stapler passes both of the tests. *If the stapler fails either test, remove the stapler and then reinstall it by carefully following the installation steps shown in this manual. If the stapler continues to fail one or both tests, replace the stapler and the stapler power supply.*

If the staple activates when the stapler door is open, and the stapler cannot be repaired without ordering parts, disconnect the stapler power supply before reassembling the device and before you leave the customer site. When the stapler power supply is disconnected, the customer can safely operate all device functions, except for stapling, while waiting for repair of the stapler.

---

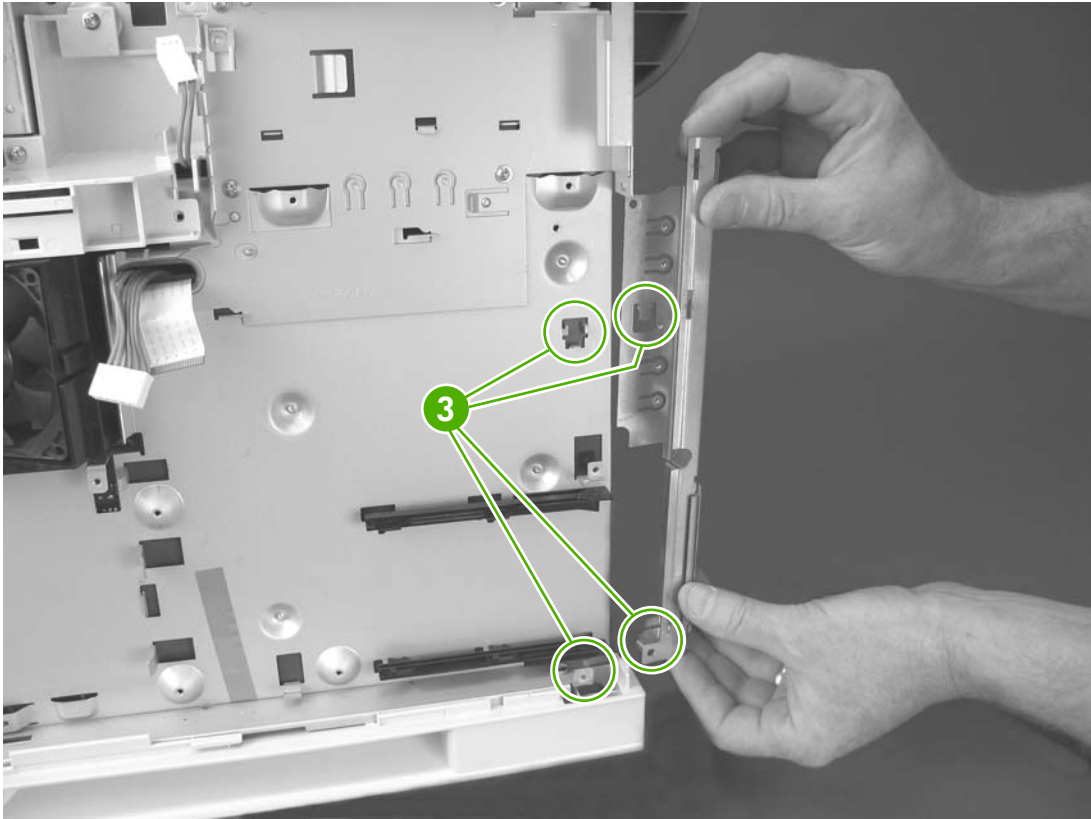
## Stapler power-supply

1. Remove the following components:
  - All covers except for the top cover and the right, front cover (see [Covers on page 94](#))
  - ADF/scanner assembly (see [Scanner assembly on page 90](#))
  - Fax accessory (see [Fax accessory on page 111](#))
  - Formatter (see [Formatter on page 116](#))
  - Stapler (see [Stapler on page 117](#))
2. Remove two screws (callout 1) from the side of the I/O plate and one screw (callout 2) from the back of the plate.



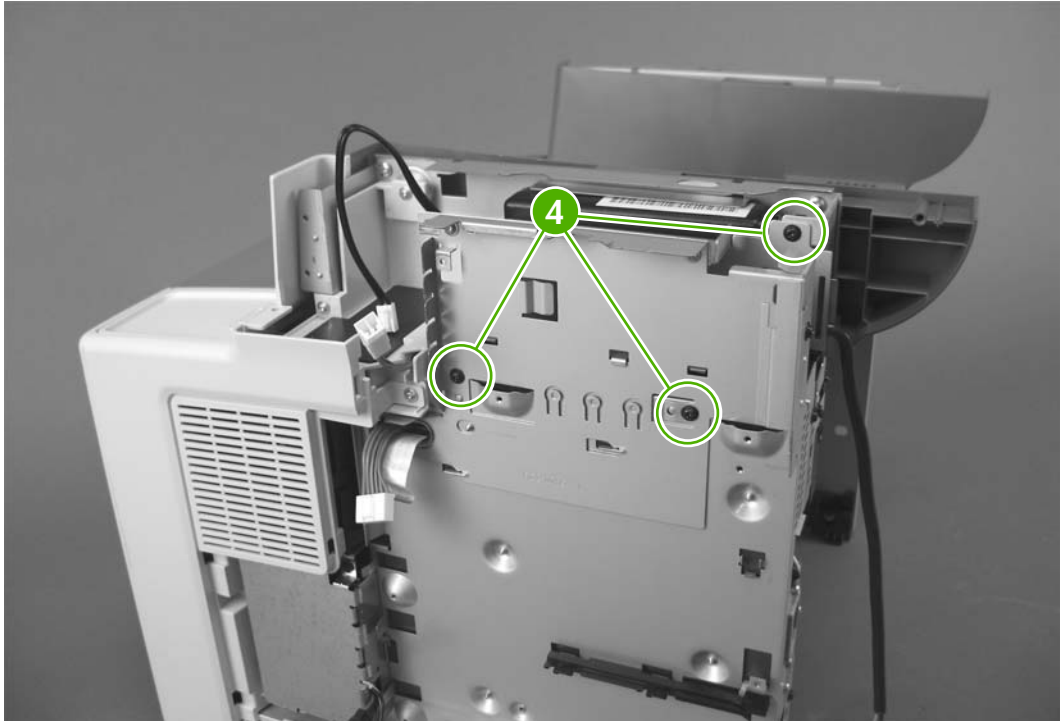
**Figure 5-44** Removing the stapler power supply (1 of 5)

3. Lift the I/O plate up slightly to dislodge it from the tabs (callout 3) on the ECU plate, and then slide it toward the back and off of the device.



**Figure 5-45** Removing the stapler power supply (2 of 5)

4. Remove three screws (callout 4) from the stapler-power-supply plate.



**Figure 5-46** Removing the stapler power supply (3 of 5)

5. Slide the stapler-power-supply plate toward the back of the device until it stops, and then guide cables through a hole in the stapler-power-supply plate while lifting the plate straight away from the device.

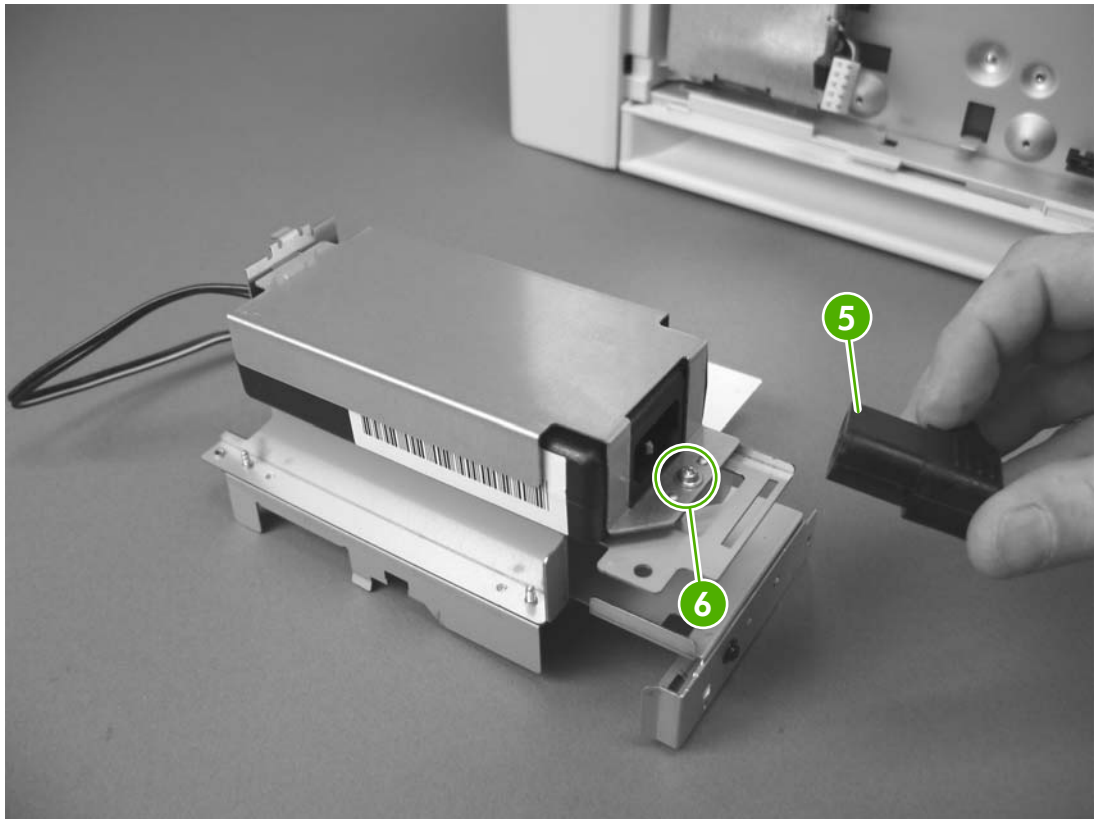


**Figure 5-47** Removing the stapler power supply (4 of 5)



**Reinstallation tip** Guide the cables through the hole in the stapler-power-supply plate before attaching the plate.

6. Unplug the power-supply cable (callout 5) and then remove one screw (callout 6) to release the power-supply cover.

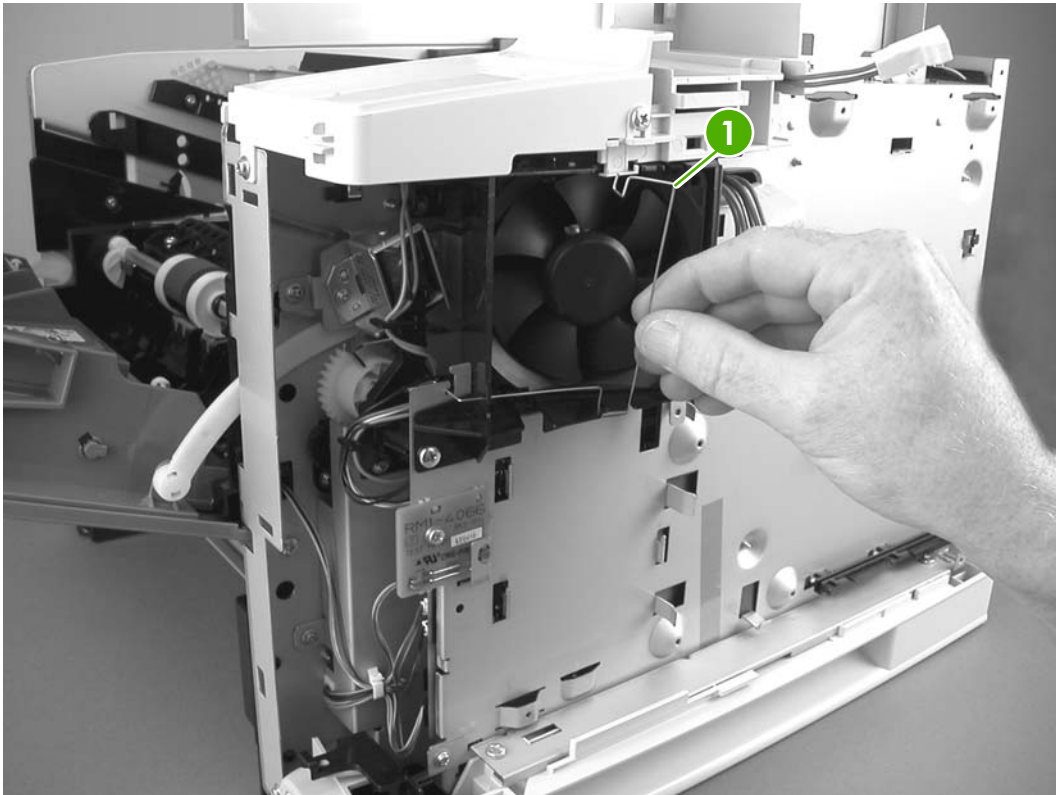


**Figure 5-48** Removing the stapler power supply (5 of 5)

7. Lift the cover off of the power supply and then lift the power supply off of the plate.

## Right-side fan

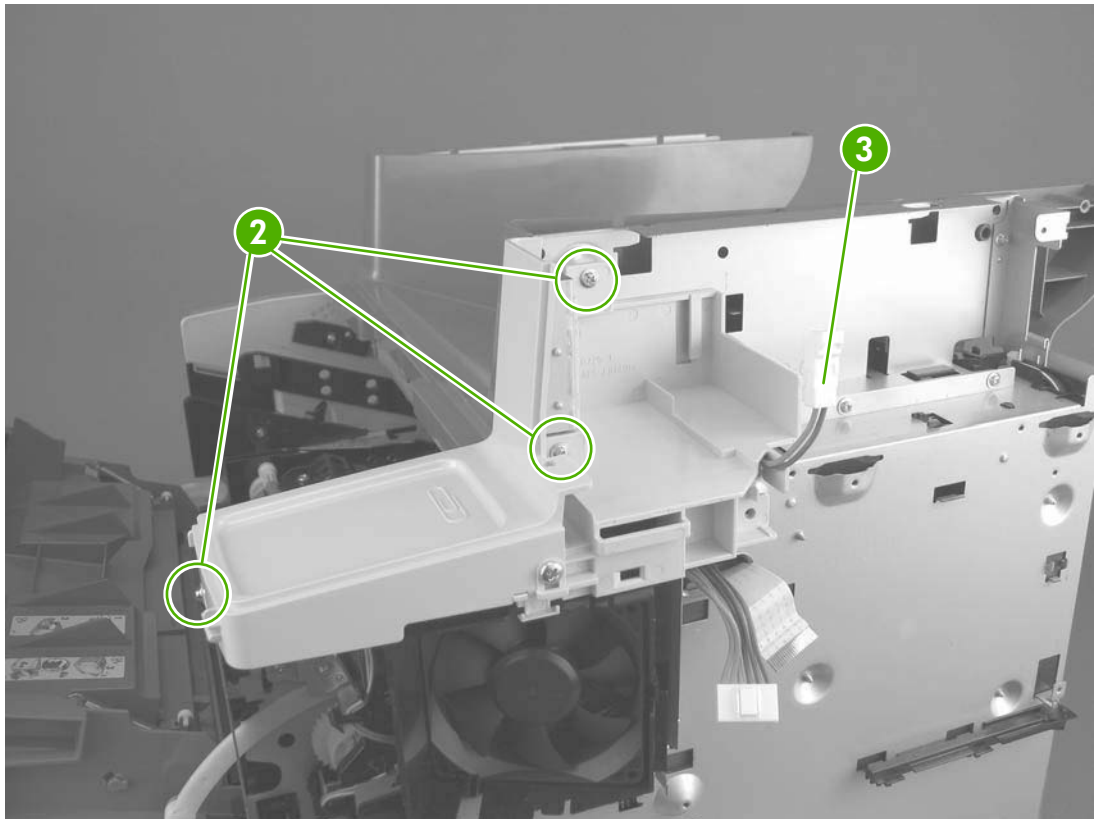
1. Remove the following components:
  - All covers except for the top cover (see [Covers on page 94](#))
  - ADF/scanner assembly (see [Scanner assembly on page 90](#))
  - Fax accessory (see [Fax accessory on page 111](#))
  - Disk drive (see [Disk drive on page 113](#))
  - Formatter (see [Formatter on page 116](#))
  - Stapler (see [Stapler on page 117](#)) and stapler power-supply (see [Stapler power-supply on page 123](#))
2. Remove the grounding wire (callout 1) from the fan housing.



**Figure 5-49** Removing the right-side fan (1 of 3)



3. Remove three screws (callout 2) from the clip-tray/stapler housing assembly and then lift the assembly off of the device.

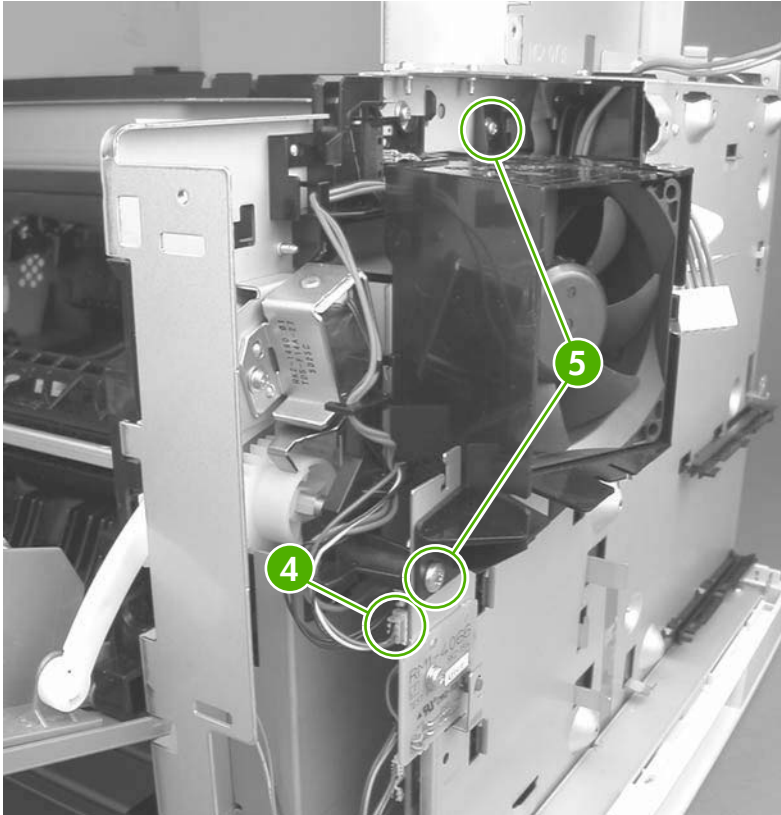


**Figure 5-50** Removing the right-side fan (2 of 3)



**Reinstallation tip** When reinstalling the clip-tray/stapler-housing assembly, route the scanner power cable (callout 3) through an opening in the assembly.

4. Disconnect the fan cable (callout 4) at the ECU and then remove two screws (callout 5).

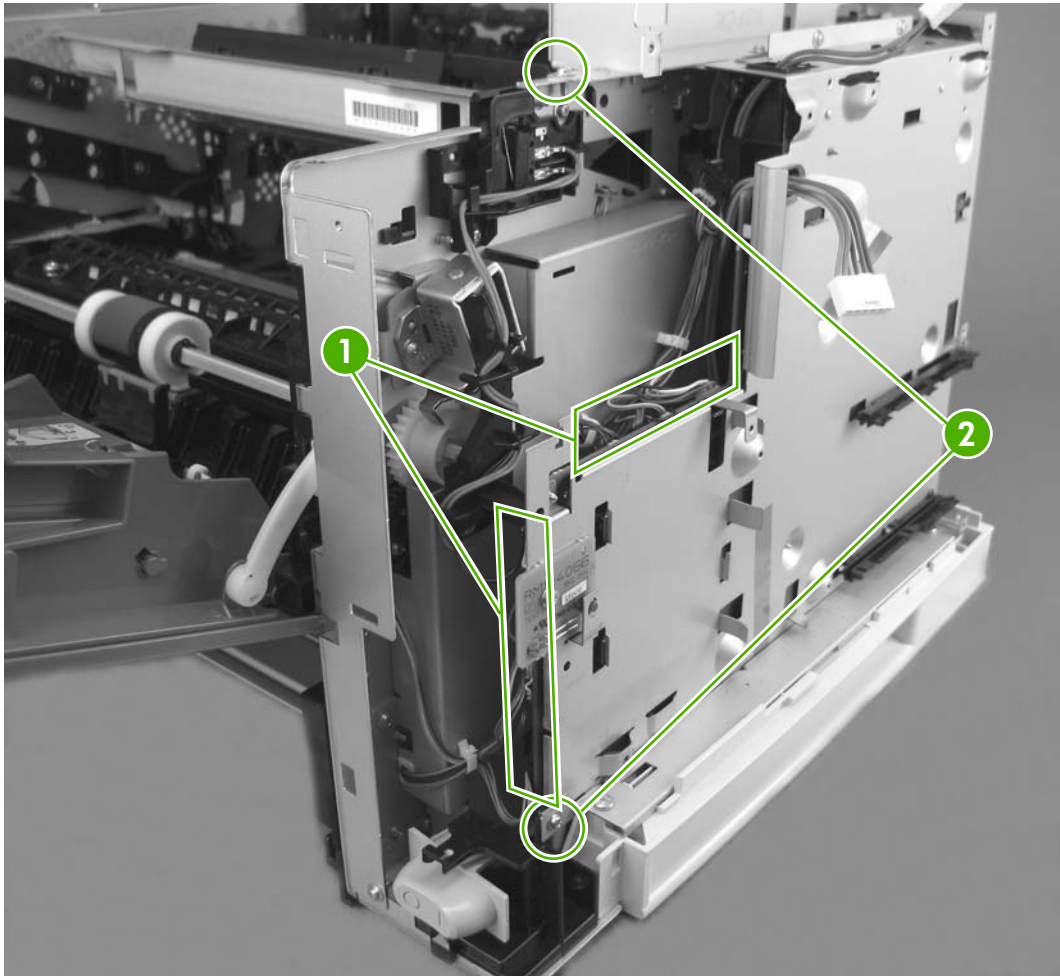


**Figure 5-51** Removing the right-side fan (3 of 3)

5. Slide the fan out of the device.

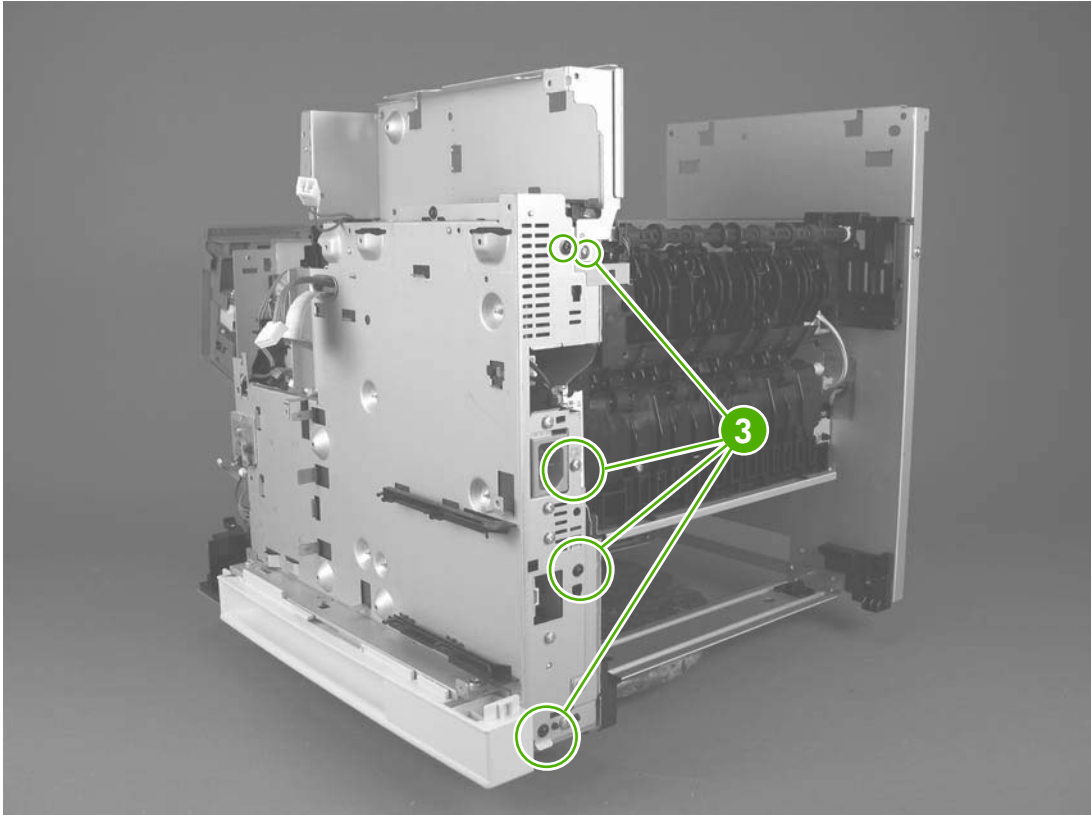
## Engine control unit (ECU)

1. Remove the following components:
  - All of the covers (see [Covers on page 94](#)) and the ADF/scanner assembly (see [Scanner assembly on page 90](#))
  - Fax accessory (see [Fax accessory on page 111](#))
  - Disk drive (see [Disk drive on page 113](#))
  - Formatter (see [Formatter on page 116](#))
  - Stapler (see [Stapler on page 117](#)) and stapler power-supply (see [Stapler power-supply on page 123](#))
  - Right-side fan (see [Right-side fan on page 128](#))
2. Disconnect ten cables (callout 1) from the ECU.
3. Remove two screws (callout 2—one from the right-side riser and one from the ECU plate).



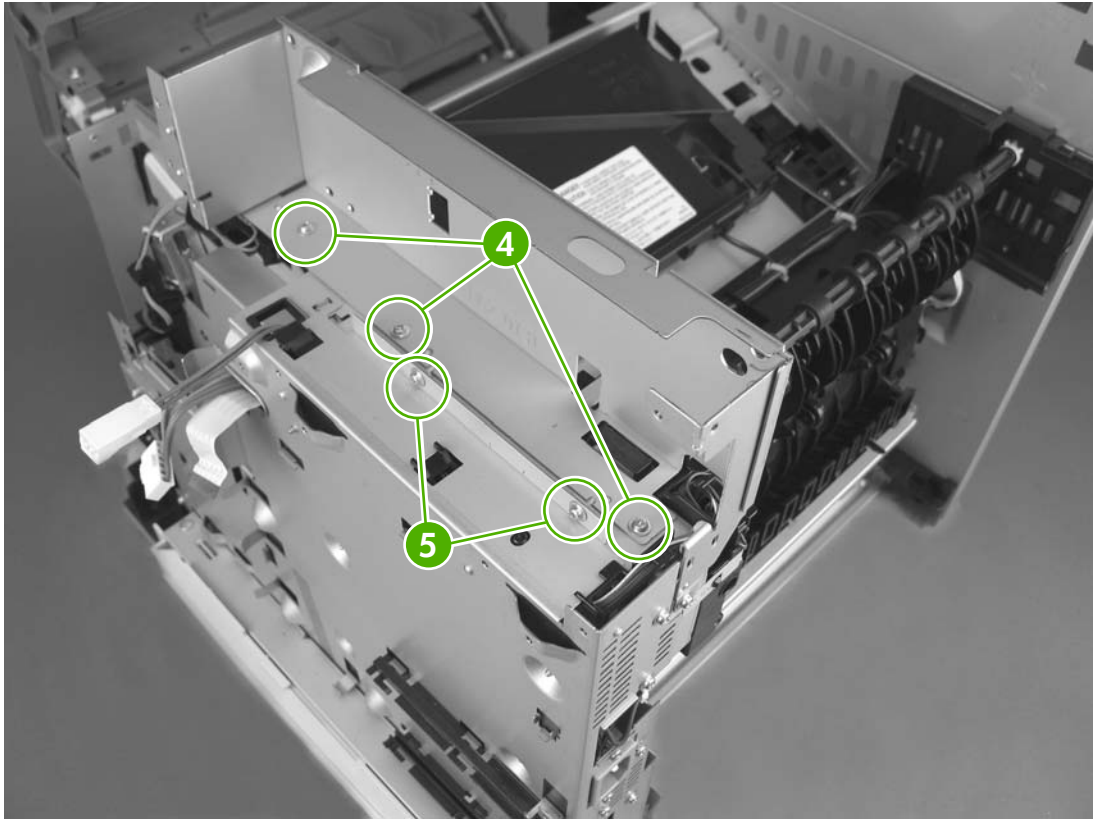
**Figure 5-52** Removing the ECU (1 of 6)

4. Remove five screws (callout 3) at the back of the device.



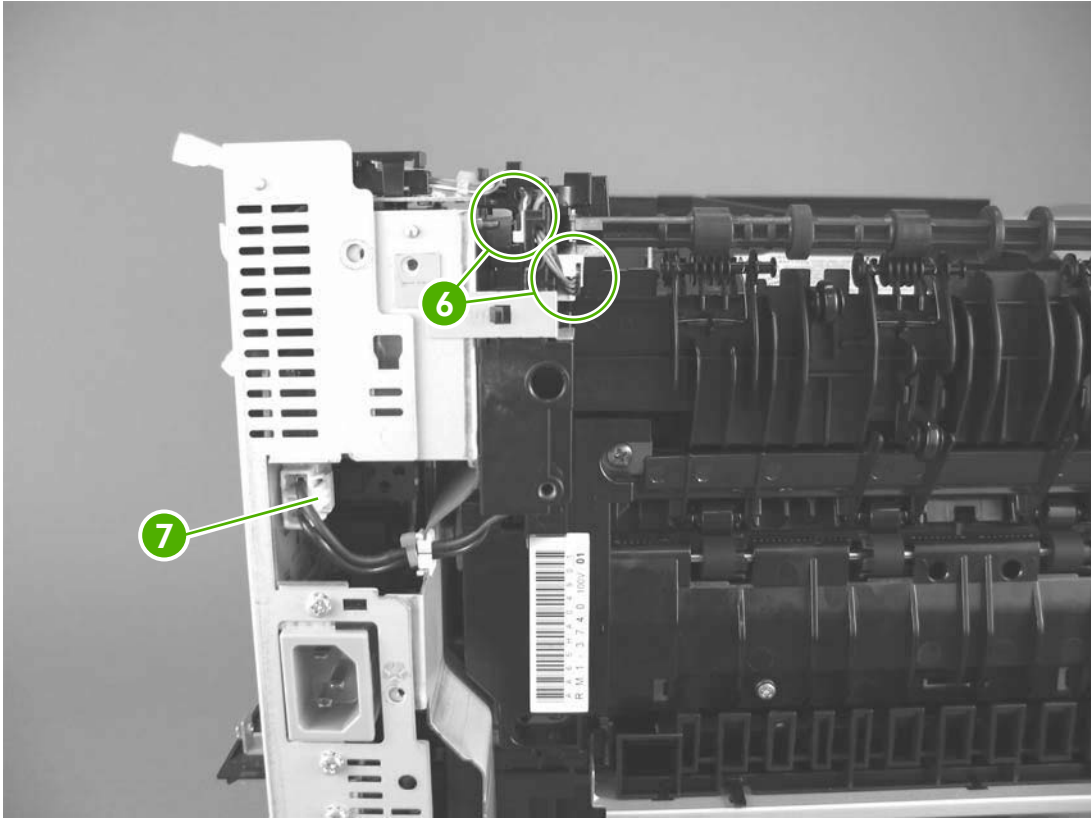
**Figure 5-53** Removing the ECU (2 of 6)

5. Remove three screws (callout 4) from the right-side riser and then lift the riser off of the device. Also remove two screws (callout 5) from the ECU plate.



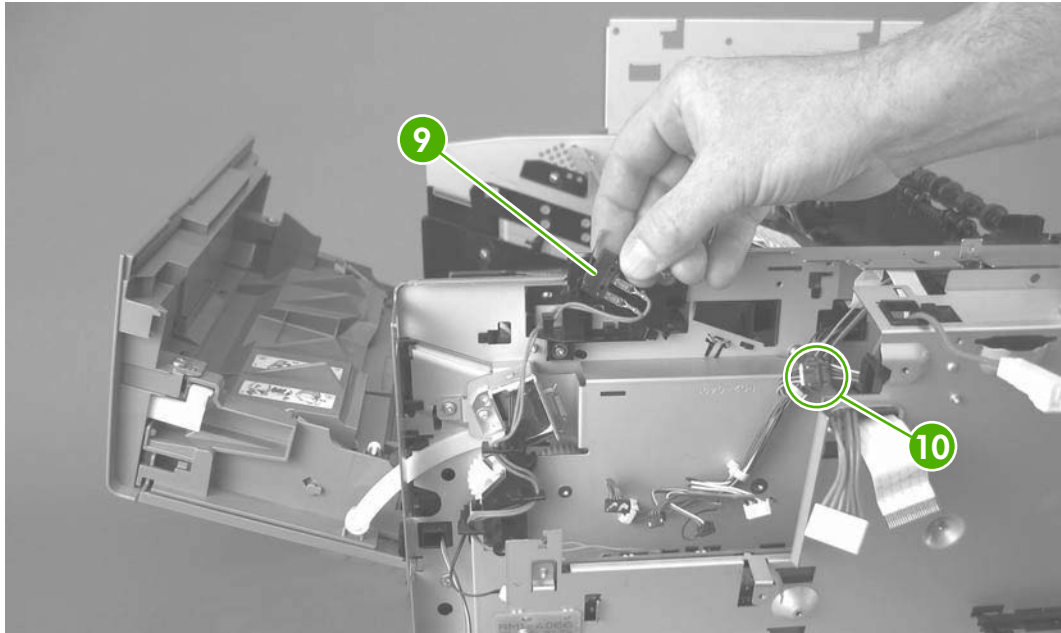
**Figure 5-54** Removing the ECU (3 of 6)

6. Disconnect two sensor cables (callout 6) and the fuser power cable (callout 7).

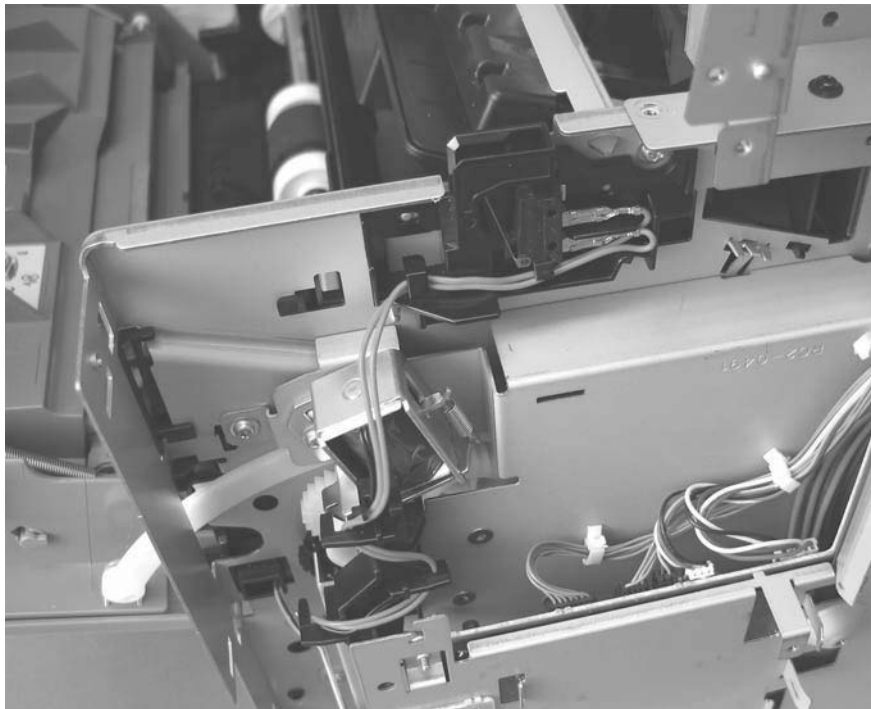


**Figure 5-55** Removing the ECU (4 of 6)

7. Unplug the laser/scanner ribbon cable (callout 8) from the laser/scanner and disconnect one inline connector (callout 9). Then, unwind the front-door microswitch cable from the cable guides and then remove the microswitch (callout 10) from its housing.



**Figure 5-56** Removing the ECU (5 of 6)



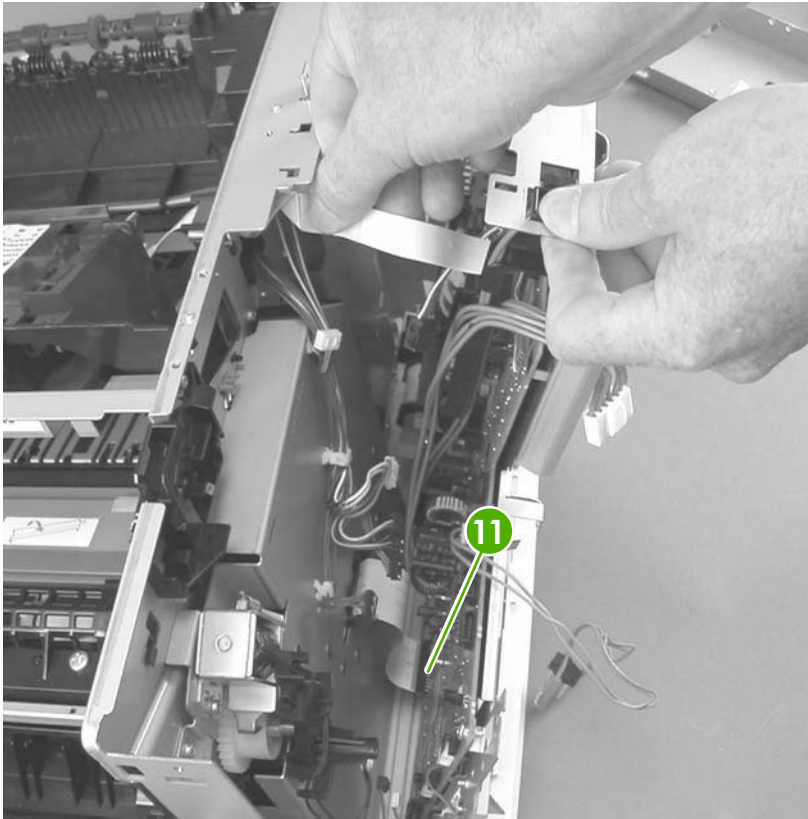
**Figure 5-57** Reinstalling the front-door microswitch cable



**Reinstallation tip** Upon reinstallation, replace the microswitch in its housing and then route the cable as shown in [Figure 5-57 Reinstalling the front-door microswitch cable on page 135](#).



8. Lift up the ECU slightly and rotate the top of the ECU away from the device. After it is rotated, disconnect one ribbon cable (callout 11) from the ECU.



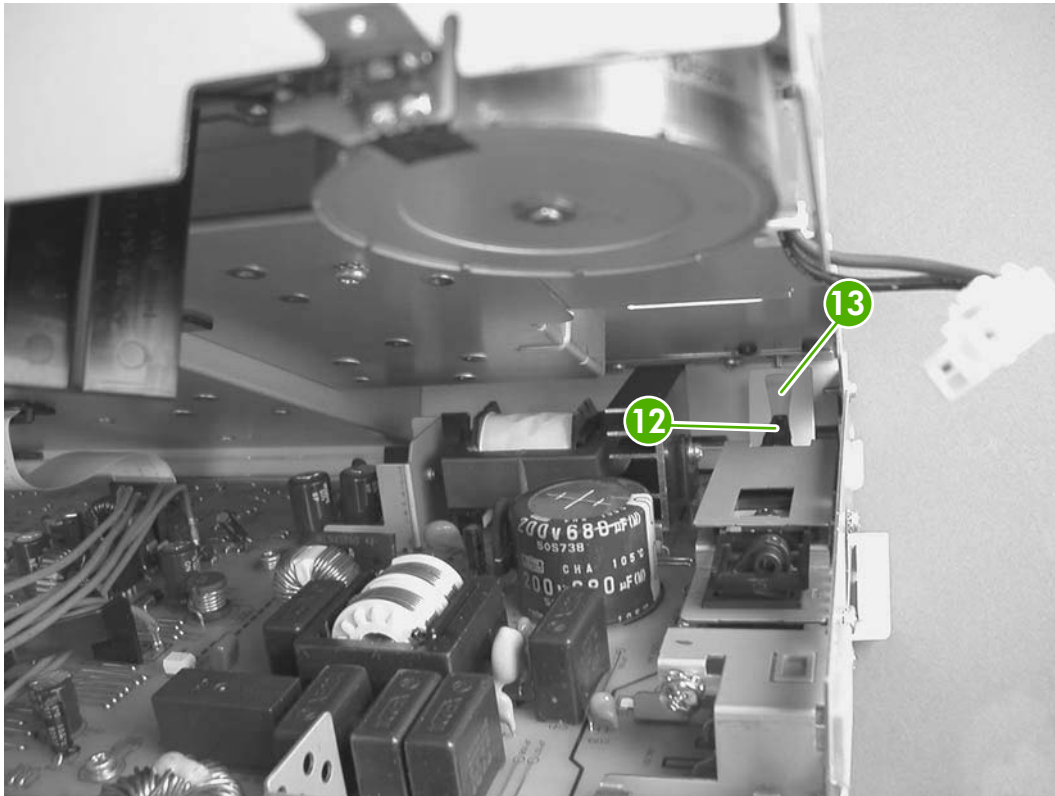
**Figure 5-58** Removing the ECU (6 of 6)

9. Lift the ECU off of the device.



**NOTE** The ECU and the ECU pan together are a single FRU. You do not have to separate the ECU and the ECU pan.





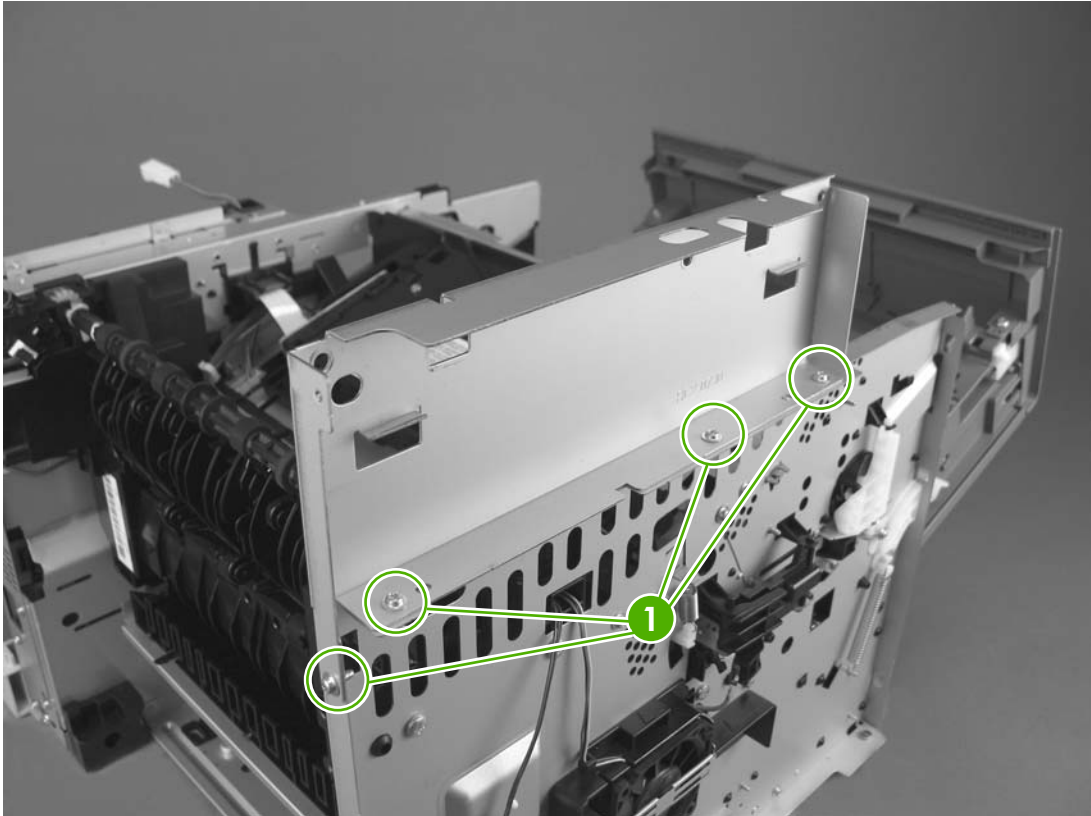
**Figure 5-59** Reinstalling the ECU



**Reinstallation tip** Make sure that the power switch (callout 12) fits into the correct position in the switch link (callout 13).

## Left-side riser

1. Remove all covers (see [Covers on page 94](#)) and the ADF/scanner assembly (see [Scanner assembly on page 90](#))
2. Remove four screws (callout 1).

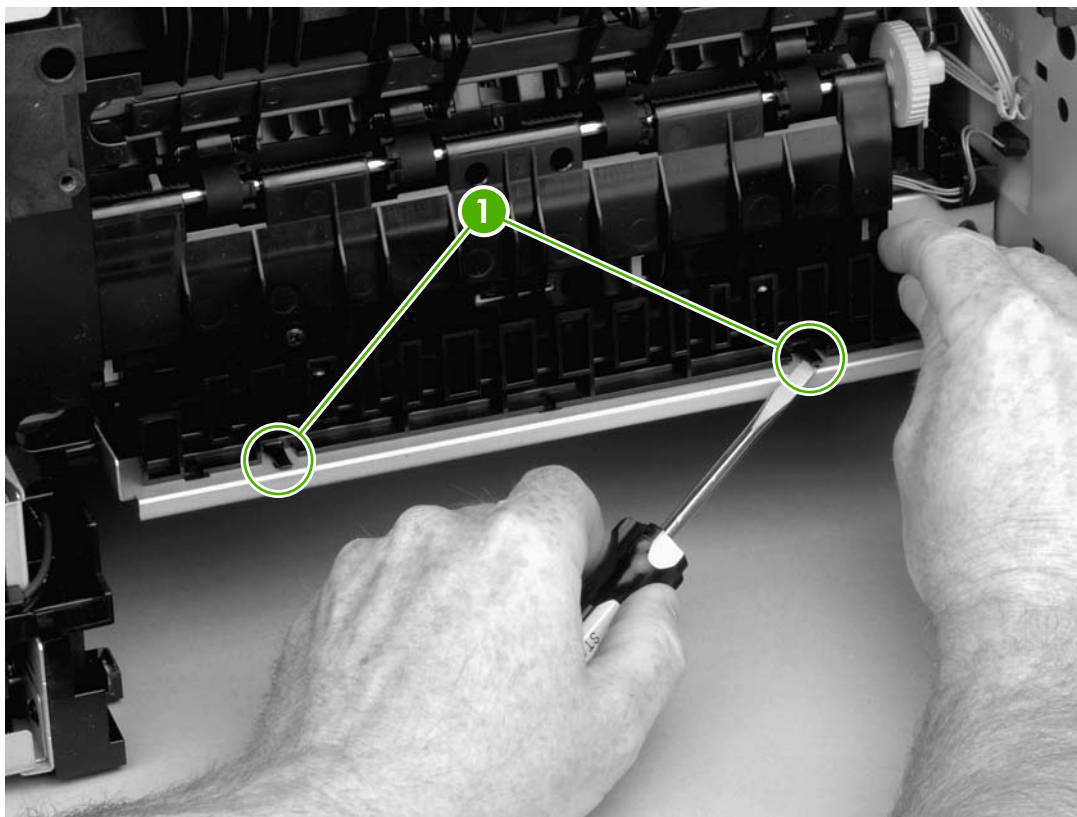


**Figure 5-60** Removing the left-side riser

3. Lift the left-side riser off of the device.

## Fuser

1. Remove the back cover (see [Back cover on page 101](#)) and the I/O cover (see [I/O cover on page 103](#)).
2. Remove the duplexer inlet guide by releasing two tabs (callout 1) on the guide, and then sliding the guide toward the back of the device.

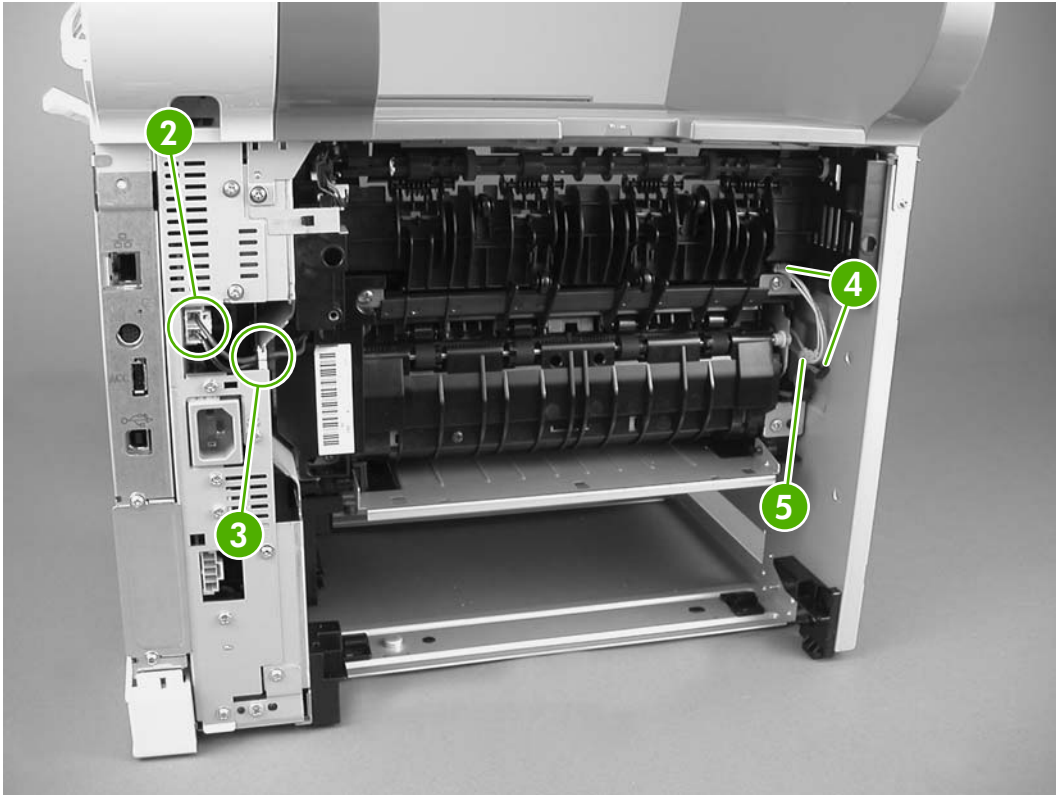


**Figure 5-61** Removing the fuser (1 of 3)



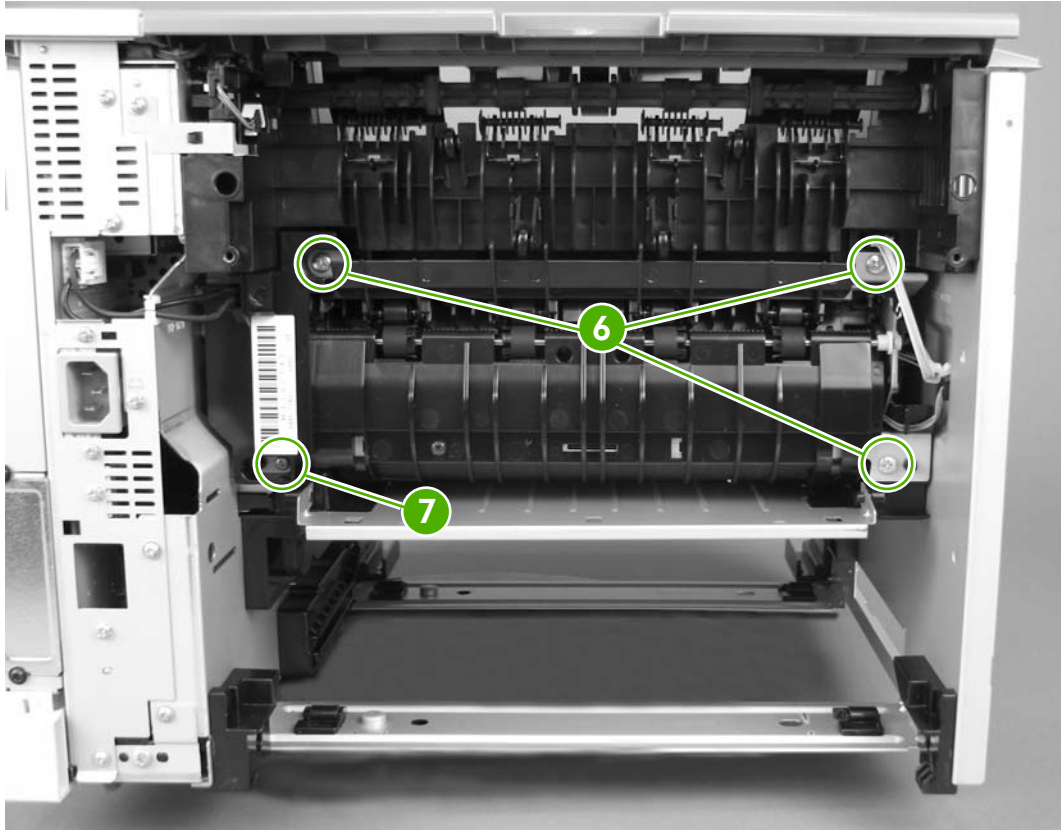
**Reinstallation tip** Make sure that both tabs snap into place when reinstalling the duplexer inlet guide.

3. Disconnect the fuser power cable (callout 2) and remove the cable from the cable guide (callout 3). Also disconnect two cables (callout 4) at the right side of the fuser and remove one of the cables from the cable guide (callout 5).



**Figure 5-62** Removing the fuser (2 of 3)

4. Remove three self-tapping screws (callout 6) and one grounding screw (callout 7).

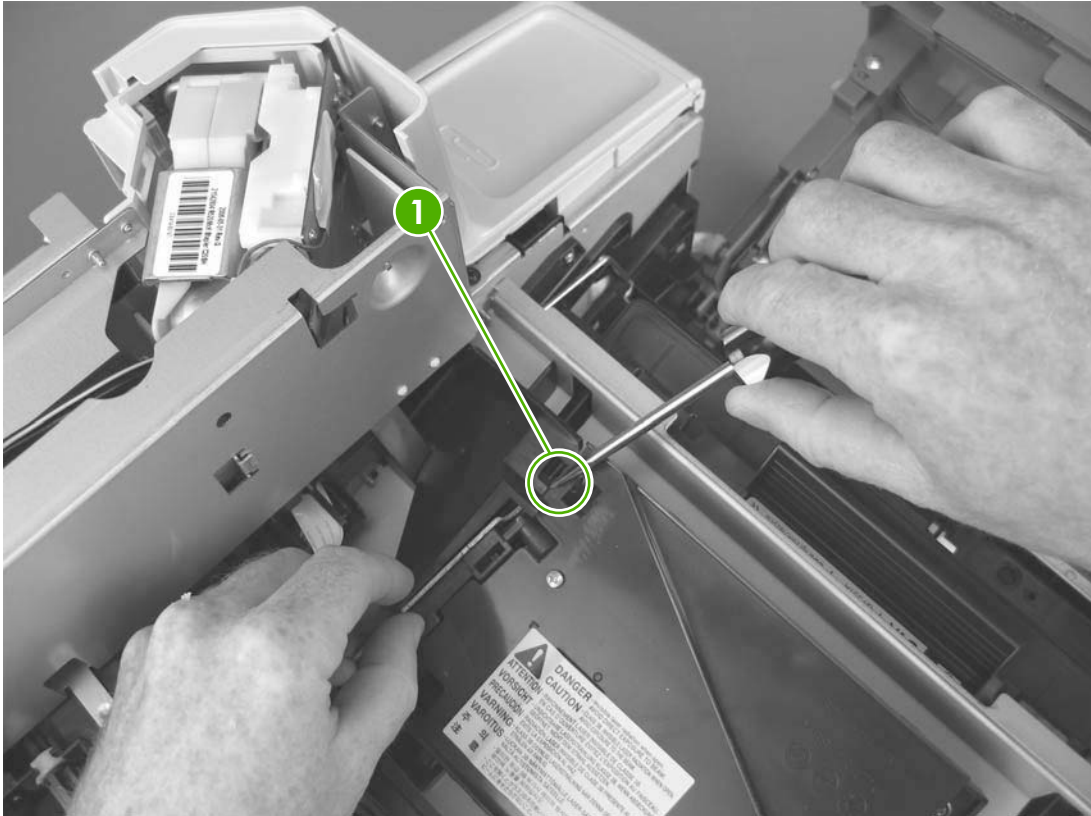


**Figure 5-63** Removing the fuser (3 of 3)

5. Tilt the fuser slightly toward the back of the device, and then slide the fuser out of the back of the device.

## Laser/scanner

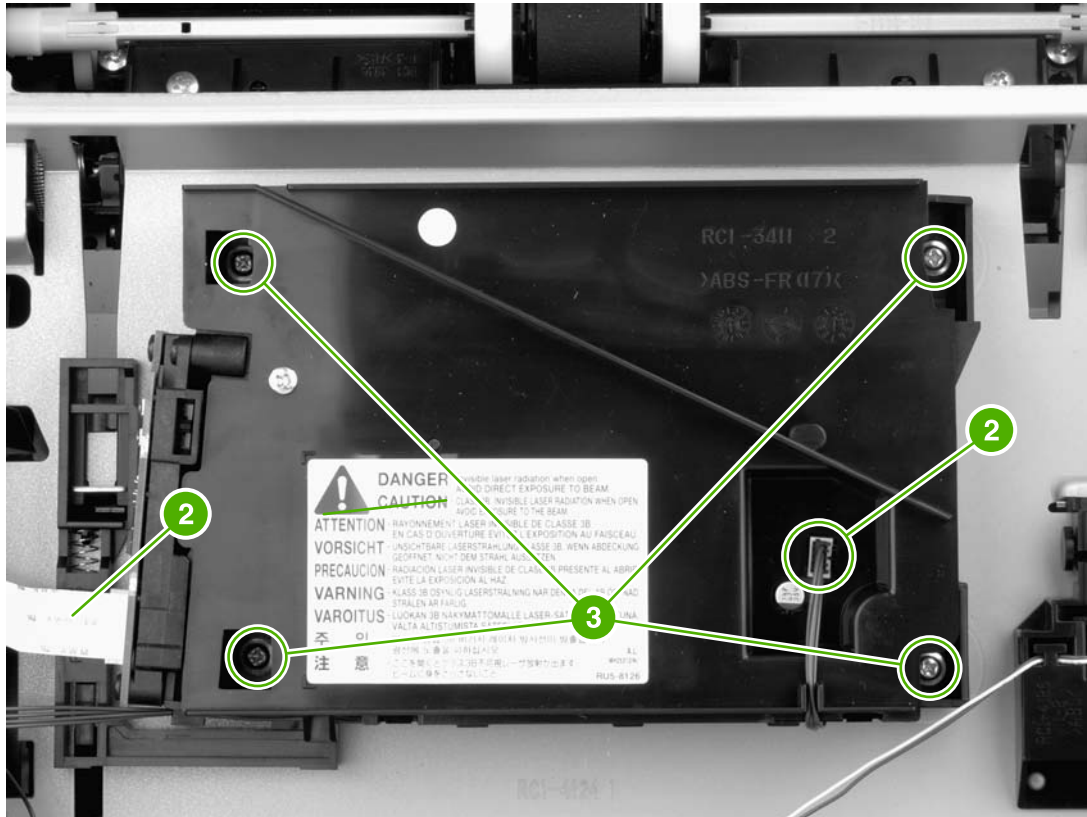
1. Remove all covers (see [Covers on page 94](#)) and the ADF/scanner assembly (see [Scanner assembly on page 90](#)).
2. Release one tab (callout 1) on the air duct, and then lift the air duct out of the device.



**Figure 5-64** Removing the laser/scanner (1 of 2)



3. Disconnect two cables (callout 2) and then remove four screws (callout 3).

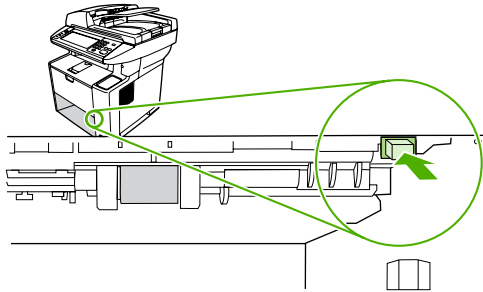


**Figure 5-65** Removing the laser/scanner (2 of 2)

4. Lift the laser/scanner out of the device.

## Access plate

1. Remove the following components:
  - Left-side cover (see [Left-side cover on page 97](#))
  - Back cover (see [Back cover on page 101](#))
  - I/O cover (see [I/O cover on page 103](#))
  - Duplexer inlet guide (see [Figure 5-61 Removing the fuser \(1 of 3\) on page 139](#))
2. At the front of the device, push the green button on the top, right front of the tray 2 opening to release the access plate.



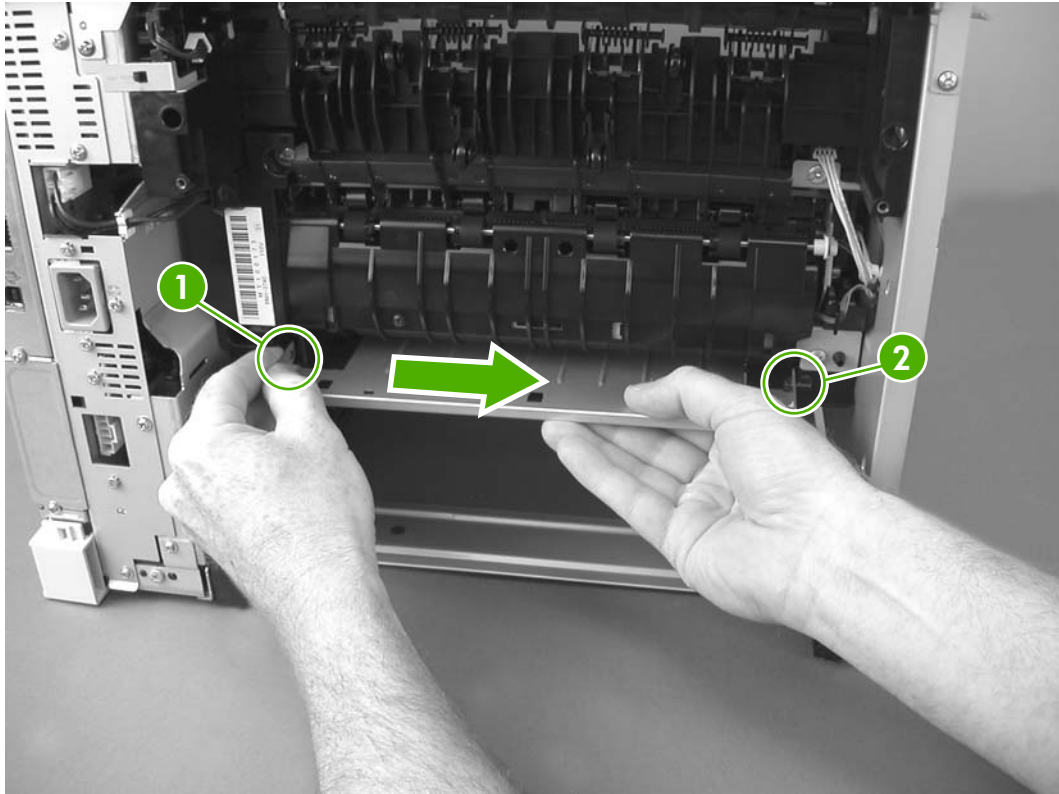
**Figure 5-66** Removing the access plate (1 of 2)



3. At the back of the device, press one tab (callout 1) to release the access plate, and then lower the access plate until the other side slides off of the other tab (callout 2).



**NOTE** You might have to pry the tab with a flat-blade screwdriver. If you bend the tab, straighten the tab before you reinstall the plate.



**Figure 5-67** Removing the access plate (2 of 2)

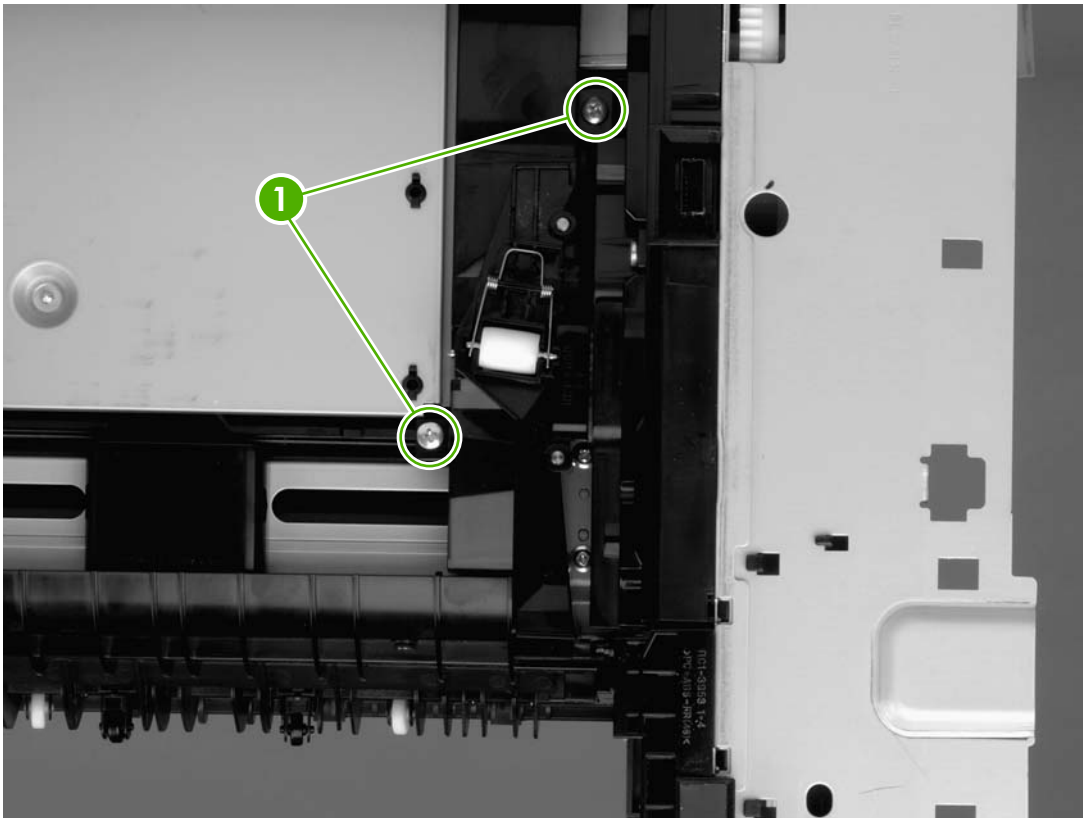
4. Slide the plate out of the device.



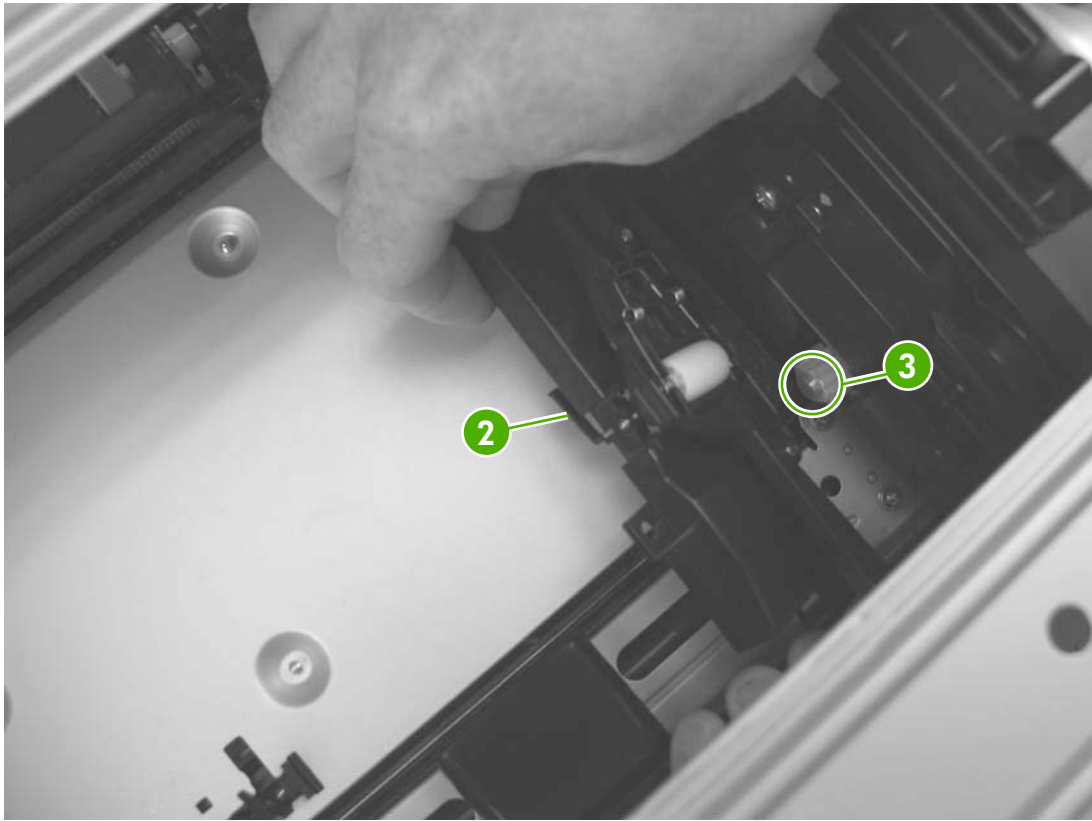
**CAUTION** Make sure that you do not damage the spring that is attached to the plate.

## Oblique-roller assembly

1. Remove the following components:
  - Left-side cover (see [Left-side cover on page 97](#))
  - Back cover (see [Back cover on page 101](#))
  - I/O cover (see [I/O cover on page 103](#))
  - Duplexer inlet guide (see [Figure 5-61 Removing the fuser \(1 of 3\) on page 139](#))
  - Access plate (see [Access plate on page 144](#))
2. At the bottom of the device, remove the two screws (callout 1) that secure the oblique-roller assembly to the device, and then lift the assembly from the device.



**Figure 5-68** Removing the oblique-roller assembly



**Figure 5-69** Reinstalling the oblique-roller assembly



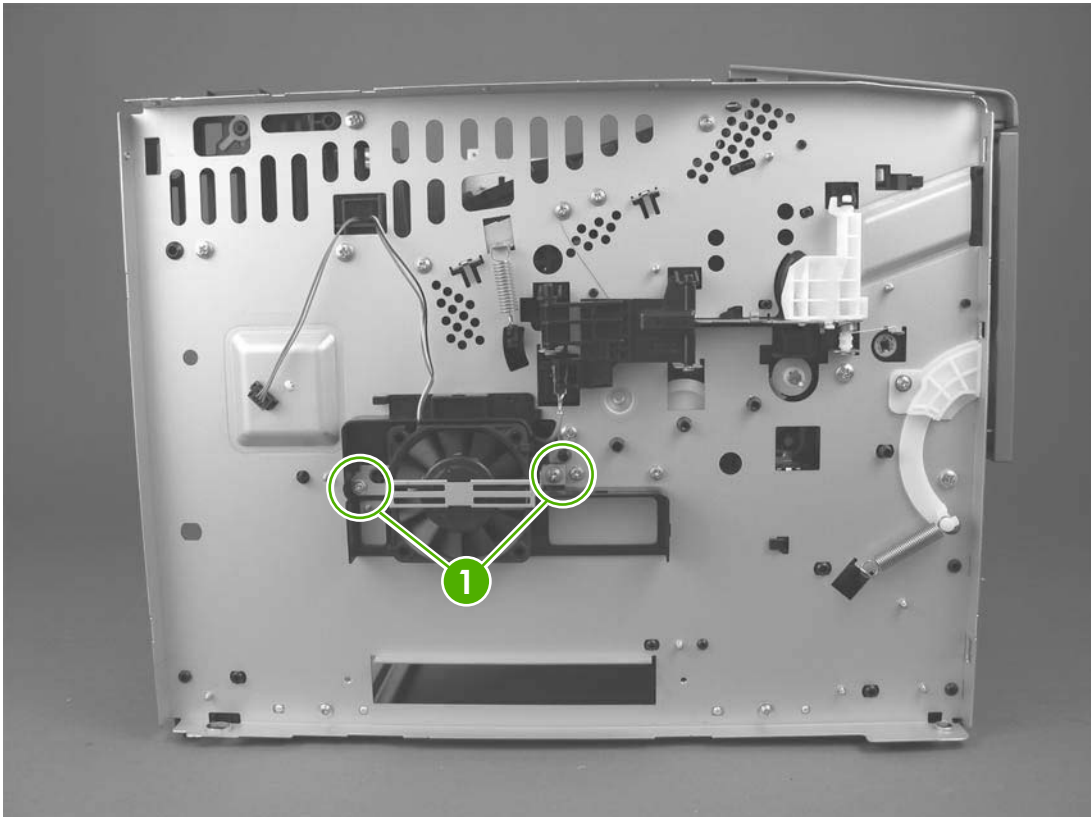
**Reinstallation tip** To reinstall the oblique-roller assembly, first make sure that the tab (callout 2) is parallel to the assembly. Then line up the the roller shaft (callout 3) with its hole on the assembly and rotate the assembly into place. Rotate the roller toward the back of the device to align the gears.

## Left-side fan

1. Remove all of the covers (see [Covers on page 94](#)) and the ADF/scanner assembly (see [Scanner assembly on page 90](#)).
2. Disconnect the left-side-fan cable from the ECU.
3. Remove two screws (callout 1) at the left side of the device and then lift the fan plate and fan straight away from the hole in the chassis.



**NOTE** Do not disconnect the left-side-fan cable from the fan. Instead, unroute the fan cable starting at the ECU connector.



**Figure 5-70** Removing left-side fan

# High-voltage power supply (HVPS)

## 1. Remove the following components:

- All covers (see [Covers on page 94](#)) and the ADF/scanner assembly (see [Scanner assembly on page 90](#))
- Fax accessory (see [Fax accessory on page 111](#))
- Disk drive (see [Disk drive on page 113](#))
- Formatter (see [Formatter on page 116](#))
- Stapler (see [Stapler on page 117](#)) and stapler power-supply (see [Stapler power-supply on page 123](#))
- ECU (see [Engine control unit \(ECU\) on page 131](#))
- Left-side riser (see [Left-side riser on page 138](#))
- Access plate (see [Access plate on page 144](#))
- Oblique-roller assembly (see [Oblique-roller assembly on page 146](#))
- Left-side fan (see [Left-side fan on page 148](#))

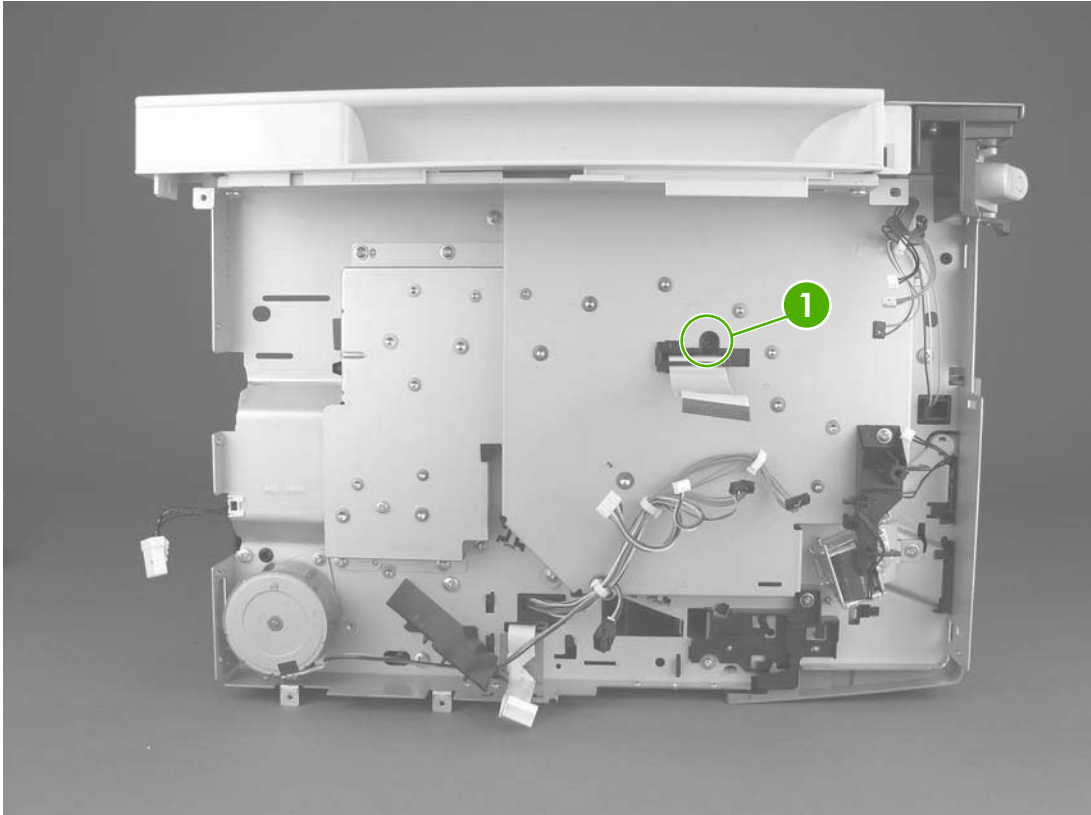


**Tip** You do not have to unroute the left-side-fan cable in order to remove the HVPS. After removing the fan from its hole in the chassis, simply set the fan down on the workspace.

---

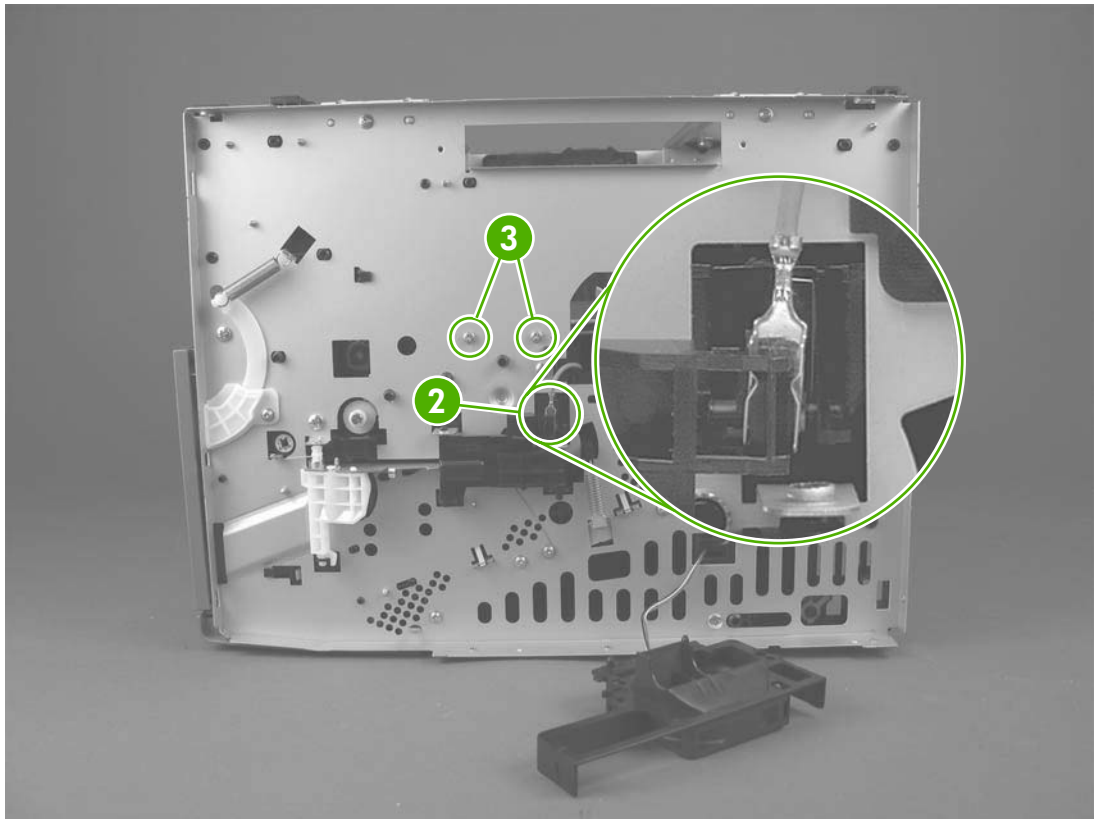
## 2. Tip the device so that it rests on its top.

3. Remove one grounding screw from inside the slot (callout 1) for the flat ribbon cable.



**Figure 5-71** Removing the HVPS (1 of 5)

4. At the left side of the device, disconnect one cable (callout 2) and then remove two screws (callout 3).

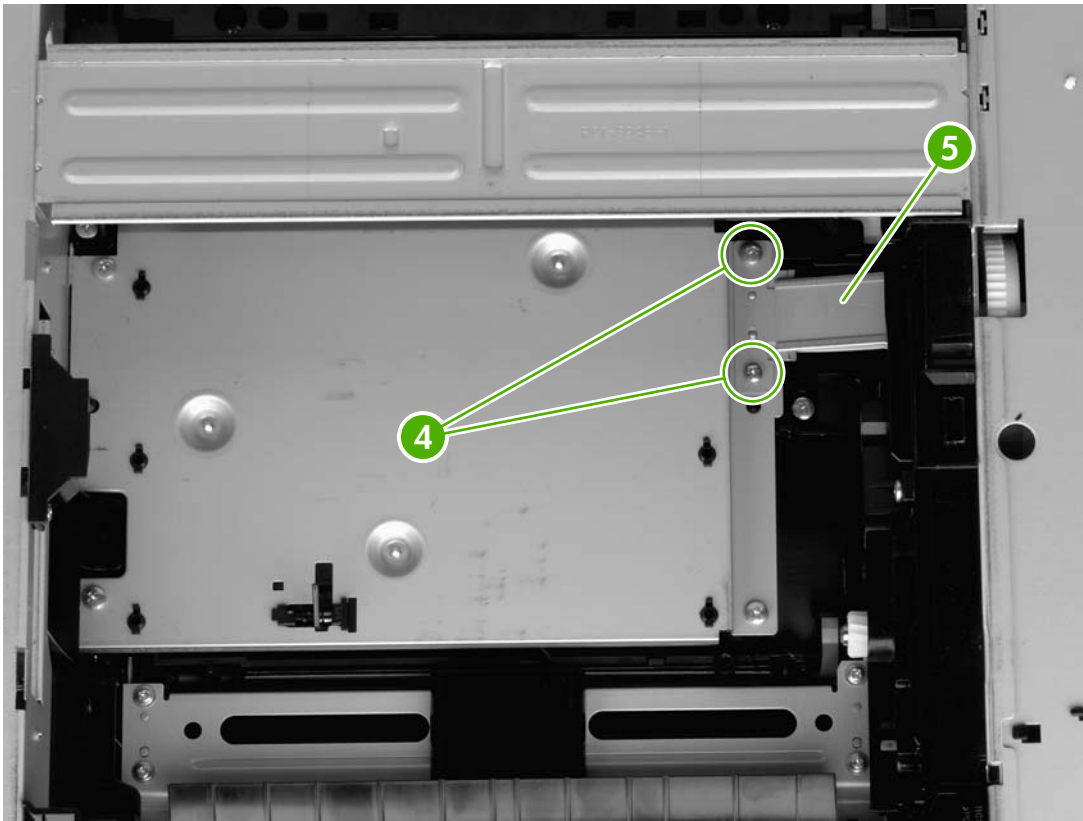


**Figure 5-72** Removing the HVPS (2 of 5)



**Reinstallation tip** Remember how the cable is threaded and connected to the device.

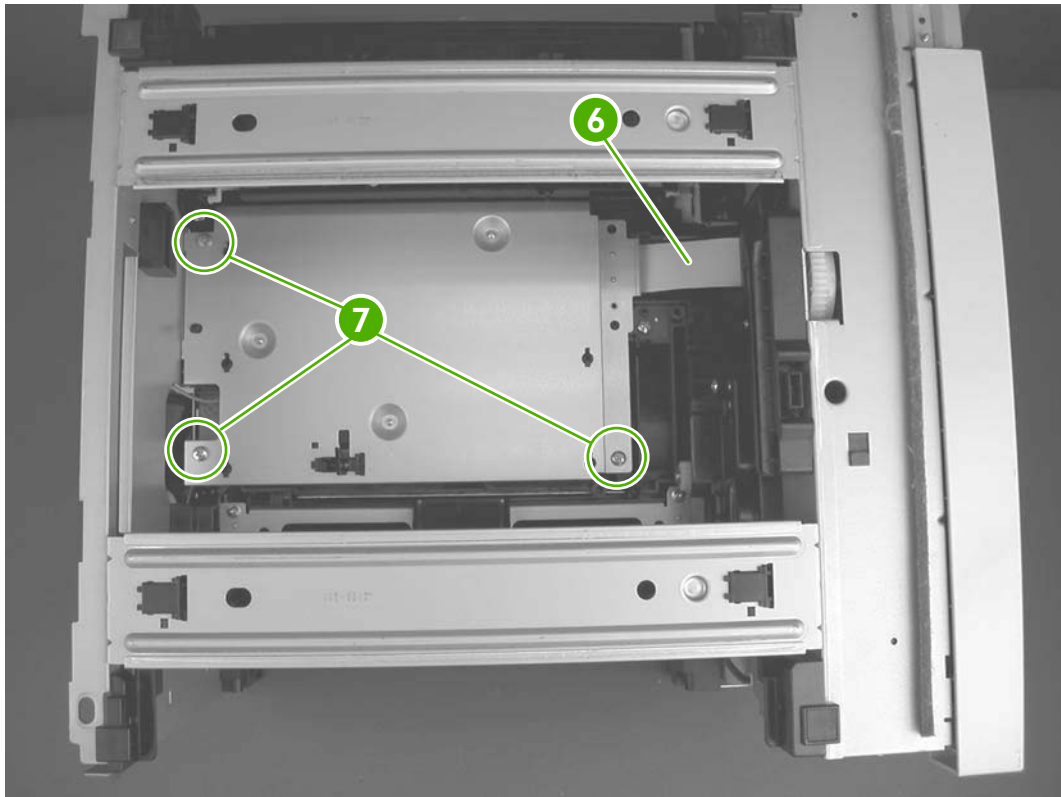
5. Remove two screws (callout 4) from the ribbon-cable protector (callout 5) and then lift the protector out of the device.



**Figure 5-73** Removing the HVPS (3 of 5)

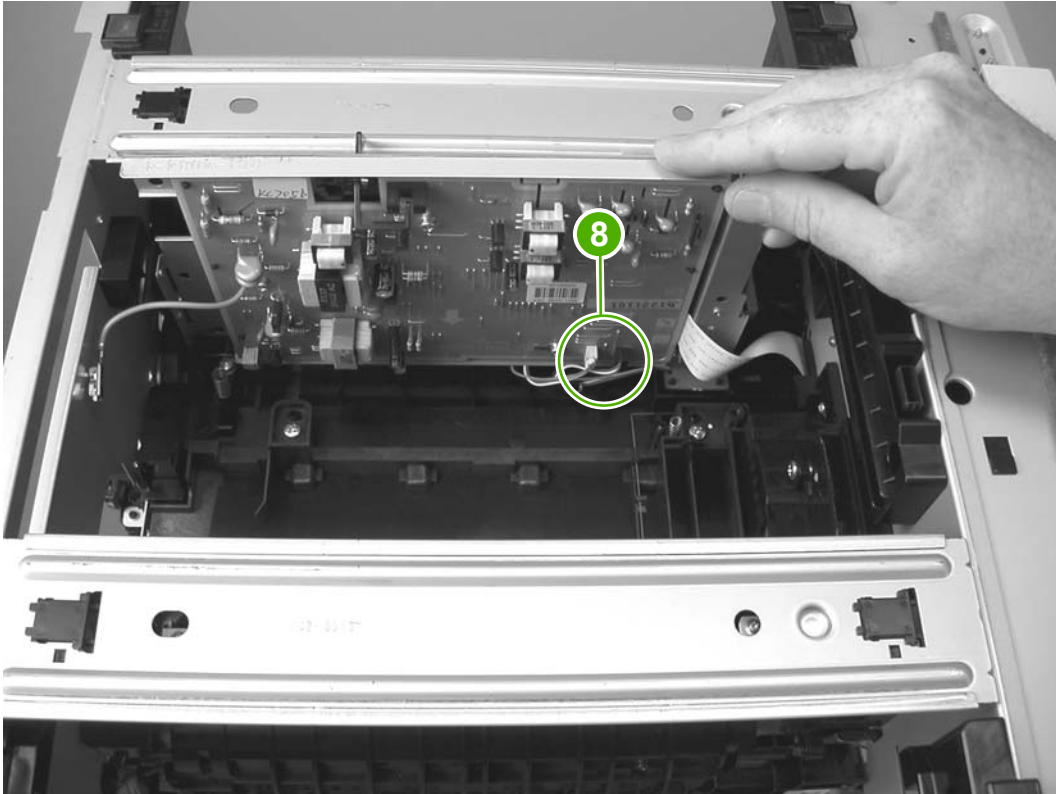


6. Guide the ribbon cable (callout 6) through the hole in the chassis and then remove the remaining three screws (callout 7) from the HVPS pan.



**Figure 5-74** Removing the HVPS (4 of 5)

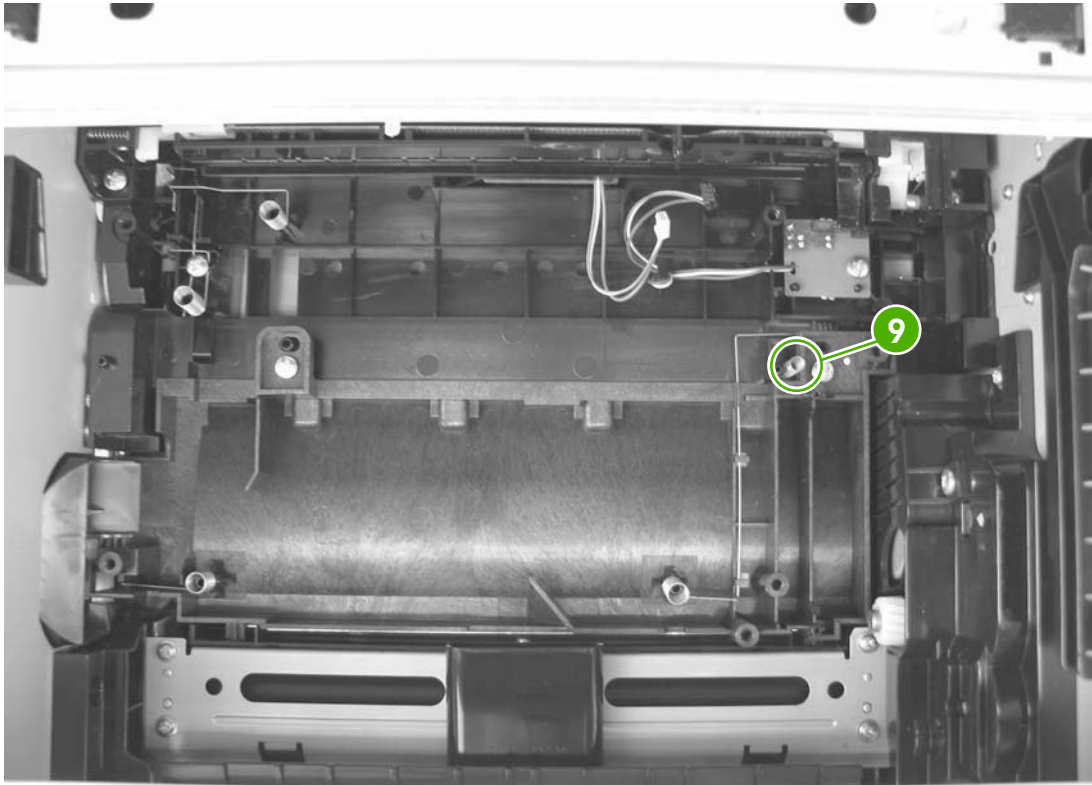
7. Lift the edge of the HVPS pan and then disconnect two cables (callout 8) from the HVPS.



**Figure 5-75** Removing the HVPS (5 of 5)



**NOTE** The HVPS pan and the HVPS together are a single FRU. You do not have to separate the HVPS from the pan.



**Figure 5-76** Grounding-spring locations



**Reinstallation tip** As you remove the power supply, note the locations of the grounding springs. You might need to reinstall one non-captive spring (callout 9) before reinstalling the power supply.

# Feed-guide assembly

1. Remove the following components:

- All of the covers (see [Covers on page 94](#)) and the ADF/scanner assembly (see [Scanner assembly on page 90](#))
- Fax accessory (see [Fax accessory on page 111](#))
- Disk drive (see [Disk drive on page 113](#))
- Formatter (see [Formatter on page 116](#))
- Stapler (see [Stapler on page 117](#)) and stapler power-supply (see [Stapler power-supply on page 123](#))
- ECU (see [Engine control unit \(ECU\) on page 131](#))
- Left-side riser (see [Left-side riser on page 138](#))
- Access plate (see [Access plate on page 144](#))
- Fuser (see [Fuser on page 139](#))
- Oblique-roller assembly (see [Oblique-roller assembly on page 146](#))
- Left-side fan (see [Left-side fan on page 148](#))



**Tip** You do not have to unroute the left-side-fan cable in order to remove the HVPS or the feed-guide assembly. After removing the fan from its hole in the chassis, simply set the fan down on the workspace.

---

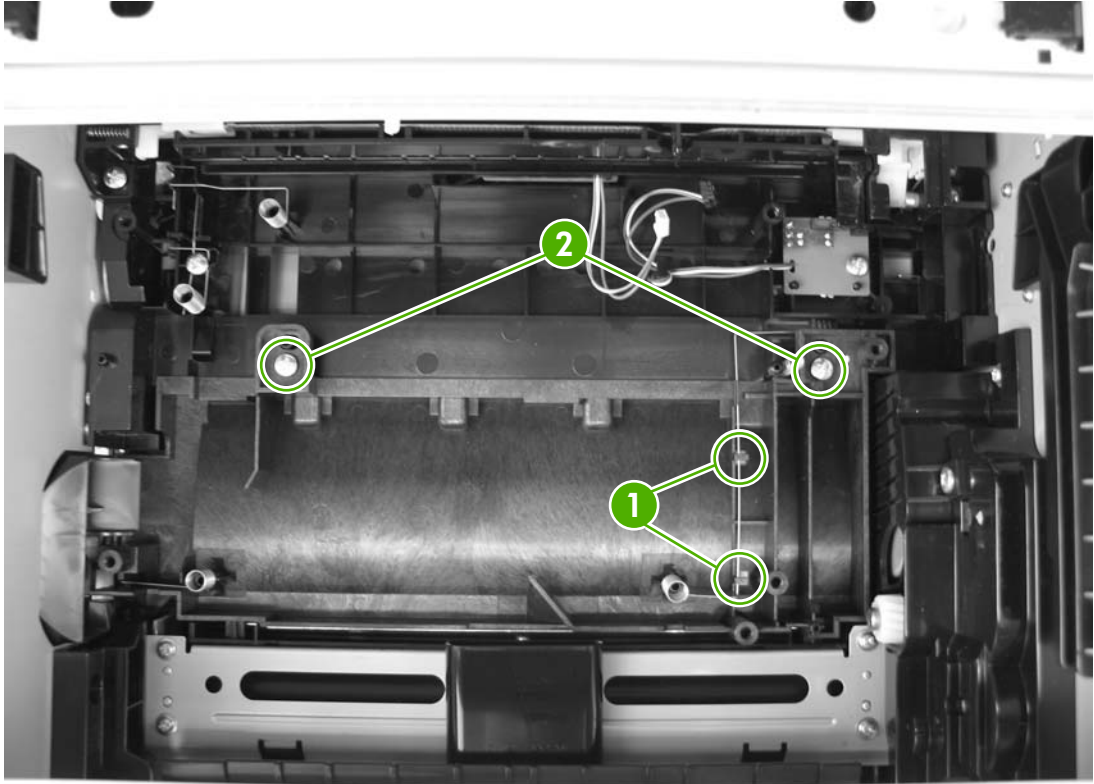
- High-voltage power supply (see [High-voltage power supply \(HVPS\) on page 149](#))
2. Lift one non-captive grounding spring (see callout 9 in [Figure 5-76 Grounding-spring locations on page 155](#)) out of the device.
3. Loosen the grounding wire from the routing guides (see callout 1 in [Figure 5-77 Removing the feed-guide assembly \(1 of 2\) on page 157](#)).



**CAUTION** Do not bend or remove the grounding wire.

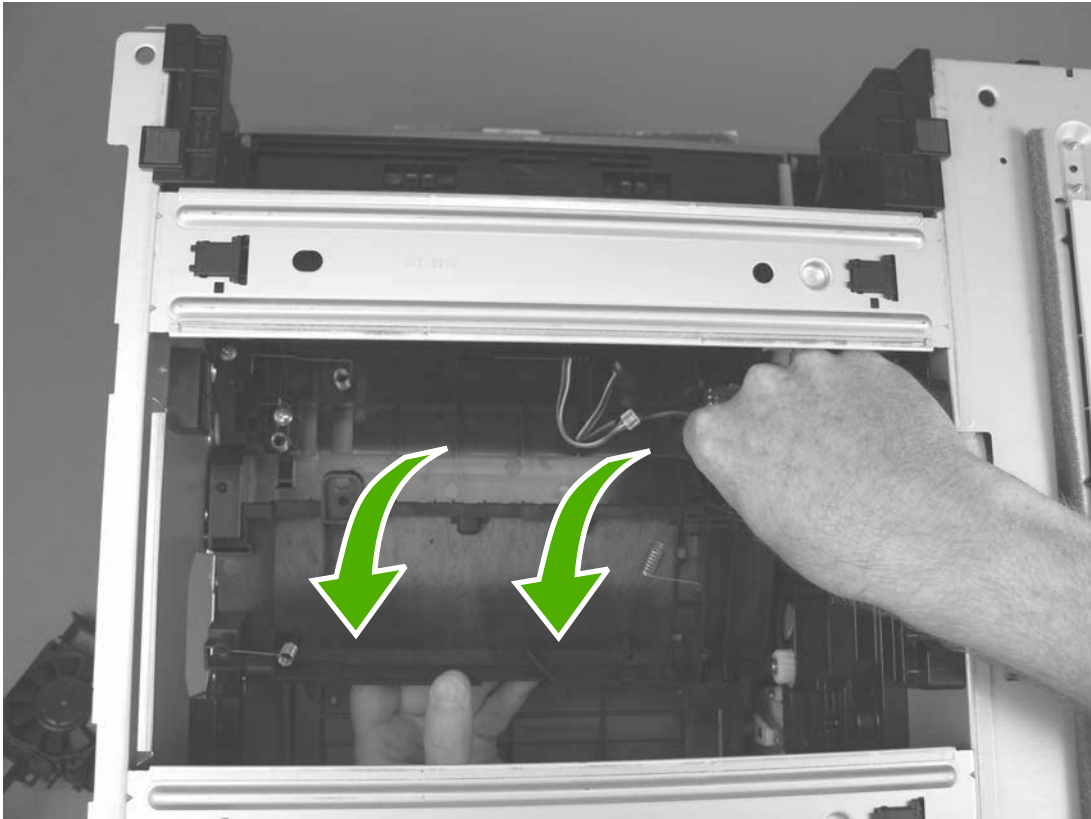
---

4. Remove two screws (callout 2).



**Figure 5-77** Removing the feed-guide assembly (1 of 2)

5. On the edge of the assembly that is farthest from you, lift the right corner up, twist the assembly counterclockwise, and remove the assembly from the device.



**Figure 5-78** Removing the feed-guide assembly (2 of 2)



**Reinstallation tip** Make sure that the loosened grounding wire is out of the way before reinstalling the feed-guide assembly.

# Main motor

1. Remove the following components:

- All of the covers (see [Covers on page 94](#)) and the ADF/scanner assembly (see [Scanner assembly on page 90](#))
- Fax accessory (see [Fax accessory on page 111](#))
- Disk drive (see [Disk drive on page 113](#))
- Formatter (see [Formatter on page 116](#))
- Stapler (see [Stapler on page 117](#)) and stapler power-supply (see [Stapler power-supply on page 123](#))
- ECU (see [Engine control unit \(ECU\) on page 131](#))
- Left-side riser (see [Left-side riser on page 138](#))
- Access plate (see [Access plate on page 144](#))
- Fuser (see [Fuser on page 139](#))
- Oblique-roller assembly (see [Oblique-roller assembly on page 146](#))
- Left-side fan (see [Left-side fan on page 148](#))

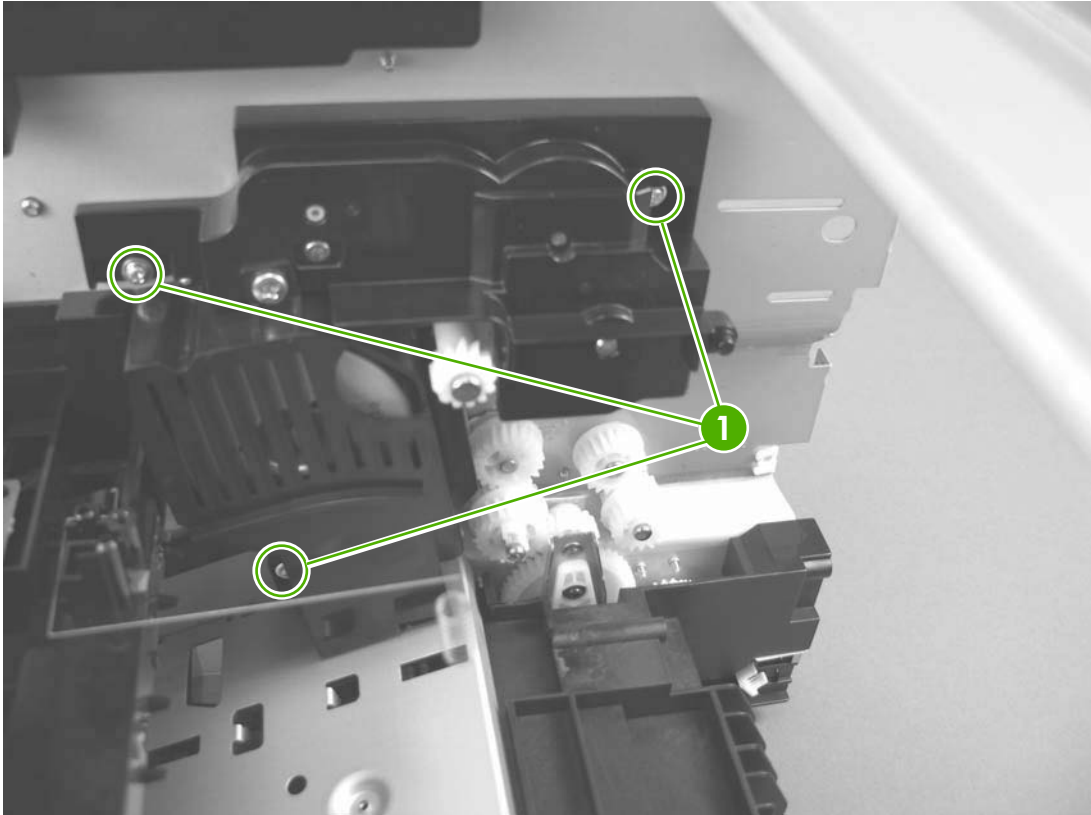


**Tip** You do not have to unroute the left-side-fan cable in order to remove the HVPS, the feed-guide assembly, or the main motor. After removing the fan from its hole in the chassis, simply set the fan down on the workspace.

---

- High-voltage power supply (see [High-voltage power supply \(HVPS\) on page 149](#))
- Feed-guide assembly (see [Feed-guide assembly on page 156](#))

2. Remove three screws (callout 1) from the main motor cover and then lift the cover out of the device.



**Figure 5-79** Removing the main motor (1 of 2)

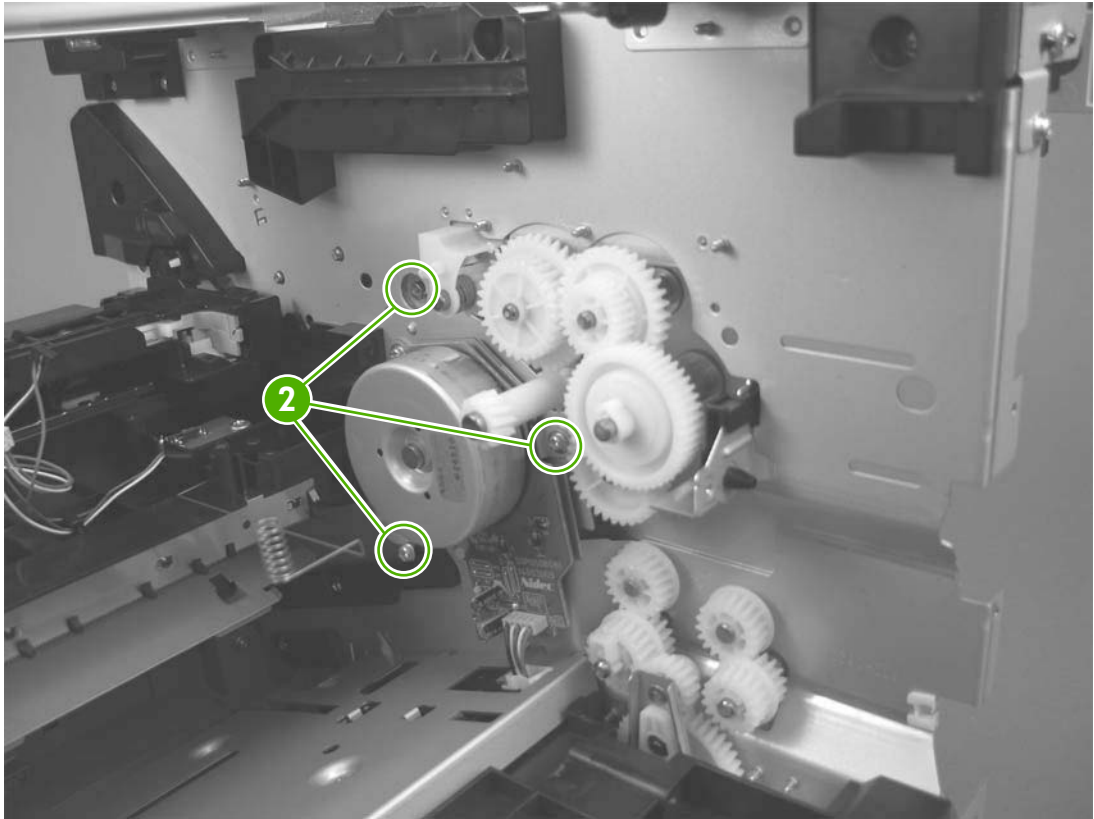
---

**⚠ WARNING!** The teeth on the static-eliminator sheet are *sharp*. Be careful not to cut yourself on the static-eliminator teeth when removing screws in the area of the main motor.

---



3. Remove three screws (callout 2), unroute the main-motor cable, and then lift the motor out of the device.



**Figure 5-80** Removing the main motor (2 of 2)



**NOTE** Do not attempt to disconnect the cable at the main motor. The cable is permanently connected to the main motor.

# Gear assembly

## 1. Remove the following components:

- All of the covers (see [Covers on page 94](#)) and the ADF/scanner assembly (see [Scanner assembly on page 90](#))
- Fax accessory (see [Fax accessory on page 111](#))
- Disk drive (see [Disk drive on page 113](#))
- Formatter (see [Formatter on page 116](#))
- Stapler (see [Stapler on page 117](#)) and stapler power-supply (see [Stapler power-supply on page 123](#))
- ECU (see [Engine control unit \(ECU\) on page 131](#))
- Left-side riser (see [Left-side riser on page 138](#))
- Access plate (see [Access plate on page 144](#))
- Fuser (see [Fuser on page 139](#))
- Oblique-roller assembly (see [Oblique-roller assembly on page 146](#)).
- Left-side fan (see [Left-side fan on page 148](#))

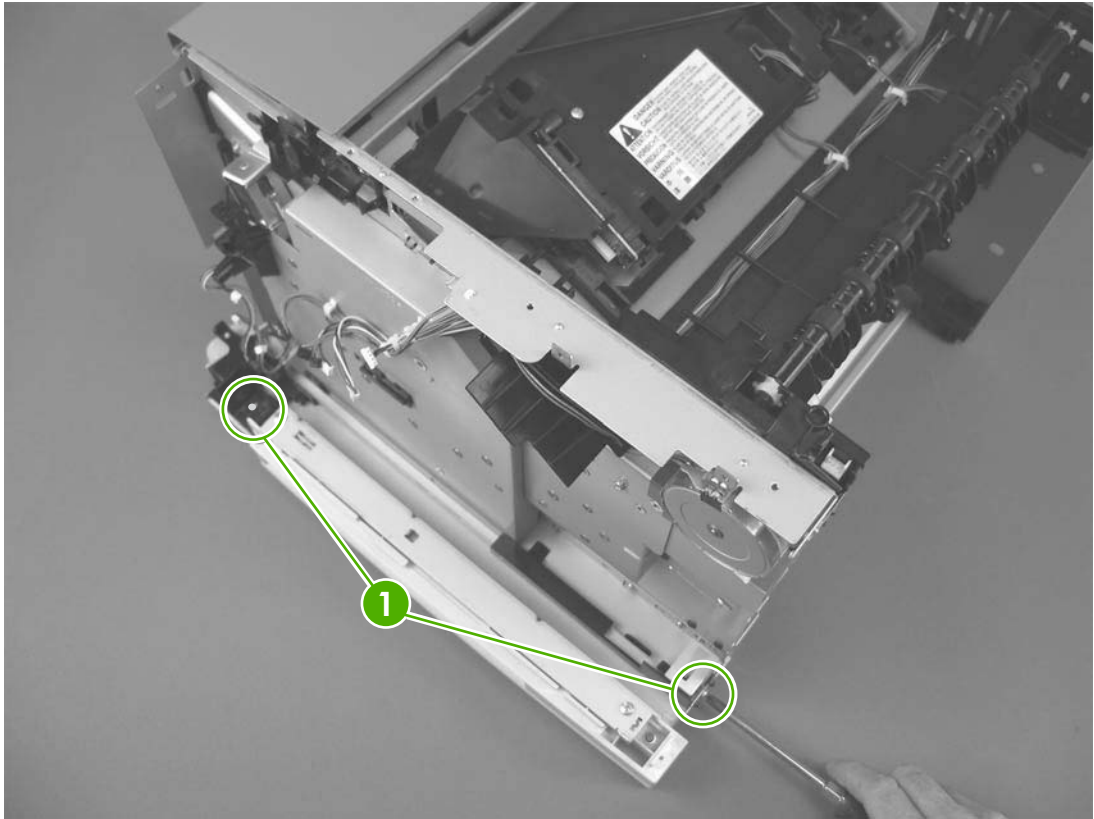


**Tip** You do not have to unroute the left-side-fan cable in order to remove the HVPS, the feed-guide assembly, or the gear assembly. After removing the fan from its hole in the chassis, simply set the fan down on the workspace.

---

- High-voltage power supply (see [High-voltage power supply \(HVPS\) on page 149](#))
- Feed-guide assembly (see [Feed-guide assembly on page 156](#))

2. Remove two screws (callout 1) from the switch-link assembly, slide the assembly toward the front of the device, and then lift it out of the device.

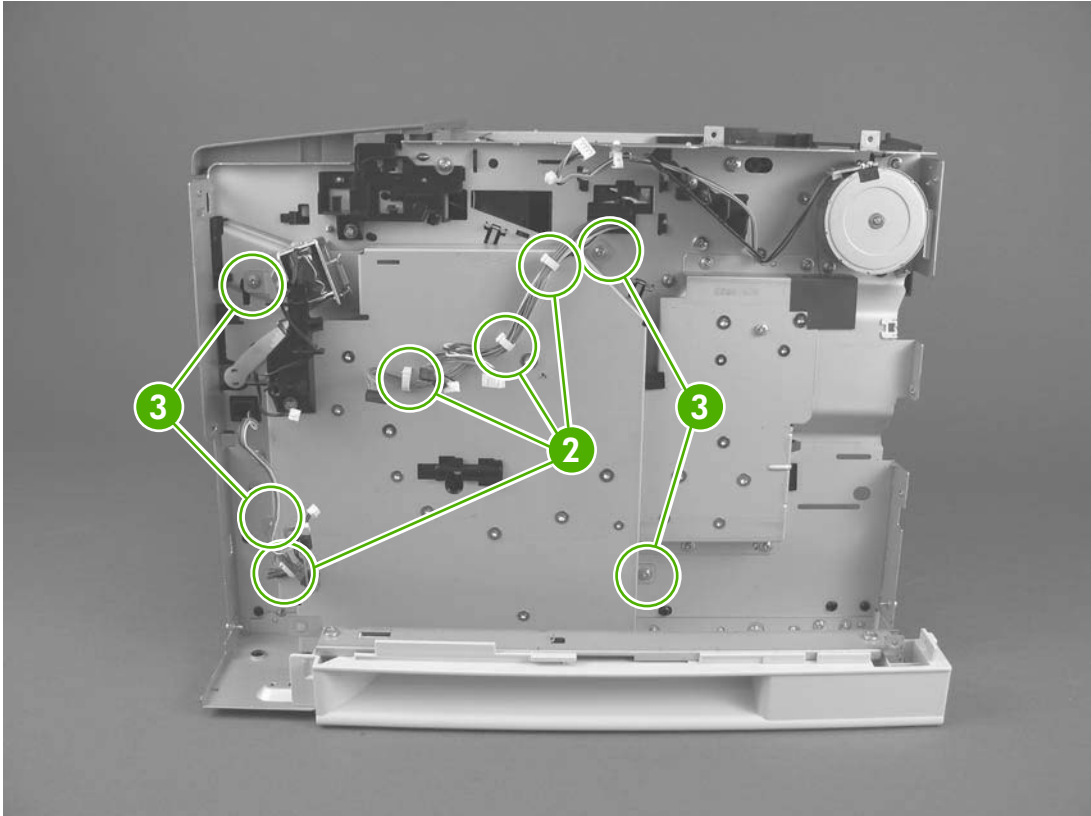


**Figure 5-81** Removing the gear assembly (1 of 2)

3. Remove cables from four cable guides (callout 2) and then remove four screws (callout 3) from the gear-assembly plate.



**NOTE** Make sure that you duplicate the cable routing when you reinstall the assembly.



**Figure 5-82** Removing the gear assembly (2 of 2)

4. Pull the gear assembly straight away from the device.



**NOTE** The spring (callout 4 in [Figure 5-83 Reinstalling the gear assembly on page 165](#)) is not attached to the gear-assembly plate or to the large gear. As a result, the spring might fall out of the device when you remove the gear assembly.

## Reinstallation notes for the gear assembly

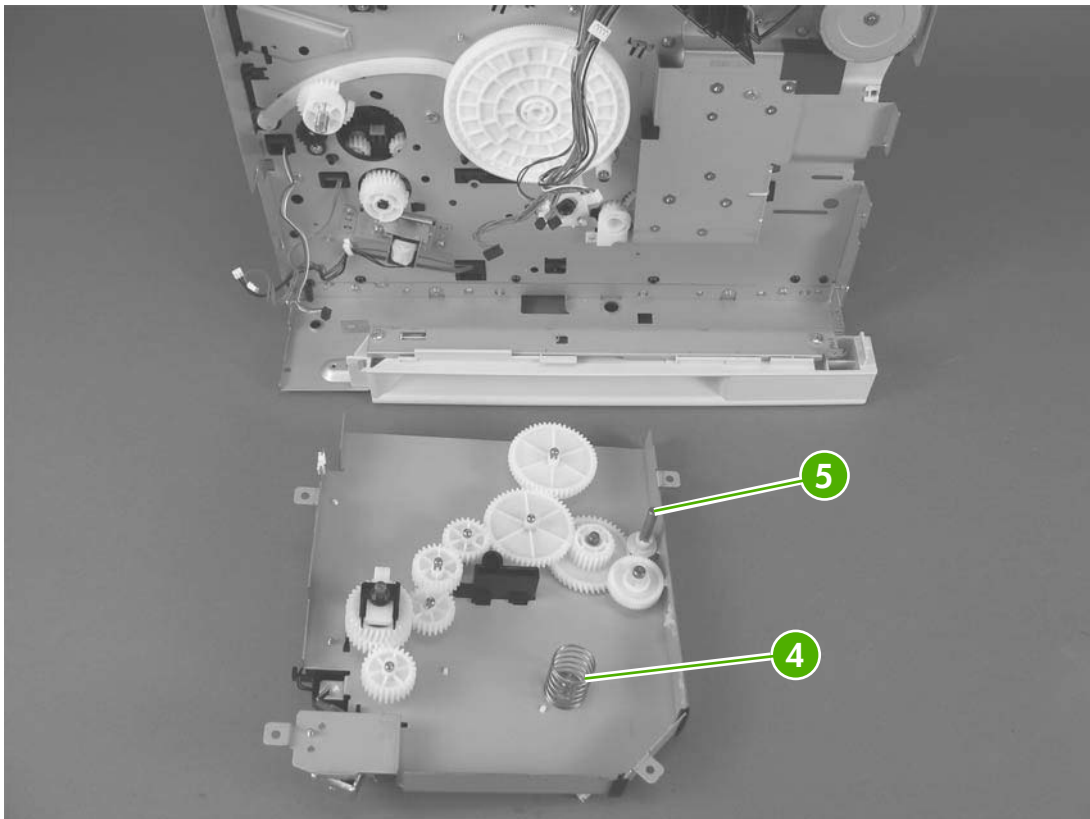


**Reinstallation tip** Close the cartridge door and press the large gear against the device chassis before you start to reinstall the gear assembly.

**Reinstallation tip** The spring (callout 4) has a locating pin that must be inserted into the small hole in the gear-assembly plate before reinstallation.

**Reinstallation tip** Use the rod (callout 5) on the gear-assembly plate as a locator to find the correct position for the gear assembly. Insert the rod into the hole in the lower gear on the device chassis.

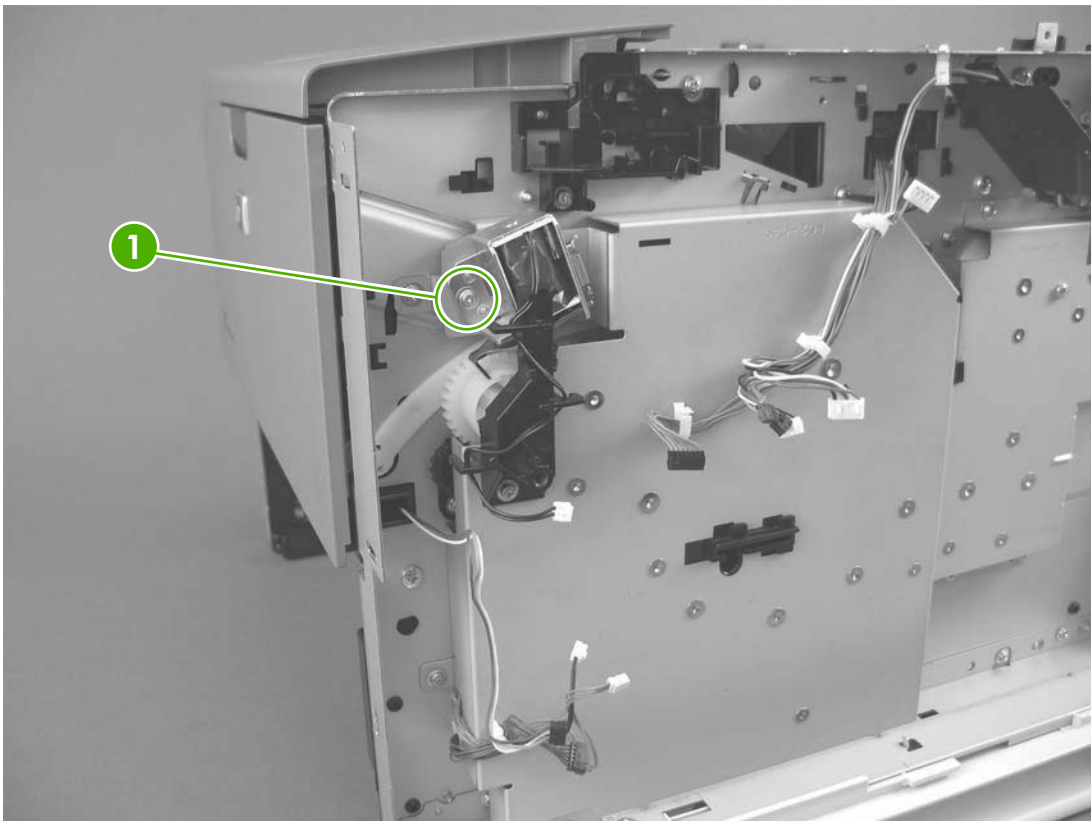
**Reinstallation tip** Be careful not to catch any cables behind the gear-assembly plate when reinstalling the screws.



**Figure 5-83** Reinstalling the gear assembly

## Tray 1 solenoid

1. Remove the following components:
  - All covers (see [Covers on page 94](#)) and the ADF/scanner assembly (see [Scanner assembly on page 90](#))
  - Fax accessory (see [Fax accessory on page 111](#))
  - Disk drive (see [Disk drive on page 113](#))
  - Formatter (see [Formatter on page 116](#))
  - Stapler (see [Stapler on page 117](#)) and stapler power-supply (see [Stapler power-supply on page 123](#))
  - Right side fan (see [Right-side fan on page 128](#))
  - ECU (see [Engine control unit \(ECU\) on page 131](#))
2. Remove one screw (callout 1).

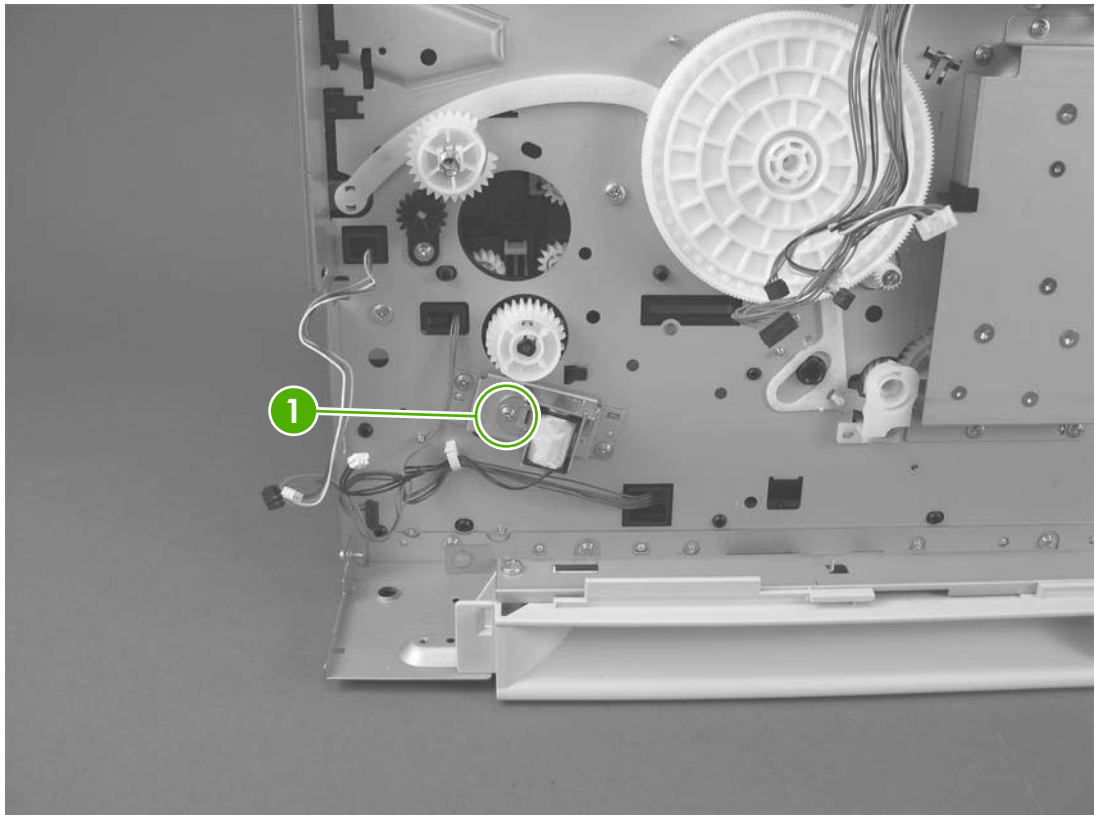


**Figure 5-84** Removing the tray 1 solenoid

3. Lift the solenoid off of the device chassis.

## Tray 2 solenoid

1. Remove the following components:
  - All covers (see [Covers on page 94](#)) and the ADF/scanner assembly (see [Scanner assembly on page 90](#))
  - Fax accessory (see [Fax accessory on page 111](#))
  - Disk drive (see [Disk drive on page 113](#))
  - Formatter (see [Formatter on page 116](#))
  - Stapler (see [Stapler on page 117](#)) and stapler power-supply (see [Stapler power-supply on page 123](#))
  - Right-side fan (see [Right-side fan on page 128](#))
  - ECU (see [Engine control unit \(ECU\) on page 131](#))
  - High-voltage power supply (see [High-voltage power supply \(HVPS\) on page 149](#))
  - Gear assembly (see [Gear assembly on page 162](#))
2. Remove one screw (callout 1).



**Figure 5-85** Removing the tray 2 solenoid

3. Lift the solenoid off of the device chassis.

# Pickup assembly

## 1. Remove the following components:

- All of the covers (see [Covers on page 94](#)) and the ADF/scanner assembly (see [Scanner assembly on page 90](#))
- Disk drive (see [Disk drive on page 113](#))
- Formatter (see [Formatter on page 116](#))
- Stapler (see [Stapler on page 117](#)) and stapler power-supply (see [Stapler power-supply on page 123](#))
- ECU (see [Engine control unit \(ECU\) on page 131](#))
- Left-side riser (see [Left-side riser on page 138](#))
- Access plate (see [Access plate on page 144](#))
- Fuser (see [Fuser on page 139](#))
- Oblique-roller assembly (see [Oblique-roller assembly on page 146](#)).
- Left-side fan (see [Left-side fan on page 148](#))



---

**Tip** You do not have to unroute the left-side-fan cable in order to remove the HVPS, the feed-guide assembly, the gear assembly, or the pickup assembly. After removing the fan from its hole in the chassis, simply set the fan down on the workspace.

---

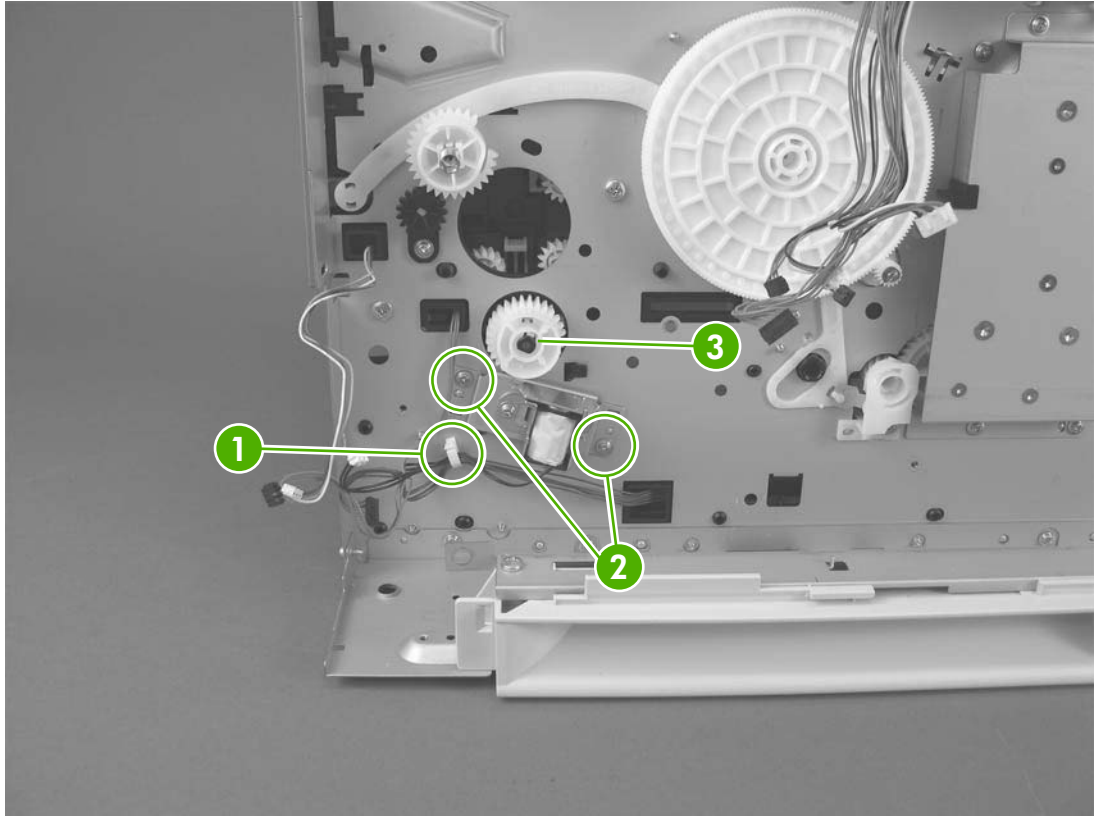
- High-voltage power supply (see [High-voltage power supply \(HVPS\) on page 149](#))
- Feed-guide assembly (see [Feed-guide assembly on page 156](#))
- Gear assembly (see [Gear assembly on page 162](#))



2. Remove the cables from the cable guide (callout 1) and then remove two screws (callout 2) from the tray 2 solenoid plate. Press the tab on the pickup shaft gear (callout 3) and then slide the gear off of the shaft.

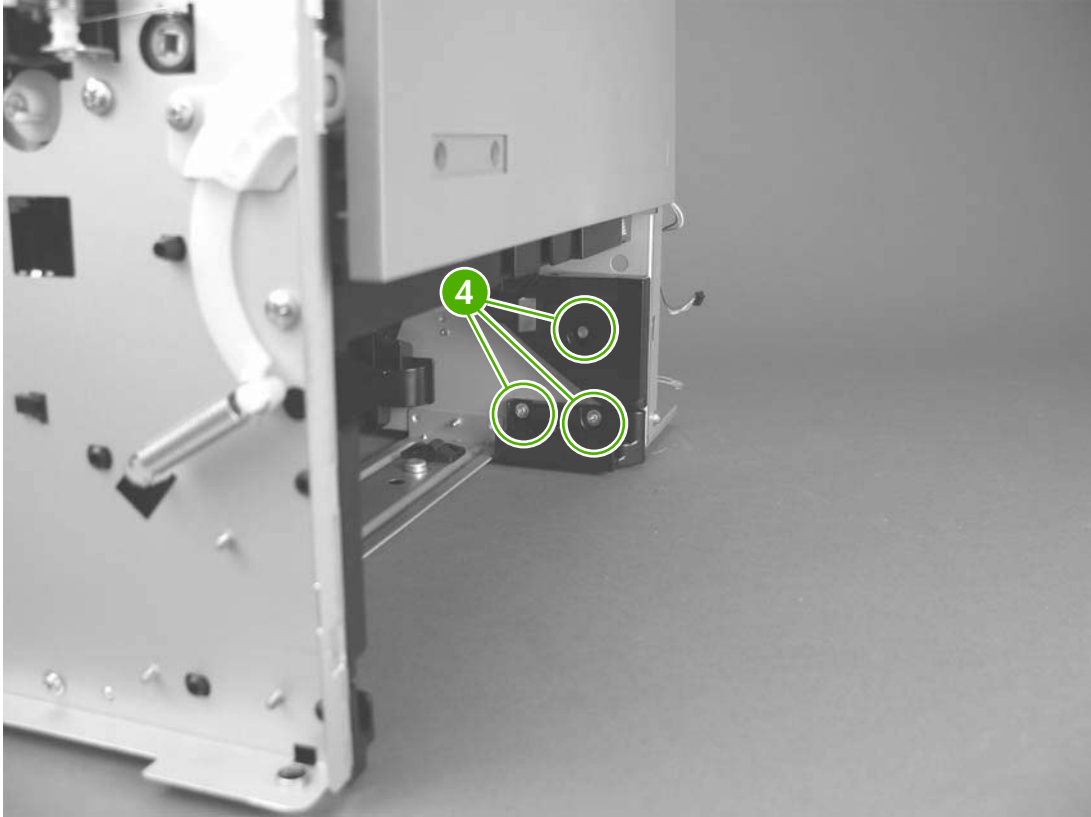


**NOTE** Keep the parts of the pickup-shaft gear together to make sure that the small spring inside remains with the gear.



**Figure 5-86** Removing the pickup assembly (1 of 4)

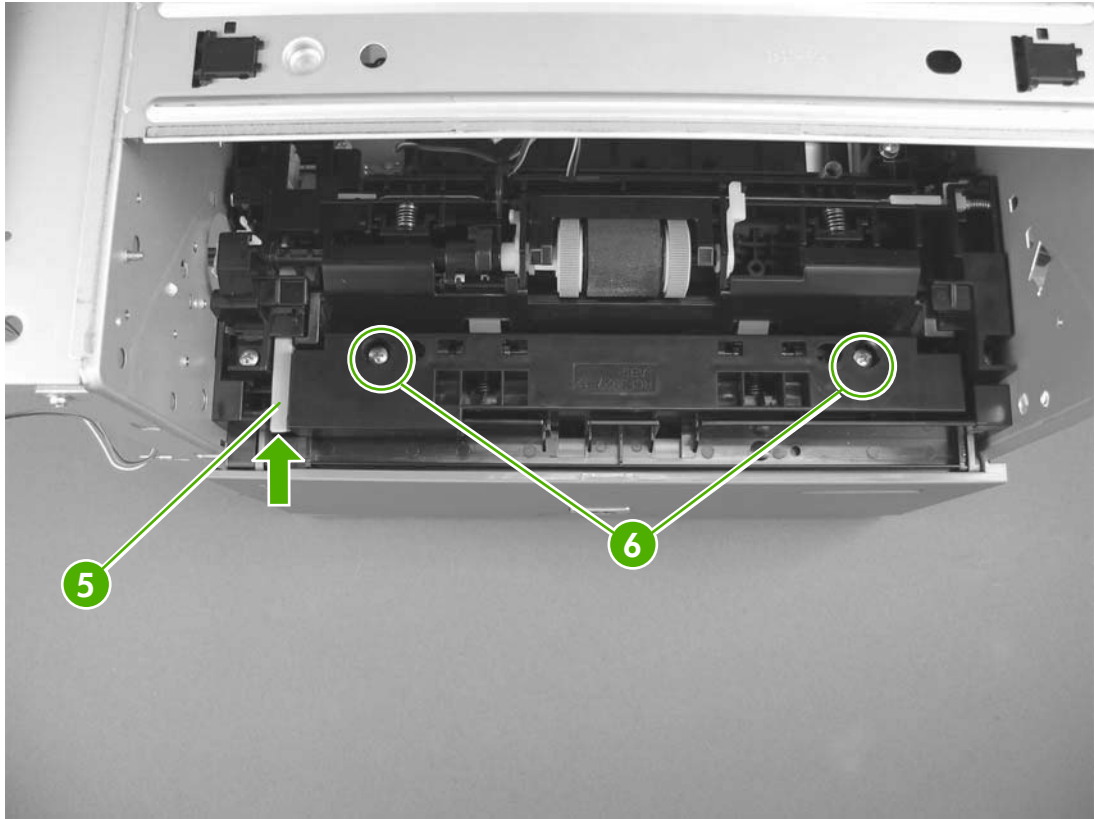
3. Remove three screws (callout 4) from two tray guides at the right side of the device and then lift the guides out of the device. Repeat the procedure to remove the tray guides at the left side of the device.



**Figure 5-87** Removing the pickup assembly (2 of 4)

4. Tip the device so that it rests on its top.

5. Press in the green tab (callout 5), remove two screws (callout 6) from the roller-stay assembly, and then lift the assembly out of the device.

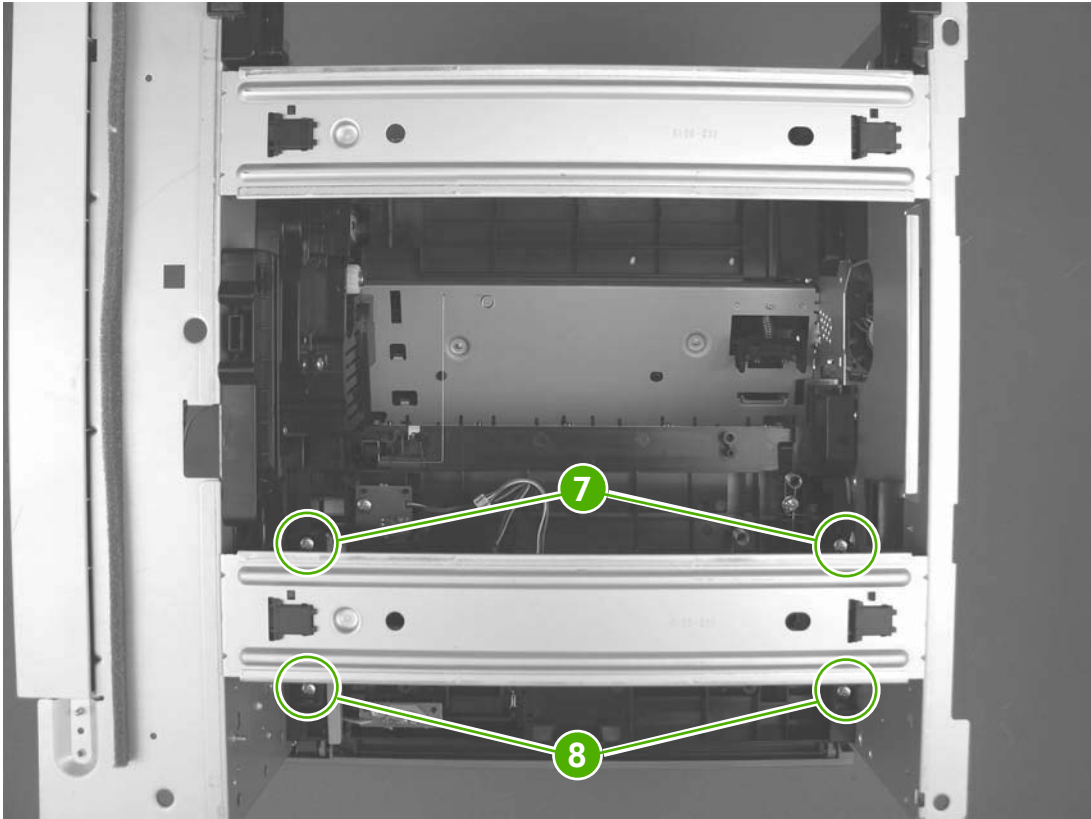


**Figure 5-88** Removing the pickup assembly (3 of 4)



**NOTE** After removing the roller-stay assembly, the media-present sensor for tray 1 is exposed. To remove the sensor, remove one screw, unthread the sensor cable, and lift the sensor out of the device.

6. Use a short screwdriver to remove two screws (callout 7) and then remove the remaining two screws (callout 8) from the pickup assembly.



**Figure 5-89** Removing the pickup assembly (4 of 4)

7. Lift the assembly out of the device starting at the opposite end from the gear-end of the assembly.

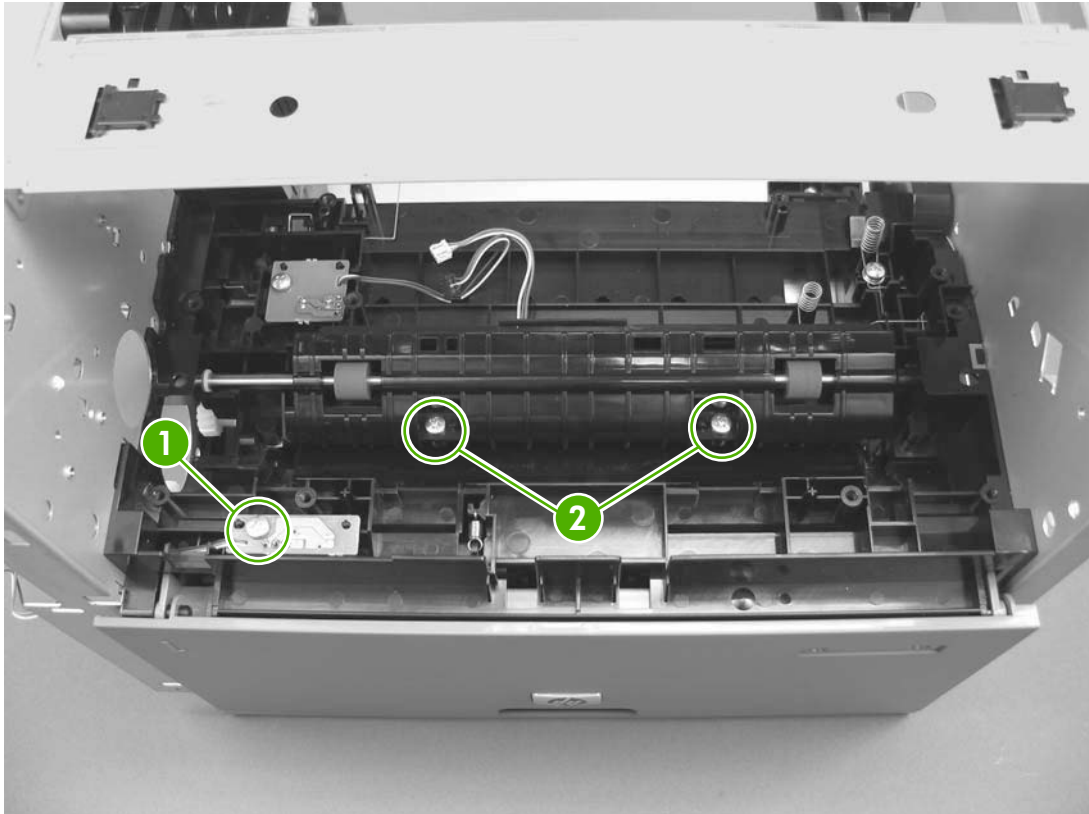


**NOTE** After removing the pickup assembly, the top-of-page sensor is easily accessible. To remove the top-of-page sensor, use a short screwdriver to remove two screws from the sensor cover, remove one screw from the sensor, unthread the sensor cable, and then lift the sensor out of the device.

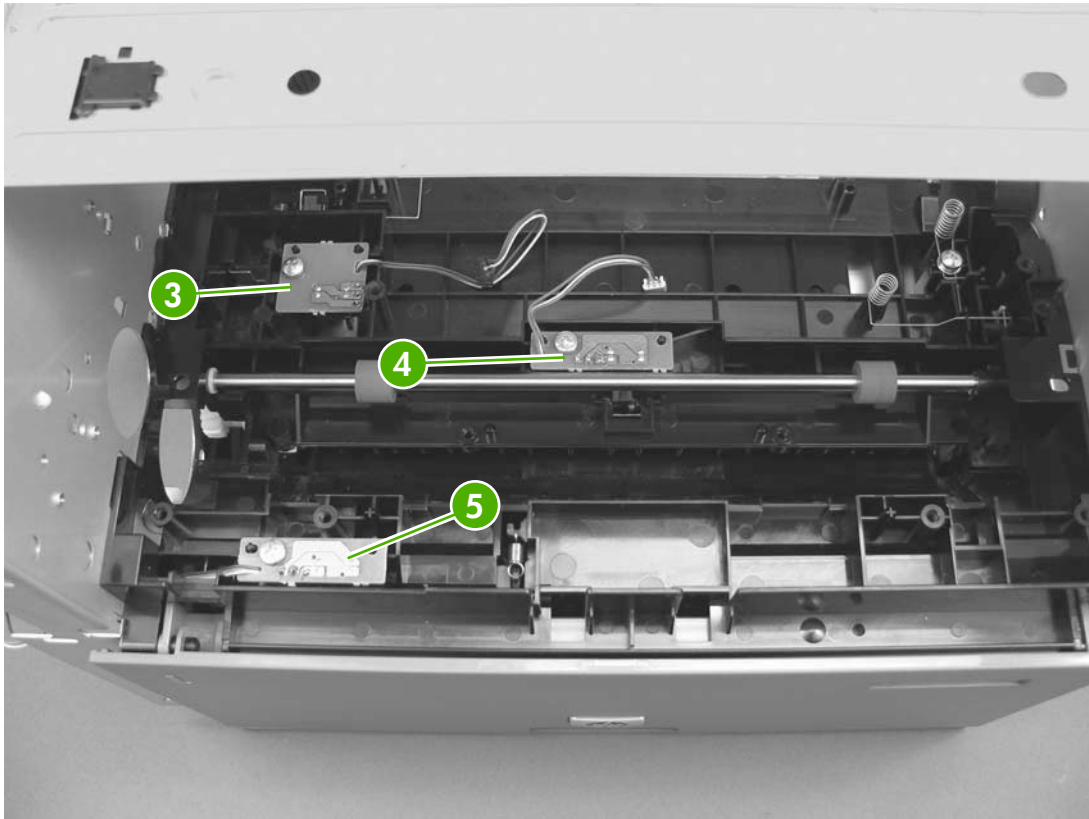
## Tray 1 media-present sensor and top-of-page sensor

The tray 1 media-present sensor is exposed when the roller-stay assembly is removed in step 5 of the pickup assembly removal (see [Pickup assembly on page 168](#)). To remove the sensor, remove one screw (callout 1), unthread the sensor cable, and then lift the sensor out of the device.

To remove the top-of-page sensor, remove the pickup assembly (see [Pickup assembly on page 168](#)) and then remove two screws (callout 2) from the sensor cover. Lift the sensor cover out of the device to expose the top-of-page sensor, and then remove one screw from the sensor.



**Figure 5-90** Removing the tray 1 media-present sensor and the top-of-page sensor



**Figure 5-91** Media-width, top-of-page, and tray 1 media-present sensors



---

**NOTE** [Figure 5-91 Media-width, top-of-page, and tray 1 media-present sensors on page 174](#) shows three sensors:

Media-width sensor (callout 3), which can be removed after removing the high-voltage power supply (see [High-voltage power supply \(HVPS\) on page 149](#))

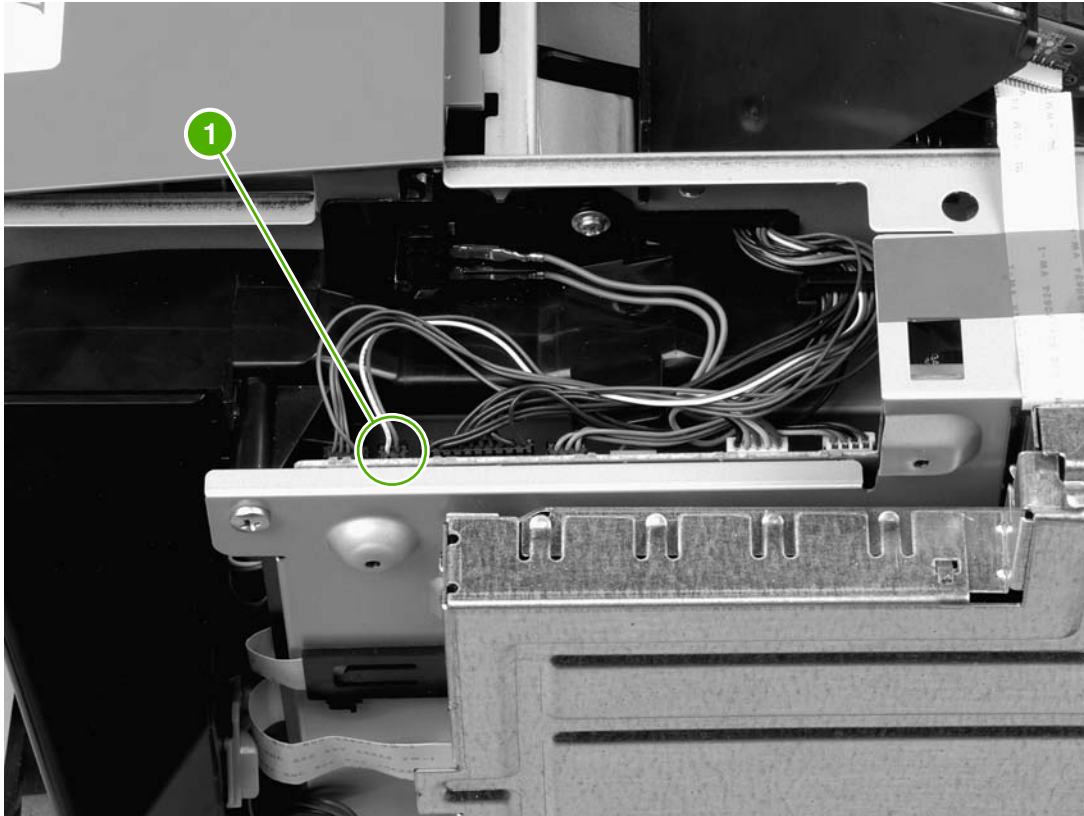
Top-of-page sensor (callout 4), which can be removed according to instructions in this section

Tray 1 media-present sensor (callout 5), which can be removed according to instructions in this section

---

## E-label reader (memory tag)

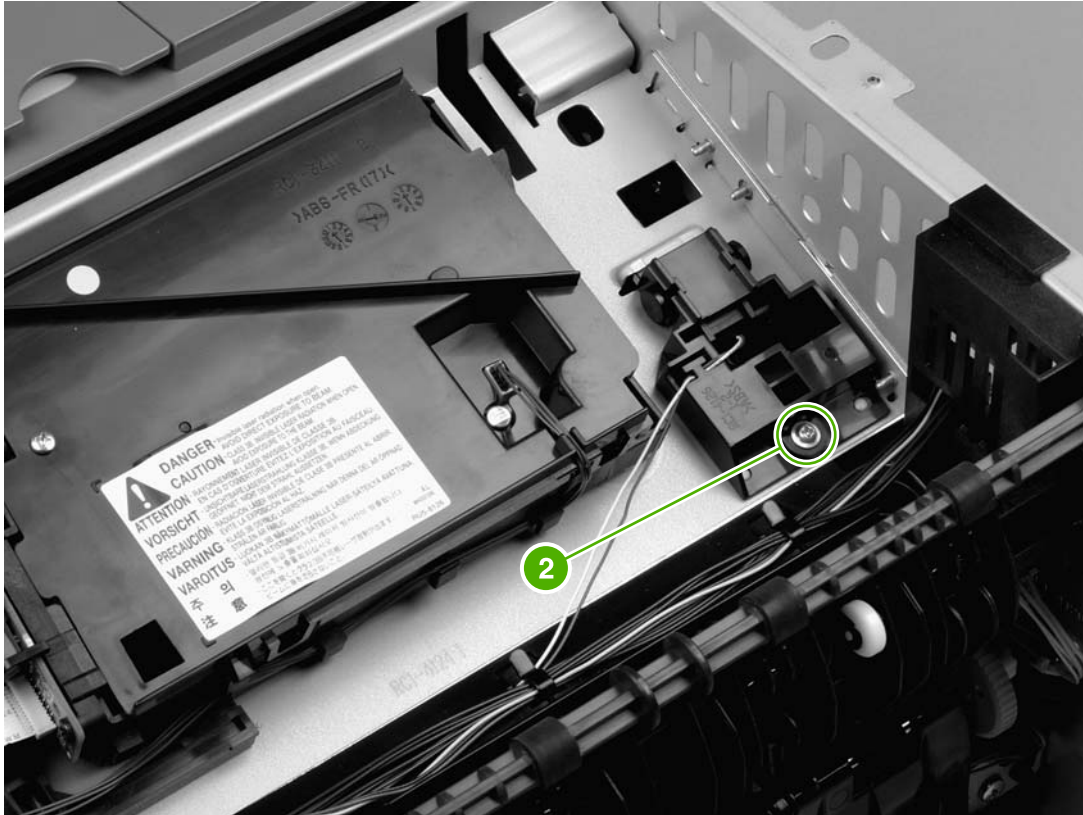
1. Remove all of the covers (see [Covers on page 94](#)) and the ADF/scanner assembly (see [Scanner assembly on page 90](#)).
2. Disconnect one cable (callout 1), and then thread the cable through the hole in the device chassis.



**Figure 5-92** Removing the e-label reader (1 of 2)



3. Remove one screw (callout 2).



**Figure 5-93** Removing the e-label reader (2 of 2)

4. Lift the e-label reader out of the device.



**Reinstallation tip** Insert the tab at the front of the reader into the metal slot first.

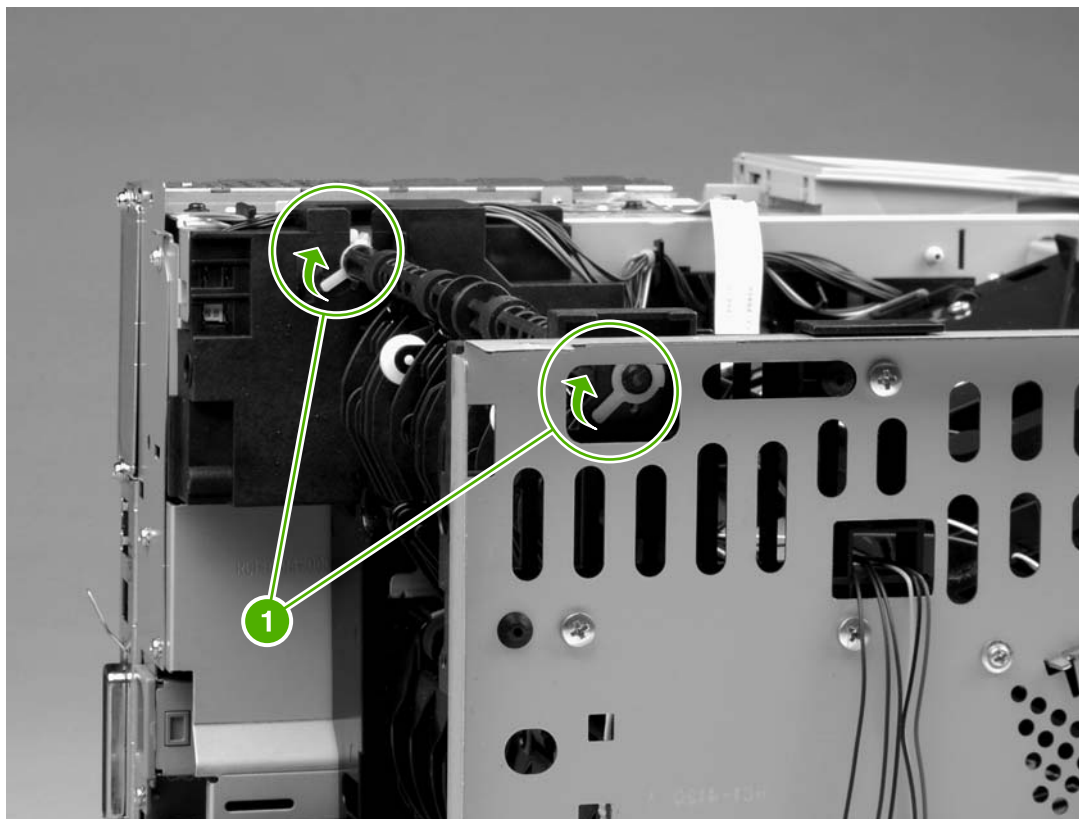


## Face-down-roller shaft

1. Remove all of the covers (see [Covers on page 94](#)) and the ADF/scanner assembly (see [Scanner assembly on page 90](#)).
2. Rotate the bushings (callout 1) at both ends of the face-down-roller shaft .

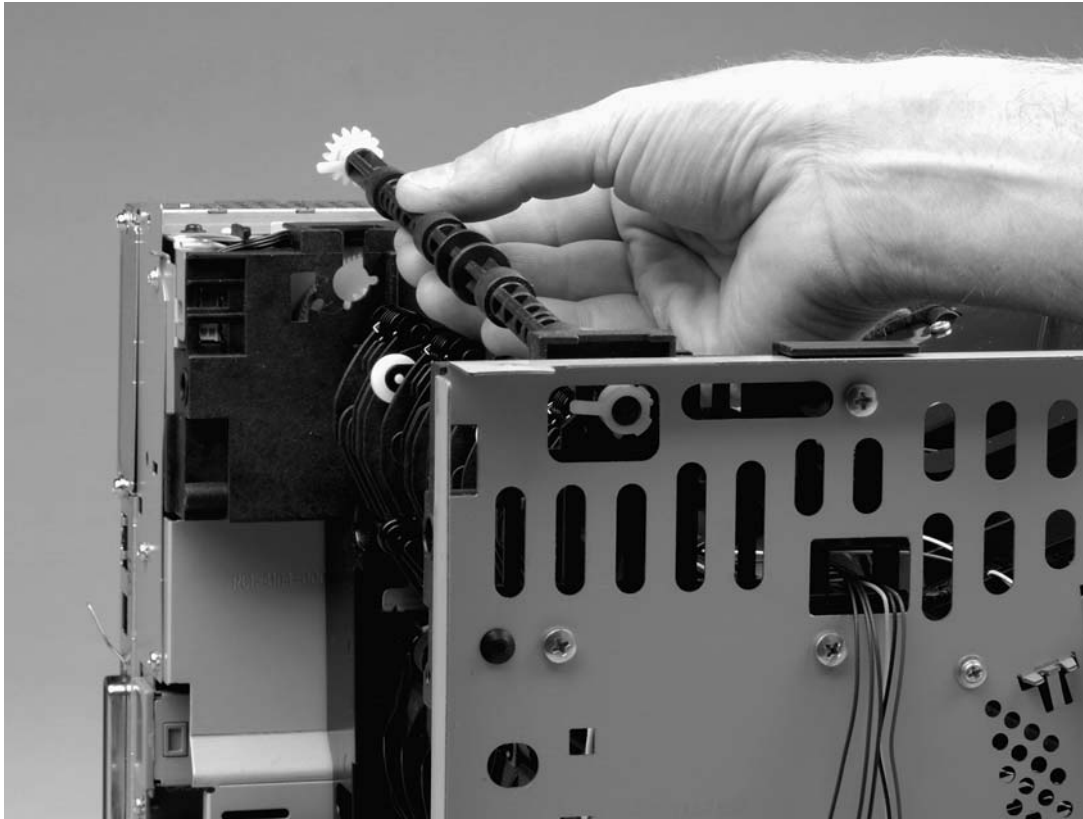


**NOTE** The bushing on the left side of the device rotates to a horizontal position. The bushing on the right side rotates approximately 45°.



**Figure 5-94** Removing the face-down-roller shaft (1 of 2)

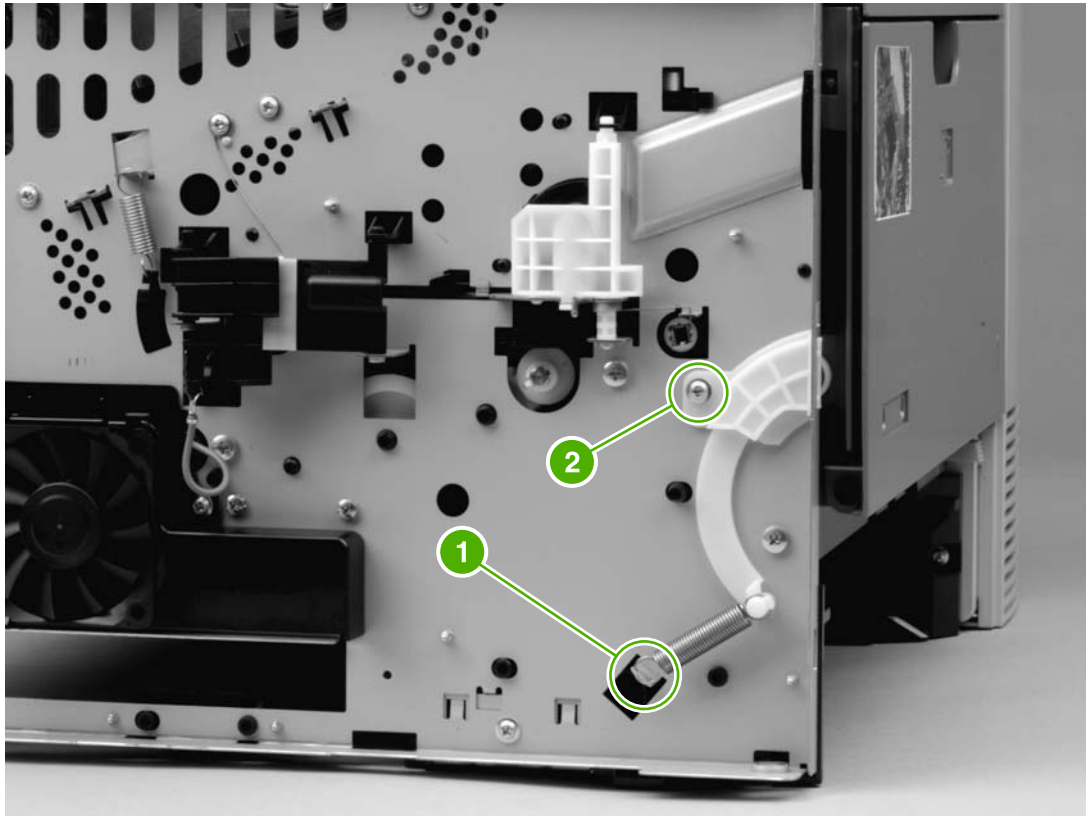
3. Lift the end at the right side of the device, and then slide the shaft toward the right side to clear the hole on the left side of the device chassis.



**Figure 5-95** Removing the face-down-roller shaft (2 of 2)

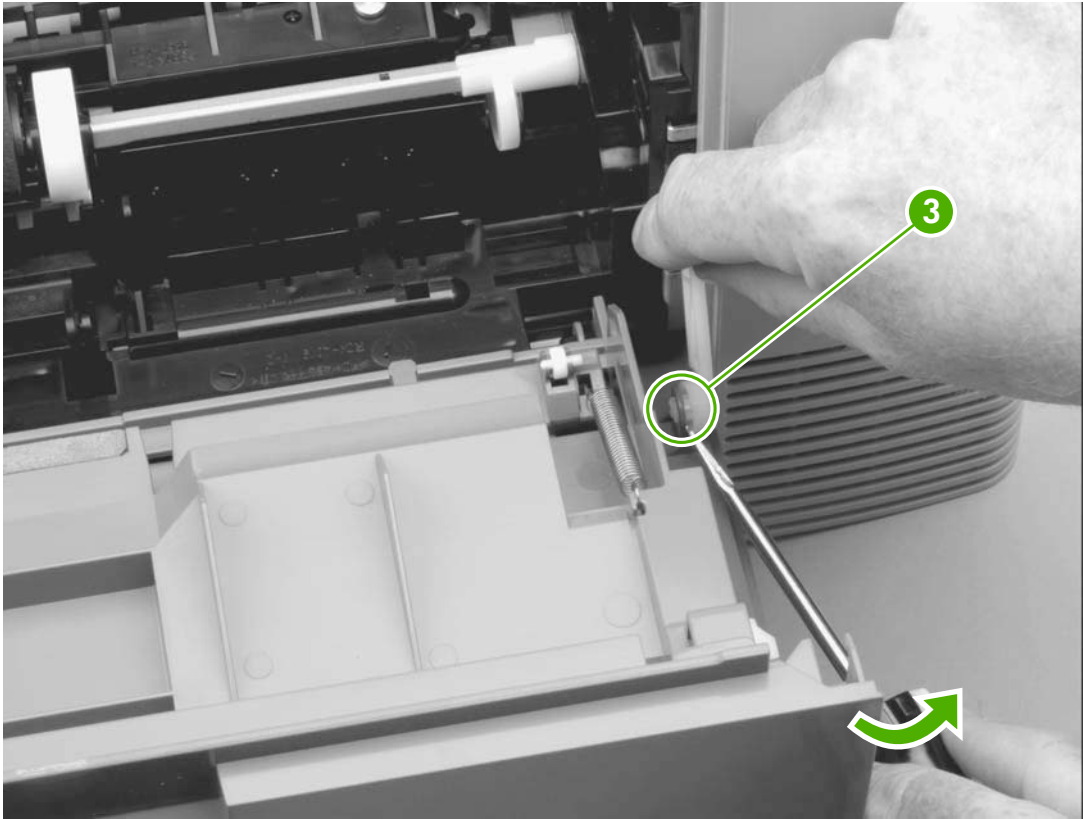
## Cartridge door

1. Remove the left-side cover (see [Left-side cover on page 97](#)).
2. With the cartridge door closed, unhook the spring (callout 1) at the device chassis, and then remove one screw (callout 2).



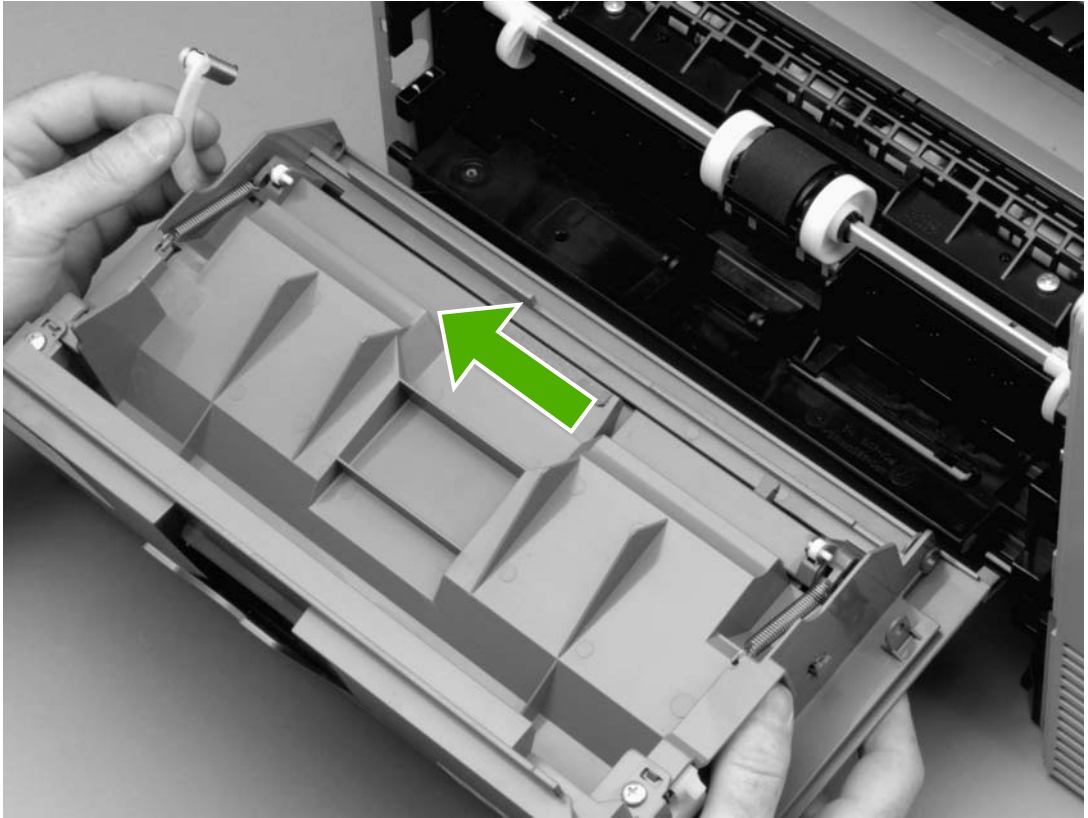
**Figure 5-96** Removing the cartridge door (1 of 3)

3. Open the cartridge door, and then use a flatblade screwdriver to release the cartridge-door arm (callout 3) at the right side of the cartridge door.



**Figure 5-97** Removing the cartridge door (2 of 3)

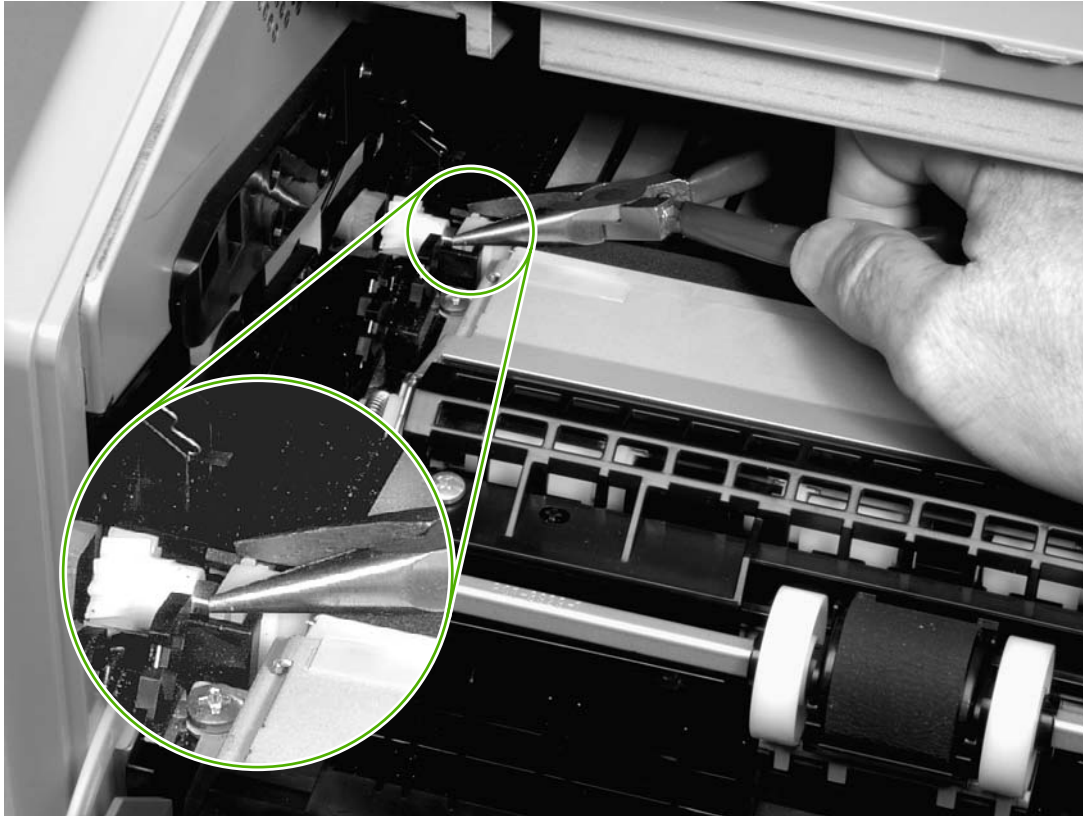
4. Slide the cartridge door to the left, off of the hinges, and then pull the door away from the device.



**Figure 5-98** Removing the cartridge door (3 of 3)

## Transfer roller

1. Open the cartridge door.
2. Release the left end of the transfer roller by using needle-nose pliers or a small flatblade screwdriver to pinch two tabs at the left end of the transfer roller.



**Figure 5-99** Removing the transfer roller

3. Use the needle-nose pliers or flatblade screwdriver in the same manner to release the other end.
4. Lift the transfer roller out of the device.



**NOTE** The left end of the transfer roller has a spring attached. At the right end of the roller, the spring is attached to the device rather than to the roller. As a result, the spring at the right end remains in the device. Also, the gear assembly at the right end of the roller is not captive on the roller.



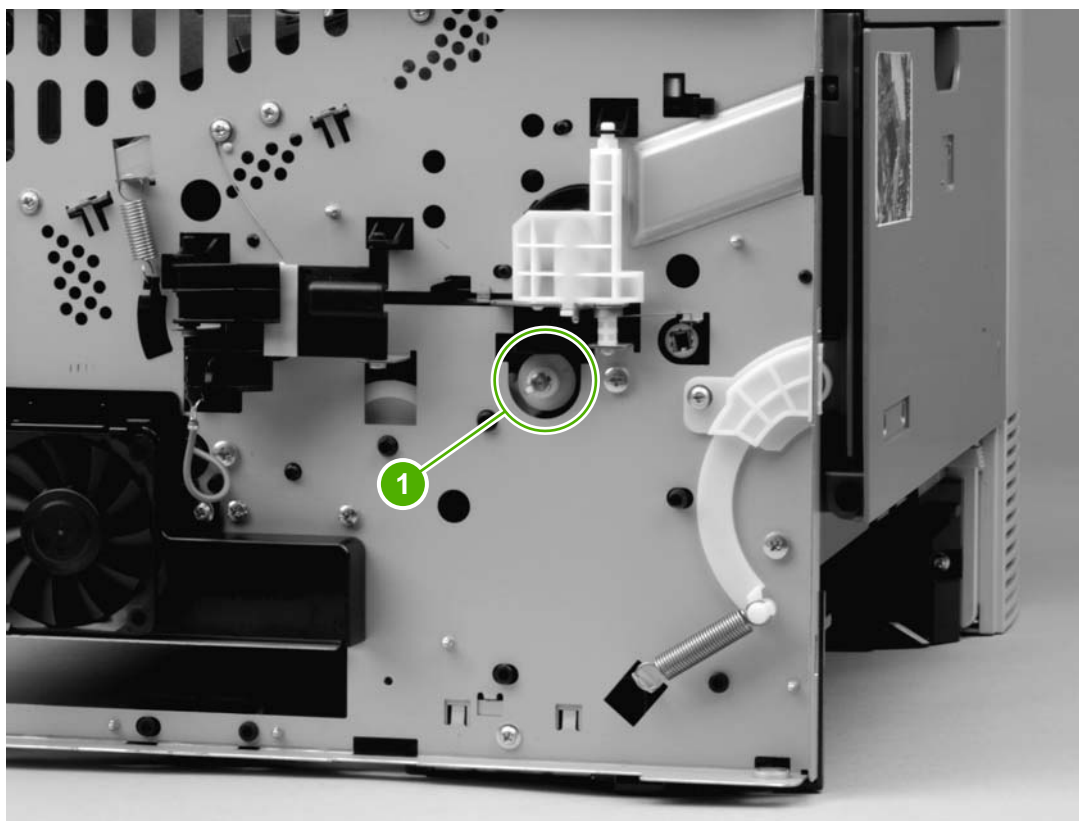
**CAUTION** Be careful not to touch the surface of the new transfer roller.



**Reinstallation tip** Align the springs with the tabs on the bottom of the roller-mounts before pressing the roller into place.

## Registration assembly

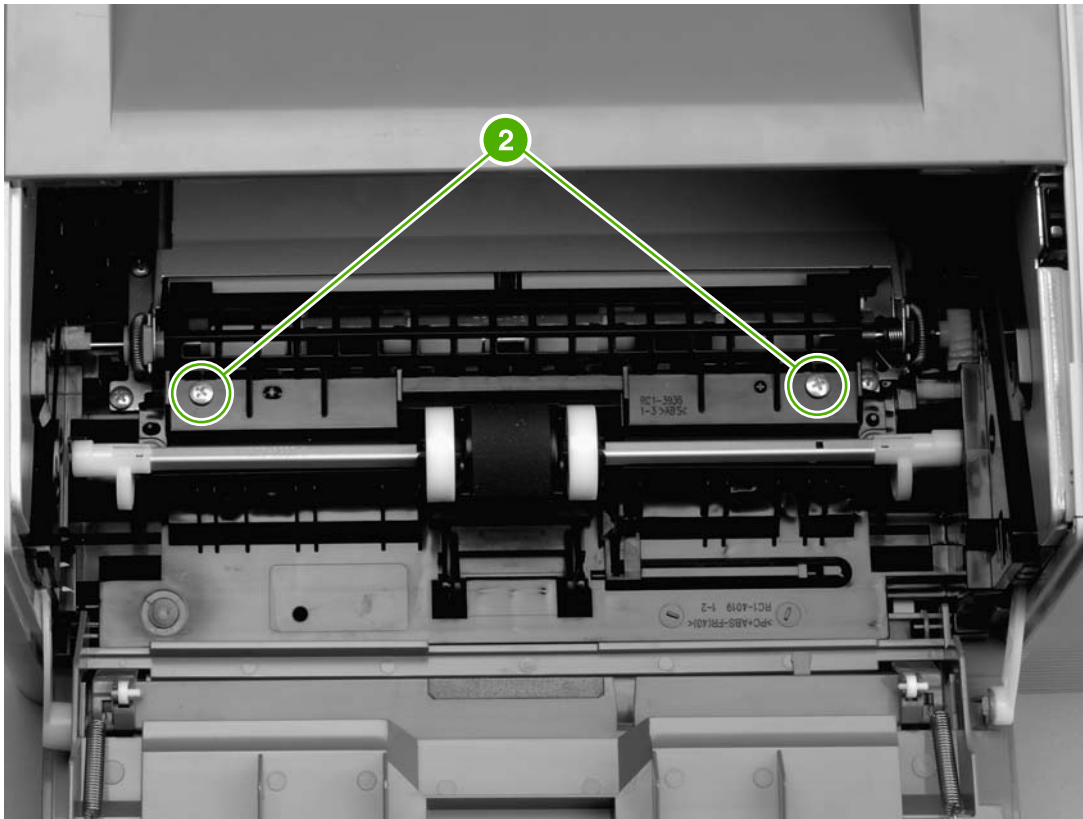
1. Remove the following components:
  - Right-side cover (see [Right-side cover on page 94](#))
  - Formatter shield (see [Formatter shield on page 95](#))
  - Fax cover (see [Fax cover on page 96](#))
  - Left-side cover (see [Left-side cover on page 97](#))
  - ADF/scanner assembly (see [Scanner assembly on page 90](#))
2. Unhook the clasp on the registration assembly gear (callout 1), and then slide the gear off of the shaft.



**Figure 5-100** Removing the registration assembly (1 of 3)



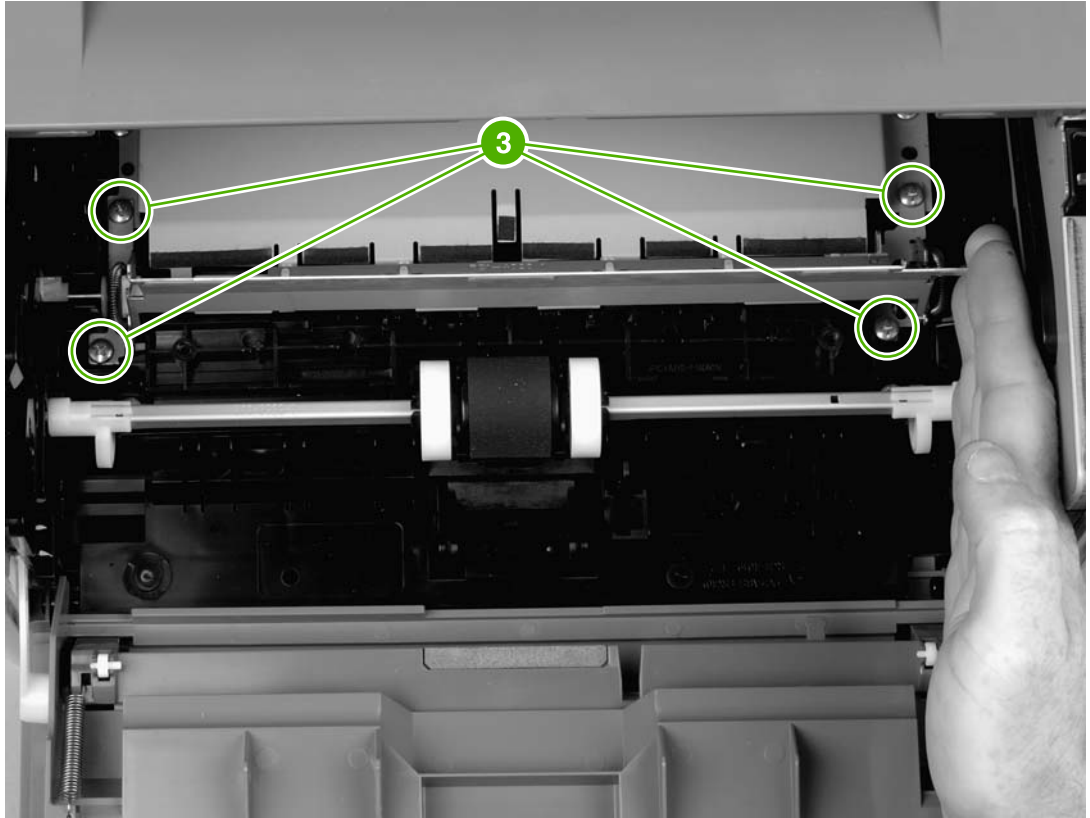
3. Remove two screws (callout 2) from the registration-assembly cover, and then lift the cover out of the device.



**Figure 5-101** Removing the registration assembly (2 of 3)



4. Remove four screws (callout 3).

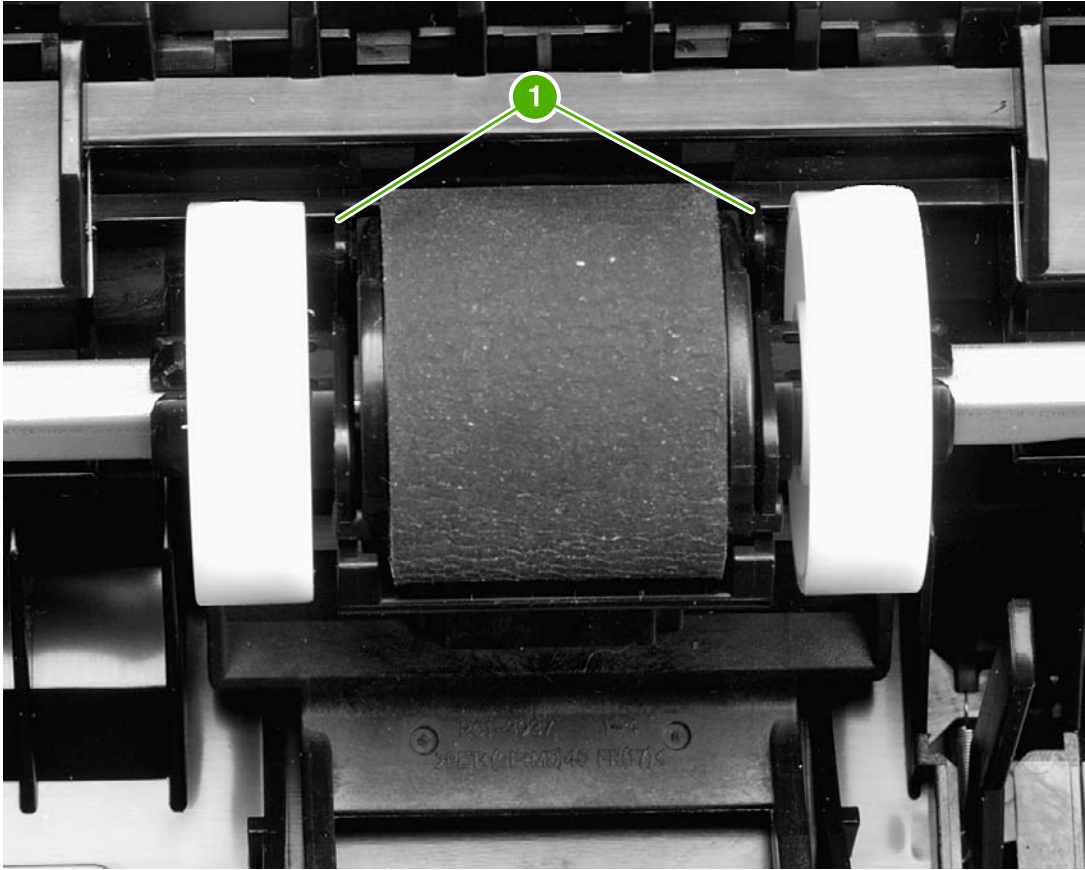


**Figure 5-102** Removing the registration assembly (3 of 3)

5. Lift the registration assembly out of the device, gear-end first.

## Tray 1 pickup roller

1. Spread the pickup-roller locks (callout 1) on each side of the tray 1 pickup roller to release the roller.



**Figure 5-103** Removing the tray 1 pickup roller

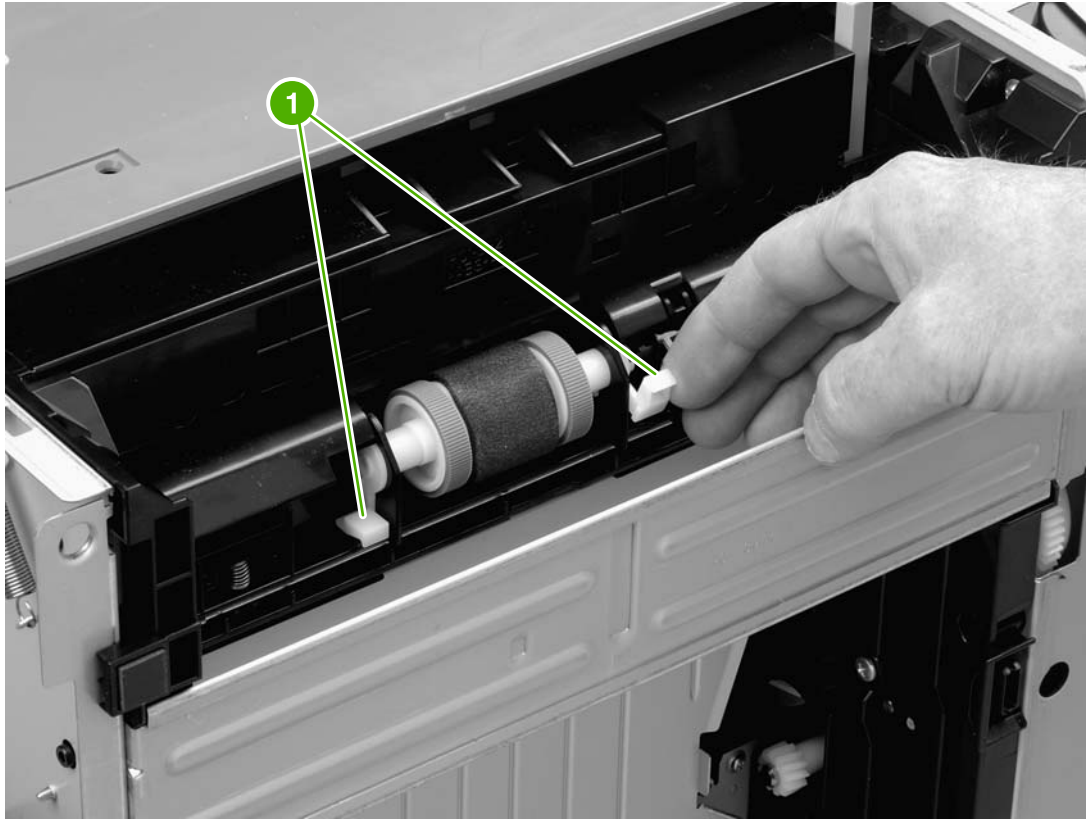
2. Rotate the top of the roller off of the shaft, and then lift the roller out of the device.

## Tray 2 pickup roller



**NOTE** Also follow these instructions to remove any optional-tray pickup rollers.

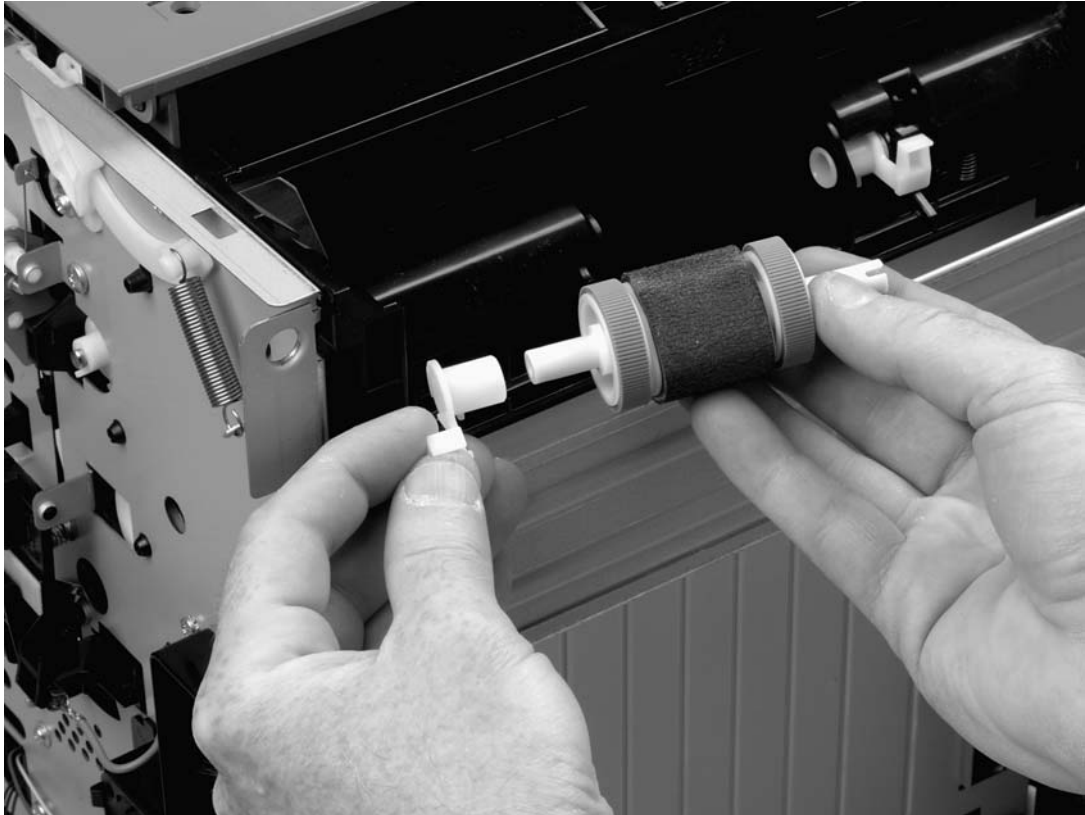
1. Tip the device over on its rear side, with the top of the device facing you.
2. Rotate the bushings (callout 1) on each side of the roller upward.



**Figure 5-104** Removing the tray 2 pickup roller (1 of 2)

3. Remove the left-side bushing by sliding the bushing to the left.
4. Slide the roller and shaft toward the left until they clear the hole in the right-side bushing, and then lift the right end of the shaft.

5. Slide the roller and shaft toward the right, and then lift the roller and shaft together out of the device.



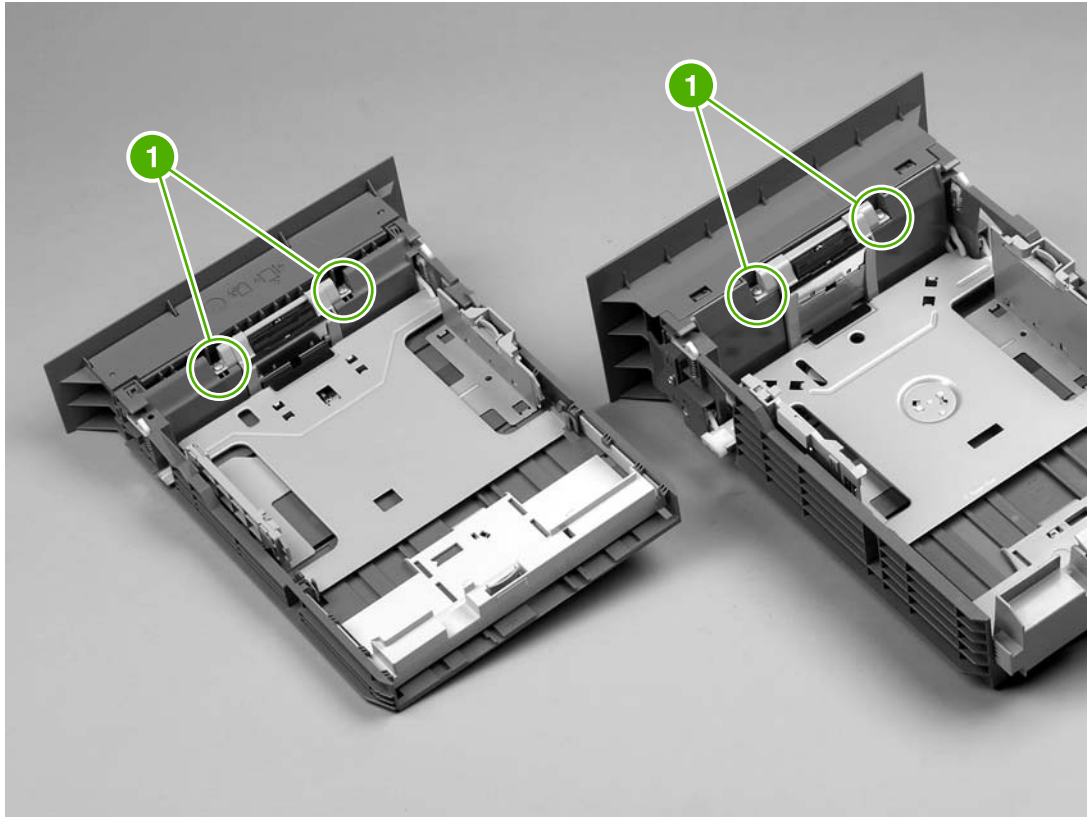
**Figure 5-105** Removing the tray 2 pickup roller (2 of 2)

## Separation pad



**NOTE** To replace a separation pad, replace the entire separation-pad assembly.

1. Pull the tray out of the device.
2. Remove two screws (callout 1) from the separation-pad assembly.



**Figure 5-106** Removing the separation pad

3. Lift the assembly out of the tray.



---

# 6 Troubleshooting

## Chapter contents

- [Troubleshooting process](#)
- [Control-panel messages](#)
- [Clear jams](#)
- [Interface troubleshooting](#)
- [Service mode functions](#)
- [Troubleshooting tools](#)
- [Firmware updates and recovery](#)
- [Troubleshoot general printing problems](#)
- [Troubleshoot media-handling problems](#)
- [Troubleshoot print-quality problems](#)
- [Diagrams](#)

# Troubleshooting process

## Troubleshooting tree

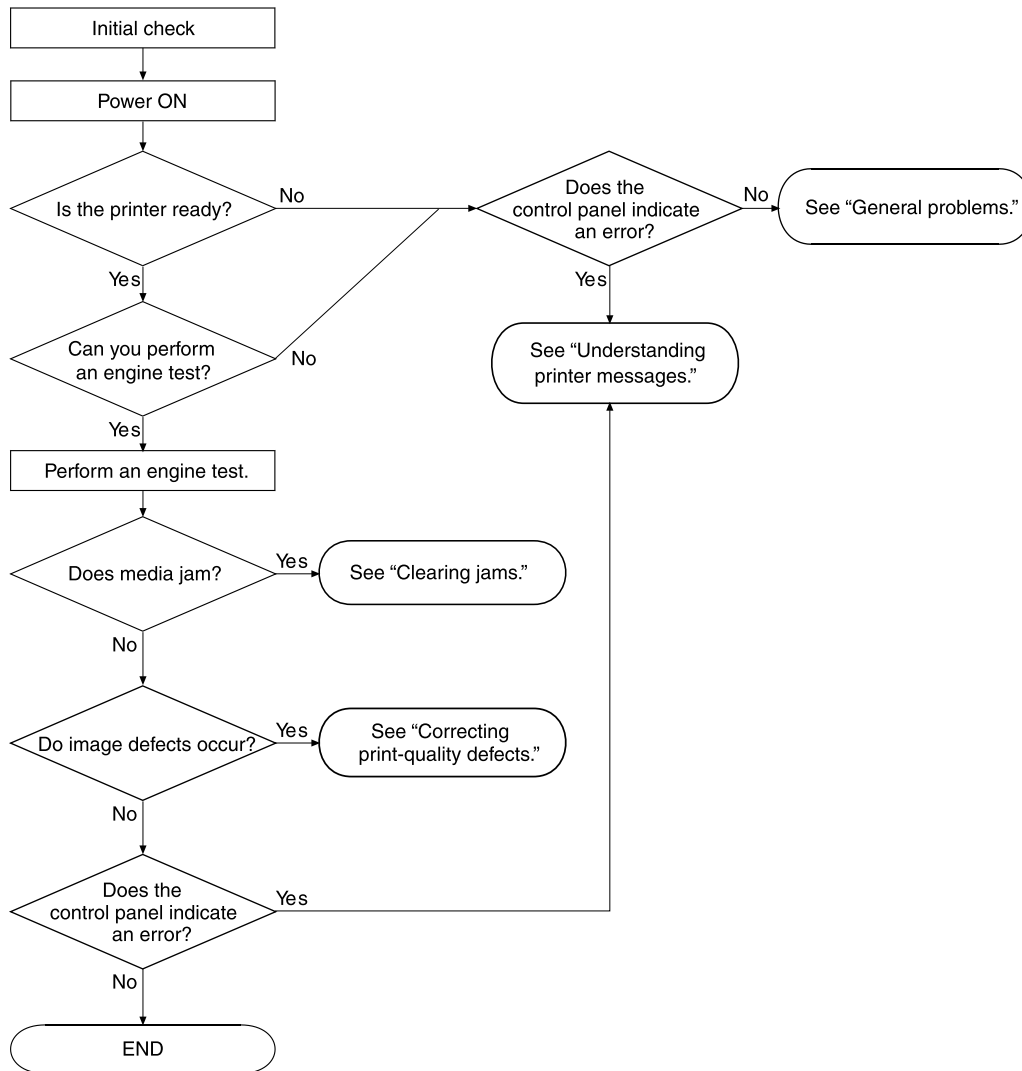


Figure 6-1 Basic troubleshooting



## Troubleshooting flowchart

If the device is not responding correctly, use the flowchart to determine the problem. If the device does not pass a step, follow the corresponding troubleshooting suggestions.

### 1. Does the control-panel display show READY?

<b>YES →</b>	Go to step 2.
<b>NO ↓</b>	
<b>The control-panel display is blank, and the device fan is off.</b>	<ul style="list-style-type: none"><li>• Turn the device off, and then turn it on again.</li><li>• Check the power cord connections and the power switch.</li><li>• Plug the device into a different outlet.</li><li>• Check that the power supplied to the device is steady, and meets device specifications. (See <a href="#">Electrical specifications on page 328.</a>)</li></ul>
<b>The control-panel display appears with no backlighting.</b>	Check the power connector to the ADF/scanner assembly.
<b>The control-panel display is blank, but the device fan is on.</b>	<ul style="list-style-type: none"><li>• Press a control-panel button to see if the device responds.</li><li>• Check the ribbon cable to the ADF/scanner assembly.</li><li>• Turn the device off, and then turn it on again.</li></ul>
<b>The control-panel display is in the wrong language.</b>	<ul style="list-style-type: none"><li>• Turn the device off, and then turn it on again. When XXX MB appears on the control-panel display, press and hold down the <b>6</b> key until all three lights remain illuminated. This could take up to 10 seconds. Then, release the <b>6</b> key. Use the <b>3</b> and <b>9</b> keys to scroll to <b>Language</b> and then press the <b>6</b> key to select it. Use the <b>3</b> and <b>9</b> keys to scroll through the available languages to the language you want and then press the <b>6</b> key to select it.</li></ul>
<b>The control-panel display shows garbled or unfamiliar characters.</b>	<ul style="list-style-type: none"><li>• Make sure that the appropriate language is selected at the device control panel.</li><li>• Turn the device off, and then turn the device on again.</li></ul>
<b>A message other than READY appears on the control-panel display.</b>	<ul style="list-style-type: none"><li>• See <a href="#">Control-panel messages on page 201.</a></li></ul>

## 2. Can you print a configuration page?

(See [Use information pages on page 45.](#))

---

YES →

Go to step 3.

---

NO ↓

---

**A configuration page does not print.**

- Verify that all trays are correctly loaded, adjusted, and installed in the device.
  - At the computer, check the print queue or print spooler to see if the device has been paused. If problems exist with the current print job, or if the device is paused, a configuration page will not print. Press **Stop** and try again to print a configuration page.
- 

**A blank page prints.**

- Verify that the sealing tape was removed from print cartridge. (See the getting started guide or the instructions that came with the print cartridge.)
  - The print cartridge might be empty. Install a new print cartridge.
- 

**A message other than READY or PRINTING CONFIGURATION appears on the control-panel display.**

- See [Control-panel messages on page 201.](#)
-

### 3. Does the device copy?

---

<b>YES →</b>	<b>Go to step 4.</b>
--------------	----------------------

---

<b>NO ↓</b>	
-------------	--

---

<b>Poor copy quality from the ADF.</b>	<ol style="list-style-type: none"><li>1. If the print quality from the internal tests and the copy from the flatbed were acceptable, clean the ADF scanning strip. See <a href="#">Clean the scanner glass on page 43</a>.</li><li>2. If the ADF is damaged, replace the ADF (see <a href="#">ADF assembly on page 80</a>).</li></ol>
--	---

---

<b>Media does not move smoothly through the ADF path.</b>	<ol style="list-style-type: none"><li>1. Make sure that the media HP specifications. See <a href="#">Media specifications on page 15</a>.</li><li>2. Clean the ADF roller and separation pad. See <a href="#">Clean the ADF on page 40</a>.</li><li>3. If the problem persists, replace the ADF roller.</li><li>4. If the problem persists, replace the ADF (see <a href="#">ADF assembly on page 80</a>).</li></ol>
---	--

---

<b>Poor copy quality from the flatbed.</b>	<ol style="list-style-type: none"><li>1. If the print quality from the internal tests and the copy from the ADF were acceptable, clean the flatbed glass. See <a href="#">Clean the scanner glass on page 43</a>.</li><li>2. If, after performing the maintenance, the problem persists, see the user guide.</li><li>3. If the problem persists, replace the scanner assembly (see <a href="#">Scanner assembly on page 90</a>).</li></ol>
--	--

---

## 4. Does the device send a fax?

---

YES →

Go to step 5.

---

NO ↓

---

**The telephone line is not operational or the device is not plugged into the telephone line.** Verify that the device is plugged into a telephone line that operates correctly.

---

**The telephone cord is faulty or is plugged into the wrong connector.**

1. Verify that the device is connected to an analog fax line.
2. Try plugging the telephone cord into the other connector.
3. Try a new telephone cord.

---

**The fax number is incorrect or incomplete.** Check the fax number and re-enter the correct and complete fax number.

---

**Sent fax is incomplete or of poor quality.** See the user guide.

---

**The device fax settings are set incorrectly.** Review the device fax settings. See the *HP LaserJet Analog Fax Accessory 300 User Guide*.

---

If the error persists, replace the fax accessory (see [Fax accessory on page 111](#)).

---

## 5. Does the device receive a fax?

---

YES →

Go to step 6.

---

NO ↓

---

**Too many telephone devices are plugged in, or telephone devices are not connected in the correct order.**

Make sure that the device is the only device on the telephone line and try again to receive the fax.

---

**The telephone cord does not meet specifications.**

Verify that the device is connected to an analog fax line.

---

**The device fax settings are set incorrectly.**

Review the device fax settings. See the user guide.

---

If the error persists, replace the fax accessory (see [Fax accessory on page 111](#)).

---

## 6. Can you print from a program?

---

YES →

Go to step 7.

---

NO ↓

---

**The job will not print.**

- If the job will not print, and a message appears on the control-panel display, see [Control-panel messages on page 201](#).
- By using the computer, check to see if the device has been paused. Press **Stop** to continue.
- If the device is on a network, print a configuration page. (See [Use information pages on page 45](#).) If an HP Jetdirect print server is installed, a Jetdirect page also prints. Check the Jetdirect configuration page to verify that the network protocol status and settings are correct for the device.
- If the device is on a network, check that you are printing to the correct device. To verify that no network problem exists, connect the computer directly to the device.
- Check the interface cable connections. Disconnect and reconnect the cable at the computer and the device.
- Test the cable by trying it on another computer.
- Make sure that the print job is being sent to the correct port (LPT1 or network printer port, for example).
- Make sure that you are using the correct printer driver. (See the user guide.)
- Reinstall the printer driver. (See the getting started guide.)
- Check that the computer port is configured and working correctly. (Try connecting another device to that port and printing.)
- If you are using the PS driver to print, set **Print PS Errors** (on the **General Print Behavior** submenu of the **Device Behavior** menu), to **On** and then try again to print the job.
- Make sure that **Personality** (on the **General Print Behavior** submenu of the **Device Behavior** menu) is set to **Auto**.
- You might be missing a device message that could help you solve the problem. On the **Warning/Error Behavior** submenu (of the **Device Behavior** menu) at the device control panel, temporarily turn off the **Clearable Warnings** and **Auto-Continuable Events** settings. Then try again to print the job.

---

**A PS error page or list of commands prints.**

- The device might have received a nonstandard PS code. For this print job, set the **Personality** (on the **General Print Behavior** submenu of the **Device Behavior** menu) to **PS**. After the job has printed, return the setting to **Auto**.
  - Make sure that the print job is a PS job, and that you are using the PS driver.
  - The device might have received PS code although it is set to PCL. Set **Personality** (on the **General Print Behavior** submenu of the **Device Behavior** menu) to **Auto**.
-

## 7. Does the job print as expected?

YES→	Go to step 8.
NO↓	
<b>Print is garbled, or only a portion of the page prints.</b>	<ul style="list-style-type: none"><li>● Make sure that you are using the correct printer driver. (See the user guide.)</li><li>● The data file that was sent to the device might be corrupt. To check, try printing the file to another device (if possible), or try a different file.</li><li>● Check the interface cable connections. Test the cable by trying it on another computer (if possible).</li><li>● Replace the interface cable with a high-quality cable (see <a href="#">Parts and diagrams on page 269</a>).</li><li>● Simplify the print job, print at a lower resolution, or install more device memory.</li><li>● You might be missing a device message that could help you solve the problem. On the <b>Warning/Error Behavior</b> submenu (of the <b>Device Behavior</b> menu) at the device control panel, temporarily turn off the <b>Clearable Warnings</b> and <b>Auto-Continuable Events</b> settings. Then, print the job again.</li></ul>
<b>Printing stops in the middle of the job.</b>	<ul style="list-style-type: none"><li>● <b>Stop</b> might have been pressed.</li><li>● Check that the power supplied to the device is steady, and that it meets device specifications. (See <a href="#">Electrical specifications on page 328</a>.)</li></ul>
<b>Print speed is slower than expected.</b>	<ul style="list-style-type: none"><li>● Simplify the print job.</li><li>● Add more memory to the device.</li><li>● Turn banner pages off. (See the network administrator.)</li><li>● Note that slower speeds should be expected if you are printing narrow paper, printing from tray 1, using the HIGH 2 fuser mode, or if you have set Small Paper Speed to SLOW.</li></ul>
<b>A control-panel setting is not taking effect.</b>	<ul style="list-style-type: none"><li>● Check settings in the printer driver or program. (The printer driver and program settings override control-panel settings.)</li></ul>
<b>The print job is not formatted correctly.</b>	<ul style="list-style-type: none"><li>● Check that you are using the correct printer driver. (See the user guide.)</li><li>● Check the program settings. (See the program online Help.)</li><li>● Try a different font.</li><li>● Downloaded resources might have been lost. You might need to download them again.</li></ul>
<b>Media does not feed correctly or is damaged.</b>	<ul style="list-style-type: none"><li>● Make sure that the media is loaded correctly and that the guides are not too tight or too loose against the stack of media.</li><li>● If you are having problems printing custom-size paper, see the user guide.</li><li>● If pages are wrinkled or curled, or if the image is skewed on the page, see <a href="#">Troubleshoot print-quality problems on page 248</a>.</li></ul>
<b>Print-quality problems occur.</b>	<ul style="list-style-type: none"><li>● Adjust the print resolution. (See the user guide.)</li><li>● Check that Resolution Enhancement Technology (RET) is on. (See the user guide.)</li><li>● Go to <a href="#">Troubleshoot print-quality problems on page 248</a>.</li></ul>

## 8. Does the device select the correct trays?

---

<b>YES →</b>	<b>For other problems, check the table of contents or the index in this manual, or see the printer-driver online Help.</b>
--------------	--

---

<b>NO ↓</b>	
<b>The device pulls media from the wrong tray.</b>	<ul style="list-style-type: none"><li>● Make sure that you have selected the correct tray. (See the user guide.)</li><li>● Make sure that trays are correctly configured for size and type. (See the user guide.) Print a configuration page to see current tray settings. (See <a href="#">Use information pages on page 45.</a>)</li><li>● Make sure that the tray selection (Source) or Type in the printer driver or program is set correctly. (The printer driver and program settings override the device control-panel settings.)</li><li>● By default, media loaded in tray 1 will be printed first. If you do not want to print from tray 1, remove any media loaded in the tray or change the <b>USE REQUESTED TRAY</b> setting. (See the user guide.) Change <b>TRAY 1 SIZE</b> and <b>TRAY 1 TYPE</b> to a setting other than <b>ANY</b>.</li></ul>
<b>An optional tray is not working correctly.</b>	<ul style="list-style-type: none"><li>● Print a configuration page to verify that the tray is installed correctly and is functional. (See <a href="#">Use information pages on page 45.</a>)</li><li>● Configure the printer driver to recognize the installed tray. (See the printer driver online Help.)</li><li>● Turn the device off, and then turn it on again.</li><li>● Verify that you are using the correct optional tray for the device.</li></ul>
<b>A message other than READY appears on the control-panel display.</b>	<ul style="list-style-type: none"><li>● See <a href="#">Control-panel messages on page 201.</a></li></ul>


---



# Control-panel messages

## Control-panel message types

Four types of control-panel messages can indicate the status of or problems with the device.

Message type	Description
Status messages	Status messages reflect the current state of the device. They inform you of normal device operation and require no interaction to clear them. They change as the state of the device changes. Whenever the device is ready, not busy, and has no pending warning messages, the status message <b>Ready</b> appears if the device is online.
Warning messages	Warning messages inform you of data and print errors. These messages typically alternate with the <b>Ready</b> or status messages and remain until you touch <b>OK</b> . Some warning messages are clearable. If <b>Clearable Warnings</b> is set to <b>Job</b> on the device <b>Device Behavior</b> menu, the next print job clears these messages.
Error messages	<p>Error messages communicate that some action must be performed, such as adding paper or clearing a jam.</p> <p>Some error messages are auto-continuable. If <b>Auto Continue</b> is set on the menus, the device will continue normal operation after an auto-continuable error message appears for 10 seconds.</p> <p> <b>NOTE</b> Pressing any button during the 10-second auto-continuable error message overrides the auto-continue feature, and the button function takes precedence. For example, pressing the <b>Stop</b> button pauses printing and offers the option to cancel the print job.</p>
Critical-error messages	Critical error messages inform you of a device failure. Some of these messages can be cleared by turning the device off and then on. These messages are not affected by the <b>Auto Continue</b> setting. If a critical error persists, service is required.

## Resolve control-panel messages

Table 6-1 Control-panel messages

Control panel message	Description	Recommended action
Digital Send Server is not Responding. Contact Administrator.	The device cannot communicate with the Digital Send Server.	Contact the network administrator.
<b>10.10.00 ERROR</b>	The device cannot read or write to the print cartridge e-label, or the e-label is missing from the print cartridge.	<ol style="list-style-type: none"><li>1. Verify that a genuine HP print cartridge is installed in the device.</li><li>2. Verify that the memory tag PCA is installed in the device.</li><li>3. Verify that the memory tag connector is firmly seated in connector J510 on the ECU. You might have to remove the main cooling fan to see this connection.</li></ol>
<b>10.32.00 - Unauthorized Supply</b>	A supply has been installed that does not pass the authentication test for genuine HP supplies.	<p>If you believe you purchased a genuine HP supply, visit us at <a href="http://www.hp.com/go/anticounterfeit">www.hp.com/go/anticounterfeit</a>. Any repair required as a result of using non-HP supplies or unauthorized supplies is not covered under warranty. HP cannot ensure the accuracy or the availability of certain features.</p> <p>To continue printing, touch <b>OK</b>.</p>

**Table 6-1** Control-panel messages (continued)

Control panel message	Description	Recommended action
<b>11.XX - Internal clock error To continue touch OK</b>	The device real time clock has experienced an error.	<p>Whenever the device is turned off and then turned on again, set the time and date at the control panel. See the <a href="#">Time/Scheduling</a> menu in the user guide.</p> <p>If the error persists, you might need to replace the formatter.</p>
<b>13.00.02 - Jam in Tray 1 Clear jam then touch OK</b>	Paper is fed from tray 2 to the device by the tray 2 pick-up roller. When energized, solenoid SL2 releases a clutch, and then the pick-up roller rotates to pick up the paper and advance it into the paper path.	<ol style="list-style-type: none"><li>1. Follow the instructions in the onscreen dialog box, or see <a href="#">Clear jams from the input-tray areas on page 220</a>.</li><li>2. Verify that the type and quality of the media that you are using meet HP specifications. (See <a href="#">Media specifications on page 15</a>.)</li><li>3. Verify that the media is loaded correctly and that the guides are not too tight or too loose against the stack of media.</li><li>4. Verify that the tray 2 pickup roller and separation pad are installed correctly.</li><li>5. Verify that solenoid SL2 is being energized. If you cannot hear it during a print job, remove tray 2, override the paper presence sensor flag, start a print job, and then see if the pick-up roller is rotating.</li><li>6. Verify that solenoid SL2 is firmly seated in connector J504 on the ECU.</li></ol>
<b>13.01.00 - Jam in Tray 1 Clear jam then touch OK</b>	The paper did not reach the top of page sensor within the specified period of time. The tray 1 feed roller moves paper into the paper path. When solenoid SL1 is energized, a clutch mechanism allows the paper stack in tray 1 to lift, and then allows the feed roller to rotate one time to move the paper into the paper path.	<ol style="list-style-type: none"><li>1. Follow the instructions in the onscreen dialog box, or see <a href="#">Clear jams from the input-tray areas on page 220</a>.</li><li>2. Verify that the type and quality of the media that you are using meet HP specifications. (See <a href="#">Media specifications on page 15</a>.)</li><li>3. Verify that the media is loaded correctly and that the guides are not too tight or too loose against the stack of media.</li><li>4. Verify that the tray 1 pickup roller and separation pad are installed correctly.</li><li>5. Verify that solenoid SL1 is firmly seated in ECU connector J508. Verify that SL1 is being energized by removing the cover and observing the solenoid during a feed operation.</li><li>6. Open and close the cartridge door to clear the error message.</li></ol>

**Table 6-1** Control-panel messages (continued)

Control panel message	Description	Recommended action
<b>13.05.00 Jam inside front door</b>	Paper failed to reach the delivery sensor within a specified period of time when a print job was initiated. When troubleshooting paper jams, always observe where the leading edge of the paper stops in the jam.	<ol style="list-style-type: none"> <li>1. Follow the instructions in the onscreen dialog box, or see <a href="#">Clear jams from the input-tray areas on page 220</a>.</li> <li>2. Verify that nothing is obstructing paper movement within the paper path.</li> <li>3. Verify that the fuser motor (M2) connector is firmly seated. The fuser motor wiring is hard-wired to the back of the ECU at connector J501. The motor connector is free-standing behind the ECU. To see if the fuser motor is functional, observe the output stacker rollers while turning on the device. If the rollers rotate, the motor is functional. If they do not rotate, verify the connection.</li> </ol>
<b>13.15.00 - Jam inside front door Remove print cartridge</b>	Media is jammed in the fuser area.	<p>Follow the instructions in the onscreen dialog box, or see <a href="#">Clear jams from the print-cartridge area on page 219</a>.</p> <p>If the message persists, check the thermistor delivery sensor (J405) and delivery sensor (SR2) cable connections.</p>
<b>13.20 - Jam inside rear bin Clear jam then open and close front door</b>	Media is jammed in the output bin.	Open the rear output bin and gently remove the jammed media. Follow the instructions in the onscreen dialog box, or see <a href="#">Clear jams from the output-bin areas on page 223</a> .
<b>13.31.00 Jam inside front door</b>	Media is jammed in the paper path.	<p>Follow the instructions in the onscreen dialog box, or see <a href="#">Clear jams from the input-tray areas on page 220</a>.</p> <p>If the message persists, check the rear door (face-up bin) sensor cable connection.</p>
<b>13.65 - Jam inside rear bin Clear jam then open and close front door</b>	Media is jammed in the fuser area.	<p>Open the rear output bin and gently remove the jammed media. Follow the instructions in the onscreen dialog box, or see <a href="#">Clear jams from the output-bin areas on page 223</a>.</p> <p>If the message persists, check the thermistor delivery sensor (J405) and delivery sensor (SR2) cable connections.</p>
<b>13.67.00 - Jam inside front door</b>	Media is jammed in the paper path.	<p>Follow the instructions in the onscreen dialog box, or see <a href="#">Clear jams from the print-cartridge area on page 219</a>.</p> <p>If the message persists, check the HVPS ribbon-cable connection at J404.</p>
<b>13.XX.YY - Paper wrapped around fuser</b>	A jam has occurred because paper has wrapped around the fuser.	Follow the instructions in the onscreen dialog box.
<b>13.XX.YY - Remove Tray 2 Clear jam then touch OK</b>	Media is jammed in the duplex area.	Follow the instructions in the onscreen dialog box, or see <a href="#">Clear jams from the input-tray areas on page 220</a> .
<b>20 Insufficient memory To continue touch OK</b>	The device received more data than can fit in the available memory. You might have tried	Touch <b>OK</b> to print the transferred data (some data might be lost), and then simplify the print job or install additional memory.

**Table 6-1** Control-panel messages (continued)

Control panel message	Description	Recommended action
	to transfer too many macros, soft fonts, or complex graphics.	
<b>21 Page too complex To continue touch OK</b>	The page formatting process was not fast enough for the device.	Touch <b>OK</b> to print the transferred data. (Some data might be lost.) If this message appears often, simplify the print job.
<b>22 EIO &lt;X&gt; buffer overflow To continue touch OK</b>	Too much data was sent to the EIO card in the specified slot (X). An incorrect communications protocol might be in use.	Touch <b>OK</b> to print the transferred data. (Some data might be lost.)  Check the host configuration. If this message persists, you might have to replace the EIO card.
<b>22 Embedded I/O buffer overflow To continue touch OK</b>	Too much data was sent to the embedded HP Jetdirect print server.	Touch <b>OK</b> to print the transferred data. (Some data might be lost.)
<b>22 USB I/O buffer overflow To continue touch OK</b>	Too much data was sent to the USB buffer.	Touch <b>OK</b> to clear the error message. (Data will be lost.)
<b>30.1.YY Scanner failure</b>	An error has occurred in the scanner.	<ol style="list-style-type: none"> <li>1. Make sure that the scanner lock is in the unlocked position.</li> <li>2. Turn the device off and then on.</li> <li>3. Check the cable connections between the ADF/scanner assembly and the formatter.</li> <li>4. If this message persists, replace the scanner assembly (see <a href="#">Scanner assembly on page 90</a>).</li> <li>5. If, after replacing the scanner assembly, the message persists, replace the formatter (see <a href="#">Formatter on page 116</a>).</li> </ol>
<b>40 EIO &lt;X&gt; bad transmission To continue touch OK</b>	The connection between the device and the EIO card in the specified slot has been broken.	Touch <b>OK</b> to clear the error message and continue printing. Check the EIO connection.
<b>40 Embedded I/O bad transmission To continue touch OK</b>	A temporary printing error has occurred.	<ol style="list-style-type: none"> <li>1. Turn the device off, and then turn the device on.</li> <li>2. If this message persists, replace the formatter (see <a href="#">Formatter on page 116</a>).</li> </ol>
<b>41.3 - Load tray &lt;XX&gt; To use another tray, touch OK</b>	The specified tray does not contain the specified media size.	Touch <b>OK</b> to use a tray that contains media of the correct size.
<b>41.3 - Load tray &lt;XX&gt;: &lt;Type&gt;, &lt;Size&gt;</b>	The specified tray is loaded with media that is longer or shorter in the feed direction than the size configured for the tray.	Touch <b>OK</b> to display <b>Tray &lt;X&gt; Size</b> . Reconfigure the size in a tray so that the device will use a tray that is loaded with the size of media required for the print job. If the message does not clear automatically from the control-panel display, turn the device off, and then turn the device on.
<b>41.X Error To continue touch OK</b>	A temporary printing error occurred.	<ol style="list-style-type: none"> <li>1. Touch <b>OK</b> to clear the error. If the error is not cleared, turn the device off, and then turn the device on.</li> <li>2. If the message persists, replace the fuser (see <a href="#">Fuser on page 139</a>).</li> </ol>
	<b>X description</b>	
	2 beam detect misprint	
	8 fuser too hot	

**Table 6-1** Control-panel messages (continued)

Control panel message	Description	Recommended action
<b>49.XXXXX ERROR To continue turn off then on</b>	A critical firmware error has occurred.	<ol style="list-style-type: none"><li>1. Turn the device off, and then turn the device on.</li><li>2. Go to <a href="http://www.hp.com/support/LJM3027mfp">www.hp.com/support/LJM3027mfp</a> or <a href="http://www.hp.com/support/LJM3035mfp">www.hp.com/support/LJM3035mfp</a> to check the latest firmware image version. If the latest firmware image version is newer than the one installed on the device, upgrade the device.</li><li>3. Try printing a job from a different software program. If the job prints, go back to the first program and try printing a different file. If the message appears only with a certain software program or print job, then the error is in the software program and not in the device. If the job fails to print using a different software program, then turn off the device and disconnect all cables that connect the device to the network or to a computer.</li><li>4. Remove any DIMMs and EIO cards, and then turn the device on.</li><li>5. If, after removing DIMMs and EIO cards, the device behaves normally, turn off the device and reinstall DIMMs and EIO cards one-by-one, turning off the device off and then on again each time you reinstall a DIMM or EIO card. If a certain DIMM or EIO card causes the message to reappear, replace the DIMM or EIO card.</li><li>6. Reconnect all cables that connect the device to the network or to a computer.</li><li>7. If the message persists, replace the formatter (see <a href="#">Formatter on page 116</a>).</li></ol>
<b>50.1 FUSER ERROR</b>	AC power is not being provided to the fuser assembly. AC voltage is necessary to generate heat in the fuser assembly.	<ol style="list-style-type: none"><li>1. Verify that the connection between the fuser assembly and the ECU is fully seated.</li><li>2. If the message persists, replace the fuser assembly.</li></ol>
<b>50.6 FUSER ERROR</b>	The main or sub thermistors are unable to provide temperature feedback to the ECU. The main and sub thermistors monitor the fuser assembly hot-roller temperature and provide feedback to regulate the fusing temperature.	<ol style="list-style-type: none"><li>1. Verify that the seven-wire connector is firmly seated in connector J405 on the ECU. You might have to remove the main cooling fan to see this connection.</li><li>2. Verify that the four-wire connector is firmly seated in the fuser assembly.</li><li>3. Verify that the AC voltage is being provided to the fuser assembly.</li><li>4. If the message persists, replace the fuser assembly.</li></ol>

**Table 6-1** Control-panel messages (continued)

Control panel message	Description	Recommended action
<b>50.X FUSER ERROR To continue turn off then on</b>	A fuser error has occurred.	<ol style="list-style-type: none"> <li>1. Turn the device off, and then turn the device on.</li> <li>2. If the message persists, turn off the device to allow the fuser to cool.</li> <li>3. Verify that the correct model fuser is installed in the device.</li> <li>4. Check the cable connections between the ECU and the fuser.</li> <li>5. If, after checking the cables, the message persists, replace the fuser (see <a href="#">Fuser on page 139</a>).</li> <li>6. If, after replacing the fuser, the message persists, replace the ECU (see <a href="#">Engine control unit (ECU) on page 131</a>).</li> <li>7. If, after replacing the ECU, the message persists, replace the high-voltage power-supply (see <a href="#">High-voltage power supply (HVPS) on page 149</a>).</li> </ol>
	<b>X description</b> <ol style="list-style-type: none"> <li>1 low fuser temperature</li> <li>2 fuser warmup service</li> <li>3 fuser over-temperature</li> <li>4 faulty fuser</li> <li>5 incorrect fuser is installed</li> <li>6 open fuser circuit</li> </ol>	
<b>51.XY ERROR To continue turn off then on</b>	A temporary printing error has occurred.	<ol style="list-style-type: none"> <li>1. Turn the device off, and then turn the device on.</li> <li>2. Check the cable connections between the laser/scanner and the ECU.</li> <li>3. If, after checking the cables, the message persists, replace the laser/scanner (see <a href="#">Laser/scanner on page 142</a>).</li> <li>4. If, after replacing the laser/scanner, the message persists, replace the ECU (see <a href="#">Engine control unit (ECU) on page 131</a>).</li> </ol>
<b>52.00 ERROR</b>	A laser/scanner motor error has occurred. Laser/scanner motor rotation is verified at the initialization of a print job.	<ol style="list-style-type: none"> <li>1. Verify that the laser/scanner motor connector and the ribbon cable from the ECU are firmly seated on the laser/scanner assembly.</li> <li>2. Verify that the laser/scanner motor connector is firmly seated in connector J402 on the ECU. You might have to remove the main cooling fan to see this connection.</li> <li>3. Verify that the ribbon cable installed in connector J403 on the ECU is fully seated. You must remove the ECU in order to verify this connection.</li> <li>4. If, after checking the cables, the message persists, replace the laser/scanner (see <a href="#">Laser/scanner on page 142</a>).</li> <li>5. If, after replacing the laser/scanner, the message persists, replace the ECU</li> </ol>

**Table 6-1** Control-panel messages (continued)

Control panel message	Description	Recommended action
		(see <a href="#">Engine control unit (ECU) on page 131</a> ).
<b>53.XY.ZZ CHECK RAM DIMM SLOT &lt;X&gt; To continue turn off then on</b>	<p>A problem exists with the device memory. The DIMM that caused the error will not be used.</p> <p><b>X description</b></p> <p><b>0</b> onboard memory</p> <p><b>1</b> slot 1</p>	<p>You might need to reinstall or replace the specified DIMM.</p> <ol style="list-style-type: none"> <li>1. Turn the device off, and then replace the DIMM that caused the error. See <a href="#">Install memory on page 30</a>.</li> <li>2. If, after replacing the DIMM, the message persists, replace the formatter (see <a href="#">Formatter on page 116</a>).</li> </ol>
<b>54.XX ERROR To continue turn off then on</b>	<p>A temporary printing error has occurred.</p>	<ol style="list-style-type: none"> <li>1. Turn the device off, and then turn the device on.</li> <li>2. If the message persists, check the sensors in the device to make sure that they are working correctly.</li> <li>3. If the sensors are working correctly, but the message persists, replace the ECU (see <a href="#">Engine control unit (ECU) on page 131</a>).</li> </ol>
<b>55.05 ERROR To continue turn off then on</b>	<p>The print engine is not communicating with the formatter.</p> <p>An error occurred while performing a remote firmware upgrade.</p>	<ol style="list-style-type: none"> <li>1. Turn the device off, and then turn the device on.</li> <li>2. Try again to perform the remote firmware upgrade.</li> </ol>
<b>55.XX.YY DC CONTROLLER ERROR To continue turn off then on</b>	<p>The print engine is not communicating with the formatter.</p>	<ol style="list-style-type: none"> <li>1. Turn the device off, and then turn the device on.</li> <li>2. If the message persists, replace the ECU (see <a href="#">Engine control unit (ECU) on page 131</a>).</li> <li>3. If, after replacing the ECU, the message persists, replace the high-voltage power-supply (see <a href="#">High-voltage power supply (HVPS) on page 149</a>).</li> </ol>
<b>56.XX ERROR To continue turn off then on</b>	<p>A temporary printing error has occurred.</p>	<ol style="list-style-type: none"> <li>1. Turn the device off, and then turn the device on.</li> <li>2. If this message persists, uninstall and then reinstall all input trays, and then turn the device off.</li> <li>3. Turn the device on. If the message persists, replace the formatter (see <a href="#">Formatter on page 116</a>).</li> </ol>
<b>57.03 ERROR To continue turn off then on</b>	<p>A sub cooling fan (FM2) error has occurred. Fan operation is verified during device power-up. Fan operation occurs only during power-up or during a print job.</p>	<ol style="list-style-type: none"> <li>1. Turn the device off, and then turn the device on.</li> <li>2. Verify that nothing is hindering or blocking the fan.</li> <li>3. Verify that the fan is connected to connector J512 on the ECU PCA. You</li> </ol>

**Table 6-1** Control-panel messages (continued)

Control panel message	Description	Recommended action
		<p>might have to remove the main cooling fan to see this connection.</p> <p>4. If the message persists, replace the fan (see <a href="#">Left-side fan on page 148</a>).</p>
<b>57.04 ERROR To continue turn off then on</b>	A main cooling fan (FM1) error has occurred. Fan operation is verified during device power-up. Fan operation occurs only during power-up or during a print job.	<p>1. Turn the device off and then on.</p> <p>2. Verify that nothing is hindering or blocking the fan.</p> <p>3. Verify that the fan is connected to connector J509 on the ECU PCA.</p> <p>4. If the message persists, replace the fan (see <a href="#">Right-side fan on page 128</a>).</p>
<b>59.50 ERROR To continue turn off then on</b>	A main motor (M1) error has occurred. Motor operation is verified during device power-up.	<p>1. Turn the device off, and then turn the device on.</p> <p>2. Verify that nothing is hindering the main motor. If necessary, remove all paper trays and the print cartridge, and then turn on the device and listen for motor operation.</p> <p>3. Verify that the main motor is connected to connector J407 on the ECU. You might have to remove the main cooling fan to see this connection.</p> <p>4. If the message persists, replace the motor (see <a href="#">Main motor on page 159</a>).</p>
<b>62 NO SYSTEM To continue turn off then on</b>	A problem exists with the device firmware.	<p>1. Turn the device off, and then turn the device on.</p> <p>2. Go to <a href="http://www.hp.com/support/LJM3027mfp">www.hp.com/support/LJM3027mfp</a> or <a href="http://www.hp.com/support/LJM3035mfp">www.hp.com/support/LJM3035mfp</a> to check the latest firmware image version. If the latest firmware image version is newer than the one installed on the device, upgrade the device, if possible.</p> <p>3. If the message persists, replace the formatter (see <a href="#">Formatter on page 116</a>).</p>
<b>64 ERROR To continue turn off then on</b>	A scan buffer error occurred.	<p>1. Turn the device off, and then turn the device on.</p> <p>2. Go to <a href="http://www.hp.com/support/LJM3027mfp">www.hp.com/support/LJM3027mfp</a> or <a href="http://www.hp.com/support/LJM3035mfp">www.hp.com/support/LJM3035mfp</a> to check the latest firmware image version. If the latest firmware image version is newer than the one installed on the device, upgrade the device, if possible.</p> <p>3. If the message persists, replace the formatter (see <a href="#">Formatter on page 116</a>).</p>



**Table 6-1** Control-panel messages (continued)

Control panel message	Description	Recommended action
<p><b>68.X Permanent storage full To continue touch OK</b></p> <p><b>68.X Permanent storage write fail To continue touch OK</b></p>	<p>The device NVRAM is full or the storage device is failing to write. Some settings saved in the NVRAM might have been reset to the factory defaults. Printing can continue, but some unexpected functions might occur if an error occurred in permanent storage.</p> <p><b>X description</b></p> <p><b>0</b> onboard NVRAM</p> <p><b>1</b> disk drive</p>	<p>Touch <b>OK</b> to clear the message. If the message is not cleared, turn the device off, and then turn the device on.</p> <p><b>68.0, onboard NVRAM</b></p> <ol style="list-style-type: none"> <li>1. If the message persists, perform an NVRAM initialization (see <a href="#">Service mode functions on page 226</a>). Make sure that you read and understand the caution and the note in that section.</li> <li>2. If, after performing an NVRAM init, the message persists, replace the formatter (see <a href="#">Formatter on page 116</a>).</li> </ol> <p><b>68.1, disk drive</b></p> <ol style="list-style-type: none"> <li>1. Use the HP Web Jetadmin software to delete files from the disk drive.</li> <li>2. If, after deleting files from the disk drive, the message persists, reinitialize the disk drive (see <a href="#">Service mode functions on page 226</a>). Make sure that you read and understand the caution and the note in that section.</li> <li>3. If, after reinitializing the disk drive, the message persists, replace the disk drive (see <a href="#">Disk drive on page 113</a>).</li> </ol>
<p><b>68.X Storage error settings changed To continue touch OK</b></p>	<p>One or more device settings in NVRAM are invalid and have been reset to the factory-default settings. Printing can continue, but some unexpected functions might occur if an error occurred in permanent storage.</p>	<ol style="list-style-type: none"> <li>1. Touch <b>OK</b> to clear the message. If the message is not cleared, turn the device off, and then turn the device on.</li> <li>2. Check the device settings to determine which settings have changed.</li> <li>3. Perform an NVRAM initialization (see <a href="#">Service mode functions on page 226</a>). Make sure that you read and understand the caution and the note in that section.</li> <li>4. If, after performing an NVRAM initialization, the message persists, replace the formatter (see <a href="#">Formatter on page 116</a>).</li> </ol>
<p><b>79.XXXX ERROR To continue turn off then on</b></p>	<p>A critical hardware error occurred.</p>	<ol style="list-style-type: none"> <li>1. Turn the device off, and then turn the device on.</li> <li>2. Go to <a href="http://www.hp.com/support/LJM3027mfp">www.hp.com/support/LJM3027mfp</a> or <a href="http://www.hp.com/support/LJM3035mfp">www.hp.com/support/LJM3035mfp</a> to check the latest firmware image version. If the latest firmware image version is newer than the one installed on the device, upgrade the device.</li> <li>3. Try printing a job from a different software program. If the job prints, go back to the first program and try printing</li> </ol>

**Table 6-1** Control-panel messages (continued)

Control panel message	Description	Recommended action
		<p>a different file. If the message appears only with a certain software program or print job, then the error is in the software program and not in the device. If the job fails to print using a different software program, then turn off the device and disconnect all cables that connect the device to the network or to a computer.</p> <ol style="list-style-type: none"> <li>Remove any DIMMs and EIO cards, and then turn the device on.</li> <li>If, after removing DIMMs and EIO cards, the device behaves normally, turn off the device and reinstall DIMMs and EIO cards one-by-one, turning off the device off and then on again each time you reinstall a DIMM or EIO card. If a certain DIMM or EIO card causes the message to reappear, replace the DIMM or EIO card.</li> <li>Reconnect all cables that connect the device to the network or to a computer.</li> <li>If the message persists, replace the formatter (see <a href="#">Formatter on page 116</a>).</li> </ol>
<b>8X.YYYY EIO ERROR To continue turn off then on</b>	The EIO accessory card has encountered a critical error, as specified by <b>YYYY</b> .	<ol style="list-style-type: none"> <li>Turn the device off, and then turn the device on.</li> <li>Turn the device off, reinstall the EIO accessory, and then turn the device on.</li> <li>Replace the EIO accessory.</li> </ol>
<b>8X.YYYY EMBEDDED JETDIRECT ERROR To continue turn off then on</b>	The embedded HP Jetdirect print server has encountered a critical error, as specified by <b>YYYY</b> .	<ol style="list-style-type: none"> <li>Turn the device off, and then turn the device on.</li> <li>Go to <a href="http://www.hp.com/support/LJM3027mfp">www.hp.com/support/LJM3027mfp</a> or <a href="http://www.hp.com/support/LJM3035mfp">www.hp.com/support/LJM3035mfp</a> to check the latest firmware image version. If the latest firmware image version is newer than the one installed on the device, upgrade the device, if possible.</li> <li>If the message persists, replace the formatter (see <a href="#">Formatter on page 116</a>).</li> </ol>
<b>Action not currently available for Tray &lt;X&gt; Tray size cannot be any size/any custom</b>	A duplexed (2-sided) document was requested from a tray that is set to <b>Any size</b> or <b>Any custom</b> . Duplexing is not allowed from a tray configured to <b>Any size</b> or <b>Any custom</b> .	Select another tray or reconfigure the tray.
<b>Authentication Required</b>	Authentication has been enabled for this feature or destination. A user name and password are required.	Type the user name and password, or contact the network administrator.
<b>Authentication Required To Use This Feature</b>	A user name and password are required.	Type the user name and password, or contact the network administrator.


**Table 6-1** Control-panel messages (continued)

Control panel message	Description	Recommended action
<b>Cannot duplex close rear bin</b>	The device cannot print on both sides of the page if the rear output bin is open.	Close the rear output bin.
<b>Check the glass and remove any paper To continue press Start</b>	A digital send or copy job has been performed from the scanner glass, but the original document needs to be removed.	Remove the original document from the scanner glass, and then press <b>Start</b> .
<b>Chosen personality not available To continue touch OK</b>	A print job requested a language (personality) that is not available for this device. The job will not print and will be cleared from memory.	Print the job by using a printer driver for a different printer language, or add the requested language to the device (if possible). To see a list of available personalities, print a configuration page. See <a href="#">Use information pages on page 45</a> .
<b>CLEANING DISK X% COMPLETE</b> alternates with <b>DO NOT POWER OFF</b>	The memory disk is being cleaned. This process might take up to an hour. During this time, no jobs can be printed.	Do not turn off the device. Wait for the process to complete.  The device automatically restarts at the end of the cleaning process.
<b>Close front door</b>	The front door is open.	Close the front door. If the message persists, make sure that the front-door microswitch is installed correctly and that it is operational.
<b>Digital send communication error</b>	The device is unable to connect to the Digital Sending Software.	Make sure that the Digital Sending Software is running and that the Digital Sending Software and the device are on the network.
<b>Document feeder cover open</b>	The document feeder (ADF) cover is open.	Close the document feeder (ADF) cover. Follow the instructions in the onscreen dialog box.
<b>Document feeder empty</b>	The document feeder (ADF) does not contain paper.	Load paper in the document feeder (ADF) input tray.
<b>Document feeder pick error</b>	The document feeder (ADF) experienced an error while picking media.	Make sure that your original contains no more than 50 pages. Follow the instructions in the onscreen dialog box.  If this message appears frequently, clean the ADF roller assembly (see <a href="#">Clean the ADF on page 40</a> ). If, after cleaning the ADF roller assembly, the message persists, replace the ADF roller assembly.
<b>E-mail Gateway did not accept the job because the attachment was too large.</b>	The scanned documents have exceeded the size limit of the e-mail gateway.	Send the job again using a lower resolution, smaller file size setting, or fewer pages. See <a href="#">Use the embedded Web server on page 49</a> to learn how to reduce the size of the attachment. Contact the network administrator to enable sending the scanned documents by using multiple e-mails.
<b>E-mail Gateway did not respond. Job failed.</b>	A gateway has exceeded the time out value.	Validate the SMTP IP address. See the user guide.
<b>E-mail Gateway rejected the job because of the addressing information. Job failed.</b>	One or more of the e-mail addresses is incorrect.	Send the job again with the correct addresses.
<b>Error executing Digital Send job. Job failed.</b>	A digital send job has failed and cannot be delivered.	Try to send the job again.
<b>HP digital sending: delivery error</b>	A digital send job has failed and cannot be delivered.	Send the job again.

**Table 6-1** Control-panel messages (continued)

Control panel message	Description	Recommended action
<b>Initializing scanner</b>	The device is initializing the scanner.	Wait for the control-panel display to show <b>Ready</b> .
<b>Install black cartridge</b>	The device detects the print cartridge by detecting a voltage differential within the cartridge. The photo-conductive drum connected to the high-voltage power supply provides the reference with which to measure the differential.	<ol style="list-style-type: none"> <li>1. Verify that a print cartridge is installed in the device.</li> <li>2. Verify that the drum ground connector on the high-voltage power supply is correctly seated on the mechanical connector.</li> <li>3. Verify that the cartridge mechanism functions correctly. When the cartridge is removed from the device, the mechanism swings outward, away from the chassis. When the cartridge is inserted into the device, the mechanism closes toward the chassis.</li> </ol>
<b>Insufficient memory to load fonts/data &lt;device&gt; To continue touch OK</b>	The device does not have enough memory to load the data (for example, fonts or macros) from the location specified.	Touch <b>OK</b> to continue without this information. If the message persists, add more memory.
<b>Jam in document feeder</b>	Media is jammed in the document feeder (ADF).	<p>Remove jammed media from the document feeder (ADF). Follow the instructions in the onscreen dialog box, or see <a href="#">Clear jams from the ADF on page 217</a>.</p> <p>If the message persists after all jams have been cleared, a sensor might be stuck or broken. Check the sensors in the ADF. If a sensor is broken, replace the ADF assembly (see <a href="#">ADF assembly on page 80</a>).</p>
<b>Load Tray 1: &lt;type&gt;, &lt;size&gt;</b>	The tray is empty or configured for a different size than the size requested.	Follow the instructions in the onscreen dialog box. If the message persists, make sure that the tray 1 media-present sensor (PS902) is operational.
<b>Manually feed: &lt;type&gt;, &lt;size&gt;</b>	The specified job requires manual feed from tray 1.	<p>Load the requested media into tray 1.</p> <p>To override the message, touch <b>OK</b> to use a type and size of media that is available in another tray.</p>
<b>Non HP supply installed Economode disabled</b>	A non-HP supply or a refilled HP supply has been installed.	Follow the instructions in the onscreen dialog box.
<b>Order black cartridge</b>	The number of pages remaining for the print cartridge has reached the low threshold. The device was set to stop printing when a supply needs to be ordered.	<p>Touch <b>OK</b> to continue printing until the print cartridge is out of toner.</p> <p>To order a new print cartridge, see <a href="#">Order parts, accessories, and supplies on page 314</a>.</p>
<b>Output bin &lt;X&gt; full</b>	The specified output bin is full, and printing cannot continue.	Empty the bin to continue printing.
<b>Password or name is incorrect. Please enter correct login.</b>	The user name or password was typed incorrectly.	Retype the user name and password.
<b>PIN is incorrect. Please re-enter PIN.</b>	The PIN was typed incorrectly.	Retype the PIN.

**Table 6-1** Control-panel messages (continued)

Control panel message	Description	Recommended action
<b>Please turn device off and install hard disk.</b>	The requested job requires a hard disk, but the device does not have a hard disk installed.	Turn the device off and install a hard disk.
<b>Replace black cartridge</b>	The print cartridge is out of toner.   <b>NOTE</b> Depending on how the device is configured, this message might appear when it is time to order a new print cartridge. In this case, the message indicates that you can touch <b>OK</b> to continue printing.	Replace the print cartridge. (See <a href="#">Change the print cartridge on page 27.</a> )
<b>Sanitizing disk &lt;X&gt;% complete Do not power off</b>	The hard disk is being cleaned.	Contact the network administrator.
<b>Scan failure Press Start to rescan</b>	The scan was unsuccessful and the document needs to be rescanned.	If necessary, reposition the document to rescan it, and then press <b>Start</b> .
<b>SMTP gateway not responding</b>	The SMTP gateway has exceeded a time out value.	Verify the e-mail server address. See the user guide. Contact the network administrator.
<b>The digital sending service at &lt;IP Address&gt; does not service this MFP. Contact administrator.</b>	The device cannot communicate with the specified IP address.	Verify the IP address. Contact the network administrator.
<b>The digital sending service must be upgraded to support this version of the MFP firmware. Contact administrator.</b>	The digital sending service is not supported by the device firmware version that is currently installed.	Check the firmware version. Contact the network administrator.
<b>The folder you have entered is not a valid folder.</b>	The folder name was entered incorrectly, or the folder does not exist.	Re-enter the folder name correctly, or add the folder.
<b>Tray XX Open or Empty</b>	The tray indicated is either open or empty.	Load or close the tray. Printing can continue from another tray.
<b>Unable to connect</b>	A network connection is not detected.	Verify the network connection. Contact the network administrator.
<b>Unable to copy</b>	The device was unable to copy the document. If this message persists, contact an HP-authorized service or support provider. (See the HP support flyer, or go to <a href="http://www.hp.com/support/LJM3027mfp">www.hp.com/support/LJM3027mfp</a> or <a href="http://www.hp.com/support/LJM3035mfp">www.hp.com/support/LJM3035mfp</a> .)	To temporarily hide this message in order to fax or send to e-mail, touch <b>Hide</b> .
<b>Unable to send</b>	A network connection is not detected.	Verify the network connection. Contact the network administrator.
<b>Unable to send fax. Please check fax configuration.</b>	The device is unable to send a fax job.	Contact the network administrator. Also see the <i>HP LaserJet Analog Fax Accessory 300 User Guide</i> for additional configuration and troubleshooting information.
<b>Unable to store job</b>	The device is unable to store a job.	To temporarily hide this message in order to fax or send to e-mail, touch <b>Hide</b> . If this message persists, replace the disk drive (see <a href="#">Disk drive on page 113</a> ).
<b>User name or password is incorrect. Please re-enter.</b>	The user name or password was typed incorrectly.	Retype the user name and password.
<b>User name, job name, or PIN is missing.</b>	One or more of the required items has not been selected or typed.	Select the correct user name and job name, and type the correct PIN.

## Clear jams

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

### Common causes of jams

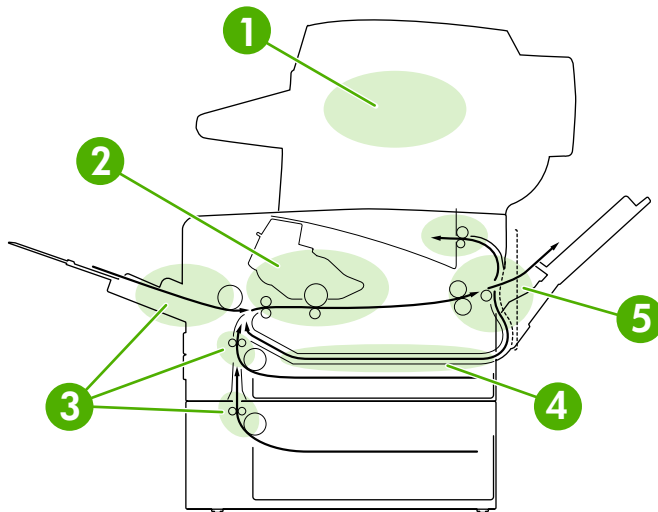
The device is jammed.<sup>1</sup>


Cause	Solution
The media does not meet specifications.	Use only media that meets HP specifications. See <a href="#">Media specifications on page 15</a> .
A component is installed incorrectly.	Verify that the print cartridge is correctly installed.
You are using media that has already passed through a device or copier.	Do not use media that has been previously printed on or copied.
An input tray is loaded incorrectly.	Remove any excess media from the input tray. Make sure that the stack is below the maximum stack height mark in the tray. See <a href="#">Install trays on page 23</a> .
The media is skewed.	The input-tray guides are not adjusted correctly. Adjust them so they hold the stack firmly in place without bending it.
The media is binding or sticking together.	Remove the media, flex it, rotate it 180°, or flip it over. Reload the media into the input tray.
The media is removed before it settles into the output bin.	Reset the device. Wait until the page completely settles in the output bin before removing it.
During two-sided printing, you removed the paper before the second side of the document was printed.	Reset the device and print the document again. Wait until the page completely settles in the output bin before removing it.
The media is in poor condition.	Replace the media.
The internal tray rollers are not picking up the media.	If the media is heavier than 120 g/m <sup>2</sup> (32 lb), it might not be picked from the tray.
The media has rough or jagged edges.	Replace the media.
The media is perforated or embossed.	Perforated or embossed media does not separate easily. Feed single sheets from tray 1.
Device supply items have reached the end of their useful life.	Check the device control panel for messages prompting you to replace supplies, or print a supplies status page to verify the remaining life of the supplies. See <a href="#">Use information pages on page 45</a> .
Paper was not stored correctly.	Replace the paper in the trays. Paper should be stored in the original packaging in a controlled environment.
Not all device packing material was removed.	Verify that the packing tape, cardboard, and plastic shipping locks have been removed from the device.

<sup>1</sup> If the device still continues to jam, contact HP Customer Support or your authorized HP service provider.

## Jam locations

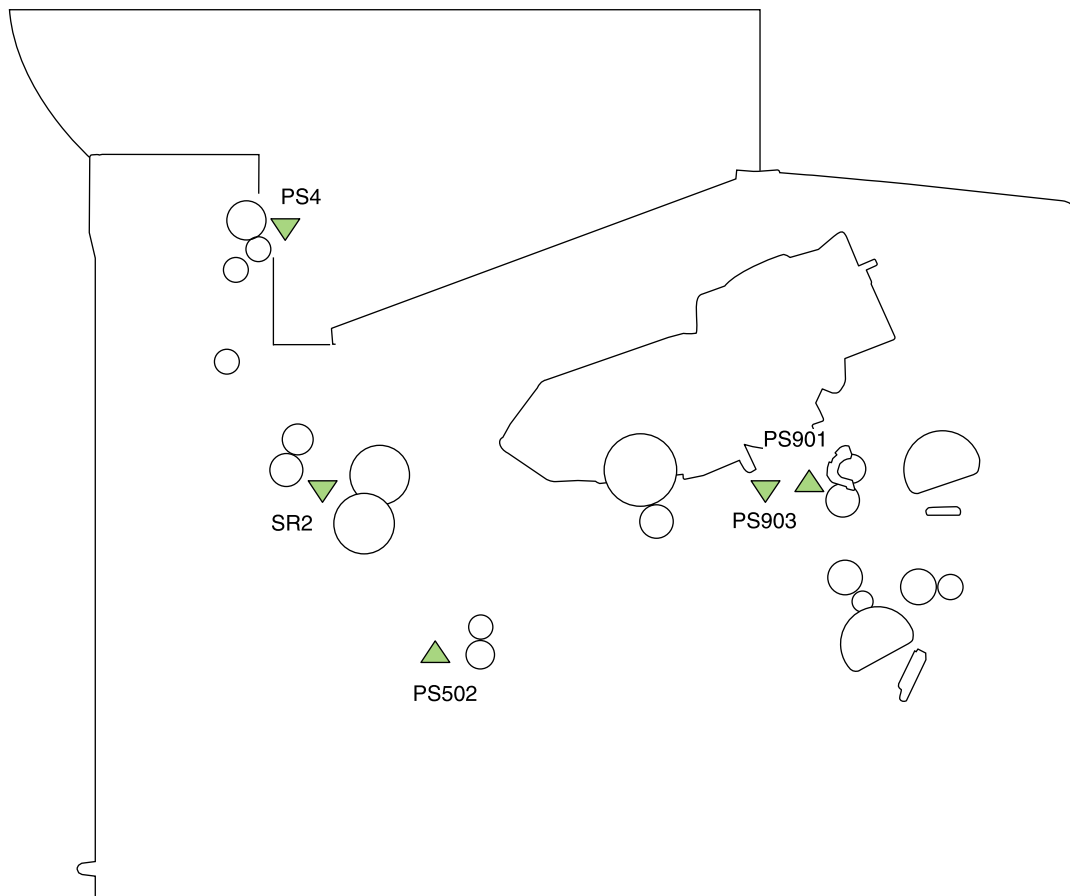
Use this illustration to locate media jams in the device. For instructions about clearing jams, see the section listed for each jam location.



1	Automatic document feeder (ADF)	<p>See <a href="#">Clear jams from the ADF on page 217</a>.</p> <p> <b>NOTE</b> If documents jam frequently in the ADF, make sure that the ADF input tray is installed correctly (see <a href="#">Figure 5-5 Reinstalling the ADF input tray on page 83</a>). ADF jams and skew can result from incorrect reinstallation.</p>
2	Print cartridge	See <a href="#">Clear jams from the print-cartridge area on page 219</a> .
3	Input trays	See <a href="#">Clear jams from the input-tray areas on page 220</a> .
4	Duplex path (for two-sided printing)	See <a href="#">Clear jams from the duplexer on page 222</a> .
5	Output bins	See <a href="#">Clear jams from the output-bin areas on page 223</a> .

## Jam detection

The device contains five sensors that verify whether or not media is transported smoothly through the device. [Figure 6-2 Jam-detection sensors on page 216](#) shows the sensors.



**Figure 6-2** Jam-detection sensors

PS901	Top-of-page sensor	SR2	Delivery sensor
PS903	Media-width sensor	PS4	Output-bin-full sensor
PS502	Duplex sensor		

The CPU on the ECU identifies jams by checking whether media is present during the printing process against media-transport timing, which is stored in memory. When the CPU determines that a jam has occurred, it stops the printing operation and sends a signal to the formatter so that the touchscreen can show an error message.

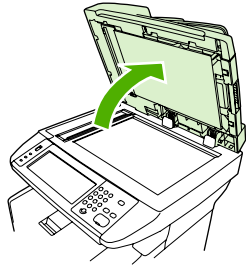
The CPU determines a **residual-media jam** if one or more of the sensors PS901, SR2, PS502, or PS903 detects that media is present after power-on or when an open door (for example, the cartridge door) is shut.

The CPU determines a **delivery-delay jam** if PS4 does not detect the leading edge of the media within a specified time after PS901 detects the leading edge.

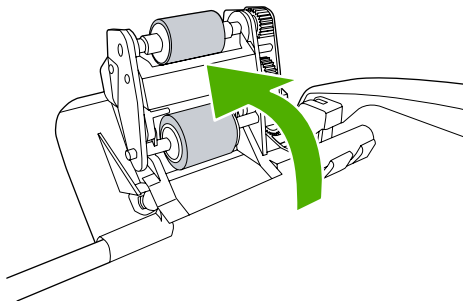


## Clear jams from the ADF

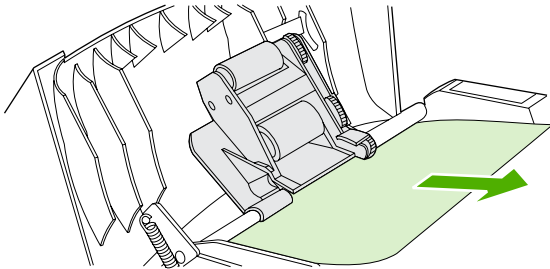
1. Open the ADF cover.



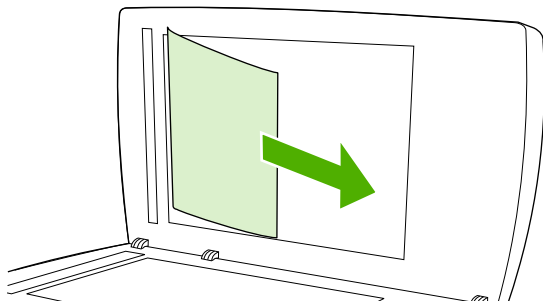
2. Lifting the green lever, rotate the pick mechanism until it stays open.



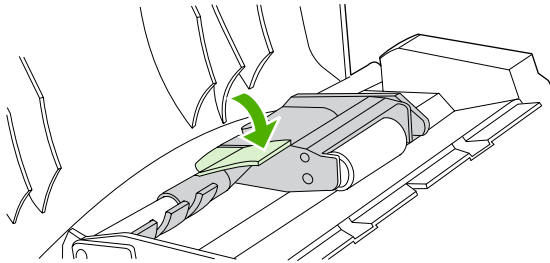
3. Gently try to remove the page without tearing it. If you feel resistance, go to the next step.



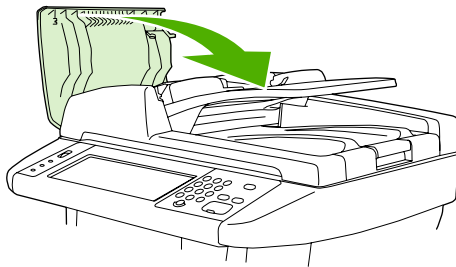
4. Open the scanner lid and gently loosen the media by using both hands. When the media is free, gently pull it out in the direction shown.



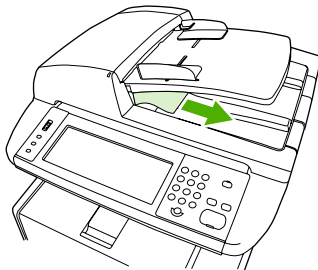
5. Close the scanner lid, and then lower the roller assembly.



6. Close the ADF lid.



7. If any media is visible in the output bin area, gently pull it out.



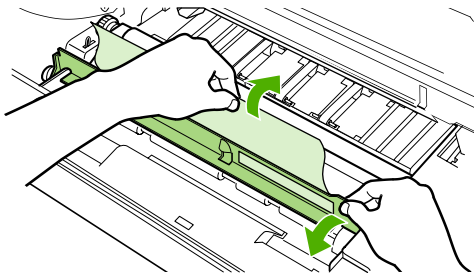
## Clear jams from the print-cartridge area

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



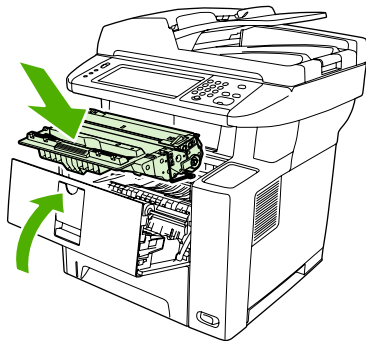
**CAUTION** To prevent damage to the print cartridge, do not expose it to light for more than a few minutes.

2. Open the plate, and then slowly pull the media out of the device. Be careful to not tear the media.



**CAUTION** Avoid spilling loose toner. Use a dry, lint-free cloth, to clean any toner that might have fallen into the device. If loose toner falls into the device, it might cause temporary problems with print quality. Loose toner should clear from the paper path after a few pages are printed. If toner gets on your clothing, wipe it off with a dry cloth and wash clothing in cold water. (Hot water sets toner into fabric.)

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



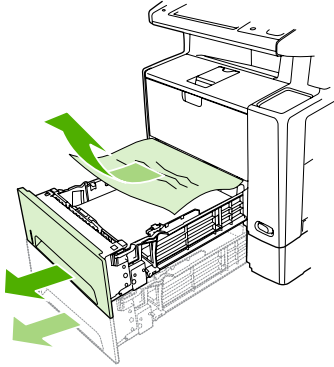
If a jam message persists, there is still media in the device. Look for media in other locations.

## Clear jams from the input-tray areas

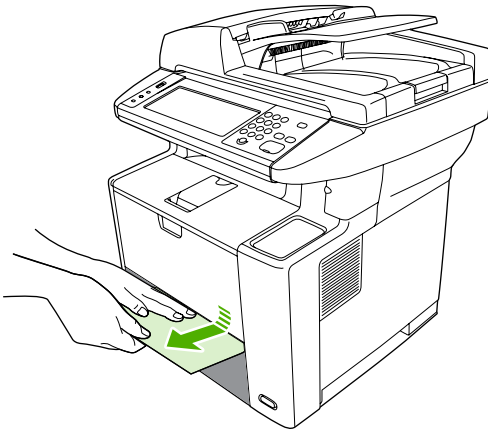


**NOTE** To remove media from the tray 1 area, slowly pull the media out of the device. For all other trays, complete the following procedure.

1. Slide the tray out of the device, and remove any damaged paper from the tray.

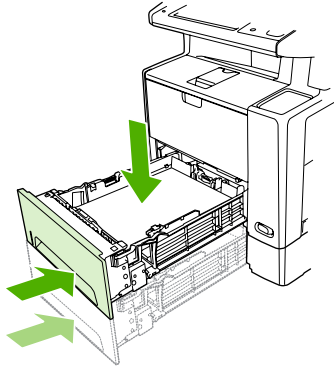


2. If the edge of the paper is visible in the feed area, slowly pull the paper down and out of the device. If the paper is not visible, look in the front door area.



**NOTE** Do not force the paper if it will not move easily. If the paper is stuck in a tray, try removing it through the tray above (if applicable) or through the front door area.

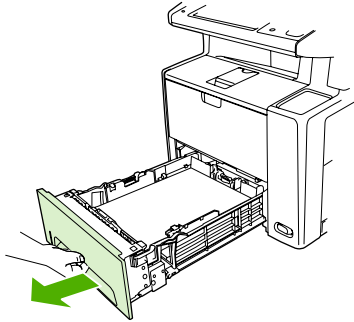
3. Before replacing the tray, make sure the paper is flat in the tray at all four corners and below the tabs on the guides.



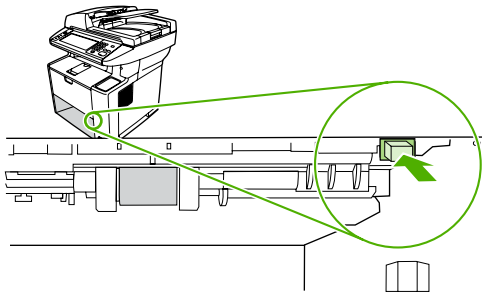
4. Open and close the front door, and then touch **OK** on the touchscreen to clear the jam message.  
If a jam message persists, there is still media in the device. Look for media in other locations.

## Clear jams from the duplexer

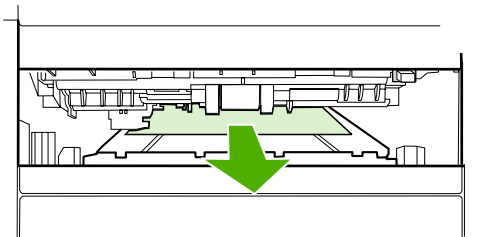
1. Remove tray 2 from the device.



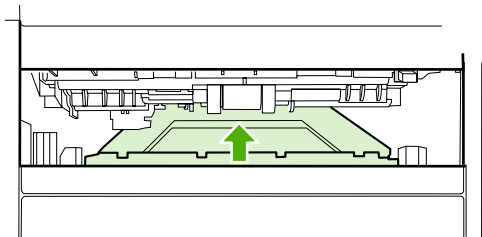
2. Push the green button on the top right front of the tray 2 opening to access the duplex paper path.



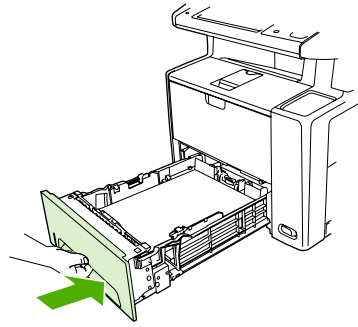
3. Reach in and pull out the jammed paper.



4. Push the bottom of the duplex access plate back up until it clicks into place on both sides (both sides need to be engaged).



5. Reinstall tray 2.



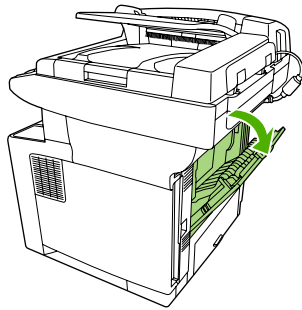
6. Open and close the front door, and then touch **OK** on the touchscreen to clear the jam message.  
If a jam message persists, there is still media in the device. Look for media in other locations.

## Clear jams from the output-bin areas

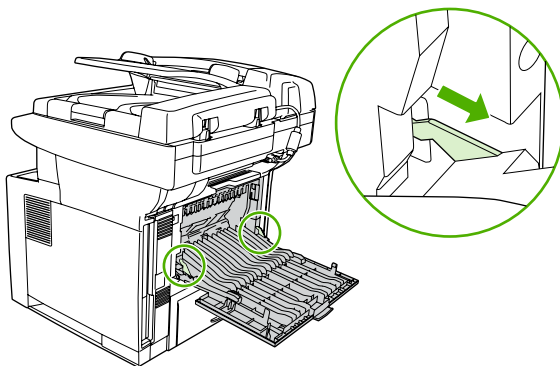


**NOTE** If media is jammed in the top output area, but most of the media is still inside the device, it is best to remove it through the rear door.

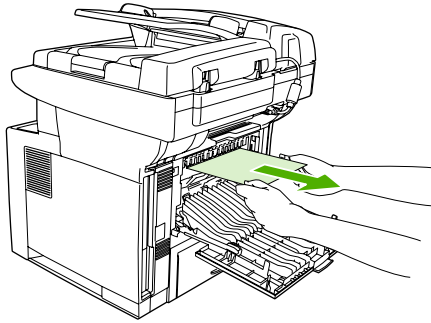
1. Open the rear output bin.



2. Push down on the bin door to unclip the door stops, and then let the door drop open.

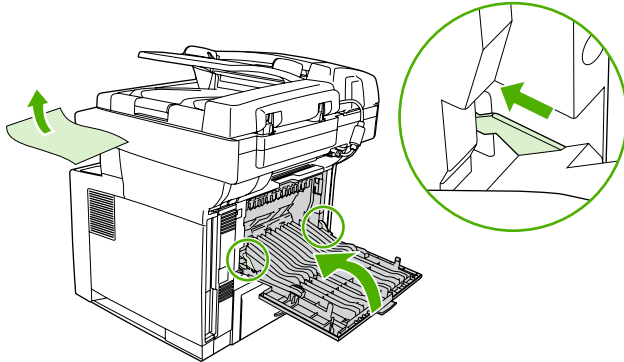


3. Grasp both sides of the media, and slowly pull the media out of the device. (There might be loose toner on the media. Be careful not to spill it on yourself or into the device.)



**NOTE** If media is difficult to remove, try opening the front door and removing the print cartridge to release pressure on the media.

4. Close the rear bin.



5. Open and close the front door, and then touch **OK** on the touchscreen to clear the jam message. If a jam message persists, there is still media in the device. Look for media in other locations.



# Interface troubleshooting

## Communications checks



---

**NOTE** Communication problems are normally the customer's responsibility. Time spent attempting to resolve these problems might not be covered by the Hewlett-Packard product warranty. Refer the customer to the network administrator for assistance in troubleshooting network problems.

---

## LAN hardware test

1. To perform a LAN hardware test, touch [Administration](#).
2. Touch [Initial Setup](#).
3. Touch [Networking and I/O](#).
4. Touch [Embedded Jetdirect](#).
5. Touch [Diagnostics](#).
6. Touch [LAN HW Test](#).
7. Touch [Yes](#) to run the test.

If the test fails, replace the formatter (see [Formatter on page 116](#)).



---

**NOTE** For a complete list of Jetdirect menus, see the user guide.

---

# Service mode functions

## Boot-up key sequences

Use boot-up key sequences to accomplish the following service functions:

- **Select language.**
- **Cold reset.** A cold reset unlocks menus that have been previously locked and sets all control panel menu items (including EIO settings) back to the factory defaults. However, it *does not* clear the values in the **SERVICE** menu (such as the serial number and page counts).



---

**NOTE** Before performing a cold reset, print a configuration page (see [Use information pages on page 45](#)). Use the information on the configuration page to reset any customer-set device configuration values that the cold reset procedure changes.

---

- **Embedded LAN enable.**
- **Embedded LAN disable.**
- **Initialize disks.**



---

**CAUTION** A hard-disk initialization erases and reformats the device hard disk. Perform a hard-disk initialization only if an error code on the control panel indicates a disk error. Always try initializing the hard disk before replacing it.

---



---

**NOTE** Before performing a hard-disk initialization, print a configuration page (see [Use information pages on page 45](#)). Use the information on the configuration page to reset any customer-set device configuration values that the hard-disk initialization procedure changes.

---

- **Skip disk-load.** When the power is turned on the device begins the power-on sequence. By performing a skip disk-load, you can cause the device to resume the power-on sequence but not to recognize the hard disk. This can be helpful in isolating hard-disk errors.
- **NVRAM init.**



---

**CAUTION** Initializing the NVRAM resets the serial number, the event log, the page counts, and embedded EIO and resets service menu values to factory defaults. NVRAM initialization does *not* reset the model number, serial number, service ID (born-on date), usage data, or the error log.

Use the service menu to restore the serial number and page counts. Also reconfigure any computers that print to this device so that the computers can recognize the device. Initialize the NVRAM only when absolutely necessary. In most situations, use a cold reset rather than a NVRAM initialization to reset device settings and retain the values in the service menu.



---

**NOTE** Before performing a NVRAM initialization, print a configuration page (see [Use information pages on page 45](#)). Use the information on the configuration page to reset any customer-set device configuration values that the NVRAM initialization procedure changes. Take special note of the *total page count*, *maintenance count*, and the *serial number*.

---

- **Manufacturing.**
- **Skip calibration.**

### Low-level boot-up key sequence for selecting a language, performing a cold reset, and enabling and disabling embedded LAN

1. Turn off the device.
2. Turn on the device.
3. When the control-panel display shows that the device has begun to count the memory, press and hold the **6** key.
4. When the LED lights turn on, release the **6** key.
5. Use the **3** and **9** keys to scroll through the options (select language, cold reset, embedded LAN enable, and embedded LAN disable) and then press the **6** key to select the option you want.

The device continues the power-on sequence.

### Medium-level boot-up key sequence for initializing disks

1. Turn off the device.
2. Turn on the device.
3. When the control-panel display shows that the device has begun to count the memory, press and hold the **5** key.
4. When the LED lights turn on, release the **5** key.




---

**NOTE** Initialize disks is the only option available when using the medium-level boot-up key sequence.

---

5. Press the **6** key to select **Initialize disks**.

The device continues the power-on sequence.

### High-level boot-up key sequence for NVRAM initialization, manufacturing, and skipping disk-load and calibration

1. Turn off the device.
2. Turn on the device.
3. When the control-panel display shows that the device has begun to count the memory, press and hold the **9** key.
4. When the LED lights turn on, release the **9** key.
5. Use the **3** and **9** keys to scroll through the options (skip disk-load, NVRAM init, manufacturing, and skip calibration) and then press the **6** key to select the option you want.

The device continues the power-on sequence.

## Service menu

Authorized HP service technicians can use this menu to gain access to device settings that are reserved for service personnel. The **SERVICE** menu is protected by use of a personal identification number (PIN). When you select **SERVICE** from the list of menus, you are prompted to type an eight-digit PIN code.



**NOTE** The device automatically exits the **SERVICE** menu after about one minute if no menu items are selected or changed.

1. Touch **Administration**.
2. Touch **Service**.
3. Enter the service PIN code and then touch **OK**. Use the PIN code 11303506 for the HP LaserJet M3027/M3035 Series MFP.
4. Use the control panel to select the menu item you want.
  - **Clear event log**. Select this item to clear (reset to zero) the internal event log.
  - **Total page count**. Select this item to set the total number of pages that have been printed to-date. Typically this is only required when a new formatter is installed.
  - **Serial number**. Select this item to update the serial number if you replace the formatter.
  - **Service ID**. Select this item to specify the date when the device was first used, rather than the date when a replacement formatter is installed. See [Service ID on page 228](#).
  - **Cold reset**. Select this item to reset the default paper size when you replace the formatter or restore factory settings (see [Boot-up key sequences on page 226](#)). When you replace a formatter or restore factory settings in a country/region that uses A4 as the standard paper size, use this item to reset the default paper size to A4. Letter and A4 are the only cold-reset values available.

## Service ID

This information appears on the configuration page (see [Use information pages on page 45](#)), which eliminates the need for customers to keep paper receipts for proof of the warranty. Because the device does not have an internal clock, the availability of the service ID date depends on the device being connected to a source that can provide the date, in this case a time server on the same network as the device. When the device is not connected to a date source, the service ID is not available, and **00000** appears on the configuration page.

## Restore the service ID

If you replace the formatter, the service ID is lost. Use this menu item to reset the value to the date that the device was first used. The date format is YYDDD. Use the following procedure to calculate the date.

1. To calculate YY, subtract 1990 from the calendar year. For instance, if the device was first used in 2002, calculate YY as follows:  $2002 - 1990 = 12$  (YY = 12).
2. To calculate DDD, use the following formula:  $30 (\text{calendar month} - 1) + \text{calendar day} = \text{DDD}$ . If the calendar day is 31, use 30 instead. For instance, if the printer was first used on October 17, calculate DDD as follows:
  - a. Subtract 1 from 10 (October is the tenth month of the year):  $10 - 1 = 9$ .
  - b. Multiply 9 by 30:  $9 \times 30 = 270$ .
  - c. Add 17 to 270:  $270 + 17 = 287$  (DDD = 287).

## Convert the service ID to an actual date

You can use the device service ID number to determine whether the device is still under warranty. Use the following procedure to convert the service ID into the installation date.

1. Add 1990 to YY to determine the actual year that the device was installed.
2. Divide DDD by 30 and add 1 to the remainder. The total is the month.
3. The remainder from the calculation in step 2 is the day of the month.

Using the Service ID 12287 as an example, the date conversion is as follows:

- $12 + 1990 = 2002$ , so the year is 2002.
- $287 \text{ divided by } 30 = 9 \text{ with a remainder of } 17$ . Add 1 to 9 to get 10 so the month is October.
- The remainder (from the above calculation) is 17, so that is the day of the month.
- The complete date is 17-October-2002.

A six-day grace period is built into the date system.

# Troubleshooting tools

## Control-panel menus

Touch **Administration** to open the control-panel menus. Use the scroll bar on the control panel to scroll through the menus. Touching a menu item opens the menu. The high-level menus appear in the following order:

---

Main menu	Information menu
	Default Job Options menu
	Time/Scheduling menu
	Management menu
	Initial Setup menu
	Device Behavior menu
	Print Quality menu
	Troubleshooting menu
	Resets menu
	Service menu


---

## Print Quality menu

Use the **Optimize** submenu of the **Print Quality** menu to troubleshoot print-quality issues.

**Table 6-2** Print Quality menu

---

Menu item	Sub-menu item	Values	Description
Optimize	High Transfer	Normal (default) Increased	Set <b>High Transfer</b> to <b>Increased</b> if parts of the printed image appear to have extra toner.
	More Separation	Off (default) On	Set <b>More Separation</b> to <b>On</b> if media repeatedly jams in the print cartridge when printing single-sided print jobs.   <b>NOTE</b> When <b>More Separation</b> is set to <b>On</b> , a print defect across the width of the page near the leading edge might be noticeable.
	Line Detail	Off (default) On	Set <b>Line Detail</b> to <b>On</b> if printed lines and text are blurred.
	Restore Optimize	Restore (button)	Reset all the <b>Optimize</b> parameters to the factory default settings.

---

## Troubleshooting menu

Administrators can use this menu to isolate parts and to troubleshoot jam and print-quality issues.

The following section lists the settings and their possible values in the **Troubleshooting** menu.

**Table 6-3** Troubleshooting menu

Menu item	Sub-menu item	Values	Description
Event Log		Print (button)	Use this feature to show the 50 most recent events in the event log.  Touch <b>Print</b> to print the full event log.
Calibrate Scanner		Calibrate	Use this feature to compensate for offsets in the scanner imaging system (carriage head) for ADF and flatbed scans.  You might need to calibrate the scanner if it is not capturing the correct sections of scanned documents.
Fax T.30 Trace	T.30 Report		Use this feature to print or configure the fax T.30 trace report. T.30 is the standard that specifies handshaking, protocols, and error correction between fax machines.
	When to Print Report	Never auto print	
		Print after any fax job	
		Print after fax send jobs	
		Print after any fax error	
		Print after send errors only	
		Print after receive errors only	
Fax Transmit Signal Loss		A value between 0 and 30.	Use this feature to set loss levels to compensate for phone line signal loss. You should not modify this setting unless requested to do so by an HP service representative because it could cause the fax to stop functioning.
Fax V.34		Normal (default)	Use this feature to disable V.34 modulations if several fax failures have occurred or if phone line conditions require it.
		Off	
Fax Speaker Mode		Normal (default)	This feature is used by a service technician to evaluate and diagnose fax issues by listening to the sounds of fax modulations.
		Diagnostic	

**Table 6-3** Troubleshooting menu (continued)

Menu item	Sub-menu item	Values	Description
Paper Path Test	Test Page	Print (button)	Generate a test page for testing paper handling features. You can define the path that is used for the test in order to test specific paper paths.
	Source	All trays	Specify whether the test page will be printed from all trays or from a specific tray.
		Tray 1	
		Tray 2	
		(Additional trays are shown, if applicable.)	
Duplex	Off (default) On	Select whether the duplexer should be included in the Paper Path test.	
Copies	1 (default)	Select how many pages should be sent from the specified source as part of the Paper Path test.	
	10		
	50		
	100		
	500		
Scanner Tests			This menu item is used by a service technician to diagnose potential problems with the device scanner.
Control Panel	LEDs		Use this feature to make sure the components of the control panel are functioning correctly.
	Display		
	Buttons		
	Touchscreen		



## Early-boot diagnostic test

The device runs several formatter self-tests when power is turned on. The sequence of tests and power-on events is shown below.

1. Power on
2. Early boot
3. Memory test
4. Initialization (formatter support package) ready
5. Power supplied by line to power supplies, fans on
6. Control panel
7. Control panel LEDs
8. Memory count
9. HP "blooming" logo

If the power-on sequence stops with no control panel display, check to see if any of the control-panel LEDs are on.

1. Note which LEDs are on and which LEDs are off and compare the combination to [Table 6-4 Early-boot diagnostic test on page 233](#).

**Table 6-4** Early-boot diagnostic test

Test	Ready	Data	Attention	Test	Ready	Data	Attention
A	–	–	–	E	–	–	+
B	+	–	–	F	+	–	+
C	–	+	–	G	–	+	+
D	+	+	–	H	+	+	+

2. Turn the device off.
3. Reseat the formatter and make sure that all formatter connectors are seated correctly.
4. Remove any installed memory DIMM (especially if the combination of LEDs indicated LED status D, E, F, G, or H).
5. Check control-panel connections.
6. Turn the device on.

If the power-on sequence fails again and the combination of LEDs is the same combination of LEDs as the first time it failed, replace the formatter.



**NOTE** If the device passes the early-boot diagnostic test, the formatter is working correctly and should not be replaced.

## Test pages

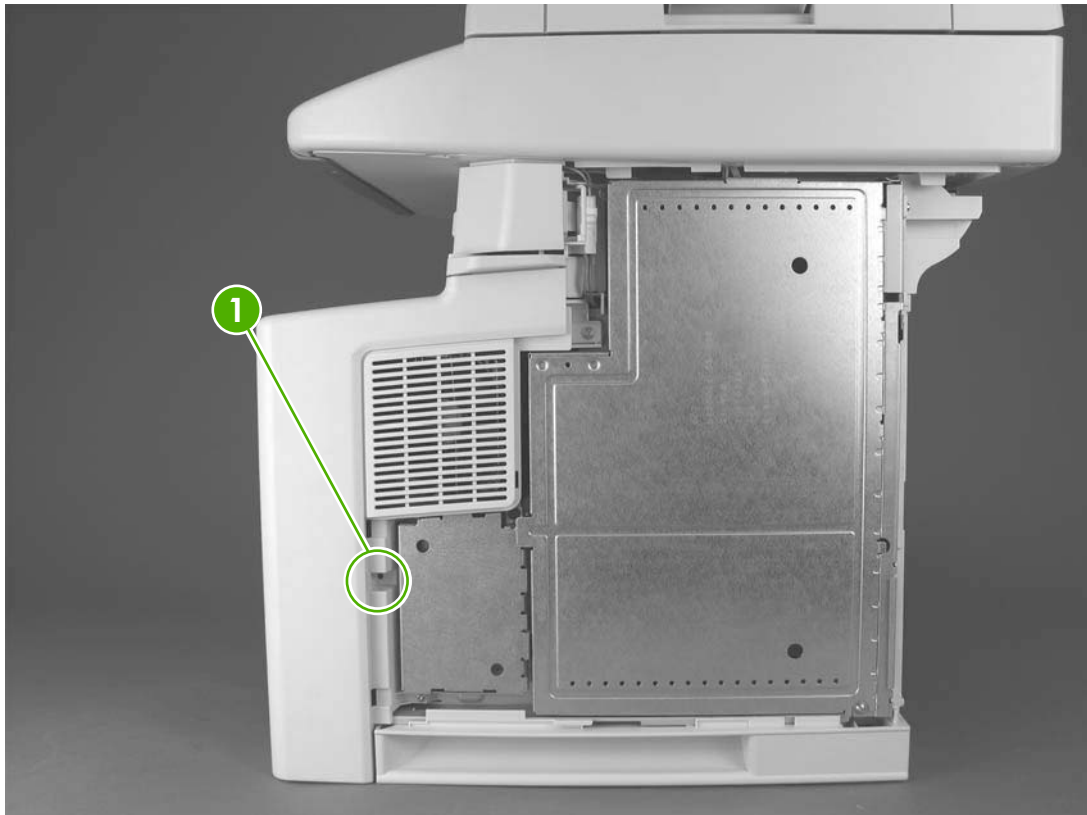
Printing test pages helps you determine whether or not the device engine and the formatter are functioning.



**NOTE** Information pages also can be used to solve device issues. See [Use information pages on page 45](#).

## Engine-test page

To verify that the device engine is functioning, print an engine-test page. To print an engine-test page, press the engine-test-page switch (callout 1).



**Figure 6-3** Locating the engine-test-page switch

The test page should have a series of horizontal lines. The test page prints from the last tray that the device pulled from, unless the device has been turned off and then turned on again since the most recent print job. If the device has been turned off and then on again since the most recent print job, then the page will print from tray 2. The device will continuously print test pages until the test-page switch is released. The device will not print a test page if it is in Sleep mode.



**NOTE** A damaged formatter might interfere with the engine test. If the engine test page does not print, try removing the formatter and performing the engine test again. If the engine test is then successful, the problem is in the formatter, the control panel, or the cable that connects them.

## Formatter test page

To verify that the formatter is functioning, print a configuration page. See [Use information pages on page 45](#).

## Embedded Web server

When the device is connected to the network, the embedded Web server is automatically available.

Use the embedded Web server to view device and network status and to manage printing functions from your computer instead of from the device control panel. The following are examples of what you can do through the embedded Web server:

- View device status information
- Specify the type of media that is loaded in each tray
- Determine the remaining life for all supplies and order new supplies
- View and change tray configurations
- View and change the device control panel menu configurations
- View and print internal pages
- Receive notification of device and supplies events
- View and change the network configuration

To use the embedded Web server, you must have Microsoft Internet Explorer 4 or later, or Netscape Navigator 4 or later. The embedded Web server works when the device is connected to an IP-based network. The embedded Web server does not support IPX-based device connections. You do not have to have Internet access to open and use the embedded Web server.

## Gaining access to the embedded Web server

In a supported Web browser on your computer, type the IP address for the device. (To find the IP address, print a configuration page.)



---

**NOTE** After you navigate to the URL, you can bookmark it so that you can return to it quickly in the future.

---

The embedded Web server has three tabs that contain settings for and information about the device: the **Information** tab, the **Settings** tab, and the **Network** tab. Click the tab that you want to view. See the following sections for more information about each tab.

### Information tab

The **Information** tab contains the following pages.

- **Device Status.** Shows the device status and the life that remains in HP supplies (0% indicates that a supply is empty). This page also shows the type and size of print media that is set for each tray. To change the default settings, click **Change Settings**.
- **Configuration page.** Shows the information that is contained on the device configuration page.
- **Supplies Status.** Shows the life that remains in HP supplies (0% represents that a supply is empty). This page also provides supplies part numbers. To order new supplies, click **Order Supplies** in

the **Other Links** area on the left side of the window. To visit this or any Web site, you must have Internet access.

- **Event log.** Shows a list of all device events and errors.
- **Usage page.** Shows a summary of the number of pages the device has printed, grouped by size and type (this page is only available if an optional hard disk is installed).
- **Device Information.** Shows the device network name, address, and model information. To change these entries, click **Device Information** on the **Settings** tab.

## Settings tab

Use the **Settings** tab to configure the device from your computer. The **Settings** tab can be password protected. If the device is on a network, always consult with the network administrator before changing settings on this tab.

The **Settings** tab contains the following pages.

- **Configure Device.** Use this page to configure all of the device settings. This page contains the traditional device menus: **Information**, **Paper Handling**, **Configure Device**, and **Diagnostics**.
- **Alerts.** (On networks only.) Use this page to establish e-mail alerts for various device and supplies events.
- **E-mail.** (On networks only.) Use this page in conjunction with the Alerts page to set up incoming and outgoing e-mail, as well as to establish e-mail alerts.
- **Security.** Use this page to set a password that must be typed to gain access to the **Settings** and **Networking** tabs. Also use it to enable and disable certain features of the embedded Web server.
- **Other Links.** Use this page to add or customize a link to another Web site. The link you establish appears in the **Other Links** area on all embedded Web server pages. The following permanent links always appear in the **Other Links** area: **HP Instant Support**, **Order Supplies**, and **Product Support**.
- **Device Information.** Use this page to name the device and assign an asset number to it. Use the name and e-mail address for the primary contact who will receive information about the device.
- **Language.** Use this page to specify the language in which the embedded Web server information appears.

## Networking tab

The network administrator uses this tab to control network-related settings for the device when it is connected to an IP-based network. This tab does not appear if the device is directly connected to a computer, or if the device is connected to a network with anything other than an HP Jetdirect print server.

## Other links

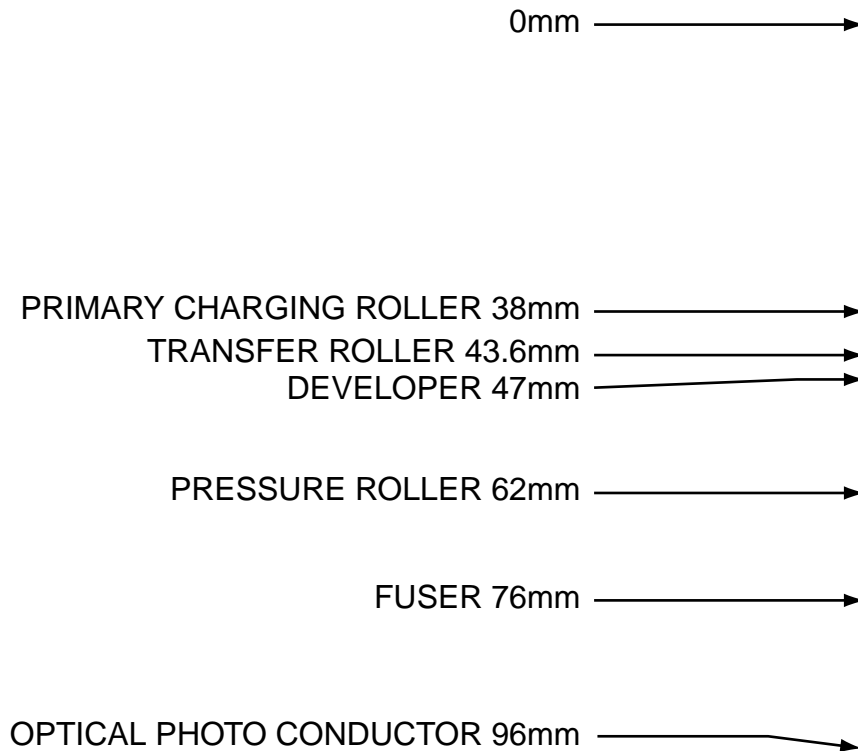
This section of the embedded Web server contains links that connect you to the Internet. You must have Internet access in order to use any of these links. If you use a dial-up connection and did not connect

when you first opened the embedded Web server, you must connect before you can visit these Web sites. Connecting to the Internet might require that you close your Web browser and reopen it.

- **HP Instant Support** connects to the HP Web site to help you find solutions. This service analyzes your device error log and configuration information to provide diagnostic and support information that is specific to your device.
- **Order Supplies** connects to the HP Web site so that you can order genuine HP supplies, such as print cartridges and paper.
- **Product Support** connects to the support site for the device, where you can search for help.

## Image defect ruler

Use a ruler to measure occurrences of repetitive image defects to help solve image quality problems. Place the ruler next to the first occurrence of the defect on the page. Find the distance between identical defects and use the figure below to identify the component that is causing the defect.



# Firmware updates and recovery

The device uses a flash-memory-based formatter that enables the firmware code to be updated when updated firmware is available. Flash memory also provides a method for product recovery if the installed firmware becomes corrupted or fails.

The device has remote firmware update (RFU) capability. Use the information in this section to upgrade the firmware. The overall process involves the following steps:

1. Determine the current level of firmware that is installed on the device.
2. Go to the HP Web site and find out whether a firmware update is available. If an update is available, download the latest firmware to your computer.
3. Transfer the new firmware from your computer to the device.



---

**NOTE** If after attempting to update the firmware code the device does not return to the **Ready** state, perform the following procedures:

Try the firmware update again.

Perform the NVRAM init procedure. See [Service mode functions on page 226](#).

If the device still does not reach the **Ready** state, replace the formatter. See [Formatter on page 116](#).

---

## Determine the current level of firmware

The current level of firmware is shown on the configuration page. To print a configuration page, touch [Administration](#), touch [Configuration/Status Pages](#), touch [Configuration Page](#), and then touch [Print](#).

The firmware datecode is listed in the section called **Device Information**. The firmware datecode has this format: YYYYMMDD XX.XXX.X. The first string of numbers is the date, where YYYY represents the year, MM represents the month, and DD represents the date. For example, a firmware datecode of that begins with 20040225 represents February 25, 2004.

## Download the new firmware from the HP Web site

To find the most recent firmware upgrade for the device, go to [www.hp.com/support/LJM3027mfp](http://www.hp.com/support/LJM3027mfp) or [www.hp.com/support/LJM3035mfp](http://www.hp.com/support/LJM3035mfp). This page provides instructions for downloading the new firmware version.

## Transfer the new firmware to the device

Use one of the following methods to update the firmware.

### Use FTP to upgrade the firmware on a network connection



**NOTE** The device can receive an .RFU file update as long as it is in a **Ready** state.

The elapsed time for an update depends on the I/O transfer time, as well as the time that it takes for the device to reinitialize. The I/O transfer time depends on a number of things, including the speed of the host computer that is sending the update. If the remote firmware update process is interrupted before the firmware is downloaded (while **Receiving Upgrade** appears on the control-panel display), the firmware file must be sent again. If power is lost during the flash DIMM update (while the **Performing Upgrade** message appears on the control-panel display), the update is interrupted and the message **Resend Upgrade** appears (in English only) on the control-panel display. In this case, you must send the upgrade by using the parallel port. Finally, any jobs that are ahead of the RFU job in the queue are completed before the update is processed.

Follow these instructions to perform the upgrade by using FTP.

1. Take note of the IP address on the HP Jetdirect page. The HP Jetdirect page is the second page that prints when you print the configuration page.



**NOTE** Before upgrading the firmware, make sure that the device is not in Sleep mode. Also make sure that any error messages are cleared from the control-panel display.

2. Open an MS-DOS command prompt on your computer.
3. Type: `ftp <TCP/IP ADDRESS>`. For example, if the TCP/IP address is 192.168.0.90, type `ftp 192.168.0.90`.
4. Press **Enter** on the keyboard.
5. When prompted for the user name, press **Enter**.
6. When prompted for the password, press **Enter**.
7. Type `bin` at the command prompt.
8. Press **Enter**. The message **200 Types set to I, Using binary mode to transfer files** appears in the command window.
9. Type `put <filename>` where `<filename>` is the name of the .RFU file that was downloaded from the Web, including the path. For example, type `put C:\LJ\M3035FW.RFU`, and then press **Enter**.



**NOTE** If the file name or path includes a space, you must enclose the file name or path in quotation marks. For example, type `put "C:\MY DOCUMENTS\LJ\M3035FW.RFU"`

The following series of messages appears in the command window:

**200 PORT command successful**

**150 Opening BINARY mode data connection**

**226 Ready**



## 226 Processing Job

### 226 Transfer complete

Then, a message that contains the transfer-speed information appears.

10. The download process begins and the firmware is updated on the device. This can take approximately five minutes. Let the process finish without further interaction with the device or computer.



---

**NOTE** The device automatically turns off and then on again after processing the upgrade.

---

11. At the command prompt, type: `bye` to exit the ftp command.
12. At the command prompt, type: `exit` to return to the Windows interface.

## Use HP Web Jetadmin to upgrade the firmware

This procedure requires that you install HP Web Jetadmin Version 7.0 or later on the computer. See [Use HP Web Jetadmin software on page 52](#). Complete the following steps to update a single device through HP Web Jetadmin after downloading the .RFU file from the HP Web site.

1. Start HP Web Jetadmin.
2. Open the **Device Management** folder in the drop-down list in the **Navigation** panel. Navigate to the **Device Lists** folder.
3. Expand the **Device Lists** folder and select **All Devices**. Locate the device in the list of devices, and then click to select it.

If you need to upgrade the firmware for more than one device, select all of them by pressing the **Ctrl** key as you click the name of each device.

4. Locate the drop-down box for **Device Tools** in the upper-right corner of the window. Select **Update Printer Firmware** from the action list.
5. If the name of the .RFU file is not listed in the **All Available Images** box, click **Browse** in the **Upload New Firmware Image** dialog box and navigate to the location of the .RFU file that you downloaded from the Web at the start of this procedure. If the filename is listed, select it.
6. Click **Upload** to move the .RFU file from your hard drive to the HP Web Jetadmin server. After the upload is complete, the browser window refreshes.
7. Select the .RFU file from the **Printer Firmware Update** drop-down menu.
8. Click **Update Firmware**. HP Web Jetadmin sends the selected .RFU file to the device. The control panel shows messages that indicate the progress of the upgrade. At the end of the upgrade process, the control panel shows the **Ready** message.

## Use MS-DOS commands to upgrade the firmware

To update the firmware by using a network connection, follow these instructions.

1. From a command prompt or in an MS-DOS window, type the following: `copy /B <FILENAME> \\<COMPUTERNAME>\<SHARENAME>`, where <FILENAME> is the name of the .RFU file (including the path), <COMPUTERNAME> is the name of the computer from which the device is being shared, and <SHARENAME> is the device share name. For example: `C:\>copy /b C:\M3035FW.RFU \\YOUR_SERVER\YOUR_COMPUTER.`



**NOTE** If the file name or path includes a space, you must enclose the file name or path in quotation marks. For example, type: `C:\>copy /b "C:\MY DOCUMENTS\M3035FW.RFU" \\YOUR_SERVER\YOUR_COMPUTER.`

2. Press **Enter** on the keyboard. The control panel shows a message that indicates the progress of the firmware upgrade. At the end of the upgrade process, the control panel shows the **Ready** message. The message **1 file(s) copied** appears on the computer screen.

## Upgrade the HP Jetdirect firmware

The HP Jetdirect network interface in the device has firmware that can be upgraded separately from the device firmware. This procedure requires that you install HP Web Jetadmin Version 7.0 or later on the computer. See [Use HP Web Jetadmin software on page 52](#). Complete the following steps to update the HP Jetdirect firmware by using HP Web Jetadmin.

1. Open the HP Web Jetadmin program.
2. Open the **Device Management** folder in the drop-down list in the **Navigation** panel. Navigate to the **Device Lists** folder.
3. Select the device that you want to update.
4. In the **Device Tools** drop-down list, select **Jetdirect Firmware Update**.
5. Under **Jetdirect firmware version** the HP Jetdirect model number and current firmware version are listed. Make a note of these.
6. Go to [www.hp.com/go/wja\\_firmware](http://www.hp.com/go/wja_firmware).
7. Scroll down to the list of HP Jetdirect model numbers and find the model number you wrote down.
8. Look at the current firmware version for the model, and see if it is later than the version you wrote down. If it is, right-click on the firmware link, and follow the instructions on the Web page to download the new firmware file. The file must be saved into the <drive>:\PROGRAM FILES\HP WEB JETADMIN\DOC\PLUGINS\HPWJA\FIRMWARE\JETDIRECT folder on the computer that is running the HP Web Jetadmin software.
9. In HP Web Jetadmin, return to the main device list and select the digital sender again.
10. In the **Device Tools** drop-down list, select **Jetdirect Firmware Update** again.
11. On the HP Jetdirect firmware page, the new firmware version is listed under **Jetdirect Firmware Available on HP Web Jetadmin**. Click the **Update Firmware Now** button to update the Jetdirect firmware.

# Troubleshoot general printing problems

## The device selects media from the wrong tray.

Cause	Solution
The tray selection in the software program might be incorrect.	For many software programs, the tray selection appears on the <b>Page Setup</b> menu within the program.  Remove any media in other trays to make the device select from the correct tray.  For Macintosh computers, use the HP LaserJet Utility to change the priority of the tray.
The configured size does not match the size of the media that is loaded in the tray.	Through the control panel, change the configured size to match the size of the media that is loaded in the tray.

## The device does not pull media from a tray.

Cause	Solution
The tray is empty.	Load media in the tray.
The paper guides are set incorrectly.	To set the guides correctly, see the user guide.  For the 500-sheet tray, make sure that the leading edge of the media stack is even. An uneven edge can prevent the lift plate from rising.

## Paper curls when it exits the device.

Cause	Solution
The paper curls when it exits to the top output bin.	Open the rear output bin to allow the paper to exit in a straight path through the device.  Turn over the paper that you are printing on.  Reduce the fusing temperature to reduce the curling. (See the user guide.)

## Print job is extremely slow.

Cause	Solution
The job might be very complex.	Reduce the complexity of the page or try adjusting the print-quality settings. If this problem occurs frequently, add memory to the device.
The maximum speed of the device cannot be exceeded even when more memory is added.	
Printing speeds might be automatically reduced when printing on custom-sized media.	
<b>Note:</b> Slower speeds are expected when printing on narrow paper, when printing from tray 1, or when using the HIGH 2 fuser mode.	

### Print job is extremely slow.

Cause	Solution
You are printing a PDF or PostScript (PS) file but are using a PCL printer driver.	Try using the PS printer driver rather than the PCL printer driver. (You can usually do this from a software program.)
In the printer driver, <b>Type is</b> set to card stock, heavy, rough, or bond paper.	In the printer driver, set the type to plain paper (see the user guide).  <b>Note:</b> If you change the setting to plain paper, the print job will print more quickly. However, if you are using heavy media, for best results leave the printer driver set to heavy even though printing might be slower.

### Print job prints on both sides of the paper.

Cause	Solution
The device is set for duplexing.	See the user guide to change the setting, or see the online Help.

### Print job contains only one page but the device also processes the back side of the page (the page comes part of the way out, and then goes back into the device).

Cause	Solution
The device is set for duplexing. Even if the print job contains only one page, the device also processes the back side.	See the user guide to change the setting, or see the online Help.  Do not try to pull the page out of the device before duplexing is complete. Jamming might result.

### Pages print, but are totally blank.

Cause	Solution
The sealing tape might still be in the print cartridge.	Remove the print cartridge and pull out the sealing tape. Reinstall the print cartridge.
The file might have blank pages.	Check the file to make sure that it does not contain blank pages.
The print cartridge is empty.	Replace the print cartridge.

### The device prints, but the text is wrong, garbled, or incomplete.

Cause	Solution
The device cable is loose or defective.	Disconnect the device cable and reconnect it. Try a print job that you know works. If possible, attach the cable and device to another computer and try a print job that you know works. Finally, try a new cable.

**The device prints, but the text is wrong, garbled, or incomplete.**

Cause	Solution
The device is on a network or sharing device and is not receiving a clear signal.	Disconnect the device from the network and use a USB cable to attach it directly to a computer. Print a job that you know works.
The wrong driver was selected in the software.	Check the software device-selection menu to make sure that the device is selected.
The software program is malfunctioning.	Try printing a job from another program.

**The device does not respond when you select Print in the software.**

Cause	Solution
The device is out of media.	Add media.
The device might be in the manual-feed mode.	Change the device from manual-feed mode.
The cable between the computer and the device is not connected correctly.	Disconnect and reconnect the cable.
The device cable is defective.	If possible, attach the cable to another computer and print a job that you know works. You might also try using a different cable.
The wrong device was selected in the software.	Check the software device selection menu to make sure that the correct device is selected.
The device might have a jam.	Clear any jams, paying careful attention to the duplexer area (if your model has a duplexer). See <a href="#">Clear jams on page 214</a> .
The software for the device is not configured for the printer port.	Check the software device-selection menu to make sure that it is using the correct port. If the computer has more than one port, make sure that the device is attached to the correct one.
The device is on a network and is not receiving a signal.	Check cable connections. Reinstall the printing software. Print a job that you know works.  Clear any stopped jobs from the print queue.
The device is not receiving power.	If no lights are on, check the power-cord connections. Check the power switch. Check the power source.
The device is malfunctioning.	Check the control-panel display for messages and lights to determine if the device is indicating an error. Note any messages and see <a href="#">Control-panel messages on page 201</a> .

# Troubleshoot media-handling problems

If media is feeding incorrectly, use the information in this section to identify and resolve the problem.

## Multiple pages feed

**Table 6-5** Causes for multiple pages feeding

Cause	Solution
Too much media (particularly envelopes) is loaded in tray 1.	Remove some of the media and resend the print job.
The separation rollers and pads in the trays are worn or damaged.	Replace the rollers and pads.
The media edges are locked together.	Flex the media stack before loading it into the device. <i>Do not</i> fan the media.
The spring pushing the separation roller or pad is defective.	Replace the spring.
The media is of poor quality.	Check the media type and quality (see <a href="#">Media specifications on page 15</a> ).

## Pages are wrinkled or folded

**Table 6-6** Causes for wrinkled or folded paper at the paper-path entrance

Cause	Solution
The feed rollers or registration rollers are dirty or defective.	Replace the affected rollers.
The paper path contains foreign substances or dirt.	Remove any foreign substances or dirt from the paper path.
The cartridge shutter open/close mechanism is damaged. (This can cause jams in which the media is crumpled into an accordion fold under the print cartridge.)	The shutter in the print cartridge should open as you insert the cartridge. If a shutter does not open, replace the print cartridge.
The registration assembly is defective.	If the registration arm is dirty, clean it. If the arm is scarred or worn, replace the registration assembly (see <a href="#">Registration assembly on page 183</a> ).

**Table 6-7** Causes for wrinkled or folded paper at the paper-path exit

Cause	Solution
The fuser inlet guide is dirty.	Replace the fuser (see <a href="#">Fuser on page 139</a> ).
The fuser pressure roller is dirty or damaged.	Run several cleaning pages through the device. If the problem persists, replace the fuser (see <a href="#">Fuser on page 139</a> ).

## Pages are skewed

**Table 6-8** Causes for skewed pages

Cause	Solution
Paper dust or dirt has accumulated on the tray feed roller or separation roller.	Clean or replace the rollers.
The tray feed roller and separation roller are worn irregularly.	Replace the affected roller.
The registration assembly is defective.	Replace the registration assembly (see <a href="#">Registration assembly on page 183</a> ).
Tray 2 is defective.	Replace tray 2.

# Troubleshoot print-quality problems

This section helps you define print-quality problems and what to do to correct them. Often print-quality problems can be handled easily by making sure that the device is correctly maintained, using print media that meets HP specifications, or running a cleaning page.

## Print-quality checklist

Follow the checklist to solve general print-quality problems.

- Process a cleaning page to clean the fuser (see [Clean the fuser on page 44](#)).
- Check the printer driver to make sure that you are using the best available print-quality option (see the user guide).
- Try printing with one of the alternative printer drivers. The most recent printer drivers are available for download from [www.hp.com/go/LJM3027mfp\\_software](http://www.hp.com/go/LJM3027mfp_software) or [www.hp.com/go/LJM3035mfp\\_software](http://www.hp.com/go/LJM3035mfp_software).
- Clean the inside of the device (see [Clean the device on page 40](#)).
- Check the paper type and quality (see [Media specifications on page 15](#)).
- Check to make sure that Economode is off in the software.
- Troubleshoot general printing problems (see [Troubleshoot general printing problems on page 243](#)).
- Install a new HP print cartridge, and then check the print quality again. (See the instructions provided with the print cartridge.)



---

**NOTE** If the page is totally blank, check to make sure that the sealing tape is removed from the print cartridge and that the print cartridge is installed correctly. Newer devices have been optimized to print characters more accurately. This might result in characters that look lighter or thinner than you are used to from an older device. If the page is printing images darker than those from an older device, and you want the images to match the older device, make these changes in the printer driver: on the **Finishing** tab, select **Printer Quality**, select **Custom**, click **Details**, and select **Print Images Lighter**.

---

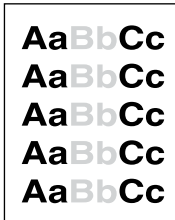


## Image-defect examples

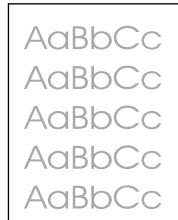
Use the examples in this image-defect table to determine which print-quality problem you are experiencing, and then see the corresponding reference pages to troubleshoot the problem. These examples identify the most common print-quality problems.



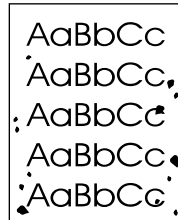
**NOTE** The examples below depict letter-size paper that has passed through the device short-edge first.



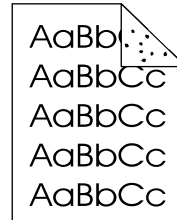
See [Light print \(partial page\) on page 250](#)



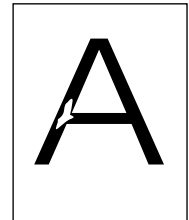
See [Light print \(entire page\) on page 251](#)



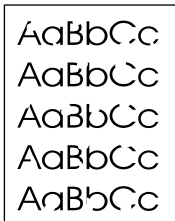
See [Specks on page 251](#)



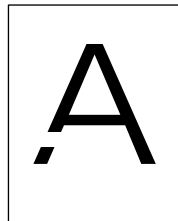
See [Specks on page 251](#)



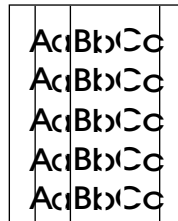
See [Dropouts on page 252](#)



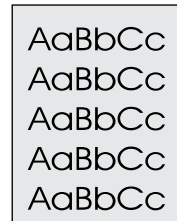
See [Dropouts on page 252](#)



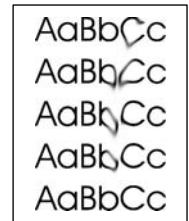
See [Dropouts on page 252](#)



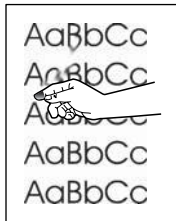
See [Lines on page 252](#)



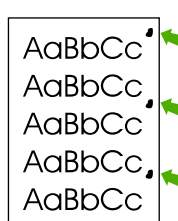
See [Gray background on page 253](#)



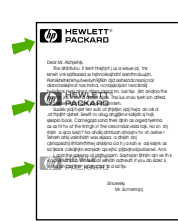
See [Toner smear on page 253](#)



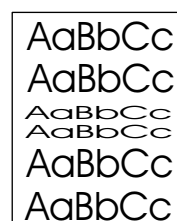
See [Loose toner on page 254](#)



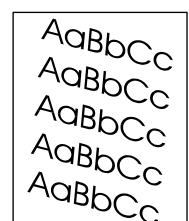
See [Repeating defects on page 254](#)



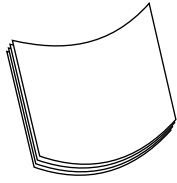
See [Repeating image on page 255](#)



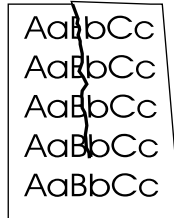
See [Misformed characters on page 255](#)



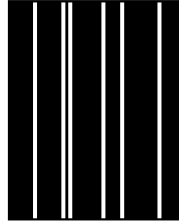
See [Page skew on page 256](#)



See [Curl or wave on page 256](#)



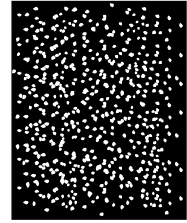
See [Wrinkles or creases on page 257](#)



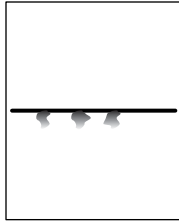
See [Vertical white lines on page 257](#)



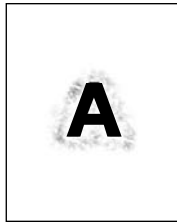
See [Tire tracks on page 258](#)



See [White spots on black on page 258](#)



See [Scattered lines on page 259](#)



See [Blurred print on page 259](#)

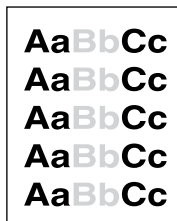


See [Random image repetition on page 260 \(dark\)](#)



See [Random image repetition on page 260 \(light\)](#)

## Light print (partial page)



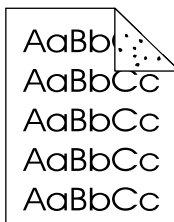
1. Make sure that the print cartridge is fully installed.
2. The toner level in the print cartridge might be low. Replace the print cartridge.
3. The media might not meet HP specifications (for example, the paper is too moist or too rough). See [Media specifications on page 15](#).
4. The transfer roller might be worn or contaminated. Replace the transfer roller (see [Transfer roller on page 182](#)).

## Light print (entire page)



1. Make sure that the print cartridge is fully installed.
2. Make sure that the EconoMode setting is turned off at the control panel and in the printer driver.
3. Open the **Print Quality** menu at the device control panel. Open the **Toner Density** submenu and increase the toner density setting. See the user guide.
4. Try using a different type of media.
5. The print cartridge might be almost empty. Replace the print cartridge.
6. The print cartridge might be installed incorrectly. Reinstall the print cartridge.
7. The transfer roller might be defective or installed incorrectly. Verify that the transfer roller is installed correctly. If the transfer roller is damaged, replace it.
8. The power supply might be defective. Replace the power supply (see [High-voltage power supply \(HVPS\) on page 149](#)).

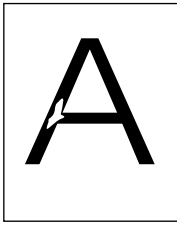
## Specks



Specks might appear on a page after a jam has been cleared.

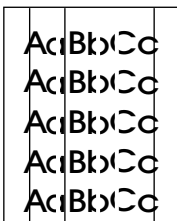
1. Print a few more pages to see if the problem corrects itself.
2. Clean the inside of the device and run a cleaning page to clean the fuser. (See [Clean the device on page 40](#).)
3. Try using a different type of media.
4. Check the print cartridge for leaks. If the print cartridge is leaking, replace it.
5. The print cartridge might be defective. Replace the print cartridge.
6. The fuser might be defective. Replace the fuser [Fuser on page 139](#).

## Dropouts



1. Make sure that the environmental specifications for the device are being met. (See [Operating environment on page 22.](#))
2. If the paper is rough, and the toner easily rubs off, open the **Print Quality** menu at the device control panel. Open the **Fuser Modes** submenu and then select the paper type that you are using. Change the setting to **HIGH 1** or **HIGH 2**, which helps the toner fuse more completely onto the paper. See the user guide.
3. Try using a smoother paper.
4. The print cartridge might be defective. Replace the print cartridge.
5. Fuser rollers might be dirty. Run a cleaning page (several pages might be required if the fuser is very dirty). If the image defect persists, replace the fuser (see [Fuser on page 139.](#))
6. The transfer roller might be damaged, dirty, or worn. Try cleaning the transfer roller by using a dry, lint-free cloth. If the image defect persists, replace the transfer roller.
7. The power supply might be defective. Replace the power supply (see [High-voltage power supply \(HVPS\) on page 149.](#))

## Lines



1. Print a few more pages to see if the problem corrects itself.
2. Clean the inside of the device and run a cleaning page to clean the fuser. (See [Clean the device on page 40.](#))
3. Replace the print cartridge.

## Gray background



1. Do not use media that has already been run through the device.
2. Try using a different type of media.
3. Print a few more pages to see if the problem corrects itself.
4. Turn over the stack of media in the tray. Also, try rotating the stack 180°.
5. Open the [Print Quality](#) menu at the device control panel. Open the [Toner Density](#) submenu and increase the toner density setting. See the user guide.
6. Make sure that the environmental specifications for the device are being met. (See [Operating environment on page 22.](#))
7. Replace the print cartridge.
8. The power supply might be defective. Replace the power supply (see [High-voltage power supply \(HVPS\) on page 149.](#))

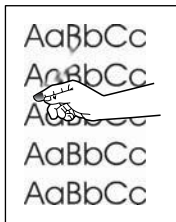
## Toner smear



1. Print a few more pages to see if the problem corrects itself.
2. Try using a different type of media.
3. Make sure that the environmental specifications for the device are being met. (See [Operating environment on page 22.](#))
4. Clean the inside of the device and run a cleaning page to clean the fuser. (See [Clean the device on page 40.](#))
5. Replace the print cartridge.
6. The fuser might be defective. Replace the fuser (see [Fuser on page 139.](#))
7. The ECU might be defective. Replace the ECU (see [Engine control unit \(ECU\) on page 131.](#))

Also see [Loose toner on page 254.](#)

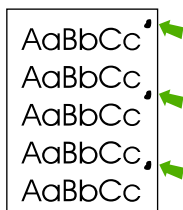
## Loose toner



Loose toner, in this context, is defined as toner that can be rubbed off the page.

1. If the paper is rough, and the toner easily rubs off, open the [Print Quality](#) menu at the device control panel. Open the [Fuser Modes](#) submenu and then select the paper type that you are using. Change the setting to [HIGH 1](#) or [HIGH 2](#), which helps the toner fuse more completely onto the paper. See the user guide.
2. If you have observed a rougher texture on one side of the paper, try printing on the smoother side.
3. Make sure that the environmental specifications for the device are being met. (See [Operating environment on page 22](#).)
4. Make sure that type and quality of the media that you are using meet HP specifications. (See [Media specifications on page 15](#).)
5. The fuser might be defective. Replace the fuser (see [Fuser on page 139](#)).
6. The ECU might be defective. Replace the ECU (see [Laser/scanner on page 142](#)).

## Repeating defects



1. Print a few more pages to see if the problem corrects itself.
2. Clean the inside of the device and run a cleaning page to clean the fuser. (See [Clean the device on page 40](#).)
3. Measure the distance between two identical defects and see [Image defect ruler on page 238](#).

Also see [Repeating image on page 255](#).

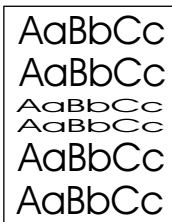
## Repeating image



This type of defect might occur when using preprinted forms or a large quantity of narrow paper.

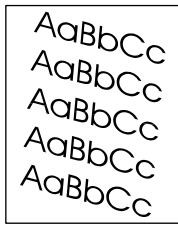
1. Print a few more pages to see if the problem corrects itself.
2. Run a cleaning page, and then print a few more pages to see if the problem persists.
3. Make sure that type and quality of the media that you are using meet HP specifications. (See [Media specifications on page 15.](#))
4. Measure the distance between two identical defects and see [Image defect ruler on page 238.](#)

## Misformed characters



1. Print a few more pages to see if the problem corrects itself.
2. Make sure that the environmental specifications for the device are being met. (See [Operating environment on page 22.](#))
3. Reseat cables that are connected to the laser/scanner.
4. Reseat cables that are connected to the ECU.
5. If the image defect persists, the laser/scanner might be defective. Replace the laser/scanner. See [Laser/scanner on page 142.](#)
6. Inspect the gears in the main drive assembly and replace the assembly if gears are damaged (see [Gear assembly on page 162.](#))
7. The ECU might be defective. Replace the ECU (see [Engine control unit \(ECU\) on page 131.](#))

## Page skew



1. Print a few more pages to see if the problem corrects itself.
2. Verify that there are no torn pieces of media inside the device.
3. Make sure that media is loaded correctly and that all adjustments have been made. (See the user guide.) Make sure that the guides in the tray are not too tight or too loose against the stack.
4. Turn over the stack of paper in the tray. Also, try rotating the stack 180°.
5. Make sure that the type and quality of the media that you are using meet HP specifications. (See [Media specifications on page 15](#).)
6. Make sure that the environmental specifications for the device are being met. (See [Operating environment on page 22](#).)
7. The registration assembly might be installed incorrectly or damaged. Make sure that the registration assembly is installed correctly. If necessary, replace the registration assembly (see [Registration assembly on page 183](#)).

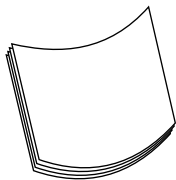


---

**NOTE** If copies are skewed, but pages printed from the computer are not skewed, make sure that the ADF input tray is installed correctly (see [Figure 5-5 Reinstalling the ADF input tray on page 83](#)). ADF jams and skew can result from incorrect reinstallation.

---

## Curl or wave

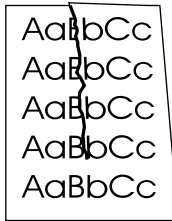


1. Turn over the stack of media in the tray. Also, try rotating the stack 180°.
2. Make sure that the type and quality of the media that you are using meet HP specifications. (See [Media specifications on page 15](#).)
3. Make sure that the environmental specifications for the device are being met. (See [Operating environment on page 22](#).)



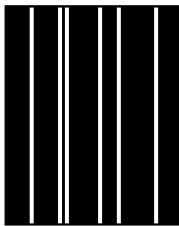
4. Try printing to a different output bin.
5. If paper is lightweight and smooth, open the [Print Quality](#) menu at the device control panel. Open the [Fuser Modes](#) submenu and then select the paper type that you are using. Change the setting to [Low](#), which helps reduce the heat in the fusing process. See the user guide.

## Wrinkles or creases



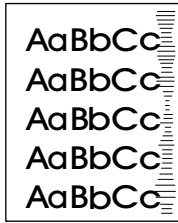
1. Print a few more pages to see if the problem corrects itself.
2. Make sure that the environmental specifications for the device are being met. (See [Operating environment on page 22.](#))
3. Turn over the stack of media in the tray. Also, try rotating the stack 180°.
4. Make sure that media is loaded correctly and all adjustments have been made. (See the user guide.)
5. Make sure that the type and quality of the media that you are using meet HP specifications. (See [Media specifications on page 15.](#))
6. If envelopes are creasing, try storing envelopes so that they lie flat.

## Vertical white lines



1. Print a few more pages to see if the problem corrects itself.
2. Make sure that the type and quality of the media that you are using meet HP specifications. (See [Media specifications on page 15.](#))
3. Replace the print cartridge.
4. The fuser might be defective. Replace the fuser. (See [Fuser on page 139.](#))
5. If the image defect persists, the mirror in the laser/scanner might be dirty. Replace the laser/scanner (see [Laser/scanner on page 142.](#))
6. If the image defect persists, replace the ECU. (See [Engine control unit \(ECU\) on page 131.](#))
7. If the image defect persists, replace the formatter. (See [Formatter on page 116.](#))

## Tire tracks



This defect typically occurs when the print cartridge has far exceeded its rated life. For example, if you are printing a very large quantity of pages with very little toner coverage.

1. Perform a half self-test functional check. If the drum is damaged, replace the print cartridge.
2. Run a cleaning page. If the image defect persists, replace the fuser. (See [Fuser on page 139](#).)
3. If the image defect persists, check the device for other sources of contamination or damage in the paper path and clean or replace parts as necessary.

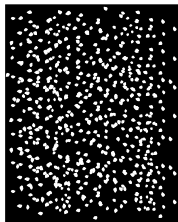


---

**NOTE** This type of image defect might also be a repetitive defect. See [Image defect ruler on page 238](#).

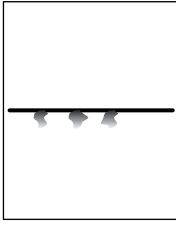
---

## White spots on black



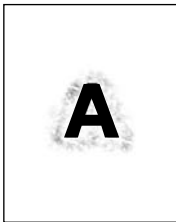
1. Print a few more pages to see if the problem corrects itself.
2. Make sure that the type and quality of the media that you are using meet HP specifications. (See [Media specifications on page 15](#).)
3. Make sure that the environmental specifications for the device are being met. (See [Operating environment on page 22](#).)
4. Replace the print cartridge.

## Scattered lines



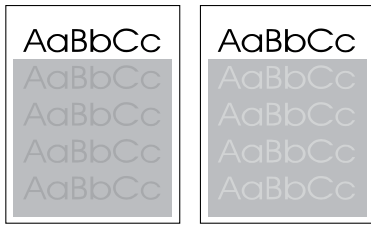
1. Make sure that the type and quality of the media that you are using meet HP specifications. (See [Media specifications on page 15.](#))
2. Make sure that the environmental specifications for the device are being met. (See [Operating environment on page 22.](#))
3. Turn over the stack of media in the tray. Also, try rotating the stack 180°.
4. Open the **Print Quality** menu at the device control panel. Open the **Toner Density** submenu and change the toner density setting. See the user guide.
5. Open the **Print Quality** menu at the device control panel. Open the **Optimize** submenu and set **Line Detail** to **On**. See the user guide.

## Blurred print



1. Make sure that the type and quality of the media that you are using meet HP specifications. (See [Media specifications on page 15.](#))
2. Make sure that the environmental specifications for the device are being met. (See [Operating environment on page 22.](#))
3. Turn over the stack of media in the tray. Also, try rotating the stack 180°.
4. Do not use paper that already has been run through the device.
5. Open the **Print Quality** menu at the device control panel. Open the **Toner Density** submenu and decrease the toner density setting. See the user guide.
6. Open the **Print Quality** menu at the device control panel. Open the **Optimize** submenu and set **High Transfer** to **Increased**. See the user guide.

## Random image repetition



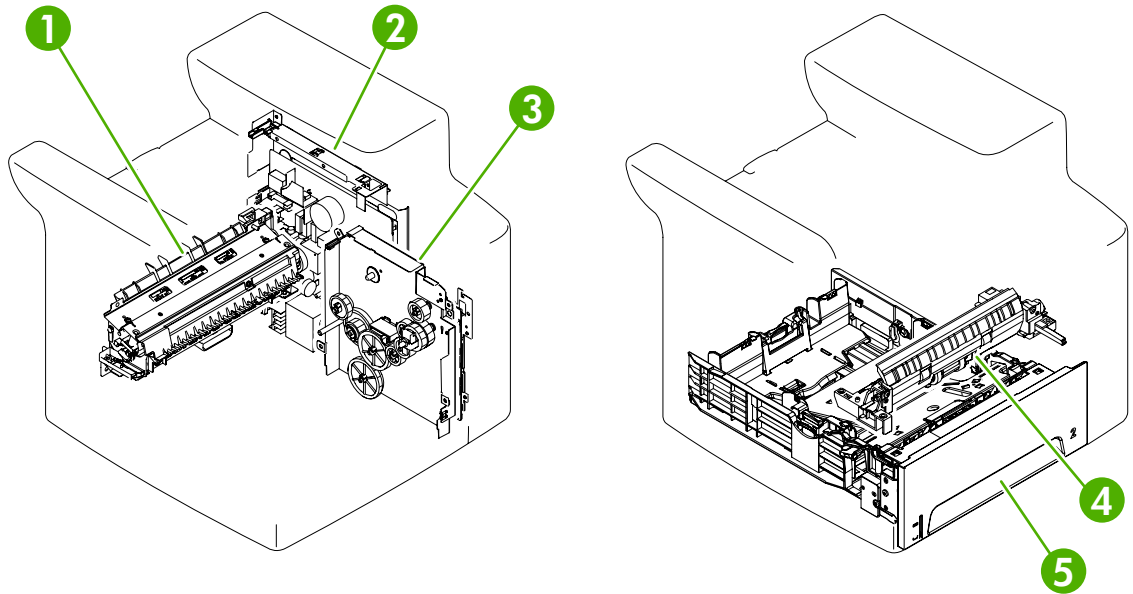
If an image that appears at the top of the page (in solid black) repeats farther down the page (in a gray field), the toner might not have been completely erased from the last job. (The repeated image might be lighter or darker than the field it appears in.)

- Change the tone (darkness) of the field that the repeated image appears in.
- Change the order in which the images are printed. For example, have the lighter image at the top of the page, and the darker image farther down the page.
- From the software application, rotate the whole page 180° to print the lighter image first.
- If the defect occurs later in a print job, turn the device off for 10 minutes, and then turn the device on to restart the print job.

# Diagrams

## Device component locations

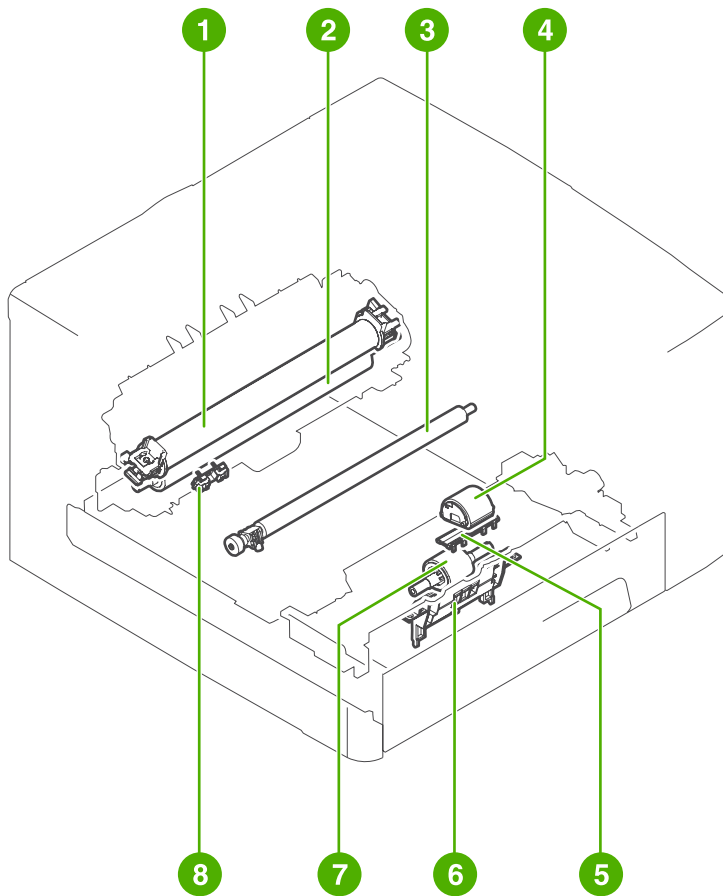
### Main assemblies



**Figure 6-4** Main assemblies, HP LaserJet M3027/M3035

1	Fuser
2	Engine controller assembly (ECU)
3	Drive assembly
4	Pick-up assembly
5	Tray 2

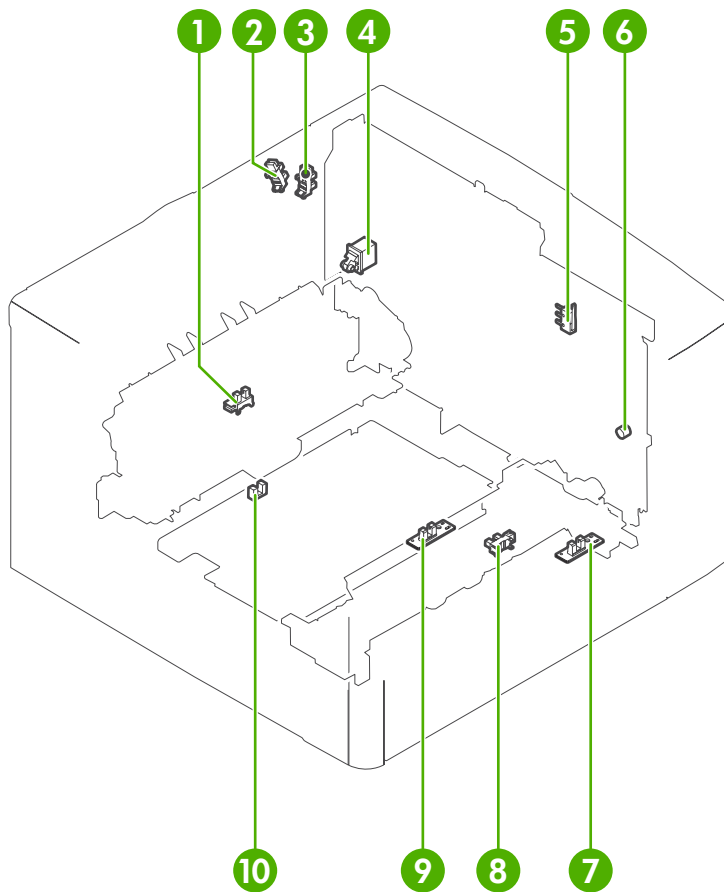
## Main parts



**Figure 6-5** Main parts, HP LaserJet M3027/M3035

1	Fuser film
2	Pressure roller
3	Transfer charging roller
4	Tray 1 pick-up roller
5	Tray 1 separation pad
6	Tray 2 pick-up roller
7	Tray 2 Memory tag contact
8	Memory tag contact

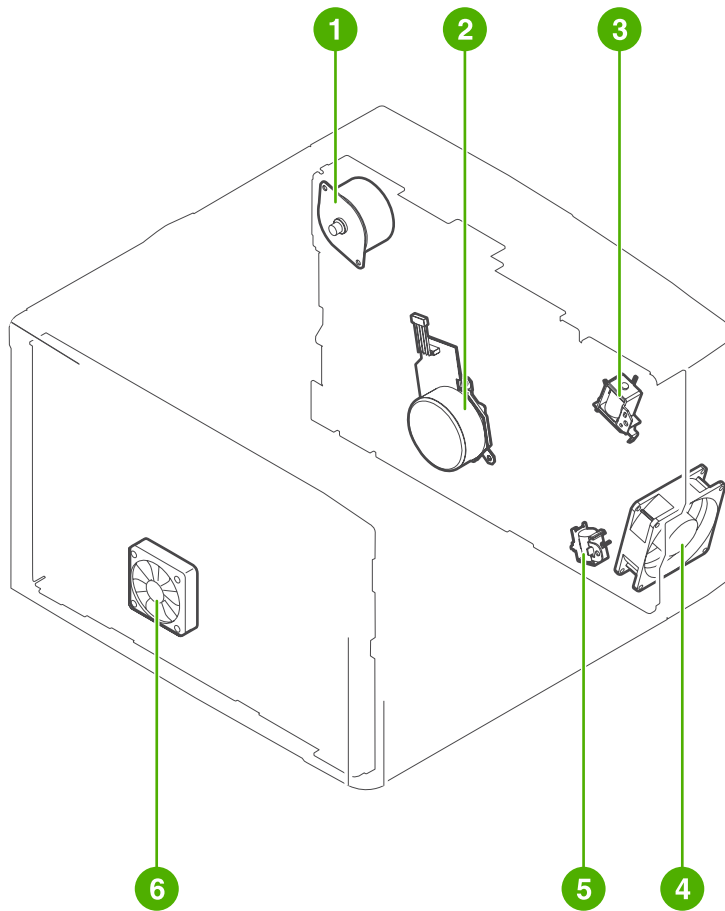
## Sensors and switches



**Figure 6-6** Sensors and switches

1	Delivery sensor (SR2)
2	Output-bin-full sensor (PS4)
3	Face-up cover sensor (PS1)
4	Power switch (SW101) on ECU PCA
5	Door switch (SW501)
6	Engine-test-print button (SW401) on test print switch PCA
7	Tray 1 media-present sensor (PS902) on tray 1 sensor PCA
8	Media-width sensor (PS903) on page-width sensor PCA
9	Top-of-page sensor (PS901) on top-of-page sensor PCA
10	Duplex sensor (PS502) on high-voltage power supply PCA

## Motors, fans, and solenoids

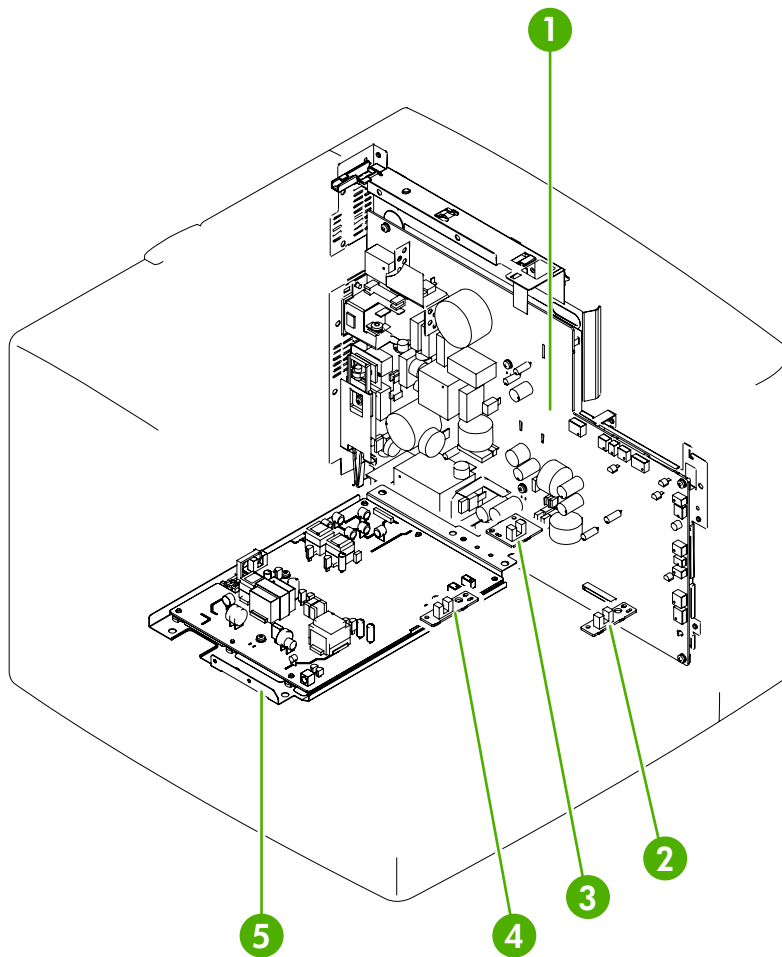


**Figure 6-7** Motors, fans, and solenoids, HP LaserJet M3027/M3035

1	Fuser motor (M2)
2	Main motor (M1)
3	Tray 1 pickup solenoid (SL1)
4	Main fan (right-side fan; FM1)
5	Tray 2 pickup solenoid (SL2)
6	Sub fan (left-side fan; FM2)



## PCAs



**Figure 6-8** PCAs

1	ECU
2	Tray 1 sensor PCA (PS902)
3	Paper-width sensor PCA (PS903)
4	Top-of-page sensor PCA (PS901)
5	High-voltage PCA

# Wiring diagrams

The following figures show wiring and circuitry layout of the HP LaserJet M3027/M3035.

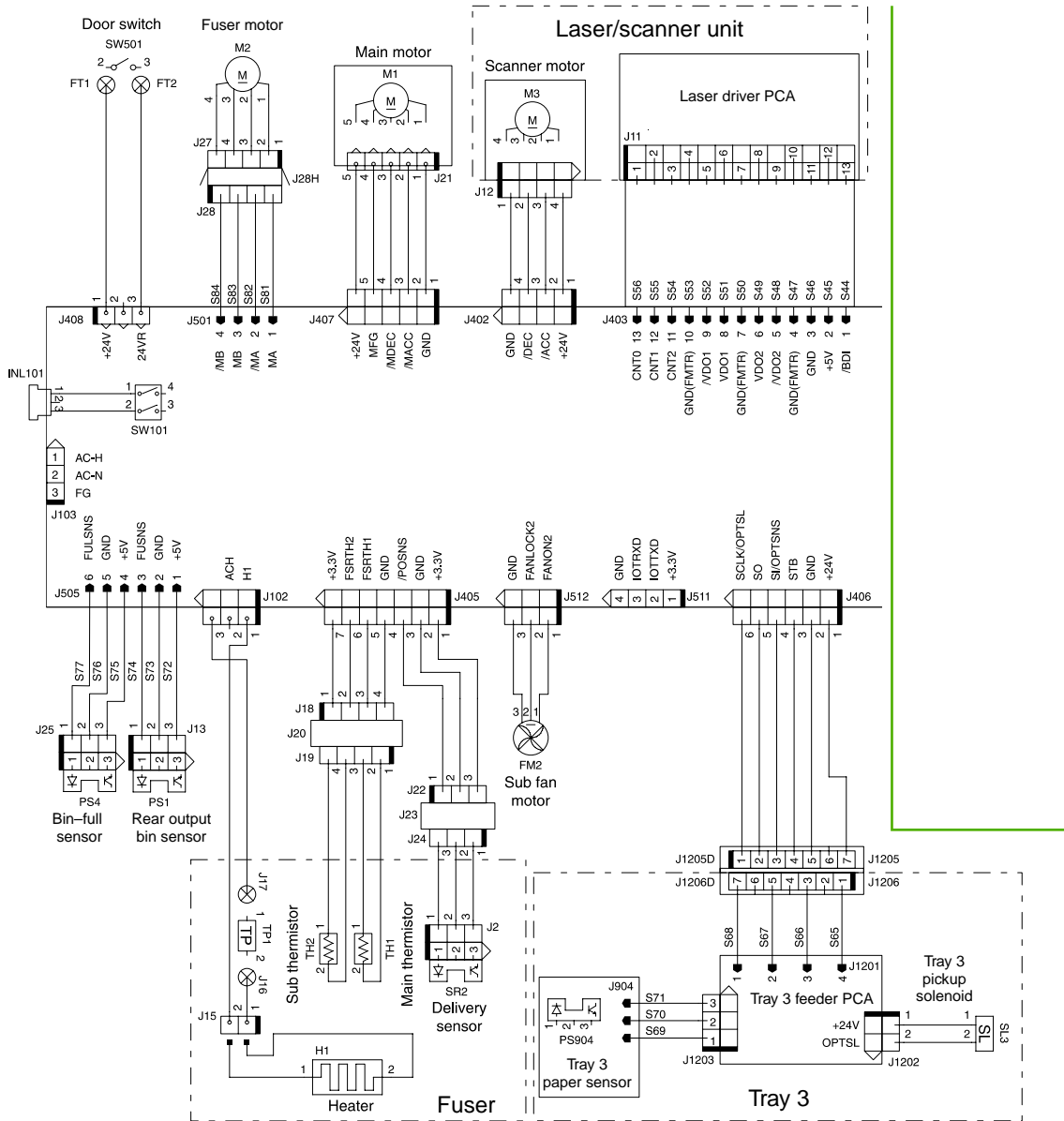


Figure 6-9 Circuit diagram (1 of 2)

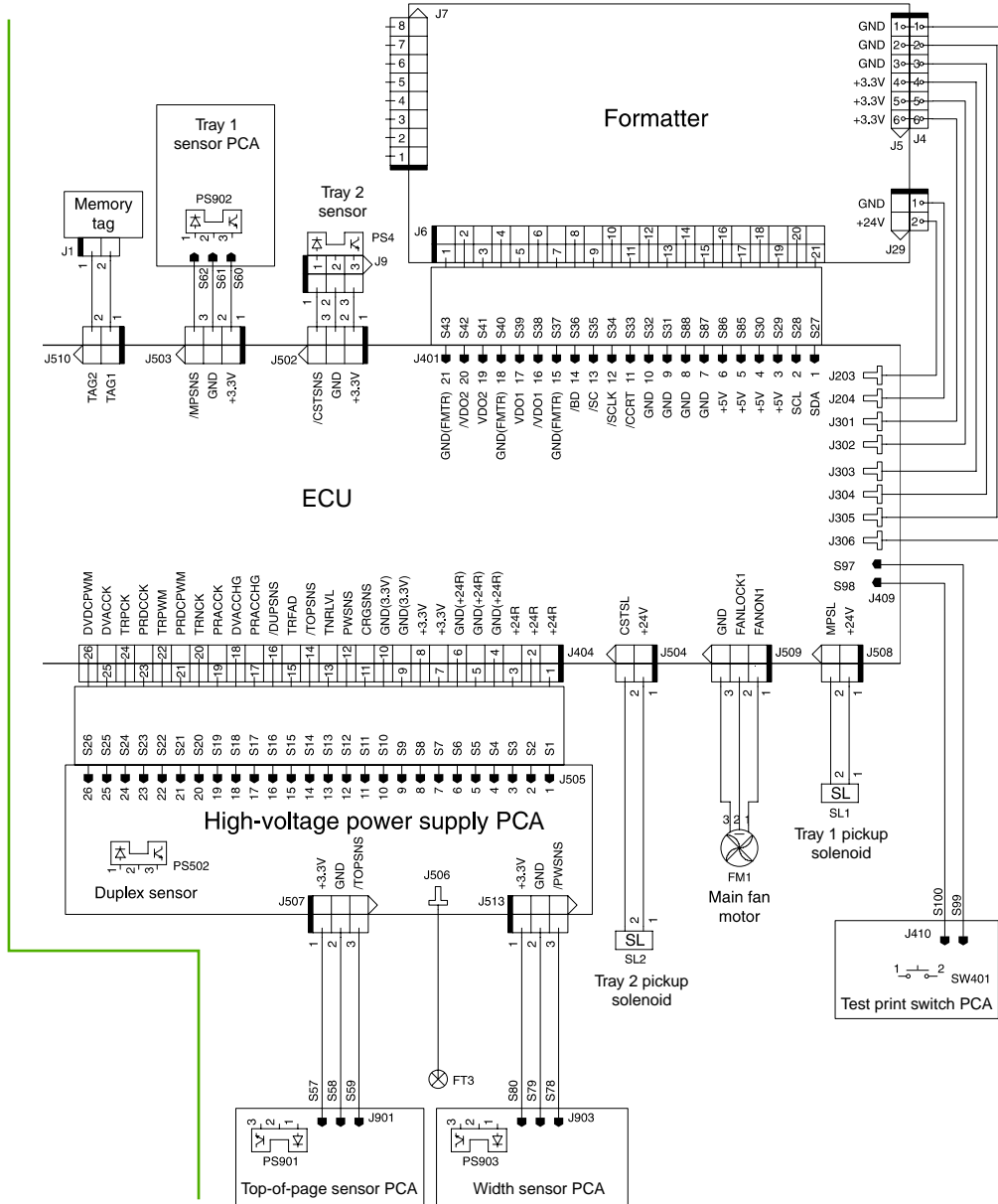
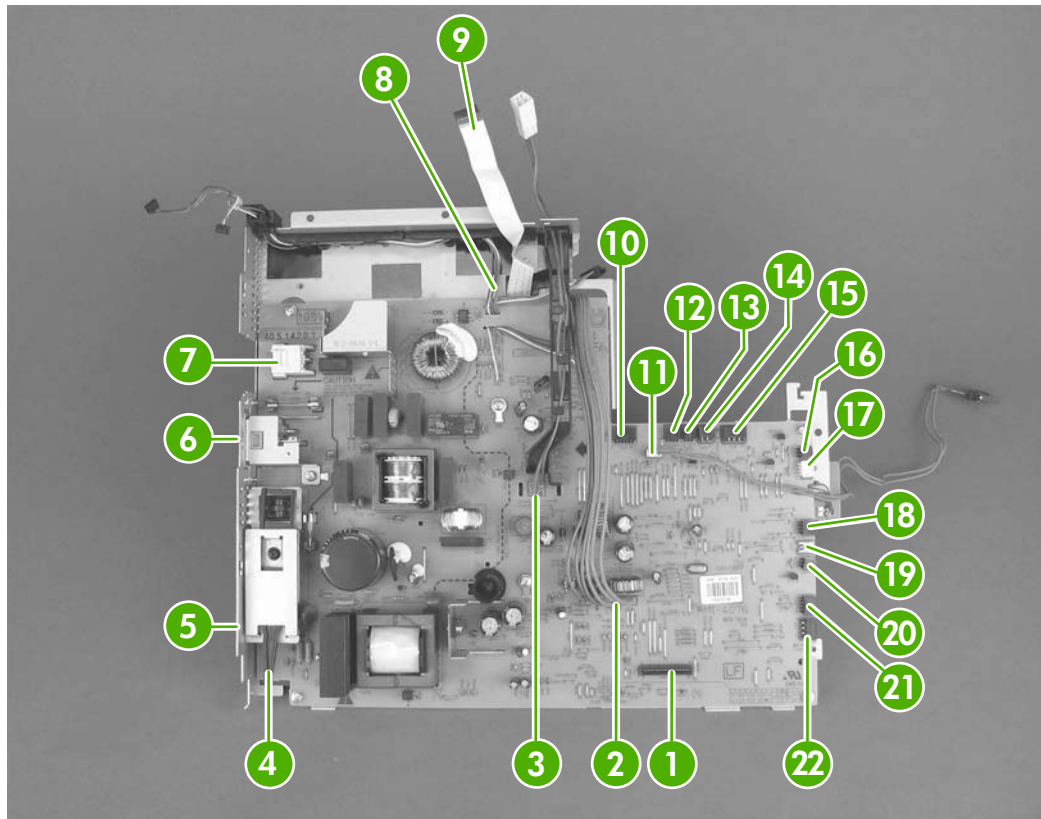


Figure 6-10 Circuit diagram (2 of 2)



**Figure 6-11** ECU connections

1	J404 – HVPS	12	J512 – Left-side fan (FM2)
2	Dc voltage to formatter	13	J510 – Memory tag
3	Dc power to ADF/scanner assembly	14	J402 – Laser/scanner motor
4	SW101 – Power switch	15	J405 – Thermistor delivery sensor
5	Dc power to stapler power-supply	16	J508 – Tray 1 solenoid (SL1)
6	Power cable connector	17	J509 – Right-side fan (FM1)
7	Dc power to fuser	18	J503 – Tray 1 media-present sensor (PS902)
8	To fuser motor (wired to ECU)	19	J502 – Tray 2 media-present sensor (PS3)
9	J403 – Laser/scanner (wired to ECU)	20	J504 – Tray 2 solenoid (SL2)
10	J407 – Main motor	21	J511 (not used)
11	J408 – Cartridge-door switch (wired to ECU)	22	J406 – To optional tray 3

---

# 7 Parts and diagrams

## Chapter contents

- [Ordering parts and supplies](#)
- [Consumables and accessories](#)
- [ADF/scanner assembly](#)
- [Covers](#)
- [Internal components](#)
- [Tray 2 pickup assembly](#)
- [Alphabetical parts list](#)
- [Numerical parts list](#)

# Ordering parts and supplies

## Parts

Order replacement parts from the following Web sites:

[h30074.www3.hp.com/csn-aux/srvcdlvry/epdo/default/ePDOLogin.asp](http://h30074.www3.hp.com/csn-aux/srvcdlvry/epdo/default/ePDOLogin.asp) (technicians)

[h20141.www2.hp.com/hpparts](http://h20141.www2.hp.com/hpparts) (customers)

## Related documentation and software

Order documentation and software from the companies listed in the following table; some documentation and software is available at the following Web sites.

**Table 7-1** Technical support Web sites

<b>HP Customer Care Online</b>	<a href="http://www.hp.com/support">www.hp.com/support</a>
Software drivers, support documentation, and answers to frequently asked questions	
<b>HP Technical Training</b>	<a href="http://education.itrc.hp.com/TrainerII/en-US/index.jsp">education.itrc.hp.com/TrainerII/en-US/index.jsp</a>
(North America)	
Classes and schedules	

## Supplies

Device supplies are listed in this chapter. Consumables are available directly from HP at the following numbers.

- US: 800-538-8787
- Canada: 800-387-3154 (in Toronto: 416-671-8383)
- United Kingdom: 0734-441212
- Germany: 0130-3322

Contact your local HP Parts Coordinator for other local phone numbers.

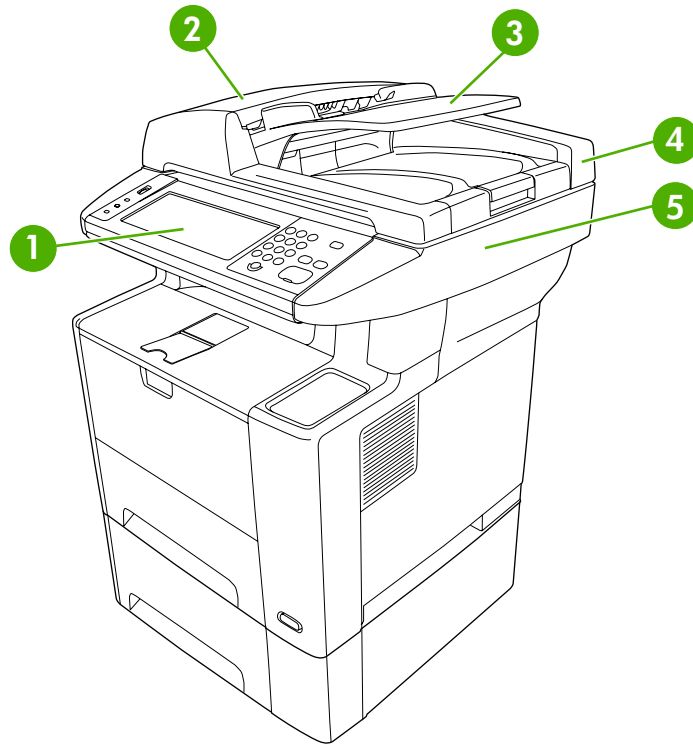
# Consumables and accessories

The following accessories and supplies are available for the HP LaserJet M3027/M3035.

## Consumables and accessories

Product name	Description	Product number	Part number
<b>Paper-handling accessories</b>			
Optional 500-sheet tray and feeder unit	Optional tray to increase paper capacity holds Letter, A4, Legal, A5, B5 (JIS), Executive, and 8.5 x 13 inch paper sizes	Q5963A	Q5963A
<b>Print cartridges</b>			
HP LaserJet print cartridge	6,500-page cartridge	Q7551A	Q7551A
HP LaserJet print cartridge	13,000-page cartridge	Q7551X	Q7551X
<b>Memory</b>			
32 MB, 100-pin DDR memory DIMM	Boosts the ability of the device to handle large or complex print jobs	Q3982A	Q3982A
48 MB, 100-pin DDR memory DIMM	Boosts the ability of the device to handle large or complex print jobs	Q6007A	Q6007A
64 MB, 100-pin DDR memory DIMM	Boosts the ability of the device to handle large or complex print jobs	Q2625A	Q2625A
128 MB, 100-pin DDR memory DIMM	Boosts the ability of the device to handle large or complex print jobs	Q2626A	Q2626A
256 MB, 100-pin DDR memory DIMM	Boosts the ability of the device to handle large or complex print jobs	Q2627A	Q2627A
<b>Cables and interfaces</b>			
Enhanced I/O (EIO) cards. HP Jetdirect print server multiprotocol EIO network cards.	HP Jetdirect 620n Fast Ethernet (10/100Base-TX) print server	J7934A	J7934A
Enhanced I/O (EIO) cards. HP Jetdirect print server multiprotocol EIO network cards.	HP Jetdirect 680n 802.11b wireless internal print server	J6058A	J6058A
Enhanced I/O (EIO) cards. HP Jetdirect print server multiprotocol EIO network cards.	HP Jetdirect Connectivity card for USB, serial, and LocalTalk connections	J4135A	J4135A
USB cable	2-meter A to B cable	C6518A	C6518A

## ADF/scanner assembly



**Figure 7-1** ADF/scanner assembly



**Table 7-2** ADF/scanner assembly

<b>Ref</b>	<b>Description</b>	<b>Part number</b>	<b>Qty</b>
1	Control panel	CB414-60101	1
2	Cover, ADF	CB414-67902	1
3	Input tray, ADF	CB414-67903	1
4	ADF assembly	CB414-67916	1
5	Scanner assembly (ADF assembly is <i>not</i> included)	CB414-67905	1

# Covers

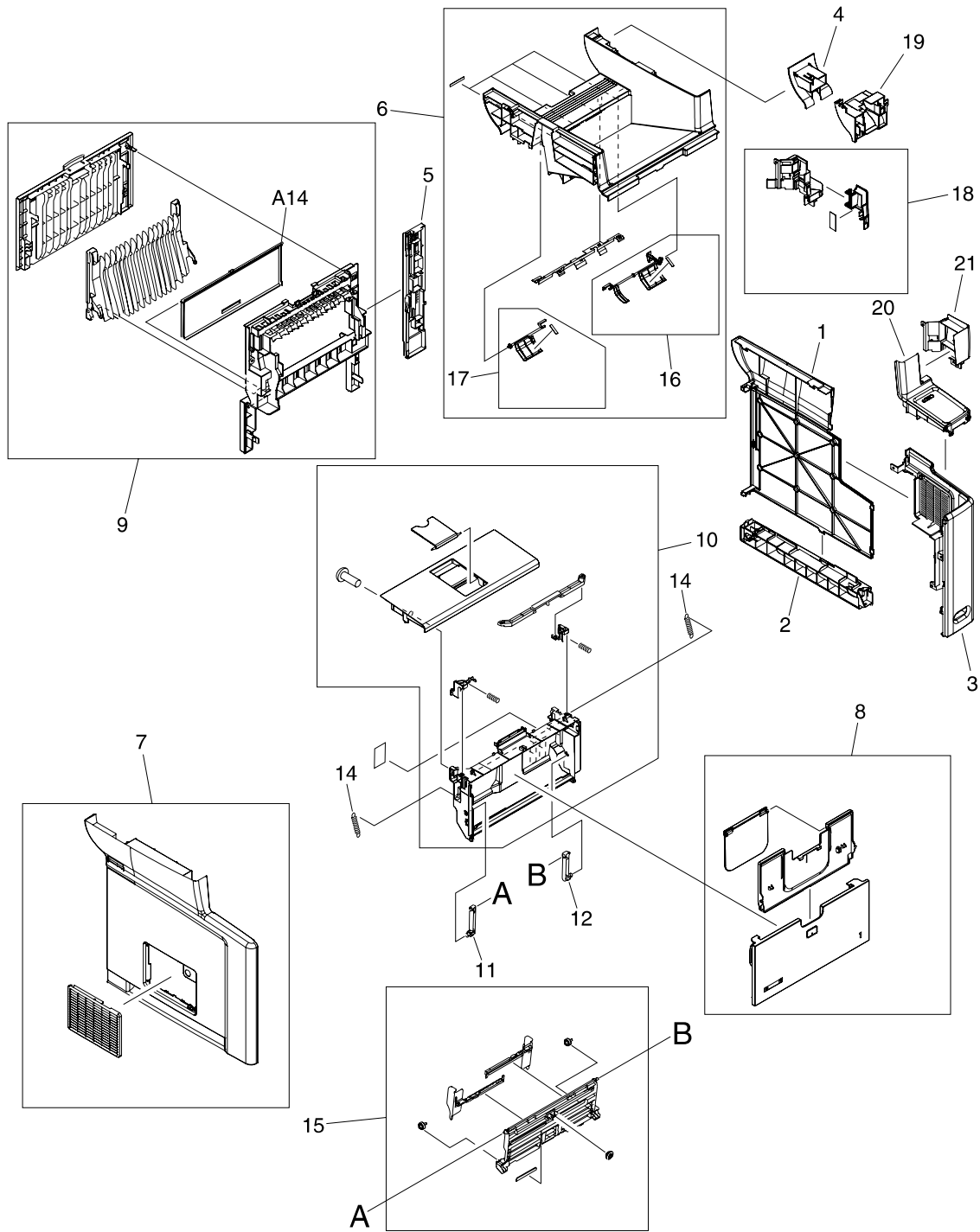


Figure 7-2 Covers

**Table 7-3** Covers

<b>Ref</b>	<b>Description</b>	<b>Part number</b>	<b>Qty</b>
1	Cover, right-side (DIMM cover)	RC2-0722-000CN	1
2	Cover, right lower	RC2-0603-000CN	1
3	Cover, right front	RL1-1723-000CN	1
4	Cover, fax	RC2-0726-000CN	1
5	Cover, I/O	RC2-0612-000CN	1
6	Top cover assembly	RM1-3772-000CN	1
7	Cover, left	RM1-3773-000CN	1
8	Tray 1 cover assembly	RM1-3723-000CN	1
9	Rear cover assembly	RM1-3724-000CN	1
10	Cartridge door assembly	RM1-3722-000CN	1
11	Hinge, left	RC1-4057-000CN	1
12	Hinge, right	RC1-4058-000CN	1
14	Spring, tension	RU5-2388-000CN	2
15	Tray 1 assembly	RM1-1490-000CN	1
16	Flag assembly, full detect	RM1-3742-000CN	1
17	Flag assembly, face-down	RM1-3743-000CN	1
18	Cover, stapler	RM1-3790-000CN	1
19	Cover, fax internal (fax rail)	RC2-0729-000CN	1
20	Paper clip tray	RC2-0724-000CN	1
21	Stapler door (for devices with staplers)	CB414-40064	1
21	Cover (replaces the stapler door for devices without staplers)	RC2-0727-000CN	1
A14	Cover, legal	RL1-1366-000CN	1

# Internal components

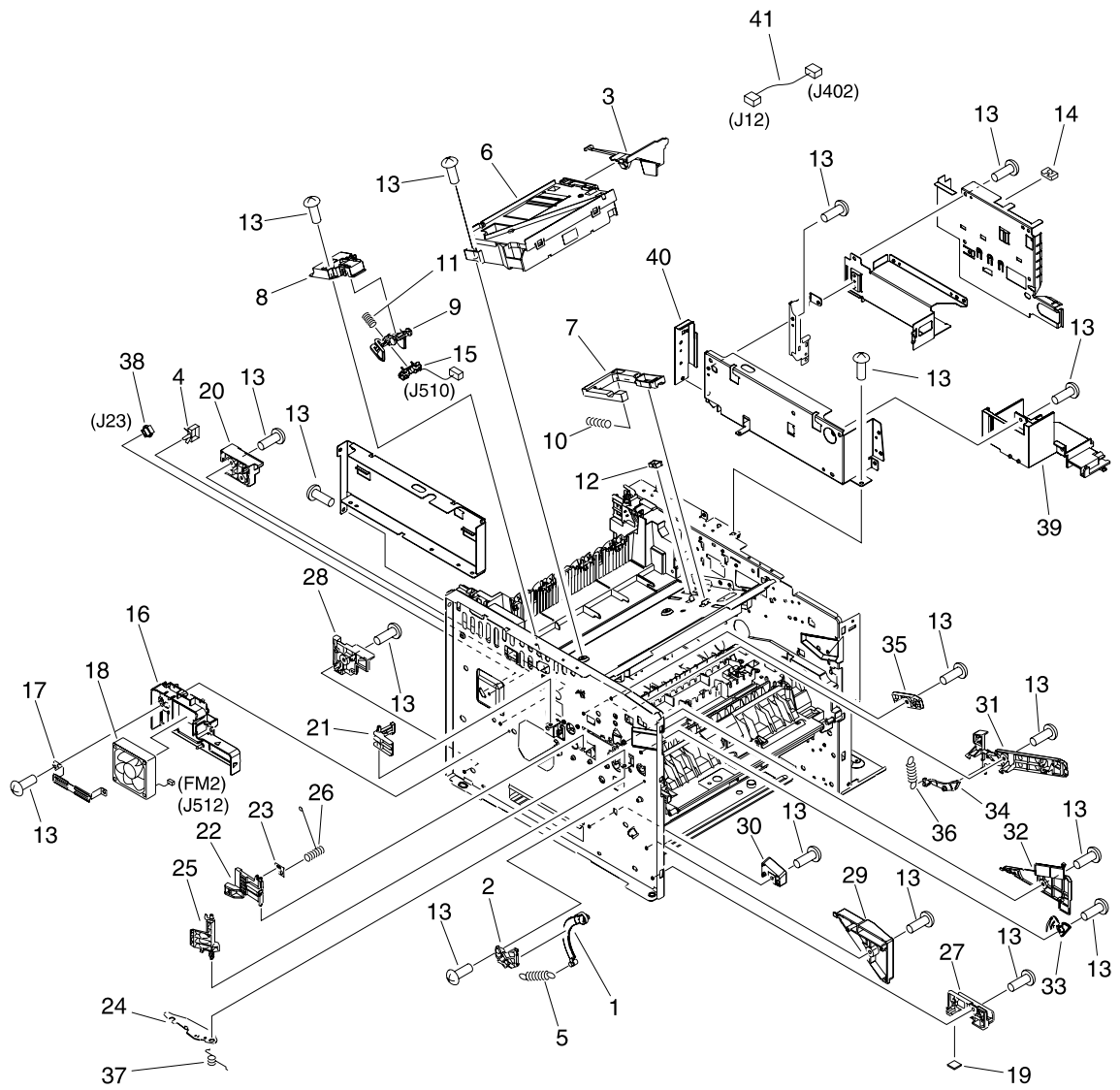


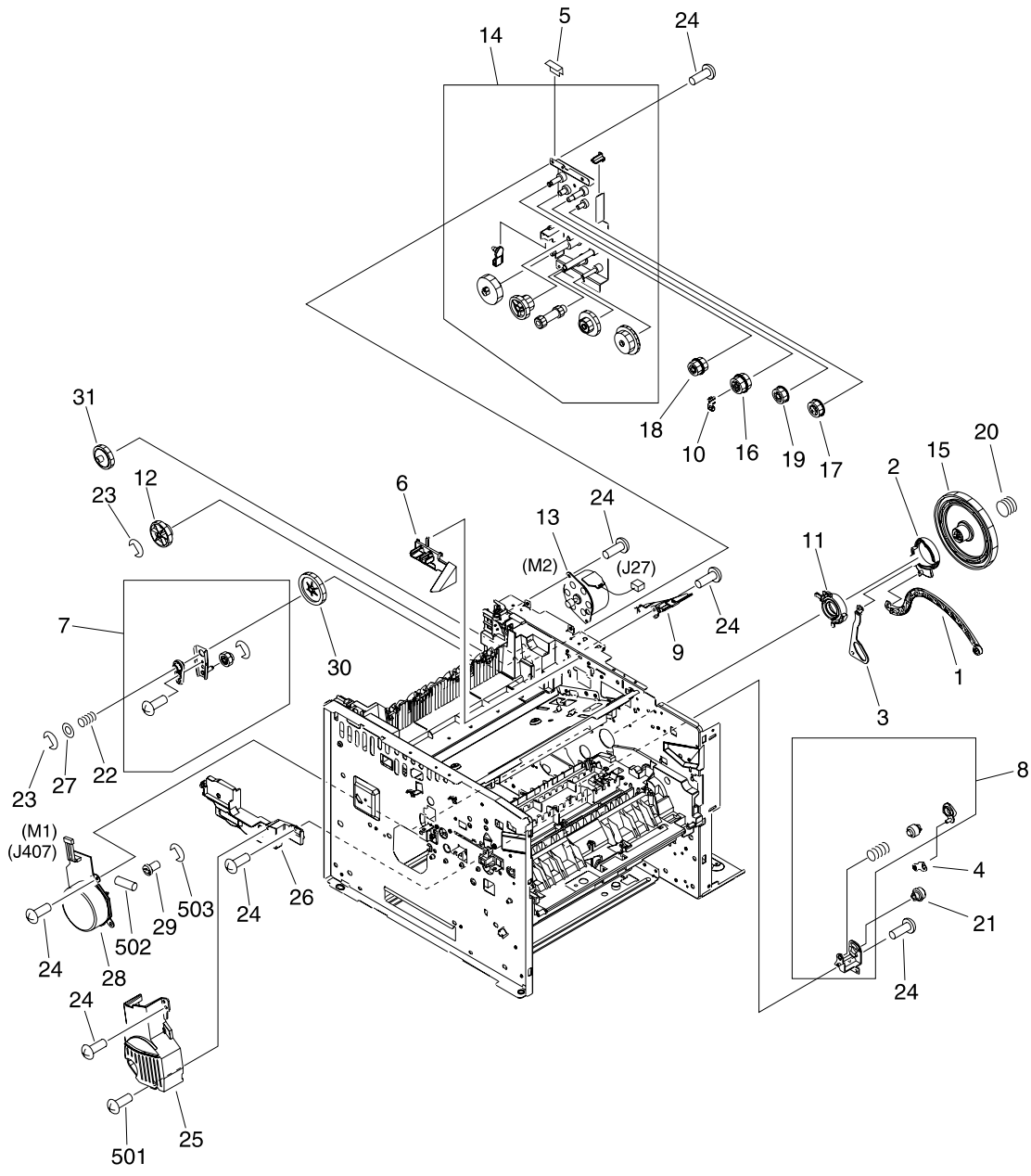
Figure 7-3 Internal components (1 of 6)

**Table 7-4** Internal components (1 of 6)

<b>Ref</b>	<b>Description</b>	<b>Part number</b>	<b>Qty</b>
1	Arm, door	RC1-4055-000CN	1
2	Guide, door arm	RC1-4056-000CN	1
3	Duct, scanner	RC1-4128-020CN	1
4	Clip clamp, wire	WT2-5694-000CN	1
5	Spring, tension	RU5-2407-000CN	1
6	Laser/scanner assembly	RM1-1521-030CN	1
7	Link, laser shutter	RC1-4125-000CN	1
8	Stay, tag holder	RC1-4126-000CN	1
9	Holder, tag	RC1-4127-000CN	1
10	Spring, compression	RU5-2404-000CN	1
11	Spring, compression	RU5-2405-000CN	1
12	Clip, cable	WT2-5812-000CN	1
13	Screw, D, M3x8	XA9-1671-000CN	13
14	Clip, cable	WT2-5056-000CN	1
15	Cable, memory tag	RM1-4054-000CN	1
16	Holder, sub fan	RC2-0622-000CN	1
17	Plate, fan shield, left	RC2-0623-000CN	1
18	Fan, left-side	RK2-1499-000CN	1
19	Foot, rubber	RA0-1003-000CN	3
20	Holder	RC1-4009-000CN	1
21	Lever, grounding contact	RC1-4065-000CN	1
22	Lever, grounding contact	RC1-4066-020CN	1
23	Spring, leaf	RC1-4067-000CN	1
24	Plate, protective	RC1-4136-000CN	1
25	Cam, contact	RC1-4137-020CN	1
26	Spring, compression	RC1-4140-000CN	1
27	Guide, cassette, left front	RC2-0565-000CN	1
28	Guide, cassette, left rear	RC2-0566-000CN	1
29	Guide, center plate, left	RC2-0567-000CN	1
30	Stopper, feed guide, left	RC2-0585-000CN	1
31	Guide, cartridge, left upper	RC2-0703-000CN	1
32	Guide, cartridge, left lower	RC2-0704-000CN	1
33	Lever, drive release	RC2-0705-000CN	1
34	Lever, cartridge clamp	RC2-0706-000CN	1

Ref	Description	Part number	Qty
35	Stopper, cartridge, left	RC2-0707-000CN	1
36	Spring, tension	RU5-2403-000CN	1
37	Spring, torsion	RU5-2410-020CN	1
38	Connector, snap-tight, black	VS1-7177-003CN	1
39	Tray, staple	RC2-0725-000CN	1
40	Plate, I/O	RC2-0736-000CN	1
41	Cable assembly	RM1-4053-000CN	1
(not shown)	Stapler	CB414-60147	1
(not shown)	Power-supply, stapler	Q7429-69501	1
(not shown)	Formatter	Q7819-60001	1



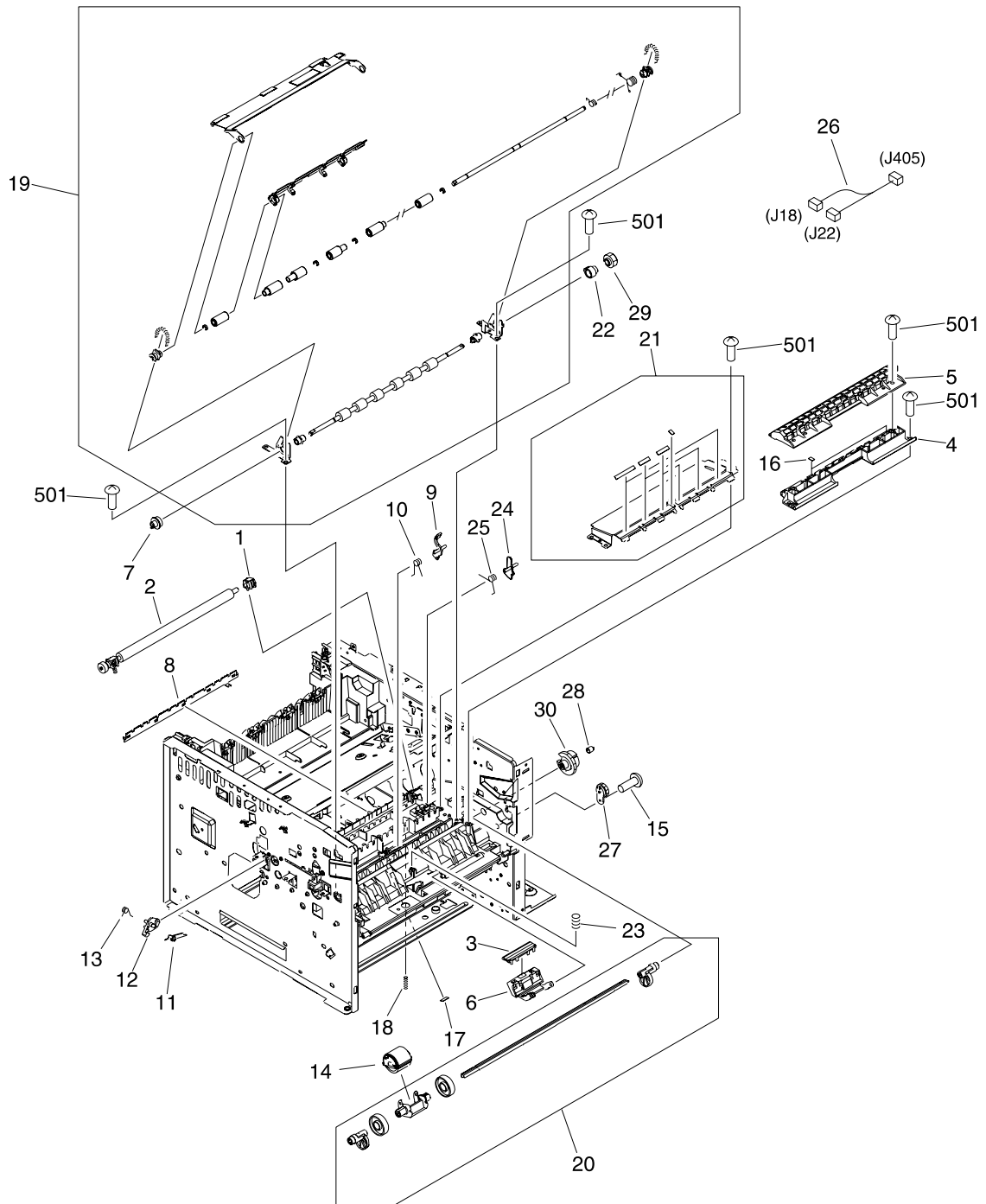


**Figure 7-4** Internal components (2 of 6)



**Table 7-5** Internal components (2 of 6)

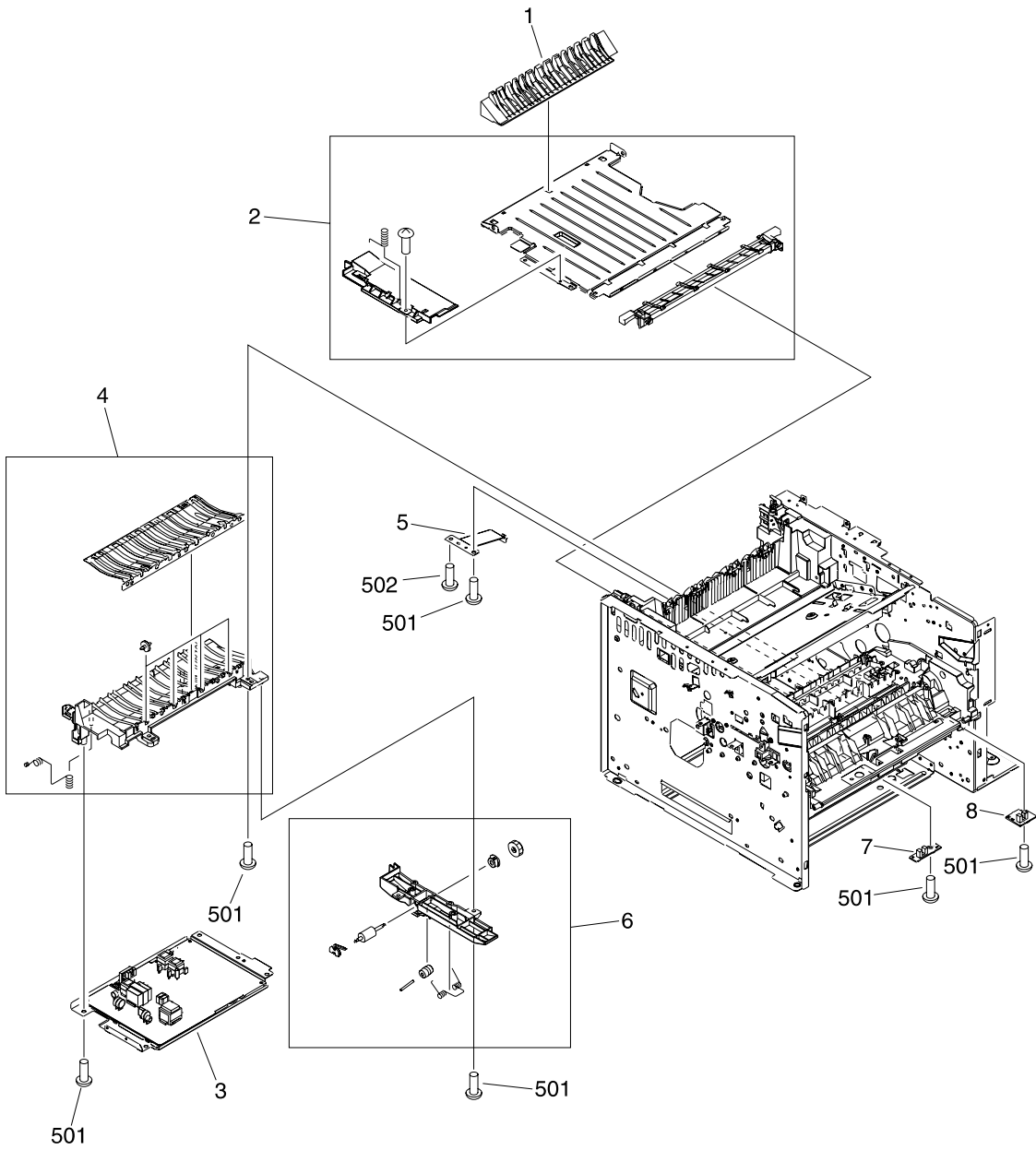
<b>Ref</b>	<b>Description</b>	<b>Part number</b>	<b>Qty</b>
1	Lever, coupling	RC1-4115-000CN	1
2	Cam	RC1-4114-000CN	1
3	Lever, drive release	RC1-4116-000CN	1
4	Link, drive release	RC1-4117-000CN	1
5	Film, fuser drive side plate	RC2-0649-000CN	1
6	Duct, cartridge	RC2-0590-000CN	1
7	Pendulum assembly	RM1-3748-000CN	1
8	Drive release assembly	RM1-1522-000CN	1
9	Guide, air	RC2-0648-000CN	1
10	Stopper, fuser	RC2-0657-000CN	
11	Bushing, inner	RC2-0701-000CN	1
12	Gear, 65T	RU5-0962-000CN	1
13	Motor, stepping	RK2-1489-000CN	1
14	Fixing drive side plate assembly	RM1-3746-000CN	1
15	Gear, 201t	RU5-0950-000CN	1
16	Gear, 20T/20T	RU5-0956-000CN	1
17	Gear, 20T	RU5-0957-000CN	1
18	Gear, 17T/17T	RU5-0958-000CN	1
19	Gear, 19T	RU5-0959-000CN	1
20	Spring, compression	RU5-2401-000CN	1
21	Gear, 12T	RU5-0394-000CN	1
22	Spring, compression	RU5-2920-000CN	1
23	E-ring	XD2-1100-402CN	2
24	Screw, D, M3x8	XA9-1671-000CN	1
24	Screw, RS, M3x8	XA9-1500-000CN	7
25	Cover, main motor	RC1-4108-000CN	1
26	Cover, gear	RC2-0579-000CN	1
27	Washer	RC2-0652-000CN	1
28	Motor, dc, 26.2 W	RK2-1488-000CN	1
29	Gear, 16T	RU5-0951-000CN	1
30	Gear, 43T	RU5-0955-000CN	1
31	Gear, 31T	RU5-0960-000CN	1



**Figure 7-5** Internal components (3 of 6)

**Table 7-6** Internal components (3 of 6)

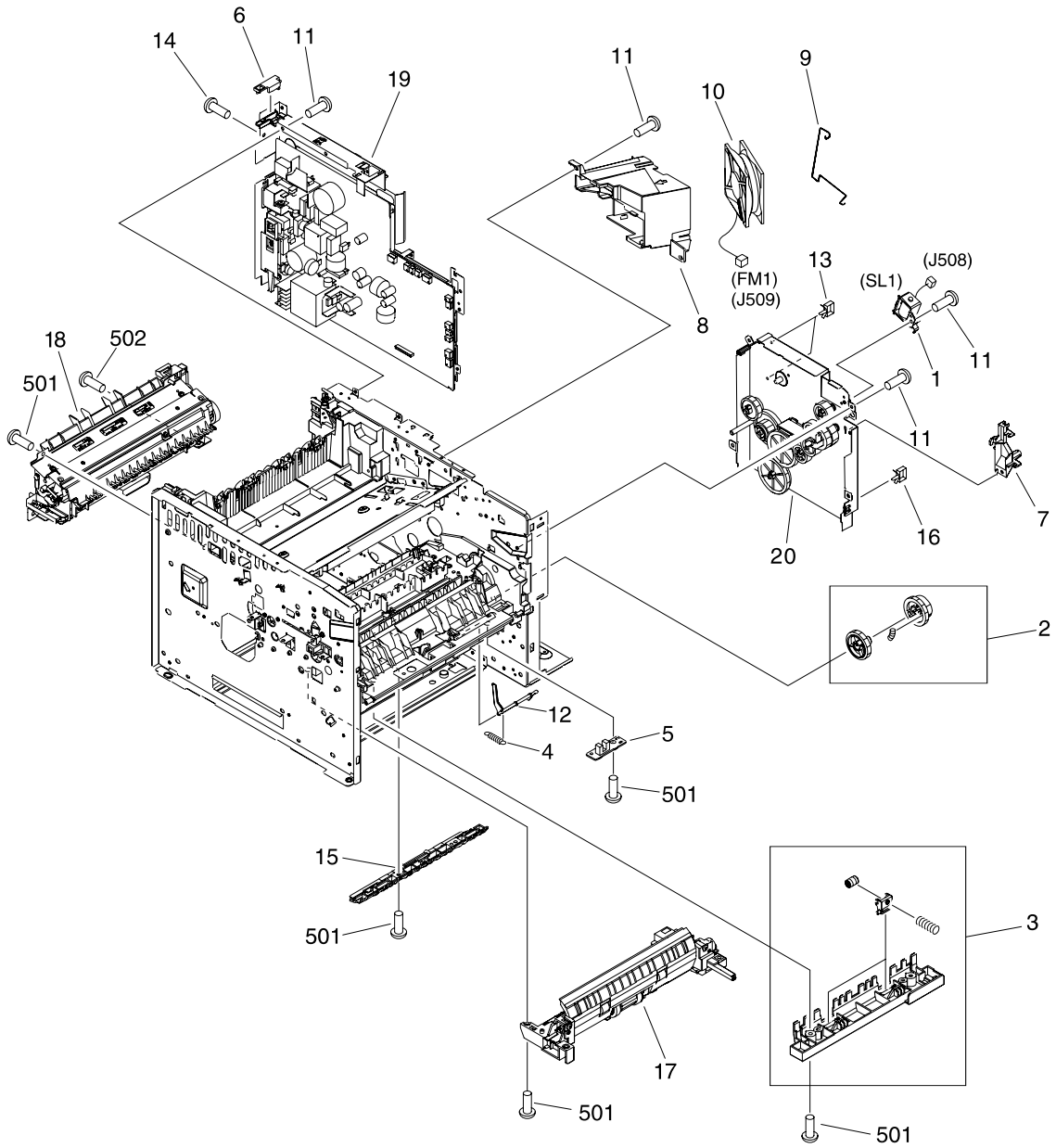
Ref	Description	Part number	Qty
1	Bushing, transfer, right	RC1-0922-000CN	1
2	Transfer roller assembly	RM1-1508-000CN	1
3	Pad, separation	RC1-0939-000CN	1
4	Guide, feed	RC1-3935-000CN	1
5	Cover, registration	RC1-3936-020CN	1
6	Arm, pad	RC1-3937-000CN	1
7	Gear, 12T	RU5-0400-000CN	1
8	Eliminator, static charge	RC1-4025-000CN	1
9	Lever, sensor	RC1-4027-000CN	1
10	Spring, torsion	RC1-4028-000CN	1
11	Spring, torsion	RC1-4059-000CN	1
12	Lever	RC1-4060-000CN	1
13	Spring, torsion	RC1-4061-000CN	1
14	Roller, tray 1 pick-up	RL1-0568-000CN	1
15	Screw, D, M3x8	XA9-1671-000CN	1
16	Sheet, static charge	RC1-4069-000CN	2
17	Sheet, static charge	RC1-4070-000CN	1
18	Spring, compression	RU5-2408-000CN	1
19	Registration assembly	RM1-3715-000CN	1
20	Tray 1 pickup roller assembly	RM1-3716-000CN	1
21	Transfer guide assembly, lower	RM1-3757-000CN	1
22	Stopper, gear	RC1-4189-000CN	1
23	Spring, compression	RU5-2385-000CN	1
24	Arm, width-sensor	RC2-0575-000CN	1
25	Spring, torsion	RC2-0576-000CN	1
26	Cable, delivery sensor	RM1-4057-000CN	1
27	Gear, 17T	RA0-1172-000CN	1
28	Spring compression	RC2-0483-000CN	1
29	Gear, 14T	RU5-0409-000CN	1
30	Gear, 30T	RU5-0366-000CN	1
501	Screw, tapping, truss head, M4x10	XB4-7401-005CN	9



**Figure 7-6** Internal components (4 of 6)

**Table 7-7** Internal components (4 of 6)

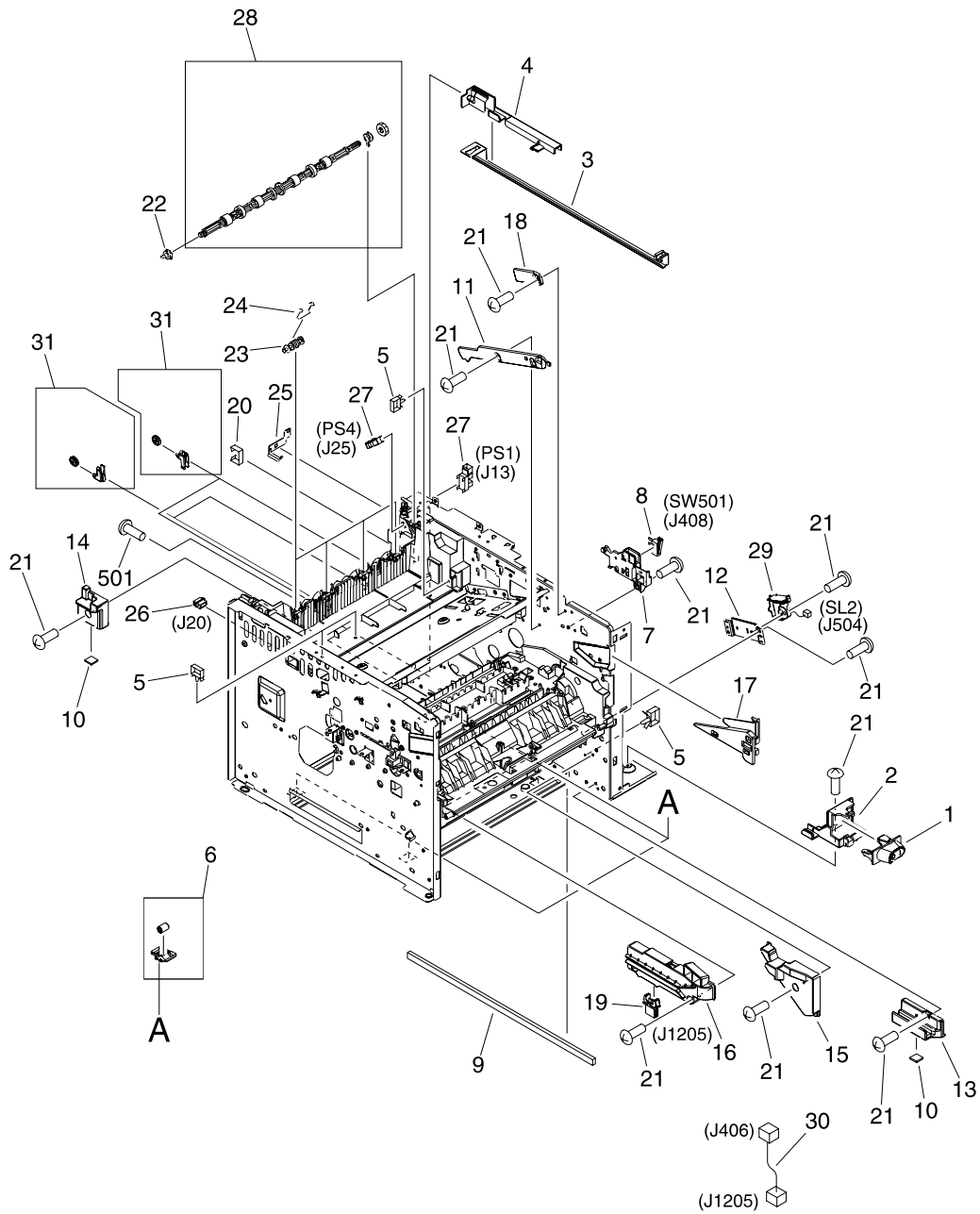
<b>Ref</b>	<b>Description</b>	<b>Part number</b>	<b>Qty</b>
1	Guide, duplex inlet	RC1-4096-000CN	1
2	Feed assembly, lower	RM1-3759-000CN	1
3	Power supply	RM1-3758-000CN	1
4	Feed guide assembly	RM1-3760-000CN	1
5	Plate, grounding	RC1-4085-000CN	1
6	Position guide assembly	RM1-1506-000CN	1
7	Sensor PCA, top-of-page	RM1-4040-000CN	1
8	Sensor PCA, width	RM1-4042-000CN	1
501	Screw, tapping, truss head, M4x10	XB4-7401-005CN	6
502	Screw w/washer, M3x6	XB2-7300-605CN	1



**Figure 7-7** Internal components (5 of 6)

**Table 7-8** Internal components (5 of 6)

Ref	Description	Part number	Qty
1	Solenoid, tray 1	RK2-1490-000CN	1
2	Pick-up roller gear assembly	RM1-3714-000CN	1
3	Roller stay assembly	RM1-1485-000CN	1
4	Spring, torsion	RU5-2386-000CN	1
5	Sensor PCA, multipurpose	RM1-4041-000CN	1
6	Cover, face-up-sensor cable	RC2-0739-000CN	1
7	Holder, cable	RC2-0588-000CN	1
8	Holder, main fan	RC2-0592-000CN	1
9	Static wire, right-side fan	RC2-0593-000CN	1
10	Fan, right-side	RK2-1497-000CN	1
11	Screw, D, M3x8	XA9-1671-000CN	15
12	Lever, sensor	RC1-3939-000CN	1
13	Cable guide	WT2-5694-000CN	2
14	Screw, tapping, M3x6	XA9-1503-000CN	15
15	Guide	RC1-4083-000CN	
16	Cable guide	WT2-5678-000CN	1
17	Tray 2 pickup assembly (also see <a href="#">Tray 2 pickup assembly on page 290</a> )	RM1-3762-000CN	1
18	Fuser, 110-127 V	RM1-3740-000CN	1
18	Fuser, 220-240 V	RM1-3741-000CN	1
19	ECU, 110-127 V	RM1-3774-000CN	1
19	ECU, 220-240 V	RM1-3775-000CN	1
20	Gear assembly	RM1-3712-000CN	1
501	Screw, tapping, truss head, M4x10	XB4-7401-005CN	10
502	Screw w/washer, M3x6	XB2-7300-605CN	1



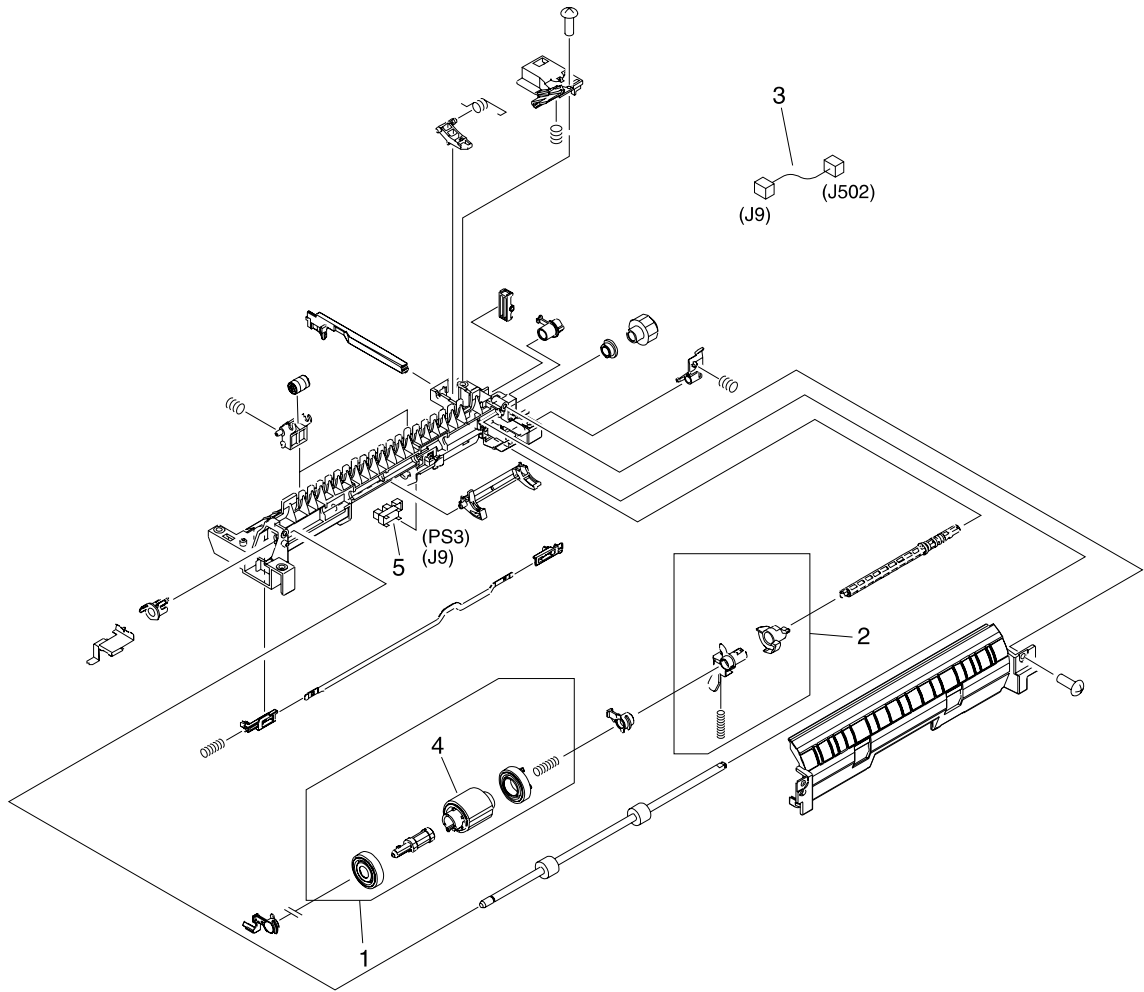
**Figure 7-8** Internal components (6 of 6)



**Table 7-9** Internal components (6 of 6)

Ref	Description	Part number	Qty
1	Power switch	RC2-0631-000CN	1
2	Holder, switch	RC2-0632-000CN	1
3	Link, switch	RC2-0633-000CN	1
4	Holder, switch link	RC2-0634-000CN	1
5	Cable guide	WT2-5678-000CN	4
6	Roller assembly, bottom plate	RM1-3727-000CN	4
7	Holder, interlock	RC2-0595-000CN	1
8	Microswitch	RK2-0534-000CN	1
9	Cushion, right lower	RC2-0468-000CN	1
10	Foot, rubber	RA0-1003-000CN	2
11	Guide, cartridge, upper-right	RC2-0492-000CN	1
12	Mount, solenoid	RC2-0498-000CN	1
13	Guide, cassette, front-right	RC2-0559-000CN	1
14	Guide, cassette, back-right	RC2-0560-000CN	1
15	Guide, center plate, right	RC2-0561-000CN	1
16	Holder, option connector	RC1-0562-000CN	1
17	Guide, cartridge, lower-right	RC2-0700-000CN	1
18	Stopper, cartridge, right	RC2-0702-000CN	1
19	Connector, drawer	VS1-7257-007CN	1
20	Cable guide	WT2-5056-000CN	1
21	Screw, D, M3x8	XA9-1671-000CN	14
22	Bushing	RC1-3665-000CN	1
23	Roller, face-down	RC1-3994-000CN	4
24	Spring, torsion	RC2-0665-000CN	4
25	Plate, face-up shield	RC2-0697-000CN	1
26	Connector, snap-tight, black	VS1-7177-004CN	1
27	Photo-interrupter	WG8-5624-000CN	2
28	Roller assembly, face-down	RM1-3749-000CN	1
29	Solenoid	RK2-1492-000CN	1
30	Cable, option interface	RM1-4062-000CN	1
31	Roller assembly, delivery	RM1-1497-000CN	4
501	Screw, tapping, truss head, M4x10	XB4-7401-005CN	2

# Tray 2 pickup assembly



**Figure 7-9** Tray 2 pickup assembly

**Table 7-10** Tray 2 pickup assembly

<b>Ref</b>	<b>Description</b>	<b>Part number</b>	<b>Qty</b>
	Tray 2 pickup assembly	RM1-3762-000CN	1
1	Pickup roller assembly, tray 2	RM1-3763-000CN	1
2	Sensor flag assembly, tray 2	RM1-3769-000CN	1
3	Cable, sensor, tray 2	RM1-4060-000CN	1
4	Pickup roller, tray 2	RL1-1370-000CN	1
5	Photo-interrupter, tray 2	WG8-5624-000CN	1

# Alphabetical parts list

**Table 7-11** Alphabetical parts list

Description	Part number	Table and page
ADF assembly	CB414-67916	<a href="#">ADF/scanner assembly on page 273</a>
Arm, door	RC1-4055-000CN	<a href="#">Internal components (1 of 6) on page 277</a>
Arm, pad	RC1-3937-000CN	<a href="#">Internal components (3 of 6) on page 283</a>
Arm, width-sensor	RC2-0575-000CN	<a href="#">Internal components (3 of 6) on page 283</a>
Bushing	RC1-3665-000CN	<a href="#">Internal components (6 of 6) on page 289</a>
Bushing, inner	RC2-0701-000CN	<a href="#">Internal components (2 of 6) on page 281</a>
Bushing, transfer, right	RC1-0922-000CN	<a href="#">Internal components (3 of 6) on page 283</a>
Cable assembly	RM1-4053-000CN	<a href="#">Internal components (1 of 6) on page 277</a>
Cable guide	WT2-5694-000CN	<a href="#">Internal components (5 of 6) on page 287</a>
Cable guide	WT2-5678-000CN	<a href="#">Internal components (5 of 6) on page 287</a>
Cable guide	WT2-5678-000CN	<a href="#">Internal components (6 of 6) on page 289</a>
Cable guide	WT2-5056-000CN	<a href="#">Internal components (6 of 6) on page 289</a>
Cable, delivery sensor	RM1-4057-000CN	<a href="#">Internal components (3 of 6) on page 283</a>
Cable, memory tag	RM1-4054-000CN	<a href="#">Internal components (1 of 6) on page 277</a>
Cable, option interface	RM1-4062-000CN	<a href="#">Internal components (6 of 6) on page 289</a>
Cable, sensor, tray 2	RM1-4060-000CN	<a href="#">Tray 2 pickup assembly on page 291</a>
Cam	RC1-4114-000CN	<a href="#">Internal components (2 of 6) on page 281</a>
Cam, contact	RC1-4137-020CN	<a href="#">Internal components (1 of 6) on page 277</a>
Cartridge door assembly	RM1-3722-000CN	<a href="#">Covers on page 275</a>
Clip clamp, wire	WT2-5694-000CN	<a href="#">Internal components (1 of 6) on page 277</a>
Clip, cable	WT2-5812-000CN	<a href="#">Internal components (1 of 6) on page 277</a>

**Table 7-11** Alphabetical parts list (continued)

Description	Part number	Table and page
Clip, cable	WT2-5056-000CN	<a href="#">Internal components (1 of 6) on page 277</a>
Connector, drawer	VS1-7257-007CN	<a href="#">Internal components (6 of 6) on page 289</a>
Connector, snap-tight, black	VS1-7177-003CN	<a href="#">Internal components (1 of 6) on page 277</a>
Connector, snap-tight, black	VS1-7177-004CN	<a href="#">Internal components (6 of 6) on page 289</a>
Control panel	CB414-60101	<a href="#">ADF/scanner assembly on page 273</a>
Cover (replaces the stapler door for devices without staplers)	RC2-0727-000CN	<a href="#">Covers on page 275</a>
Cover, ADF	CB414-67902	<a href="#">ADF/scanner assembly on page 273</a>
Cover, face-up-sensor cable	RC2-0739-000CN	<a href="#">Internal components (5 of 6) on page 287</a>
Cover, fax	RC2-0726-000CN	<a href="#">Covers on page 275</a>
Cover, fax internal (fax rail)	RC2-0729-000CN	<a href="#">Covers on page 275</a>
Cover, gear	RC2-0579-000CN	<a href="#">Internal components (2 of 6) on page 281</a>
Cover, I/O	RC2-0612-000CN	<a href="#">Covers on page 275</a>
Cover, left	RM1-3773-000CN	<a href="#">Covers on page 275</a>
Cover, legal	RL1-1366-000CN	<a href="#">Covers on page 275</a>
Cover, main motor	RC1-4108-000CN	<a href="#">Internal components (2 of 6) on page 281</a>
Cover, registration	RC1-3936-020CN	<a href="#">Internal components (3 of 6) on page 283</a>
Cover, right front	RL1-1723-000CN	<a href="#">Covers on page 275</a>
Cover, right lower	RC2-0603-000CN	<a href="#">Covers on page 275</a>
Cover, right-side (DIMM cover)	RC2-0722-000CN	<a href="#">Covers on page 275</a>
Cover, stapler	RM1-3790-000CN	<a href="#">Covers on page 275</a>
Cushion, right lower	RC2-0468-000CN	<a href="#">Internal components (6 of 6) on page 289</a>
Drive release assembly	RM1-1522-000CN	<a href="#">Internal components (2 of 6) on page 281</a>
Duct, cartridge	RC2-0590-000CN	<a href="#">Internal components (2 of 6) on page 281</a>
Duct, scanner	RC1-4128-020CN	<a href="#">Internal components (1 of 6) on page 277</a>
E-ring	XD2-1100-402CN	<a href="#">Internal components (2 of 6) on page 281</a>

**Table 7-11** Alphabetical parts list (continued)

Description	Part number	Table and page
ECU, 110-127 V	RM1-3774-000CN	<a href="#">Internal components (5 of 6) on page 287</a>
ECU, 220-240 V	RM1-3775-000CN	<a href="#">Internal components (5 of 6) on page 287</a>
Eliminator, static charge	RC1-4025-000CN	<a href="#">Internal components (3 of 6) on page 283</a>
Fan, left-side	RK2-1499-000CN	<a href="#">Internal components (1 of 6) on page 277</a>
Fan, right-side	RK2-1497-000CN	<a href="#">Internal components (5 of 6) on page 287</a>
Feed assembly, lower	RM1-3759-000CN	<a href="#">Internal components (4 of 6) on page 285</a>
Feed guide assembly	RM1-3760-000CN	<a href="#">Internal components (4 of 6) on page 285</a>
Film, fuser drive side plate	RC2-0649-000CN	<a href="#">Internal components (2 of 6) on page 281</a>
Fixing drive side plate assembly	RM1-3746-000CN	<a href="#">Internal components (2 of 6) on page 281</a>
Flag assembly, face-down	RM1-3743-000CN	<a href="#">Covers on page 275</a>
Flag assembly, full detect	RM1-3742-000CN	<a href="#">Covers on page 275</a>
Foot, rubber	RA0-1003-000CN	<a href="#">Internal components (1 of 6) on page 277</a>
Foot, rubber	RA0-1003-000CN	<a href="#">Internal components (6 of 6) on page 289</a>
Formatter	Q7819-60001	<a href="#">Internal components (1 of 6) on page 277</a>
Fuser, 110-127 V	RM1-3740-000CN	<a href="#">Internal components (5 of 6) on page 287</a>
Fuser, 220-240 V	RM1-3741-000CN	<a href="#">Internal components (5 of 6) on page 287</a>
Gear assembly	RM1-3712-000CN	<a href="#">Internal components (5 of 6) on page 287</a>
Gear, 12T	RU5-0394-000CN	<a href="#">Internal components (2 of 6) on page 281</a>
Gear, 12T	RU5-0400-000CN	<a href="#">Internal components (3 of 6) on page 283</a>
Gear, 14T	RU5-0409-000CN	<a href="#">Internal components (3 of 6) on page 283</a>
Gear, 16T	RU5-0951-000CN	<a href="#">Internal components (2 of 6) on page 281</a>
Gear, 17T	RA0-1172-000CN	<a href="#">Internal components (3 of 6) on page 283</a>
Gear, 17T/17T	RU5-0958-000CN	<a href="#">Internal components (2 of 6) on page 281</a>

**Table 7-11** Alphabetical parts list (continued)

Description	Part number	Table and page
Gear, 19T	RU5-0959-000CN	<a href="#">Internal components (2 of 6) on page 281</a>
Gear, 201t	RU5-0950-000CN	<a href="#">Internal components (2 of 6) on page 281</a>
Gear, 20T	RU5-0957-000CN	<a href="#">Internal components (2 of 6) on page 281</a>
Gear, 20T/20T	RU5-0956-000CN	<a href="#">Internal components (2 of 6) on page 281</a>
Gear, 30T	RU5-0366-000CN	<a href="#">Internal components (3 of 6) on page 283</a>
Gear, 31T	RU5-0960-000CN	<a href="#">Internal components (2 of 6) on page 281</a>
Gear, 43T	RU5-0955-000CN	<a href="#">Internal components (2 of 6) on page 281</a>
Gear, 65T	RU5-0962-000CN	<a href="#">Internal components (2 of 6) on page 281</a>
Guide	RC1-4083-000CN	<a href="#">Internal components (5 of 6) on page 287</a>
Guide, air	RC2-0648-000CN	<a href="#">Internal components (2 of 6) on page 281</a>
Guide, cartridge, left lower	RC2-0704-000CN	<a href="#">Internal components (1 of 6) on page 277</a>
Guide, cartridge, left upper	RC2-0703-000CN	<a href="#">Internal components (1 of 6) on page 277</a>
Guide, cartridge, lower-right	RC2-0700-000CN	<a href="#">Internal components (6 of 6) on page 289</a>
Guide, cartridge, upper-right	RC2-0492-000CN	<a href="#">Internal components (6 of 6) on page 289</a>
Guide, cassette, back-right	RC2-0560-000CN	<a href="#">Internal components (6 of 6) on page 289</a>
Guide, cassette, front-right	RC2-0559-000CN	<a href="#">Internal components (6 of 6) on page 289</a>
Guide, cassette, left front	RC2-0565-000CN	<a href="#">Internal components (1 of 6) on page 277</a>
Guide, cassette, left rear	RC2-0566-000CN	<a href="#">Internal components (1 of 6) on page 277</a>
Guide, center plate, left	RC2-0567-000CN	<a href="#">Internal components (1 of 6) on page 277</a>
Guide, center plate, right	RC2-0561-000CN	<a href="#">Internal components (6 of 6) on page 289</a>
Guide, door arm	RC1-4056-000CN	<a href="#">Internal components (1 of 6) on page 277</a>
Guide, duplex inlet	RC1-4096-000CN	<a href="#">Internal components (4 of 6) on page 285</a>

**Table 7-11** Alphabetical parts list (continued)

Description	Part number	Table and page
Guide, feed	RC1-3935-000CN	<a href="#">Internal components (3 of 6) on page 283</a>
Hinge, left	RC1-4057-000CN	<a href="#">Covers on page 275</a>
Hinge, right	RC1-4058-000CN	<a href="#">Covers on page 275</a>
Holder	RC1-4009-000CN	<a href="#">Internal components (1 of 6) on page 277</a>
Holder, cable	RC2-0588-000CN	<a href="#">Internal components (5 of 6) on page 287</a>
Holder, interlock	RC2-0595-000CN	<a href="#">Internal components (6 of 6) on page 289</a>
Holder, main fan	RC2-0592-000CN	<a href="#">Internal components (5 of 6) on page 287</a>
Holder, option connector	RC1-0562-000CN	<a href="#">Internal components (6 of 6) on page 289</a>
Holder, sub fan	RC2-0622-000CN	<a href="#">Internal components (1 of 6) on page 277</a>
Holder, switch	RC2-0632-000CN	<a href="#">Internal components (6 of 6) on page 289</a>
Holder, switch link	RC2-0634-000CN	<a href="#">Internal components (6 of 6) on page 289</a>
Holder, tag	RC1-4127-000CN	<a href="#">Internal components (1 of 6) on page 277</a>
Input tray, ADF	CB414-67903	<a href="#">ADF/scanner assembly on page 273</a>
Laser/scanner assembly	RM1-1521-030CN	<a href="#">Internal components (1 of 6) on page 277</a>
Lever	RC1-4060-000CN	<a href="#">Internal components (3 of 6) on page 283</a>
Lever, cartridge clamp	RC2-0706-000CN	<a href="#">Internal components (1 of 6) on page 277</a>
Lever, coupling	RC1-4115-000CN	<a href="#">Internal components (2 of 6) on page 281</a>
Lever, drive release	RC2-0705-000CN	<a href="#">Internal components (1 of 6) on page 277</a>
Lever, drive release	RC1-4116-000CN	<a href="#">Internal components (2 of 6) on page 281</a>
Lever, grounding contact	RC1-4065-000CN	<a href="#">Internal components (1 of 6) on page 277</a>
Lever, grounding contact	RC1-4066-020CN	<a href="#">Internal components (1 of 6) on page 277</a>
Lever, sensor	RC1-4027-000CN	<a href="#">Internal components (3 of 6) on page 283</a>
Lever, sensor	RC1-3939-000CN	<a href="#">Internal components (5 of 6) on page 287</a>



**Table 7-11** Alphabetical parts list (continued)

Description	Part number	Table and page
Link, drive release	RC1-4117-000CN	<a href="#">Internal components (2 of 6) on page 281</a>
Link, laser shutter	RC1-4125-000CN	<a href="#">Internal components (1 of 6) on page 277</a>
Link, switch	RC2-0633-000CN	<a href="#">Internal components (6 of 6) on page 289</a>
Microswitch	RK2-0534-000CN	<a href="#">Internal components (6 of 6) on page 289</a>
Motor, dc, 26.2 W	RK2-1488-000CN	<a href="#">Internal components (2 of 6) on page 281</a>
Motor, stepping	RK2-1489-000CN	<a href="#">Internal components (2 of 6) on page 281</a>
Mount, solenoid	RC2-0498-000CN	<a href="#">Internal components (6 of 6) on page 289</a>
Pad, separation	RC1-0939-000CN	<a href="#">Internal components (3 of 6) on page 283</a>
Paper clip tray	RC2-0724-000CN	<a href="#">Covers on page 275</a>
Pendulum assembly	RM1-3748-000CN	<a href="#">Internal components (2 of 6) on page 281</a>
Photo-interrupter	WG8-5624-000CN	<a href="#">Internal components (6 of 6) on page 289</a>
Photo-interrupter, tray 2	WG8-5624-000CN	<a href="#">Tray 2 pickup assembly on page 291</a>
Pick-up roller gear assembly	RM1-3714-000CN	<a href="#">Internal components (5 of 6) on page 287</a>
Pickup roller assembly, tray 2	RM1-3763-000CN	<a href="#">Tray 2 pickup assembly on page 291</a>
Pickup roller, tray 2	RL1-1370-000CN	<a href="#">Tray 2 pickup assembly on page 291</a>
Plate, face-up shield	RC2-0697-000CN	<a href="#">Internal components (6 of 6) on page 289</a>
Plate, fan shield, left	RC2-0623-000CN	<a href="#">Internal components (1 of 6) on page 277</a>
Plate, grounding	RC1-4085-000CN	<a href="#">Internal components (4 of 6) on page 285</a>
Plate, I/O	RC2-0736-000CN	<a href="#">Internal components (1 of 6) on page 277</a>
Plate, protective	RC1-4136-000CN	<a href="#">Internal components (1 of 6) on page 277</a>
Position guide assembly	RM1-1506-000CN	<a href="#">Internal components (4 of 6) on page 285</a>
Power supply	RM1-3758-000CN	<a href="#">Internal components (4 of 6) on page 285</a>

**Table 7-11** Alphabetical parts list (continued)

Description	Part number	Table and page
Power switch	RC2-0631-000CN	<a href="#">Internal components (6 of 6) on page 289</a>
Power-supply, stapler	Q7429-69501	<a href="#">Internal components (1 of 6) on page 277</a>
Rear cover assembly	RM1-3724-000CN	<a href="#">Covers on page 275</a>
Registration assembly	RM1-3715-000CN	<a href="#">Internal components (3 of 6) on page 283</a>
Roller assembly, bottom plate	RM1-3727-000CN	<a href="#">Internal components (6 of 6) on page 289</a>
Roller assembly, delivery	RM1-1497-000CN	<a href="#">Internal components (6 of 6) on page 289</a>
Roller assembly, face-down	RM1-3749-000CN	<a href="#">Internal components (6 of 6) on page 289</a>
Roller stay assembly	RM1-1485-000CN	<a href="#">Internal components (5 of 6) on page 287</a>
Roller, face-down	RC1-3994-000CN	<a href="#">Internal components (6 of 6) on page 289</a>
Roller, tray 1 pick-up	RL1-0568-000CN	<a href="#">Internal components (3 of 6) on page 283</a>
Scanner assembly (ADF assembly is <i>not</i> included)	CB414-67905	<a href="#">ADF/scanner assembly on page 273</a>
Screw w/washer, M3x6	XB2-7300-605CN	<a href="#">Internal components (4 of 6) on page 285</a>
Screw w/washer, M3x6	XB2-7300-605CN	<a href="#">Internal components (5 of 6) on page 287</a>
Screw, D, M3x8	XA9-1671-000CN	<a href="#">Internal components (1 of 6) on page 277</a>
Screw, D, M3x8	XA9-1671-000CN	<a href="#">Internal components (2 of 6) on page 281</a>
Screw, D, M3x8	XA9-1671-000CN	<a href="#">Internal components (3 of 6) on page 283</a>
Screw, D, M3x8	XA9-1671-000CN	<a href="#">Internal components (5 of 6) on page 287</a>
Screw, D, M3x8	XA9-1671-000CN	<a href="#">Internal components (6 of 6) on page 289</a>
Screw, RS, M3x8	XA9-1500-000CN	<a href="#">Internal components (2 of 6) on page 281</a>
Screw, tapping, M3x6	XA9-1503-000CN	<a href="#">Internal components (5 of 6) on page 287</a>
Screw, tapping, truss head, M4x10	XB4-7401-005CN	<a href="#">Internal components (3 of 6) on page 283</a>
Screw, tapping, truss head, M4x10	XB4-7401-005CN	<a href="#">Internal components (4 of 6) on page 285</a>

**Table 7-11** Alphabetical parts list (continued)

Description	Part number	Table and page
Screw, tapping, truss head, M4x10	XB4-7401-005CN	<a href="#">Internal components (5 of 6) on page 287</a>
Screw, tapping, truss head, M4x10	XB4-7401-005CN	<a href="#">Internal components (6 of 6) on page 289</a>
Sensor flag assembly, tray 2	RM1-3769-000CN	<a href="#">Tray 2 pickup assembly on page 291</a>
Sensor PCA, multipurpose	RM1-4041-000CN	<a href="#">Internal components (5 of 6) on page 287</a>
Sensor PCA, top-of-page	RM1-4040-000CN	<a href="#">Internal components (4 of 6) on page 285</a>
Sensor PCA, width	RM1-4042-000CN	<a href="#">Internal components (4 of 6) on page 285</a>
Sheet, static charge	RC1-4069-000CN	<a href="#">Internal components (3 of 6) on page 283</a>
Sheet, static charge	RC1-4070-000CN	<a href="#">Internal components (3 of 6) on page 283</a>
Solenoid	RK2-1492-000CN	<a href="#">Internal components (6 of 6) on page 289</a>
Solenoid, tray 1	RK2-1490-000CN	<a href="#">Internal components (5 of 6) on page 287</a>
Spring compression	RC2-0483-000CN	<a href="#">Internal components (3 of 6) on page 283</a>
Spring, compression	RU5-2404-000CN	<a href="#">Internal components (1 of 6) on page 277</a>
Spring, compression	RU5-2405-000CN	<a href="#">Internal components (1 of 6) on page 277</a>
Spring, compression	RC1-4140-000CN	<a href="#">Internal components (1 of 6) on page 277</a>
Spring, compression	RU5-2401-000CN	<a href="#">Internal components (2 of 6) on page 281</a>
Spring, compression	RU5-2920-000CN	<a href="#">Internal components (2 of 6) on page 281</a>
Spring, compression	RU5-2408-000CN	<a href="#">Internal components (3 of 6) on page 283</a>
Spring, compression	RU5-2385-000CN	<a href="#">Internal components (3 of 6) on page 283</a>
Spring, leaf	RC1-4067-000CN	<a href="#">Internal components (1 of 6) on page 277</a>
Spring, tension	RU5-2388-000CN	<a href="#">Covers on page 275</a>
Spring, tension	RU5-2407-000CN	<a href="#">Internal components (1 of 6) on page 277</a>
Spring, tension	RU5-2403-000CN	<a href="#">Internal components (1 of 6) on page 277</a>

**Table 7-11** Alphabetical parts list (continued)

Description	Part number	Table and page
Spring, torsion	RU5-2410-020CN	<a href="#">Internal components (1 of 6) on page 277</a>
Spring, torsion	RC1-4028-000CN	<a href="#">Internal components (3 of 6) on page 283</a>
Spring, torsion	RC1-4059-000CN	<a href="#">Internal components (3 of 6) on page 283</a>
Spring, torsion	RC1-4061-000CN	<a href="#">Internal components (3 of 6) on page 283</a>
Spring, torsion	RC2-0576-000CN	<a href="#">Internal components (3 of 6) on page 283</a>
Spring, torsion	RU5-2386-000CN	<a href="#">Internal components (5 of 6) on page 287</a>
Spring, torsion	RC2-0665-000CN	<a href="#">Internal components (6 of 6) on page 289</a>
Stapler	CB414-60147	<a href="#">Internal components (1 of 6) on page 277</a>
Stapler door (for devices with staplers)	CB414-40064	<a href="#">Covers on page 275</a>
Static wire, right-side fan	RC2-0593-000CN	<a href="#">Internal components (5 of 6) on page 287</a>
Stay, tag holder	RC1-4126-000CN	<a href="#">Internal components (1 of 6) on page 277</a>
Stopper, cartridge, left	RC2-0707-000CN	<a href="#">Internal components (1 of 6) on page 277</a>
Stopper, cartridge, right	RC2-0702-000CN	<a href="#">Internal components (6 of 6) on page 289</a>
Stopper, feed guide, left	RC2-0585-000CN	<a href="#">Internal components (1 of 6) on page 277</a>
Stopper, fuser	RC2-0657-000CN	<a href="#">Internal components (2 of 6) on page 281</a>
Stopper, gear	RC1-4189-000CN	<a href="#">Internal components (3 of 6) on page 283</a>
Top cover assembly	RM1-3772-000CN	<a href="#">Covers on page 275</a>
Transfer guide assembly, lower	RM1-3757-000CN	<a href="#">Internal components (3 of 6) on page 283</a>
Transfer roller assembly	RM1-1508-000CN	<a href="#">Internal components (3 of 6) on page 283</a>
Tray, staple	RC2-0725-000CN	<a href="#">Internal components (1 of 6) on page 277</a>
Tray 1 assembly	RM1-1490-000CN	<a href="#">Covers on page 275</a>
Tray 1 cover assembly	RM1-3723-000CN	<a href="#">Covers on page 275</a>
Tray 1 pickup roller assembly	RM1-3716-000CN	<a href="#">Internal components (3 of 6) on page 283</a>

**Table 7-11** Alphabetical parts list (continued)

Description	Part number	Table and page
Tray 2 pickup assembly	RM1-3762-000CN	<a href="#">Tray 2 pickup assembly on page 291</a>
Tray 2 pickup assembly (also see <a href="#">Tray 2 pickup assembly on page 290</a> )	RM1-3762-000CN	<a href="#">Internal components (5 of 6) on page 287</a>
Washer	RC2-0652-000CN	<a href="#">Internal components (2 of 6) on page 281</a>

# Numerical parts list

**Table 7-12** Numerical parts list

Part number	Description	Table and page
CB414-40064	Stapler door (for devices with staplers)	<a href="#">Covers on page 275</a>
CB414-60101	Control panel	<a href="#">ADF/scanner assembly on page 273</a>
CB414-60147	Stapler	<a href="#">Internal components (1 of 6) on page 277</a>
CB414-67902	Cover, ADF	<a href="#">ADF/scanner assembly on page 273</a>
CB414-67903	Input tray, ADF	<a href="#">ADF/scanner assembly on page 273</a>
CB414-67905	Scanner assembly (ADF assembly is <i>not</i> included)	<a href="#">ADF/scanner assembly on page 273</a>
CB414-67916	ADF assembly	<a href="#">ADF/scanner assembly on page 273</a>
Q7429-69501	Power-supply, stapler	<a href="#">Internal components (1 of 6) on page 277</a>
Q7819-60001	Formatter	<a href="#">Internal components (1 of 6) on page 277</a>
RA0-1003-000CN	Foot, rubber	<a href="#">Internal components (1 of 6) on page 277</a>
RA0-1003-000CN	Foot, rubber	<a href="#">Internal components (6 of 6) on page 289</a>
RA0-1172-000CN	Gear, 17T	<a href="#">Internal components (3 of 6) on page 283</a>
RC1-0562-000CN	Holder, option connector	<a href="#">Internal components (6 of 6) on page 289</a>
RC1-0922-000CN	Bushing, transfer, right	<a href="#">Internal components (3 of 6) on page 283</a>
RC1-0939-000CN	Pad, separation	<a href="#">Internal components (3 of 6) on page 283</a>
RC1-3665-000CN	Bushing	<a href="#">Internal components (6 of 6) on page 289</a>
RC1-3935-000CN	Guide, feed	<a href="#">Internal components (3 of 6) on page 283</a>
RC1-3936-020CN	Cover, registration	<a href="#">Internal components (3 of 6) on page 283</a>
RC1-3937-000CN	Arm, pad	<a href="#">Internal components (3 of 6) on page 283</a>
RC1-3939-000CN	Lever, sensor	<a href="#">Internal components (5 of 6) on page 287</a>
RC1-3994-000CN	Roller, face-down	<a href="#">Internal components (6 of 6) on page 289</a>

**Table 7-12** Numerical parts list (continued)

<b>Part number</b>	<b>Description</b>	<b>Table and page</b>
RC1-4009-000CN	Holder	<a href="#">Internal components (1 of 6) on page 277</a>
RC1-4025-000CN	Eliminator, static charge	<a href="#">Internal components (3 of 6) on page 283</a>
RC1-4027-000CN	Lever, sensor	<a href="#">Internal components (3 of 6) on page 283</a>
RC1-4028-000CN	Spring, torsion	<a href="#">Internal components (3 of 6) on page 283</a>
RC1-4055-000CN	Arm, door	<a href="#">Internal components (1 of 6) on page 277</a>
RC1-4056-000CN	Guide, door arm	<a href="#">Internal components (1 of 6) on page 277</a>
RC1-4057-000CN	Hinge, left	<a href="#">Covers on page 275</a>
RC1-4058-000CN	Hinge, right	<a href="#">Covers on page 275</a>
RC1-4059-000CN	Spring, torsion	<a href="#">Internal components (3 of 6) on page 283</a>
RC1-4060-000CN	Lever	<a href="#">Internal components (3 of 6) on page 283</a>
RC1-4061-000CN	Spring, torsion	<a href="#">Internal components (3 of 6) on page 283</a>
RC1-4065-000CN	Lever, grounding contact	<a href="#">Internal components (1 of 6) on page 277</a>
RC1-4066-020CN	Lever, grounding contact	<a href="#">Internal components (1 of 6) on page 277</a>
RC1-4067-000CN	Spring, leaf	<a href="#">Internal components (1 of 6) on page 277</a>
RC1-4069-000CN	Sheet, static charge	<a href="#">Internal components (3 of 6) on page 283</a>
RC1-4070-000CN	Sheet, static charge	<a href="#">Internal components (3 of 6) on page 283</a>
RC1-4083-000CN	Guide	<a href="#">Internal components (5 of 6) on page 287</a>
RC1-4085-000CN	Plate, grounding	<a href="#">Internal components (4 of 6) on page 285</a>
RC1-4096-000CN	Guide, duplex inlet	<a href="#">Internal components (4 of 6) on page 285</a>
RC1-4108-000CN	Cover, main motor	<a href="#">Internal components (2 of 6) on page 281</a>
RC1-4114-000CN	Cam	<a href="#">Internal components (2 of 6) on page 281</a>
RC1-4115-000CN	Lever, coupling	<a href="#">Internal components (2 of 6) on page 281</a>
RC1-4116-000CN	Lever, drive release	<a href="#">Internal components (2 of 6) on page 281</a>

**Table 7-12** Numerical parts list (continued)

Part number	Description	Table and page
RC1-4117-000CN	Link, drive release	<a href="#">Internal components (2 of 6) on page 281</a>
RC1-4125-000CN	Link, laser shutter	<a href="#">Internal components (1 of 6) on page 277</a>
RC1-4126-000CN	Stay, tag holder	<a href="#">Internal components (1 of 6) on page 277</a>
RC1-4127-000CN	Holder, tag	<a href="#">Internal components (1 of 6) on page 277</a>
RC1-4128-020CN	Duct, scanner	<a href="#">Internal components (1 of 6) on page 277</a>
RC1-4136-000CN	Plate, protective	<a href="#">Internal components (1 of 6) on page 277</a>
RC1-4137-020CN	Cam, contact	<a href="#">Internal components (1 of 6) on page 277</a>
RC1-4140-000CN	Spring, compression	<a href="#">Internal components (1 of 6) on page 277</a>
RC1-4189-000CN	Stopper, gear	<a href="#">Internal components (3 of 6) on page 283</a>
RC2-0468-000CN	Cushion, right lower	<a href="#">Internal components (6 of 6) on page 289</a>
RC2-0483-000CN	Spring compression	<a href="#">Internal components (3 of 6) on page 283</a>
RC2-0492-000CN	Guide, cartridge, upper-right	<a href="#">Internal components (6 of 6) on page 289</a>
RC2-0498-000CN	Mount, solenoid	<a href="#">Internal components (6 of 6) on page 289</a>
RC2-0559-000CN	Guide, cassette, front-right	<a href="#">Internal components (6 of 6) on page 289</a>
RC2-0560-000CN	Guide, cassette, back-right	<a href="#">Internal components (6 of 6) on page 289</a>
RC2-0561-000CN	Guide, center plate, right	<a href="#">Internal components (6 of 6) on page 289</a>
RC2-0565-000CN	Guide, cassette, left front	<a href="#">Internal components (1 of 6) on page 277</a>
RC2-0566-000CN	Guide, cassette, left rear	<a href="#">Internal components (1 of 6) on page 277</a>
RC2-0567-000CN	Guide, center plate, left	<a href="#">Internal components (1 of 6) on page 277</a>
RC2-0575-000CN	Arm, width-sensor	<a href="#">Internal components (3 of 6) on page 283</a>
RC2-0576-000CN	Spring, torsion	<a href="#">Internal components (3 of 6) on page 283</a>
RC2-0579-000CN	Cover, gear	<a href="#">Internal components (2 of 6) on page 281</a>



**Table 7-12** Numerical parts list (continued)

<b>Part number</b>	<b>Description</b>	<b>Table and page</b>
RC2-0585-000CN	Stopper, feed guide, left	<a href="#">Internal components (1 of 6) on page 277</a>
RC2-0588-000CN	Holder, cable	<a href="#">Internal components (5 of 6) on page 287</a>
RC2-0590-000CN	Duct, cartridge	<a href="#">Internal components (2 of 6) on page 281</a>
RC2-0592-000CN	Holder, main fan	<a href="#">Internal components (5 of 6) on page 287</a>
RC2-0593-000CN	Static wire, right-side fan	<a href="#">Internal components (5 of 6) on page 287</a>
RC2-0595-000CN	Holder, interlock	<a href="#">Internal components (6 of 6) on page 289</a>
RC2-0603-000CN	Cover, right lower	<a href="#">Covers on page 275</a>
RC2-0612-000CN	Cover, I/O	<a href="#">Covers on page 275</a>
RC2-0622-000CN	Holder, sub fan	<a href="#">Internal components (1 of 6) on page 277</a>
RC2-0623-000CN	Plate, fan shield, left	<a href="#">Internal components (1 of 6) on page 277</a>
RC2-0631-000CN	Power switch	<a href="#">Internal components (6 of 6) on page 289</a>
RC2-0632-000CN	Holder, switch	<a href="#">Internal components (6 of 6) on page 289</a>
RC2-0633-000CN	Link, switch	<a href="#">Internal components (6 of 6) on page 289</a>
RC2-0634-000CN	Holder, switch link	<a href="#">Internal components (6 of 6) on page 289</a>
RC2-0648-000CN	Guide, air	<a href="#">Internal components (2 of 6) on page 281</a>
RC2-0649-000CN	Film, fuser drive side plate	<a href="#">Internal components (2 of 6) on page 281</a>
RC2-0652-000CN	Washer	<a href="#">Internal components (2 of 6) on page 281</a>
RC2-0657-000CN	Stopper, fuser	<a href="#">Internal components (2 of 6) on page 281</a>
RC2-0665-000CN	Spring, torsion	<a href="#">Internal components (6 of 6) on page 289</a>
RC2-0697-000CN	Plate, face-up shield	<a href="#">Internal components (6 of 6) on page 289</a>
RC2-0700-000CN	Guide, cartridge, lower-right	<a href="#">Internal components (6 of 6) on page 289</a>
RC2-0701-000CN	Bushing, inner	<a href="#">Internal components (2 of 6) on page 281</a>
RC2-0702-000CN	Stopper, cartridge, right	<a href="#">Internal components (6 of 6) on page 289</a>

**Table 7-12** Numerical parts list (continued)

Part number	Description	Table and page
RC2-0703-000CN	Guide, cartridge, left upper	<a href="#">Internal components (1 of 6) on page 277</a>
RC2-0704-000CN	Guide, cartridge, left lower	<a href="#">Internal components (1 of 6) on page 277</a>
RC2-0705-000CN	Lever, drive release	<a href="#">Internal components (1 of 6) on page 277</a>
RC2-0706-000CN	Lever, cartridge clamp	<a href="#">Internal components (1 of 6) on page 277</a>
RC2-0707-000CN	Stopper, cartridge, left	<a href="#">Internal components (1 of 6) on page 277</a>
RC2-0722-000CN	Cover, right-side (DIMM cover)	<a href="#">Covers on page 275</a>
RC2-0724-000CN	Paper clip tray	<a href="#">Covers on page 275</a>
RC2-0725-000CN	Tray, staple	<a href="#">Internal components (1 of 6) on page 277</a>
RC2-0726-000CN	Cover, fax	<a href="#">Covers on page 275</a>
RC2-0727-000CN	Cover (replaces the stapler door for devices without staplers)	<a href="#">Covers on page 275</a>
RC2-0729-000CN	Cover, fax internal (fax rail)	<a href="#">Covers on page 275</a>
RC2-0736-000CN	Plate, I/O	<a href="#">Internal components (1 of 6) on page 277</a>
RC2-0739-000CN	Cover, face-up-sensor cable	<a href="#">Internal components (5 of 6) on page 287</a>
RK2-0534-000CN	Microswitch	<a href="#">Internal components (6 of 6) on page 289</a>
RK2-1488-000CN	Motor, dc, 26.2 W	<a href="#">Internal components (2 of 6) on page 281</a>
RK2-1489-000CN	Motor, stepping	<a href="#">Internal components (2 of 6) on page 281</a>
RK2-1490-000CN	Solenoid, tray 1	<a href="#">Internal components (5 of 6) on page 287</a>
RK2-1492-000CN	Solenoid	<a href="#">Internal components (6 of 6) on page 289</a>
RK2-1497-000CN	Fan, right-side	<a href="#">Internal components (5 of 6) on page 287</a>
RK2-1499-000CN	Fan, left-side	<a href="#">Internal components (1 of 6) on page 277</a>
RL1-0568-000CN	Roller, tray 1 pick-up	<a href="#">Internal components (3 of 6) on page 283</a>
RL1-1366-000CN	Cover, legal	<a href="#">Covers on page 275</a>
RL1-1370-000CN	Pickup roller, tray 2	<a href="#">Tray 2 pickup assembly on page 291</a>
RL1-1723-000CN	Cover, right front	<a href="#">Covers on page 275</a>

**Table 7-12** Numerical parts list (continued)

<b>Part number</b>	<b>Description</b>	<b>Table and page</b>
RM1-1485-000CN	Roller stay assembly	<a href="#">Internal components (5 of 6) on page 287</a>
RM1-1490-000CN	Tray 1 assembly	<a href="#">Covers on page 275</a>
RM1-1497-000CN	Roller assembly, delivery	<a href="#">Internal components (6 of 6) on page 289</a>
RM1-1506-000CN	Position guide assembly	<a href="#">Internal components (4 of 6) on page 285</a>
RM1-1508-000CN	Transfer roller assembly	<a href="#">Internal components (3 of 6) on page 283</a>
RM1-1521-030CN	Laser/scanner assembly	<a href="#">Internal components (1 of 6) on page 277</a>
RM1-1522-000CN	Drive release assembly	<a href="#">Internal components (2 of 6) on page 281</a>
RM1-3712-000CN	Gear assembly	<a href="#">Internal components (5 of 6) on page 287</a>
RM1-3714-000CN	Pick-up roller gear assembly	<a href="#">Internal components (5 of 6) on page 287</a>
RM1-3715-000CN	Registration assembly	<a href="#">Internal components (3 of 6) on page 283</a>
RM1-3716-000CN	Tray 1 pickup roller assembly	<a href="#">Internal components (3 of 6) on page 283</a>
RM1-3722-000CN	Cartridge door assembly	<a href="#">Covers on page 275</a>
RM1-3723-000CN	Tray 1 cover assembly	<a href="#">Covers on page 275</a>
RM1-3724-000CN	Rear cover assembly	<a href="#">Covers on page 275</a>
RM1-3727-000CN	Roller assembly, bottom plate	<a href="#">Internal components (6 of 6) on page 289</a>
RM1-3740-000CN	Fuser, 110-127 V	<a href="#">Internal components (5 of 6) on page 287</a>
RM1-3741-000CN	Fuser, 220-240 V	<a href="#">Internal components (5 of 6) on page 287</a>
RM1-3742-000CN	Flag assembly, full detect	<a href="#">Covers on page 275</a>
RM1-3743-000CN	Flag assembly, face-down	<a href="#">Covers on page 275</a>
RM1-3746-000CN	Fixing drive side plate assembly	<a href="#">Internal components (2 of 6) on page 281</a>
RM1-3748-000CN	Pendulum assembly	<a href="#">Internal components (2 of 6) on page 281</a>
RM1-3749-000CN	Roller assembly, face-down	<a href="#">Internal components (6 of 6) on page 289</a>
RM1-3757-000CN	Transfer guide assembly, lower	<a href="#">Internal components (3 of 6) on page 283</a>
RM1-3758-000CN	Power supply	<a href="#">Internal components (4 of 6) on page 285</a>

**Table 7-12** Numerical parts list (continued)

Part number	Description	Table and page
RM1-3759-000CN	Feed assembly, lower	<a href="#">Internal components (4 of 6) on page 285</a>
RM1-3760-000CN	Feed guide assembly	<a href="#">Internal components (4 of 6) on page 285</a>
RM1-3762-000CN	Tray 2 pickup assembly (also see <a href="#">Tray 2 pickup assembly on page 290</a> )	<a href="#">Internal components (5 of 6) on page 287</a>
RM1-3762-000CN	Tray 2 pickup assembly	<a href="#">Tray 2 pickup assembly on page 291</a>
RM1-3763-000CN	Pickup roller assembly, tray 2	<a href="#">Tray 2 pickup assembly on page 291</a>
RM1-3769-000CN	Sensor flag assembly, tray 2	<a href="#">Tray 2 pickup assembly on page 291</a>
RM1-3772-000CN	Top cover assembly	<a href="#">Covers on page 275</a>
RM1-3773-000CN	Cover, left	<a href="#">Covers on page 275</a>
RM1-3774-000CN	ECU, 110-127 V	<a href="#">Internal components (5 of 6) on page 287</a>
RM1-3775-000CN	ECU, 220-240 V	<a href="#">Internal components (5 of 6) on page 287</a>
RM1-3790-000CN	Cover, stapler	<a href="#">Covers on page 275</a>
RM1-4040-000CN	Sensor PCA, top-of-page	<a href="#">Internal components (4 of 6) on page 285</a>
RM1-4041-000CN	Sensor PCA, multipurpose	<a href="#">Internal components (5 of 6) on page 287</a>
RM1-4042-000CN	Sensor PCA, width	<a href="#">Internal components (4 of 6) on page 285</a>
RM1-4053-000CN	Cable assembly	<a href="#">Internal components (1 of 6) on page 277</a>
RM1-4054-000CN	Cable, memory tag	<a href="#">Internal components (1 of 6) on page 277</a>
RM1-4057-000CN	Cable, delivery sensor	<a href="#">Internal components (3 of 6) on page 283</a>
RM1-4060-000CN	Cable, sensor, tray 2	<a href="#">Tray 2 pickup assembly on page 291</a>
RM1-4062-000CN	Cable, option interface	<a href="#">Internal components (6 of 6) on page 289</a>
RU5-0366-000CN	Gear, 30T	<a href="#">Internal components (3 of 6) on page 283</a>
RU5-0394-000CN	Gear, 12T	<a href="#">Internal components (2 of 6) on page 281</a>
RU5-0400-000CN	Gear, 12T	<a href="#">Internal components (3 of 6) on page 283</a>
RU5-0409-000CN	Gear, 14T	<a href="#">Internal components (3 of 6) on page 283</a>

**Table 7-12** Numerical parts list (continued)

<b>Part number</b>	<b>Description</b>	<b>Table and page</b>
RU5-0950-000CN	Gear, 201t	<a href="#">Internal components (2 of 6) on page 281</a>
RU5-0951-000CN	Gear, 16T	<a href="#">Internal components (2 of 6) on page 281</a>
RU5-0955-000CN	Gear, 43T	<a href="#">Internal components (2 of 6) on page 281</a>
RU5-0956-000CN	Gear, 20T/20T	<a href="#">Internal components (2 of 6) on page 281</a>
RU5-0957-000CN	Gear, 20T	<a href="#">Internal components (2 of 6) on page 281</a>
RU5-0958-000CN	Gear, 17T/17T	<a href="#">Internal components (2 of 6) on page 281</a>
RU5-0959-000CN	Gear, 19T	<a href="#">Internal components (2 of 6) on page 281</a>
RU5-0960-000CN	Gear, 31T	<a href="#">Internal components (2 of 6) on page 281</a>
RU5-0962-000CN	Gear, 65T	<a href="#">Internal components (2 of 6) on page 281</a>
RU5-2385-000CN	Spring, compression	<a href="#">Internal components (3 of 6) on page 283</a>
RU5-2386-000CN	Spring, torsion	<a href="#">Internal components (5 of 6) on page 287</a>
RU5-2388-000CN	Spring, tension	<a href="#">Covers on page 275</a>
RU5-2401-000CN	Spring, compression	<a href="#">Internal components (2 of 6) on page 281</a>
RU5-2403-000CN	Spring, tension	<a href="#">Internal components (1 of 6) on page 277</a>
RU5-2404-000CN	Spring, compression	<a href="#">Internal components (1 of 6) on page 277</a>
RU5-2405-000CN	Spring, compression	<a href="#">Internal components (1 of 6) on page 277</a>
RU5-2407-000CN	Spring, tension	<a href="#">Internal components (1 of 6) on page 277</a>
RU5-2408-000CN	Spring, compression	<a href="#">Internal components (3 of 6) on page 283</a>
RU5-2410-020CN	Spring, torsion	<a href="#">Internal components (1 of 6) on page 277</a>
RU5-2920-000CN	Spring, compression	<a href="#">Internal components (2 of 6) on page 281</a>
VS1-7177-003CN	Connector, snap-tight, black	<a href="#">Internal components (1 of 6) on page 277</a>
VS1-7177-004CN	Connector, snap-tight, black	<a href="#">Internal components (6 of 6) on page 289</a>

**Table 7-12** Numerical parts list (continued)

<b>Part number</b>	<b>Description</b>	<b>Table and page</b>
VS1-7257-007CN	Connector, drawer	<a href="#">Internal components (6 of 6) on page 289</a>
WG8-5624-000CN	Photo-interrupter	<a href="#">Internal components (6 of 6) on page 289</a>
WG8-5624-000CN	Photo-interrupter, tray 2	<a href="#">Tray 2 pickup assembly on page 291</a>
WT2-5056-000CN	Clip, cable	<a href="#">Internal components (1 of 6) on page 277</a>
WT2-5056-000CN	Cable guide	<a href="#">Internal components (6 of 6) on page 289</a>
WT2-5678-000CN	Cable guide	<a href="#">Internal components (5 of 6) on page 287</a>
WT2-5678-000CN	Cable guide	<a href="#">Internal components (6 of 6) on page 289</a>
WT2-5694-000CN	Clip clamp, wire	<a href="#">Internal components (1 of 6) on page 277</a>
WT2-5694-000CN	Cable guide	<a href="#">Internal components (5 of 6) on page 287</a>
WT2-5812-000CN	Clip, cable	<a href="#">Internal components (1 of 6) on page 277</a>
XA9-1500-000CN	Screw, RS, M3x8	<a href="#">Internal components (2 of 6) on page 281</a>
XA9-1503-000CN	Screw, tapping, M3x6	<a href="#">Internal components (5 of 6) on page 287</a>
XA9-1671-000CN	Screw, D, M3x8	<a href="#">Internal components (1 of 6) on page 277</a>
XA9-1671-000CN	Screw, D, M3x8	<a href="#">Internal components (2 of 6) on page 281</a>
XA9-1671-000CN	Screw, D, M3x8	<a href="#">Internal components (3 of 6) on page 283</a>
XA9-1671-000CN	Screw, D, M3x8	<a href="#">Internal components (5 of 6) on page 287</a>
XA9-1671-000CN	Screw, D, M3x8	<a href="#">Internal components (6 of 6) on page 289</a>
XB2-7300-605CN	Screw w/washer, M3x6	<a href="#">Internal components (4 of 6) on page 285</a>
XB2-7300-605CN	Screw w/washer, M3x6	<a href="#">Internal components (5 of 6) on page 287</a>
XB4-7401-005CN	Screw, tapping, truss head, M4x10	<a href="#">Internal components (3 of 6) on page 283</a>
XB4-7401-005CN	Screw, tapping, truss head, M4x10	<a href="#">Internal components (4 of 6) on page 285</a>
XB4-7401-005CN	Screw, tapping, truss head, M4x10	<a href="#">Internal components (5 of 6) on page 287</a>

**Table 7-12** Numerical parts list (continued)

<b>Part number</b>	<b>Description</b>	<b>Table and page</b>
XB4-7401-005CN	Screw, tapping, truss head, M4x10	<a href="#">Internal components (6 of 6) on page 289</a>
XD2-1100-402CN	E-ring	<a href="#">Internal components (2 of 6) on page 281</a>





---

# A Supplies and accessories

This section provides information about ordering parts, supplies, and accessories. Use only parts and accessories that are specifically designed for this device.

- [Order parts, accessories, and supplies](#)
- [Part numbers](#)

# Order parts, accessories, and supplies

Several methods are available for ordering parts, supplies, and accessories:

- [Order directly from HP](#)
- [Order through service or support providers](#)
- [Order directly through the embedded Web server \(for printers that are connected to a network\)](#)
- [Order directly through the HP Easy Printer Care software](#)

## Order directly from HP

You can obtain the following items directly from HP:

- **Replacement parts:** To order replacement parts in the U.S., go to <http://www.hp.com/go/hpparts>. Outside the United States, order parts by contacting your local authorized HP service center.
- **Supplies and accessories:** To order supplies in the U.S., go to <http://www.hp.com/go/ljsupplies>. To order supplies worldwide, go to <http://www.hp.com/ghp/buyonline.html>. To order accessories, go to [www.hp.com/support/LJM3027mfp](http://www.hp.com/support/LJM3027mfp) or [www.hp.com/support/LJM3035mfp](http://www.hp.com/support/LJM3035mfp).

## Order through service or support providers

To order a part or accessory, contact an HP-authorized service or support provider.

## Order directly through the embedded Web server (for printers that are connected to a network)

Use the following steps to order printing supplies directly through the embedded Web server.

1. In the Web browser on the computer, type the IP address or host name of the device. The status window opens.
2. In the **Other links** area, double-click **Order Supplies**. This provides a URL for a site from which you can purchase consumables.
3. Select the part numbers that you want to order, and follow the instructions on the screen.

## Order directly through the HP Easy Printer Care software

HP Easy Printer Care software is a printer management tool designed to make printer configuration, monitoring, supplies ordering, troubleshooting, and updating as simple and efficient as possible. For more information about HP Easy Printer Care software, go to <http://www.hp.com/go/easyprintercare>.

## Part numbers

The following list of accessories was current at the time of printing. Ordering information and availability of the accessories might change during the life of the device.

### Paper-handling accessories

Item	Description	Part number
Optional 500-sheet tray and feeder unit (tray 3)	Optional tray to increase paper capacity. Holds Letter, A4, Legal, A5, B5 (JIS), Executive, and 8.5 x 13 paper sizes.	Q7817A

### Print cartridge

Item	Description	Part number
HP LaserJet print cartridge	6,500-page cartridge	Q7551A
	13,000-page cartridge	Q7551X

### Memory

Item	Description	Part number
100-pin 133MHz DDR DIMM	64 MB	Q7715A
Boosts the ability of the device to handle large or complex print jobs.	128 MB	Q7718A
	256 MB	Q7719A
	512 MB	Q7720A

### Cables and interfaces

Item	Description	Part number
Enhanced I/O (EIO) cards	HP Jetdirect 620n Fast Ethernet (10/100Base-TX) print server	J7934A
HP Jetdirect print server multi-protocol EIO network cards:	HP Jetdirect 625n Gigabit Ethernet (10/100Base-TX) print server	J7960A
	HP Jetdirect 680n 802.11b wireless internal print server	J6058A
	HP bt1300 Bluetooth wireless printer adapter	J6072A
	HP Jetdirect 635n IPv6/IPsec print server	J7961A
	HP Jetdirect 635n IPv6/IPsec print server	J7961A
USB cable	2-meter A to B cable	C6518A

## Stapler accessories

Item	Description	Part number
Staple cassette	Cassette that contains 1,500 unformed staples	Q7432A

## Print media

For more information about media supplies, go to <http://www.hp.com/go/ljsupplies>.

Item	Description	Part number
HP Soft Gloss laser paper	Letter (220 x 280 mm), 50 sheets/box	C4179A/Asia-Pacific countries/regions
For use with HP LaserJet devices. This is coated paper, good for business documents with high impact, such as brochures, sales material, and documents with graphics and photographic images.	A4 (210 x 297 mm), 50 sheets/box	C4179B/Asia-Pacific countries/regions and Europe
Specifications: 32 lb (120 g/m <sup>2</sup> ).		
HP LaserJet tough paper	Letter (8.5 x 11 in), 50 sheets to a carton	Q1298A/North America
For use with HP LaserJet devices. This satin-finish paper is waterproof and tear-proof, yet doesn't compromise on print quality or performance. Use it for signs, maps, menus, and other business applications.	A4 (210 x 297 mm), 50 sheets to a carton	Q1298B/Asia-Pacific countries/regions and Europe
HP Premium Choice LaserJet paper	Letter (8.5 x 11 in), 500 sheets/ream, 10-ream carton	HPU1132/North America
HP's brightest LaserJet paper. Expect spectacular color and crisp black from this paper that is extra smooth and brilliantly white. This is ideal for presentations, business plans, external correspondence and other high-value documents	Letter (8.5 x 11 in), 250 sheets/ream, 6-ream carton	HPU1732 North America
	A4 (210 x 297 mm), 5-ream carton	Q2397A/Asia-Pacific countries/regions
	A4 (210 x 297 mm), 250 sheet/ream, 5-ream carton	CHP412/Europe
	A4 (210 x 297 mm), 500 sheet/ream, 5-ream carton	CHP410/Europe
Specifications: 98 bright, 32 lb. (75 g/m <sup>2</sup> ).		
	A4 (210 x 297 mm), 160 g/m <sup>2</sup> , 500 sheet/ream, 5-ream carton	CHP413/Europe
HP LaserJet paper	Letter (8.5 x 11 in), 500 sheets/ream, 10-ream carton	HPJ1124/North America
For use with HP LaserJet devices. This is good for letterhead, high-value memos, legal documents, direct mail, and correspondence.	Legal (8.5 x 14 in), 500 sheets/ream, 10-ream carton	HPJ1424/North America
Specifications: 96 bright, 24 lb (90 g/m <sup>2</sup> ).	Letter (220 x 280 mm), 500 sheets/ream, 5-ream carton	Q2398A/Asia-Pacific countries/regions
	A4 (210 x 297 mm), 500 sheets/ream, 5-ream carton	Q2400A/Asia-Pacific countries/regions
	A4 (210 x 297 mm), 500 sheets/ream	CHP310/Europe

Item	Description	Part number
<p>HP Printing paper</p> <p>For use with HP LaserJet and inkjet devices. This has been created especially for small and home offices. It is heavier and brighter than copier paper.</p> <p>Specifications: 92 bright, 22 lb.</p>	Letter (8.5 x 11 in), 500 sheets/ream, 10-ream carton	HPP1122/North America and Mexico
	Letter (8.5 x 11 in), 500 sheets/ream, 3-ream carton	HPP113R/North America
	A4 (210 x 297 mm), 500 sheets/ream, 5-ream carton	CHP210/Europe
	A4 (210 x 297 mm), 300 sheets/ream, 5-ream carton	CHP213/Europe
<p>HP Multipurpose paper</p> <p>For use with all office equipment-laser and inkjet devices, copiers, and fax machines. This has been created for businesses that want one paper for all their office needs. It is brighter and smoother than other office papers.</p> <p>Specifications: 90 bright, 20 lb (75 g/m<sup>2</sup>).</p>	Letter (8.5 x 11 in), 500 sheets/ream, 10-ream carton	HPM1120/North America
	Letter (8.5 x 11 in), 500 sheets/ream, 5-ream carton	HPM115R/North America HP25011/North America
	Letter (8.5 x 11 in), 250 sheets/ream, 12-ream carton	HPM113H/North America HPM1420/North America
	Letter (8.5 x 11 in), 3-hole, 500 sheets/ream, 10-ream carton	
	Legal (8.5 x 14 in), 500 sheets/ream, 10-ream carton	
<p>HP Office paper</p> <p>For use with all office equipment-laser and inkjet devices, copiers, and fax machines. This is good for high-volume printing.</p> <p>Specifications: 84 bright, 20 lb (75 g/m<sup>2</sup>).</p>	Letter (8.5 x 11 in), 500 sheets/ream, 10-ream carton	HPC8511/North America and Mexico
	Letter (8.5 x 11 in), 3-hole, 500 sheets/ream, 10-ream carton	HPC3HP/North America
	Legal (8.5 x 14 in), 500 sheets/ream, 10-ream carton	HPC8514/North America
	Letter (8.5 x 11 in), Quick Pack; 2,500-sheet carton	HP2500S/North America and Mexico
	Letter (8.5 x 11 in), Quick Pack 3-hole; 2,500-sheet carton	HP2500P/North America
	Letter (220 x 280 mm), 500 sheets/ream, 5-ream carton	Q2408A/Asia-Pacific countries/regions
	A4 (210 x 297 mm), 500 sheets/ream, 5-ream carton	Q2407A/Asia-Pacific countries/regions
	A4 (210 x 297 mm), 500 sheets/ream, 5-ream carton	CHP110/Europe
	A4 (210 x 297 mm), Quick Pack; 2500 sheets/ream, 5-ream carton	CHP113/Europe

Item	Description	Part number
HP Office recycled paper	Letter (8.5 x 11 in), 500 sheets/ream, 10-ream carton	HPE1120/North America
For use with all office equipment-laser and inkjet printers, copiers, and fax machines. This is good for high-volume printing.	Letter (8.5 x 11 in), 3-hole, 500 sheets/ream, 10-ream carton	HPE113H/North America
	Legal (8.5 x 14 in), 500 sheets/ream, 10-ream carton	HPE1420/North America
Satisfies U.S. Executive Order 13101 for environmentally preferable products.		
Specifications: 84 bright, 20 lb, 30% post-consumer content.		
HP LaserJet transparencies	Letter (8.5 x 11 in), 50 sheets to a carton	92296T/North America, Asia-Pacific countries/regions, and Europe
For use only with HP LaserJet monochrome printers. For crisp, sharp text and graphics, rely on the only transparencies specifically designed and tested to work with monochrome HP LaserJet printers.	A4 (210 x 297 mm), 50 sheets to a carton	922296U/Asia-Pacific countries/regions and Europe
Specifications: 4.3-mil thickness.		

---

# B Service and support

## Hewlett-Packard limited warranty statement

HP PRODUCT	DURATION OF LIMITED WARRANTY
HP LaserJet M3027, M3027x, M3035, and M3035xs	One-year on-site warranty

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

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

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

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

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

TO THE EXTENT ALLOWED BY LOCAL LAW, THE ABOVE WARRANTIES ARE EXCLUSIVE AND NO OTHER WARRANTY OR CONDITION, WHETHER WRITTEN OR ORAL, IS EXPRESSED OR IMPLIED AND HP SPECIFICALLY DISCLAIMS ANY IMPLIED WARRANTIES OR CONDITIONS OF MERCHANTABILITY, SATISFACTORY QUALITY, AND FITNESS FOR A PARTICULAR PURPOSE. Some countries/regions, states or provinces do not allow limitations on the duration of an implied warranty, so the above limitation or exclusion might not apply to you. This warranty gives you specific legal rights and you might also have other rights that vary from country/region to country/region, state to state, or province to province. HP's limited warranty is valid in any country/region or locality where HP has a support presence for this product and where HP has marketed this product. The level of warranty service you receive may vary according to local standards. HP will not alter form, fit or function of the product to make it operate in a country/region for which it was never intended to function for legal or regulatory reasons.

TO THE EXTENT ALLOWED BY LOCAL LAW, THE REMEDIES IN THIS WARRANTY STATEMENT ARE YOUR SOLE AND EXCLUSIVE REMEDIES. EXCEPT AS INDICATED ABOVE, IN NO EVENT WILL HP OR ITS SUPPLIERS BE LIABLE FOR LOSS OF DATA OR FOR DIRECT, SPECIAL, INCIDENTAL, CONSEQUENTIAL

(INCLUDING LOST PROFIT OR DATA), OR OTHER DAMAGE, WHETHER BASED IN CONTRACT, TORT, OR OTHERWISE. Some countries/regions, states or provinces do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.

THE WARRANTY TERMS CONTAINED IN THIS STATEMENT, EXCEPT TO THE EXTENT LAWFULLY PERMITTED, DO NOT EXCLUDE, RESTRICT OR MODIFY AND ARE IN ADDITION TO THE MANDATORY STATUTORY RIGHTS APPLICABLE TO THE SALE OF THIS PRODUCT TO YOU.

## Customer self repair warranty service

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

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

## Print cartridge limited warranty statement

This HP product is warranted to be free from defects in materials and workmanship.

This warranty does not apply to products that (a) have been refilled, refurbished, remanufactured or tampered with in any way, (b) experience problems resulting from misuse, improper storage, or operation outside of the published environmental specifications for the device product or (c) exhibit wear from ordinary use.

To obtain warranty service, please return the product to place of purchase (with a written description of the problem and print samples) or contact HP customer support. At HP's option, HP will either replace products that prove to be defective or refund your purchase price.

TO THE EXTENT ALLOWED BY LOCAL LAW, THE ABOVE WARRANTY IS EXCLUSIVE AND NO OTHER WARRANTY OR CONDITION, WHETHER WRITTEN OR ORAL, IS EXPRESSED OR IMPLIED AND HP SPECIFICALLY DISCLAIMS ANY IMPLIED WARRANTIES OR CONDITIONS OF MERCHANTABILITY, SATISFACTORY QUALITY, AND FITNESS FOR A PARTICULAR PURPOSE.

TO THE EXTENT ALLOWED BY LOCAL LAW, IN NO EVENT WILL HP OR ITS SUPPLIERS BE LIABLE FOR DIRECT, SPECIAL, INCIDENTAL, CONSEQUENTIAL (INCLUDING LOST PROFIT OR DATA), OR OTHER DAMAGE, WHETHER BASED IN CONTRACT, TORT, OR OTHERWISE.



THE WARRANTY TERMS CONTAINED IN THIS STATEMENT, EXCEPT TO THE EXTENT  
LAWFULLY PERMITTED, DO NOT EXCLUDE, RESTRICT OR MODIFY AND ARE IN ADDITION TO  
THE MANDATORY STATUTORY RIGHTS APPLICABLE TO THE SALE OF THIS PRODUCT TO YOU.

# HP Customer Care

## Online Services

For 24-hour access to updated HP device-specific software, product information, and support information through an Internet connection, go to the Web site: [www.hp.com/support/LJM3027mfp](http://www.hp.com/support/LJM3027mfp) or [www.hp.com/support/LJM3035mfp](http://www.hp.com/support/LJM3035mfp).

Go to [www.hp.com/support/net\\_printing](http://www.hp.com/support/net_printing) for information about the HP Jetdirect external print server.

HP Instant Support Professional Edition (ISPE) is a suite of Web-based troubleshooting tools for desktop computing and printing products. Go to [instantsupport.hp.com](http://instantsupport.hp.com).

## Telephone support

HP provides free telephone support during the warranty period. For the telephone number for your country/region, see the flyer that shipped with the device, or visit [www.hp.com/support/](http://www.hp.com/support/). Before calling HP, have the following information ready: the product name and serial number, the date of purchase, and a description of the problem.

## Software utilities, drivers, and electronic information

[www.hp.com/go/LJM3027mfp\\_software](http://www.hp.com/go/LJM3027mfp_software) or [www.hp.com/go/LJM3035mfp\\_software](http://www.hp.com/go/LJM3035mfp_software)

The Web page for the drivers is in English, but you can download the drivers themselves in several languages.

## HP direct ordering for accessories or supplies

- United States: [www.hp.com/sbso/product/supplies](http://www.hp.com/sbso/product/supplies).
- Canada: [www.hp.ca/catalog/supplies](http://www.hp.ca/catalog/supplies)
- Europe: [www.hp.com/supplies](http://www.hp.com/supplies)
- Asia-Pacific: [www.hp.com/paper/](http://www.hp.com/paper/)

To order genuine HP parts or accessories, go to the HP Parts Store at [www.hp.com/buy/parts](http://www.hp.com/buy/parts) (U.S. and Canada only), or call 1-800-538-8787 (U.S.) or 1-800-387-3154 (Canada).

## HP service information

To locate HP-Authorized Dealers, call 1-800-243-9816 (U.S.) or 1-800-387-3867 (Canada).

Outside the United States and Canada, call the customer support number for your country/region. See the flyer that shipped in the box with the device.

## HP service agreements

Call 1-800-HPINVENT (1-800-474-6836 (U.S.)) or 1-800-268-1221 (Canada). Or, go to the HP SupportPack and Carepaq™ Services Web site at [www.hpexpress-services.com/10467a](http://www.hpexpress-services.com/10467a).

For extended service, call 1-800-446-0522.

## HP Easy Printer Care software

To check the device status and settings and view troubleshooting information and online documentation, use the HP Easy Printer Care software. You must have performed a full software installation in order to use the HP Easy Printer Care software. See [Use the embedded Web server on page 49](#).

## HP support and information for Macintosh computers

Go to [www.hp.com/go/macosex](http://www.hp.com/go/macosex) for Macintosh OS X support information and HP subscription service for driver updates.

Go to [www.hp.com/go/mac-connect](http://www.hp.com/go/mac-connect) for products that are designed specifically for the Macintosh user.

# HP maintenance agreements

HP 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 may vary by area. Check with your local HP dealer to determine the services available to you.

## On-site service agreements

To provide you with the level of support best suited to your needs, HP has on-site service agreements with a selection of response times.

### Next-day on-site 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 on-site agreements (for additional charges).

### Weekly (volume) on-site service

This agreement provides scheduled weekly on-site visits for organizations with many HP products. This agreement is designated for sites using 25 or more workstation products, including devices, plotters, computers, and disk drives.

## Repacking the device

If HP Customer Care determines that your device needs to be returned to HP for repair, follow the steps below to repack the device before shipping it.



---

**CAUTION** Shipping damage as a result of inadequate packing is the customer's responsibility.

---

### To repack the device

1. Remove and retain any DIMMs cards that you have purchased and installed in the device. Do not remove the DIMM that came with the device.



---

**CAUTION** Static electricity can damage DIMMs. When handling DIMMs, either wear an antistatic wrist strap, or frequently touch the surface of the DIMM antistatic package and then touch bare metal on the device. To remove the DIMMs, see [Install memory on page 30](#).

---

2. Remove and retain the print cartridge.



---

**CAUTION** It is *extremely important* to remove the print cartridge before shipping the device. A print cartridge that remains in the device during shipping will leak and entirely cover the device engine and other parts with toner.

---

To prevent damage to the print cartridge, avoid touching the roller on it, and store the print cartridge in its original packing material or so that it is not exposed to light.

---

3. Remove and retain the power cable, interface cable, and optional accessories.

4. If possible, include print samples and 50 to 100 sheets of paper or other print media that did not print correctly.
5. In the U.S., call HP Customer Care to request new packing material. In other areas, use the original packing material, if possible. Hewlett-Packard recommends insuring the equipment for shipment.

## Extended warranty

HP Support provides coverage for the HP hardware product and all HP-supplied internal components. The hardware maintenance covers a 1- to 3-year period from date of the HP product purchase. The customer must purchase HP Support within the stated factory warranty. For more information, contact the HP Customer Care Service and Support group.



---

# C Specifications

- [Physical specifications](#)
- [Electrical specifications](#)
- [Acoustic emissions](#)
- [Operating environment](#)

# Physical specifications

**Table C-1** Printer dimensions

Printer model	Height	Depth	Width	Weight <sup>1</sup>
HP LaserJet M3027, M3027x, and M3035 MFPs	530 mm (20.9 in)	400 mm (15.7 in)	464 mm (19.3 in)	27.6 kg (60.6 lb)
HP LaserJet M3035xs MFP	670 mm (26.4 in)			33.4 kg (73.5 lb)

<sup>1</sup> With print cartridge

**Table C-2** Printer dimensions with all doors and trays fully opened

Printer model	Height	Depth	Width
HP LaserJet M3027, M3027x, and M3035 MFPs	870 mm (34.3 in)	978 mm (38.4 in)	464 mm (19.3 in)
HP LaserJet M3035xs MFP	1,010 mm (39.8 in)		

# Electrical specifications



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

**Table C-3** Power requirements

Specification	110-volt models	220-volt models
Power requirements	100 to 127 volts (± 10%)	220 to 240 volts (± 10%)
	50/60 Hz (± 2 Hz)	50/60 Hz (± 2 Hz)
Rated current	7.5 Amps	4.5 Amps

**Table C-4** Power consumption (average, in watts)<sup>1</sup>

Printer model	Printing <sup>2</sup>	Ready <sup>3,4</sup>	Sleep <sup>5</sup>	Off
HP LaserJet M3027	625 W <sup>6</sup>	11 W	8.5 W	0.4 W
HP LaserJet M3027x	625 W <sup>6</sup>	11 W	8.5 W	0.4 W
HP LaserJet M3035	625 W <sup>6</sup>	11 W	8.5 W	0.4 W
HP LaserJet M3035xs	625 W <sup>6</sup>	11 W	8.5 W	0.4 W

<sup>1</sup> Values subject to change. See [www.hp.com/support/LJM3027mfp](http://www.hp.com/support/LJM3027mfp) or [www.hp.com/support/LJM3035mfp](http://www.hp.com/support/LJM3035mfp) for current information.

<sup>2</sup> Power numbers are the highest values measured using all standard voltages.

<sup>3</sup> Default time from Ready mode to Sleep = 30 minutes.

<sup>4</sup> Heat dissipation in Ready mode = 37.5 BTU/hour.

<sup>5</sup> Recovery time from Sleep to start of printing = less than 8.5 seconds.

<sup>6</sup> Print speed is 27 or 35 ppm.



## Acoustic emissions

**Table C-5** Sound power and pressure level<sup>1,2</sup>

Sound power level	Declared per ISO 9296
Printing <sup>3</sup>	$L_{WA_d} = 6.5$ Bels (A) [65 dB(A)]
Ready	Essentially Inaudible
Sound pressure level	Declared per ISO 9296
Printing <sup>3</sup>	$L_{pAm} = 56$ dB (A)
Ready	Essentially Inaudible

<sup>1</sup> Values subject to change. See [www.hp.com/support/LJM3027mfp](http://www.hp.com/support/LJM3027mfp) or [www.hp.com/support/LJM3035mfp](http://www.hp.com/support/LJM3035mfp) for current information.

<sup>2</sup> Configuration tested: base printer, simplex printing with A4 paper size.

<sup>3</sup> Print speed is 27 or 35 ppm.

## Operating environment

**Table C-6** Necessary conditions

Environmental condition	Printing	Storage/standby
Temperature (printer and print cartridge)	15° to 32.5°C (59° to 89°F)	0° to 40°C (32° to 104°F)
Relative humidity	10% to 80%	0% to 95%



---

## D Regulatory information

This section contains the following regulatory information:

- [FCC regulations](#)
- [Environmental product stewardship program](#)
- [Telecom statement](#)
- [Declaration of conformity](#)
- [Safety statements](#)

## FCC regulations

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 this equipment 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 HP could void the user's authority to operate this equipment.

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

---

# Environmental product stewardship program

## Protecting the environment

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

## Ozone production

This product generates no appreciable ozone gas (O<sub>3</sub>).

## Power consumption

Power usage drops significantly while in Ready and Sleep modes, which saves natural resources and saves money without affecting the high performance of this product. This product qualifies for ENERGY STAR® (Version 3.0), which is a voluntary program to encourage the development of energy-efficient office products.



ENERGY STAR® and the ENERGY STAR mark are U.S. registered marks. As an ENERGY STAR partner, Hewlett-Packard Company has determined that this product meets ENERGY STAR Guidelines for energy efficiency. For more information, see [www.energystar.gov](http://www.energystar.gov).

## Toner consumption

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

## Paper use

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

## Plastics

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

## HP LaserJet print supplies

It's easy to return and recycle your empty HP LaserJet print cartridges—free of charge—with HP Planet Partners. HP is committed to providing inventive, high-quality products and services that are environmentally sound, from product design and manufacturing to distribution, operation and recycling processes. We ensure your returned HP LaserJet print cartridges are recycled properly, processing them to recover valuable plastics and metals for new products and diverting millions of tons of waste from landfills. Since this cartridge is being recycled and used in new materials, it will not be returned to

you. Your empty HP LaserJet print cartridges are recycled responsibly when you participate in the HP Planet Partners program. Thank you for being environmentally responsible!

In many countries/regions, this product's printing supplies (for example, print cartridges) can be returned to HP through the HP Printing Supplies Returns and Recycling Program. An easy-to-use and free take back program is available in more than 35 countries/regions. Multilingual program information and instructions are included in every new HP LaserJet print cartridge and supplies package.

## HP print supplies returns and recycling program information

Since 1992, HP has offered HP LaserJet supplies return and recycling free of charge. In 2004, HP Planet Partners for LaserJet Supplies was available in 85% of the world market where HP LaserJet supplies are sold. Postage-paid and pre-addressed labels are included within the instruction guide in most HP LaserJet print cartridge boxes. Labels and bulk boxes are also available through the Web site: [www.hp.com/recycle](http://www.hp.com/recycle).

Use the label to return empty, original HP LaserJet print cartridges only. Please do not use this label for non-HP cartridges, refilled or remanufactured cartridges, or warranty returns. Printing supplies or other objects inadvertently sent to the HP Planet Partners program cannot be returned.

More than 10 million HP LaserJet print cartridges were recycled globally in 2004 through the HP Planet Partners supplies recycling program. This record number represents 26 million pounds of print cartridge materials diverted from landfills. Worldwide, in 2004, HP recycled an average of 59% of the print cartridge by weight consisting primarily of plastic and metals. Plastics and metals are used to make new products such as HP products, plastic trays, and spools. The remaining materials are disposed of in an environmentally responsible manner.

- **U.S. returns.** For a more environmentally responsible return of used cartridges and supplies, HP encourages the use of bulk returns. Simply bundle two or more cartridges together and use the single, pre-paid, pre-addressed UPS label that is supplied in the package. For more information in the U.S., call 1-800-340-2445 or visit the HP Web site at [www.hp.com/recycle](http://www.hp.com/recycle).
- **Non-U.S. returns.** Non-U.S. customers should visit the [www.hp.com/recycle](http://www.hp.com/recycle) Web site for further information regarding availability of the HP Supplies Returns and Recycling Program.

## Paper

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

## Material restrictions

This HP product does not contain added mercury.

This HP product contains a battery that might require special handling at end-of-life. The batteries contained in or supplied by Hewlett-Packard for this product include the following:

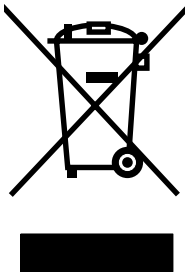
HP LaserJet M3027/M3035 device	
Type	Carbon monofluoride lithium battery BR1632
Weight	1.5 g
Location	On formatter board
User-removable	No



## 廢電池請回收

For recycling information, you can go to [www.hp.com/recycle](http://www.hp.com/recycle), or contact your local authorities or the Electronics Industries Alliance: [www.eiae.org](http://www.eiae.org).

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



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

## Material Safety Data Sheet (MSDS)

Material Safety Data Sheets (MSDS) for supplies containing chemical substances (for example, toner) can be obtained by contacting the HP Web site at [www.hp.com/go/msds](http://www.hp.com/go/msds) or [www.hp.com/hpinfo/community/environment/productinfo/safety](http://www.hp.com/hpinfo/community/environment/productinfo/safety).

## For more information

To obtain information about these environmental topics:

- Product environmental profile sheet for this and many related HP products
- HP's commitment to the environment
- HP's environmental management system
- HP's end-of-life product return and recycling program
- Material Safety Data Sheets

Visit <http://www.hp.com/go/environment> or <http://www.hp.com/hpinfo/community/environment/productinfo/safety>.



## Telecom statement

The HP LaserJet M3027x and HP LaserJet M3035xs models have the HP LaserJet Analog Fax Accessory 300 already installed to provide communication to the public switch telephone network (PSTN) for fax functionality. See the *HP LaserJet Analog Fax Accessory 300 User Guide* for all regulatory approval information and regulatory notices associated with the fax functionality and that device.

# 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 Name:** HP LaserJet M3027 / M3035 Series  
**Accessories<sup>5)</sup>:** Q7817A – Optional 1x500 Sheet Tray  
BOISB-0308-00 – Fax module  
**Regulatory Model Number<sup>3)</sup>:** BOISB-0406-01  
**Product Options:** ALL  
**Print Cartridge:** Q7551A, Q7551X

**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:** CISPR 22:1993 +A1 +A2 / EN 55022:1994 +A1 +A2 - Class A<sup>1,4)</sup>  
EN 61000-3-2:2000  
EN 61000-3-3:1995 +A1  
EN 55024:1998 +A1 +A2  
FCC Title 47 CFR, Part 15 Class A<sup>2)</sup> / ICES-003, Issue 4  
**TELECOM:** TBR-21:1998; EG 201 121:1998

### Supplementary Information:

The product herewith complies with the requirements of the EMC Directive 89/336/EEC, the Low Voltage Directive 73/23/EEC, the R&TTE Directive 1999/5/EC (Annex II), 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).
- 4) The product meets the requirements of EN55022 & CNS13438 Class A in which case the following applies: "Warning – This is a class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures".
- 5) All worldwide modular approvals for analog fax accessory obtained by Hewlett-Packard under the regulatory model number BOISB-0308-00 incorporate the Multi-Tech Systems MT5634SMI Socket Modem Module.

Boise, Idaho , USA

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

# Safety statements

## Laser safety

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



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

## Canadian DOC regulations

Complies with Canadian EMC Class B requirements.

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

## VCCI statement (Japan)

この装置は、情報処理装置等電波障害自主規制協議会（VCCI）の基準に基づくクラスA情報技術装置です。この装置を家庭環境で使用すると電波妨害を引き起こすことがあります。この場合には使用者が適切な対策を講ずるよう要求されることがあります。

## Power cord statement (Japan)

製品には、同梱された電源コードをお使い下さい。  
同梱された電源コードは、他の製品では使用出来ません。

## EMI statement (Korea)

### 시용시 안내문 (A급 기기)

이 기기는 업무용으로 전자파장애감정을 받은 기기이오니, 만약 잘못 구입하셨을 때에는 구입한 곳에서 비업무용으로 교환하시기 바랍니다.

## EMI statement (Taiwan)

**警告使用者：**

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

## Laser statement for Finland

### Luokan 1 laserlaite

Klass 1 Laser Apparat

HP LaserJet M3027, M3027x, M3035, M3035xs, laserkirjoitin on käyttäjän kannalta turvallinen luokan 1 laserlaite. Normaalisissa käytössä kirjoittimen suojakotelointi estää lasersäteiden pääsyn laitteen ulkopuolelle. Laitteen turvallisuusluokka on määritetty standardin EN 60825-1 (1994) mukaisesti.

### **VAROITUS !**

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

### **VARNING !**

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

### **HUOLTO**

HP LaserJet M3027, M3027x, M3035, M3035xs - 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.

### **VARNING !**

Om laserprinterns skyddshölje öppnas då apparaten är i funktion, utsättas användaren för osynlig laserstrålning. Betrakta ej strålen. Tiedot laitteessa käytettävän laserdiodin säteilyominaisuuksista: Aallonpituus 775-795 nm Teho 5 m W Luokan 3B laser.

---

# E Working with memory and print server cards

This section explains the device memory features and provides steps for expansion.

- [Overview](#)

## Overview

One dual inline memory module (DIMM) slot is available for upgrading the device with the following items:

- More memory—DIMMs are available in 64, 128, 256, and 512 MB.
- Other DIMM-based printer languages and printer options.

The device uses 100-pin 133 MHz DDR memory modules. Extended data output (EDO) DIMMs are not supported.

For ordering information, see [Order parts, accessories, and supplies on page 314](#).



---

**NOTE** Single inline memory modules (SIMMs) used in previous HP LaserJet printers are not compatible with the device.

---

The device also has one EIO slot for expanding the device networking capabilities. The EIO slot can be used to upgrade the device with an additional network connection, such as a wireless print server, network card, or a connectivity card for a serial or AppleTalk connection.

To find out how much memory is installed in the device, or to find out what is installed in the EIO slots, print a configuration page. See [Use information pages on page 45](#).



---

**NOTE** If memory problems occur when you are printing complex graphics, you can make more memory available by removing downloaded fonts, style sheets, and macros from device memory. Reducing the complexity of a print job from within a program can help avoid memory problems.

---

---

# Glossary

**bidirectional communication** Two-way data transmission.

**bin** A receptacle for holding printed pages.

**BOOTP** Abbreviation for “Bootstrap Protocol,” an Internet protocol that a computer uses to find its IP address.

**calibration** The process in which the printer makes internal adjustments to produce the best print quality.

**chooser** A Macintosh accessory that you use to select a device.

**control panel** The area on the printer that contains buttons and a display screen. Use the control panel to set printer settings and to get information about the printer status.

**default** The normal or standard setting for hardware or software.

**DHCP** Abbreviation for “dynamic host configuration protocol.” Individual computers or peripherals that are connected to a network use DHCP to find their own configuration information, including the IP address.

**DIMM** Abbreviation for “dual inline memory module.” A small circuit board that holds memory chips.

**duplex** A feature that accommodates printing on both sides of a sheet of paper. Also called “two-sided printing.”

**EIO** Abbreviation for “enhanced input/output.” A hardware interface that is used to add a print server, network adaptor, hard disk, or other plug-in item for HP printers.

**Emulated PostScript** Software that emulates Adobe PostScript, a programming language that describes the appearance of the printed page. This printer language appears as “PS” in many menus.

**firmware** Programming instructions that are stored in a read-only memory unit inside the printer.

**font** A complete set of letters, numerals, and symbols in a typeface.

**fuser** The assembly that uses heat to fuse the toner onto the print media.

**grayscale** Various shades of gray.

**halftone pattern** A halftone pattern uses differing sizes of ink dots to produce a continuous-tone image such as a photograph.

**HP Easy Printer Care software** Software that provides the ability to track and maintain printers from your computer desktop.

**HP Jetdirect** An HP product for network printing.

**HP Web Jetadmin** An HP-trademarked Web-based printer control software that you can use on a computer to manage any peripheral that is connected to an HP Jetdirect print server.

**I/O** Abbreviation for “input/output,” refers to computer-port settings.

**IP address** The unique number assigned to a computer device that is connected to a network.

**IPX/SPX** Abbreviation for “internetwork packet exchange/sequenced packet exchange.”

**media** The paper, labels, transparencies, or other material on which the printer prints the image.

**memory tag** A memory partition that has a specific address.

**monochrome** Black and white. Devoid of color.

**network** A system of computers interconnected by telephone wires or other means in order to share information.

**network administrator** A person who manages a network.

**page buffer** Temporary printer memory used to hold page data while the printer creates an image of the page.

**PCL** Abbreviation for “Printer Control Language.”

**peripheral** An auxiliary device, such as a printer, modem, or storage system, that works in conjunction with a computer.

**personality** Distinctive features or characteristics of a printer or printer language.

**pixel** Abbreviation for “picture element,” the smallest unit of area in an image displayed on a screen.

**PJL** Abbreviation for “printer job language.”

**PostScript** A trademarked page-description language.

**PPD** Abbreviation for “PostScript printer description.”

**printer driver** A software program that a computer uses to gain access to printer features.

**RAM** Abbreviation for “random access memory,” a type of computer memory that stores data that can change.

**raster image** An image composed of dots.

**render** The process of producing text or graphics.

**ROM** Abbreviation for “read-only memory,” a type of computer memory that stores data that should not change.

**supplies** Materials that the printer uses and that must be replaced. The supply item for this printer is the print cartridge.

**TCP/IP** An internet protocol that has become the global standard for communications.

**toner** The fine black or colored powder that forms the image on the printed media.

**transfer unit** The black plastic belt that transports media inside the printer and transfers toner from the print cartridge onto the media.

**tray** The receptacle that holds blank media.



---

# Index

## Symbols/Numerics

500-sheet tray. *See* tray 3

## A

access plate, removing 144

accessibility features 4

accessories

features 3

ordering 271, 314

part numbers 315

troubleshooting 200

acoustic specifications 329

activity log, fax 46

ADF

capacity 2

cleaning 40

error messages 211

jams 212, 217

locating 5

operations 57

part numbers 272

power-on sequence 72

removing and replacing 80

sensors 57

ADF cover, removing 80

ADF input tray, removing 82

Alert Settings window, HP Easy

Printer Care 48

alerts, e-mail 53

anticounterfeit supplies 39

authorized dealers 322

autoconfiguration, drivers 9

automatic document feeder (ADF)

jams 217

## B

back cover, removing 101

batteries included 334

billing codes report, fax 46

bins, output

capacities 2

full, error messages 212

jams, clearing 223

locating 5

paper curl,

troubleshooting 243

blank pages, troubleshooting 244

blocked fax list, printing 46

blurred print, troubleshooting 259

Bonjour Settings 53

boot-up key sequences 226

both sides, printing on

error messages 210

Macintosh settings 53

paper sizes supported 18

troubleshooting 244

browsers supported, HP

Toolbox 14

buffer overflow errors 204

## C

cable, USB 271

calibrating scanner 231

call report, fax 46

Canadian DOC regulations 339

capacities, trays 2, 19

cardstock 19

cartridge door, removing 179

cartridges

authentication 39

EconoMode 38

features 3

genuine HP 39

jams, clearing 219

memory tag 73

non-HP 39, 212

operations 64

ordering through embedded

Web server 51

part numbers 271, 315

recycling 333

replacement intervals 38

replacing 27

status, viewing with HP Easy

Printer Care 48

storage 39

supplies status page 45

warranty 320

characters, misformed 255

chosen personality not

available 211

circuit diagrams 266

classes 270

cleaning

ADF 40

device 40

exterior 40

fuser 44

lid backing 42

scanner glass 43

cleaning page, printing 44

clock errors 202

communications,

troubleshooting 225

configuration page

Macintosh 53

printing 45

troubleshooting 194

configurations 2

consumables. *See* supplies

contacting HP 322

control panel

Default Job Options

menu 230

Device Behavior menu 230

Information menu 230

Initial Setup menu 230

language, selecting 193

- locating 5
  - Management menu 230
  - menu map 45
  - menus 230
  - messages, numerical list 201
  - messages, types of 201
  - Print Quality menu 230
  - removing 84
  - Resets menu 230
  - Service menu 228, 230
  - settings 10
  - test 232
  - Time/Scheduling menu 230
  - trays, configuring 26
  - troubleshooting 193
  - Troubleshooting menu 230, 231
  - convenience stapler
    - locating 5
    - models including 2
    - power supply, removing 123
    - removing 117
    - staple cassette, part number 316
  - counterfeit supplies 39
  - covers
    - ADF, removing 80
    - back, removing 101
    - cartridge door, removing 179
    - fax, removing 96
    - front right, removing 109
    - I/O, removing 103
    - left-side, removing 97
    - part numbers 274
    - right-side, removing 94
    - top, removing 105
  - crooked pages 247, 256
  - curled paper,
    - troubleshooting 256
  - custom paper sizes supported 18
  - customer support
    - embedded Web server links 51
    - HP Printer Utility pages 53
    - online 322
    - repacking device 324
- D**
- date code, service ID 228
  - declaration of conformity 338
  - Default Job Options menu 230
  - default settings
    - Device Behavior menu 230
    - Resets menu 230
  - density
    - settings 53
    - troubleshooting 250
  - developing stage 65
  - Device Behavior menu 230
  - Device List, HP Easy Printer Care 48
  - Device Status, HP Easy Printer Care 48
  - diagnostics
    - control panel 232
    - engine 234
    - formatter 235
  - digital sending error messages 211, 213
  - DIMMs
    - accessing 5
    - enabling for Windows 34
    - error messages 207
    - installing 30
    - part numbers 271, 315
    - types available 342
    - verifying installation 34
  - disk
    - errors 209
    - installing 35
    - removing 36, 113
  - disposal, end-of-life 334
  - documentation, ordering 270
  - dots, troubleshooting 251, 258
  - double-sided printing
    - error messages 210
    - Macintosh settings 53
    - paper sizes supported 18
    - troubleshooting 244
  - downloading software 7
  - dpi, settings 53
  - drive assembly, diagrams 261
  - drivers
    - included 3
    - ordering 270
    - preconfiguration 9
    - selecting 9
    - settings 10, 11
    - supported 8
    - system requirements 7
    - universal 9
    - Update Now 9
  - dropouts, troubleshooting 252
  - drum cleaning stage 67
  - duplexer
    - error messages 210
    - jams, clearing 222
    - Macintosh settings 53
    - models including 2
    - rollers 68
  - duplexing
    - paper sizes supported 18
    - troubleshooting 244
- E**
- e-label reader, removing 175
  - e-mail alerts 53
  - Easy Printer Care
    - about 47
  - Easy Printer Care software
    - downloading 14
  - EconoMode setting 38
  - ECU
    - operations 62
    - removing 131
  - EIO cards
    - buffer overflow 204
    - errors 204, 210
    - installing 35
    - part numbers 271, 315
    - removing 36
    - slots 6
  - electrical specifications 328
  - electrostatic discharge (ESD) 77
  - embedded Web server 13, 49, 235
  - end-of-life disposal 334
  - energy specifications 328
  - Energy Star compliance 3
  - engine control unit
    - operations 62
    - removing 131
  - engine controller assembly 261
  - engine controller PCA 265
  - engine test 234
  - envelopes
    - sizes supported 18
    - wrinkled, troubleshooting 257

- environment for printer
  - location requirements 22
  - specifications 22, 329
- environmental stewardship program 333
- error messages
  - Alert Settings, HP Easy Printer Care 48
  - e-mail alerts 53
  - event log 231
  - numerical list 201
  - types of 201
- ESD (electrostatic discharge) 77
- European Union, waste disposal 335
- event log
  - clearing 228
  - viewing 231
- extended warranty 325
- e-mail error messages 211
- e-mail errors 213

## F

- face-down-roller shaft, removing 177
- fans
  - diagrams 264
  - left-side, removing 148
  - right-side, removing 128
- FastRes 3
- fax accessory
  - models including 2
  - removing 111
  - settings 231
- fax cover, removing 96
- fax port, locating 6
- fax rail, removing 104
- fax reports, printing 46, 231
- FCC statement 331
- features 2, 3
- feed guide assembly, removing 156
- feed roller 68
- file directory, printing 46
- File Upload, Macintosh 53
- Find Other Printers window, HP Easy Printer Care 48
- Finnish laser safety statement 340

- firmware
  - upgrading 239
- Firmware Update, Macintosh 53
- firmware, updating 239
- folders, error messages 213
- fonts
  - included 3
  - list, printing 46
  - Upload Macintosh 53
- foreign interface harness (FIH) locating 6
- formatter
  - operations 59
  - page count, resetting 228
  - removing 116
  - service ID 228
  - shield, removing 95
  - test page 235
- fraud hotline 39
- front right cover, removing 109
- fuser
  - cleaning 44
  - diagrams 261
  - error messages 206
  - errors 205
  - paper wrapping errors 203
  - removing 139
  - warranty 320
- fusing stage 67

## G

- gateways, error messages 211
- gear assembly, removing 162
- glass
  - cleaning 43
  - remove paper message 211
- glossary 343
- glossy paper 19
- gray background, troubleshooting 253

## H

- heavy paper 19
- high-voltage power supply
  - diagrams 261
  - removing 149
- HP Customer Care 322
- HP Customer Care Online 270
- HP Driver Preconfiguration 9

- HP Easy Printer Care
  - about 47
  - options 48
- HP Easy Printer Care software
  - downloading 14
- HP fraud hotline 39
- HP Instant Support Professional Edition (ISPE) 322
- HP Jetdirect print server
  - configuration page 45
  - embedded Web server access 235
  - error messages 210
  - installing 35
  - models including 2
  - part number 271
  - part numbers 315
  - removing 36
- HP Jetdirect print servers
  - firmware updates 242
- HP media, ordering 316
- HP Printer Utility 52, 53
- HP Printer Utility, Macintosh 12, 52
- HP SupportPack 325
- HP Technical Training 270
- HP Toolbox
  - browsers supported 14
  - opening 47
- HP Universal Print Driver 9
- HP Web Jetadmin
  - firmware updates 241
- HP-Authorized Dealers 322
- humidity
  - specifications 329

## I

- I/O cover, removing 103
- image defect ruler 238
- image formation system
  - operations 64
- image quality
  - defect ruler 238
  - settings 230
  - troubleshooting 248
- image repetition, troubleshooting 260
- Information menu 230
- information pages 45

- Information tab, embedded Web server 50, 235
- Initial Setup menu 230
- installers, Windows 14
- installing
  - device location requirements 22
  - device, operating environment 22
  - EIO cards 35
  - HP Jetdirect print server 35
  - memory (DIMMs) 30
- Instant Support Professional Edition (ISPE) 322
- insufficient memory 204, 212
- internal clock errors 202
- internal components, part numbers 276

## J

- jams
  - ADF 212
  - ADF, clearing 217
  - common causes of 214
  - detection operations 62
  - detection sensors 216
  - duplexer, clearing 222
  - error messages 203
  - fuser wrapping 203
  - locations 215
  - output-bin, clearing 223
  - print-cartridge area, clearing 219
  - trays, clearing 220
- Japanese VCCI statement 339
- Jetadmin
  - firmware updates 241
- Jetadmin, HP Web 13, 52
- Jetdirect print server
  - configuration page 45
  - embedded Web server access 235
  - error messages 210
  - installing 35
  - models including 2
  - part numbers 271, 315
  - removing 36
- Jetdirect print servers
  - firmware updates 242

- jobs
  - formatted incorrectly 199
  - Macintosh settings 53
  - not printing, troubleshooting 198
  - stopped, troubleshooting 199

## K

- Korean EMI statement 339

## L

- labels 19
- language, control panel 193
- laser beam exposure stage 65
- laser safety statements 339, 340
- laser/scanner
  - diagrams 261
  - operations 63
  - removing 142
- left-side cover, removing 97
- left-side fan, removing 148
- left-side riser, removing 138
- lid, cleaning 42
- light print, troubleshooting 250
- lines, troubleshooting 252, 257
- Linux drivers 8
- loading
  - error messages 212
  - tray 1 23
  - tray 2 25
- location requirements 22
- Lock Resources, Macintosh 53
- loose toner, troubleshooting 254

## M

- Macintosh
  - driver settings 11
  - drivers supported 8
  - HP Printer Utility 52
  - removing software 12
  - software 12
  - software components 14
  - support 323
  - supported operating systems 7
- main motor, removing 159
- maintenance agreements 324
- Management menu 230
- material restrictions 334
- Material Safety Data Sheet (MSDS) 335

## media

- capacities 2
- curl, troubleshooting 243, 256
- fuser wrapping 203
- HP, ordering 316
- jam detection sensors 216
- loading tray 1 23
- loading tray 2 25
- multifeeds,
  - troubleshooting 246
- pickup/feed/delivery operations 62
- sizes supported 18
- skewed 247, 256
- specifications 15, 17
- trays, configuring 26
- troubleshooting trays 243
- two-sided printing 18
- types supported 19
- wrinkled 246, 257
- media jams. See jams
- memory
  - autoconfiguration 9
  - DIMM error messages 207
  - e-label reader, removing 175
  - enabling for Windows 34
  - firmware updates 239
  - included 2, 12
  - installing DIMMs 30
  - insufficient 204, 212
  - part numbers 271, 315
  - permanent storage error messages 209
  - print cartridges 73
  - upgrading 342
  - verifying installation 34
- menu map, printing 45
- menus, control panel
  - accessing 230
  - Default Job Options 230
  - Device Behavior 230
  - Information 230
  - Initial Setup 230
  - Management 230
  - Print Quality 230
  - Resets 230
  - Service 228, 230
  - Time/Scheduling 230
  - Troubleshooting 230, 231

- mercury-free product 334
- messages
  - Alert Settings, HP Easy Printer Care 48
  - e-mail alerts 53
  - event log 231
  - numerical list 201
  - types of 201
- misformed characters, troubleshooting 255
- models, device configurations 2
- motors
  - diagrams 264
  - main, removing 159
  - operations 62
- multifeeds, troubleshooting 246
- multipurpose tray. See tray 1

## N

- network port, locating 6
- Networking tab, embedded Web server 51, 236
- networks
  - configuration page 45
  - embedded Web server access 235
  - HP Jetdirect print server error messages 210
  - HP Jetdirect print servers, models including 2
  - HP Web Jetadmin 52
  - Macintosh settings 53
  - part numbers 271, 315
  - troubleshooting 225
- next-day on-site service 324
- noise specifications 329
- non-HP supplies 39, 212
- not responding, troubleshooting 245
- NVRAM errors 209

## O

- oblique roller 68
- oblique-roller assembly, removing 146
- on-site service agreements 324
- on/off switch, locating 5
- online support 270, 322
- operating environment specifications 22, 329

- operating systems supported 7
- operations
  - ADF 57
  - block diagram 56
  - engine control unit 60
  - formatter 59
  - image formation 64
  - jam detection sensors 216
  - laser/scanner 63
  - pickup/feed/delivery system 62
  - power-on 72
  - print cartridge memory 73
  - scanner 58
  - timing 69
- Optimize print quality 230
- ordering
  - media, HP 316
  - part numbers for 315
  - parts 270
  - supplies 270
  - supplies and accessories 314
  - supplies through embedded Web server 51
  - supplies with HP Easy Printer Care 48
- Other links tab, embedded Web server 236
- output bins. See bins
- output quality
  - image defect ruler 238
  - settings 230
  - troubleshooting 248

## P

- packaging device 324
- page count 228
- pages per minute 2
- pages per minutet 2
- paper
  - capacities 2
  - curl, troubleshooting 243, 256
  - fuser wrapping 203
  - HP, ordering 316
  - jam detection sensors 216
  - loading tray 1 23
  - loading tray 2 25
  - multifeeds, troubleshooting 246

- pickup/feed/delivery operations 62
- sizes supported 18
- skewed 247, 256
- specifications 15, 17
- trays, configuring 26
- troubleshooting trays 243
- two-sided printing 18
- types supported 19
- wrinkled 246, 257
- paper jams. See jams
- parallel port
  - testing 225
- part numbers
  - accessories 271, 315
  - ADF/scanner assembly 272
  - covers 274
  - EIO cards 315
  - internal components 276
  - media, HP 316
  - memory 315
  - print cartridges 315
  - supplies 271
  - tray 2 290
- parts
  - ordering 270
  - removing and replacing 77, 78
- PCAs, diagrams 265
- PCL drivers
  - selecting 9
  - universal 9
- permanent storage errors 209
- phone numbers, ordering supplies 270
- physical specifications 22, 328
- pickup assembly, diagrams 261
- pickup assembly, removing 168
- pickup roller, tray 1
  - locating 68
  - removing 186
- pickup roller, tray 2
  - locating 68
  - removing 187
- pickup/feed/delivery operations 62
- PIN codes, service 228
- ports
  - included 2
  - locating 5, 6

- network 2
- supported 3
- troubleshooting 225
- PostScript error pages 198
- PostScript Printer Description (PPD) files 12
- power connection, locating 6
- power operations 72
- power specifications 328
- power supply
  - diagrams 261
  - removing 149
- power switch, locating 5
- PPDs 12
- preconfiguration, driver 9
- pressure roller 68
- primary charging stage 65
- print cartridge door, removing 179
- print cartridges
  - authentication 39
  - EconoMode 38
  - features 3
  - genuine HP 39
  - jams, clearing 219
  - memory tag 73
  - non-HP 39, 212
  - operations 64
  - ordering through embedded Web server 51
  - part numbers 271, 315
  - recycling 333
  - replacement intervals 38
  - replacing 27
  - status, viewing with HP Easy Printer Care 48
  - storage 39
  - supplies status page 45
  - warranty 320
- print jobs
  - formatted incorrectly 199
  - not printing, troubleshooting 198
  - stopped, troubleshooting 199
- print quality
  - image defect ruler 238
  - settings 230
  - troubleshooting 248
- Print Quality menu, control panel 230

- printer drivers. See drivers
- printing system software 7
- priority, settings 10
- problem-solving
  - control panel messages, numerical 201
  - e-mail alerts 53
  - event log 231
  - messages, types of 201
- processor speed 3
- ProRes 3
- PS Emulation drivers 8
- PS error pages 198

**Q**

- quality
  - image defect ruler 238
  - settings 230
  - troubleshooting 248

**R**

- rear output bin
  - locating 5
- rear output bin, locating 5
- recovery, firmware 239
- recycling 333
- registration assembly
  - diagrams 261
  - removing 183
- regulatory information 331
- remote firmware update (RFU) 239
- removing Macintosh software 12
- removing parts 77, 78
- repacking device 324
- repeating defects, troubleshooting 238, 254
- repeating images, troubleshooting 260
- replacing parts 77, 78
- replacing printing cartridges 27
- Resets menu, control panel 230
- resolution
  - features 3
  - settings 53
  - troubleshooting quality 248
- Resolution Enhancement technology (REt) 53
- REt (Resolution Enhancement technology) 53

- right-side cover
  - locating 5
  - removing 94
- right-side fan, removing 128
- riser, removing 138
- rollers
  - diagrams 262
  - face-down shaft, removing 177
  - image defect ruler 238
  - locating 68
  - oblique, removing 146
  - transfer, removing 182
  - tray 1 pickup, removing 186
  - tray 2 pickup, removing 187
- ruler, image defect 238

**S**

- safety statements 339, 340
- scanner
  - errors 204
  - operations 58
  - part numbers 272
  - power-on sequence 72
  - removing 90
- scanner calibration 231
- scanner glass
  - cleaning 43
  - remove paper message 211
- scanner lid backing, cleaning 42
- scanning to e-mail, error messages 211, 213
- screwdrivers, required 78
- screws, replacing 77
- sending to e-mail, error messages 211, 213
- sensors
  - ADF 57
  - diagrams 263
  - jam detection 216
  - operations 62
  - tray 1, removing 173
- separation pad
  - locating 68
  - removing 189
- separation stage 66
- service
  - HP-Authorized Dealers 322
  - repacking device 324
  - service agreements 324



- service ID 228
- Service menu 228
- Service menu, control panel 230
- setting up device 22
- settings
  - Default Job Options
    - menu 230
    - drivers 11
    - priority 10
  - Settings tab, embedded Web server 50, 236
  - shipping device 324
  - SIMMs, incompatibility 342
  - site requirements 22
  - skewed pages 247, 256
  - Sleep mode 328
  - slow printing,
    - troubleshooting 199, 243
  - smear toner,
    - troubleshooting 253
  - SMTP gateway errors 213
  - software
    - embedded Web server 13, 235
    - HP Easy Printer Care 14
    - HP Printer Utility 52
    - HP Toolbox 47
    - HP Web Jetadmin 13
    - Macintosh 12, 14
    - ordering 270
    - settings 10
    - supported operating systems 7
    - system requirements 7
    - uninstalling Macintosh 12
    - Web sites 7
    - Windows 14
  - solenoids
    - diagrams 264
    - operations 62
    - tray 1, removing 166
    - tray 2, removing 167
  - space requirements 22
  - specifications
    - acoustic 329
    - electrical 328
    - environmental 22
    - media 15, 17
    - media sizes supported 18
    - operating environment 329
    - paper 17
    - paper types supported 19
    - physical 328
  - specks, troubleshooting 251, 258
  - speed
    - pages per minute 2
    - troubleshooting 199, 243
  - speed dial list, printing 46
  - spots, troubleshooting 251, 258
  - staple cassette, part number 316
  - stapler
    - locating 5
    - models including 2
    - power supply, removing 123
    - removing 117
  - static precautions 77
  - status
    - embedded Web server 50
    - HP Easy Printer Care 48
    - HP Printer Utility,
      - Macintosh 53
    - messages, types of 201
  - stopped printing,
    - troubleshooting 199
  - storage, job
    - Macintosh settings 53
  - storing
    - device 329
    - print cartridges 39
  - supplies
    - authentication 39
    - counterfeit 39
    - non-HP 39, 212
    - ordering 270, 314
    - ordering through embedded Web server 51
    - ordering with HP Easy Printer Care 48
    - part numbers 271
    - recycling 333
    - replacement intervals 38
    - replacing print cartridges 27
    - status page, printing 45
    - status, viewing with embedded Web server 50
    - status, viewing with HP Easy Printer Care 48
    - status, viewing with HP Printer Utility 53
  - support
    - embedded Web server
      - links 51
    - HP Printer Utility pages 53
    - online 322
    - repacking device 324
  - Support tab, HP Easy Printer Care 48
  - SupportPack, HP 325
  - switch boxes 225
  - switches
    - diagrams 263
    - on/off, locating 5
  - system requirements 7
- T**
  - Taiwan EMI statement 340
  - technical support
    - online 322
    - repacking device 324
  - Technical Training, HP 270
  - telephone numbers, ordering supplies 270
  - temperature specifications 329
  - tests
    - control panel 232
    - engine 234
    - formatter 235
  - text, troubleshooting
    - blurry 259
    - garbled 244
    - misformed characters 255
  - Time/Scheduling menu, control panel 230
  - timing operations 69
  - tire tracks, troubleshooting 258
  - toner
    - density setting 53
    - EconoMode 38
    - output quality,
      - troubleshooting 253
  - Toolbox. See HP Toolbox
  - tools, required 78
  - top cover, removing 105
  - top output bin, locating 5
  - total page count 228
  - transfer roller
    - locating 68
    - removing 182
  - transfer stage 66

- transfer unit warranty 320
- transparencies
  - HP, ordering 318
  - sizes supported 19
- tray 1
  - jams, clearing 220
  - load error message 212
  - loading 23
  - locating 5
  - media types supported 19
  - paper sizes supported 18
  - parts diagrams 262
  - pickup roller, removing 186
  - rollers 68
  - sensors 62, 263
  - sensors, removing 173
  - solenoid, diagrams 264
  - solenoid, removing 166
  - troubleshooting 200
- tray 2
  - diagrams 261
  - jams, clearing 220
  - loading 25
  - locating 5
  - media types supported 19
  - paper sizes supported 18
  - part numbers 290
  - parts diagrams 262
  - pickup roller, removing 187
  - rollers 68
  - sensors 62, 263
  - solenoid, diagrams 264
  - solenoid, removing 167
- tray 3
  - jams, clearing 220
  - locating 5
  - media types supported 19
  - models including 2
  - paper sizes supported 18
  - part number 271, 315
- trays
  - ADF input, removing 82
  - configuring 26
  - included 2
  - jams, clearing 220
  - load message 204
  - locating 5
  - Macintosh settings 53
  - media types supported 19
  - paper path tests 232
  - paper sizes supported 18
  - rollers 68
  - sensors 62
  - separation pad, removing 189
  - status, viewing with HP Easy Printer Care 48
  - troubleshooting 200, 243
- troubleshooting
  - Alert Settings window, HP Easy Printer Care 48
  - blank pages 244
  - blurred print 259
  - boot-up key sequences 226
  - communications 225
  - configuration page
    - printing 194
  - control panel display 193
  - control panel messages, numerical 201
  - curled paper 243, 256
  - dropouts 252
  - duplexing 244
  - engine test 234
  - formatter test 235
  - gray background 253
  - jams 214, 215
  - light print 250
  - lines 252, 257
  - multifeeds 246
  - print quality 248
  - printing 198, 199, 245
  - PS errors 198
  - repeating defects 254
  - repeating images 260
  - skewed pages 247, 256
  - slow printing 199, 243
  - smearred toner 253
  - specks 251
  - text 244, 255, 259
  - tire tracks 258
  - tray selection 200
  - trays 243
  - white spots 258
  - wrinkled paper 246, 257
- Troubleshooting menu 231
- Troubleshooting menu, control panel 230
- two-sided printing
  - error messages 210
  - Macintosh settings 53
- paper sizes supported 18
- troubleshooting 244

**U**

- uninstalling Macintosh software 12
- universal print driver 9
- Update Now feature, drivers 9
- updating firmware 239
- upgrading
  - memory 342
- upgrading firmware 239
- usage page, printing 45
- USB buffer overflow 204
- USB cable, part number 271, 315
- USB port
  - locating 6
  - supported 3

**V**

- voltage specifications 328

**W**

- warranty
  - Customer self repair 320
  - extended 325
  - print cartridge 320
  - product 319
  - service ID 228
  - transfer unit and fuser 320
- wavy paper,
  - troubleshooting 243, 256
- Web Jetadmin
  - firmware updates 241
- Web sites
  - customer support 322
  - firmware updates 239
  - fraud reports 39
  - HP Easy Printer Care 14
  - HP Web Jetadmin,
    - downloading 52
  - Linux support 8
  - Macintosh customer support 323
  - Material Safety Data Sheet (MSDS) 335
  - ordering supplies 314
  - paper specifications 17
  - parts ordering 270
  - print media guide 15



- software, downloading 7
- universal print driver 9
- weekly on-site service 324
- white lines or spots,
  - troubleshooting 257
- Windows
  - driver settings 11
  - drivers supported 8
  - memory, enabling 34
  - software components 14
  - supported operating systems 7
  - universal print driver 9
- wire harnesses, replacing 77
- wiring diagrams 266
- wrinkled paper,
  - troubleshooting 246, 257





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

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



CB414-90940