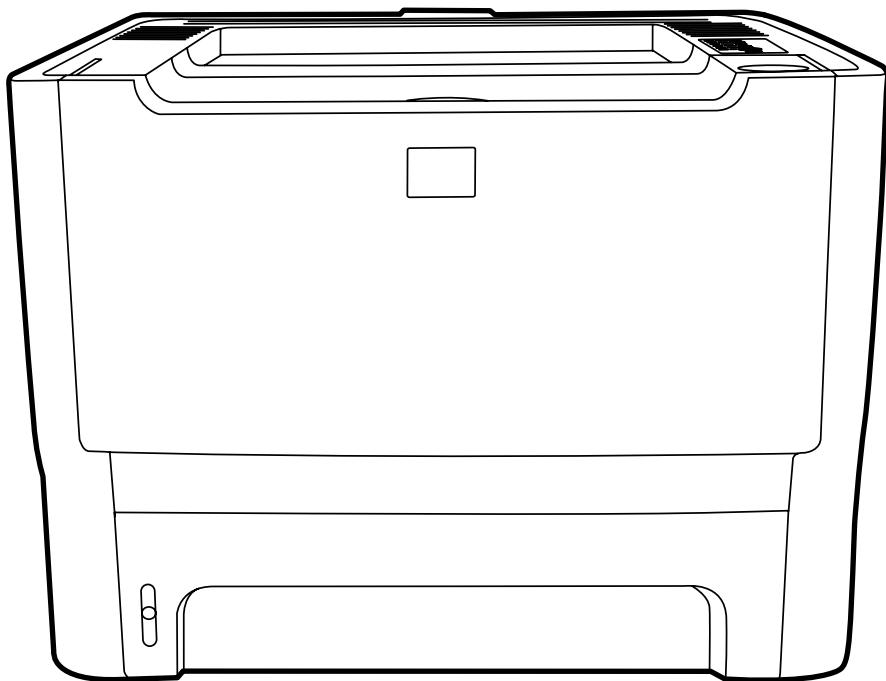


HP LaserJet P2010 Series Service Manual



HP LaserJet P2010 Series

Service Manual



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Safety information

WARNING!

Potential Shock Hazard

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

Read and understand all instructions in the user guide.

Observe all warnings and instructions marked on the product.

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

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

Unplug this product from wall outlets before cleaning.

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

Install the product securely on a stable surface.

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

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

Refer all servicing questions to qualified personnel.

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

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Table of contents

1 Product basics

Product features	2
Standard features	2
Network model features	2
Identify product parts	3
Control panel	5
Supported paper and other media	6
Understand paper and print media use	6
Supported paper and print media sizes	6
Custom paper sizes	7
Special paper or print media guidelines	7
Load media	9
Tray 1	9
Tray 2 and optional tray 3	9
Straight-through output path	10
Manual feed	10

2 Installation

Site preparation	12
Package contents	13
Install tray 3	14
Printer connections	15
USB and parallel connections	15
Network connections	15
Connect the printer to the network	16
Install the printer software for the network printer	16
Software for Windows	17
Supported operating systems	17
Windows printer drivers	17
Windows driver types	17
Install Windows software	17
To install printer software for Windows NT 4.0, Server 2003 (64-bit), Windows 98SE, Me, and XP (64-bit)	17
To install printer software for Windows 2000, XP (32-bit), Server 2003 (32-bit), and Vista (32-bit)	17
Configure the Windows printer driver	17
Software for Macintosh	19
Macintosh printer drivers	19
Install the Macintosh printer driver	19

Configure the Macintosh printer driver	19
PostScript Printer Description files (PPDs)	20
Printer information pages	21
Demo page	21
Configuration page	21
Supplies Status page	21

3 Manage the printer

Embedded Web server (network model only)	24
Open the embedded Web server	24
Information tab	25
Settings tab	25
Networking tab	25
Links	25

4 Maintenance

Replace the print cartridge	28
Redistribute toner	30
Clean the printer	31
Clean the print-cartridge area	31
Clean the printer media path	33
Clean the pickup roller (tray 1)	34
Replace the pickup roller (tray 1)	39
Clean the pickup roller (tray 2)	44
Replace the pickup roller (tray 2)	51
EconoMode	57

5 Theory of operation

Introduction	60
Internal components	61
Timing	63
Engine control system	64
Laser/scanner system	66
Pickup/feed/delivery system	67
Image-formation system	69

6 Removal and replacement

Introduction	74
Removal and replacement strategy	74
Electrostatic discharge	74
Required tools	74
Before performing service	75
Pre-service procedures	75
Parts removal order	75
Covers	76
Left-side cover	76
Right-side cover	76
Back cover	77
Top cover	78

Control panel	83
Formatter	85
Laser/scanner	86
Memory-tag-reader assembly	87
Fuser	89
Fan	89
Fuser	90
Interlock assembly	100
ECU	101
Main motor	108
Pickup and feed assemblies	110
Transfer roller	110
Registration assembly	111
Main gear assembly/tray 2 pickup solenoid	115
Print-cartridge door	119

7 Problem solving

Basic problem solving	122
Status-light patterns	124
Primary status-light patterns	124
Fatal error secondary messages	130
Accessory error secondary messages	134
Media problem solving	135
Printed page is different than what appeared on screen	137
Garbled, incorrect, or incomplete text	137
Missing graphics or text, or blank pages	137
Page format is different than on another HP LaserJet printer	138
Graphics quality	138
Improve print quality	139
Light print or faded	139
Toner specks	139
Dropouts	139
Vertical lines	140
Gray background	140
Toner smear	140
Loose toner	141
Vertical repetitive defects	141
Misformed characters	141
Page skew	142
Curl or wave	142
Wrinkles or creases	142
Toner scatter outline	143
Repetitive image defects	143
Clear jams	144
Print-cartridge area	144
Input trays	146
Output bin	149
Straight-through output path	150
Diagnostic resources	152
Engine test	152

Continuous self-test	152
Half self-test functional check	153
Drum rotation functional check	153
Heating element check	153
High-voltage contacts check	154
Checking the print cartridge contacts	154
Checking the high-voltage connector assembly	155
Printer software problems	156
Network-setup problem-solving	157
Reset the printer	158
NVRAM initialization	158
Super NVRAM initialization	158
Network reset	159
Cold reset	159
Troubleshooting tools and reference diagrams	160
General timing chart	160
Circuit diagram	161
Solenoids	163
Switches and sensors	164
Rollers and pads	165

8 Parts and diagrams

Assembly locations	168
Covers	172
Internal assemblies	176
Alphabetical parts list	202
Numerical parts list	212

Appendix A Accessory/Consumable addendum

Order parts and supplies	224
Parts	224
Related documentation and software	224
Supplies	224
Order parts, accessories, and supplies	225
Order directly from HP	225
Order through service or support providers	225
Order directly through the embedded Web server	225
Supplies and accessories table	226
10/100 networking print servers	227
HP print cartridges	228
HP policy on non-HP print cartridges	228
Storing print cartridges	228
Print cartridge life expectancy	228
Saving toner	228

Appendix B Service and support

Hewlett-Packard limited warranty statement	230
Limited warranty for print cartridges and image drums	231
Hewlett-Packard software license agreement	232

HP Customer Care	233
Availability of support and service	235
HP Care Pack™ Services and Service Agreements	235
Guidelines for repacking the printer	236

Appendix C Printer specifications

Physical specifications	238
Electrical specifications	238
Acoustic emissions	239
Environmental specifications	240
Printer capacities and ratings	241
Memory specifications	241
Port availability	241

Appendix D Regulatory information

FCC compliance	244
Environmental product stewardship program	245
Protecting the environment	245
Ozone production	245
Power consumption	245
Toner consumption	245
Paper use	245
Plastics	245
HP LaserJet print supplies	245
Return and recycling instructions	246
United States and Puerto Rico	246
Multiple returns (two to eight cartridges)	246
Single returns	246
Shipping	246
Non-US returns	246
Paper	246
Material restrictions	247
Disposal of waste equipment by users in private households in the European Union ...	247
Material Safety Data Sheet (MSDS)	247
For more information	247
Declaration of Conformity statements	248
Regulatory statements	249
Laser safety statement	249
Canadian DOC regulations	249
Korean EMI statement	249
Laser statement for Finland	250

Index	251
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1 Product basics

This chapter provides information on the following topics:

- [Product features](#)
- [Identify product parts](#)
- [Control panel](#)
- [Supported paper and other media](#)
- [Load media](#)

Product features

The following are the standard features for this product.

Standard features

- 24 ppm (Letter-size), 23 ppm (A4-size)
- First page out in as few as 8.5 seconds
- 600 dpi (provides 600 x 600 dpi output with Resolution Enhancement Technology (REt) for improved text)
- FastRes 1200 (provides 1200 dpi effective output quality)
- ProRes 1200 (provides fine line detail at 1200 x 1200 dpi)
- 50-sheet multipurpose tray (tray 1)
- EconoMode
- Print watermarks, booklets, multiple pages per sheet (N-up), and first page on different media than the rest of the document
- 32 MB RAM
- 3,000-page or 7,000-page print cartridge
- Host-based, PCL 5e
- Compatible with USB 2.0 specifications
- Supported by Windows® 98 SE (PCL 5e printer driver only), Millennium Edition (Me) (PCL 5e printer driver only), NT® 4.0 (PCL 5e printer driver only) (Parallel connection only), 2000, Server 2003 (printer drivers only), XP® 32-bit, XP 64-bit (PCL 5e printer driver only), and Vista 32-bit
- Supported by Macintosh OS X v10.2.8, v10.3, v10.4 and later
- On/off switch
- Embedded Web server (EWS) with internal pages
- 26 PCL 5e fonts

Network model features

Products with the network feature include all of the standard features, except that it has an HP internal IPv6-compatible network port instead of a parallel port.

Identify product parts

The following figures identify the components of the product.

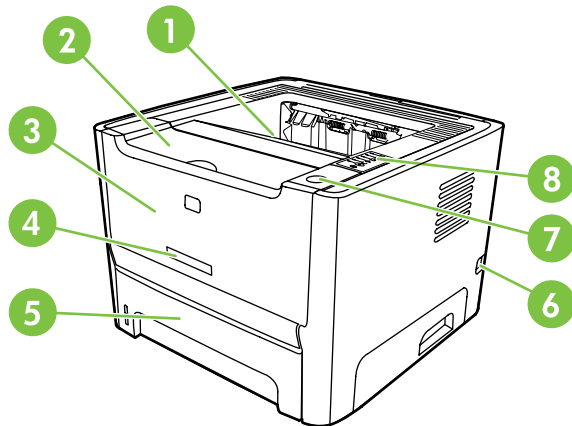


Figure 1-1 Network model, front view

1	Output bin
2	Print-cartridge door
3	Tray 1 (50-sheet multipurpose tray)
4	Model number
5	Tray 2 (250-sheet enclosed input tray)
6	On/off switch
7	Print-cartridge-door button
8	Control panel

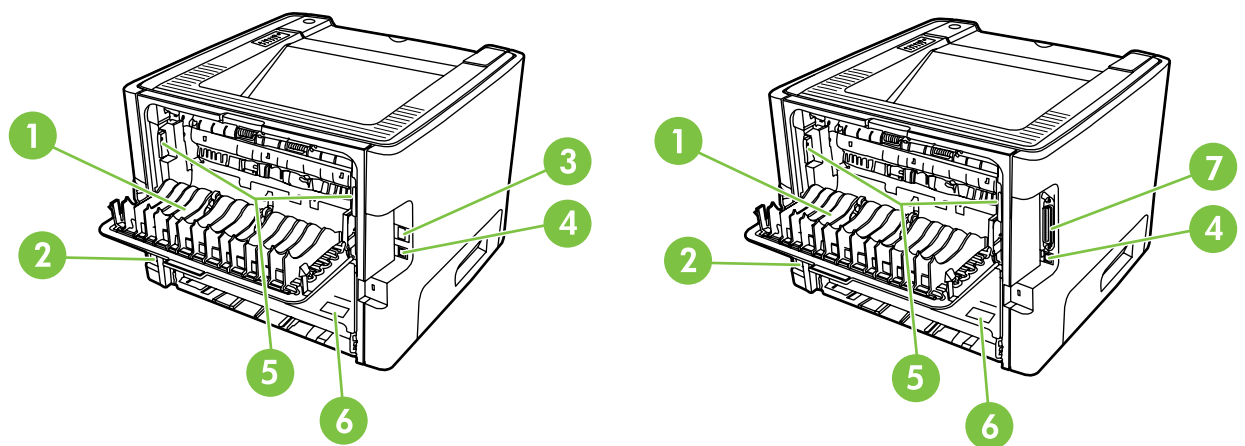


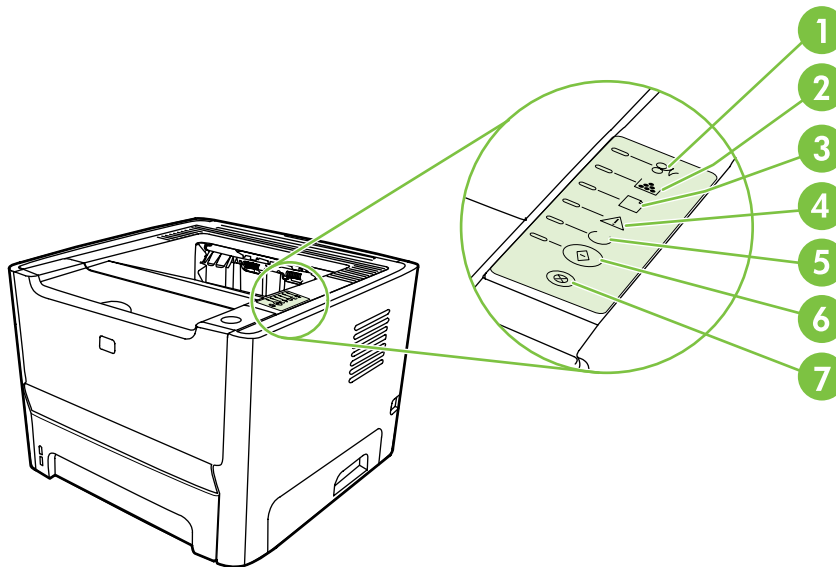
Figure 1-2 Network and base models, back view

1	Straight-through output door
2	Power receptacle
3	HP internal network port (network-ready models only)

4	USB port
5	Jam-clearing levers
6	Serial number
7	Parallel port (base model only)

Control panel

The printer control panel is comprised of six lights and two buttons. The lights produce patterns that identify the printer status.



1	Jam light: Indicates a jam in the printer
2	Toner light: When the print cartridge is low, the Toner light illuminates. When the print cartridge is out of the printer, the Toner light blinks.
3	Paper out light: Indicates the printer is out of paper
4	Attention light: Indicates the print cartridge door is open or other errors exist
5	Ready light: Indicates the printer is ready to print
6	Go button and light
7	Cancel button: To cancel the print job currently printing, press the Cancel button.



NOTE: See [Status-light patterns on page 124](#) for a description of the light patterns.

Supported paper and other media

Understand paper and print media use

This product supports a variety of paper and other print media in accordance with the guidelines in this user guide. Paper or print media that does not meet these guidelines might cause the following problems:

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

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

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



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

Supported paper and print media sizes

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



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

Table 1-1 Supported paper and print media sizes

Size	Dimensions	Tray 1	Tray 2	Optional tray 3
Letter	216 x 279 mm (8.5 x 11 inches)	✓	✓	✓
Legal	216 x 356 mm (8.5 x 14 inches)	✓	✓	✓
A4	210 x 297 mm (8.27 x 11.69 inches)	✓	✓	✓
Executive	184 x 267 mm (7.24 x 10.51 inches)	✓	✓	✓
A5	148 x 210 mm (5.83 x 8.27 inches)	✓	✓	✓
A6	105 x 148 mm (4.13 x 5.83 inches)	✓		
B5 (JIS)	182 x 257 mm (7.17 x 10.12 inches)	✓	✓	✓
B5 (ISO)	176 x 250 mm (6.93 x 9.84 inches)	✓	✓	✓
B6 (ISO)	125 x 176 mm (4.92 x 6.93 inches)	✓		
16k	197 x 273 mm (7.75 x 10.75 inches)	✓		
16k	184 x 260 mm (7.24 x 10.23 inches)	✓		
16k	195 x 270 mm (7.68 x 10.63 inches)	✓		

Table 1-1 Supported paper and print media sizes (continued)

Size	Dimensions	Tray 1	Tray 2	Optional tray 3
8.5 x 13 (custom)	216 x 330 mm (8.5 x 13 inches)	✓	✓	✓
Custom	(76 - 216) x (127 - 356) mm ((3 - 8.5) x (5 - 14) inches)	✓		

Table 1-2 Supported envelopes and postcards

Size	Dimensions	Tray 1	Tray 2	Optional tray 3
Envelope #10	105 x 241 mm (4.13 x 9.49 inches)	✓		
Envelope DL	110 x 220 mm (4.33 x 8.66 inches)	✓		
Envelope C5	162 x 229 mm (6.93 x 9.84 inches)	✓		
Envelope B5	176 x 250 mm (6.7 x 9.8 inches)	✓		
Envelope Monarch	98 x 191 mm (3.9 x 7.5 inches)	✓		
Postcard	100 x 148 mm (3.94 x 5.83 inches)	✓		
Double postcard	148 x 200 mm (5.83 x 7.87 inches)	✓		

Custom paper sizes

This product supports a variety of custom paper sizes. Supported custom sizes are sizes that are within the minimum- and maximum-size guidelines for the product but are not listed in the supported paper sizes table. When using a supported custom size, specify the custom size in the print driver, and load the paper in a tray that supports custom sizes.

Special paper or print media guidelines

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



CAUTION: HP LaserJet printers use fusers to bond dry toner particles to the paper in very precise dots. HP laser paper is designed to withstand this extreme heat. Using inkjet paper not designed for this technology could damage your printer.

Media type	Do	Do not
Envelopes	<ul style="list-style-type: none"> Store envelopes flat. Use envelopes where the seam extends all the way to the corner of the envelope. Use peel-off adhesive strips that are approved for use in laser printers. 	<ul style="list-style-type: none"> Do not use envelopes that are wrinkled, nicked, stuck together, or otherwise damaged. Do not use envelopes that have clasps, snaps, windows, or coated linings. Do not use self-stick adhesives or other synthetic materials.

Media type	Do	Do not
Labels	<ul style="list-style-type: none"> Use only labels that have no exposed backing between them. Use Labels that lie flat. Use only full sheets of labels. 	<ul style="list-style-type: none"> Do not use labels that have wrinkles or bubbles, or are damaged. Do not print partial sheets of labels.
Transparencies	<ul style="list-style-type: none"> Use only transparencies that are approved for use in laser printers. Place transparencies on a flat surface after removing them from the product. 	<ul style="list-style-type: none"> Do not use transparent print media not approved for laser printers.
Letterhead or preprinted forms	<ul style="list-style-type: none"> Use only letterhead or forms approved for use in laser printers. 	<ul style="list-style-type: none"> Do not use raised or metallic letterhead.
Heavy paper	<ul style="list-style-type: none"> Use only heavy paper that is approved for use in laser printers and meets the weight specifications for this product. 	<ul style="list-style-type: none"> Do not use paper that is heavier than the recommended media specification for this product unless it is HP paper that has been approved for use in this product.
Glossy or coated paper	<ul style="list-style-type: none"> Use only glossy or coated paper that is approved for use in laser printers. 	<ul style="list-style-type: none"> Do not use glossy or coated paper designed for use in inkjet products.

Load media

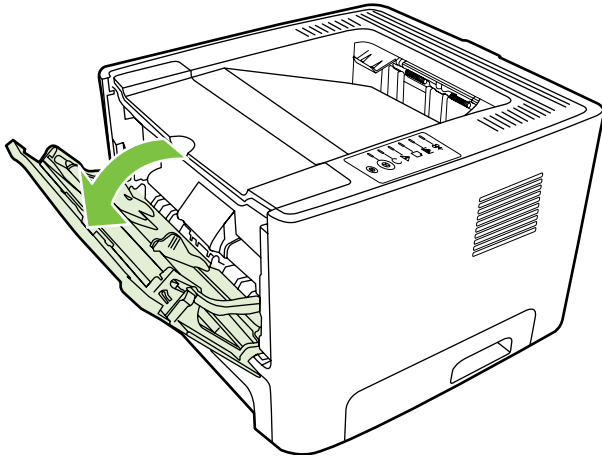
The following sections describe how to load media into the different input trays.



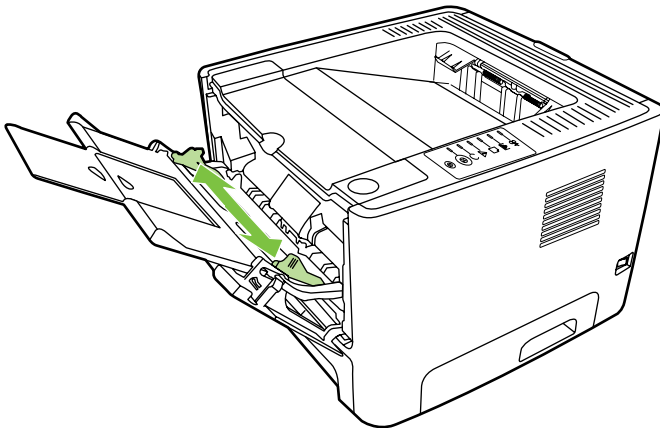
CAUTION: If you try to print on media that is wrinkled, folded, or damaged in any way, a jam might occur. See [Clear jams on page 144](#) for more information.

Tray 1

Tray 1 is accessed from the front of the printer. The printer prints from tray 1 before attempting to print from other trays.

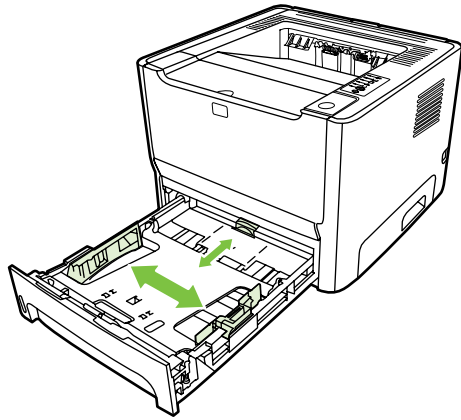


Media guides ensure that the media is correctly fed into the printer and that the print is not skewed (crooked on the media). When loading media, adjust the media guides to match the width of the media that you are using.



Tray 2 and optional tray 3

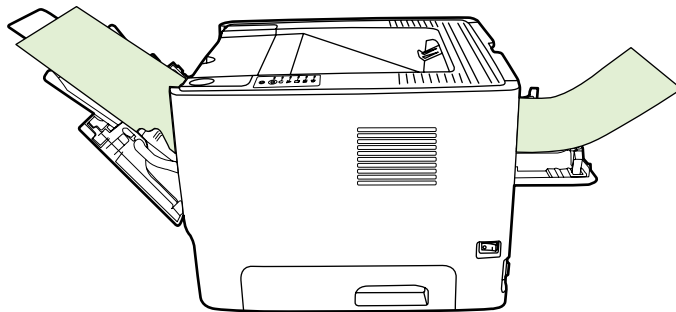
Media guides ensure that the media feeds correctly into the printer and that the print is not skewed. Tray 2 has side and rear media guides. When loading media, adjust the media guides to match the length and width of the media that you are using.



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

Straight-through output path

Use the straight-through output path when printing envelopes, transparencies, heavy media, or any media that tends to curl when printed. If you open the straight-through output door before printing media from tray 1, tray 2, or optional tray 3, the media exits the printer through the straight-through output path.



NOTE: Printed media does not stack when you use the straight-through output path. The media drops to the surface below unless you remove each sheet as it exits the printer.

Manual feed

You can use manual feed when printing mixed media. For example, you can use manual feed to print an envelope, then a letter, then an envelope, and so on. Load envelopes in tray 1 and load letterhead into tray 2.

To print using manual feed, open the printer Properties or Printer Setup, and then select **Manual Feed (tray 1)** from the **Source Tray** drop-down list. See [Configure the Windows printer driver on page 17](#) or [Configure the Macintosh printer driver on page 19](#) for instructions. After you have enabled manual feed, press the **Go** button to print.

2 Installation

- [Site preparation](#)
- [Package contents](#)
- [Install tray 3](#)
- [Printer connections](#)
- [Software for Windows](#)
- [Software for Macintosh](#)
- [Printer information pages](#)

Site preparation

Place the printer on a sturdy, level surface that meets the following environmental requirements:

- Temperature: 15°C to 32.5°C (59°F to 90.5°F)
- Humidity: 10% to 80% relative humidity (no condensation)
- Exposure: Place away from direct sunlight, open flames, ammonia fumes, and air vents.
- Clearance: Allow sufficient space around the printer for access.
- Ventilation: Ensure that the printer is located in a well-ventilated area.

Package contents

Figure 2-1 Package contents on page 13 shows the package contents for the HP LaserJet P2014 Series printer.

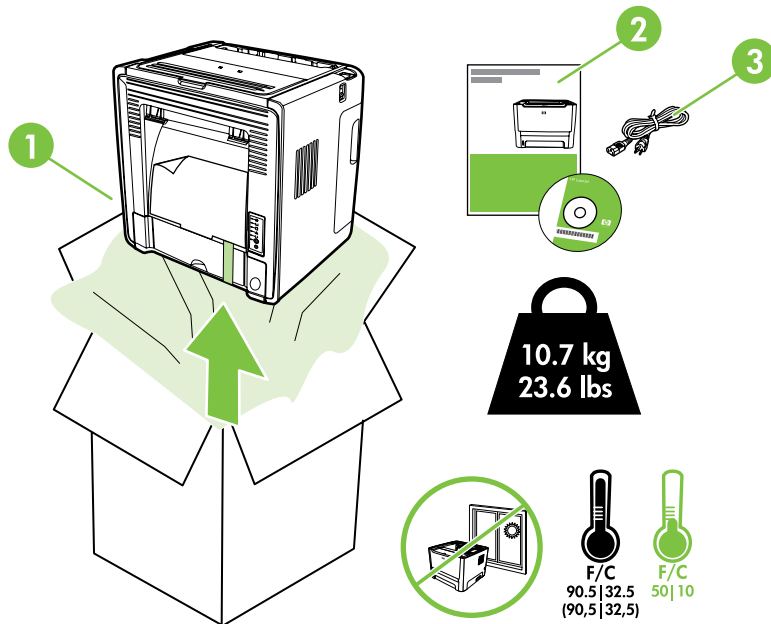


Figure 2-1 Package contents

1	HP LaserJet P2015 Series printer
2	Software and user documentation CD-ROM
3	Power cable

Install tray 3

If you have tray 3, install tray 3 as shown.

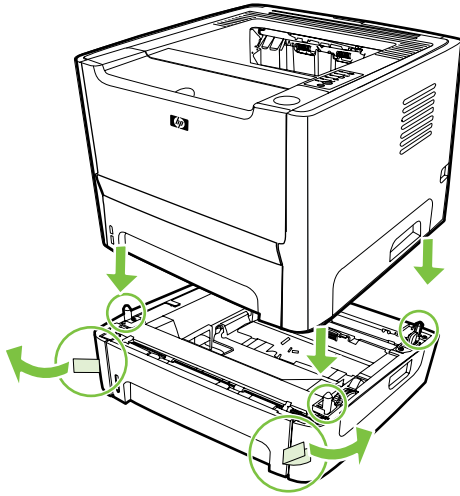


Figure 2-2 Installing tray 3

After installing tray 3, configure the printer driver to allow printing from tray 3.

1. On the Windows task bar, click **Start**, click **Settings**, and then click **Printers**.
2. Right-click the **HP LaserJet P2014** icon.
3. Click **Properties**.
4. Click the **Device Settings** tab.
5. Windows 2000/XP: Under **Installable Options**, change **Tray 3** to **Installed**.

Windows 98/Me: Click **Configure**, and then select **Tray 3** under **Optional Paper Sources**.

Printer connections

USB and parallel connections

1. Insert the software installation CD into the computer CD-ROM drive.
2. If the installation program does not start automatically, browse the CD contents and run the SETUP.EXE file.
3. Follow the on-screen instructions.



NOTE: During the installation, there is a prompt to plug in the parallel or USB cable. Refer to the figures below.

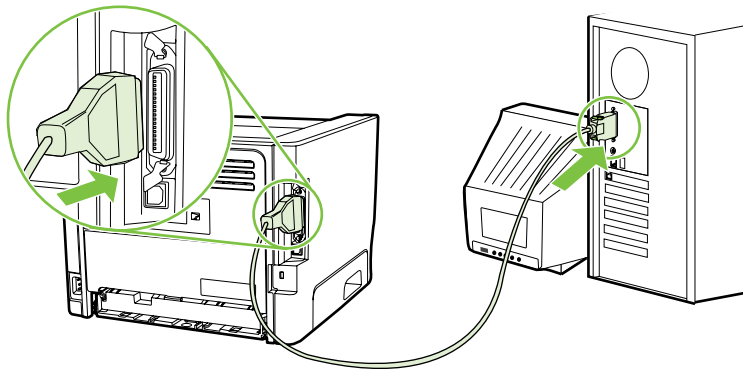


Figure 2-3 Parallel connection

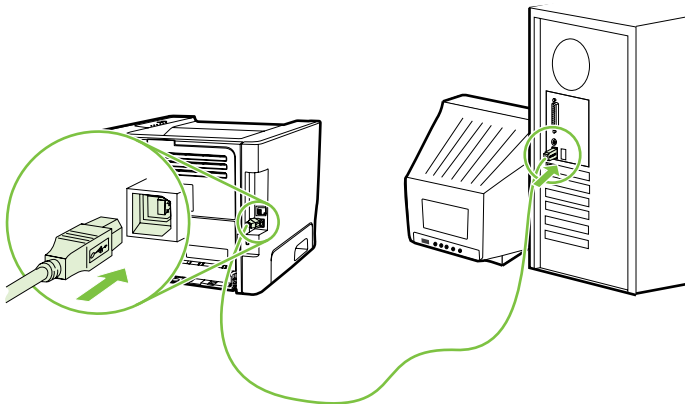


Figure 2-4 USB connection

Network connections

The Network model can connect to a network through the HP internal networking port. External network print servers are available for the non-network product model. The following list identifies what is required to add networking to any non-network product model.

10/100Base-TX Networking options

- HP Jetdirect en3700
- HP Jetdirect 175x
- HP Jetdirect ew2400

To order the print server, see [10/100 networking print servers on page 227](#).

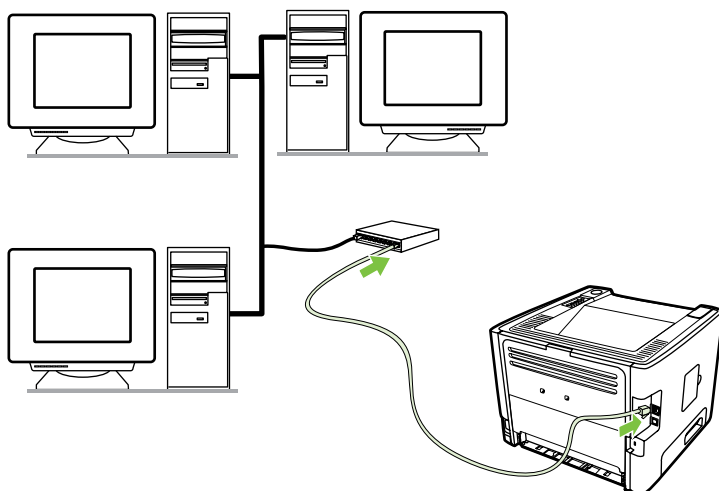
Connect the printer to the network

To connect a networking-equipped product, you need the following items:

- Functional wired network
- CAT-5 Ethernet cable

To connect the printer to your network, perform the following steps:

1. Connect the CAT-5 Ethernet cable to an available port on the Ethernet hub or router.
2. Connect the Ethernet cable to the Ethernet port on the back of the printer.



3. Verify that one of the network lights (10 or 100) is illuminated on the network port located on the back of the printer.
4. Confirm that the product has been assigned an IP address by printing a Configuration page: When the printer is in the Ready state, press and hold the **Go** button for 5 seconds when the printer Ready light is on and no other jobs are printing.



NOTE: To resolve network connection problems, see [Network-setup problem-solving on page 157](#).

Install the printer software for the network printer

To use the printer on the network, install the printer software on a computer that is connected to the network.

Software for Windows

Supported operating systems

The product comes with software for the following operating systems:

- Windows® 98 SE (PCL 5e printer driver only)
- Windows Me (PCL 5e printer driver only)
- Windows NT 4.0 (PCL 5e printer driver only)
- Windows 2000
- Windows Server 2003 (32-bit)
- Windows Server 2003 (64-bit) (PCL 5e printer driver only)

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

- Windows XP (32-bit)
- Windows XP (64-bit) (PCL 5e printer driver only)
- Windows Vista (32-bit)

Windows printer drivers

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

Windows driver types

This product features a host-based driver and a PCL 5e printer driver.

Install Windows software

To install printer software for Windows NT 4.0, Server 2003 (64-bit), Windows 98SE, Me, and XP (64-bit)

See the operating system documentation for instructions on installing a printer driver.

To install printer software for Windows 2000, XP (32-bit), Server 2003 (32-bit), and Vista (32-bit)

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



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

Configure the Windows printer driver

Use one of the following methods to open the Windows printer driver from your computer:

Operating system	To change the settings for all print jobs until the software program is closed	To change the print job default settings (for example, turn on Print on Both Sides by default)	To change the configuration settings (for example, add a tray or enable/disable Manual duplexing)
Windows 98 SE, Me, 2000, XP (32-bit and 64-bit), and Server 2003	<ol style="list-style-type: none"> 1. On the File menu in the software program, click Print. 2. Select the name of the printer, and then click Properties or Preferences. <p>The steps can vary; this procedure is most common.</p>	<ol style="list-style-type: none"> 1. Click Start, click Settings, and then click Printers or Printers and Faxes. 2. Right-click the printer icon, and then select Printing Preferences. 	<ol style="list-style-type: none"> 1. Click Start, click Settings, and then click Printers or Printers and Faxes. 2. Right-click the printer icon, and then select Properties. 3. Click the Device Settings tab.

Software for Macintosh

Macintosh printer drivers

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

Install the Macintosh printer driver

This section explains how to install the printing system software for Macintosh OS X v10.2.8, v10.3, v10.4 and later.



NOTE: USB queues are created automatically when the printer is attached to the computer. However, the queue will use a generic PPD if the installer has not been run before the USB cable is connected. To change the queue PPD, open the Print Center or Printer Setup Utility, select the correct printer queue, and then click **Show Info** to open the **Printer Info** dialog box. In the pop-up menu, select **Printer Model**, and then, in the pop-up menu in which **Generic** is selected, select the correct PPD for the printer.

Use the following procedure to install the Macintosh printer driver:

1. Insert the printer CD into the CD-ROM drive and run the installer.
2. Double-click the CD icon on the desktop
3. Double-click the **Installer** icon.
4. Follow the instructions on the computer screen.
5. Print a test page or a page from any software program to make sure that the printer software is correctly installed.

If installation fails, reinstall the software. If this fails, see the Late-Breaking Information section of the Install Notes. The Install Notes are located on the printer CD or at the support Web site. (See [HP Customer Care on page 233](#) for the Web address.)

Configure the Macintosh printer driver

Use one of the following methods to open the Macintosh printer driver from your computer:

Operating System	To change the settings for all print jobs until the software program is closed	To change the print job default settings (for example, turn on Print on Both Sides by default)	To change the configuration settings (for example, add a tray or enable/disable Manual duplexing)
Macintosh OS X v10.2.8, v10.3, v10.4 and later	<ol style="list-style-type: none">1. On the File menu, click Print.2. Change the settings that you want on the various pop-up menus.	<ol style="list-style-type: none">1. On the File menu, click Print.2. Change the settings that you want on the various pop-up menus.3. On the Presets pop-up menu, click Save as and type a name for the preset.	<ol style="list-style-type: none">1. Open Printer Setup Utility by selecting the hard drive, clicking Applications, clicking Utilities, then double-clicking Printer Setup Utility.2. Click the print queue.

Operating System	To change the settings for all print jobs until the software program is closed	To change the print job default settings (for example, turn on Print on Both Sides by default)	To change the configuration settings (for example, add a tray or enable/disable Manual duplexing)
		These settings are saved in the Presets menu. To use the new settings, you must select the saved preset option every time you open a program and print.	<ol style="list-style-type: none"> 3. On the Printers menu, click Show Info. 4. Click the Installable Options menu.

PostScript Printer Description files (PPDs)

PPDs, in combination with the HP postscript level 3 emulation driver, provide access to the printer features and allow the computer to communicate with the printer. An installation program for the PPDs is provided on the printer CD.

Printer information pages

You can print the following information pages.

Demo page

The Demo page contains examples of text and graphics. To print a Demo page, do one of the following:

- Press the **Go** button when the printer Ready light is on and no other jobs are printing.
- Select it from the **Print Information Pages** drop-down list on the **Services** tab in **Printer Preferences**.

Configuration page

The Configuration page lists current settings and properties of the printer. It also contains a status log report. To print a configuration page, do one of the following:

- Press and hold the **Go** button for 5 seconds when the printer Ready light is on and no other jobs are printing.
- Select it from the **Print Information Pages** drop-down list on the **Services** tab in **Printer Preferences**.

Supplies Status page

You can print the Supplies Status page by selecting it from the **Print Information Pages** drop-down list on the **Services** tab in **Printer Preferences**. The Supplies Status page provides the following information:

- The estimated number of pages remaining on the print cartridge
- The number of pages and print jobs that have been processed
- Ordering and recycling information

3 Manage the printer

This chapter provides information on the following topics:

- [Embedded Web server \(network model only\)](#)

Embedded Web server (network model only)

The embedded Web server allows you to view printer and network status and to manage printing functions from your computer instead of from the printer control panel. Below are examples of what you can do using the embedded Web server:

- View device status information
- Determine the remaining life on all supplies and order new ones
- Set the size and type of media loaded in each tray
- View and change tray configurations
- View and change the printer default configuration settings
- View and change network configuration
- You do not need to install any software on the computer. You only need to use one of these supported Web browsers:
 - Internet Explorer 6.0 (and later)
 - Netscape Navigator 7.0 (and later)
 - Firefox 1.0 (and later)
 - Mozilla 1.6 (and later)
 - Opera 7.0 (and later)
 - Safari 1.2 (and later)
 - Konqueror 3.2 (and later)

The embedded Web server works when the printer is connected to a TCP/IP-based network. The embedded Web server does not support IPX-based connections or direct USB connections.



NOTE: You do not have to have Internet access to open and use the embedded Web server. However, if you click a link on any of the pages, you must have Internet access in order to go to the site associated with the link.

Open the embedded Web server

To open the embedded Web server, type the IP address or hostname of the printer in the address field of a supported Web browser. To find the IP address, print a Configuration page at the printer by pressing and holding the **Go** button for 5 seconds when the Ready light is on and no other jobs are printing.



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

The embedded Web server has three tabs that contain settings and information about the printer: the **Information** tab, the **Settings** tab, and the **Networking** tab.

Information tab

The Status pages group consists of the following pages.

- **Device Status.** This page displays the status of the printer and HP supplies.
- **Device Configuration.** This page shows the information found on the printer Configuration page.
- **Supplies Status.** This page shows the status of HP supplies and provides supplies part numbers. To order new supplies, click **Shop For Supplies** in the upper-right part of the window.
- **Network Summary.** This page shows the information found on the printer Network Summary page.

Settings tab

This tab allows you to configure the printer from your computer. You can view and change the settings for the printer's input tray as well as the default printer job settings. If this printer is networked, always consult with the printer administrator before changing settings on this tab.

Networking tab

This tab allows the network administrator to control network-related settings for the printer when it is connected to an IP-based network.

Links

Links are located in the upper-right part of the Status pages. 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.

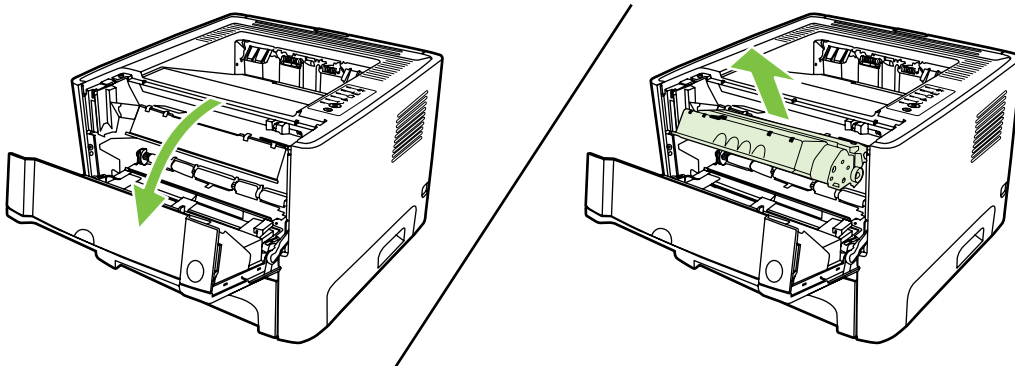
- **Shop For Supplies.** Click this link to connect to the Sure Supply Web site and order genuine HP supplies from HP or a reseller of your choice.
- **Support.** Connects to the support site for the HP LaserJet P2014 Series printer. You can search for help regarding general topics.

4 Maintenance

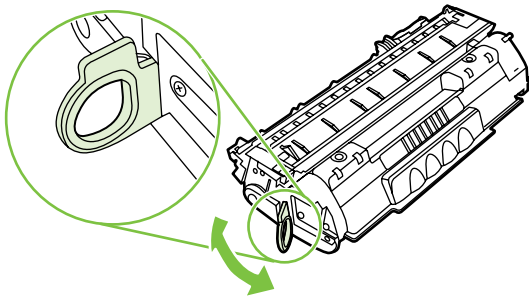
- [Replace the print cartridge](#)
- [Redistribute toner](#)
- [Clean the printer](#)
- [Clean the pickup roller \(tray 1\)](#)
- [Replace the pickup roller \(tray 1\)](#)
- [Clean the pickup roller \(tray 2\)](#)
- [Replace the pickup roller \(tray 2\)](#)
- [EconoMode](#)

Replace the print cartridge

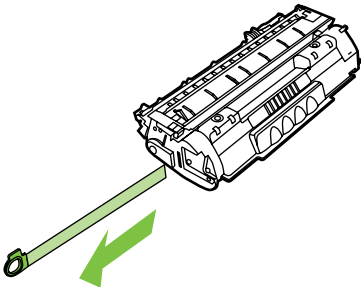
1. Press the print-cartridge-door button, and then remove the print cartridge from the printer. For recycling information, see the inside of the print-cartridge box.



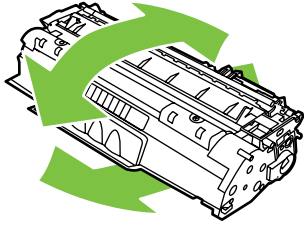
2. Remove the new print cartridge from the packaging.
3. Bend the tab on the left side of the cartridge to break it loose.




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

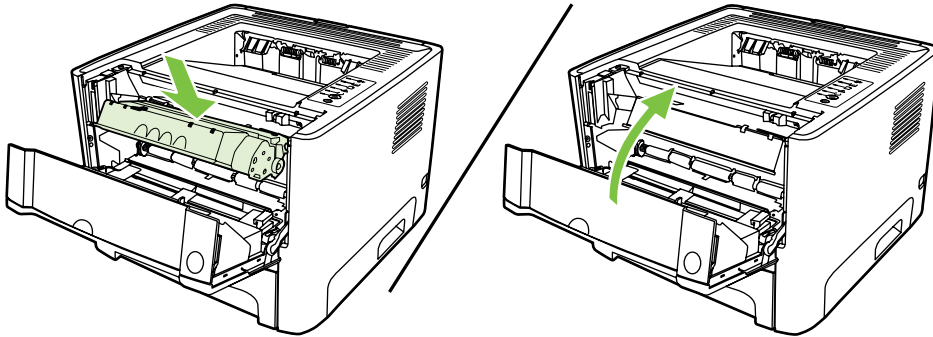



5. Gently rock the print cartridge from front to back to distribute the toner evenly inside the cartridge.



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

6. Insert the print cartridge in the printer and close the print-cartridge door.

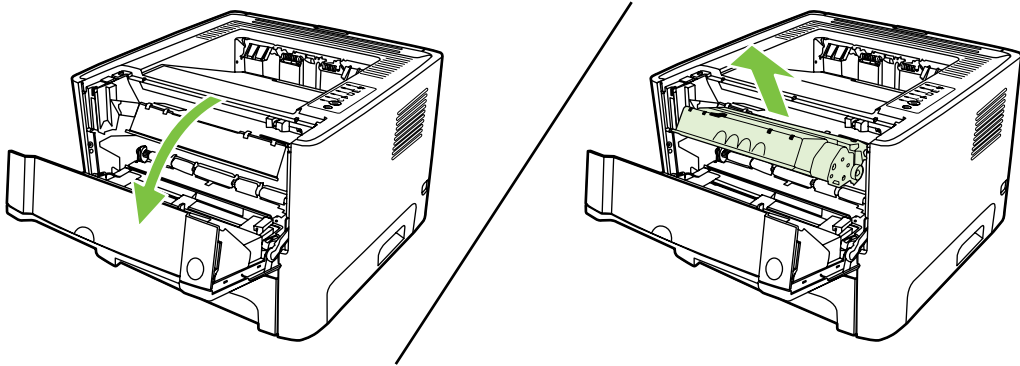


 **CAUTION:** If toner gets on your clothing, wipe it off with a dry cloth and wash the clothing in cold water. *Hot water sets toner into the fabric.*

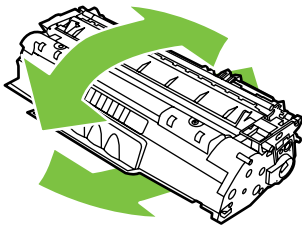
Redistribute toner

When toner is low, faded or light areas appear on the printed page. You might be able to temporarily improve print quality by redistributing the toner.

1. Press the print-cartridge-door button, and then remove the print cartridge from the printer.

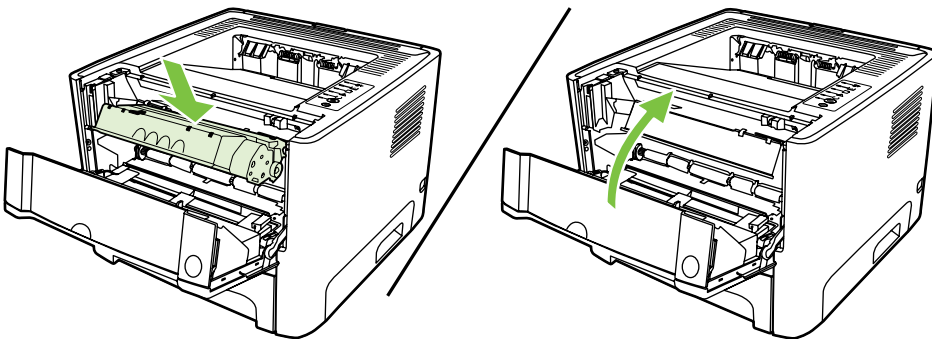


2. To redistribute the toner, gently rock the print cartridge from front to back.



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

3. Reinsert the print cartridge into the printer, and close the print cartridge door.



If the print is still light, install a new print cartridge. See [Replace the print cartridge on page 28](#) for instructions.

Clean the printer

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



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

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

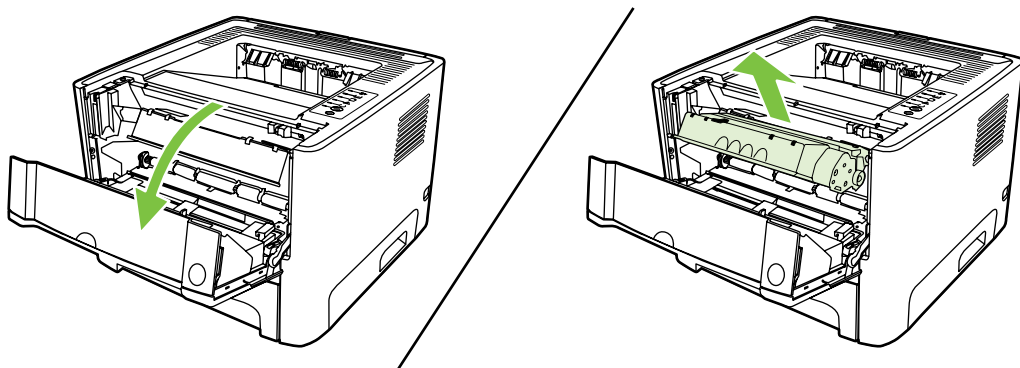
Clean the print-cartridge area

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



WARNING! Before cleaning the printer, turn the printer off by unplugging the power cord, and wait for the printer to cool.

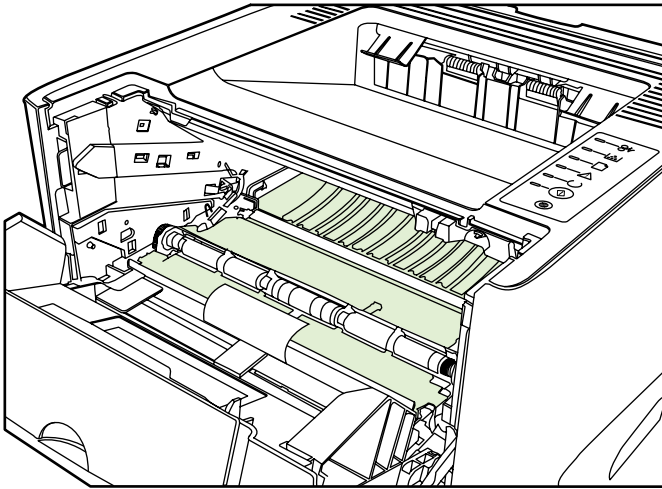
1. Press the print-cartridge-door button, and then remove the print cartridge from the printer.



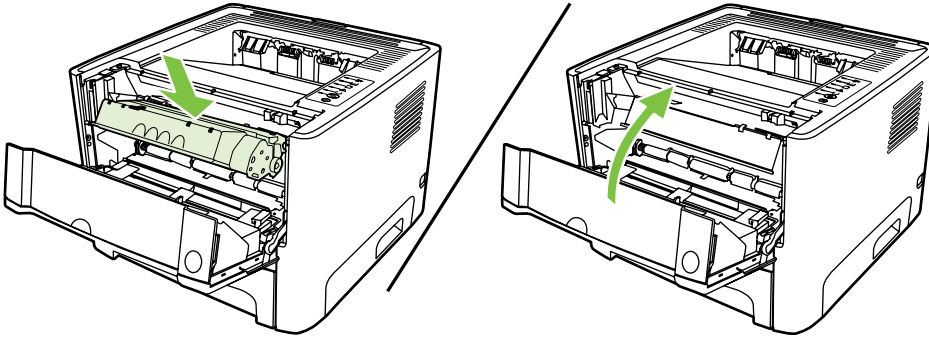
CAUTION: Do not touch the black sponge-transfer roller inside the printer. Doing so can damage the printer.

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

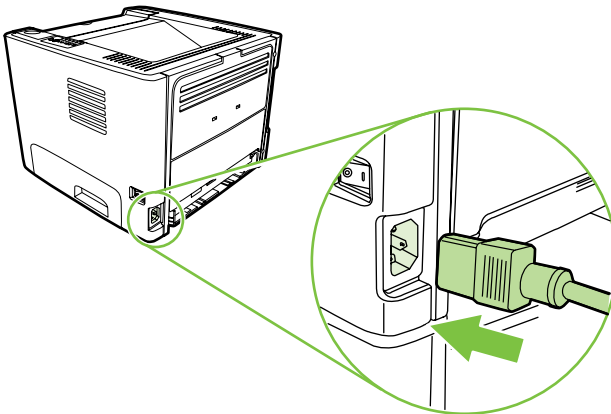
2. With a dry, lint-free cloth, wipe any residue from the media-path area and the print-cartridge cavity.



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



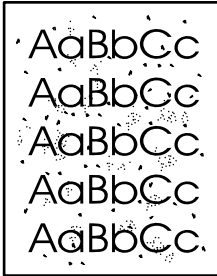
4. Plug the printer in to turn it back on.



5. Verify printer functionality by printing a demo page. To print a demo page, press the **Go** button when the Ready light is on and no other jobs are printing.

Clean the printer media path

If you are experiencing toner specks or dots on the printouts, clean the printer media path. This process uses a transparency to remove dust and toner from the media path. Do not use bond or rough paper.



NOTE: For best results use a sheet of transparency. If you do not have any transparencies, you can use copier grade media (70 to 90 g/m² (18 to 24 lb.)) with a smooth surface.

1. Make sure that the printer is idle and the Ready light is on.
2. Load the transparency in tray 1.
3. Print a cleaning page. Open the printer **Properties** screen, select the **Device Settings** tab and click **Start**.

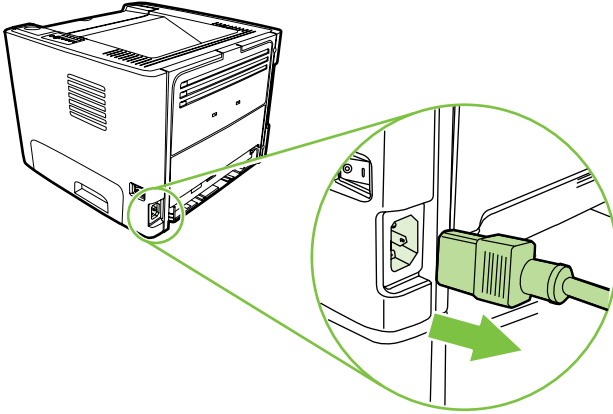


NOTE: The cleaning process takes approximately 2 minutes. The cleaning page will stop periodically during the cleaning process. Do not turn the printer off until the cleaning process has finished. You might need to repeat the cleaning process several times to thoroughly clean the printer.

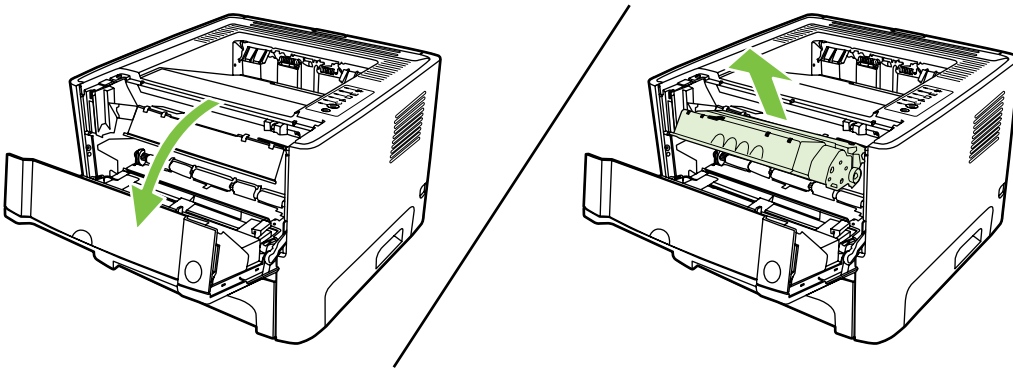
Clean the pickup roller (tray 1)

If you want to clean the pickup roller for tray 1, follow these instructions:

1. Unplug the power cord from the printer, and allow the printer to cool.



2. Press the print-cartridge-door button, and then remove the print cartridge from the printer.



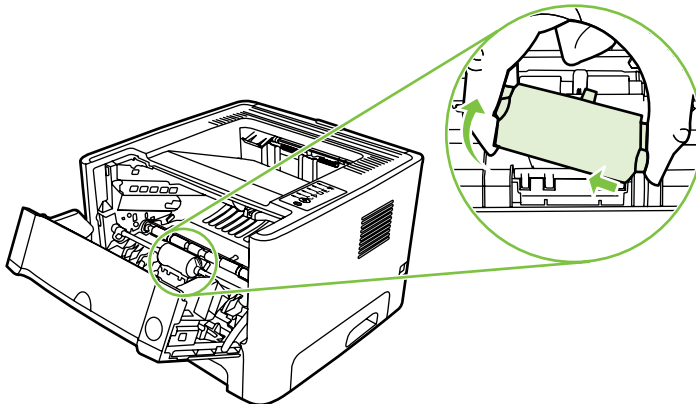
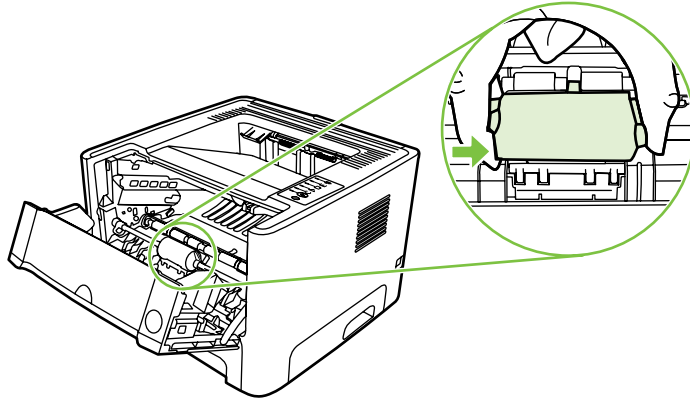
CAUTION: Do not touch the black sponge-transfer roller inside the printer. Doing so can damage the printer.

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

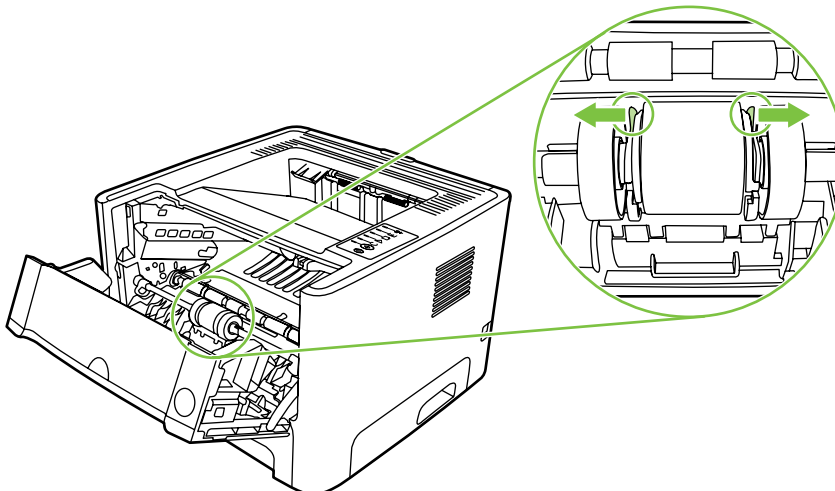
3. Grasping the pickup-roller cover with thumb and forefinger, squeeze the left side of the pickup-roller cover to release the left retaining tab, and then slide the cover to the left and up.



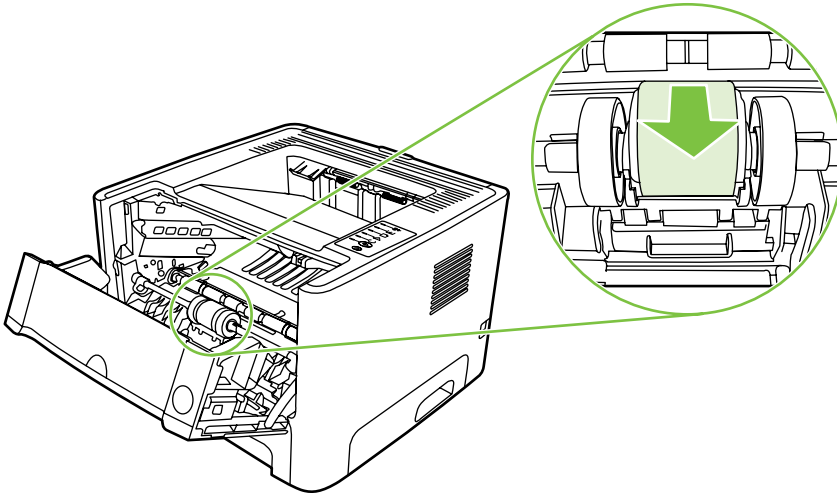
CAUTION: Failure to slide the cover to the left when removing it can cause the right retaining tab to break.



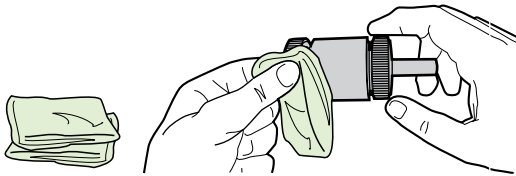
4. Press the two black retaining tabs outward until the pickup roller is released from its seat.



5. Remove the pickup roller from the printer.

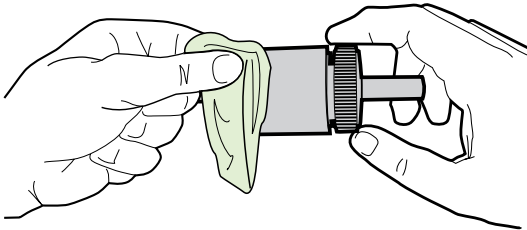


6. Dab a lint-free cloth in water, and scrub the roller.

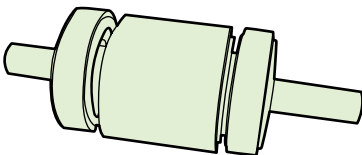


NOTE: Do not touch the surface of the roller with bare fingers.

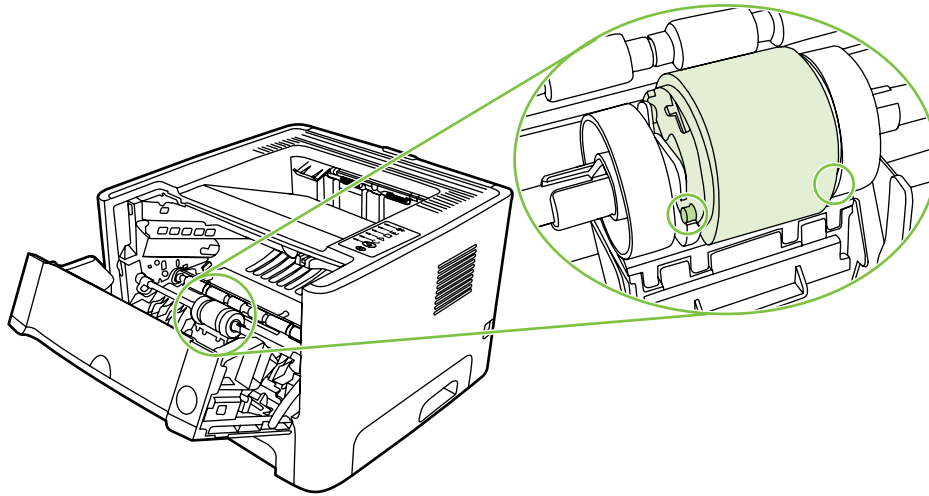
7. Using a dry, lint-free cloth, wipe the pickup roller to remove loosened dirt.



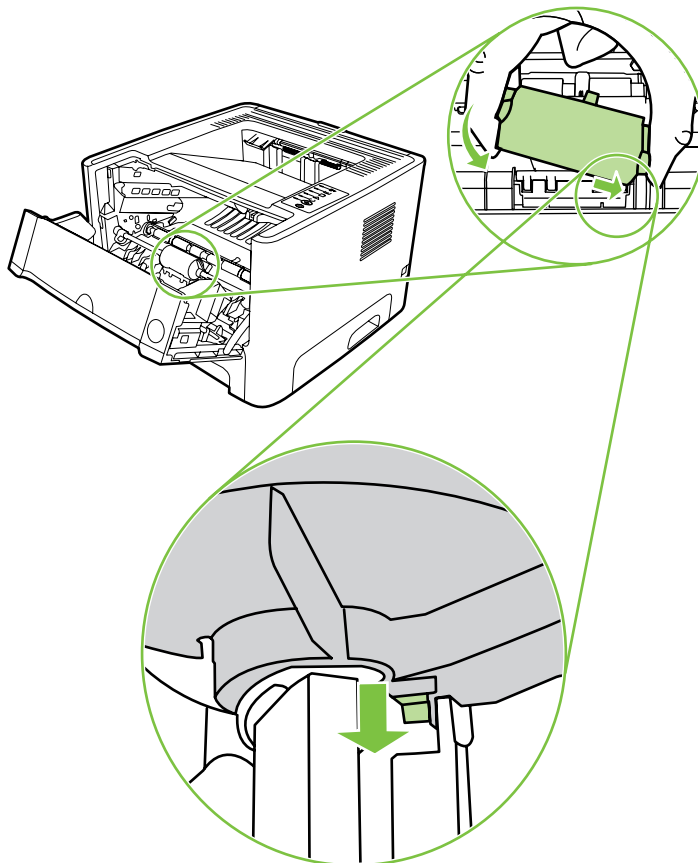
8. Allow the pickup roller to dry completely.



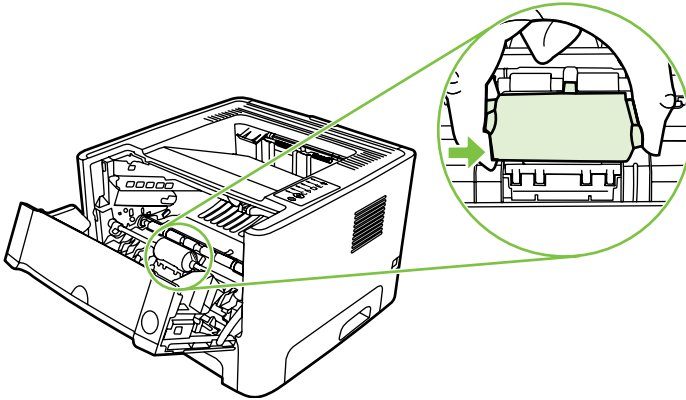
9. Line up the black retaining tabs in the printer with the grooves in the pickup roller, and then press the pickup roller into the pickup roller seat until the retaining tabs click.



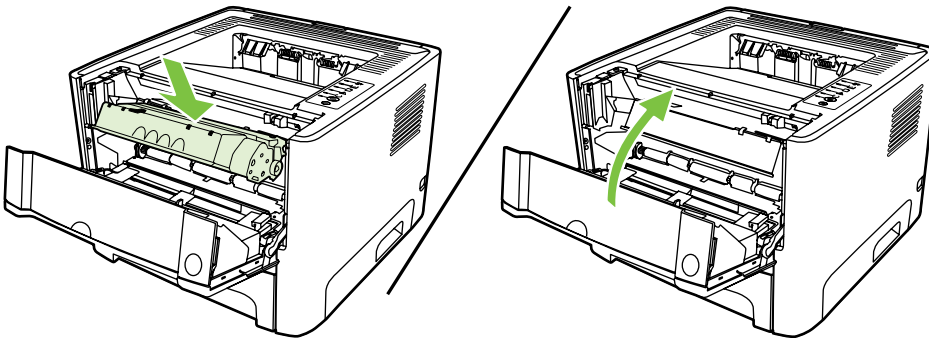
10. Grasping the pickup-roller cover with thumb and forefinger, insert the pickup-roller cover's right retaining tab into the retaining slot.



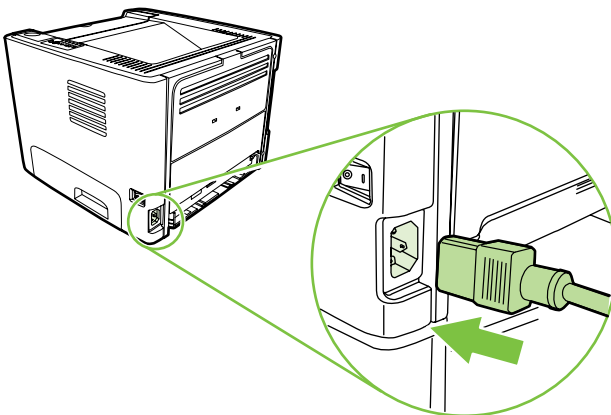
11. Squeeze the left side of the pickup-roller cover and insert the left retaining tab in the retaining slot.



12. Reinstall the print cartridge, and close the print-cartridge door.



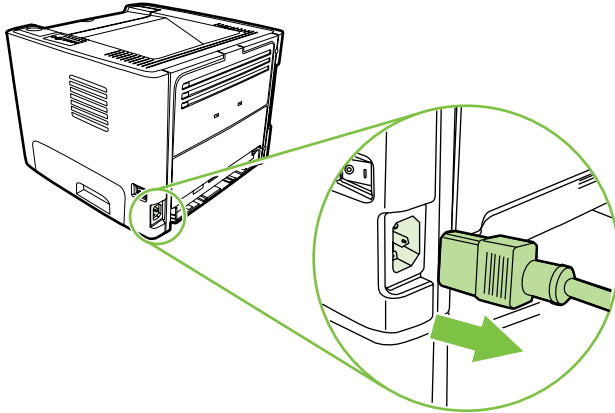
13. Plug the printer in to turn it back on.



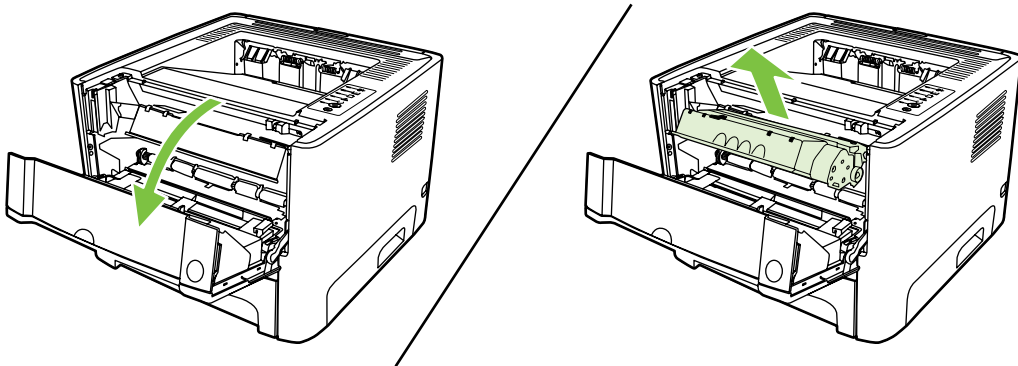
14. Verify printer functionality by printing a demo page. To print a demo page, press the **Go** button when the Ready light is on and no other jobs are printing.

Replace the pickup roller (tray 1)

1. Unplug the power cord from the printer, and allow the printer to cool.



2. Press the print-cartridge-door button, and then remove the print cartridge from the printer.



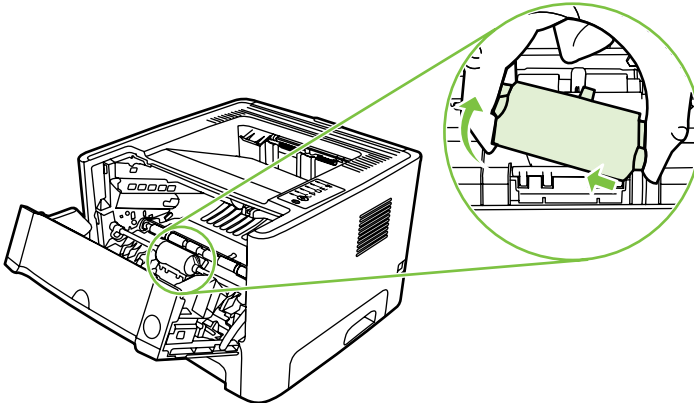
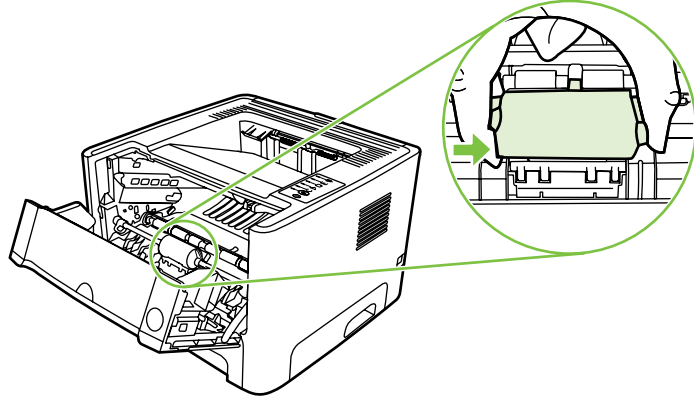
CAUTION: Do not touch the black sponge-transfer roller inside the printer. Doing so can damage the printer.

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

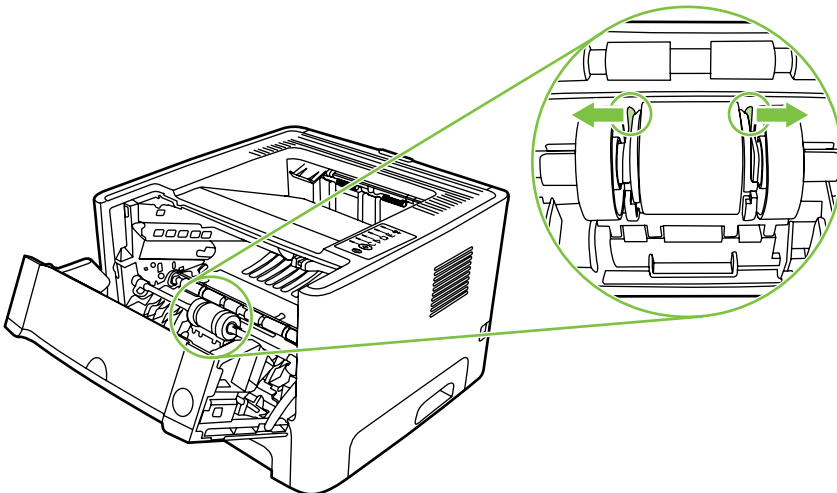
3. Grasping the pickup-roller cover with thumb and forefinger, squeeze the left side of the pickup-roller cover to release the left retaining tab, and then slide the cover to the left and up.



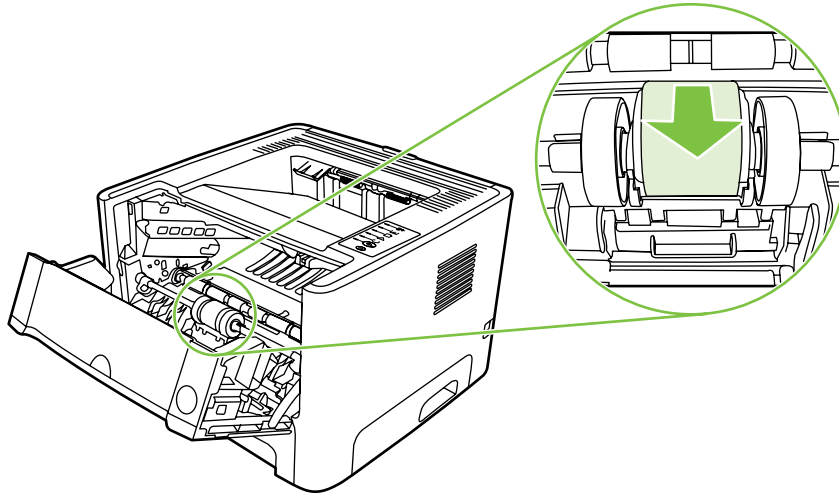
CAUTION: Failure to slide the cover to the left when removing it can cause the right retaining tab to break.



4. Press the two black retaining tabs outward until the pickup roller is released from its seat.



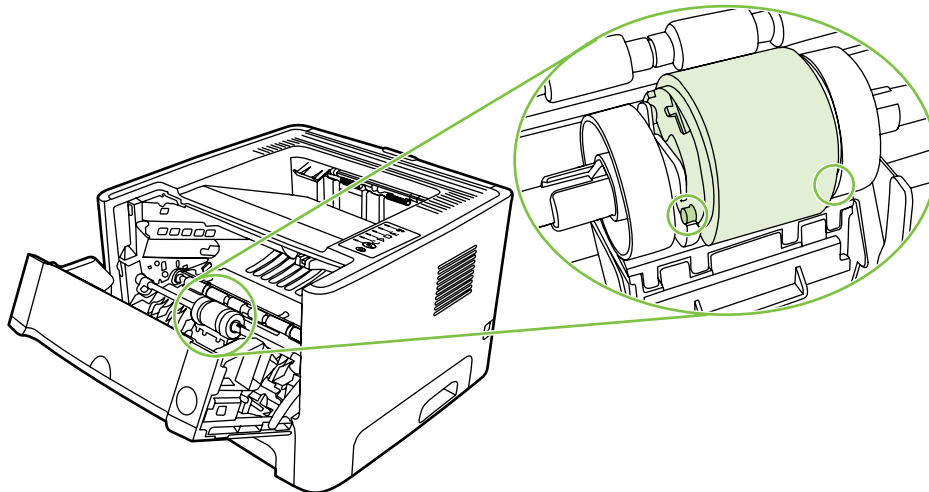
5. Remove the old pickup roller from the printer.



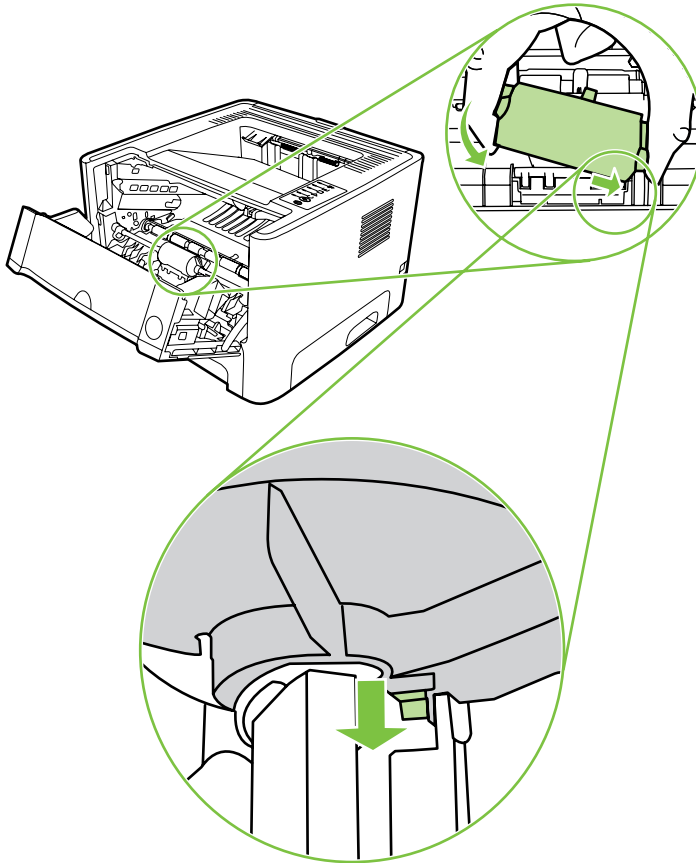
6. Line up the black retaining tabs in the printer with the grooves in the new pickup roller, and then press the pickup roller into the pickup-roller seat until the retaining tabs click.



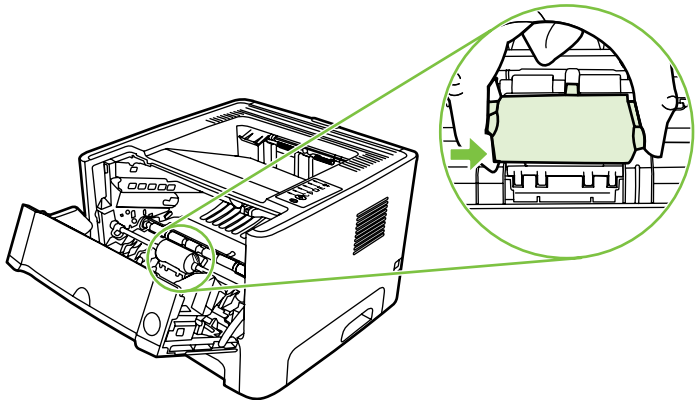
CAUTION: Do not touch the pickup-roller pad.



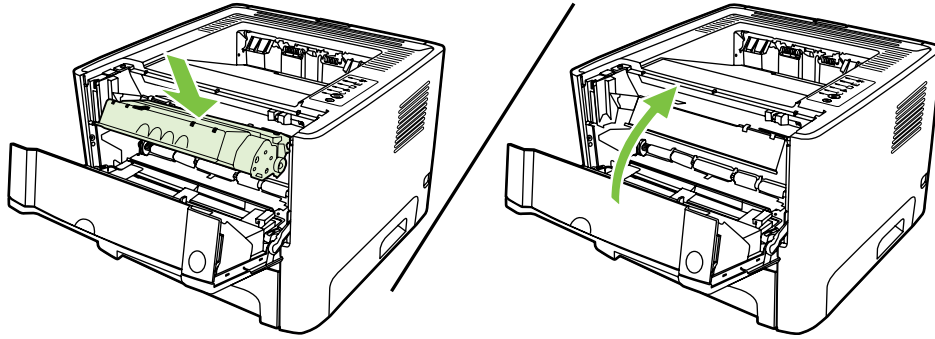
7. Grasping the pickup-roller cover with thumb and forefinger, insert the pickup-roller cover's right retaining tab into the retaining slot.



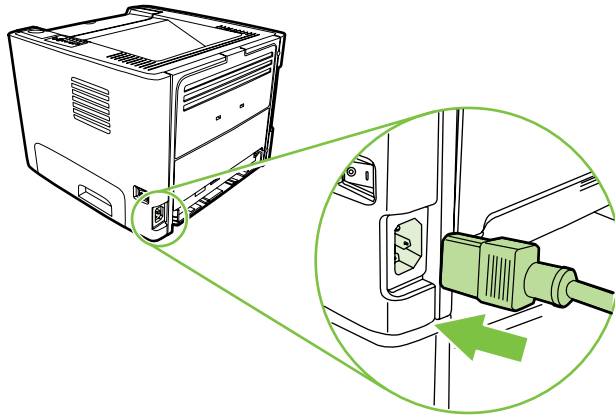
8. Squeeze the left side of the pickup-roller cover and insert the left retaining tab in the retaining slot.



9. Reinstall the print cartridge, and close the print-cartridge door.



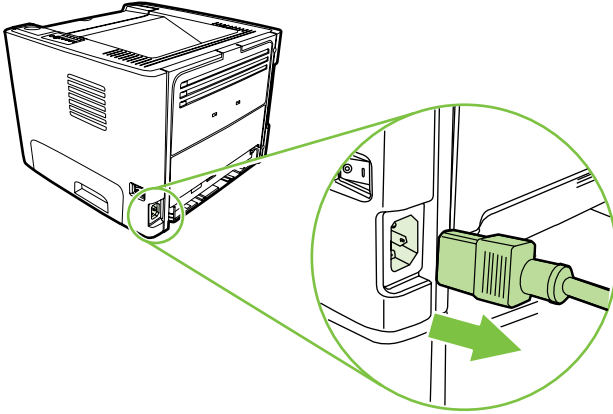
10. Plug the printer in to turn it back on.



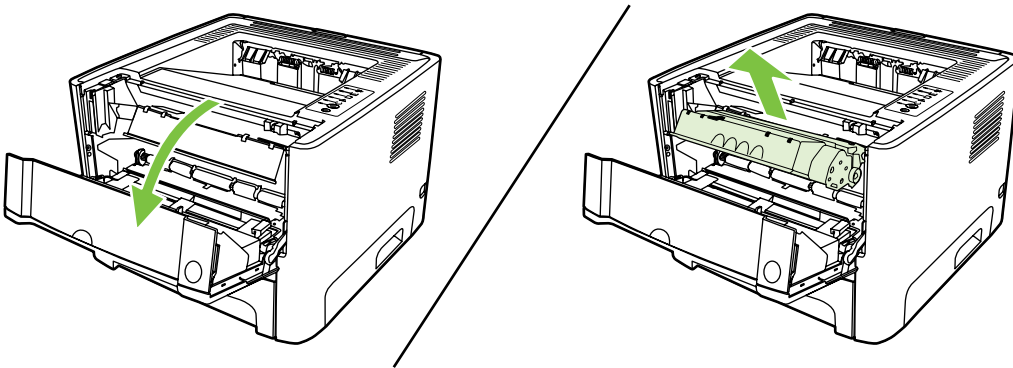
Clean the pickup roller (tray 2)

If you want to clean the pickup roller for tray 2, follow these instructions:

1. Unplug the power cord from the printer, and allow the printer to cool.



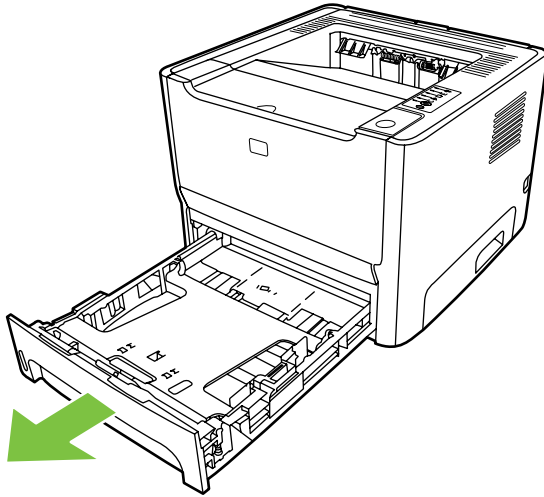
2. Press the print-cartridge-door button, and then remove the print cartridge from the printer.



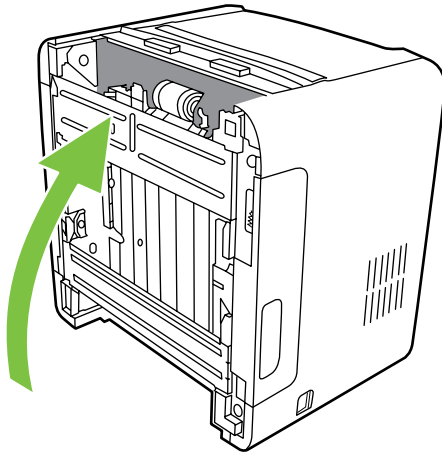
CAUTION: Do not touch the black sponge-transfer roller inside the printer. Doing so can damage the printer.

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

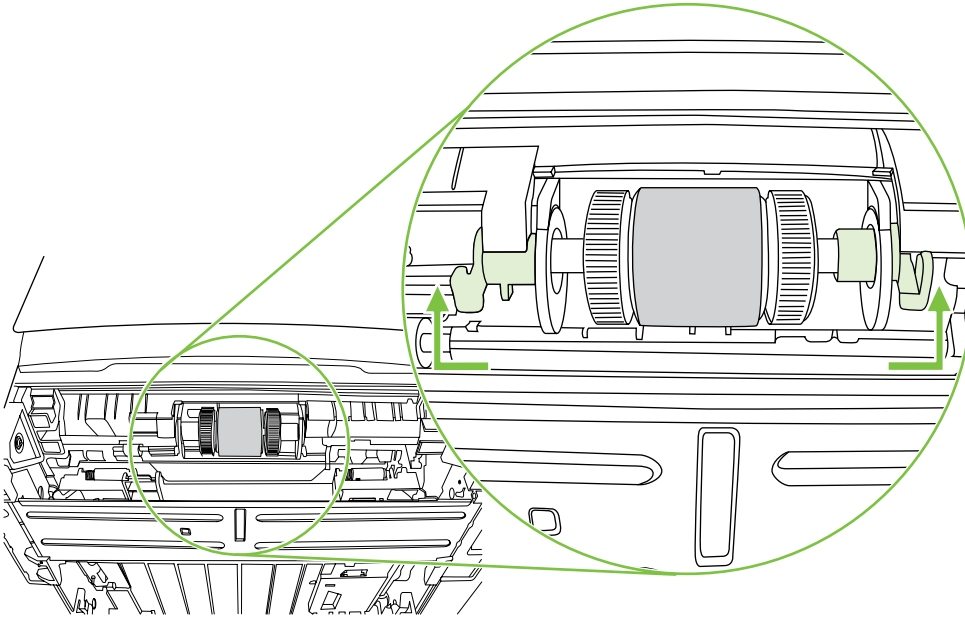
3. Remove tray 2.



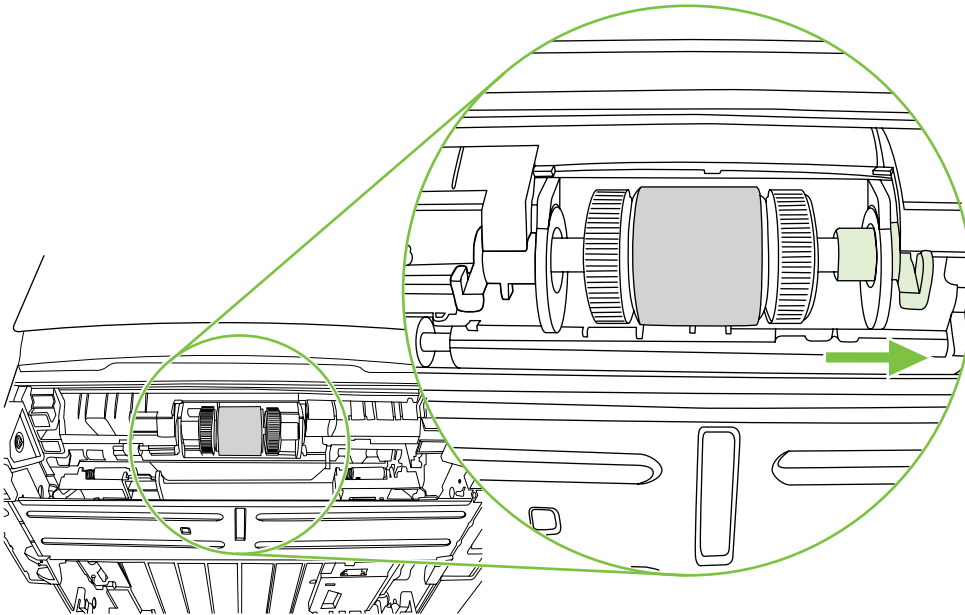
4. Place the printer on the work surface with the front of the printer facing up.



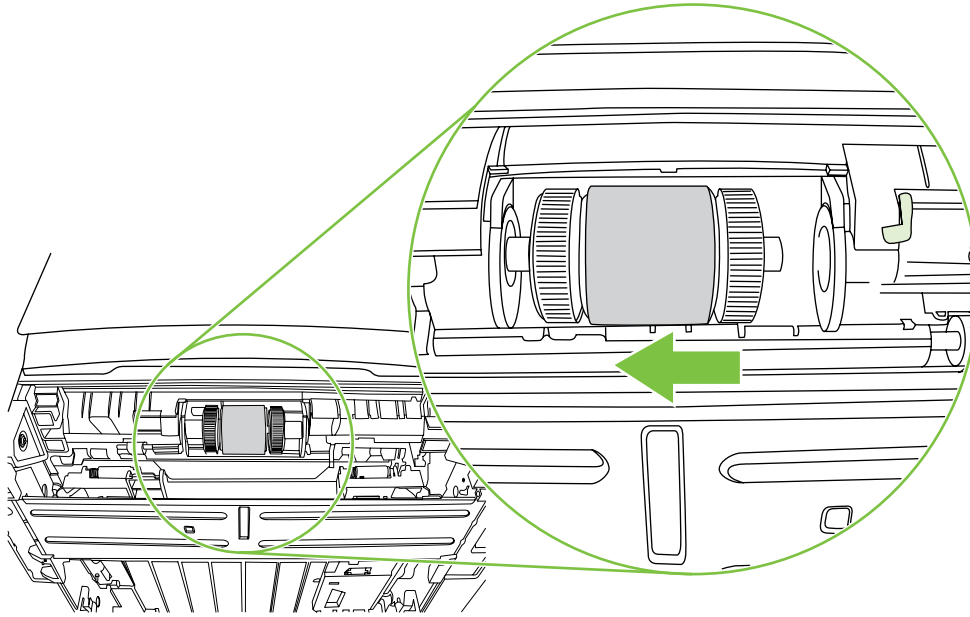
5. Pull the white tabs outward, and rotate the tabs up.



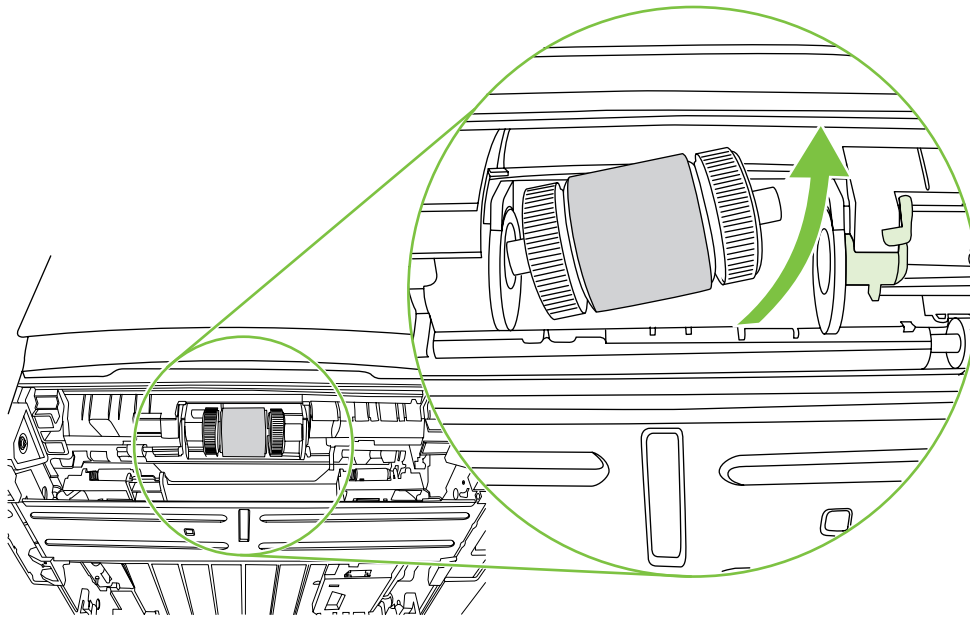
6. Slide the right tab to the right, and leave the tab in this position throughout the procedure.



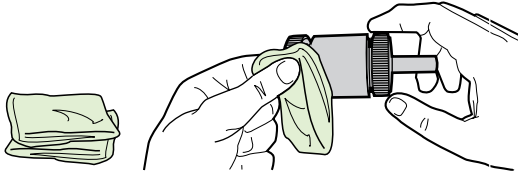
7. Slide the pickup roller assembly to the left, and remove the left end cap.



8. Remove the pickup roller.

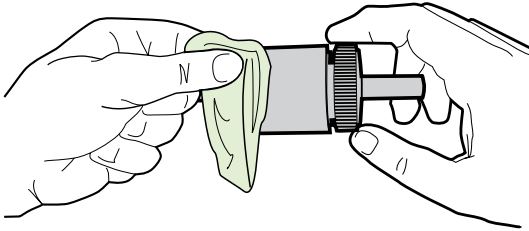


9. Dab a lint-free cloth in water, and scrub the roller.

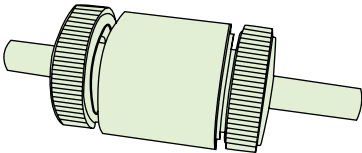


NOTE: Do not touch the surface of the roller with bare fingers.

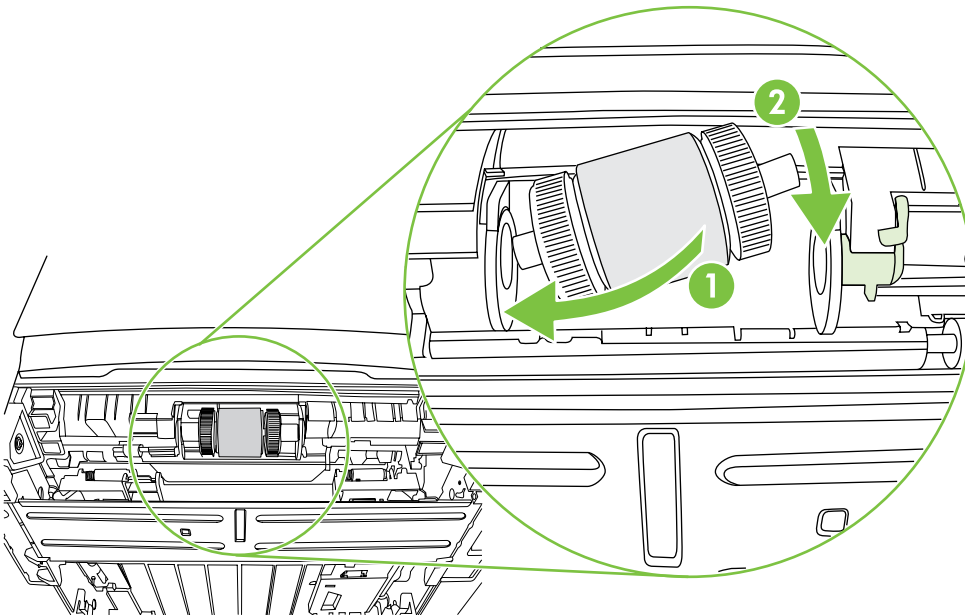
10. Using a dry, lint-free cloth, wipe the pickup roller to remove loosened dirt.



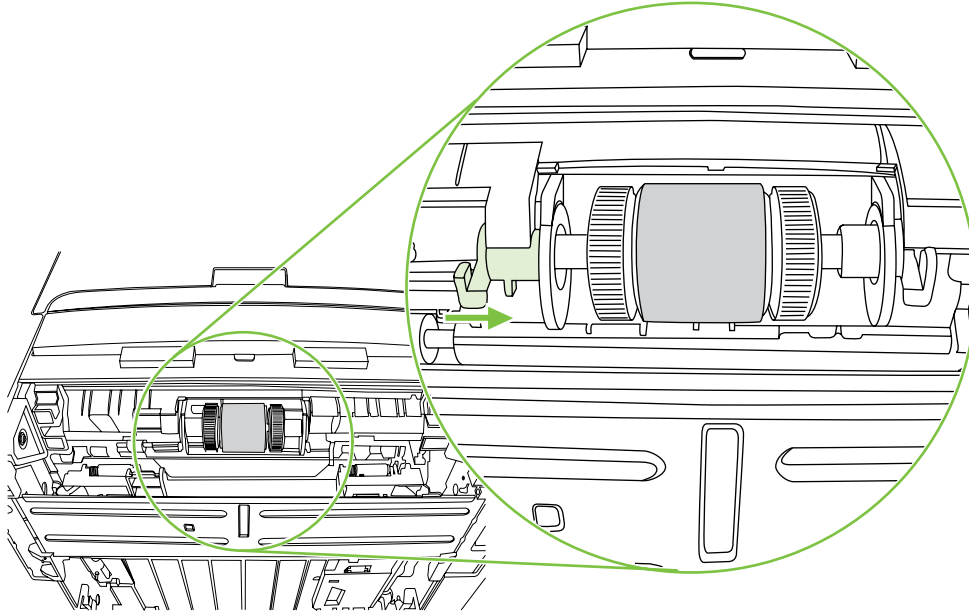
11. Allow the pickup roller to dry completely.



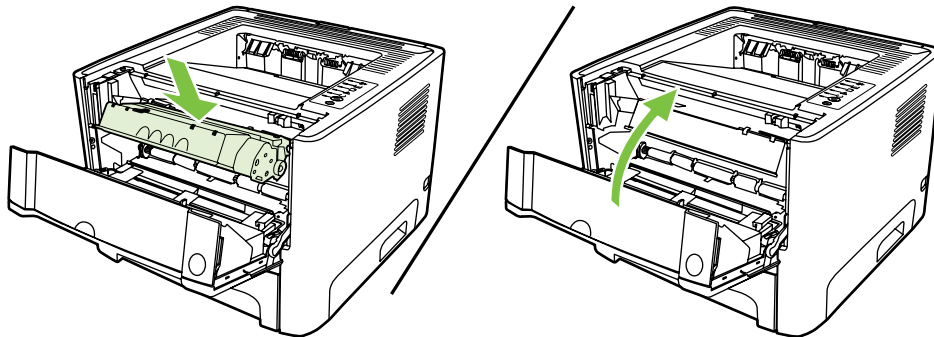
12. Insert the left side of the pickup roller into the left slot (1), and insert the right side (the side that has the notches in the shaft) into the right slot (2).



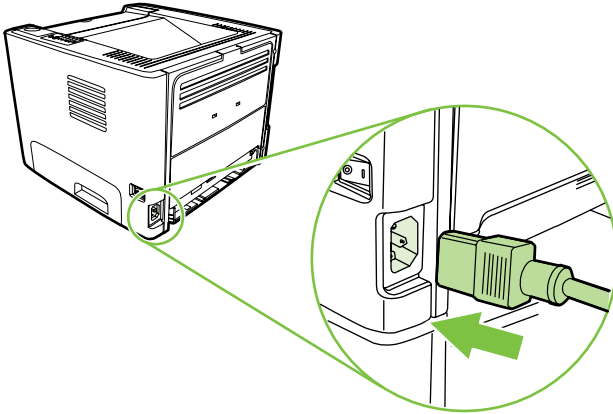
13. Place the end cap over the shaft on the left side, push the end cap to the right, and rotate the tab downward into position.



14. Rotate the shaft until the notches engage and the shaft clicks into place.
15. Push the right tab to the left, and rotate the tab downward into position.
16. Place the printer on the work surface with the top of the printer facing up.
17. Reinstall the print cartridge, and close the print-cartridge door.



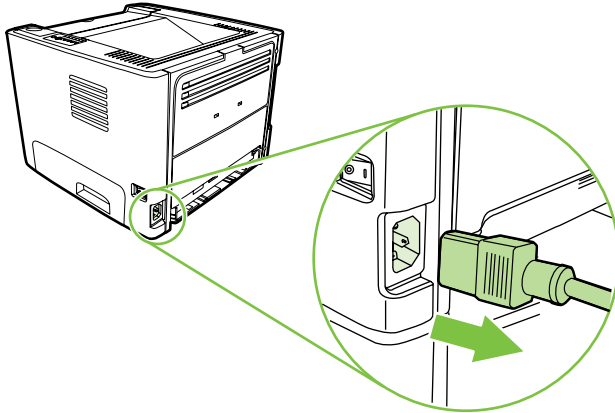
18. Plug the printer in to turn it back on.




19. Verify printer functionality by printing a demo page. To print a demo page, press the **Go** button when the Ready light is on and no other jobs are printing.

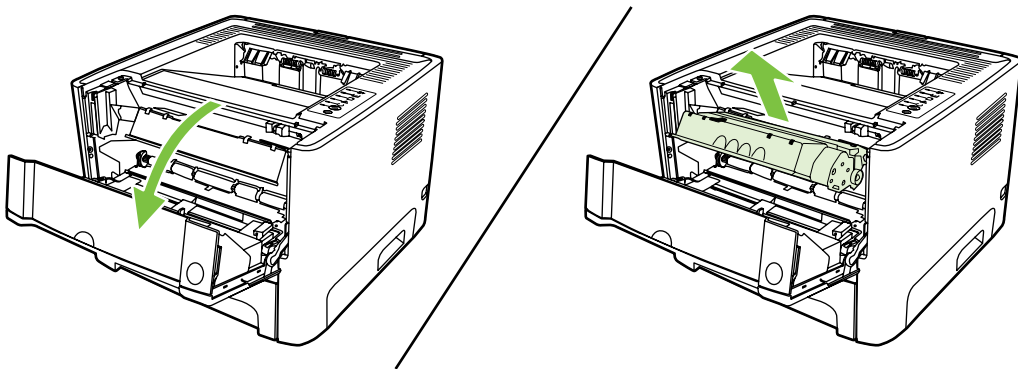
Replace the pickup roller (tray 2)

1. Unplug the power cord from the printer, and allow the printer to cool.

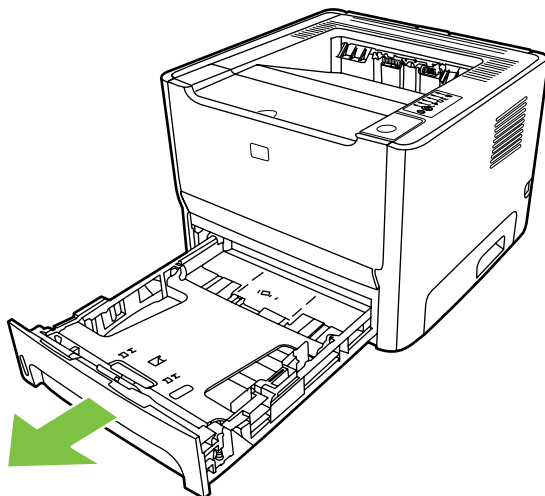


2. Press the print-cartridge-door button, and then remove the print cartridge from the printer.

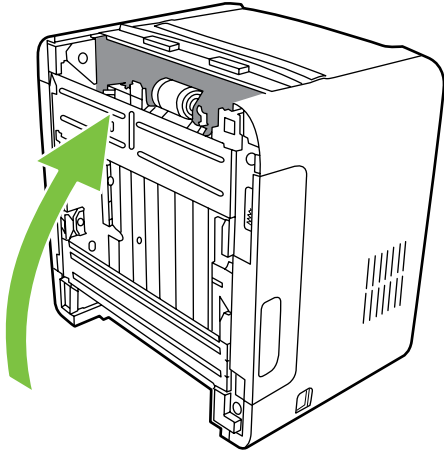
 **CAUTION:** After removing the print cartridge, only handle it on the ends.



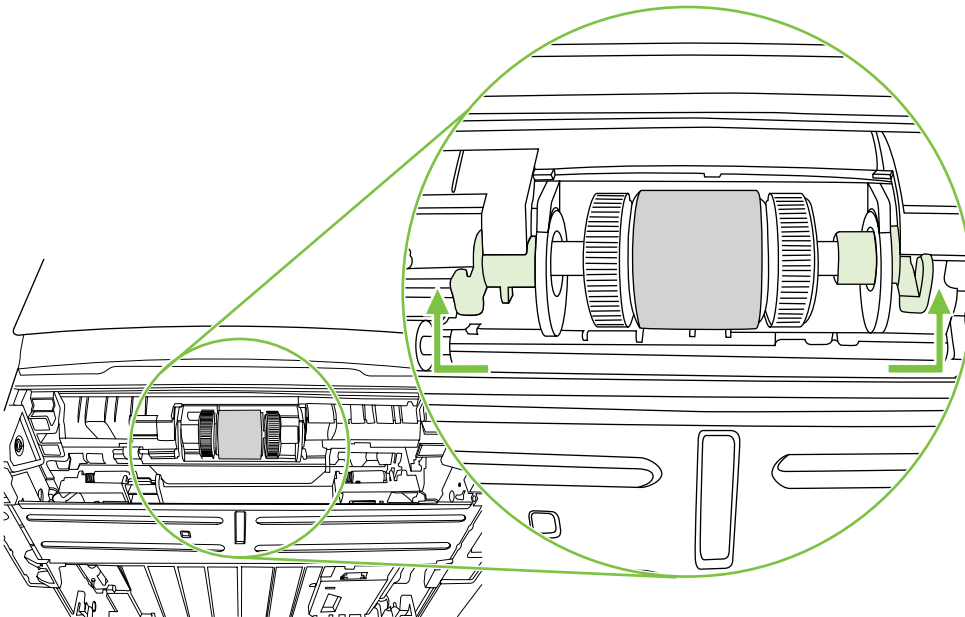
3. Remove tray 2.



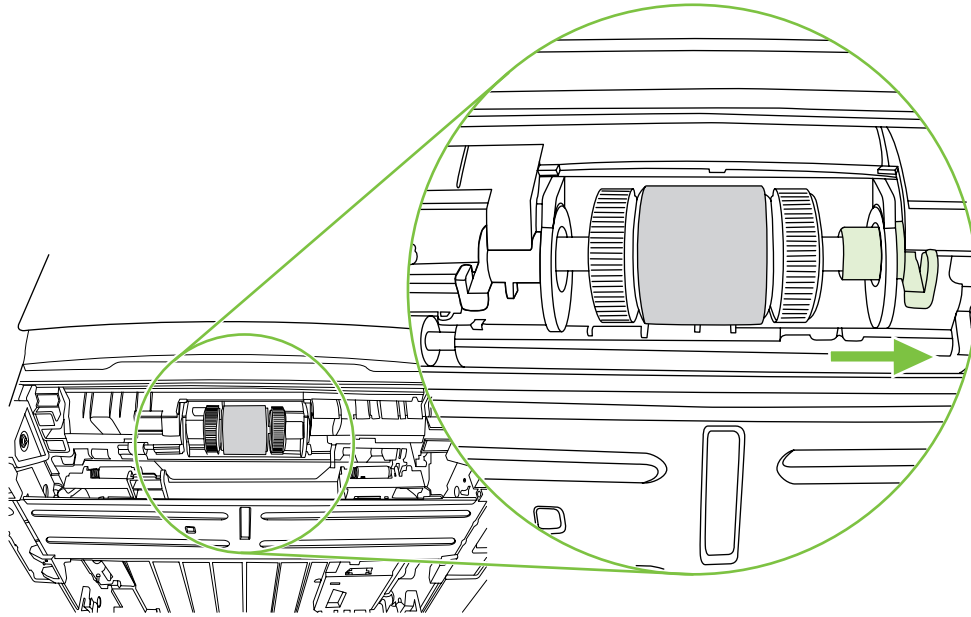
4. Place the printer on the work surface with the front of the printer facing up.



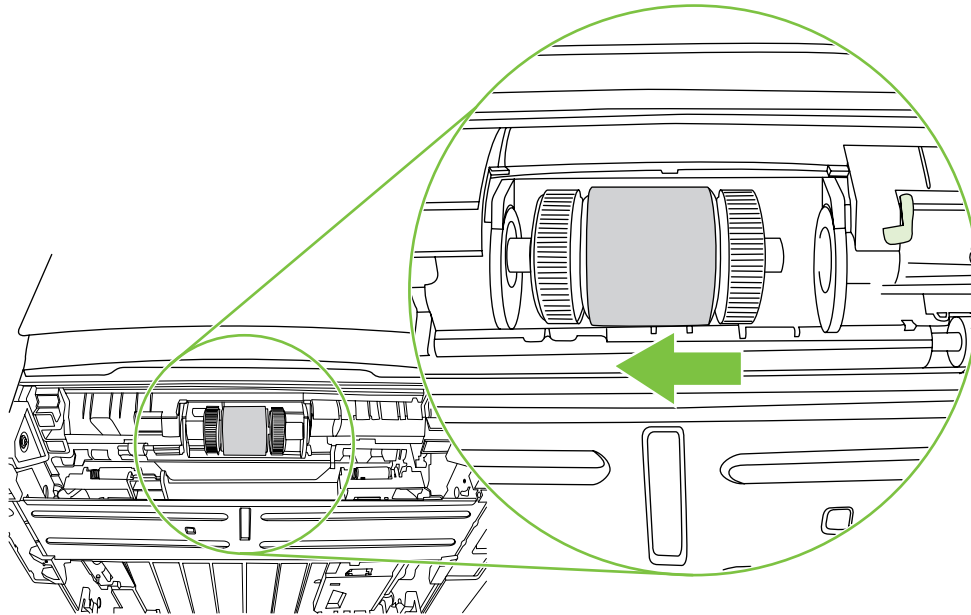
5. Pull the white tabs outward, and rotate the tabs up.



6. Slide the right tab to the right, and leave the tab in this position throughout the procedure.



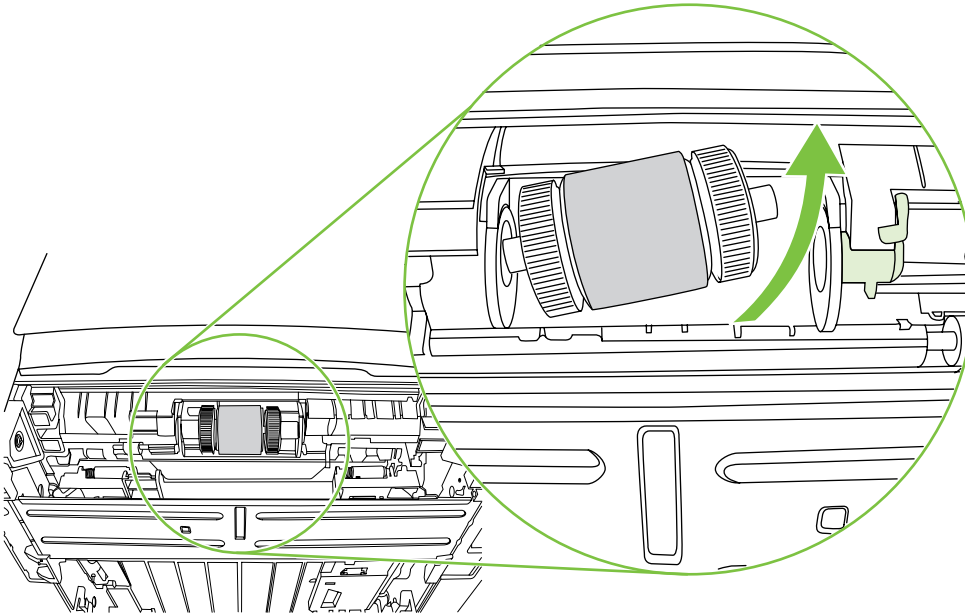
7. Slide the pickup roller assembly to the left, and remove the left end cap.



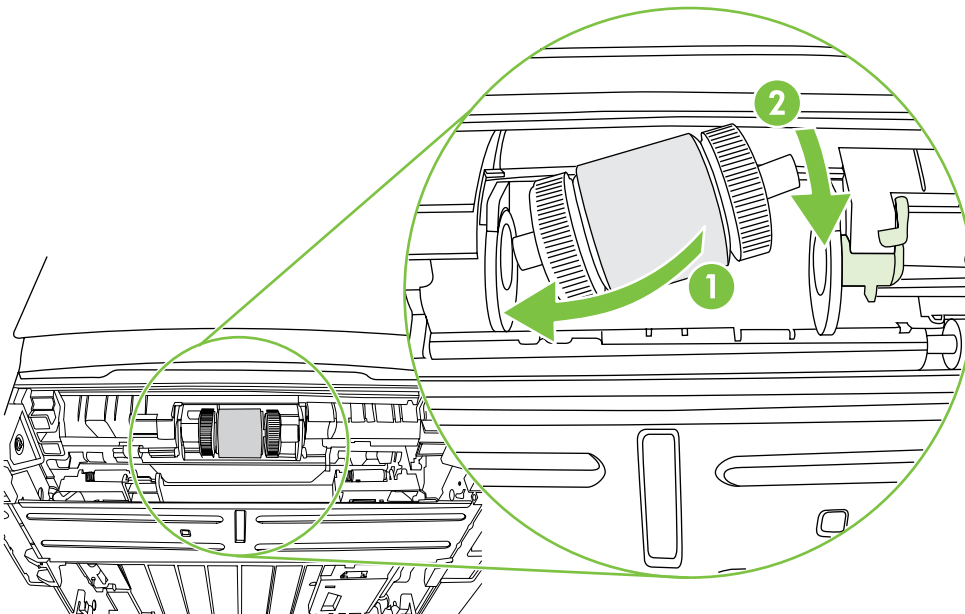
8. Remove the old pickup roller.



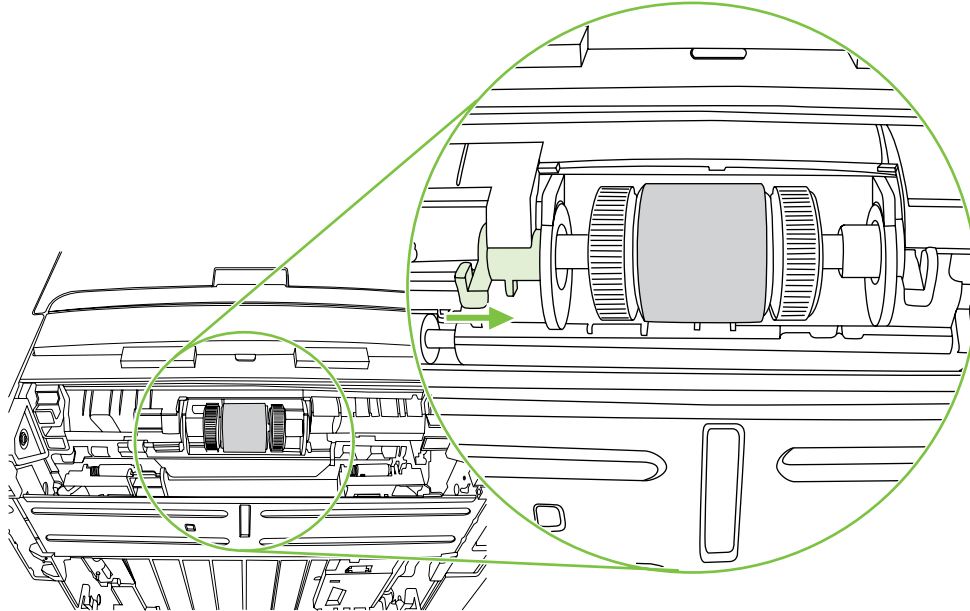
CAUTION: Do not touch the pickup-roller pad.



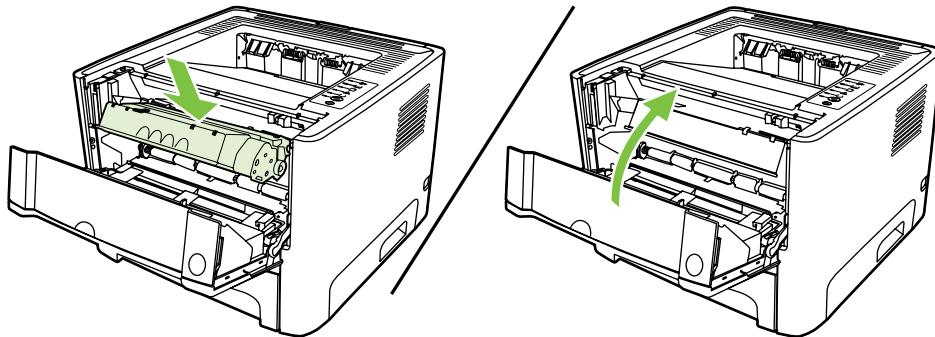
9. Insert the left side of the new pickup roller into the left slot (1), and insert the right side (the side that has the notches in the shaft) into the right slot (2).



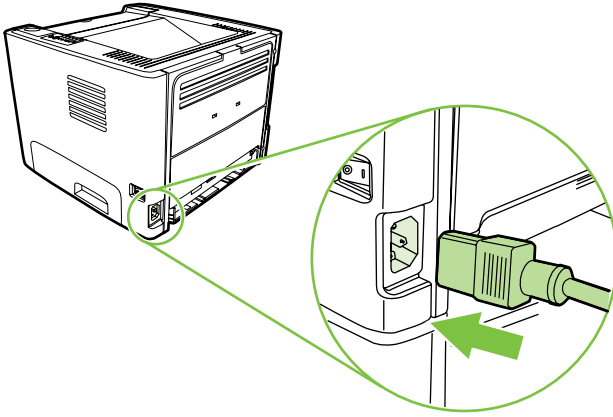
10. Place the end cap over the shaft on the left side, push the end cap to the right, and rotate the tab downward into position.



11. Rotate the shaft until the notches engage and the shaft clicks into place.
12. Push the right tab to the left, and rotate the tab downward into position.
13. Place the printer on the work surface with the top of the printer facing up.
14. Reinstall the print cartridge, and close the print-cartridge door.



15. Plug the printer in to turn it back on.



EconoMode

EconoMode is a feature that allows the printer to use less toner per page. Selecting this option may extend the life of the print cartridge and reduce your cost per page. However, it will also reduce print quality. The printed image is lighter, but it is adequate for printing drafts or proofs.

HP does not recommend the full-time use of EconoMode. If EconoMode is used full-time, it is possible that the toner supply will outlast the mechanical parts in the print cartridge. If print quality begins to degrade under these circumstances, you must install a new print cartridge, even if toner supply remains in the cartridge.

1. To use EconoMode, open the printer Properties (or Printing Preferences in Windows 2000 and XP). See [Configure the Windows printer driver on page 17](#) or [Configure the Macintosh printer driver on page 19](#) for instructions.
2. On the **Paper/Quality** tab or the **Finishing** tab (the **Paper Type/Quality** tab for some Mac drivers), select the **EconoMode** checkbox.



NOTE: Not all printer features are available in all drivers or operating systems. See the printer Properties (driver) online Help for information about availability of features for that driver.

5 Theory of operation

- [Introduction](#)
- [Internal components](#)
- [Timing](#)
- [Engine control system](#)
- [Laser/scanner system](#)
- [Pickup/feed/delivery system](#)
- [Image-formation system](#)

Introduction

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

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

Figure 5-1 Block diagram on page 60 illustrates the relationships among the four systems.

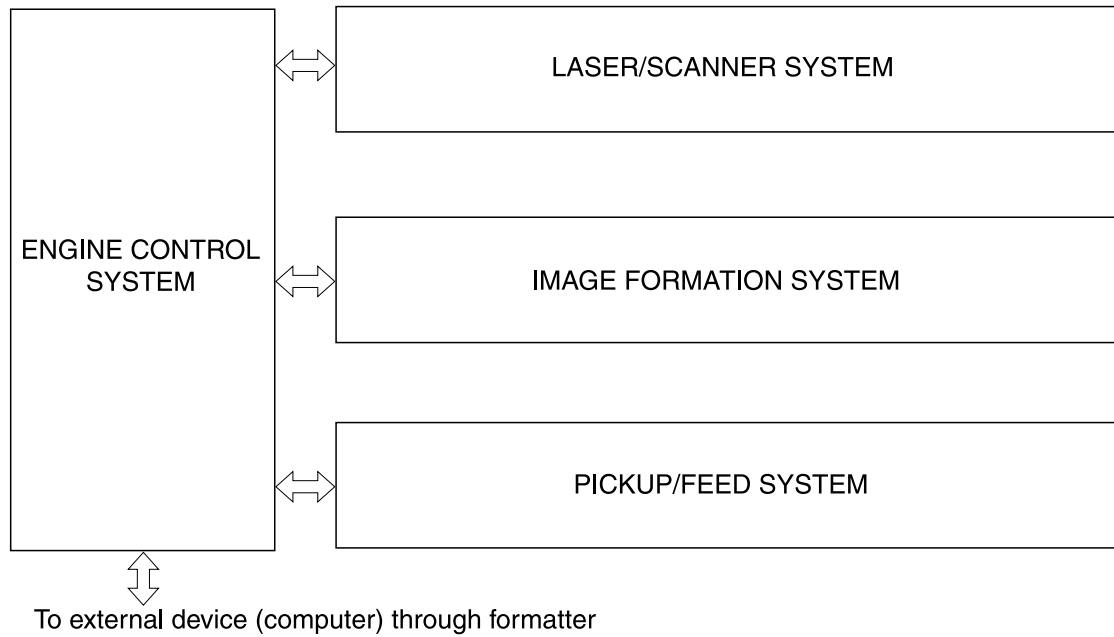


Figure 5-1 Block diagram

Internal components

Figure 5-2 Cross-section of printer on page 61 highlights the major internal components.

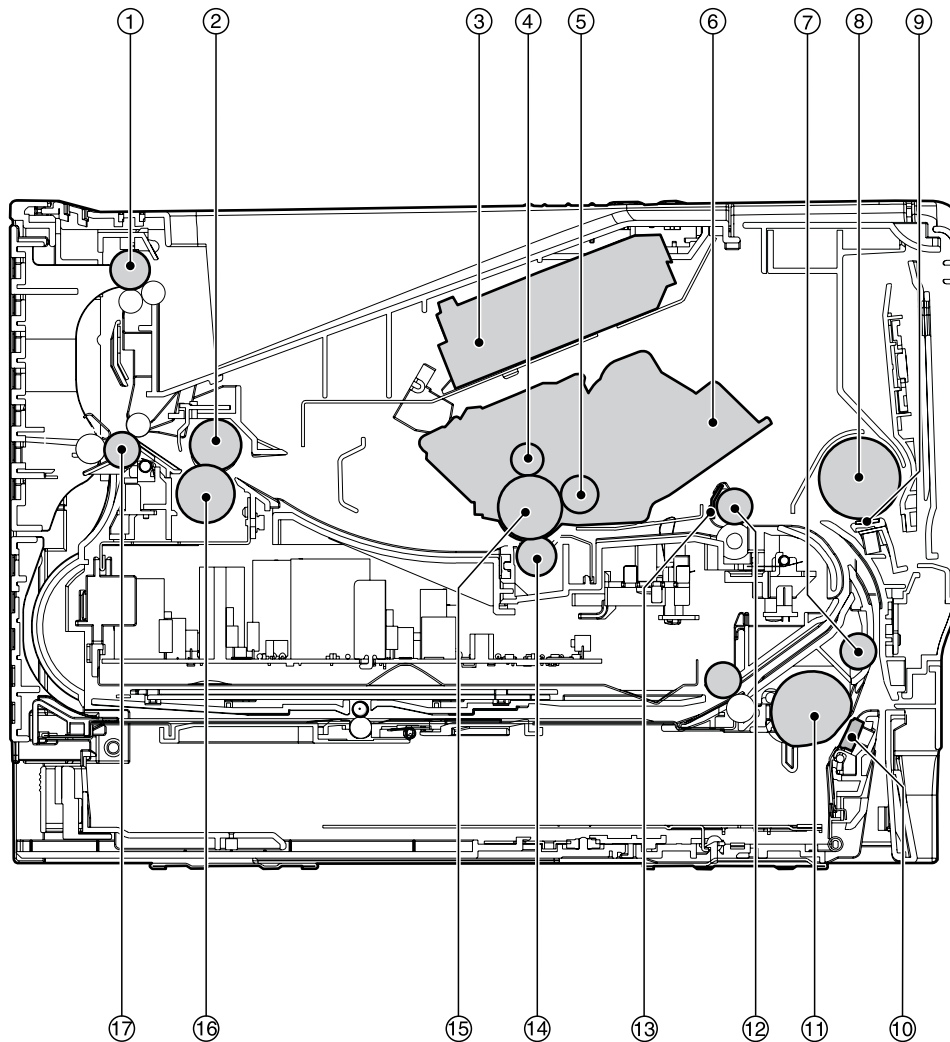


Figure 5-2 Cross-section of printer

1	Top output bin delivery roller
2	Fuser film
3	Laser/scanner
4	Primary charging roller
5	Developer roller
6	Print cartridge
7	Feed roller
8	Multipurpose pickup roller
9	Multipurpose separation pad
10	Separation pad

11	Pickup roller
12	Registration roller
13	Registration shutter
14	Transfer roller
15	Photosensitive drum
16	Pressure roller
17	Rear output bin delivery roller

Timing

Sequence of operation

Operation sequences are controlled by the microprocessor on the DC controller. [Table 5-1 Sequence of operation on page 63](#) describes engine operations for each period of a print operation.

Table 5-1 Sequence of operation

Name	Timing	Purpose
WAIT	From power-on until the end of the main motor initial drive	Detects presence of a print cartridge. Clears potential from the drum surface and cleans the transfer roller.
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 printer 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 primary high-voltage is turned off.	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 (when high-voltage is turned off) until the main motor stops rotating.	Delivers the last page of a print job. After LSTR, the printer either returns to STBY or, if another print command was sent from the formatter, enters INTR.

Power-on sequence

Table 5-2 Power-on sequence

Step	Action
1	Power-on
2	CPU initialization
3	Video interface communication start
4	Check sensors for residual media
5	Main motor initial drive
6	Fuser heater initial drive. The fuser heater reaches a surface temperature of 100°C.
7	Laser/scanner motor initial drive
8	High-voltage control Detect presence of a print cartridge Clean the transfer roller after the primary charging ac bias is turned on
9	Failure/abnormality check: detect laser/scanner failure, fuser failure, and open covers
10	Communication with the memory tag

Engine control system

The engine control system coordinates all printer functions, according to commands sent from the formatter. It drives the laser/scanner system, the image-formation system, and the pickup/feed/delivery system.

The engine control system contains the following components:

- DC controller
- High-voltage PCA

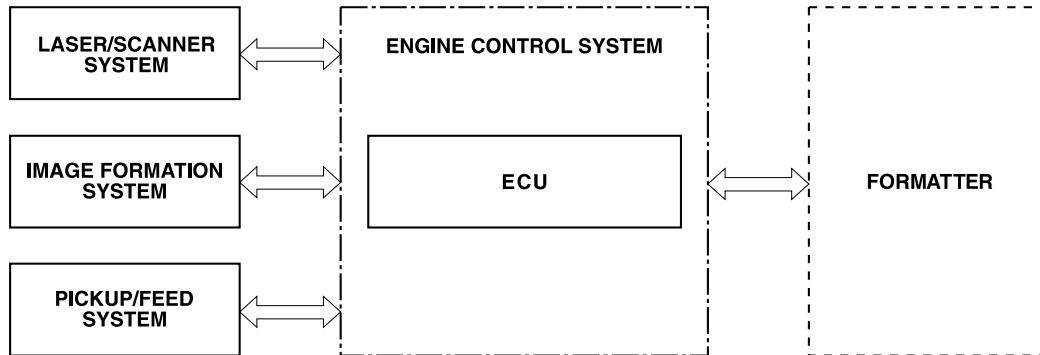


Figure 5-3 Engine control system

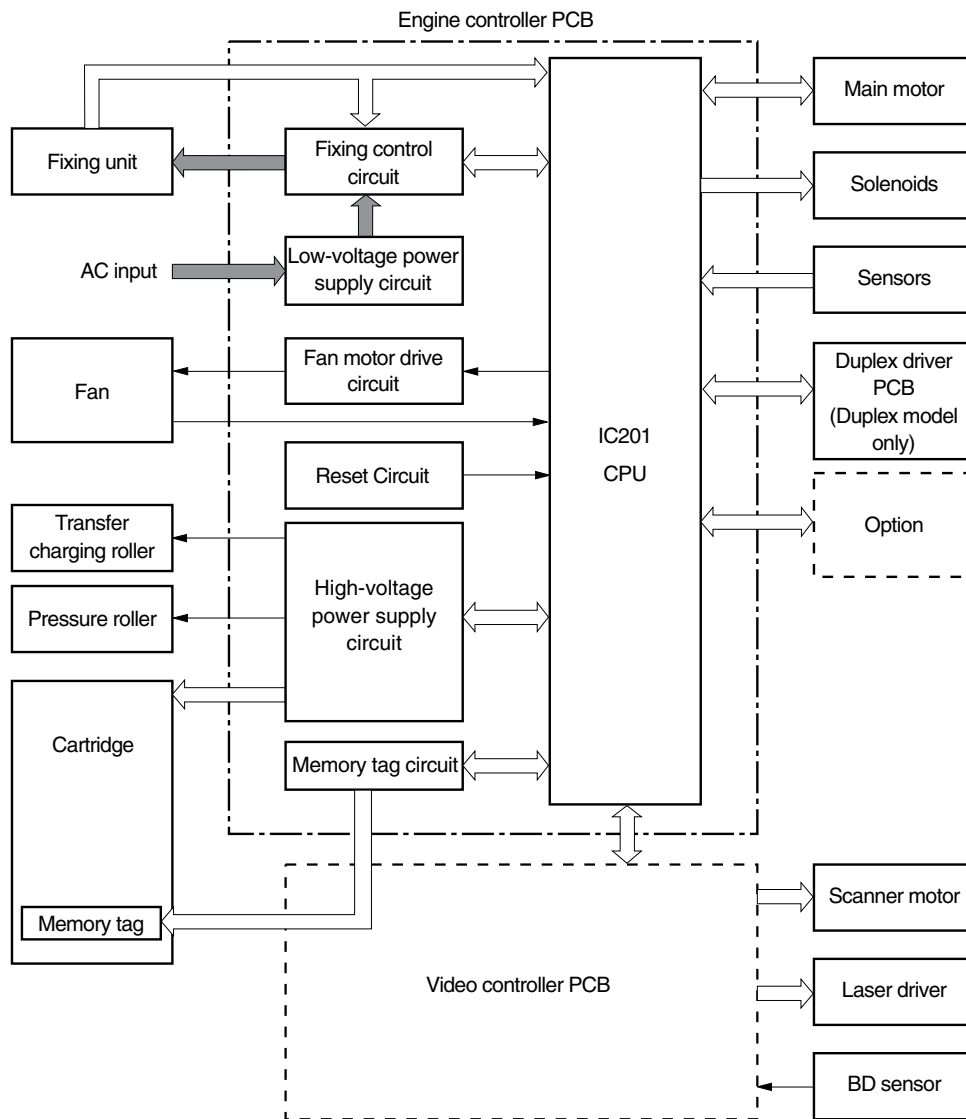


Figure 5-4 Engine control system circuit diagram

Laser/scanner system

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

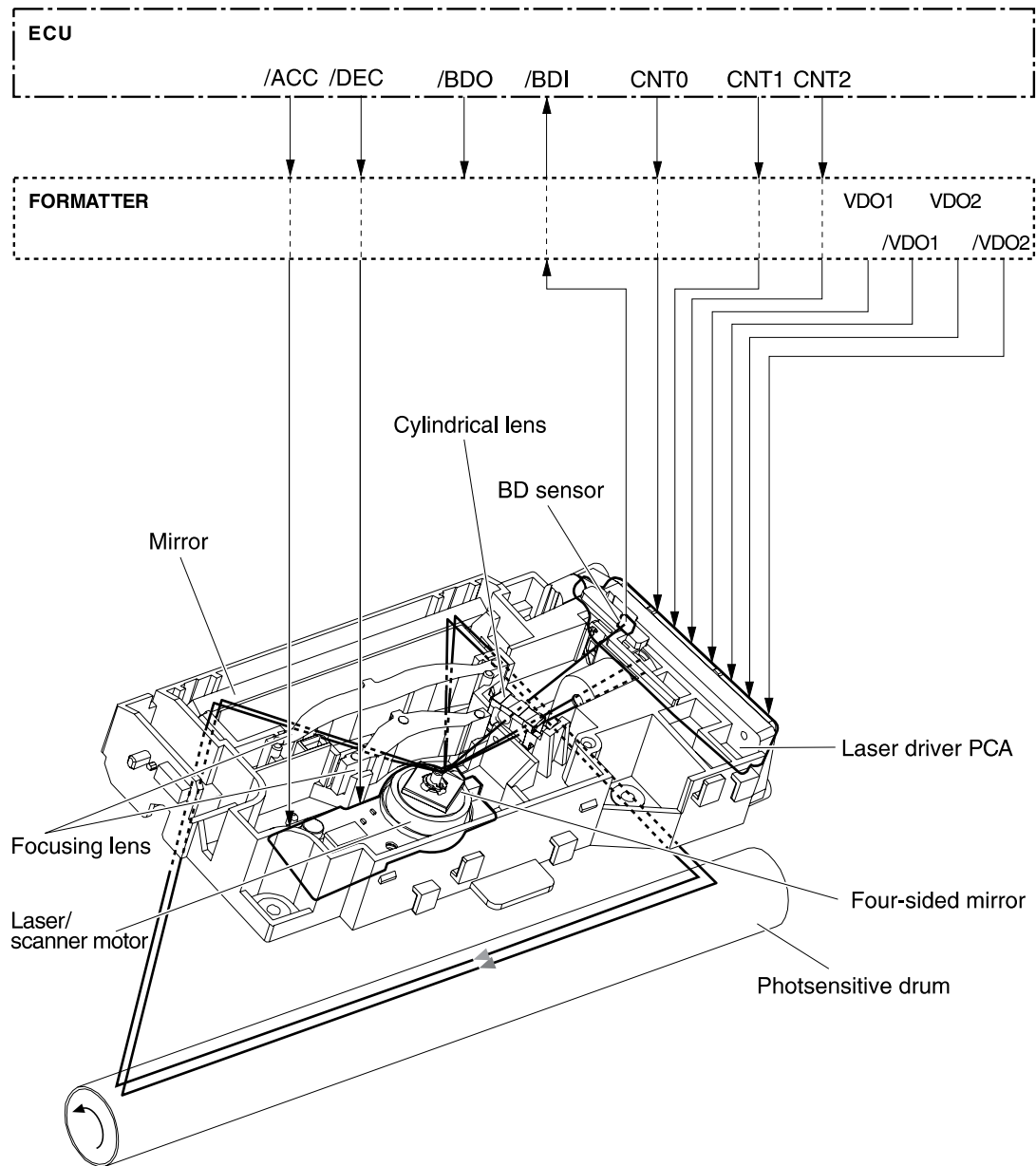


Figure 5-5 Laser/scanner system

Pickup/feed/delivery system

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

The following components are identified in [Figure 5-6 Pickup/feed/delivery system on page 68](#):

- M1, main motor
- SL1, tray 2 pickup solenoid
- SL2, tray 1 pickup solenoid
- PS911, width-detection sensor
- PS912, top-of-page sensor
- PS913, width-detection sensor
- PS914, tray 2 media sensor
- PS915, fuser delivery sensor

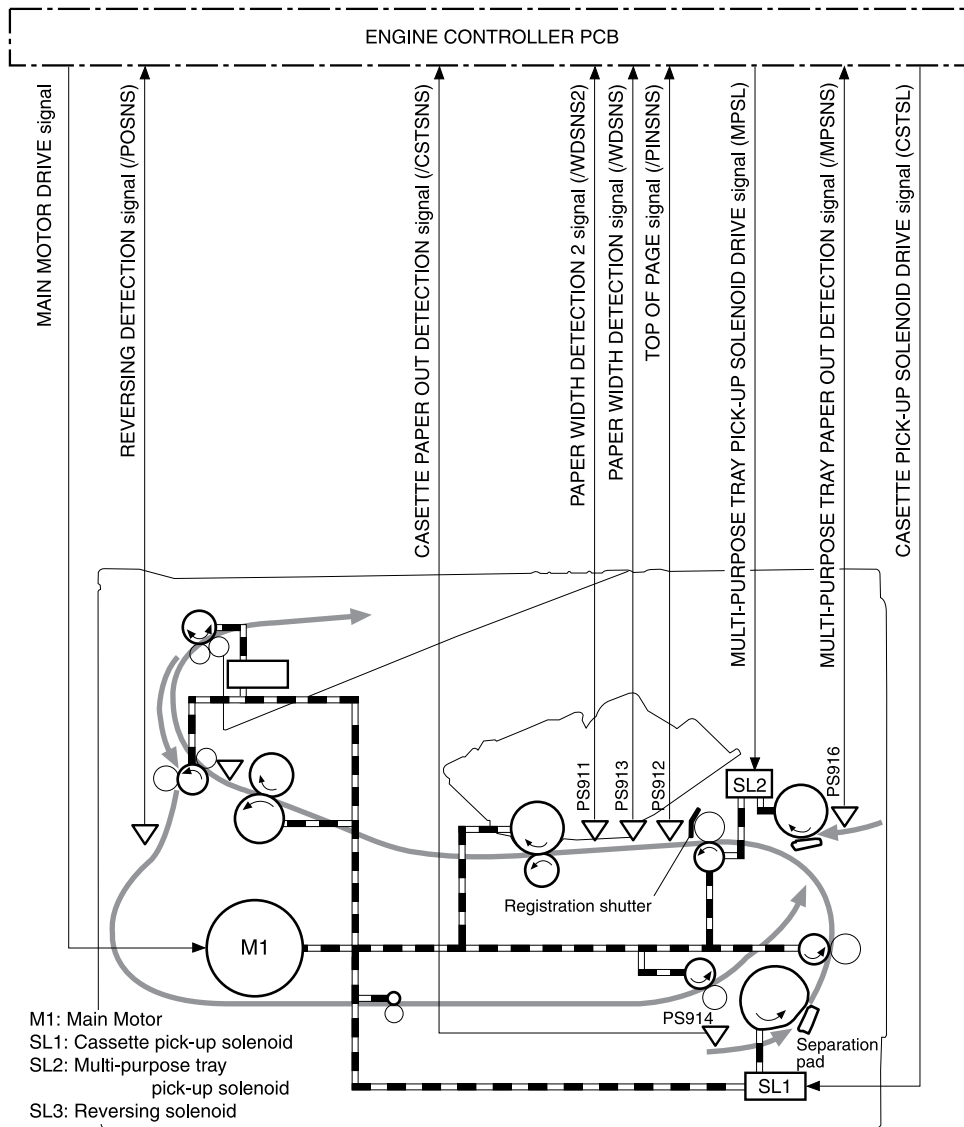


Figure 5-6 Pickup/feed/delivery system

Image-formation system

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

- electrostatic latent-image formation
- developing
- transfer
- fusing
- drum cleaning

The five processes contain eight steps.

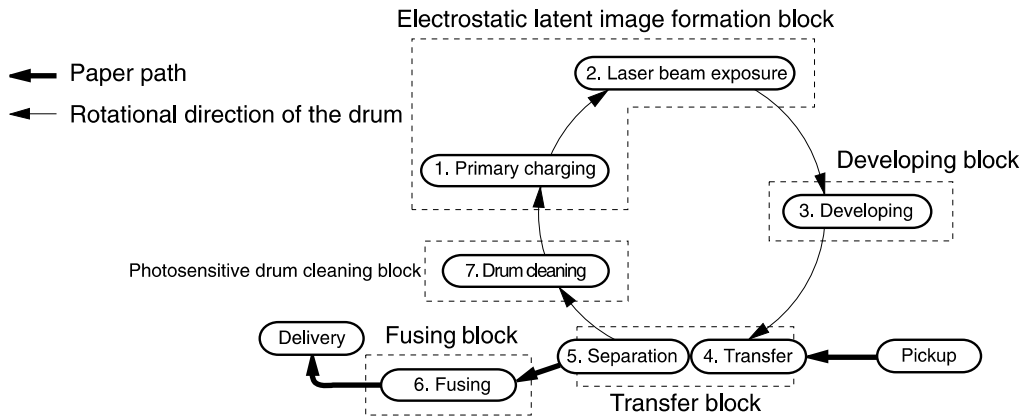


Figure 5-7 Image-formation system

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.

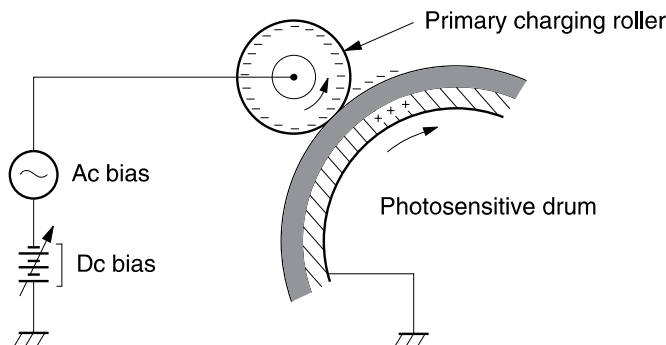


Figure 5-8 Primary charging

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 5-9 Developing on page 70](#). The charges are actually negative, but they are more positive than the charges on the developing cylinder.

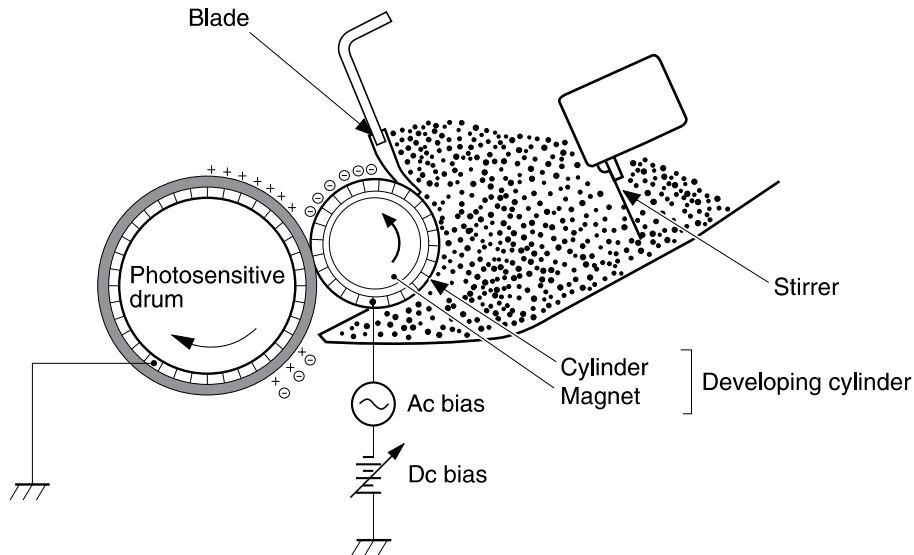


Figure 5-9 Developing

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.

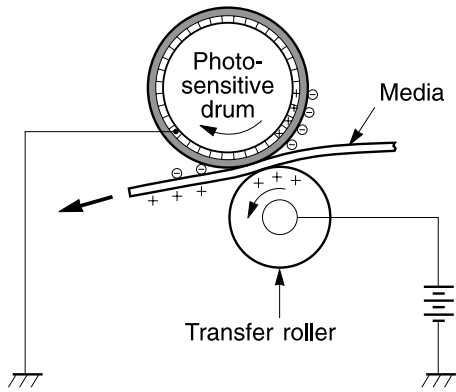


Figure 5-10 Transfer

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.

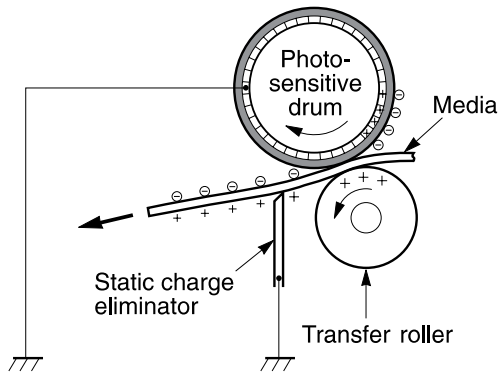


Figure 5-11 Separation

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.

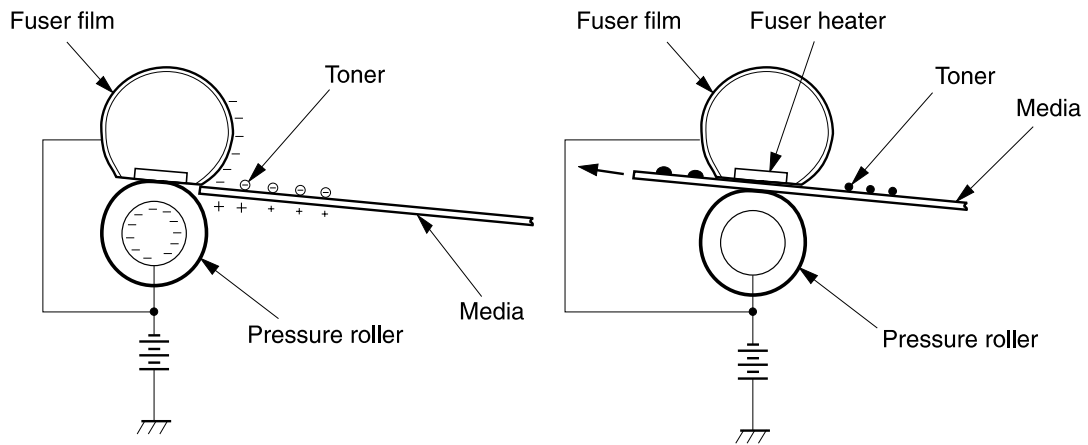


Figure 5-12 Fusing

Step 7: Drum cleaning

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

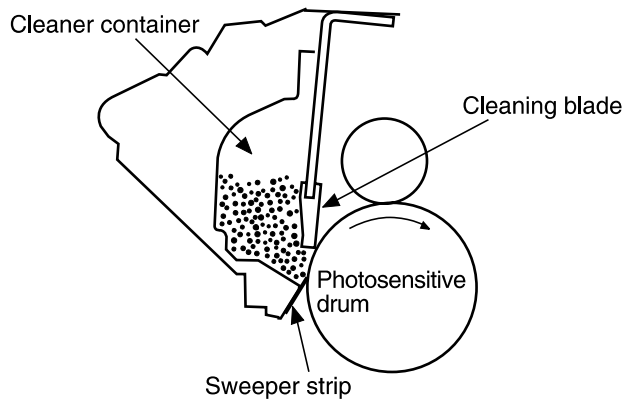


Figure 5-13 Drum cleaning

6 Removal and replacement

- [Introduction](#)
- [Before performing service](#)
- [Covers](#)
- [Control panel](#)
- [Formatter](#)
- [Laser/scanner](#)
- [Memory-tag-reader assembly](#)
- [Fuser](#)
- [Interlock assembly](#)
- [ECU](#)
- [Main motor](#)
- [Pickup and feed assemblies](#)
- [Main gear assembly/tray 2 pickup solenoid](#)
- [Print-cartridge door](#)

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 product can be sharp. Use caution when working on the product.



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

Electrostatic discharge



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

Watch for the ESD symbol 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.



Required tools

The following tools are needed to service this product:

- #2 Phillips screwdriver with magnetic tip
- Small flat-blade screwdriver
- Small needle-nose pliers
- ESD mat
- Penlight



CAUTION: A pozidrive screwdriver can damage the screw heads on the product. Use a #2 Phillips screwdriver.

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

Before performing service

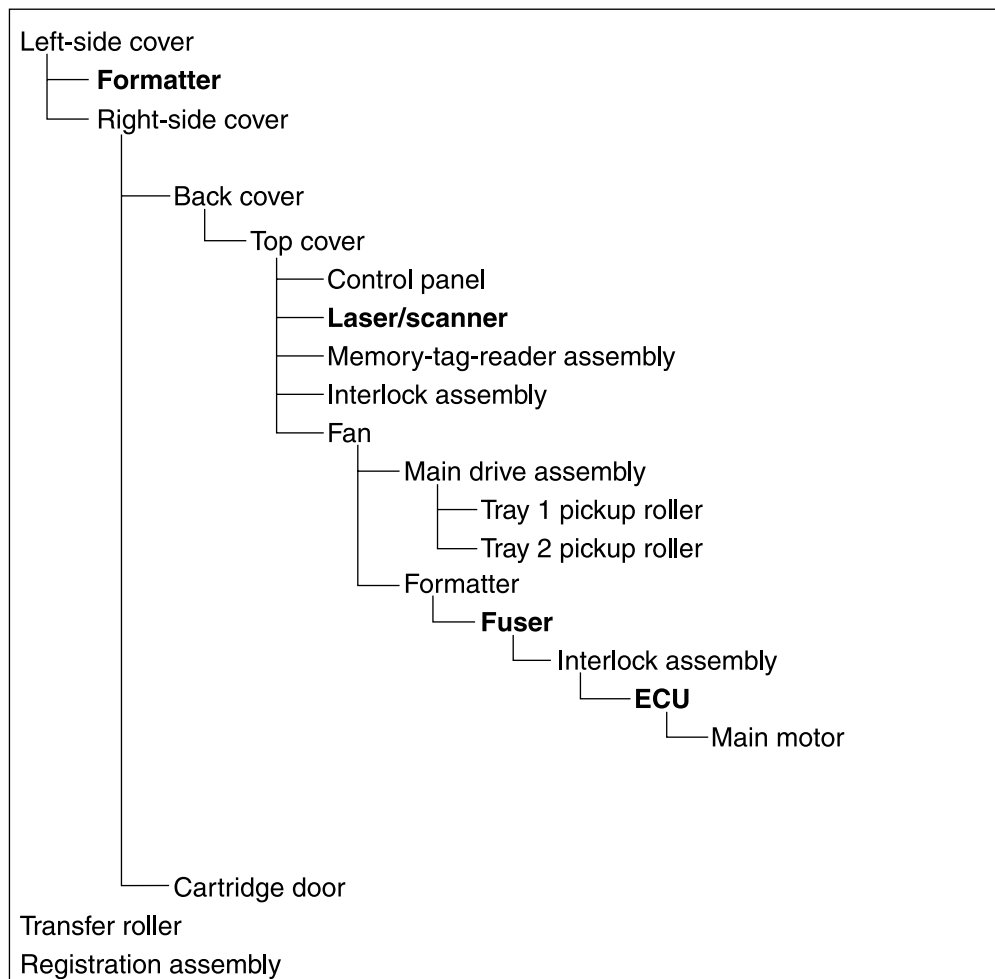
Follow the pre-service procedures before you perform service.

Pre-service procedures

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

Parts removal order

Use the following diagram to determine which parts must be removed before removing other parts.



Covers

Left-side cover

1. Open the print-cartridge door.
2. At the back of the printer, use a flat-blade screwdriver to release two tabs (1).

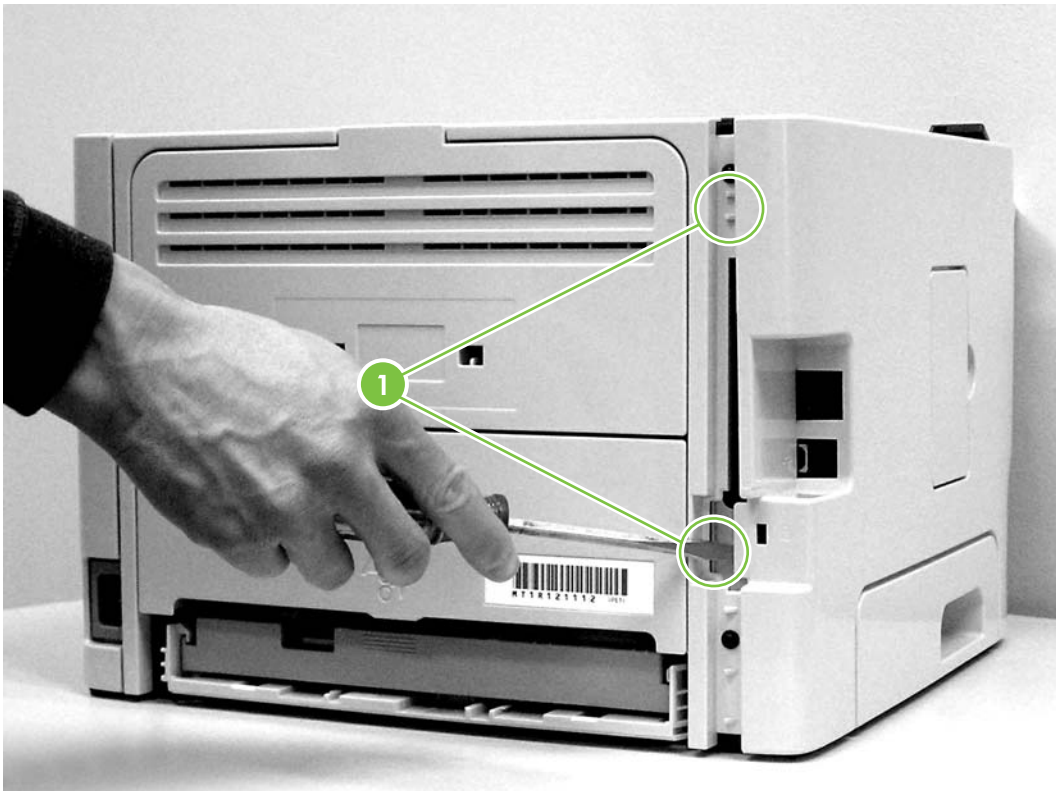


Figure 6-1 Removing the left-side cover (1 of 2)

3. Lift the cover away from the printer.

Right-side cover

1. Open the print-cartridge door.
2. Remove tray 2.

3. At the front of the printer, pop the front edge of the right-side cover over the two retaining tabs.



Figure 6-2 Removing the right-side cover

4. Lift the cover away from the printer.

Back cover

1. Remove tray 2.
2. Remove the left-side cover and the right-side cover.

3. Remove four screws (1).

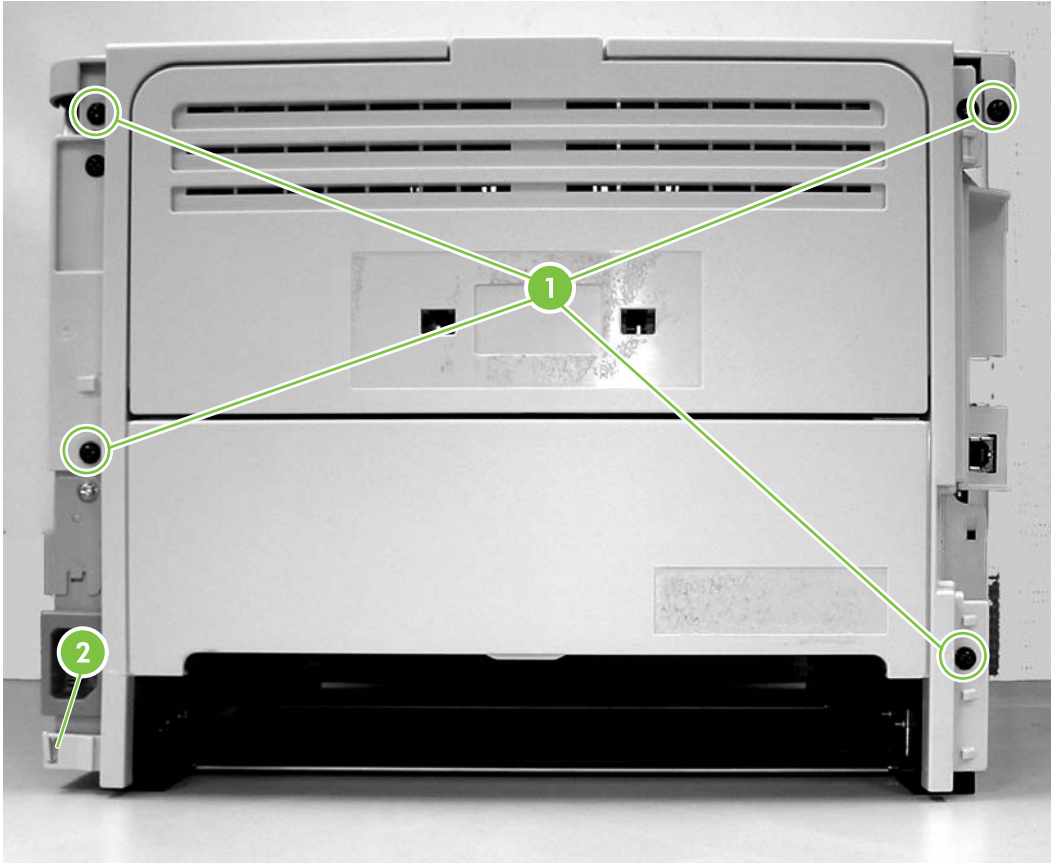


Figure 6-3 Removing the back cover (1 of 2)

4. Tip the printer so that it rests on its front.
5. Release the tab (2) at the back of the printer on the right side.
6. Lift the cover straight up and away from the printer.

Top cover

1. Remove the left-side cover, the right-side cover, and the back cover.

2. Remove two screws (1) at the back of the printer.

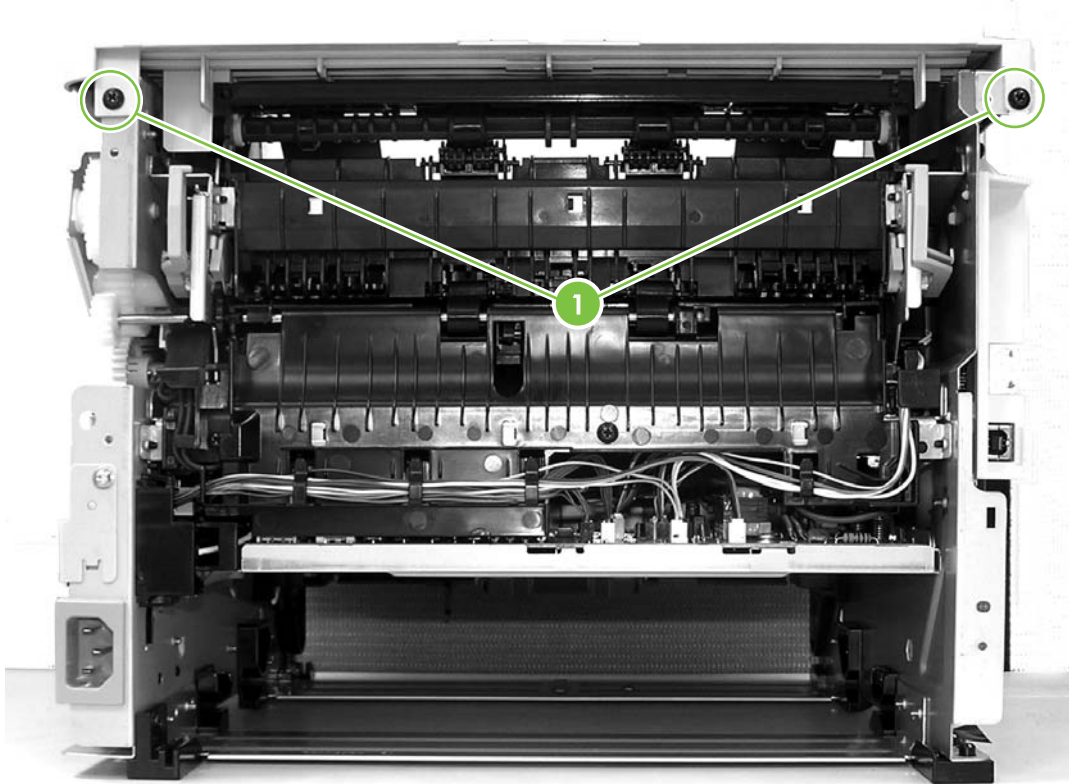


Figure 6-4 Removing the top cover (1 of 4)

3. Remove one screw (1) on the left side of the printer, and remove one screw (2) on the right side of the printer.

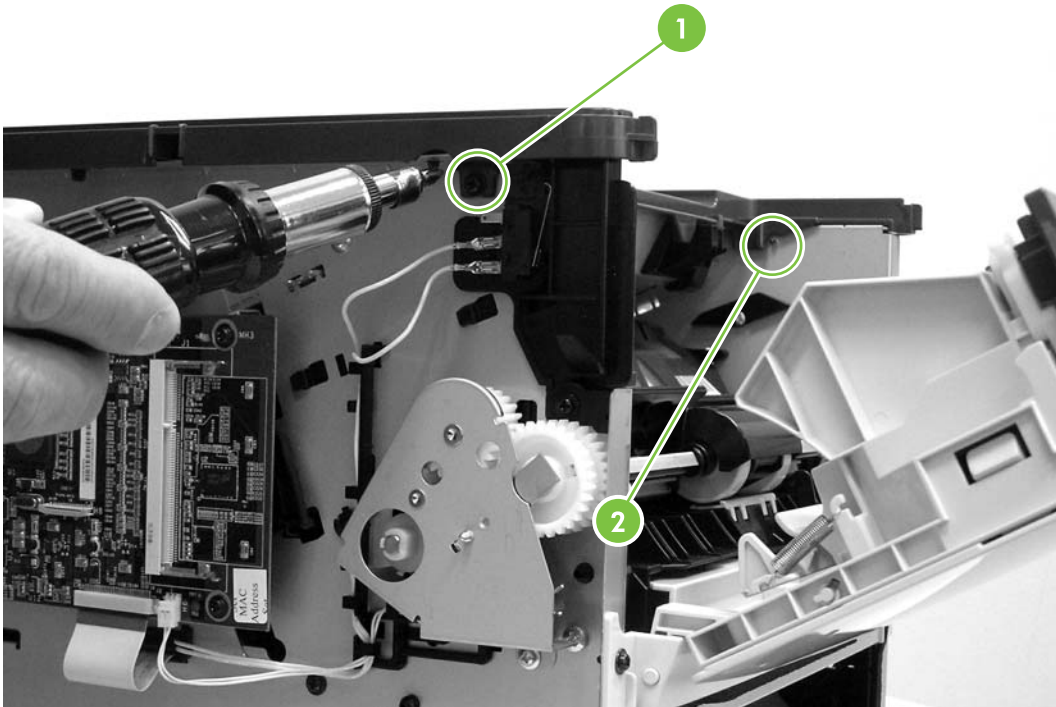


Figure 6-5 Removing the top cover (2 of 4)

4. Release the control-panel cable (1) on the left side of the printer.

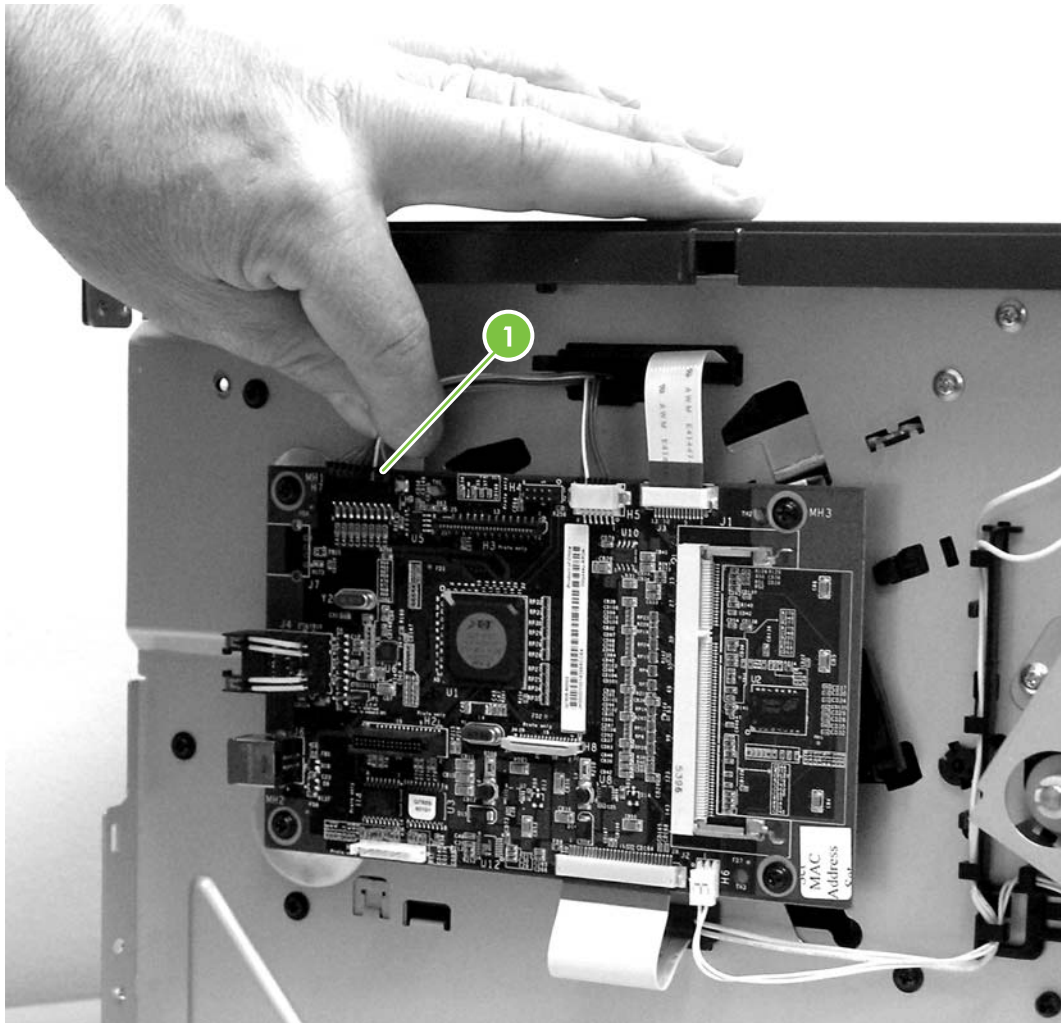


Figure 6-6 Removing the top cover (3 of 4)

5. Lift the top cover off the printer.

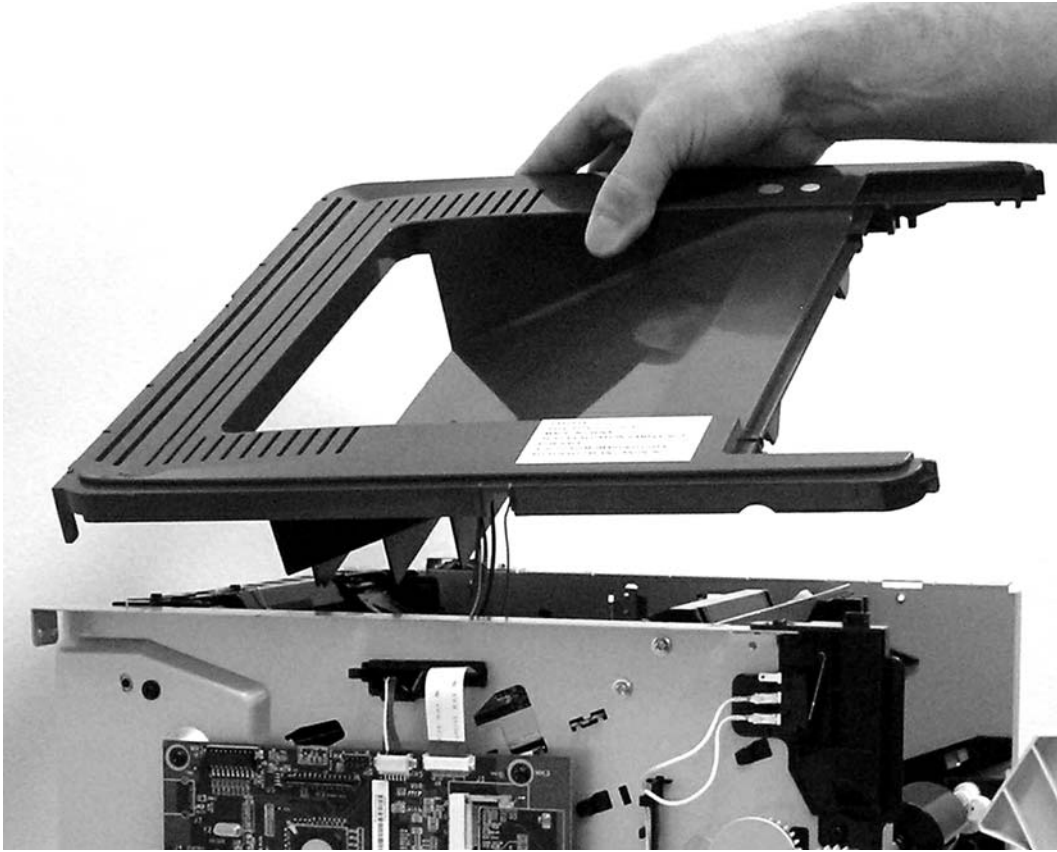


Figure 6-7 Removing the top cover (4 of 4)

Control panel

1. Remove all covers.
2. On the bottom of the top cover, remove two screws (1).

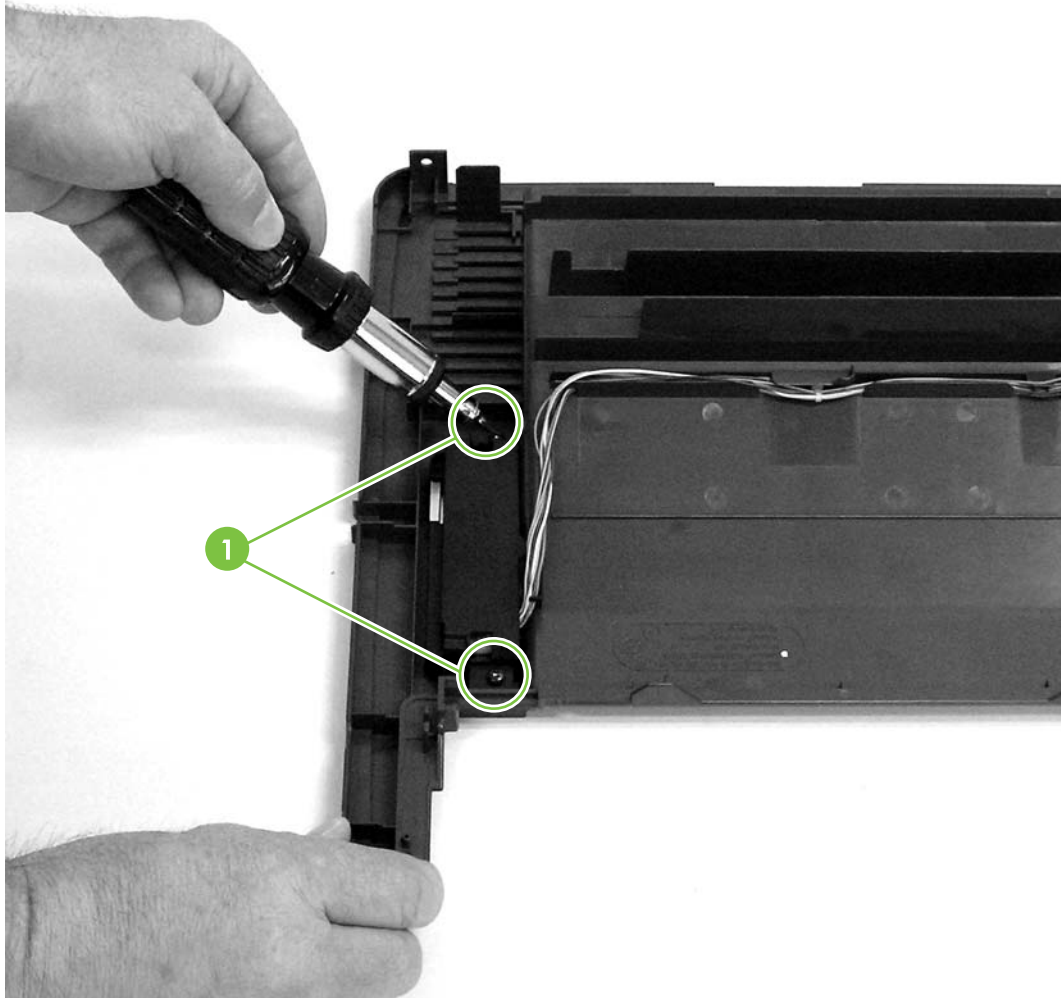


Figure 6-8 Removing the control panel (1 of 2)

3. Remove the control-panel wires from the wire guides.

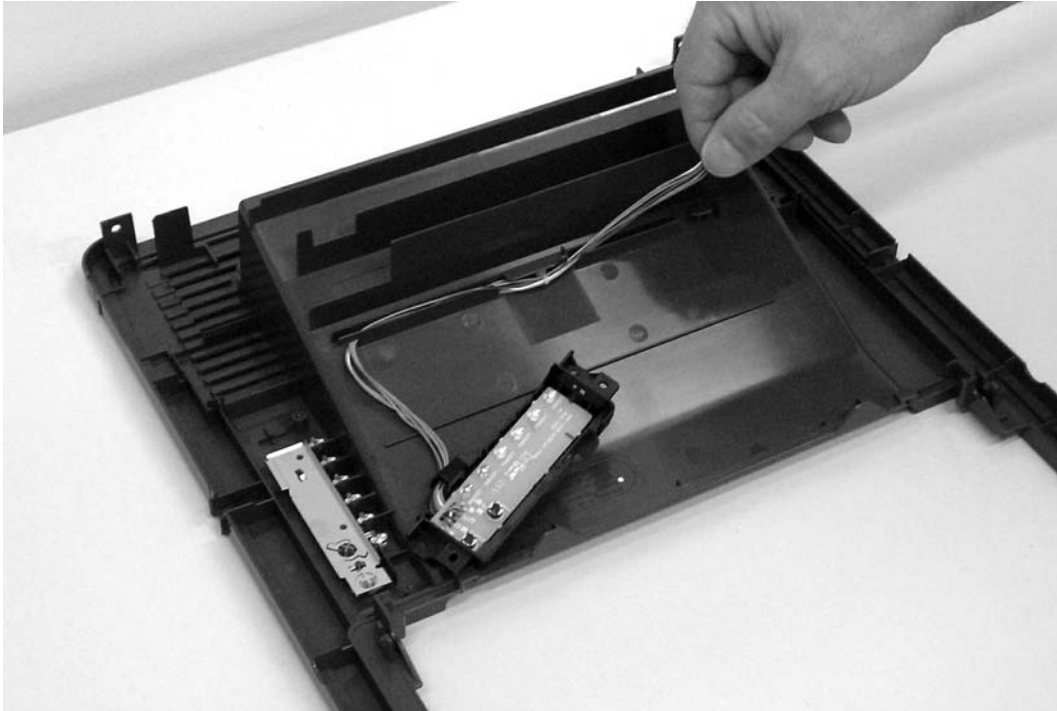


Figure 6-9 Removing the control panel (2 of 2)

Formatter



1. Remove the left-side cover.
2. Disconnect one cable (1) at the top of the formatter.
3. Disconnect one flat, flexible cable (2) at the top of the formatter.



CAUTION: Do not fold flat, flexible cables. Also, do not straighten pre-folds in flat, flexible cables.

4. Disconnect one flat, flexible cable (3) at the bottom of the formatter.
5. Disconnect one cable (4) at the bottom of the formatter.
6. Remove four screws (5).

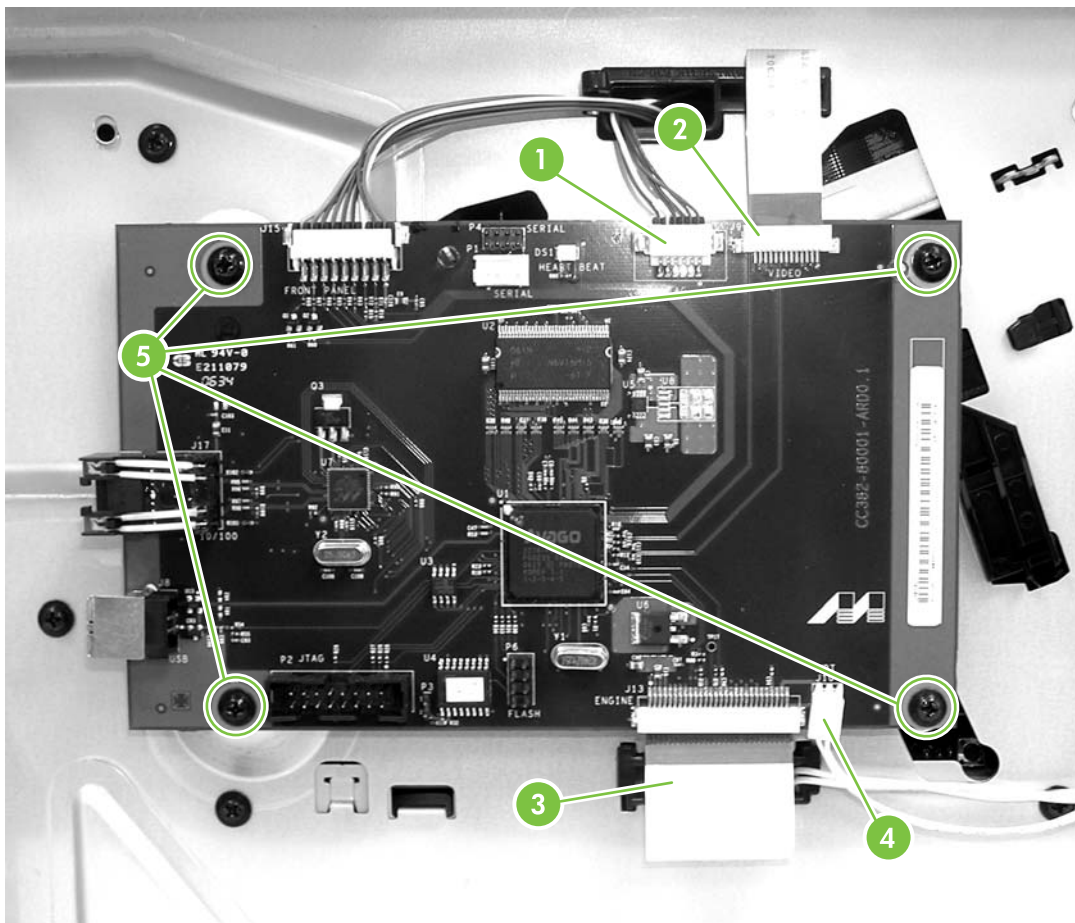


Figure 6-10 Removing the formatter

7. Remove the formatter.

Laser/scanner

1. Remove all covers.
2. Disconnect one flat, flexible cable (1) from the laser/scanner PCA.
3. Disconnect one cable (2) from the top of the laser/scanner.
4. Unthread all cables (3) from the laser/scanner cable guides.



NOTE: Examine the cable routing as you unthread the cables.

5. Remove four screws (4).

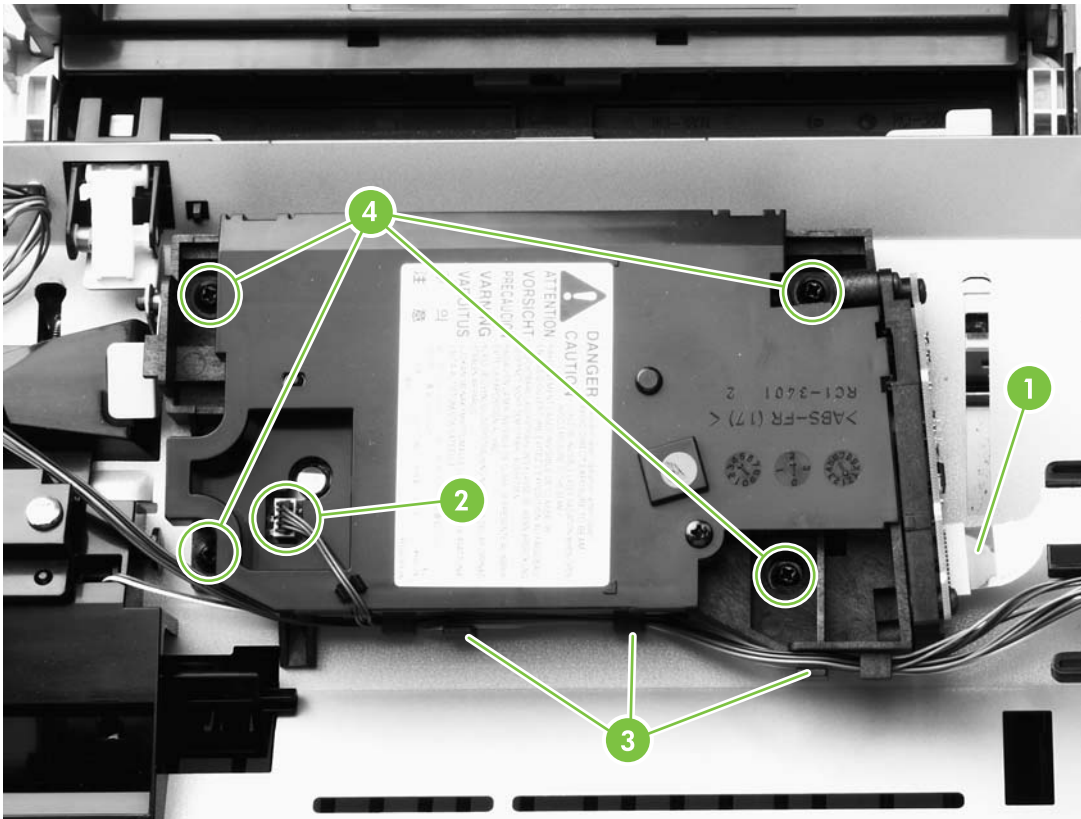


Figure 6-11 Removing the laser/scanner

6. Lift the laser/scanner out of the printer.



NOTE: Examine the shutter switch as you lift the laser/scanner out of the printer.

Memory-tag-reader assembly

1. Remove all covers.
2. Remove the fan from the printer chassis.
3. Remove one cable (1) from the top of the memory-tag-reader cover.
4. Disconnect one cable (2) from the formatter.

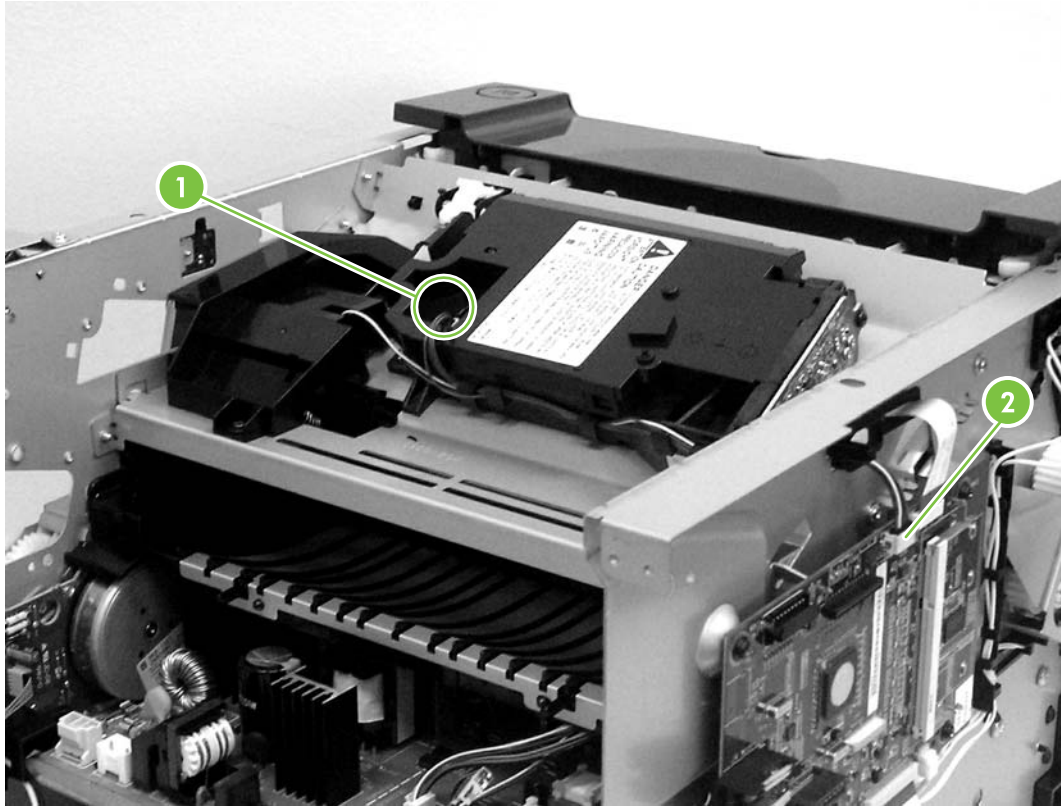


Figure 6-12 Removing the memory-tag-reader assembly (1 of 2)

5. Remove one screw (1).

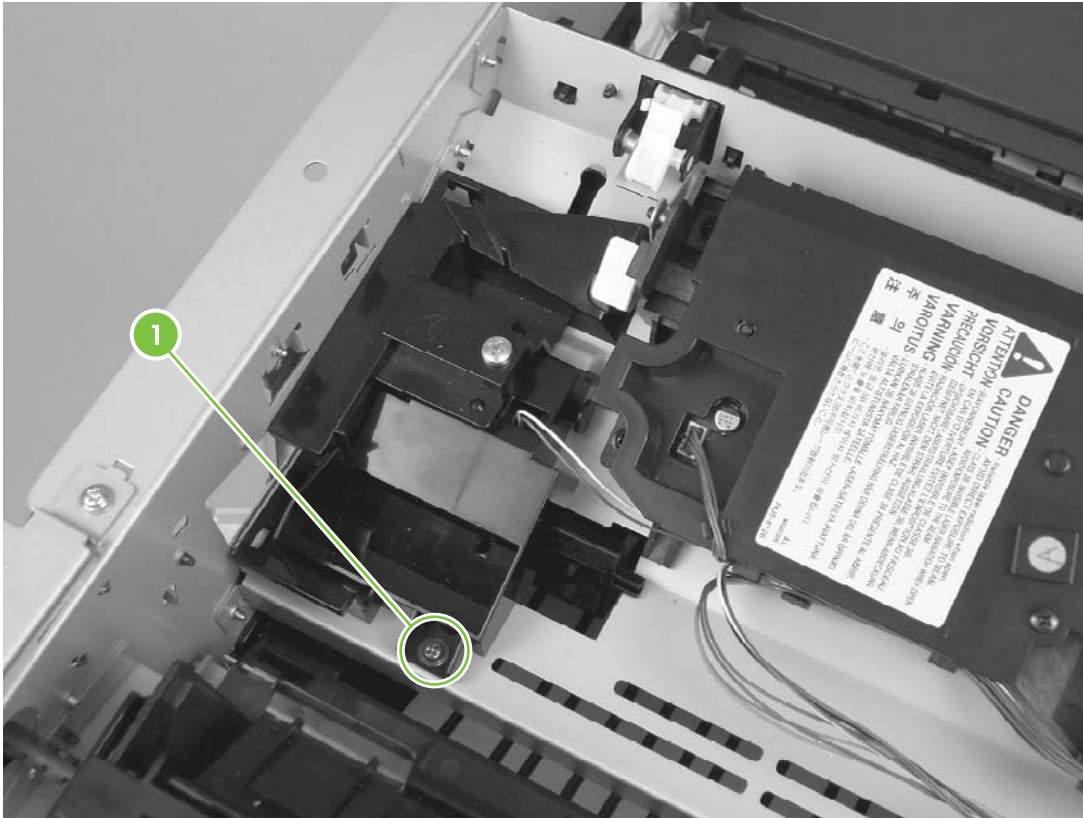


Figure 6-13 Removing the memory-tag-reader assembly (2 of 2)

6. Lift the back of the memory-tag-reader assembly slightly, and then slide the assembly toward the back of the printer to release it from the laser/scanner plate.

Fuser

Several parts must be removed before you can remove the fuser. The following parts are included in this section about removing the fuser:

- Fan
- face-down gears
- Fuser

Fan

1. Remove all covers.
2. Disconnect the fan cable (1) at the ECU.

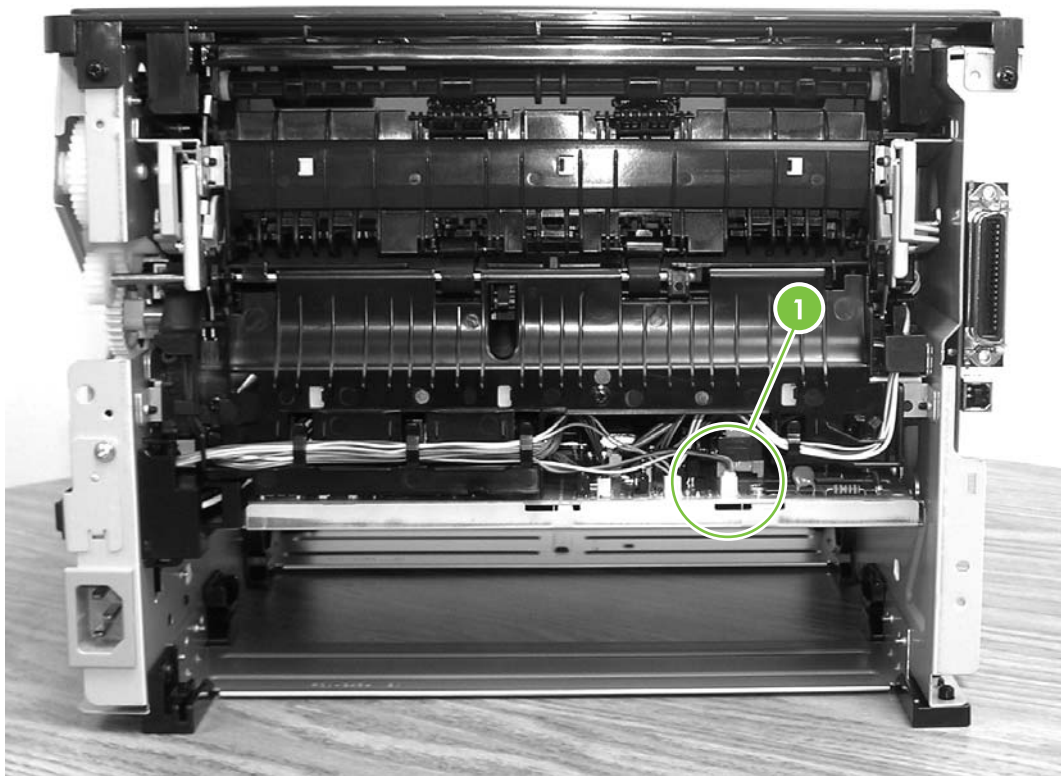


Figure 6-14 Removing the fan (1 of 2)

3. Unthread the fan wires from the retaining clips.
4. Remove two screws (1).

5. Unhook the fan clip (2) and then lift the fan off the printer.

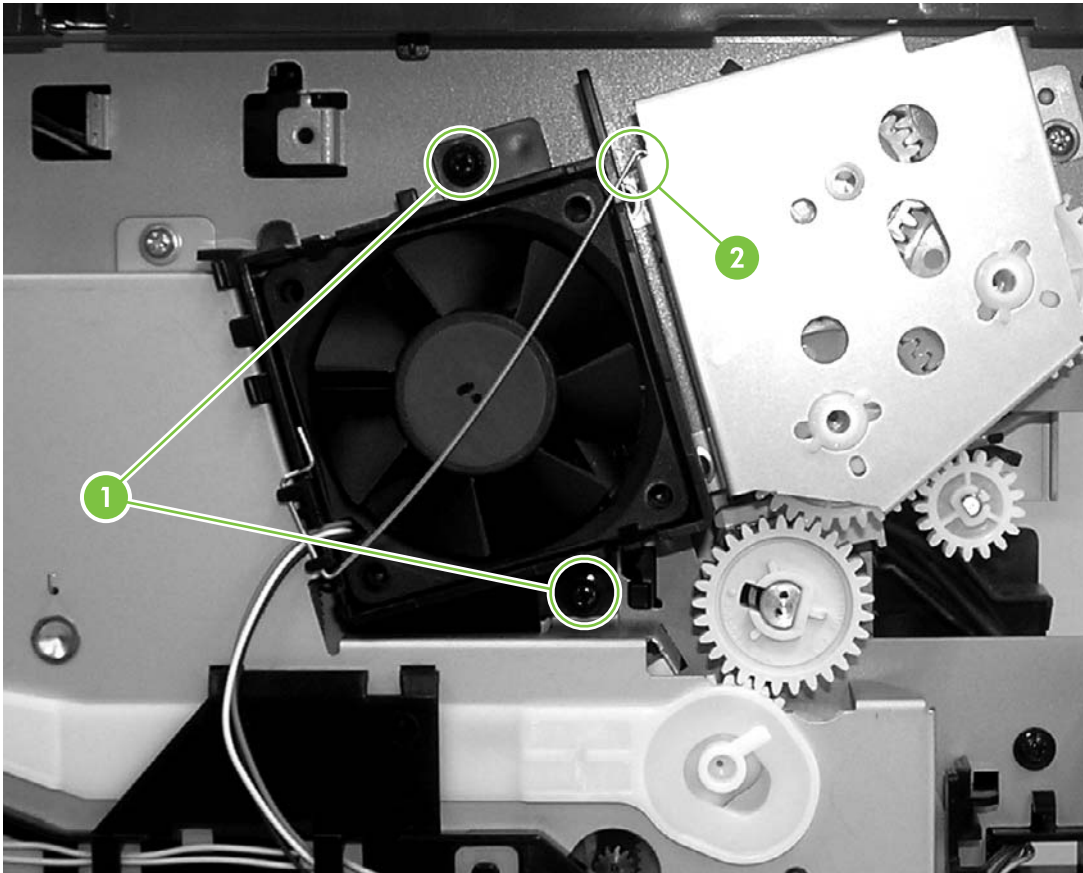


Figure 6-15 Removing the fan (2 of 2)

Fuser

1. Remove all covers.
2. Remove the fan.
3. Remove the face-down gears.
4. Remove the formatter.
5. On the right side of the printer, press the tabs on two gears (1) to release the gears, and then slide the gears off the shafts.

6. Disconnect one cable (2) on the right side of the printer.

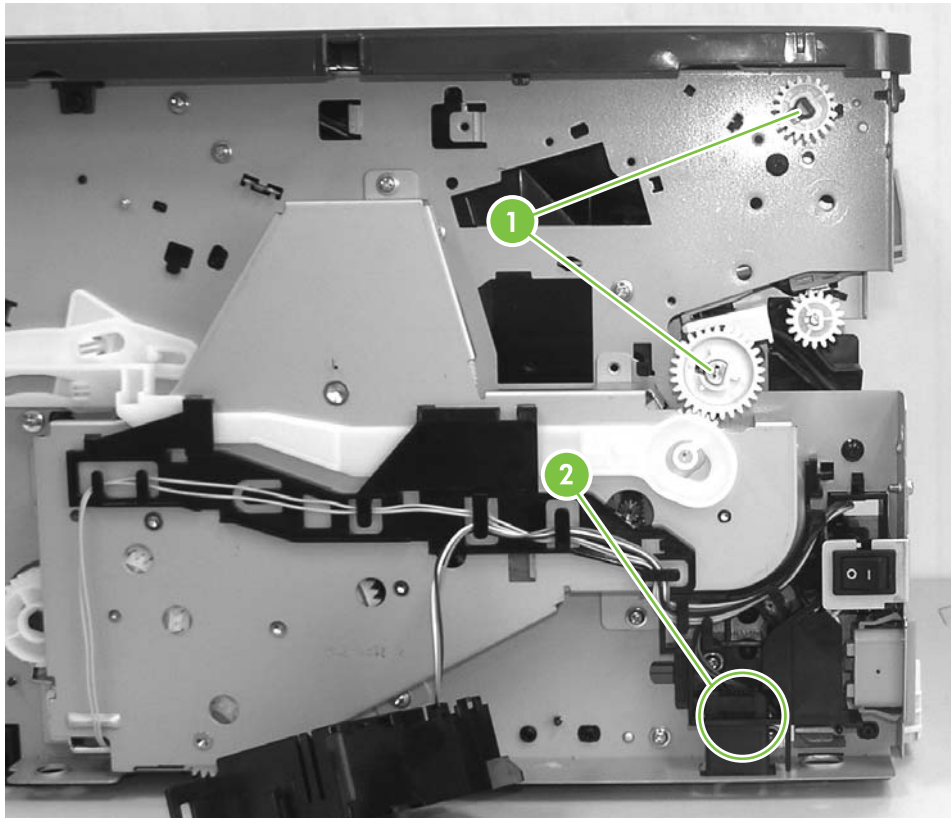


Figure 6-16 Removing the fuser (1 of 10)

7. Disconnect four cables (1) from the ECU, and then disconnect two more cables (2) that were behind the first set.

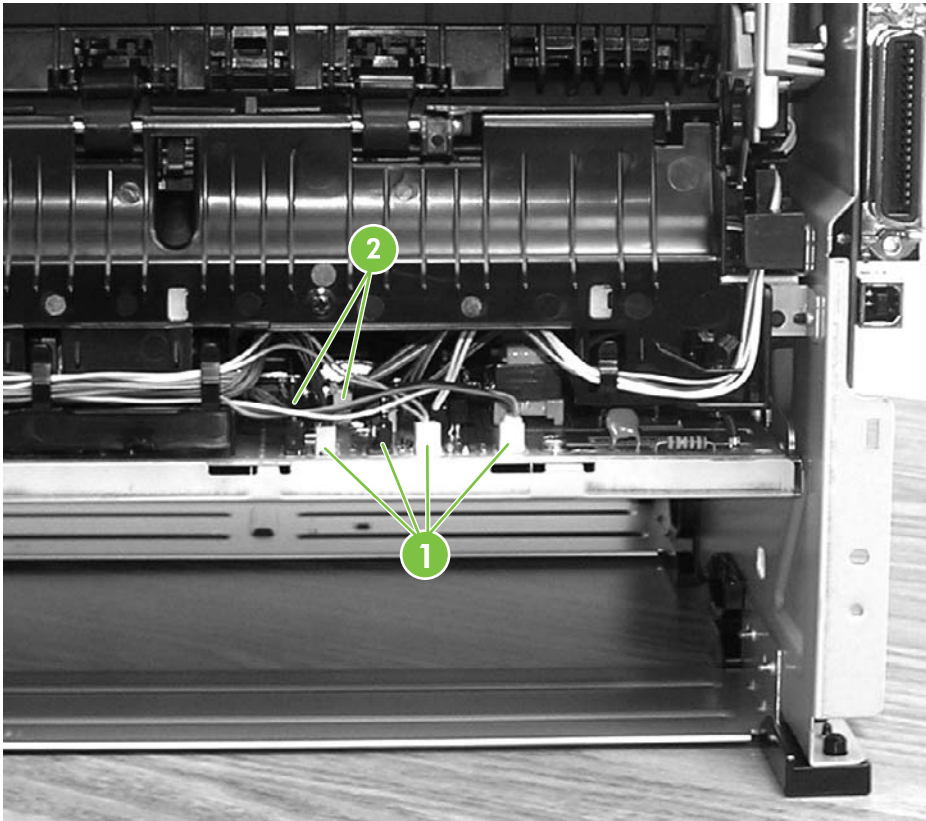


Figure 6-17 Removing the fuser (2 of 10)

8. Pull the tab on the cable holder (1) at the left side of the printer and slide it toward the center to release it from the frame, and then unroute the cables.

9. Pull the tab on the cable holder (2) and slide it toward the center to release it from the frame, and then unroute the cables.

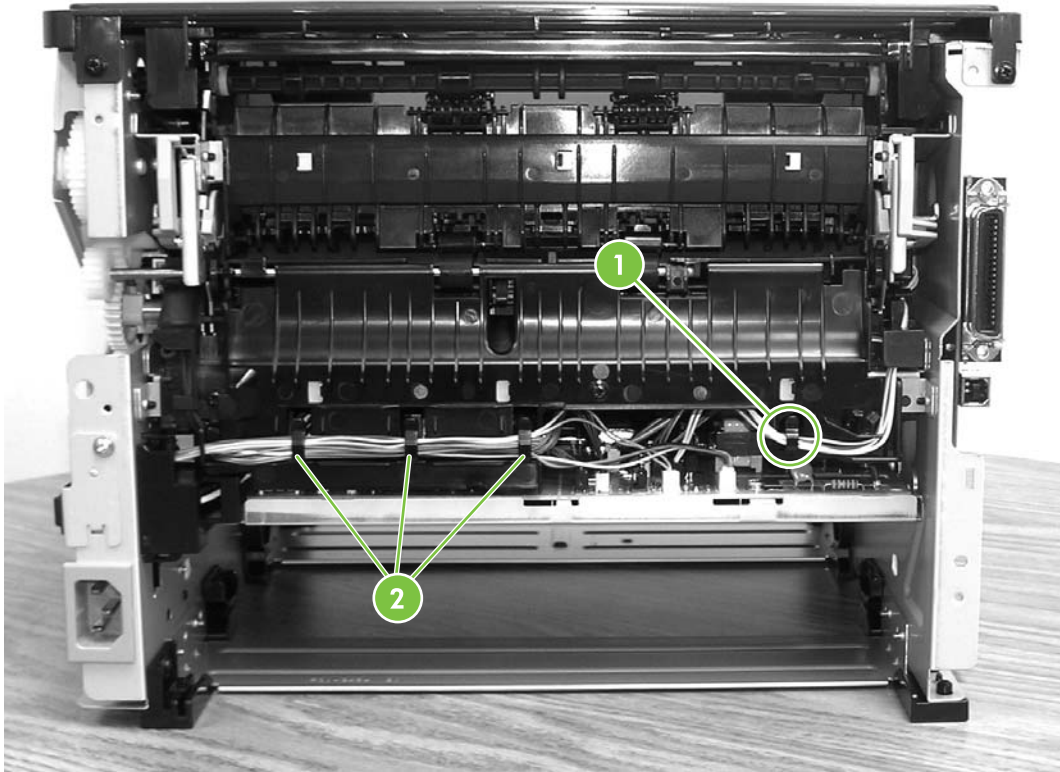


Figure 6-18 Removing the fuser (3 of 10)

10. Remove one screw (1) from the fuser cover, and then slide the fuser cover to the right and remove it.

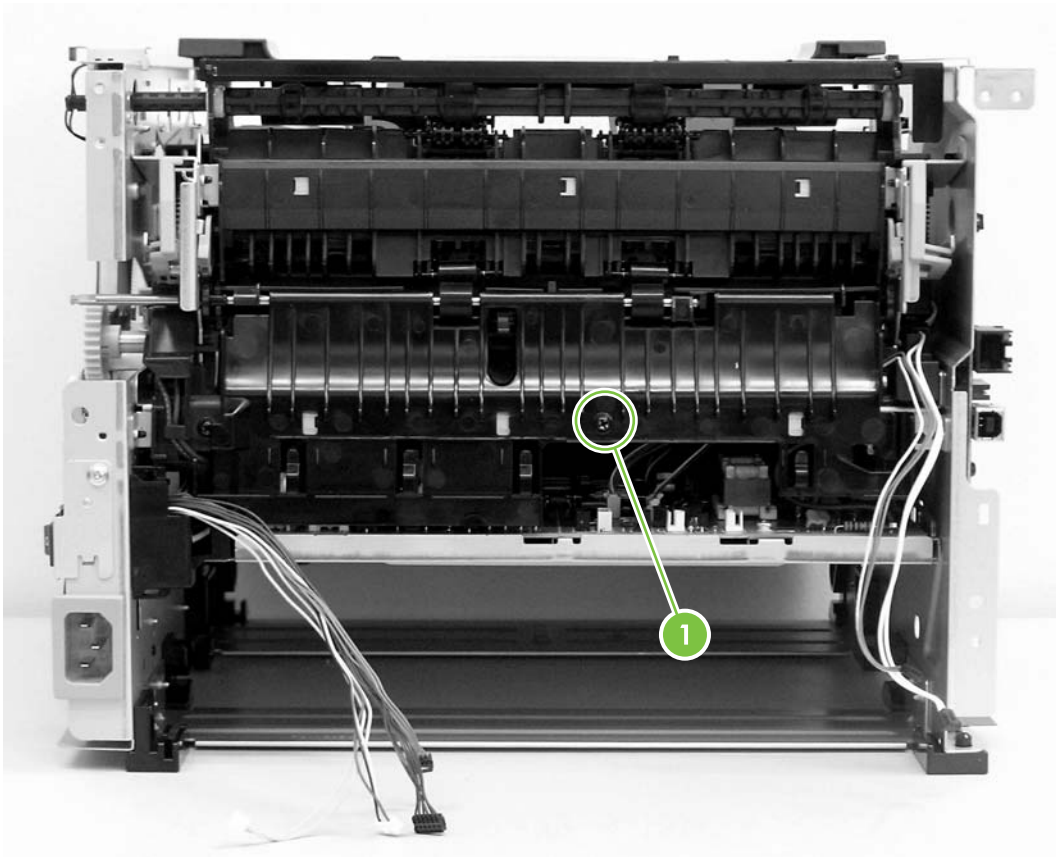


Figure 6-19 Removing the fuser (4 of 10)

11. Disconnect three cables (1).

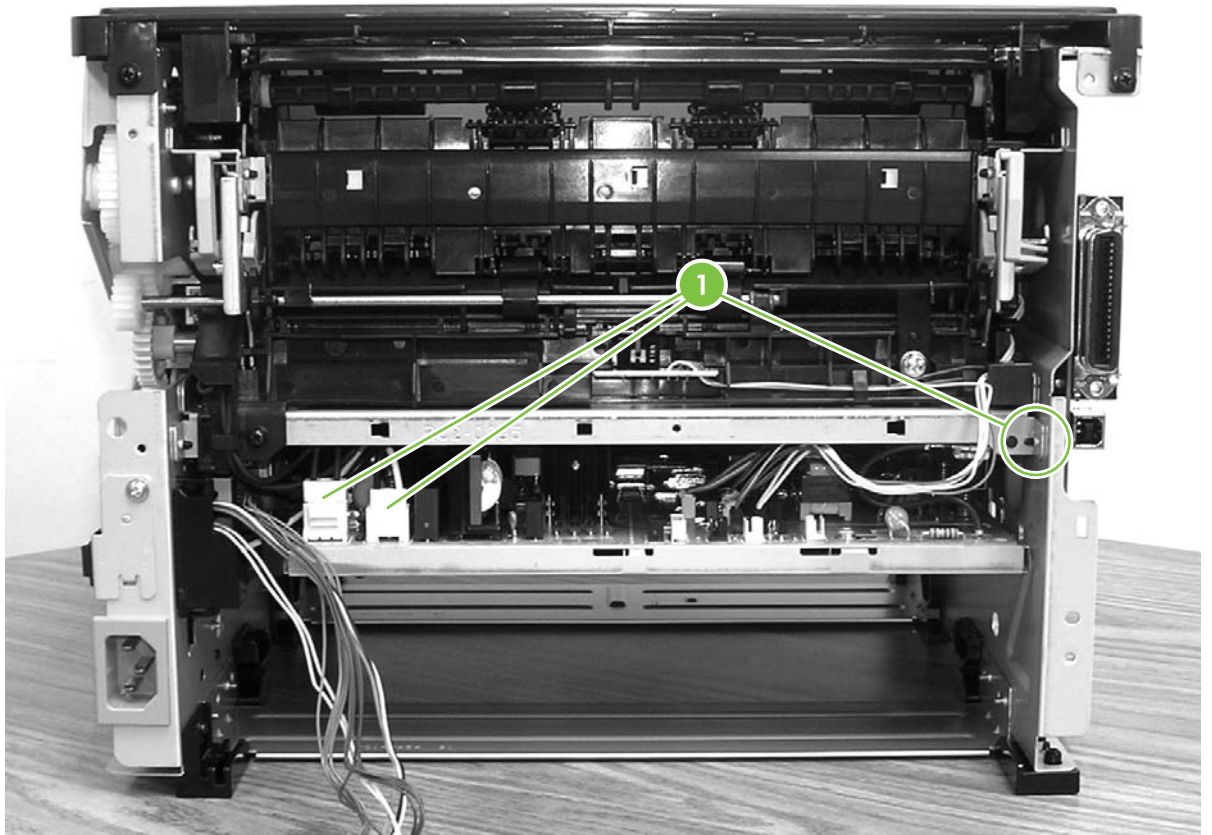


Figure 6-20 Removing the fuser (5 of 10)

12. Disconnect one cable (1), and then unrout the cable from the cable guide.

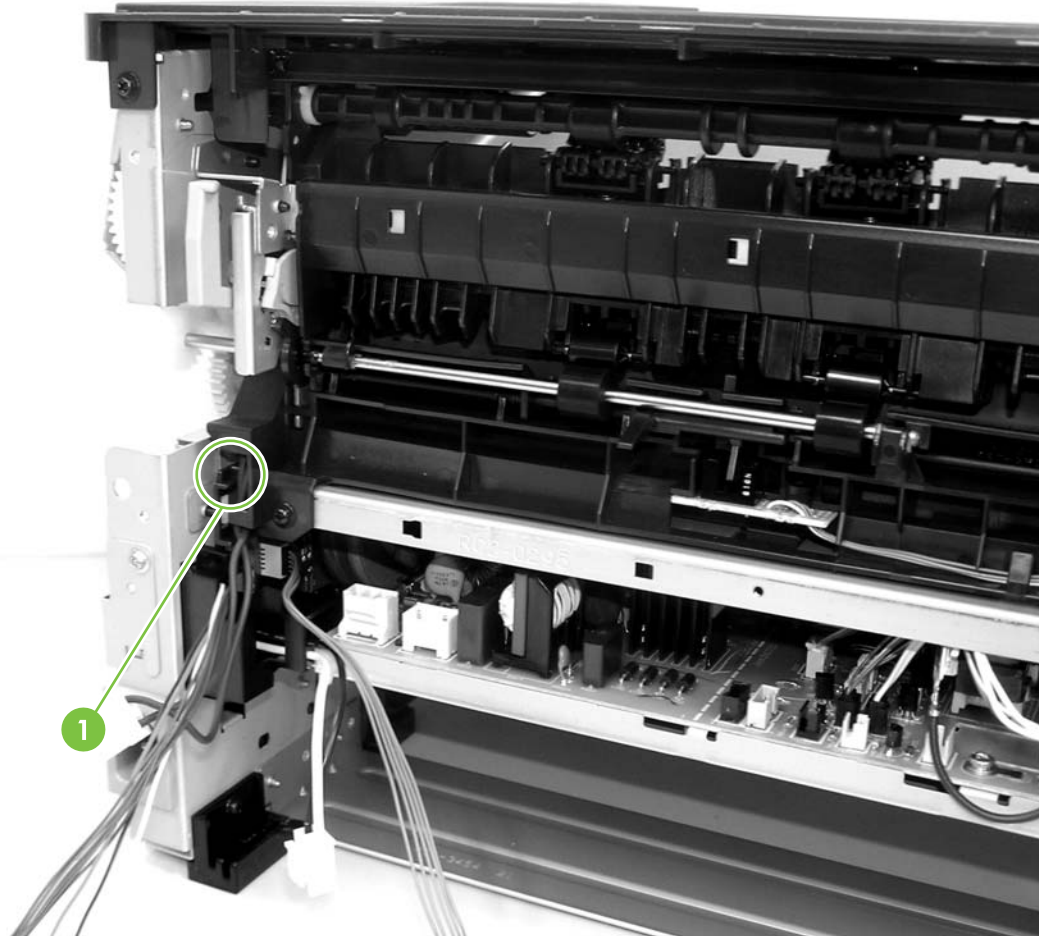


Figure 6-21 Removing the fuser (6 of 10)



NOTE: Before you proceed to step 13, make sure that all cables disconnected in previous steps are free from any cable guides and cable holders.

13. Remove three screws (1) on the right side of the printer.

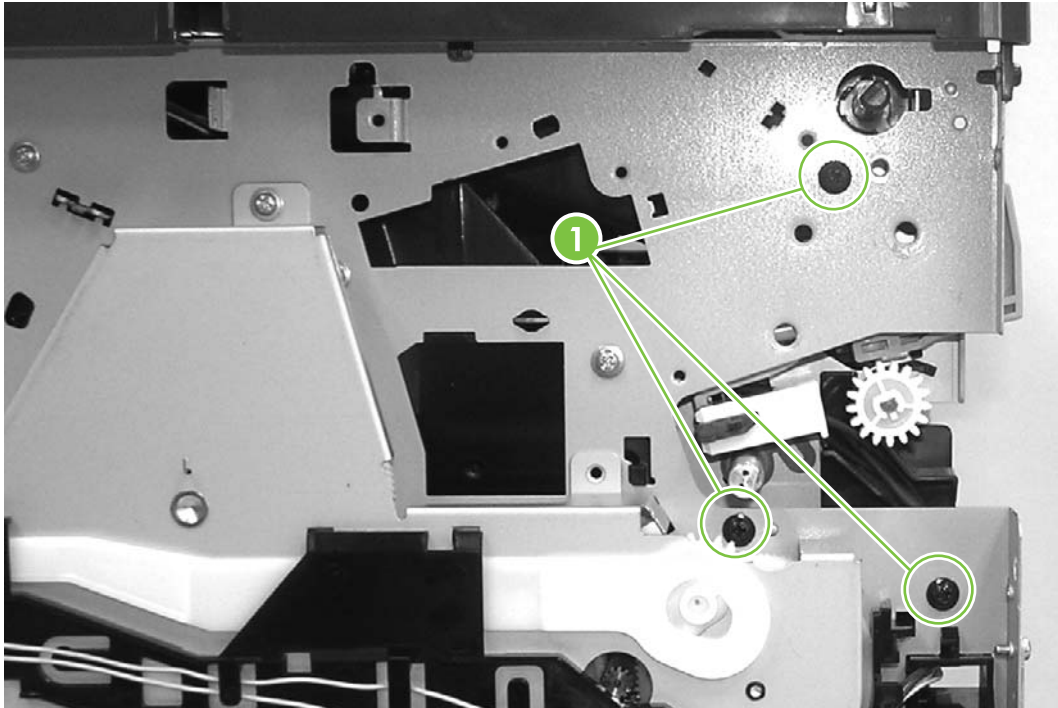


Figure 6-22 Removing the fuser (7 of 10)

14. Remove three screws (1) from the left side of the printer.

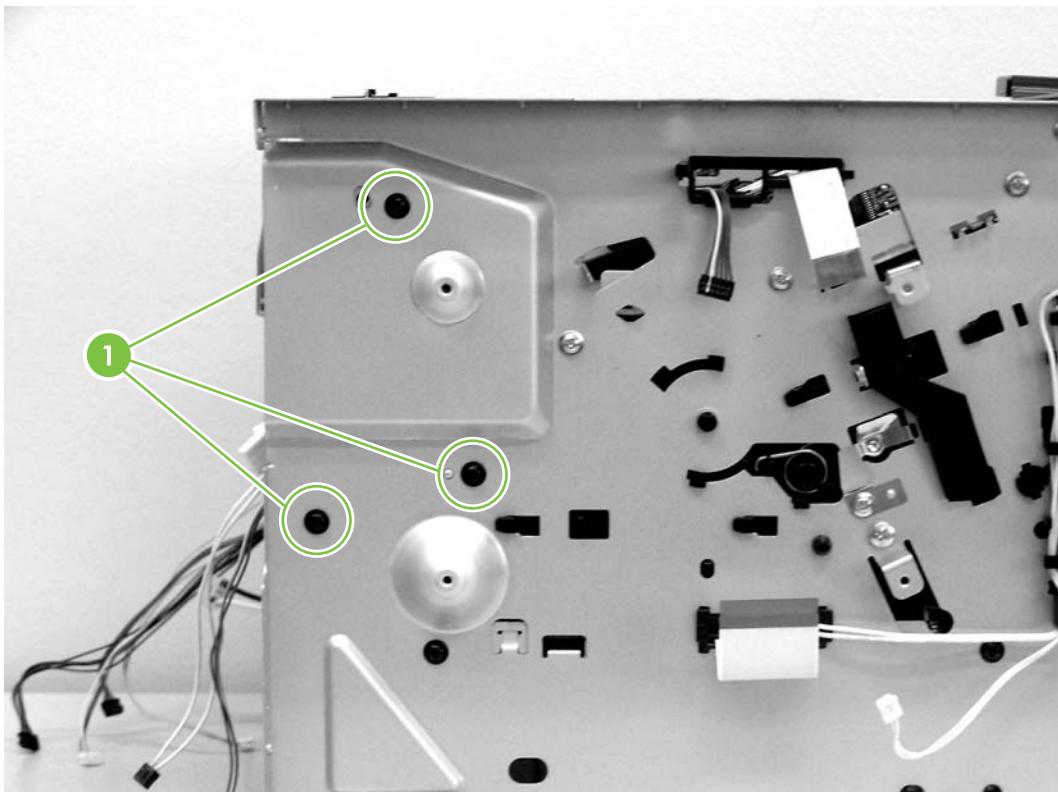


Figure 6-23 Removing the fuser (8 of 10)

15. At the left side of the printer, pull the printer chassis from the top to spread the printer frame and release the fuser from the frame.

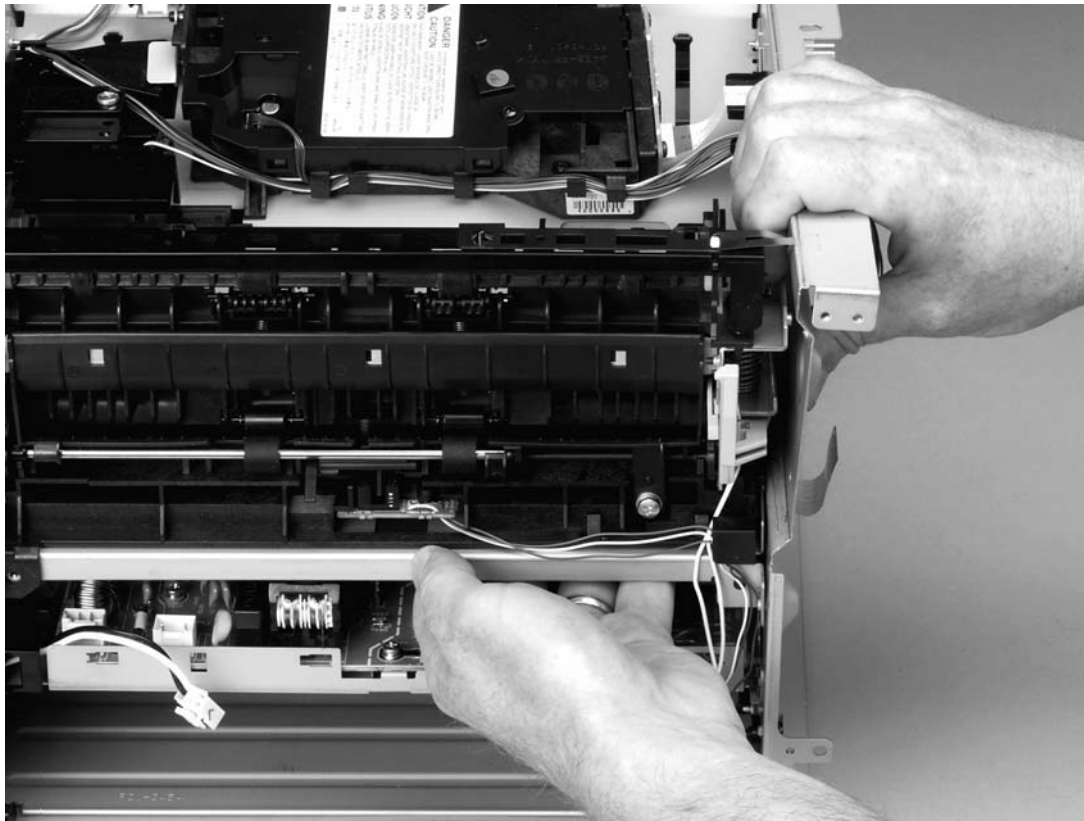


Figure 6-24 Removing the fuser (9 of 10)

16. Pull the fuser out of the printer at an angle so that the delivery roller shaft clears the hole (1) in the chassis.

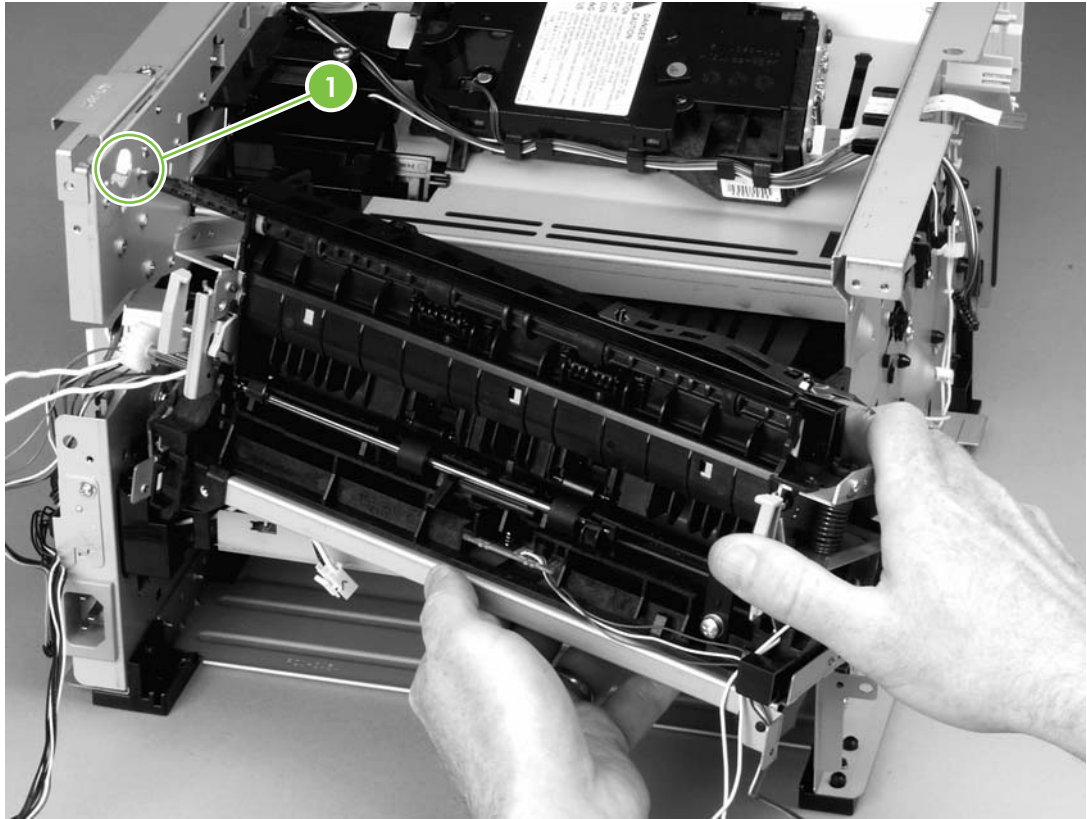


Figure 6-25 Removing the fuser (10 of 10)

Interlock assembly

1. Remove all covers.
2. Open the print-cartridge door.
3. Remove two screws (1) that secure the interlock assembly to the left side of the printer chassis.
4. Remove two cables (2).

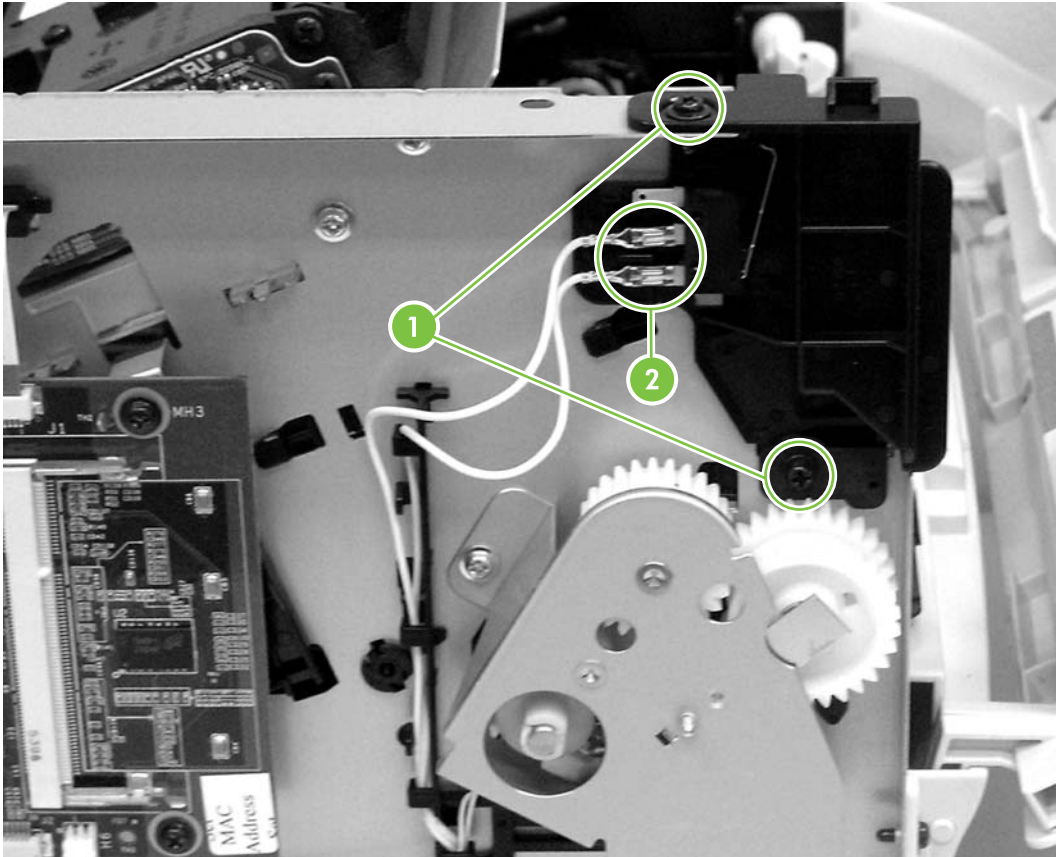


Figure 6-26 Removing the interlock assembly (1 of 2)

5. Lift the interlock assembly away from the printer.

ECU



1. Remove all covers.
2. Remove the fan.
3. Remove the formatter.
4. Remove the fuser.
5. Remove the interlock assembly.
6. Remove cables from the cable clip under the feed plate (1), and then remove the feed plate by lifting it and pulling it straight back.



Figure 6-27 Removing the ECU (1 of 7)

7. Disconnect three cables (1).

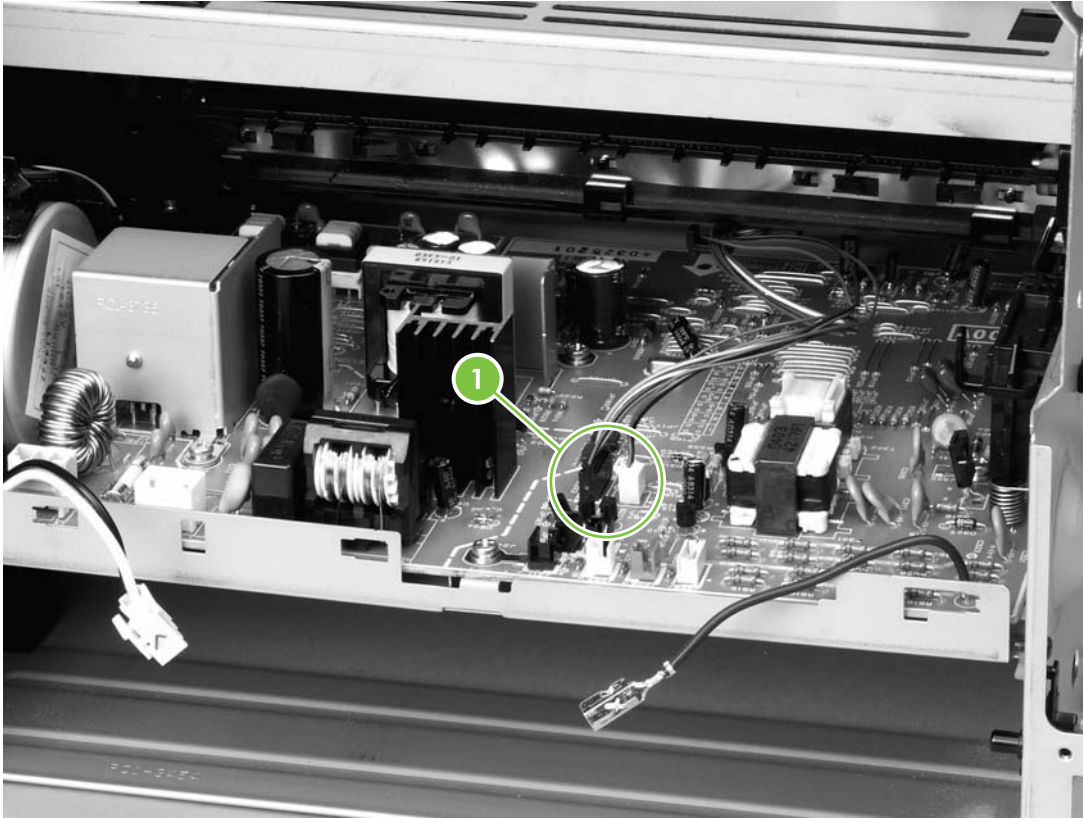


Figure 6-28 Removing the ECU (2 of 7)

8. Remove one screw (4) from the right side of the printer.

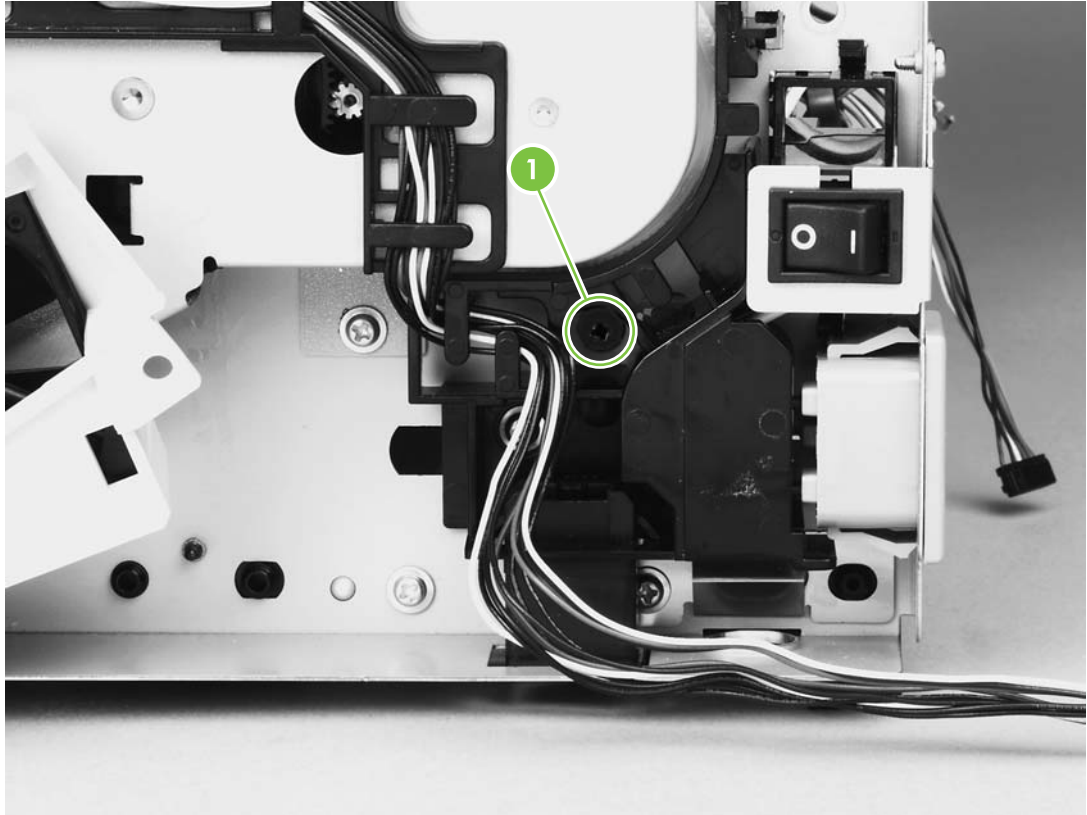


Figure 6-29 Removing the ECU (3 of 7)

9. Remove two screws (1) from the left side of the printer, and then push the interlock cables and the formatter cable (2) through the hole in the chassis.

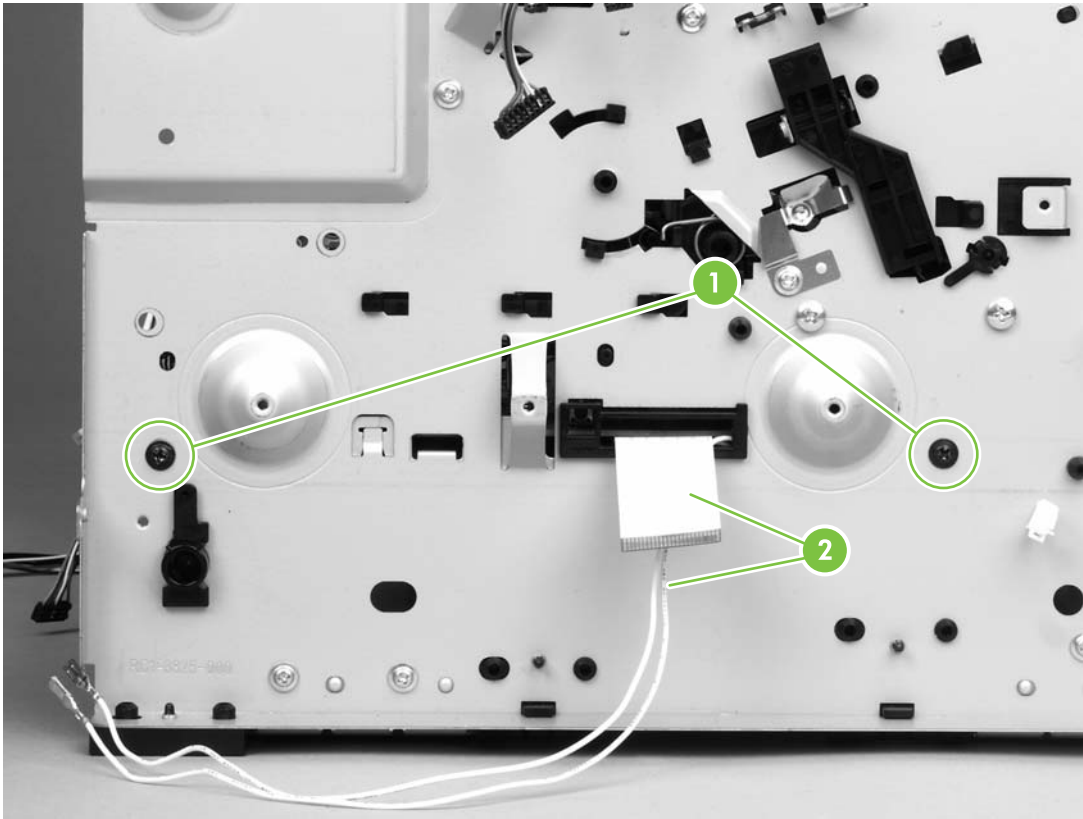


Figure 6-30 Removing the ECU (4 of 7)

10. Spread the printer frame at the right side of the printer to release the internal tabs that secure the ECU to the chassis.

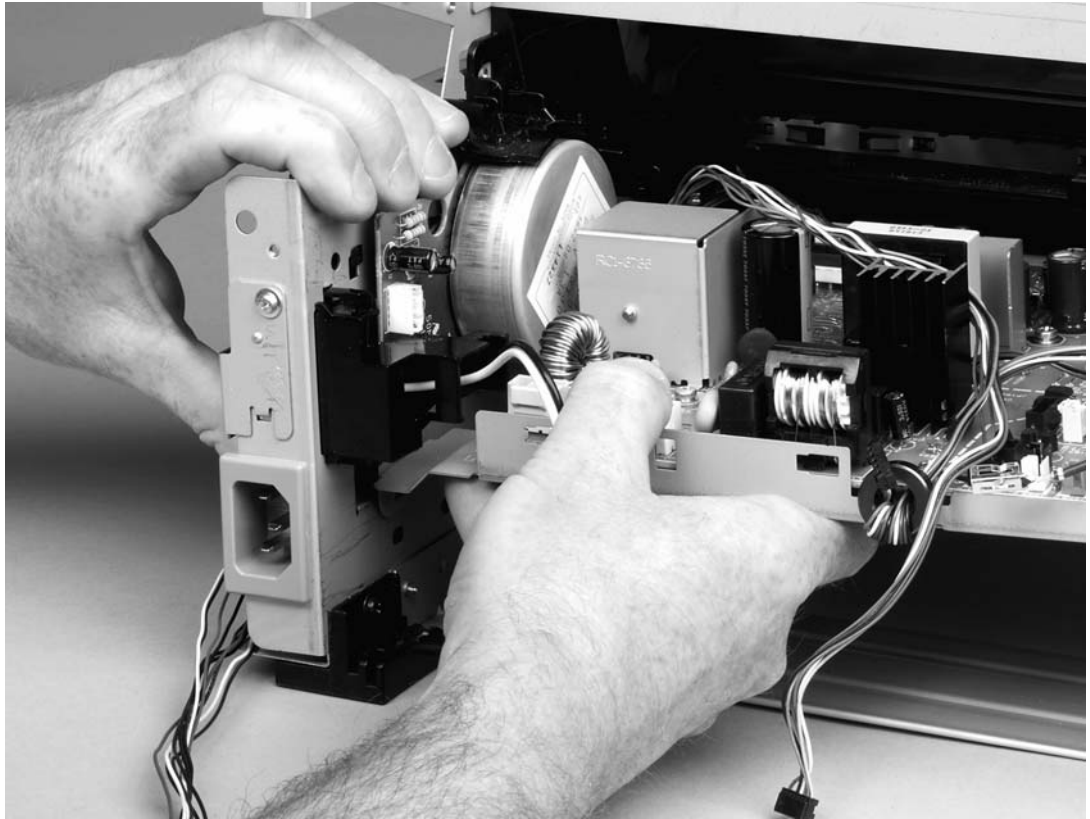


Figure 6-31 Removing the ECU (5 of 7)

11. Spread the printer frame at the left side of the printer to release the internal tabs, and then lower the ECU slightly and pull it straight back to remove it.



NOTE: Make sure that cables do not become caught on the contact springs as you remove the ECU.

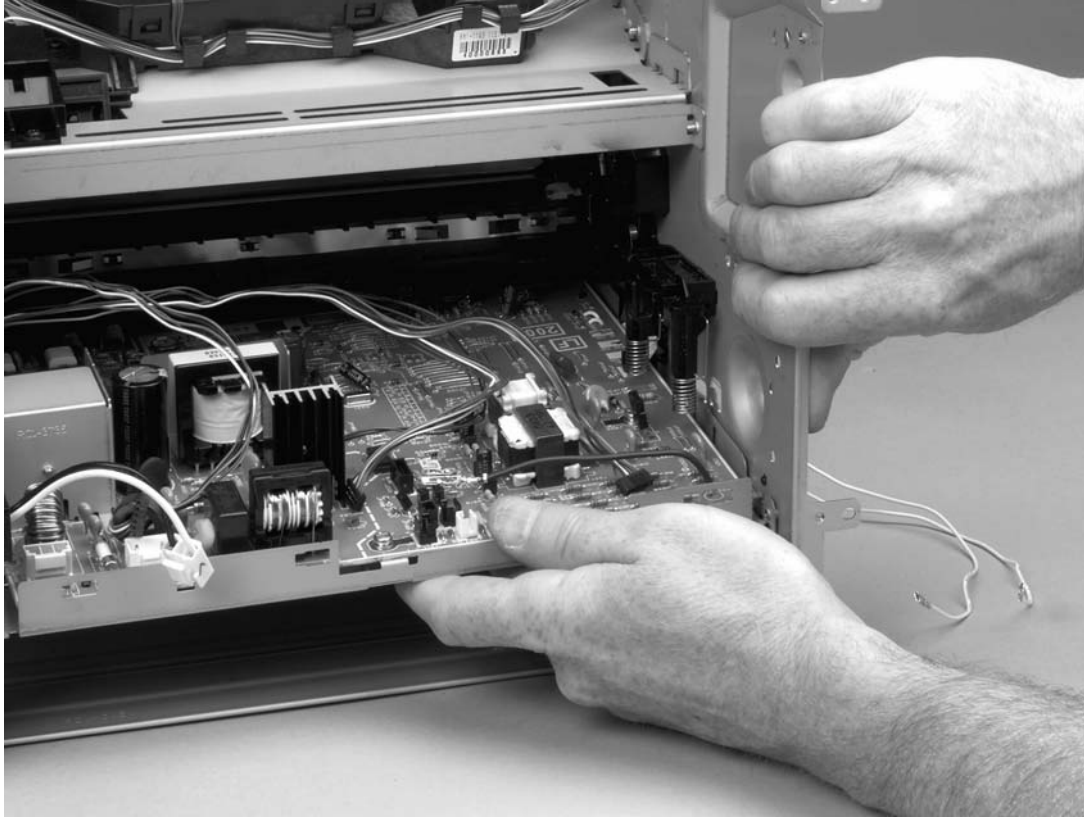


Figure 6-32 Removing the ECU (6 of 7)



Reinstallation tip When replacing the ECU, you might find it easier to find the correct placement of the ECU pan in the printer if you tip the printer so that it rests on its front.

12. Remove four screws (1) and then lift the ECU off the ECU plate.

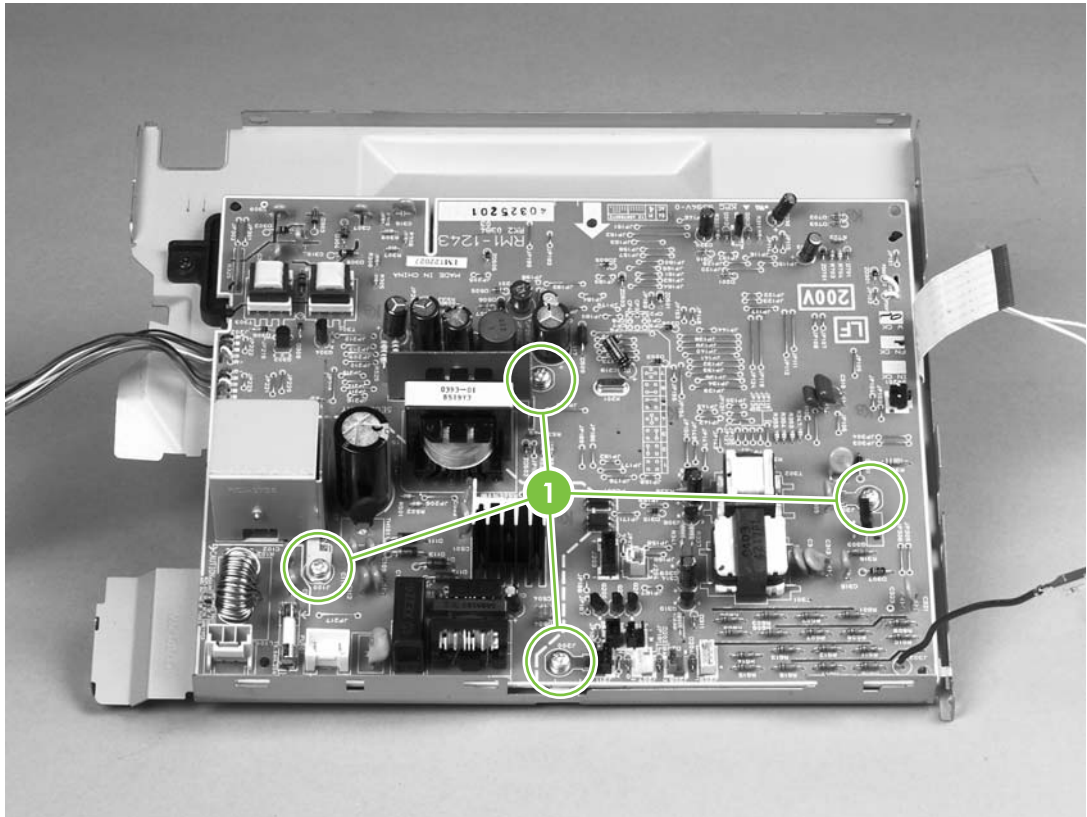


Figure 6-33 Removing the ECU (7 of 7)

Main motor

1. Remove all covers.
2. Remove the fan.
3. Remove the formatter.
4. Remove the fuser.
5. Remove the interlock assembly.
6. Remove the ECU.
7. Remove three screws (1).

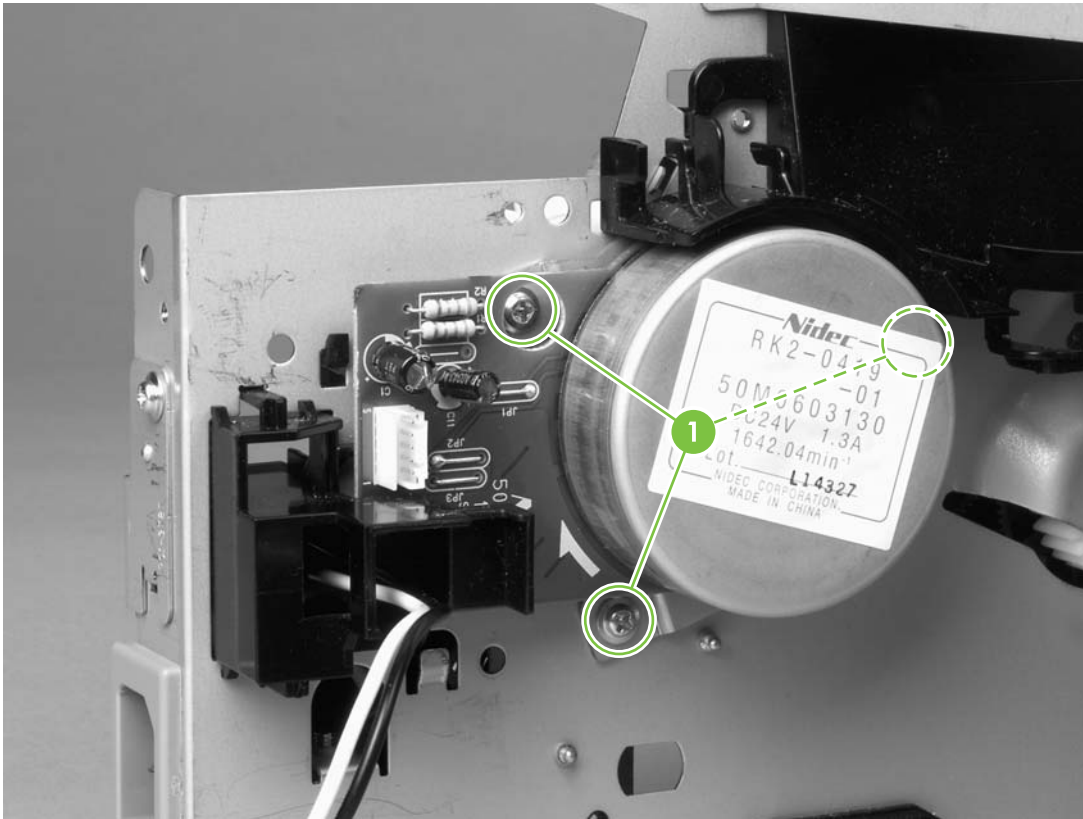


Figure 6-34 Removing the main motor (1 of 2)

8. Hold the motor while releasing the tabs (1) on the cable guide, and then lift the motor and the cable guide out of the printer together.

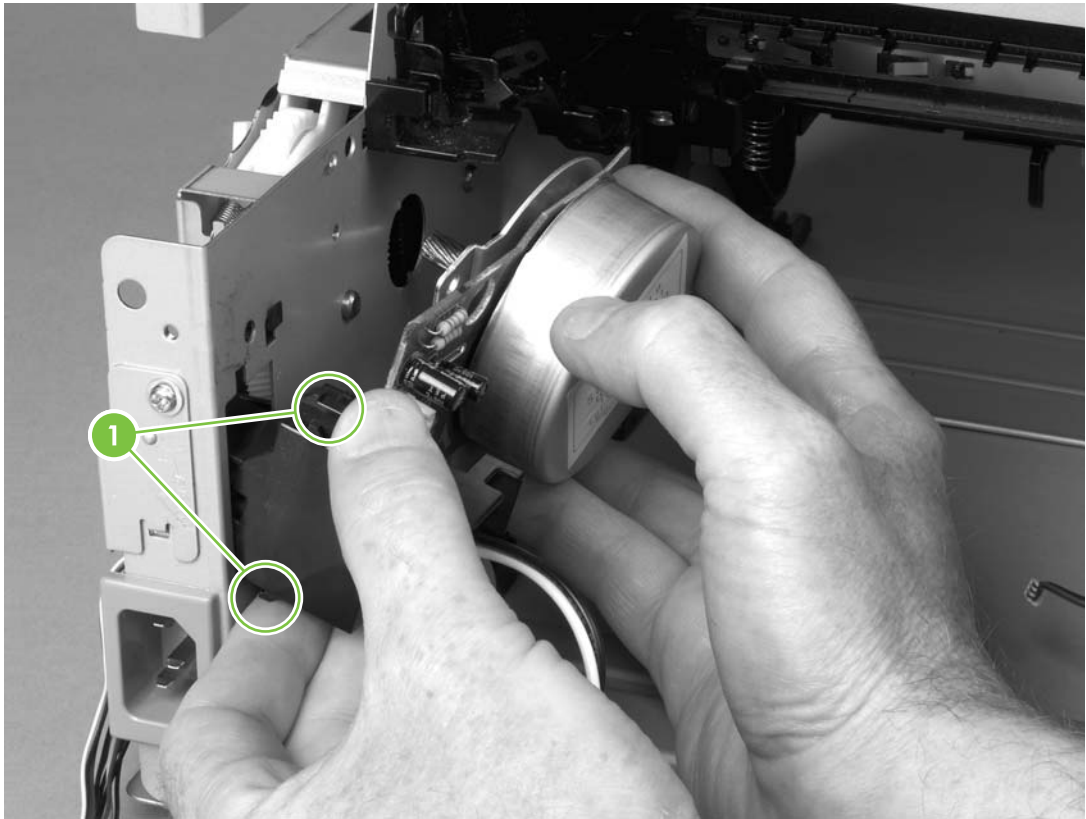


Figure 6-35 Removing the main motor (2 of 2)

Pickup and feed assemblies

This section covers the major assemblies of the pickup and feed system: the transfer roller and the registration assembly.

Transfer roller



NOTE: It is important to make sure that the transfer roller needs to be replaced before removing it. Excess handling can cause additional damage.

1. Open the print-cartridge door and remove the print cartridge.
2. Use needle-nose pliers to release the transfer roller tabs at the end of the roller, near the right side of the printer.



CAUTION: Do not break the tabs, and do not touch the rollers.

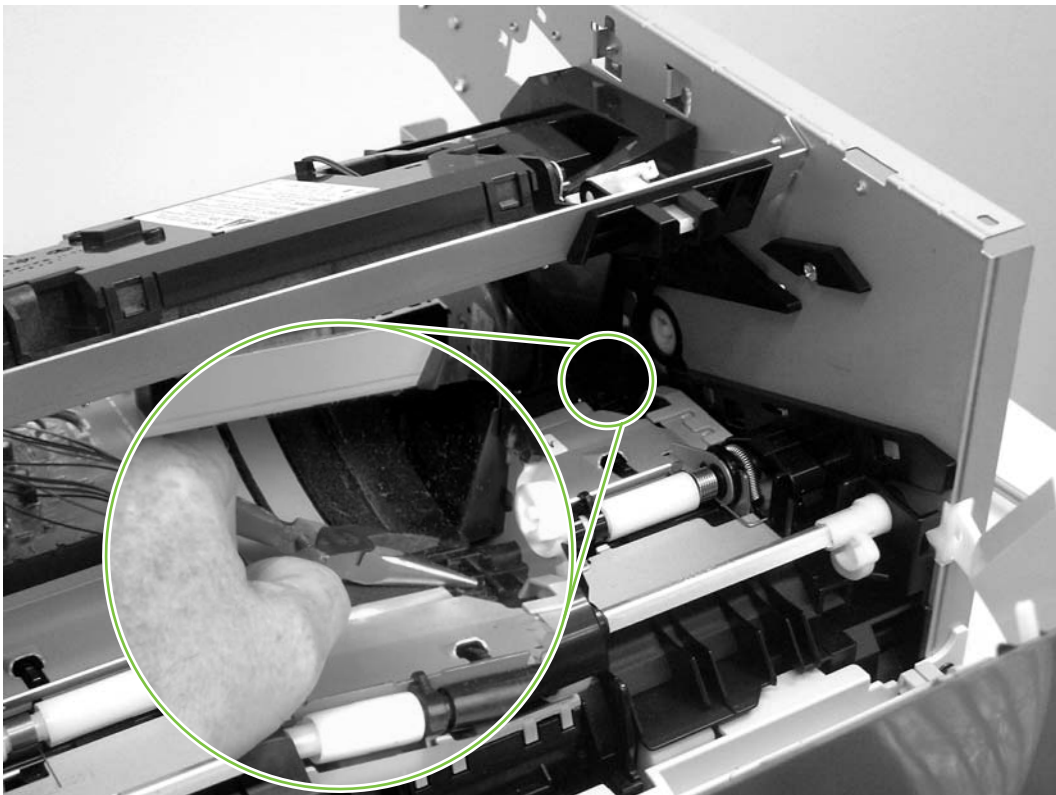


Figure 6-36 Removing the transfer roller

3. Lift up the end of the roller near the right side of the printer, and then slide it toward the right side of the printer while pulling it out of the printer.

Registration assembly

1. Remove two screws (1) from the face-down gear assembly.

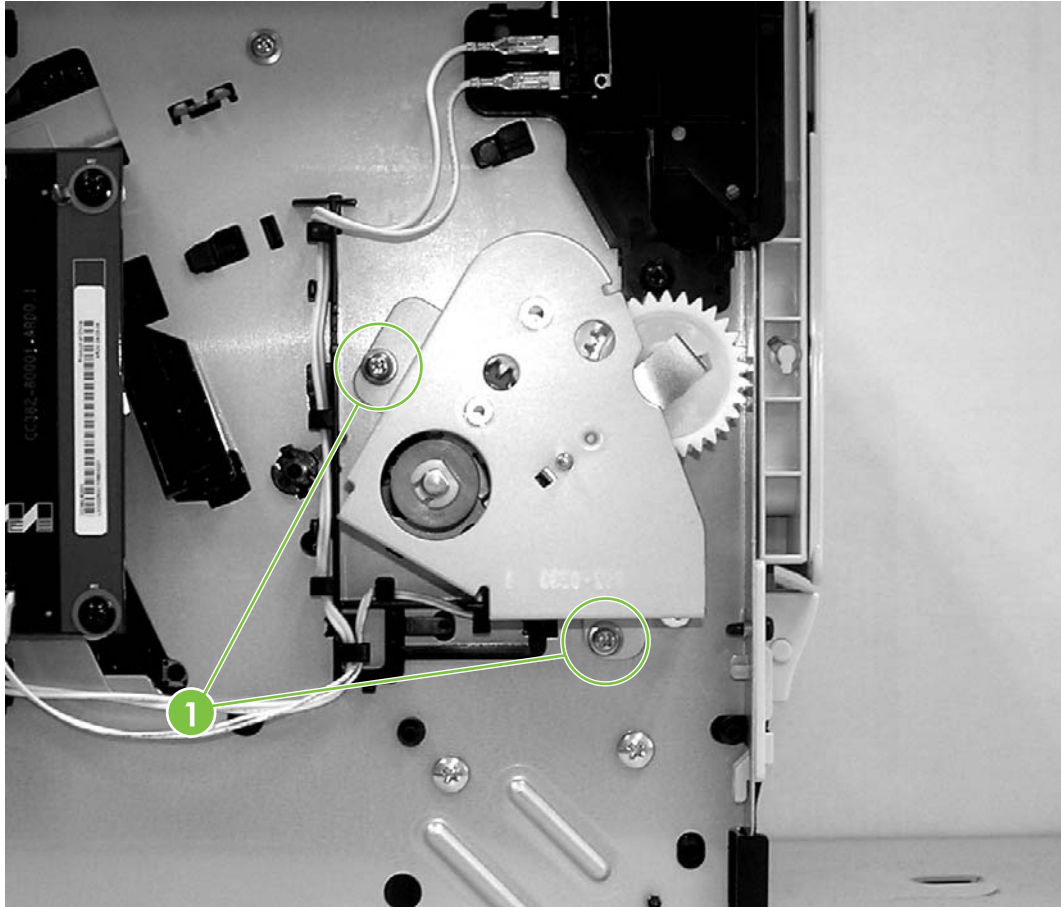


Figure 6-37 Removing the registration assembly (1 of 4)

2. Remove face-down gear assembly.

3. Remove the bushing (1) from the shaft of the registration assembly.

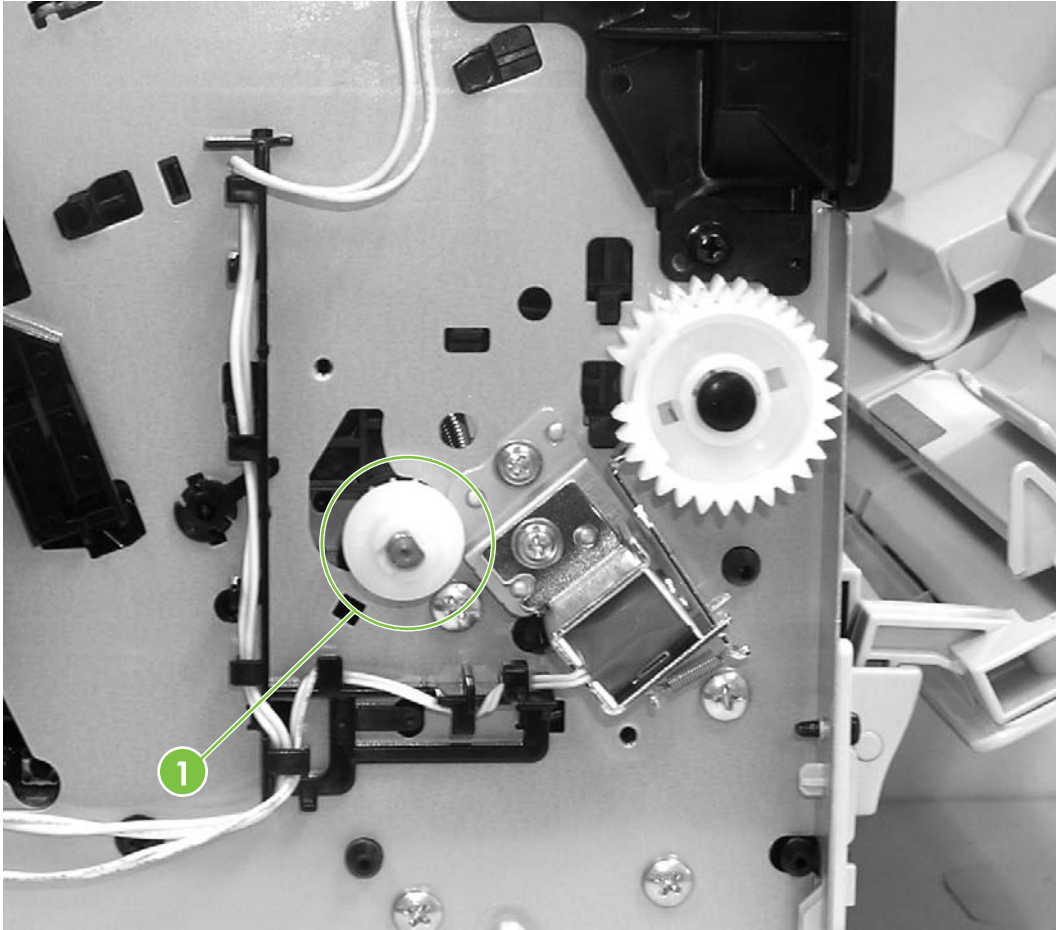


Figure 6-38 Removing the registration assembly (2 of 4)

4. Remove left lower cartridge guide (2) by pressing in the middle tab on the other side (1) and lifting the guide up.

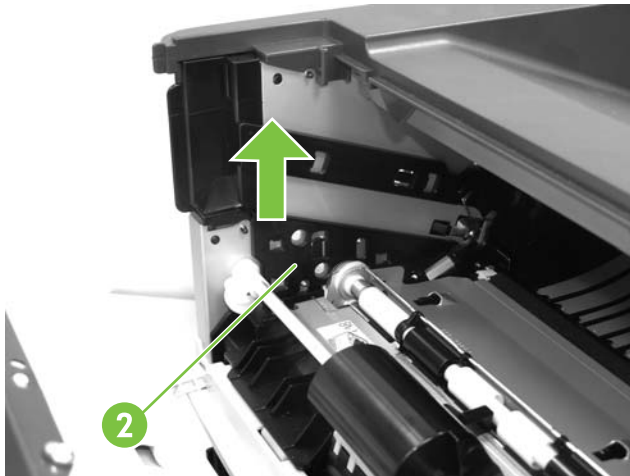
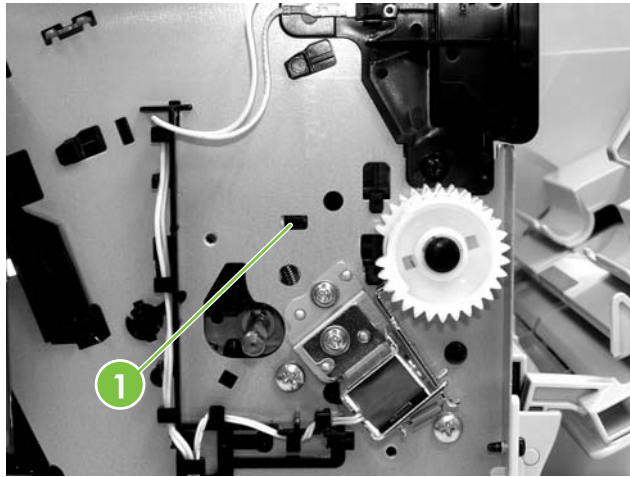


Figure 6-39 Removing the registration assembly (3 of 4)

5. Remove five screws (1).

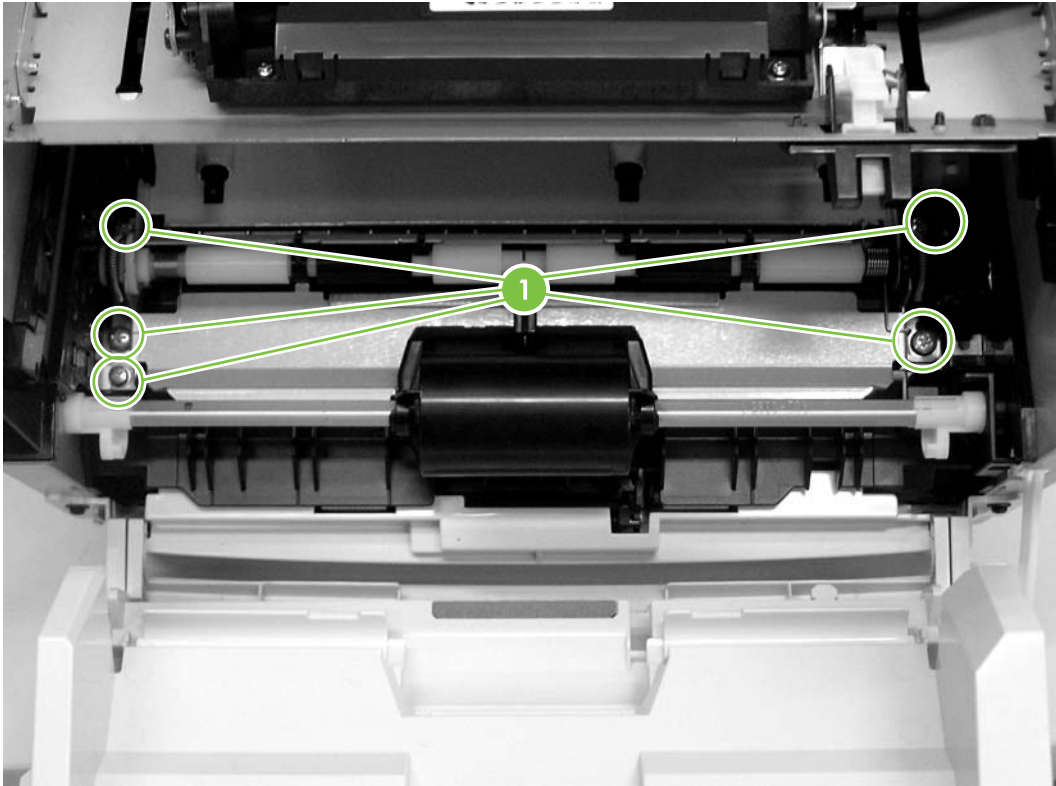


Figure 6-40 Removing the registration assembly

6. Lift the entire assembly out of the printer.

Main gear assembly/tray 2 pickup solenoid

1. Remove all covers.
2. Remove the fan from the printer chassis.
3. Disconnect one cable (1) at the ECU.

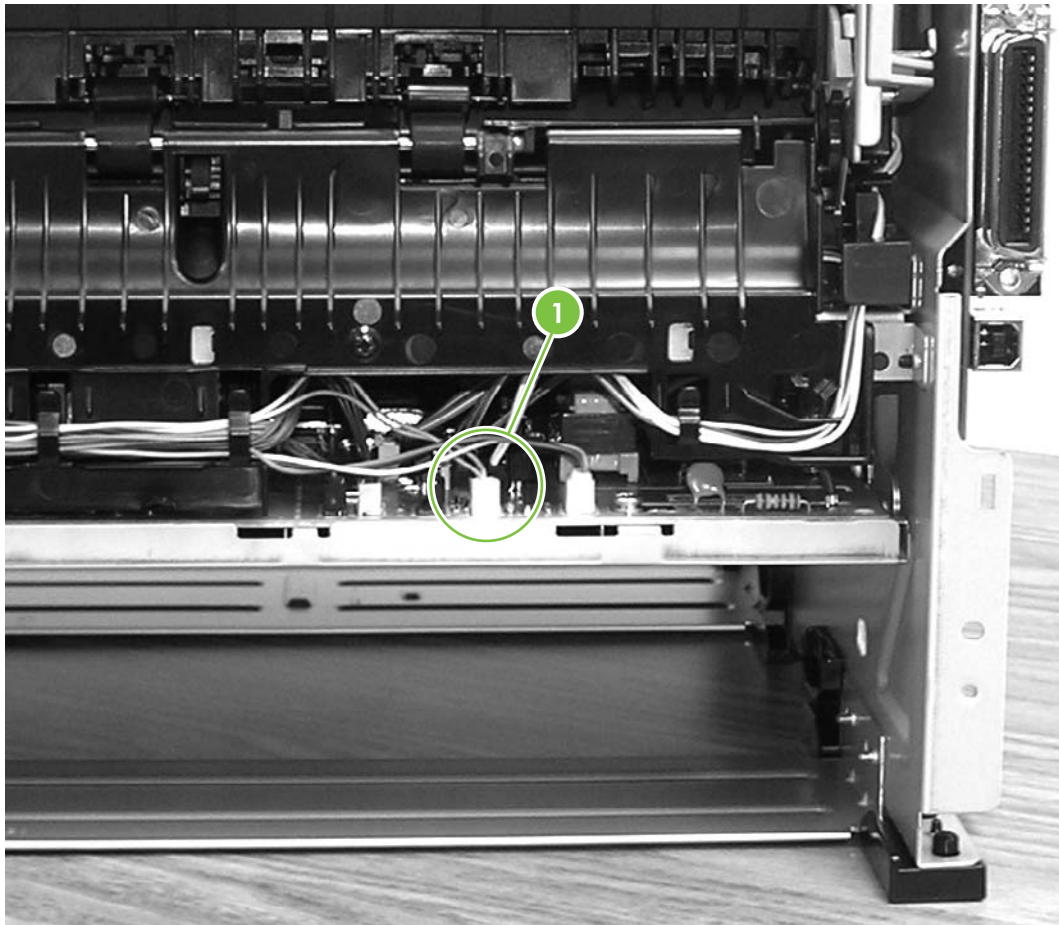


Figure 6-41 Removing the main gear assembly (1 of 2)

4. Release the tab on the gear (1) and slide the gear off the shaft.
5. Remove the cables from the cable guide (2).

6. Remove four screws (3).

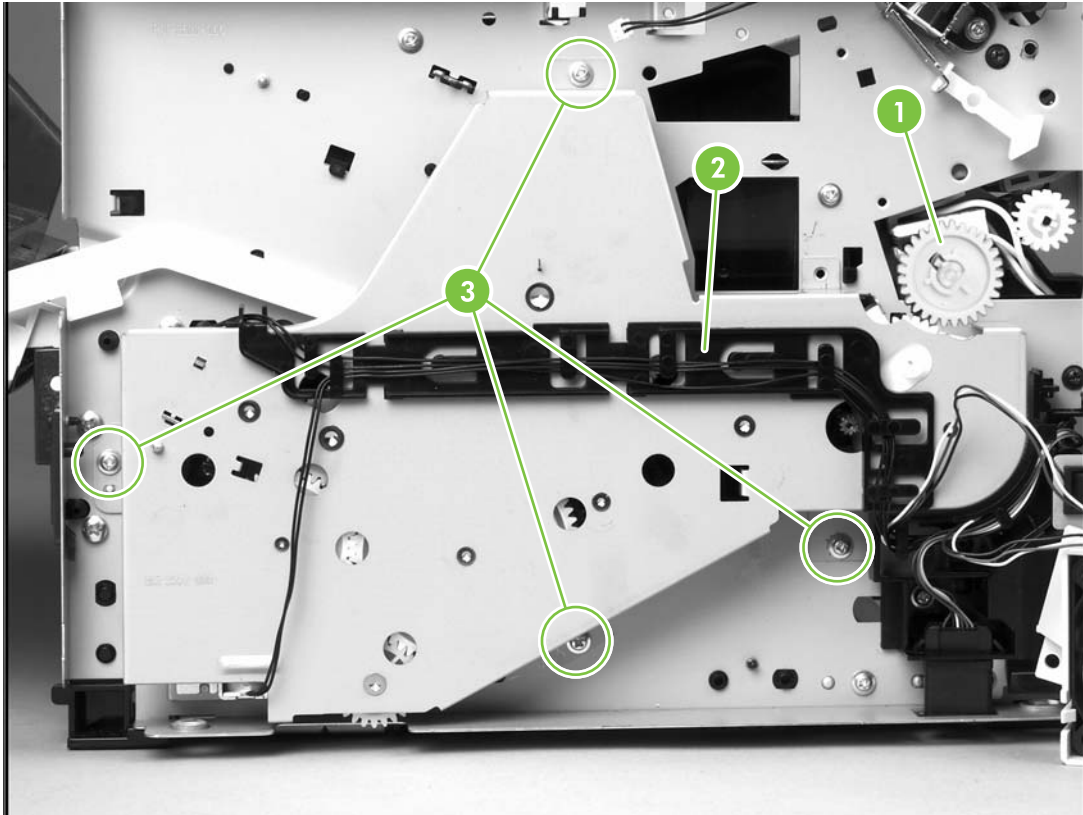


Figure 6-42 Removing the main gear assembly (2 of 2)

7. Pull the main gear assembly straight away from the printer.

8. To remove the tray 2 pickup solenoid, disconnect one cable (1).

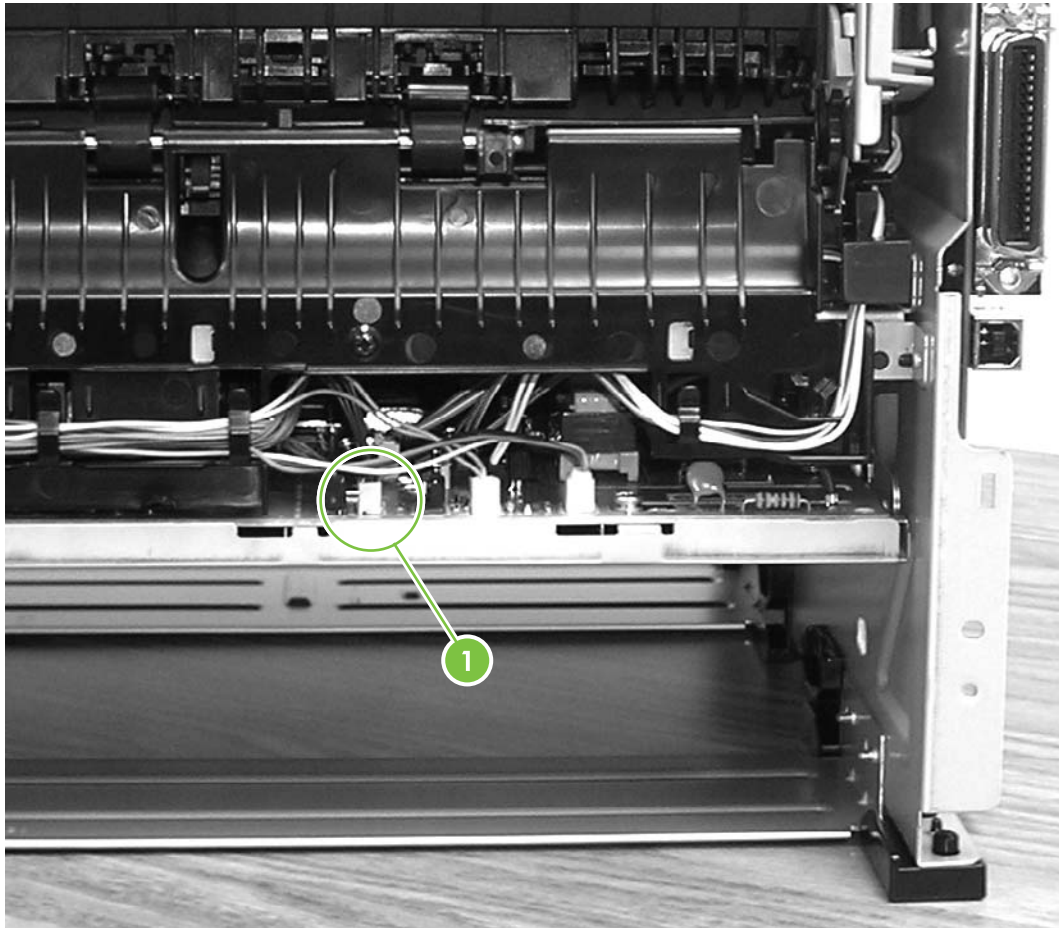


Figure 6-43 Removing the tray 2 pickup solenoid (1 of 2)

9. Remove one screw (1), and then lift the solenoid off the printer.

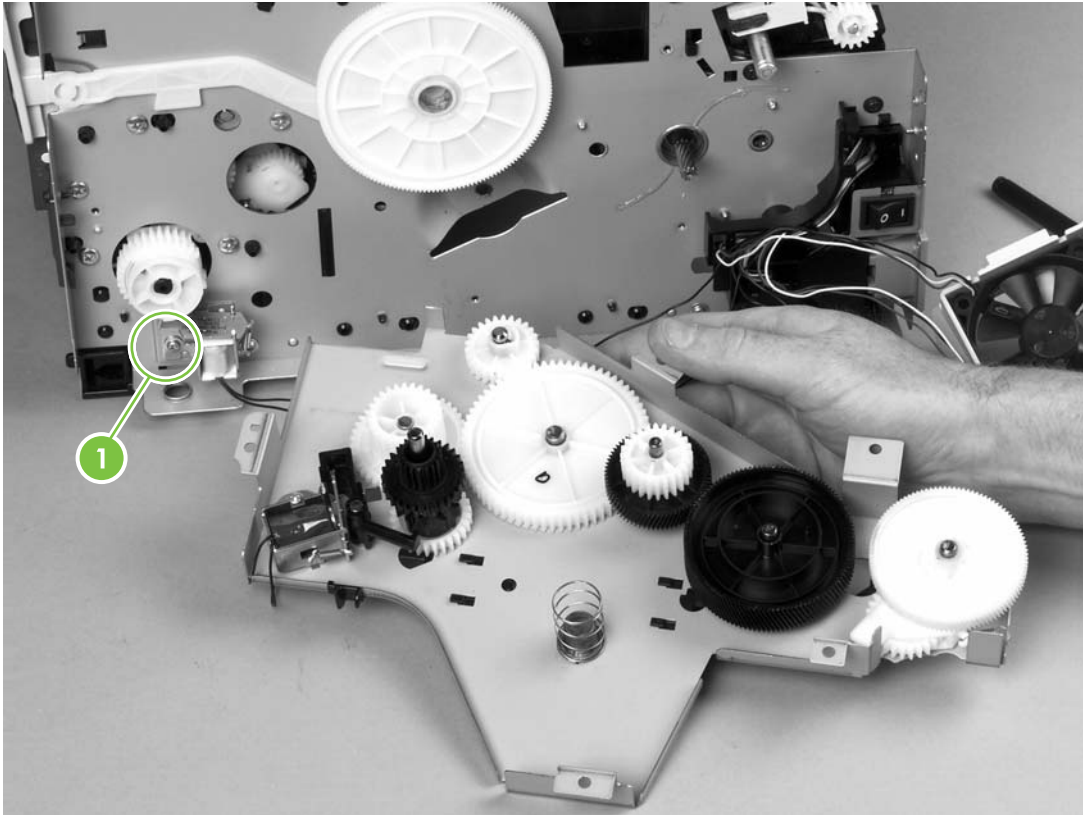


Figure 6-44 Removing the tray 2 pickup solenoid (2 of 2)

Print-cartridge door

1. Use a flat-blade screwdriver to gently pry the cartridge-door arm (1) off the print-cartridge door.



CAUTION: Be careful not to break the tabs.

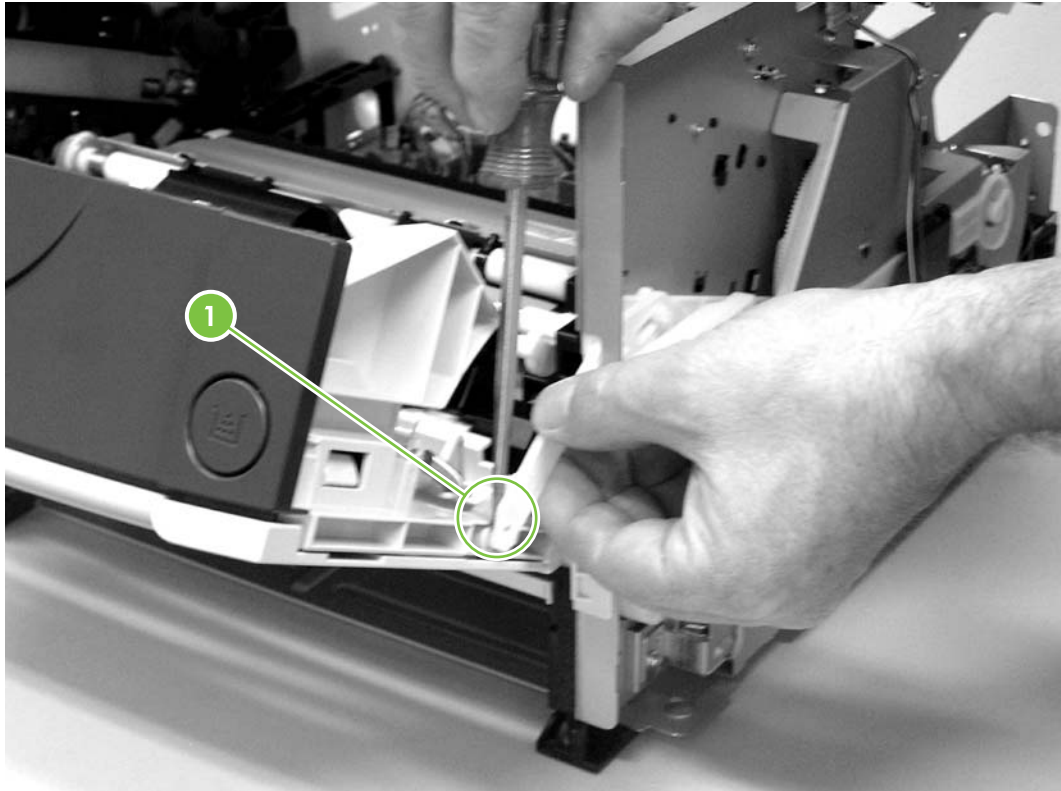


Figure 6-45 Removing the print-cartridge door (1 of 2)

2. Remove two screws (2).



Figure 6-46 Removing the print-cartridge door (2 of 2)

3. Lift the cartridge-door assembly straight away from the printer.

7 Problem solving

- [Basic problem solving](#)
- [Status-light patterns](#)
- [Media problem solving](#)
- [Printed page is different than what appeared on screen](#)
- [Improve print quality](#)
- [Clear jams](#)
- [Diagnostic resources](#)
- [Printer software problems](#)
- [Network-setup problem-solving](#)
- [Reset the printer](#)
- [Troubleshooting tools and reference diagrams](#)

Basic problem solving

Table 7-1 Basic problem solving

When the product is connected to a correctly grounded power source, the LEDs on the control panel do not illuminate and the main motor does not rotate.

The printer does not turn on.

Cause	Solution
No power to the printer.	<ol style="list-style-type: none">1. Verify that the power switch is turned on.2. Verify that the power cable is correctly plugged into the outlet and the printer.3. Verify that the power outlet has the correct voltage.
The power inlet/switch cable assembly is defective.	Replace the power inlet/switch cable assembly.
The ECU is defective.	Replace the ECU.

When turned on, the LEDs on the control panel light up, but the main motor does not rotate.

The printer turns on, but the motor does not rotate.

Cause	Solution
The print cartridge door is open.	Close the print cartridge door.
Media is jammed in the paper path.	Clear all media from the paper path and make sure that all sensors are working correctly.
The motor cable is not connected correctly.	Reconnect the motor cable.
The motor is not mounted correctly in the printer chassis.	Verify that the motor is connected correctly and that it rotates freely.
A gear is damaged or jammed.	Replace the gear assembly.
The ECU is defective.	Replace the ECU.
The main motor is defective.	Replace the motor.

The printer turns on and the motor rotates, but none of the control panel lights turn on, and pressing the control panel buttons has no effect.

The printer is unresponsive.

Cause	Solution
The control panel cable is not connected correctly.	Reconnect the control panel cable.
The control panel is defective.	Replace the control panel.
The formatter is defective.	Replace the formatter.

Table 7-1 Basic problem solving (continued)

The printer is on, but the control panel lights indicate that the printer is not in the "ready" state.

The printer is not "ready."

Cause	Solution
The printer has an internal error that was detected during the power-on self-test sequence.	Consult the list of control panel light patterns to identify and correct the error.

The printer turns on, the motor rotates, and the control panel indicates the "ready" state, but the printer does not print.

The printer does not print.

Cause	Solution
A printer component is defective.	Perform an engine test to verify print-engine components. <ol style="list-style-type: none">1. Press the engine test switch to print an engine test.2. If the engine test page does not print, check all of the connectors on the ECU and reconnect any cables that are connected incorrectly.3. If, after checking the connectors, the error persists, replace the ECU.
The formatter is defective.	Press the Go button to print a Demo page. If the Demo page does not print, replace the formatter.

The printer prints the engine test and the Demo page, but does not print jobs sent from a computer.

The printer does not print from a computer.

Cause	Solution
The cable is not connected correctly.	Reconnect the cable.
An incorrect printer driver is selected.	Select the correct printer driver.
The printer driver is not installed correctly.	Uninstall and then reinstall the printer software. Make sure that you use the correct procedure and port setting.
Other devices are connected to the printer (for example, through a switch or hub) that are interfering with the computer-printer communications.	Disconnect the other devices, switches, or hubs.
There is a computer-port communications problem.	Reset the computer port settings (see the computer user guide for more information).
The formatter is defective.	Replace the formatter.

Status-light patterns

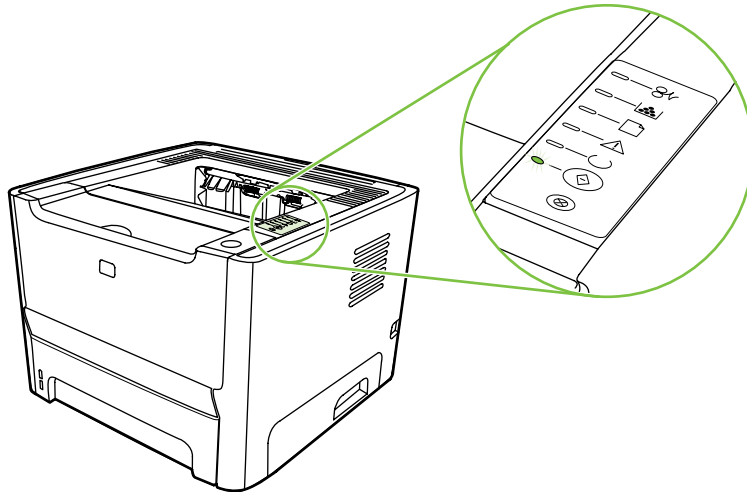


Table 7-2 Status-light legend

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

Primary status-light patterns

Table 7-3 Control-panel status light patterns

Error code	Pattern	Description	Action
10007		<p>Initialization/Startup</p> <p>While in the Startup state, the Go, Ready, and Attention lights cycle (at the rate of 500 ms) one after another.</p> <p>Reconfiguration Initialization</p> <p>During the printer start up, you can request special initialization sequences that reconfigure the printer. When one of the sequences is requested, such as cold reset, the lights cycle as in the Initialization/Startup state.</p> <p>Job Cancel</p> <p>After the cancellation process has been completed, the printer returns to the Ready state.</p>	<p>During the Initialization, Reconfiguration, and Job Cancel processes, pressing buttons has no effect.</p>

Table 7-3 Control-panel status light patterns (continued)

Error code	Pattern	Description	Action
10001		<p>Ready</p> <p>The printer is ready with no job activity.</p>	<p>To print a Configuration page, press and hold the Go button for 5 seconds.</p> <p>To print a Demo page, press and release the Go button.</p>
10023		<p>Processing Data</p> <p>The printer is processing or receiving data.</p>	<p>To cancel the current job, press the Cancel button.</p>

Table 7-3 Control-panel status light patterns (continued)

Error code	Pattern	Description	Action
41000		<p>Manual Feed or Continuable Error</p> <p>This state can be reached in the following circumstances:</p> <ul style="list-style-type: none"> • Manual feed • General continuable error • Memory configuration error • Personality/Job-related error 	<p>To recover from the error and print whatever data is possible, press the Go button.</p> <p>If the recovery is successful, the printer goes to the Processing Data state and completes the job.</p> <p>If the recovery is unsuccessful, the printer returns to the Continuable Error state.</p>
40021		<p>Attention</p> <p>The print-cartridge door is open.</p>	<p>Close the print-cartridge door.</p>

Table 7-3 Control-panel status light patterns (continued)

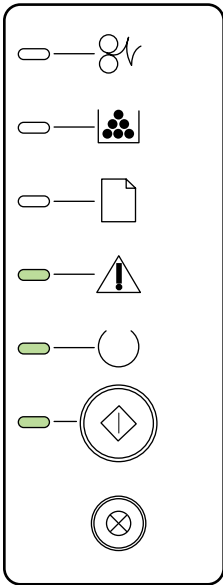
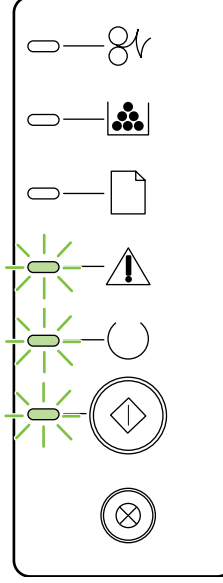
Error code	Pattern	Description	Action
50003		Fatal Error	<ul style="list-style-type: none"> • Turn off the printer, wait 10 seconds, and turn on the printer. • Unplug the printer for five minutes. Then plug it back in and turn the power on. • If you are unable to resolve the problem, contact HP.
50005			
50006			
50007			
5000X			
		Accessory Error	<p>To display additional error information, press the Go button. The light pattern changes. When you release the Go button, the printer returns to the initial Accessory Error state.</p>

Table 7-3 Control-panel status light patterns (continued)

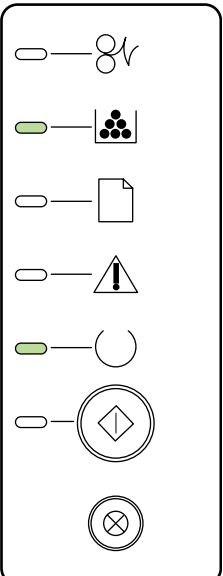
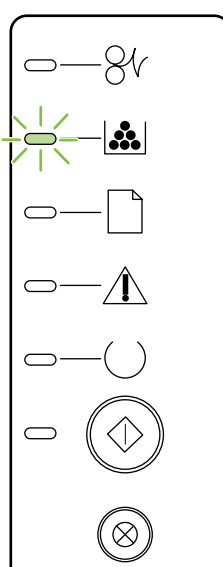
Error code	Pattern	Description	Action
	 <p>The diagram shows a vertical column of seven indicator lights. From top to bottom: 1. Go light (off), 2. Ready light (on), 3. Attention light (off), 4. Toner light (off), 5. Paper light (off), 6. Error light (off), 7. A small circular light with an 'X' (off).</p>	<p>Toner Low</p> <p>The Go, Ready, and Attention lights act independently of the Toner Low state.</p>	<p>Order a new print cartridge and have it ready.</p>
	 <p>The diagram shows a vertical column of seven indicator lights. From top to bottom: 1. Go light (off), 2. Ready light (on), 3. Attention light (off), 4. Toner light (flashing), 5. Paper light (off), 6. Error light (off), 7. A small circular light with an 'X' (off).</p>	<p>Toner Missing</p> <p>The print cartridge has been removed from the printer.</p>	<p>Reinsert the print cartridge in the printer.</p>

Table 7-3 Control-panel status light patterns (continued)

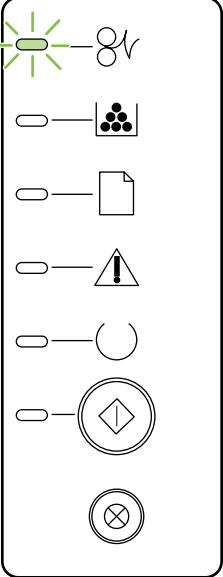
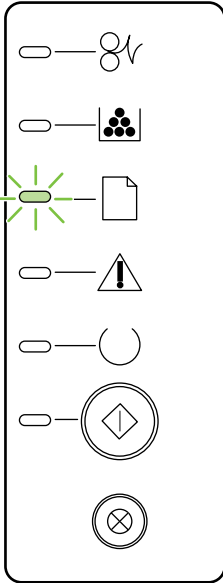
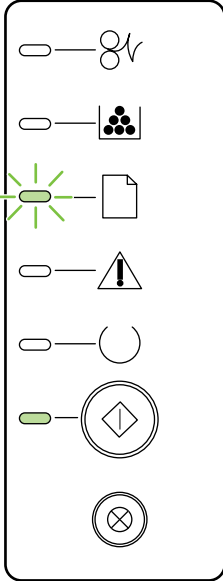
Error code	Pattern	Description	Action
40022		Jam	Clear the jam.

Table 7-3 Control-panel status light patterns (continued)

Error code	Pattern	Description	Action
41900		Paper Out	Load paper or other media.
		Paper Mount The loaded paper or other media is not supported.	Load acceptable paper or other media. Press the Go button to override the condition.

Fatal error secondary messages

If the printer has a fatal error, press and hold the **Go** button to see a secondary error message.

Table 7-4 Fatal error secondary messages

Error code	Pattern	Description	Action
79XXX		General fatal error	<ol style="list-style-type: none"> 1. Turn the printer off, and then turn the printer on again. 2. If the error persists, disconnect the I/O cable and print an engine test. If the self-test is successful, reconnect the I/O cable. 3. If the error persists, replace the formatter.
55 50007		Engine error. The formatter and engine are not communicating.	<ol style="list-style-type: none"> 1. Unplug the printer, and then plug it in again. 2. Reseat the formatter cable in the ECU. 3. If the error persists, replace the formatter. 4. If, after replacing the formatter, the error persists, replace the ECU.

Table 7-4 Fatal error secondary messages (continued)

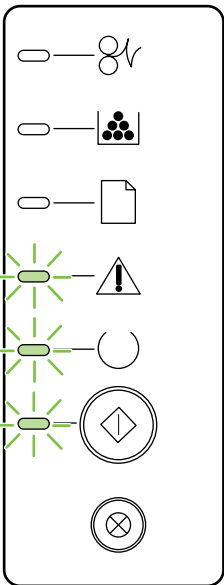
Error code	Pattern	Description	Action
52		<p>Laser/scanner error. The laser/scanner has a malfunction.</p>	<ol style="list-style-type: none"> 1. Check the laser/scanner cable connections. 2. If the error persists, replace the laser/scanner.
50005			

Table 7-4 Fatal error secondary messages (continued)

Error code	Pattern	Description	Action
57		Fan motor error	<ol style="list-style-type: none"> 1. Check the fan cable connections. 2. If the error persists, replace the fan.
50XXX		Fuser error. The fuser has a malfunction.	<ol style="list-style-type: none"> 1. Unplug the printer for at least ten minutes, and then plug it in again. 2. Verify that the fuser connector and thermistor connector are both firmly seated in the ECU 3. Perform a heating element resistance check. 4. If the resistance readings are correct, but the error persists, replace the fuser.

Accessory error secondary messages

Table 7-5 Accessory error secondary messages

Error code	Pattern	Description	Action
		Accessory error	<p>If the printer has an accessory error, press and hold the Go button to see the secondary error message. Release the Go button to return to the initial accessory error state.</p>

Media problem solving

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

Problem	Cause	Solution
Poor print quality or toner adhesion	The paper is too moist, too rough, too heavy or too smooth, or it is embossed or from a faulty paper lot.	Try another kind of paper, between 100 and 250 Sheffield, with 4 to 6% moisture content.
Dropouts, jamming, or curl	The paper has been stored incorrectly.	Store paper flat in its moisture-proof wrapping.
	The paper has variability from one side to the other.	Turn the paper over.
Excessive curl	The paper is too moist, has the wrong grain direction, or is of short-grain construction	Open the rear output bin, or use long-grain paper.
	The paper varies from side-to-side.	Turn the paper over.
Jamming, damage to printer	The paper has cutouts or perforations.	Use paper that is free of cutouts or perforations.
Problems with feeding	The paper has ragged edges.	Use high-quality paper that is made for laser printers.
	The paper varies from side-to-side.	Turn the paper over.
	The paper is too moist, too rough, too heavy or too smooth, has the wrong grain direction, or is of short-grain construction or it is embossed or from a faulty paper lot.	Try another kind of paper, between 100 and 250 Sheffield, 4 to 6% moisture content. Open the rear output bin, or use long-grain paper.
Print is skewed (crooked).	The media guides might be incorrectly adjusted.	Remove all media from the input tray, straighten the stack, and then load the media in the input tray again. Adjust the media guides to the width and length of the media that you are using and try printing again.
More than one sheet feeds at one time.	The media tray might be overloaded.	Remove some of the media from the tray. See Load media on page 9 .
	The media might be wrinkled, folded, or damaged.	Verify that the media is not wrinkled, folded, or damaged. Try printing on media from a new or different package.
The printer does not pull media from the media input tray.	The printer might be in manual-feed mode.	Verify that the printer is not in manual feed mode and print your job again.
	The pickup roller might be dirty or damaged.	Contact HP Customer Care. See HP Customer Care on page 233 or the support flyer that came in the box.
	The paper-length adjustment control in tray 2 or optional tray 3 is set at a length that is greater than the media size.	Adjust the paper-length adjustment control to the correct length.
The printer does not pull media from the media input tray when using the automatic two-sided printing feature.	The automatic two-sided printing media-size selector is not set to the correct page size.	Push in the media selector for letter/legal-size media. Pull out the media-

Problem	Cause	Solution
		size selector for A4-size media. See Identify product parts on page 3 for the location of the automatic two-sided printing media-size selector.

Printed page is different than what appeared on screen

Choose the item that best describes the problem:

- [Garbled, incorrect, or incomplete text on page 137](#)
- [Missing graphics or text, or blank pages on page 137](#)
- [Page format is different than on another HP LaserJet printer on page 138](#)
- [Graphics quality on page 138](#)

Garbled, incorrect, or incomplete text

- The wrong printer driver might have been selected when the software was installed. Make sure that the HP LaserJet P2014 printer driver is selected in the printer Properties.
- If a specific file prints garbled text, there might be a problem with that specific file. If a specific application prints garbled text, there might be a problem with that application. Make sure that the appropriate printer driver is selected.
- There might be a problem with your software application. Try printing from another software application.
- The USB cable might be loose or defective. Try the following:
 - Disconnect the cable and reconnect it at both ends.
 - Try printing a job that you know works.
 - If possible, attach the cable and printer to another computer, and try printing a job that you know works.
 - Try using a new USB 2.0 cable that is 3 m (10 ft) or less. See [Supplies and accessories table on page 226](#).
 - Turn off the printer and the computer. Remove the USB cable, and inspect both ends of the cable for damage. Reconnect the cable, making sure that the connections are tight. Make sure that the printer is directly connected to the computer. Remove any switchboxes, tape backup drives, security keys, or any other devices that are attached between the USB port on the computer and the printer. These devices can sometimes interfere with communication between the computer and the printer. Restart the printer and the computer.

Missing graphics or text, or blank pages

- Make sure that your file does not contain blank pages.
- The sealing tape might still be in the print cartridge. Remove the print cartridge, and pull the tab on the end of the cartridge until the entire length of the tape is removed. Reinstall the print cartridge. See [Replace the print cartridge on page 28](#) for instructions. To check the printer, print a demo page by pressing the **Go** button when the Ready light is on and no other jobs are printing.
- The graphic settings in the printer Properties might not be correct for the type of job that you are printing. Try a different graphic setting in the printer Properties. See [Configure the Windows](#)

[printer driver on page 17](#) or [Configure the Macintosh printer driver on page 19](#) for more information.

- Clean the printer, particularly the contacts between the print cartridge and the power supply.

Page format is different than on another HP LaserJet printer

If you used an older or different HP LaserJet printer driver (printer software) to create the document, or if the printer Properties settings in the software are different, the page format might change when you try to print using your new printer driver or settings. To help eliminate this problem, try the following:

- Create documents and print them using the same printer driver (printer software) and printer Properties settings regardless of which HP LaserJet printer you use to print them.
- Change the resolution, paper size, font settings, and other settings. See [Configure the Windows printer driver on page 17](#) or [Configure the Macintosh printer driver on page 19](#) for more information.

Graphics quality

The graphics settings might be unsuitable for your print job. Check the graphic settings, such as resolution, in the printer Properties and adjust them as necessary. See [Configure the Windows printer driver on page 17](#) or [Configure the Macintosh printer driver on page 19](#) for more information.



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

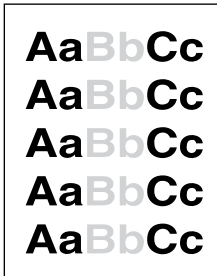
Improve print quality

This section provides information about identifying and correcting print defects.



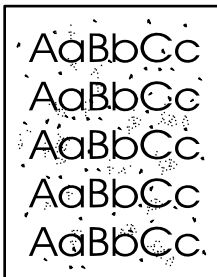
NOTE: If these steps do not correct the problem, contact an HP-authorized dealer or service representative.

Light print or faded



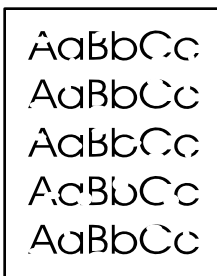
- The print cartridge is nearing end of life.
- The media might not meet Hewlett-Packard's media specifications (for example, the media is too moist or too rough).
- If the whole page is light, the print density adjustment is too light or EconoMode might be turned on. Adjust the print density, and disable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

Toner specks



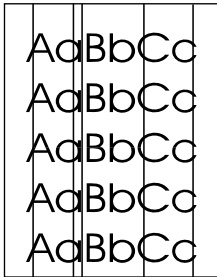
- The media might not meet Hewlett-Packard's media specifications (for example, the media is too moist or too rough).
- The printer might need to be cleaned.

Dropouts



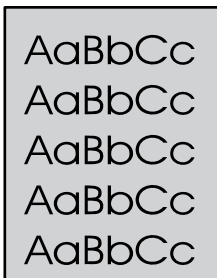
- A single sheet of media might be defective. Try reprinting the job.
- The media moisture content is uneven or the media has moist spots on its surface. Try printing with new media.
- The media lot is bad. The manufacturing processes can cause some areas to reject toner. Try a different type or brand of media.
- The print cartridge might be defective.

Vertical lines



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

Gray background



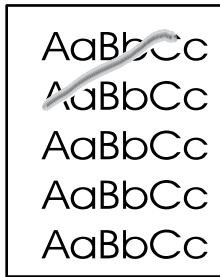
- Make sure that tray 1 is in place.
 - Change the media to a lighter basis weight.
 - Check the printer's environment. Very dry (low humidity) conditions can increase the amount of background shading.
 - Install a new HP print cartridge.
-

Toner smear



- If toner smears appear on the leading edge of the media, the media guides might be dirty. Wipe the media guides with a dry, lint-free cloth.
 - Check the media type and quality.
 - Try installing a new HP print cartridge.
 - The fuser temperature might be too low. In your printer driver, make sure the appropriate media type is selected.
-

Loose toner



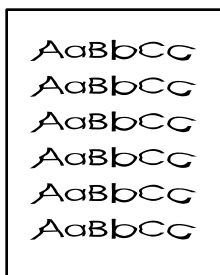
- Clean the inside of the printer.
 - Check the media type and quality.
 - Try installing a new HP print cartridge.
 - In your printer driver, make sure the appropriate media type is selected.
 - Plug the printer directly into an AC outlet instead of into a power strip.
-

Vertical repetitive defects



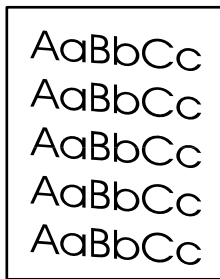
- The print cartridge might be damaged. If a repetitive mark occurs at the same spot on the page, install a new HP print cartridge.
 - The internal parts might have toner on them. If the defects occur on the back of the page, the problem will probably correct itself after a few more printed pages.
 -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

Misformed characters



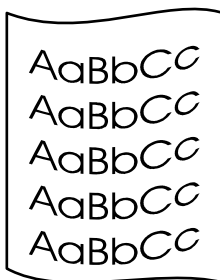
- If characters are improperly formed, producing hollow images, the media stock might be too slick. Try a different media.
 - If characters are improperly formed, producing a wavy effect, the printer might need service. Print a configuration page. If the characters are improperly formed, contact an HP-authorized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

Page skew



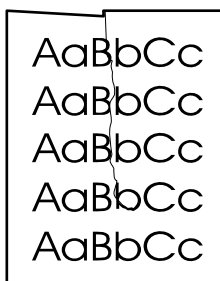
- Make sure that the media is loaded correctly and the media guides are not too tight or too loose against the media stack.
 - The input bin might be too full.
 - Check the media type and quality.
-

Curl or wave



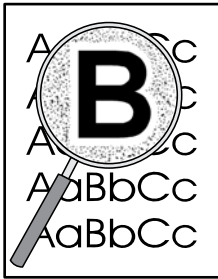
- Check the media type and quality. Both high temperature and high humidity cause media to curl.
 - The media might have been in the input tray too long. Turn over the stack of media in the tray. Also, try rotating the media 180° in the input tray.
 - Open the straight-through output door and try printing straight through.
 - The fuser temperature might be too high. In your printer driver, make sure the appropriate media type is selected. If the problem persists, select a media type that uses a lower fuser temperature, such as transparencies or light media.
-

Wrinkles or creases



- Make sure that media is loaded properly.
 - Check the media type and quality.
 - Open the straight-through output door and try printing straight through.
 - Turn over the stack of media in the tray. Also, try rotating the media 180° in the input tray.
 - For envelopes, this can be caused by air pockets inside the envelope. Remove the envelope, flatten the envelope, and try printing again.
-

Toner scatter outline



- If large amounts of toner have scattered around the characters, the media might be resisting the toner. (A small amount of toner scatter is normal for laser printing.) Try a different media type.
- Turn over the stack of media in the tray.
- Use media that is designed for laser printers.

Repetitive image defects

If the printer output has a consistent, repetitive defect, then use [Table 7-6 Repetitive image defects on page 143](#) to determine which part needs to be replaced based on the measured distance between the repetitions of the defect.

Table 7-6 Repetitive image defects

Distance between identical defects	Dirty or damaged roller	Solution
37.7 mm (1.48 inches)	Primary charging roller	Replace the print cartridge.
43.0 mm (1.69 inches)	Registration roller	Replace the registration assembly.
44.0 mm (1.73 inches)	Developing cylinder	Replace the print cartridge.
46.2 mm (1.82 inches)	Transfer roller	Replace the transfer roller.
56.5 mm (2.22 inches)	Fuser film	Replace the fuser.
69.0 mm (2.72 inches)	Pressure roller	Replace the fuser.
75.4 mm (2.97 inches)	Photosensitive drum	Replace the print cartridge.

Clear jams

Occasionally, media becomes jammed during a print job. You are notified of a media jam by an error in the software and the printer control panel lights. See [Status-light patterns on page 124](#) for more information.

The following are some of the causes of media jams:

- The input trays are loaded improperly or too full. See [Load media on page 9](#) for more information.



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

- The media does not meet HP specifications. See [Supported paper and print media sizes on page 6](#) for more information.
- The printer might need to be cleaned to remove paper dust and other particles from the paper path. See [Clean the printer on page 31](#) for instructions.

There might be loose toner in the printer after a media jam. This toner clears up after a few sheets print.



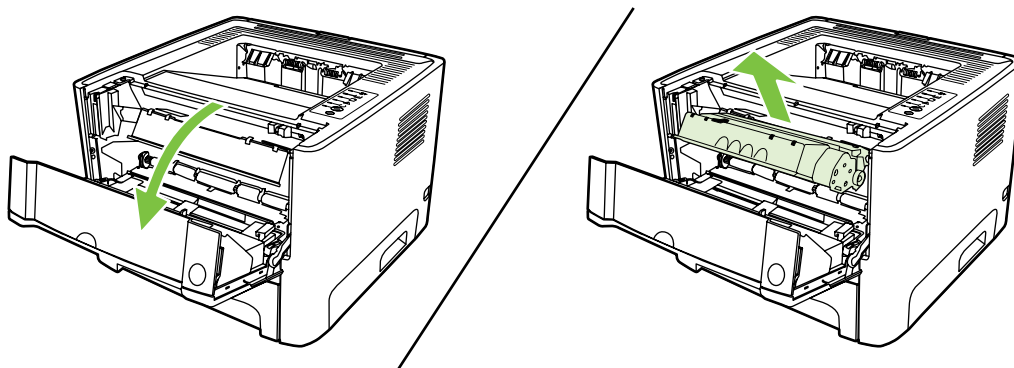
CAUTION: Media jams might result in loose toner on the page. If you get any toner on your clothes, wash them in cold water. *Hot water will permanently set the toner into the fabric.*

CAUTION: Do not use sharp objects, such as tweezers or needlenose pliers, to remove jams. Damage caused by sharp objects is not covered by the warranty.

Print-cartridge area

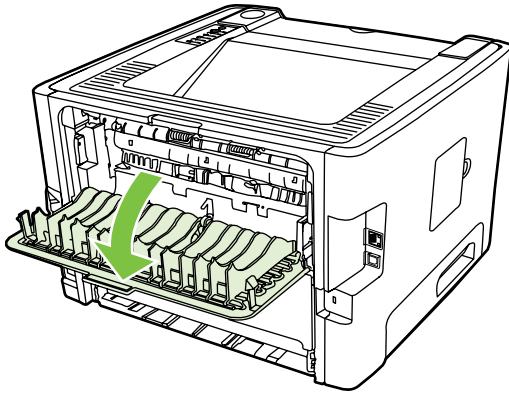
To clear a jam in the print-cartridge area, perform the following steps:

1. Press the print-cartridge-door button, and then remove the print cartridge from the printer.

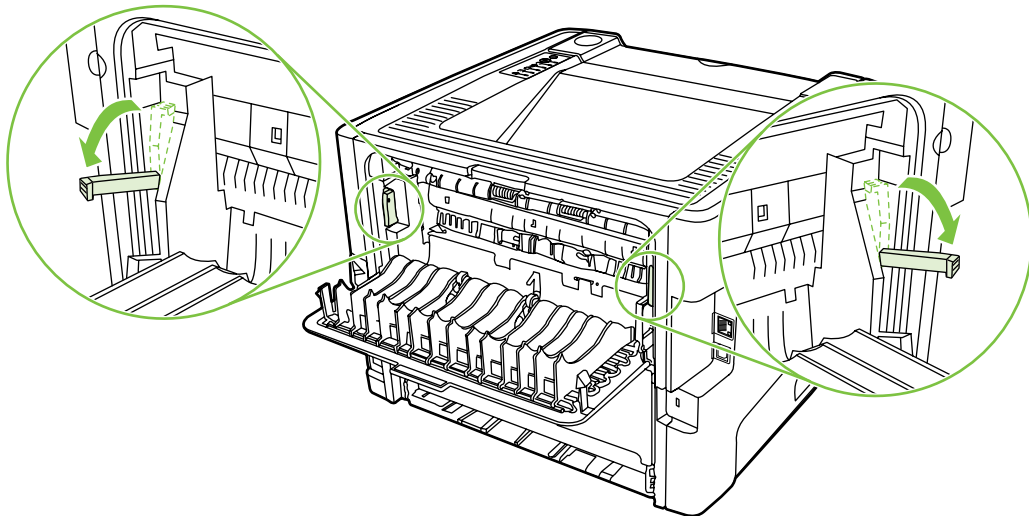


CAUTION: To prevent damage to the print cartridge, minimize its exposure to direct light.

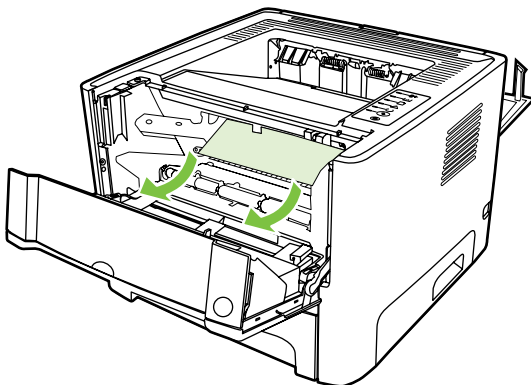
2. Open the straight-through output door.



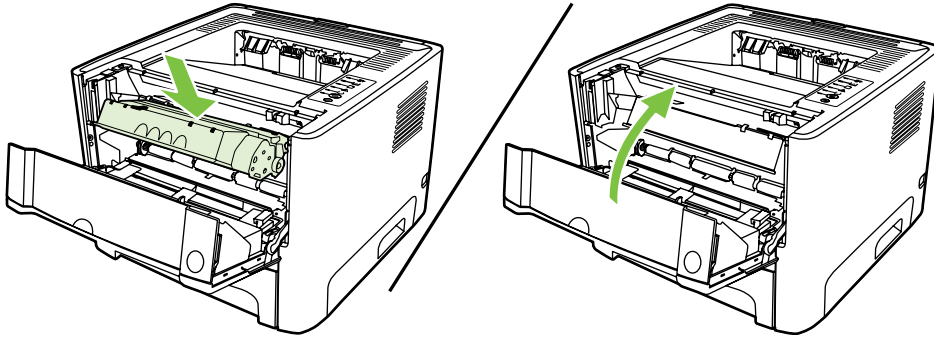
3. Pull down the green pressure-release levers.



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



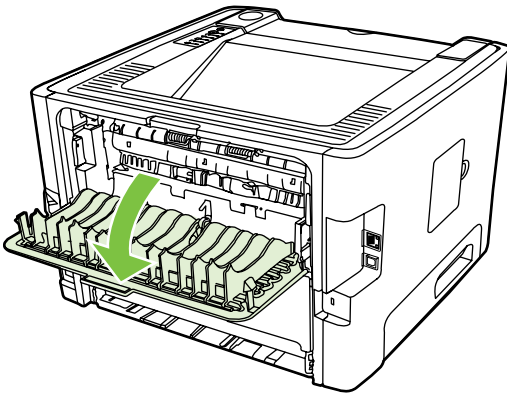
5. Replace the print cartridge, and close the print-cartridge door.



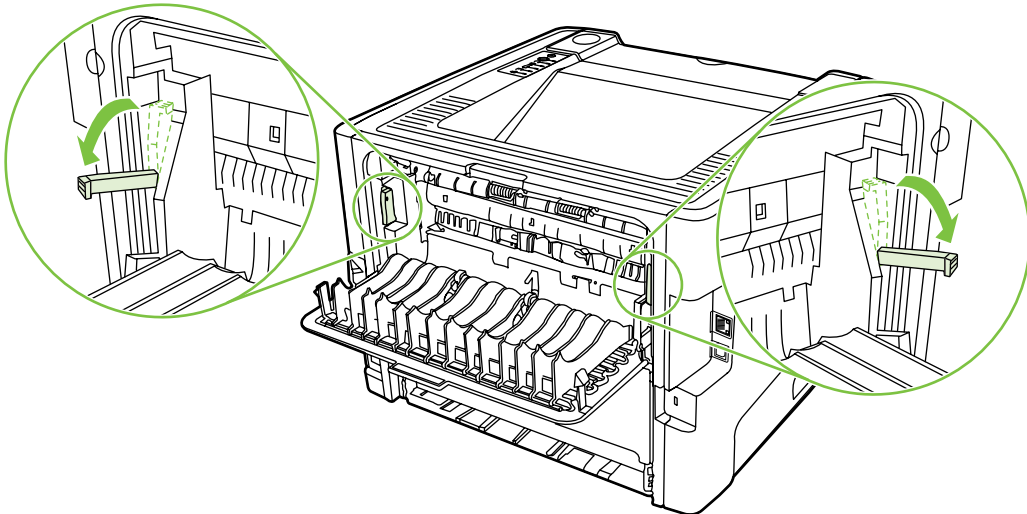
Input trays

To clear a jam in the input trays, perform the following steps:

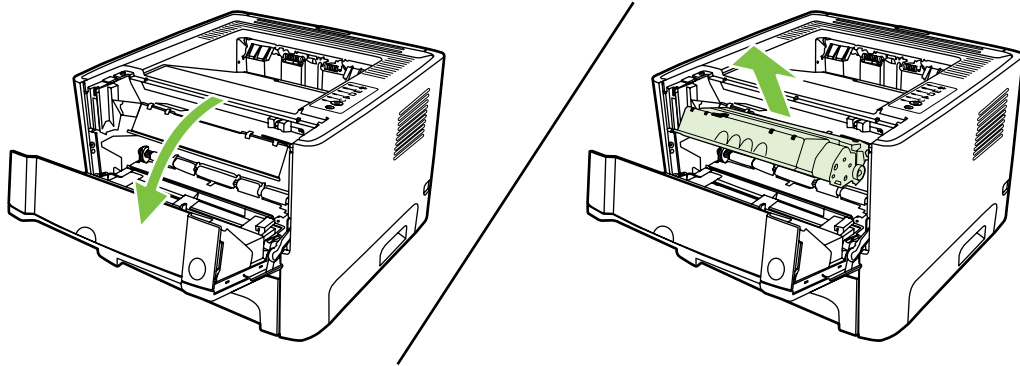
1. Open the straight-through output door.



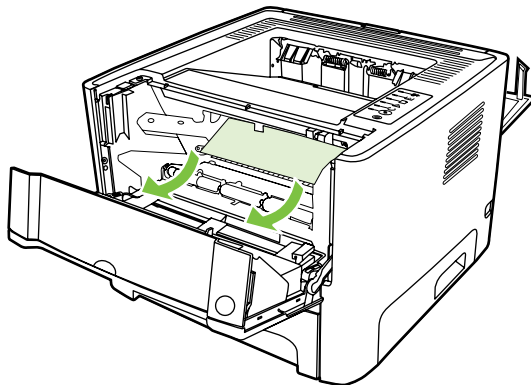
2. Pull down the green pressure-release levers.



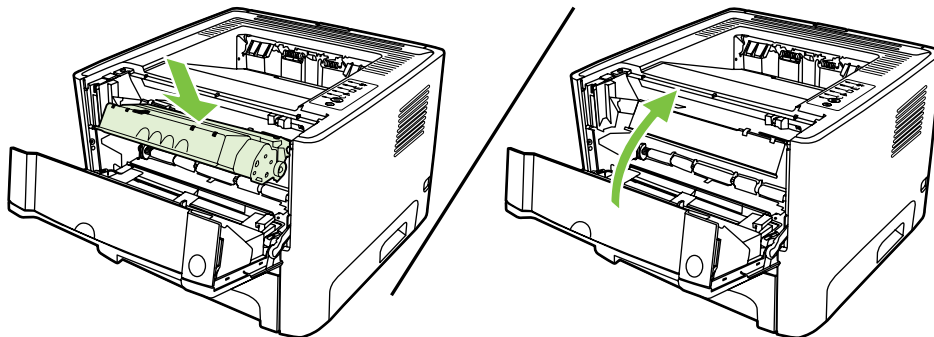
3. Press the print-cartridge-door button, and then remove the print cartridge from the printer.



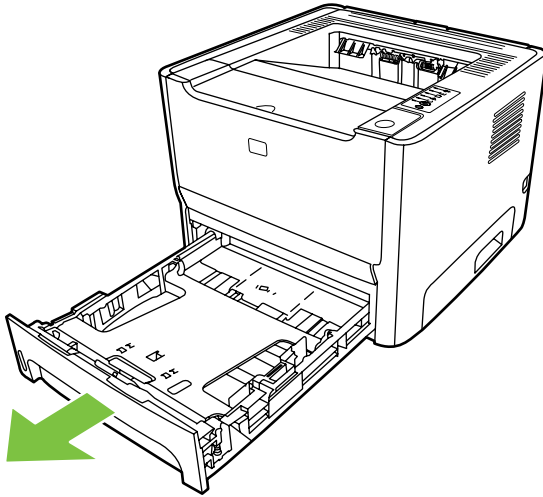
4. With both hands, grasp the side of the media that is most visible (this includes the middle), and carefully pull it free from the printer.



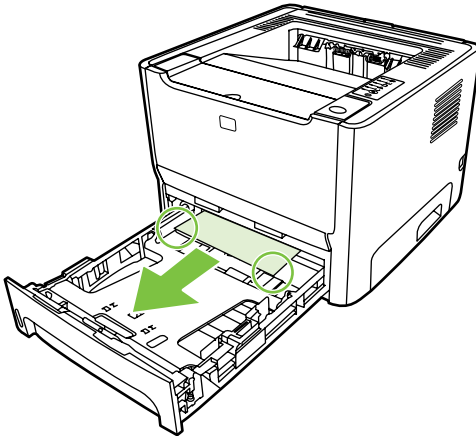
5. Insert the print cartridge in the printer and close the print-cartridge door.



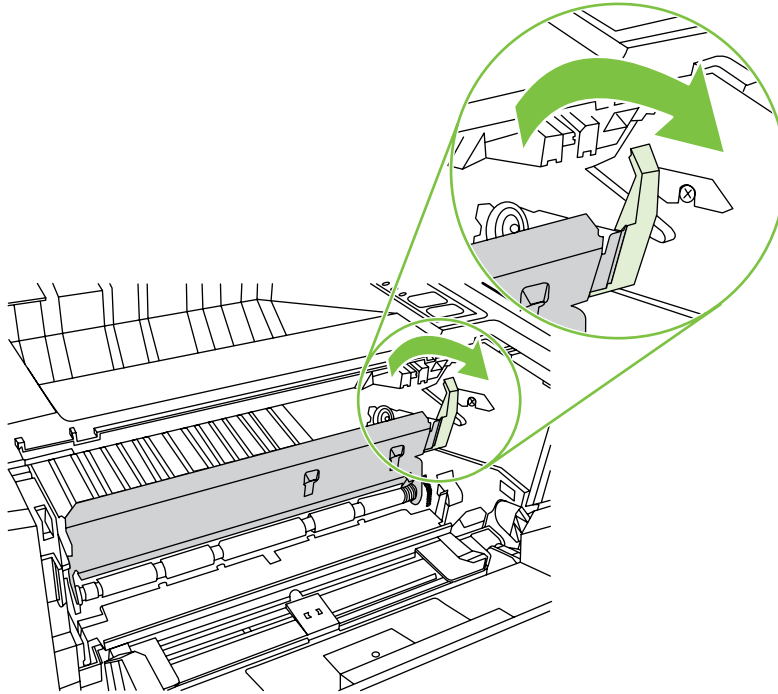
6. Open tray 2.



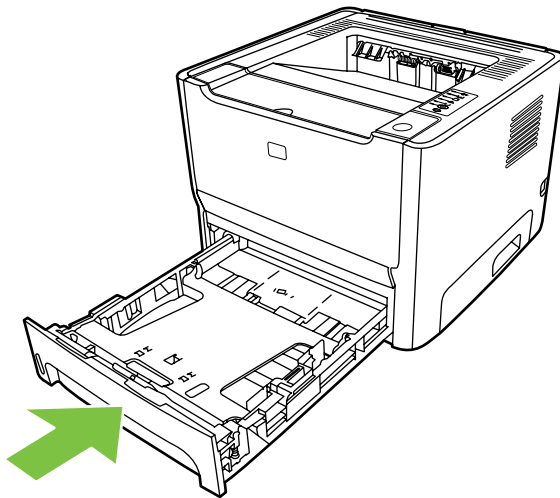
7. With both hands, grasp the side of the media that is most visible (this includes the middle), and carefully pull it free from the printer.



8. If no media is visible, open the print-cartridge door, remove the print cartridge, and pull down the upper media guide. Carefully pull the media up and out of the printer.

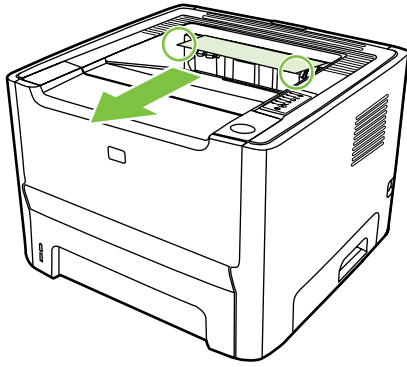


9. Close tray 2.



Output bin

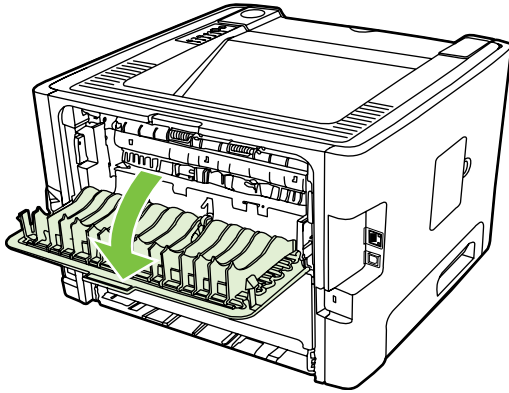
With both hands, grasp the side of the media that is most visible (this includes the middle), and carefully pull it free from the printer.



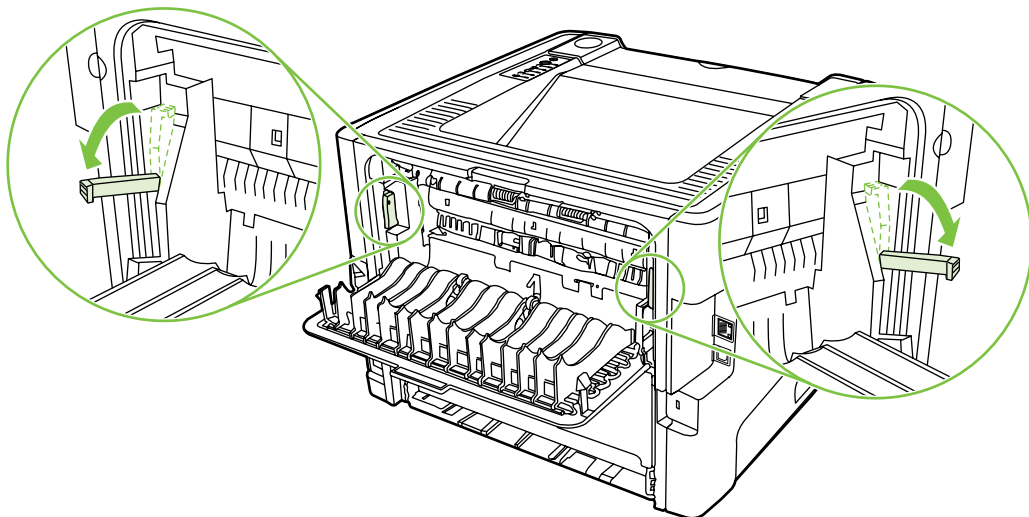
Straight-through output path

To clear a jam in the straight-through output path, perform the following steps:

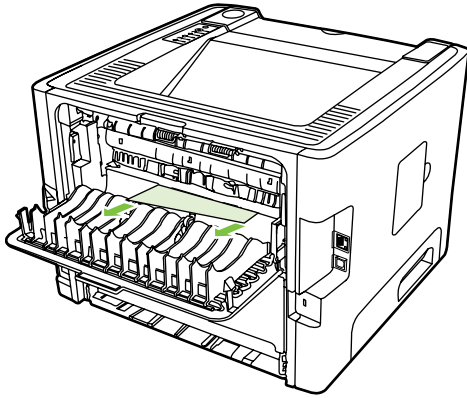
1. Open the straight-through output door.



2. Pull down the green pressure-release levers.

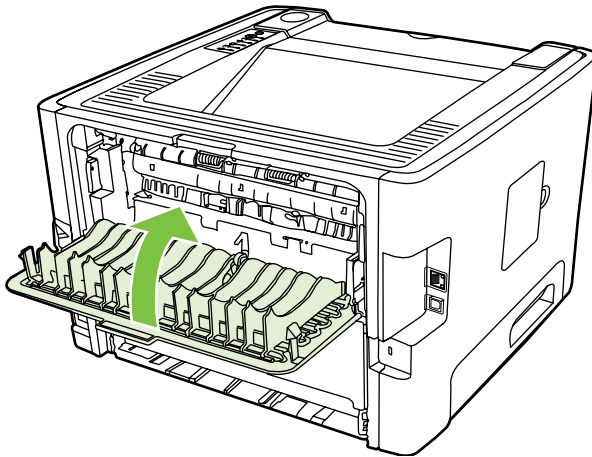


3. With both hands, grasp the side of the media that is most visible (this includes the middle), and carefully pull it free from the printer.



NOTE: If you cannot grasp the media with your hands, perform the procedure in [Print-cartridge area on page 144](#).

4. Close the straight-through output door.



Diagnostic resources

Engine test

The engine test verifies that the print engine is functioning correctly. During the test, the printer prints horizontal lines down the entire printable area of a page. The formatter is bypassed during the engine test.



NOTE: The formatter must be connected to the ECU to perform an engine test.

1. Remove the left side cover.
2. Press the engine-test switch. A single test page prints.

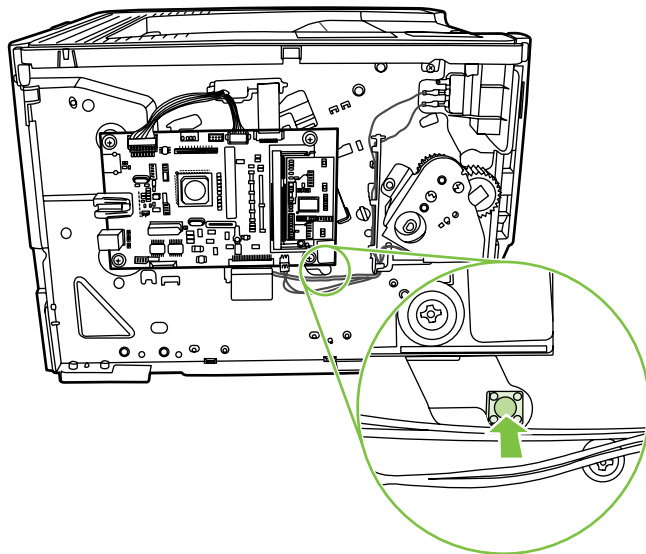


Figure 7-1 Location of engine-test switch

Continuous self-test

The continuous self-test puts the device into a continuous printing mode without having to send jobs to it.

1. Turn off the printer.
2. Press and hold the **Go** button.
3. Turn on the printer and continue to hold the **Go** button for approximately 20 seconds, but no longer than 30 seconds, until the **Attention** and **Ready** lights illuminate.
4. Release the **Go** button.



NOTE: If the **Attention**, **Ready**, and **Go** lights illuminate before you release the **Go** button, start again at step 1.

5. The **Ready** light starts blinking, indicating that the device is performing a continuous self-test.

To terminate the continuous self-test, press the **Cancel** button.

Half self-test functional check

The half self-test check determines which printing process is malfunctioning.

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

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

1. Make sure you removed the entire length of the sealing tape from the print cartridge before you installed the cartridge.
2. Perform a drum rotation functional check to ensure that the drum is rotating.
3. Perform a high-voltage contacts check.

Drum rotation functional check

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



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

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

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

Heating element check

Paper passes between the heating element and a soft pressure roller to fuse toner to the paper.

1. Unplug the printer for at least ten minutes.
2. Verify that the thermistor connector is seated into both the printer chassis and the ECU.

3. Remove the heating element connector from the ECU. To measure the continuity of the heating element, measure the resistance between the two pins at the end of the cable.



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

If no resistance is measured, replace the fuser.

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



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

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

High-voltage contacts check

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

Checking the print cartridge contacts

Remove the print cartridge and visually inspect the three connection points on the ends of the print cartridge: drum ground (1), charging (2), and developing roller (3). If one is dirty or corroded, clean the connection with isopropyl alcohol. If one is damaged, replace the print cartridge.

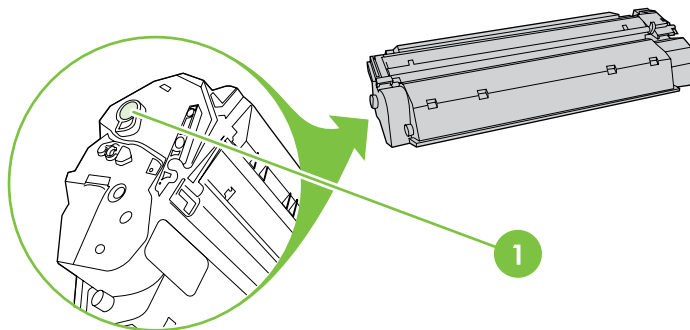


Figure 7-2 Print cartridge high-voltage connection points (right side)

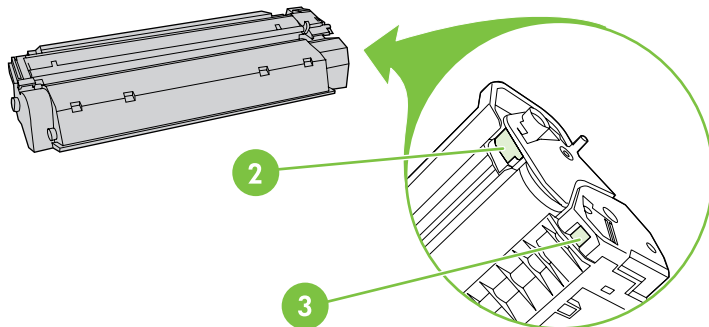


Figure 7-3 Print cartridge high-voltage connection points (left side)





CAUTION: After removing the print cartridge, handle it only on the ends.

Checking the high-voltage connector assembly

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

Printer software problems

Table 7-7 Printer software problems

Problem	Solution
A printer driver for the HP LaserJet P2014 Series printer is not visible in the Printer folder	<ul style="list-style-type: none">● Reinstall the printer software. In the Windows task bar, click Start, click Programs, click HP LaserJet P2014, and then click Uninstall. Turn the printer off. Install the printer software from the CD-ROM. Turn the printer on again. <hr/> <p> NOTE: Close any applications that are running. To close an application that has an icon in the system tray, right-click the icon, and select Close or Disable.</p> <hr/> <ul style="list-style-type: none">● Try plugging the USB cable into a different USB port on the PC.● If you are trying to print to a shared printer, in the Windows task bar, click Start, select Settings, and select Printers. Double-click the Add Printer icon. Follow the instructions in the Add Printer Wizard.
An error message was displayed during the software installation	<ul style="list-style-type: none">● Reinstall the printer software. In the Windows task bar, click Start, click Programs, click HP LaserJet P2014, and then click Uninstall. Turn the printer off. Install the printer software from the CD-ROM. Turn the printer on again. <hr/> <p> NOTE: Close any applications that are running. To close an application that has an icon in the task bar, right-click the icon, and select Close or Disable.</p> <hr/> <ul style="list-style-type: none">● Check the amount of free space on the drive where you are installing the printer software. If necessary, free up as much space as you can, and reinstall the printer software.● If necessary, run the Disk Defragmenter, and reinstall the printer software.
The printer is in Ready mode, but nothing prints	<ul style="list-style-type: none">● Print a Configuration page from the control panel of the printer, and verify the printer functionality.● Verify that all of the cables are properly seated and within specifications. This includes the USB, network, and power cables. Try a new cable.

Network-setup problem-solving

If the computer cannot discover the networked device, perform the following steps:

1. Check the cables to ensure that they are properly connected. Check all of the following connections:
 - Power cables
 - Cables between the device and the hub or switch
 - Cables between the hub or switch and the computer
 - Cables to and from the modem or Internet connection, if applicable
2. Verify that the computer's network connections are working properly (Windows only):
 - On the Windows desktop, double-click **My Network Places** or **Network Neighborhood**.
 - Click the **Entire Network** link.
 - Click the **Entire Contents** link.
 - Double-click one of the network icons, and make sure that some devices are listed.
3. Verify that the network connection is active:
 - Check the network light on the network (RJ-45) connector on the back of the device.
 - If one of the lights is on solid, the device is connected to the network.
 - If both network lights are off, check the cable connections from the device to the gateway, switch, or hub to ensure that the connections are secure.
 - If the connections are secure, turn off the power to the device for at least 10 seconds, and then turn on the power to the device.
4. Print a Configuration page. See [Configuration page on page 21](#).
 - On the Configuration page, see if a non-zero IP address is assigned to the device.
 - If the Configuration page does not have a valid, non-zero IP address, reset the HP internal network port to the factory defaults by turning the printer off and then pressing and holding the **Go** and **Cancel** buttons at the same time for ten seconds while powering the printer back on.

After the Attention, Ready, and Go lights finish cycling, the device returns to a Ready state and the reset is complete.
 - Two minutes after the device reaches the Ready state, print another Configuration page, and check to see if a valid IP address is assigned to the device.
 - If the IP address is still zeros, contact HP support. See [HP Customer Care on page 233](#).

Reset the printer

NVRAM initialization



CAUTION: Only perform the following procedure if absolutely necessary. Performing an NVRAM initialization resets some parameters that cannot be restored later.

NVRAM initialization sets all default variables stored in NVRAM back to factory default values or to a default ROM value, depending on the variable. It also performs a system reset.

NVRAM initialization resets the following:

- All menu settings to factory default values
- Factory settings such as formatter number, page counts, and factory paper settings

Use the following procedure to perform an NVRAM initialization.

1. Turn the printer off.
2. Press and hold down the **Go** button.
3. Turn the printer on, and continue to hold the **Go** button for at least 20 seconds. During this process, the **Go** button, **Attention**, and **Ready** LEDs each turn on.
4. Release the **Go** button.

The printer lights begin cycling. After the NVRAM initialization is complete, the printer returns to the ready state.

Super NVRAM initialization

This feature is similar to NVRAM initialization, except all of NVRAM is re-initialized (including the configuration parameters not reset by an NVRAM initialization).

Use the following procedure to perform an NVRAM initialization.

1. Turn off the printer.
2. Press and hold the **Go** button.
3. Turn on the printer and continue to hold the **Go** button for at least 50 seconds. During this process, the **Attention**, **Ready**, **Go** lights turn on. Then the **Attention** and **Ready** lights turn off, leaving only the **Go** light illuminated.
4. Release the **Go** button. The **Go**, **Ready** and **Attention** lights turn on.
5. Press and hold the **Go** button. All lights turn off. During the next three seconds, the **Go**, **Ready** and **Attention** lights turn on in that order, one per second.
6. Release the **Go** button to perform the initialization. The control panel lights begin cycling from front to back. After the Super NVRAM initialization process is complete, the printer returns to the ready state.

Network reset

A network reset changes all network system parameters in NVRAM to the factory defaults. During the network-reset process, all button presses are ignored.

Use the following procedure to perform a network reset.

1. Turn off the printer.
2. Press and hold the **Job Cancel** button.
3. Turn on the printer and continue to hold the **Job Cancel** button for approximately 10 seconds, but no longer than 20 seconds. During this process, the **Attention** light turns on.
4. Release the **Job Cancel** button. The **Attention**, **Ready**, and **Go** lights begin cycling from front to back. After the network-reset process is complete, the device returns to the ready state.



NOTE: If the **Attention** and **Ready** lights illuminate before you release the **Job Cancel** button, start again at step 1.

Cold reset

A cold reset changes most system parameters in NVRAM to the factory defaults. However, unlike NVRAM initialization, a cold reset does not reset the page count, the paper tray sizes, language, or formatter number.



NOTE: A cold reset also resets all the HP Jetdirect settings as well as the printer settings.

Use the following procedure to perform a cold reset.

1. Turn off the printer.
2. Press and hold the **Go** button.
3. Turn the printer on, and continue to hold the **Go** button for at least 5 seconds, but not longer than 15 seconds. During this process, the **Attention** LED turns on.
4. Release the **Go** button.



NOTE: If both the **Attention** and the **Ready** LEDs turn on before you release the **Go** button, you must start the procedure again with step 1.

The printer's LEDs begin cycling. The cold-reset process runs until completion, and the printer returns to the ready state.

Troubleshooting tools and reference diagrams

General timing chart

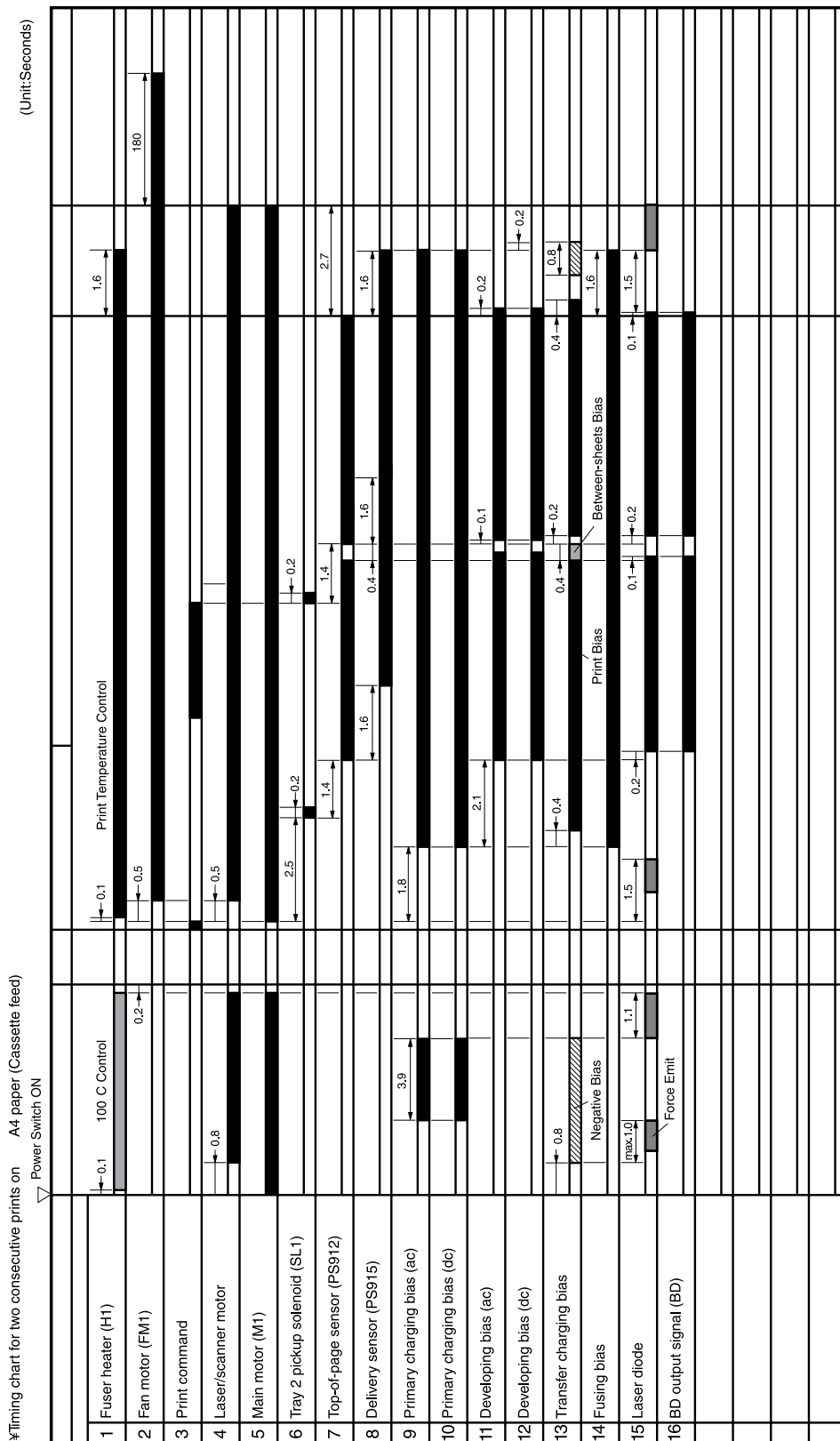


Figure 7-4 General timing chart

Circuit diagram

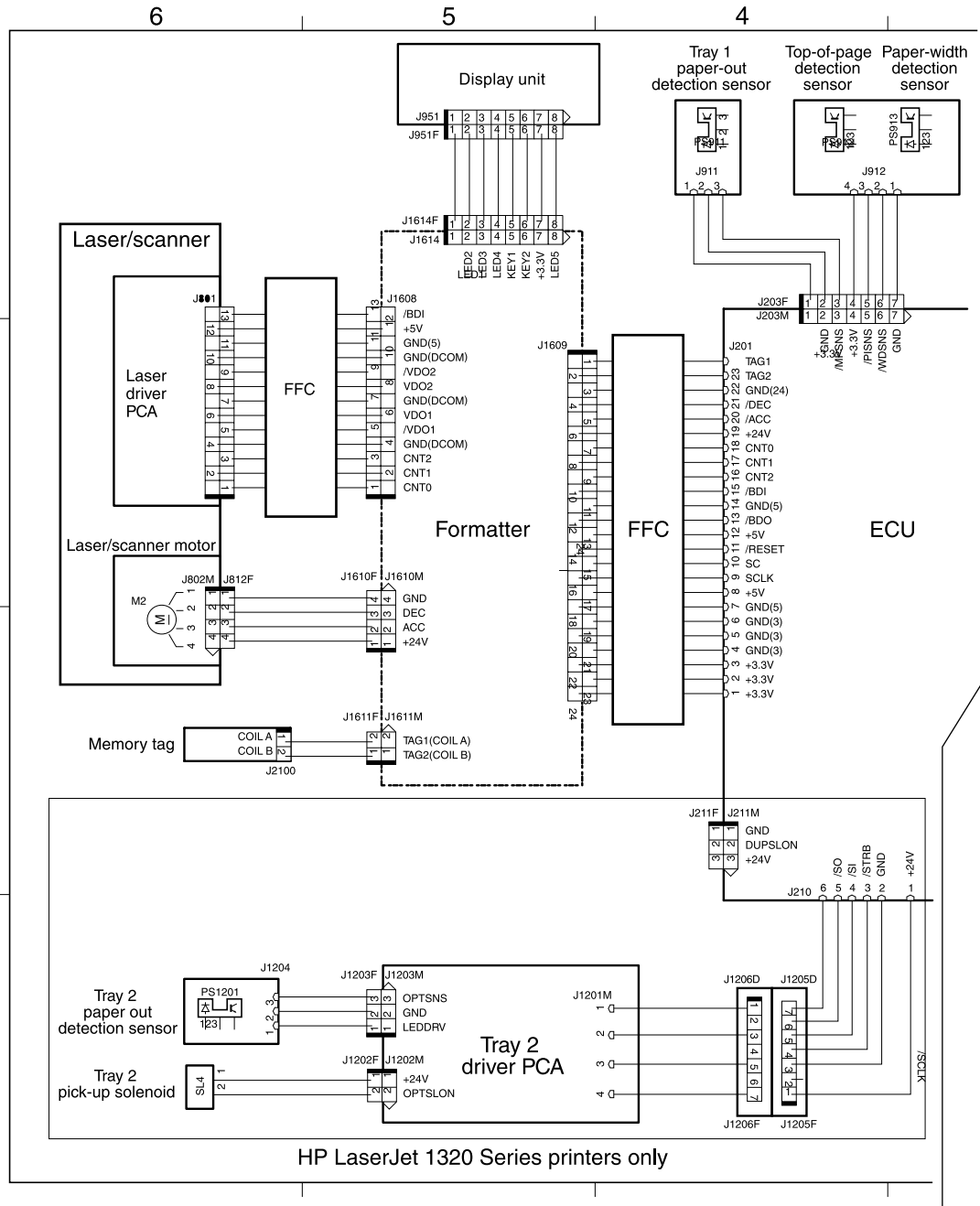


Figure 7-5 Circuit diagram (1 of 2)

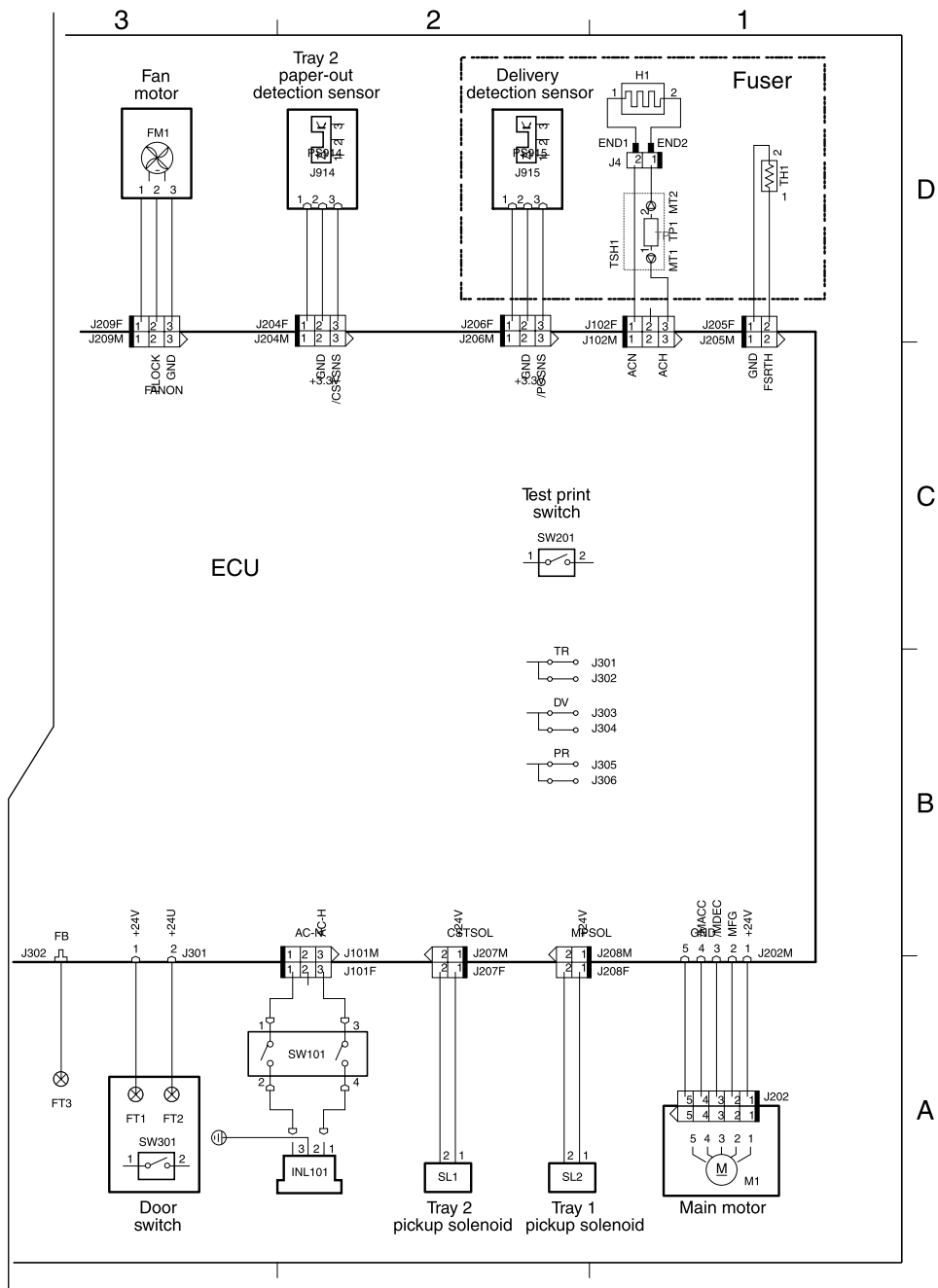


Figure 7-6 Circuit diagram (2 of 2)

Solenoids

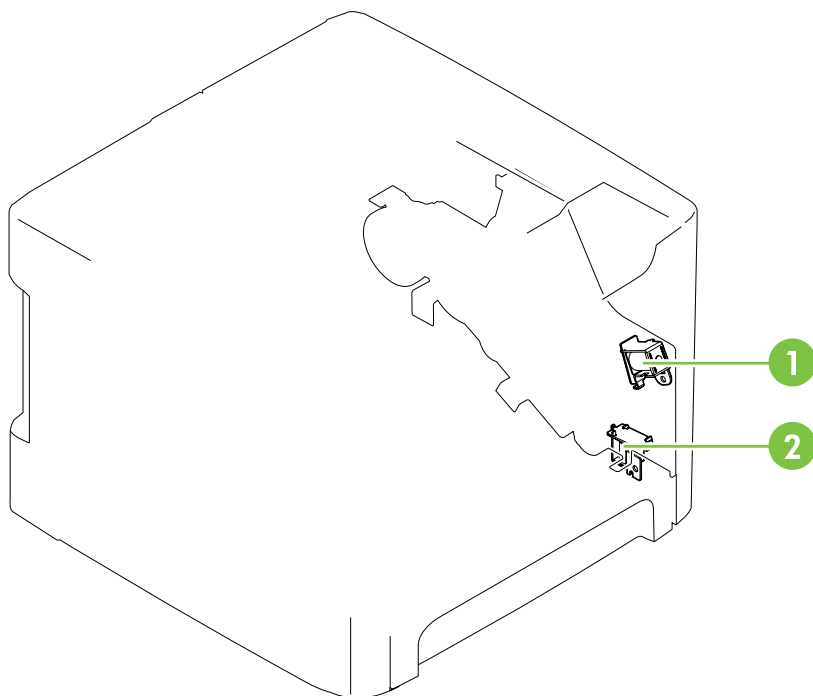


Figure 7-7 Solenoids

- | | |
|---|------------------------|
| 1 | Tray 1 pickup solenoid |
| 2 | Tray 2 pickup solenoid |

Switches and sensors

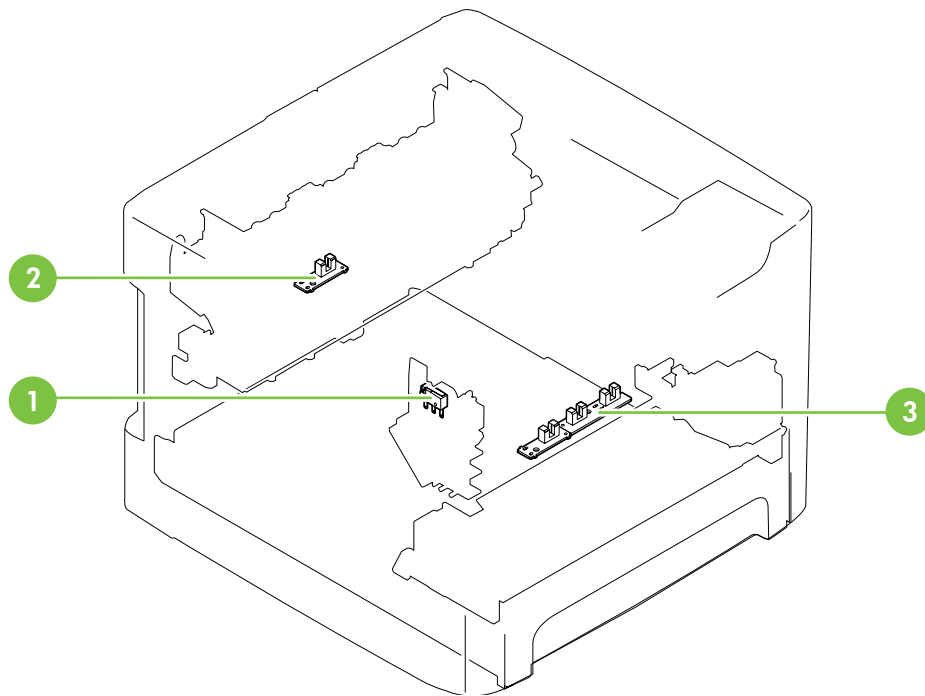


Figure 7-8 Switches and sensors

1	Interlock switch
2	Delivery sensor
3	Top-of-page sensor

Rollers and pads

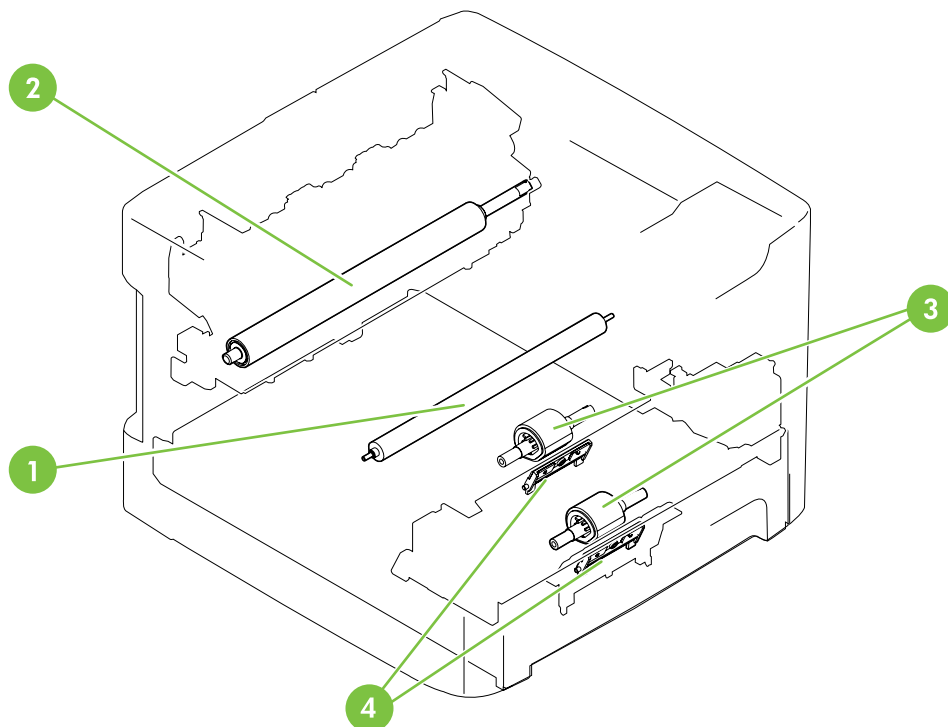


Figure 7-9 Rollers and pads

1	Transfer roller
2	Pressure roller
3	Pickup roller
4	Separation pad

8 Parts and diagrams

- [Assembly locations](#)
- [Covers](#)
- [Internal assemblies](#)
- [Alphabetical parts list](#)
- [Numerical parts list](#)

Assembly locations

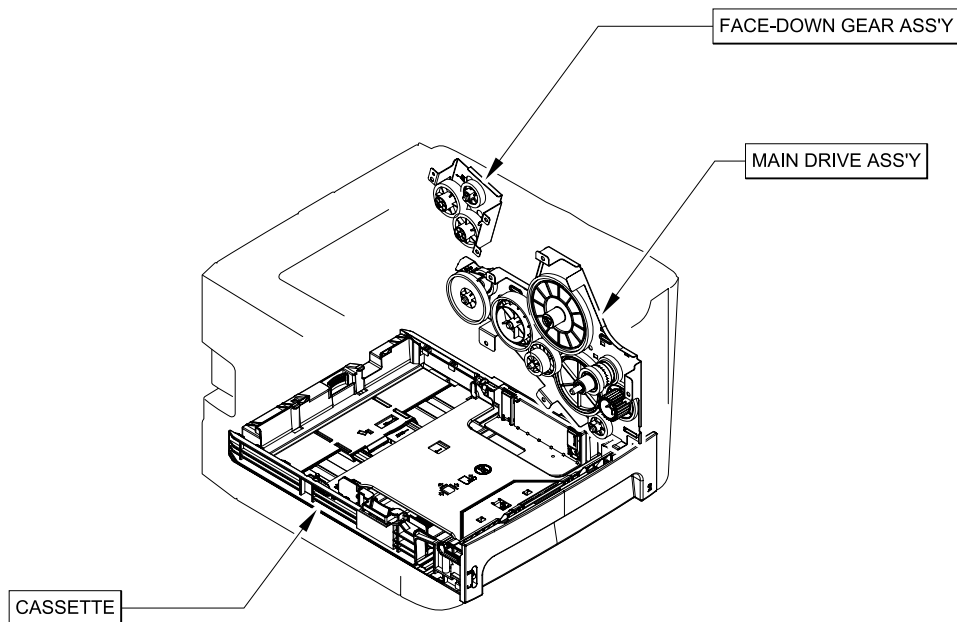


Figure 8-1 Assembly locations (1 of 2)

Table 8-1 Assembly locations (1 of 2)

Ref	Description	Part number	Qty
	Face-down gear assembly	RM1-1305-000	
	Main drive assembly	RM1-4253-000	
	Cassette	RM1-4251-000	
	Registration assembly	RM1-4244-000	1

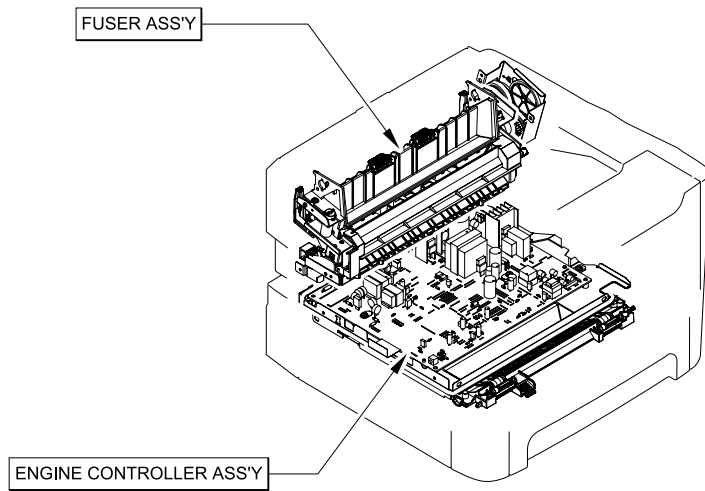


Figure 8-2 Assembly locations (2 of 2)

Table 8-2 Assembly locations (2 of 2)

Ref	Description	Part number	Qty
	Fuser assembly (110 V)	RM1-4247-000	1
	Fuser assembly (220 V)	RM1-4248-000	
	ECU assembly (110 V)	RM1-4273-000	
	ECU assembly (220 V)	RM1-4273-000	

Covers

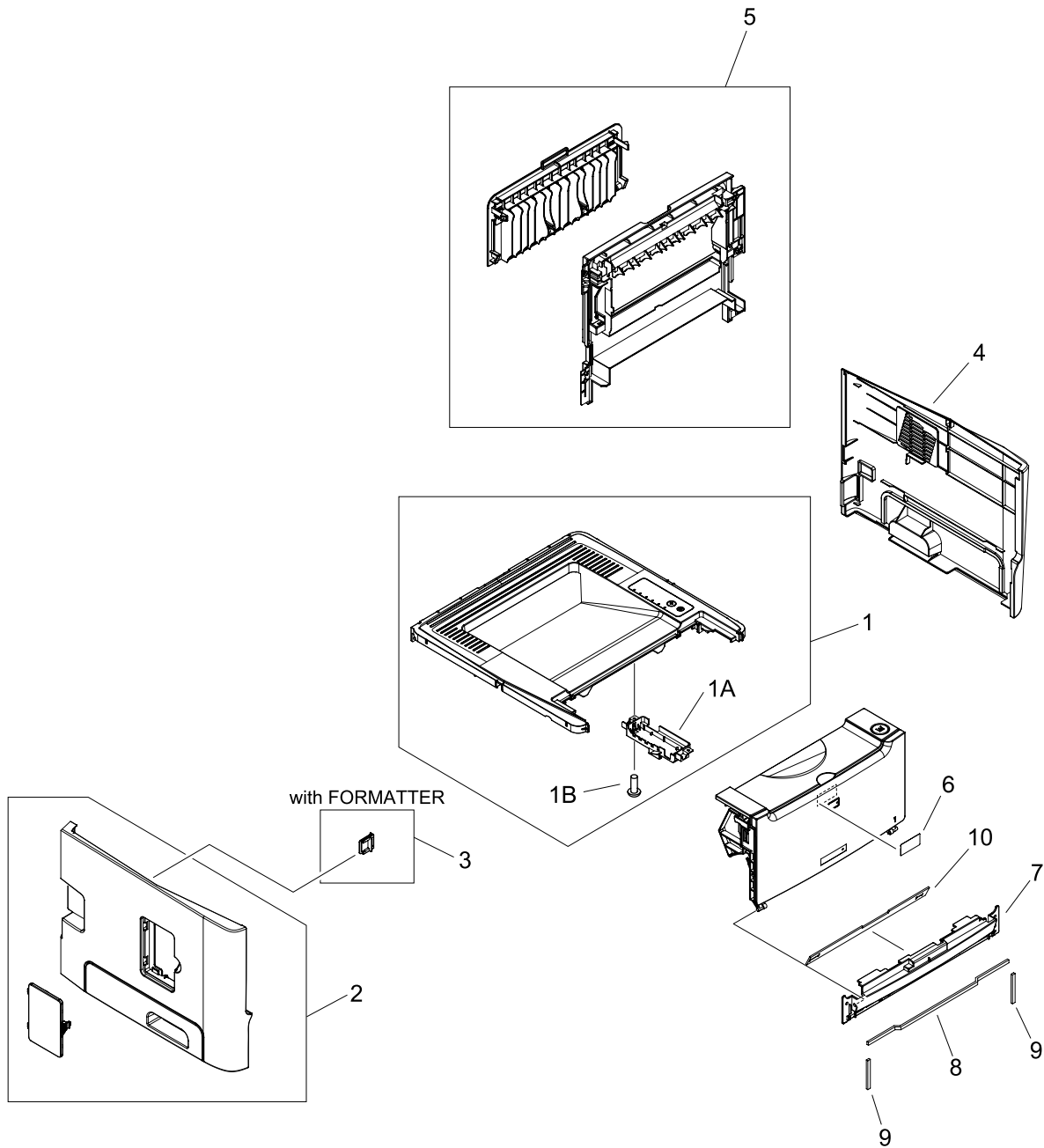


Figure 8-3 Covers

Table 8-3 Covers

Ref	Description	Part number	Qty
1	Top cover assembly	RM1-4272-000	1
1A	Holder, panel PCB	RC2-0316-000	1
1B	Screw, tap, binding head, M3x8	XB4-7300-809	2
2	Left cover assembly	RL1-1529-000	1
3	Cover, connector	RC2-0332-000	1
4	Right cover assembly	RL1-1530-000	1
5	Rear cover assembly	RM1-4277-000	1
6	Label, stapler prohibition	RC1-3794-000	1
7	Cover, front	RC2-0330-000	1
8	Sheet, noise absorb	RC2-0312-000	1
9	Sheet, noise absorb	RC2-0311-000	2
10	Sheet, insulator	RC2-0314-000	1

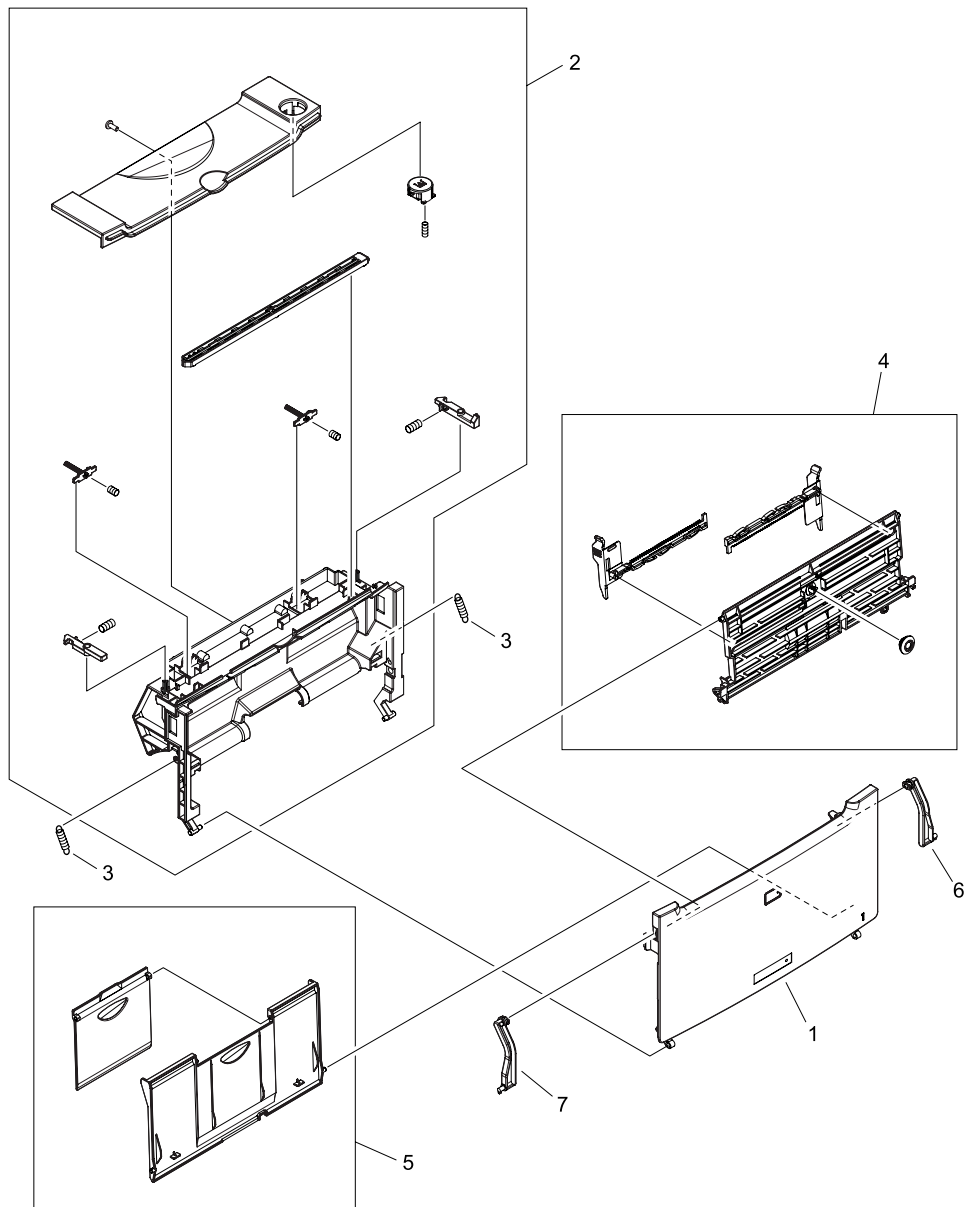


Figure 8-4 Cartridge-door assembly

Table 8-4 Cartridge-door assembly

Ref	Description	Part number	Qty
	Cartridge-door assembly	RM1-4266-000	1
1	Cover, multipurpose	RM2-0407-000	1
2	Inner cover assembly	RM1-4267-000	1
3	Spring, tension	RU5-2895-000	2
4	M.P. lifting-plate assembly	RM1-4268-000	1
5	Expansion-tray assembly	RM1-4269-000	1
6	Hinge, multipurpose, right	RC2-0422-000	1
7	Hinge, multipurpose, left	RC2-0421-000	1

Internal assemblies

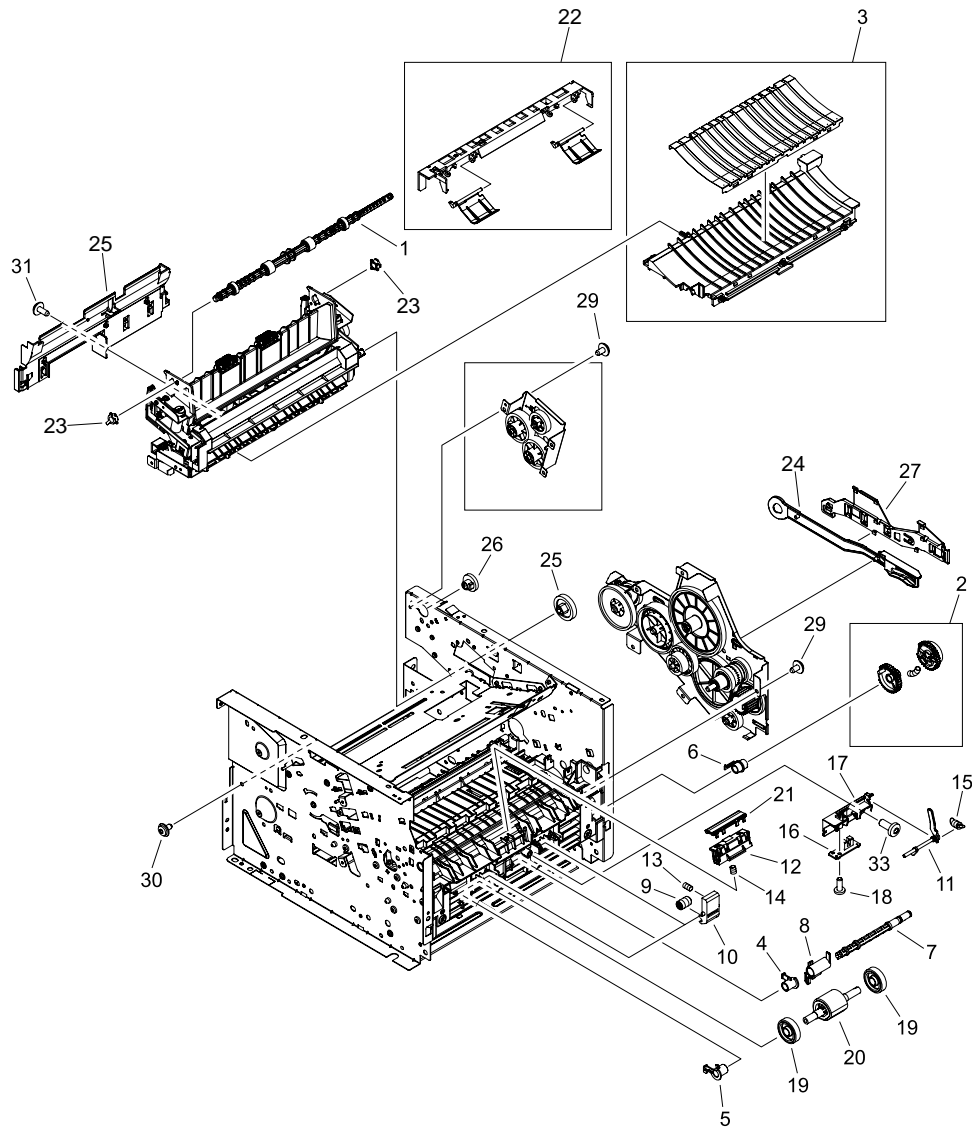


Figure 8-5 Internal components (1 of 4)

Table 8-5 Internal components (1 of 4)

Ref	Description	Part number	Qty
1	Roller, face-down	RL1-0527-000	1
2	Paper pick-up gear assembly	RM1-1301-000	1
3	Paper-feed guide assembly	RM1-4263-000	1
4	Bushing, right	RB2-2895-000	1
5	Bushing, left	RB2-2896-000	1
6	Bushing	RB2-2897-000	1
7	Shaft, paper pick-up drive	RC1-3471-000	1
8	Flag, paper-sensing	RC1-3472-000	1
9	Roller, idler	RC1-3481-000	2
10	Arm, idler roller	RC1-3482-000	2
11	Flag, M.P. sensor	RC2-0415-000	1
12	Base, separation pad	RC2-0419-000	1
13	Spring, compression	RU5-2323-000	2
14	Spring compression	RU5-2894-000	1
15	Spring, tension	RU5-2898-000	1
16	M.P. sensor PCB assembly	RM1-4162-000	1
17	Holder, M.P. sensor	RC2-0414-000	1
18	Screw, tap, binding head, M3x8	XB4-7300-809	1
19	Roller, paper pickup idler	RC1-3470-000	2
20	Roller, paper pick-up	RL1-0540-000	1
21	Pad, M.P. separation	RL1-1524-000	1
22	Paper retaining assembly	RM1-4276-000	1
23	Bushing	RC1-3665-000	2
24	Link, gear release	RC1-3668-000	1
25	Gear, 29T	RU5-0331-000	1
26	Gear, 19T	RU5-0332-000	1
27	Guide, cable	RC2-1569-000	1
28	Guide, reverse	RC2-0323-000	1
29	Screw, RS, M3x6	XA9-1495-000	7
30	Screw, tap, M3x6	XA9-1503-000	6
31	Screw, RS, M3x8	XA9-1504-000	1
32	Screw, tapping, truss head, M4x10	XB4-7401-005	1

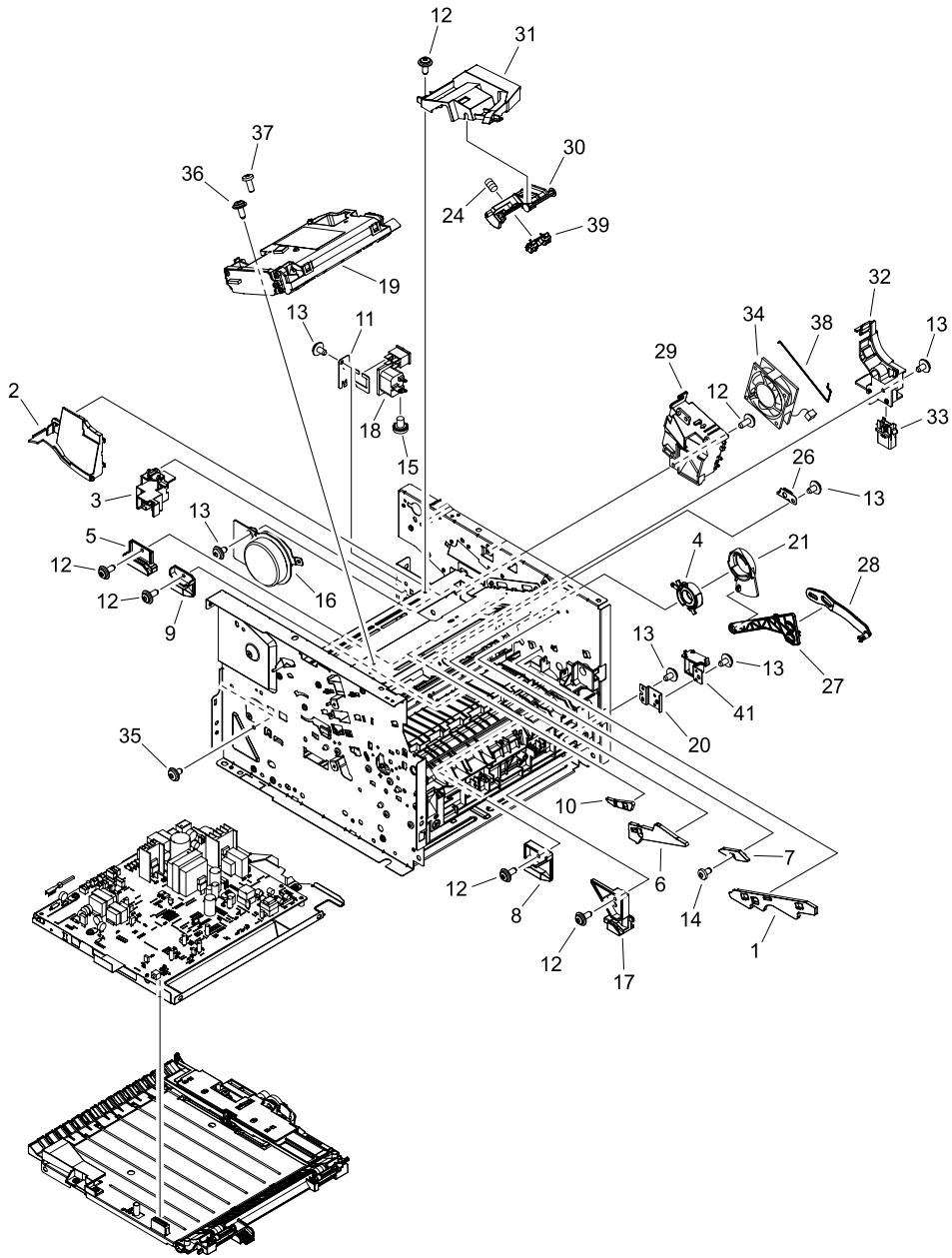


Figure 8-6 Internal components (2 of 4)

Table 8-6 Internal components (2 of 4)

Ref	Description	Part number	Qty
1	Guide, cartridge, right lower	RC2-0346-000	1
2	Duct	RC2-0351-000	1
3	Guide, cable	RC2-0397-000	1
4	Cam	RC2-0410-000	1
5	Guide, cassette, right rear	RC2-0416-000	1
6	Guide, cartridge, right upper	RC2-0426-000	1
7	Guide, shutter, front	RC2-0428-000	1
8	Guide, cassette, right center 1	RC1-3456-000	1
9	Guide, cassette, right center 2	RC1-3457-000	1
10	Guide, shutter, rear	RC1-3535-000	1
11	Holder, switch	RC1-3727-000	1
12	Screw, RS, M3x8	XA9-1504-000	8
13	Screw, RS, M3x6 (HP LJ P2015)	XA9-1495-000	6
14	Screw, RS, M3x6	XA9-1561-000	1
15	Screw, toothed washer, M4x6	XB2-7400-606	1
16	Motor, DC	RK2-1567-000	1
17	Guide, cassette, right front	RL1-0517-000	1
18	Inlet/switch cable assembly	RM1-4169-000	1
19	Scanner assembly	RM1-4262-000	1
20	Plate, solenoid holder	RC1-3459-000	1
21	Cam, right	RC1-3546-000	1
22	Spring, compression	RU5-2335-000	1
23	Plate, grounding	RC2-1568-000	1
24	Arm, cam	RC2-0405-000	1
25	Arm, link	RC2-0406-000	1
26	Holder, fan	RC2-0349-000	1
27	Arm, tag	RC2-0392-000	1
28	Duct	RC2-0354-000	1
29	Holder, drawer connector	RC2-0396-000	1
30	Connector, drawer	VS1-7258-007	1
31	Fan	RK2-1589-000	1
32	Screw, tap, M3x6	XA9-1503-000	1
33	Screw, tap, M3x8	XA9-1648-000	1
34	Screw, tap, binding head, M3x8	XB4-7300-809	1

Table 8-6 Internal components (2 of 4) (continued)

Ref	Description	Part number	Qty
35	Rod, grounding	RC2-0350-000	1
36	Cable, memory tag	RM1-4163-000	1
37	Solenoid (HP LJ P2015)	RK2-0424-000	1

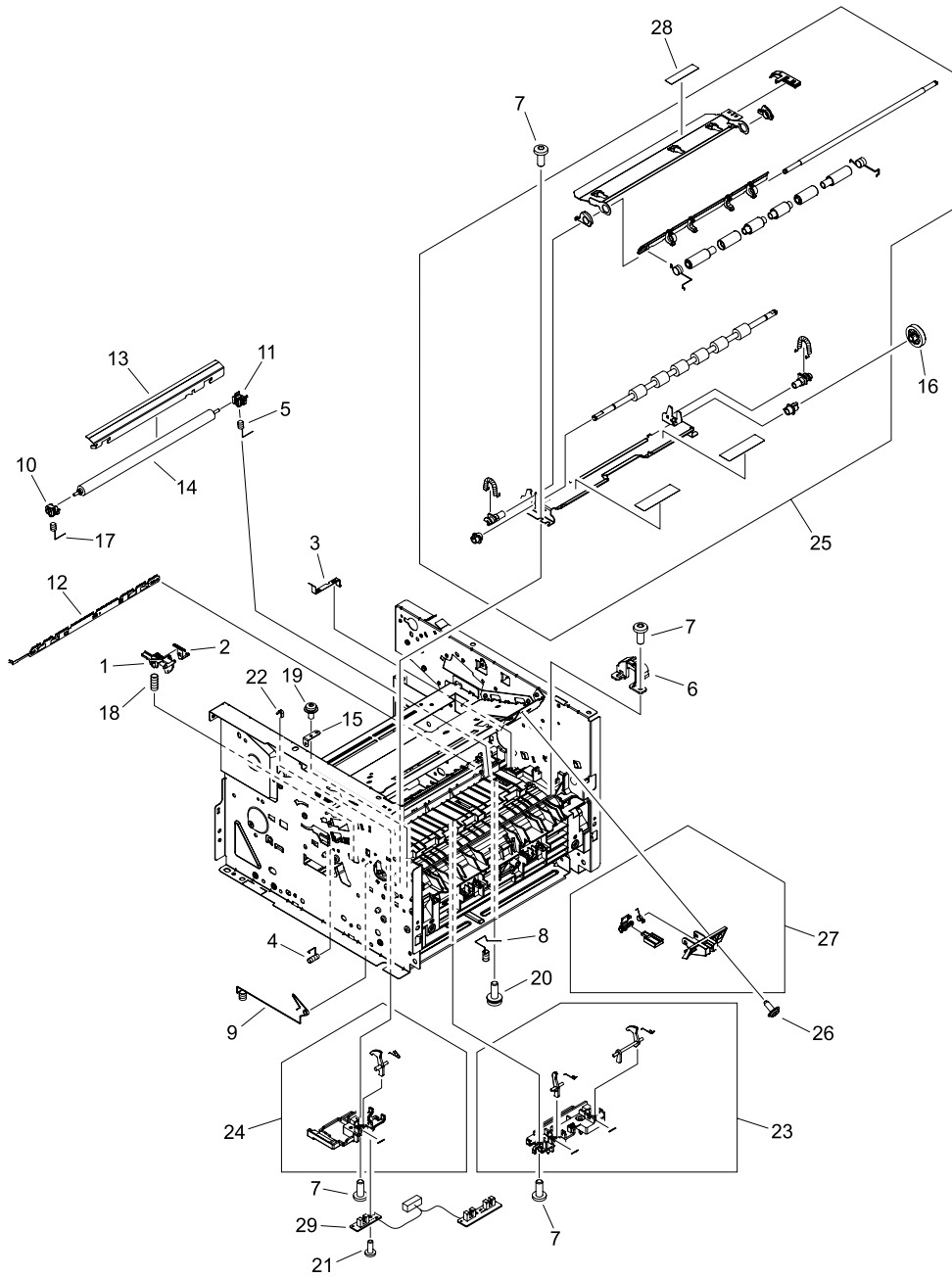


Figure 8-7 Internal components (3 of 4)

Table 8-7 Internal components (3 of 4)

Ref	Description	Part number	Qty
1	Cover, drum	RC1-3563-000	1
2	Plate, drum grounding	RC1-3565-000	1
3	Plate, transfer grounding	RC1-3698-000	1
4	Spring, grounding	RC1-3700-000	1
5	Spring, transfer, right	RC1-3702-000	1
6	Cover, registration gear	RC1-3708-000	1
7	Screw, tapping, truss head, M4x10	XB4-7401-005	7
8	Spring, compression	RC1-3736-000	1
9	Spring, contact	RC2-0344-000	1
10	Bushing	RC2-0356-000	1
11	Bushing	RC2-0357-000	1
12	Eliminator, static charge	RC2-0358-000	1
13	Guide, transfer front	RC2-0359-000	1
14	Roller, transfer	RM1-4279-000	1
15	Plate, registration grounding	RC2-0384-000	1
16	Gear, 33T	RU5-0320-000	1
17	Spring, compression	RU5-2144-000	1
18	Spring, compression	RU5-2338-000	1
19	Screw, with washer, M3x8	XA9-1420-000	1
20	Screw, with washer, M4x12	XA9-1422-000	1
21	Screw, tap, binding head, M3x8	XB4-7300-809	2
22	Sheet, registration damper	RC1-3695-000	1
23	Top sensor assembly	RM1-1283-000	1
24	Paper-width sensor assembly	RM1-4245-000	1
25	Registration assembly	RM1-4244-000	1
26	Screw, RS, M3x8	XA9-1504-000	1
27	Shutter link assembly	RM1-1321-000	1
28	Label, transfer guide open	RC1-3796-000	1
29	Paper-sensor PCB assembly	RM1-4159-000	1

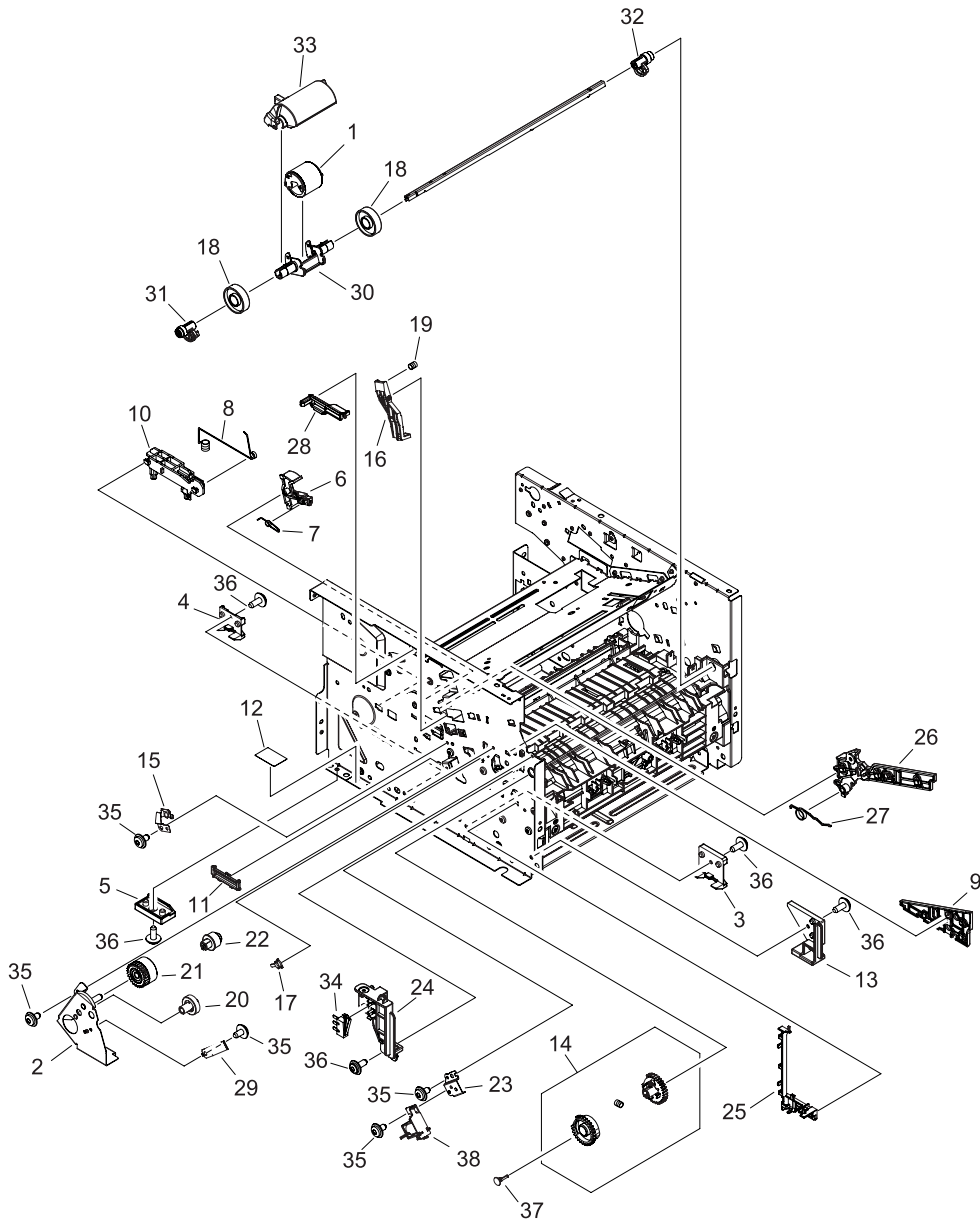


Figure 8-8 Internal components (4 of 4)

Table 8-8 Internal components (4 of 4)

Ref	Description	Part number	Qty
1	Roller, M.P. paper pick-up	RL1-1525-000	1
2	Side plate, M.P. drive	RL1-1531-000	1
3	Guide, cassette, left center 1	RC1-3461-000	1
4	Guide, cassette, left center 2	RC1-3462-000	1
5	Guide, cassette, left rear	RC1-3463-000	1
6	Lever, cartridge contact	RC1-3542-000	1
7	Spring, torsion	RC1-3543-000	1
8	Spring, contact	RC1-3719-000	1
9	Guide, cartridge, left lower	RC2-0339-000	1
10	Holder contact	RC2-0342-000	1
11	Guide, F.F.C	RC2-0423-000	1
12	Sheet, plate bottom	RC2-1578-000	1
13	Guide, cassette, left front	RL1-0518-000	1
14	Paper pick-up gear assembly	RM1-4275-000	1
15	Plate, drum grounding	RC1-3541-000	1
16	Arm lock	RC1-3561-000	1
17	Bushing	RC1-3562-000	1
18	Roller	RC1-0950-000	2
19	Spring, compression	RU5-2337-000	1
20	Gear, 19T	RU5-0927-000	1
21	Gear, 26T	RU5-0928-000	1
22	Gear, 14T	RU5-0929-000	1
23	Holder, M.P. solenoid	RC2-0334-000	1
24	Guide, cartridge font	RC2-0340-000	1
25	Guide, M.P. cable	RC2-0335-000	1
26	Guide, cartridge, left upper	RC2-0425-000	1
27	Spring, torsion	RC2-0427-000	1
28	Guide, F.F.C	RC2-0424-000	1
29	Spring, grounding	RC1-0944-000	1
30	Holder, paper pick-up roller	RC2-0386-000	1
31	Cam, M.P., left	RC2-0387-000	1
32	Cam, M.P., right	RC2-0388-000	1
33	Cover, paper pick-up roller	RC2-0420-000	1
34	Microswitch	RK2-0534-000	1

Table 8-8 Internal components (4 of 4) (continued)

Ref	Description	Part number	Qty
35	Screw, RS, M3x6	XA9-1495-000	6
36	Screw, RS, M3x8	XA9-1504-000	6
37	Cap, continuity	RA0-1068-000	1
38	Solenoid	RK2-1587-000	1

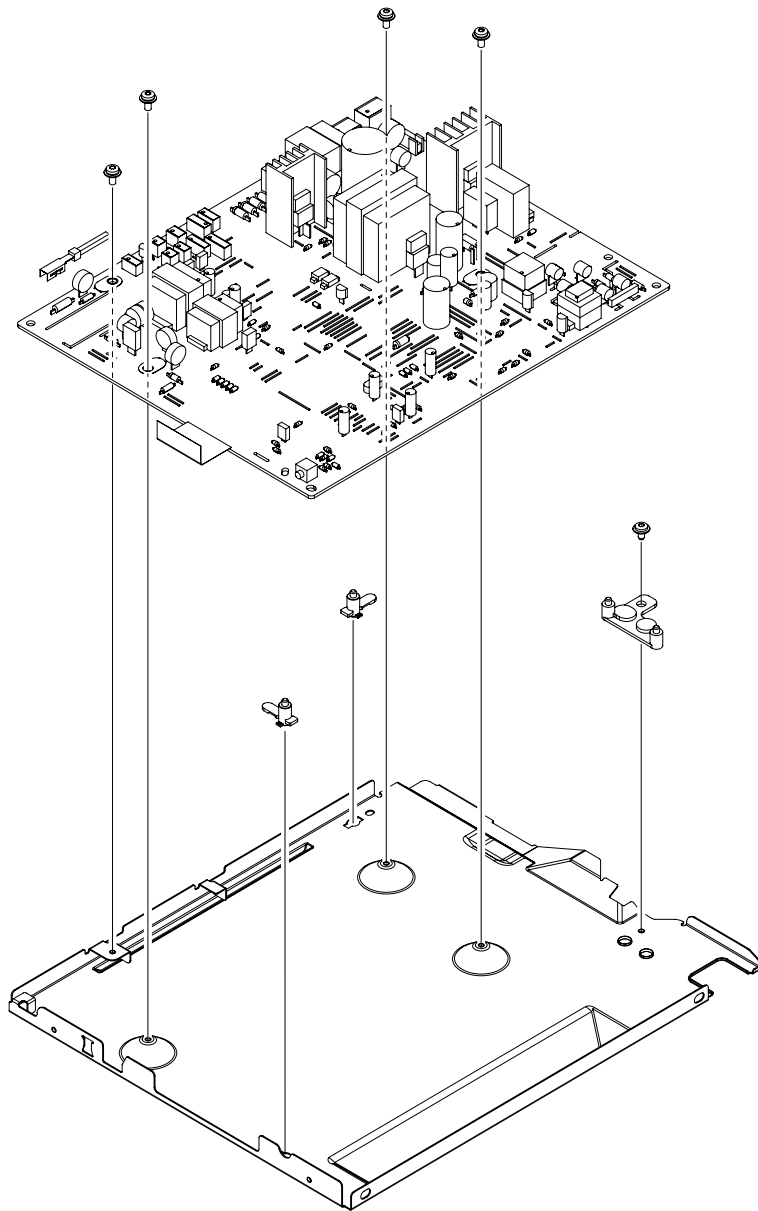


Figure 8-9 ECU assembly

Table 8-9 ECU assembly

Ref	Description	Part number	Qty
	ECU assembly (110 V)	RM1-4273-000	1
	ECU assembly (220 V)	RM1-4274-000	1

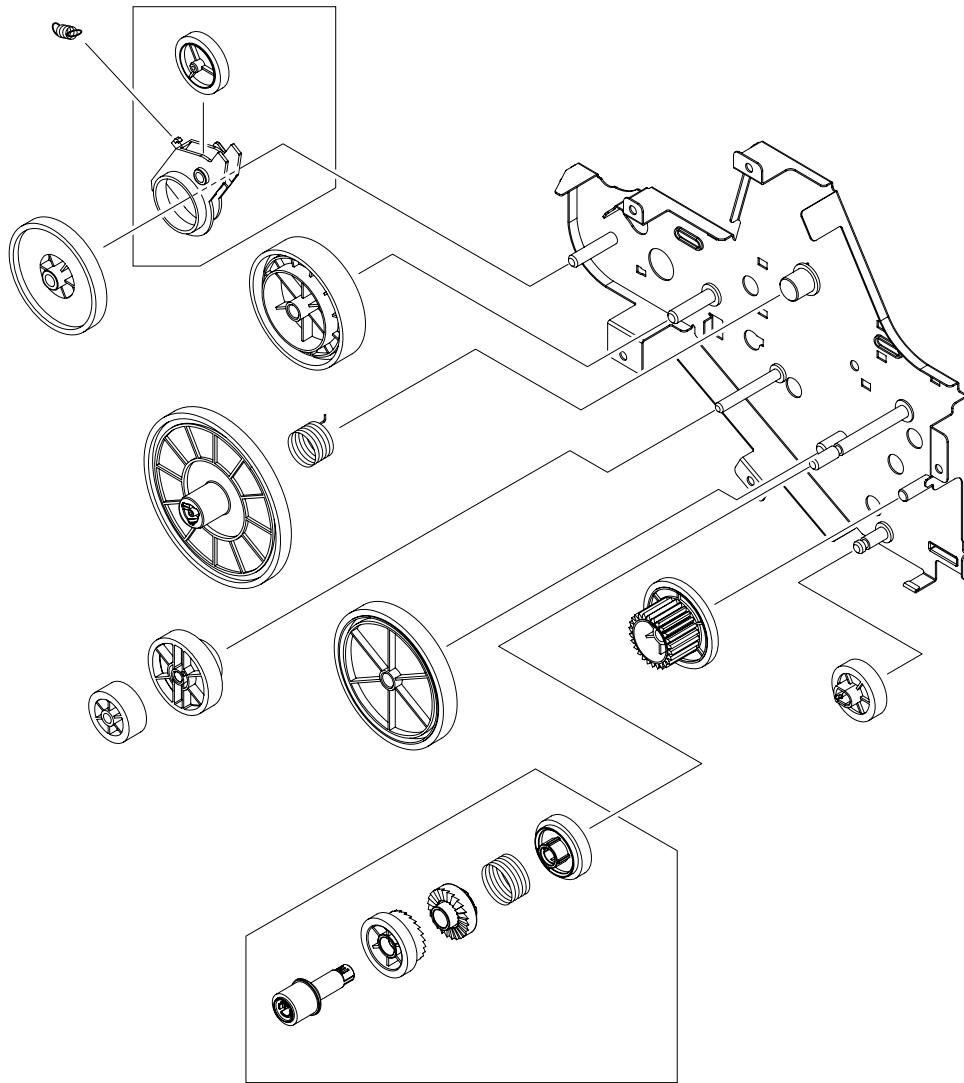


Figure 8-10 Main drive assembly

Table 8-10 Main drive assembly

Ref	Description	Part number	Qty
	Main drive assembly	RM1-4253-000	1

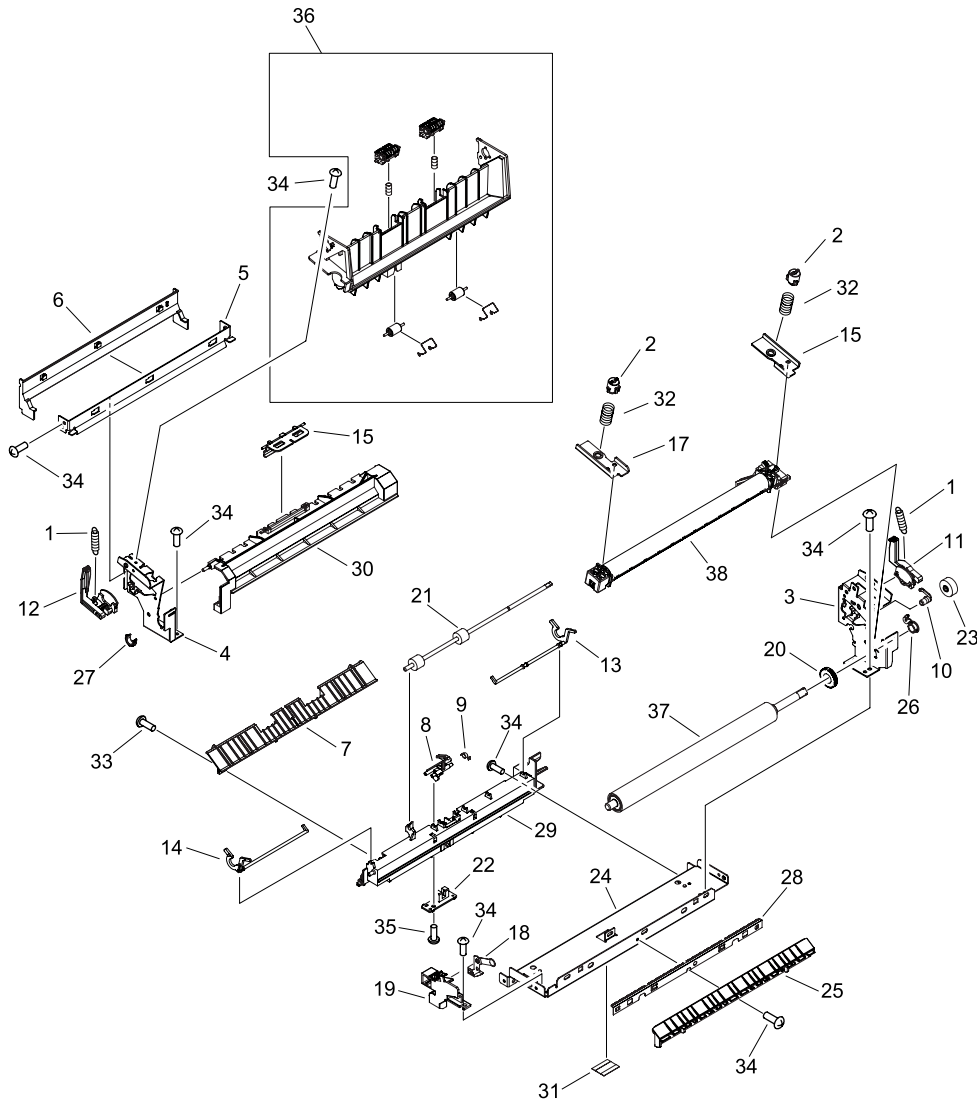


Figure 8-11 Fuser assembly

Table 8-11 Fuser assembly

Ref	Description	Part number	Qty
	Fuser assembly (110 V)	RM1-4247-000	1
	Fuser assembly (220 V)	RM1-4248-000	1
1	Spring, tension	RA0-1090-000	2
2	Retainer, spring	RA0-1189-000	1
3	Side plate, fixing, right	RC1-3604-000	1
4	Side plate, fixing, left	RC1-3605-000	1
5	Plate, fixing reinforcement	RC1-3606-000	1
6	Guide, fixing, upper	RC1-3607-000	1
7	Guide, paper separate, lower	RC1-3611-000	1
8	Flag, paper delivery sensor	RC1-3613-000	1
9	Spring, torsion	RC1-3614-000	1
10	Bushing	RC1-3615-000	1
11	Lever, pressure release, right	RC1-3616-000	1
12	Lever, pressure release, left	RC1-3617-000	1
13	Lever, pressure-release sensor, right	RC1-3618-000	1
14	Lever, pressure release sensor, left	RC1-3619-000	1
15	Flag, intertwine prevention	RC1-3622-000	1
16	Plate, pressure, right	RC1-3623-000	1
17	Plate, pressure, left	RC1-3624-000	1
18	Spring, compression	RC1-3625-000	1
19	Holder, leaf spring	RC1-3627-000	1
20	Ring, conductive rubber	RC1-3628-000	1
21	Roller, face-up	RC1-3633-000	1
22	Delivery sensor PCB assembly	RM1-1251-000	1
23	Gear, 17T	RU5-0330-000	1
24	Frame, fixing	RC2-0295-000	1
25	Guide, fixing entrance	RC2-0296-000	1
26	Bushing	RC2-0297-000	1
27	Bushing	RC2-0298-000	1
28	Needle, fixing static charge	RC2-0299-000	1
29	Holder, separate lower guide	RC2-0429-000	1
30	Cover, fixing	RC2-0300-000	1
31	Sheet, fixing bottom	RC2-0431-000	1
32	Spring, compression	RU5-2901-000	2

Table 8-11 Fuser assembly (continued)

Ref	Description	Part number	Qty
33	Screw, with washer, M4x12	XA9-1422-000	1
34	Screw, tap, M3x6	XA9-1503-000	10
35	Screw, tap, binding head, M3x8	XB4-7300-809	1
36	Delivery frame assembly	RM1-1291-000	1
37	Roller, pressure	RC2-0303-000	1
38	Film guide assembly (110 V)	RM1-4249-000	1
39	Film guide assembly (220 V)	RM1-4250-000	1

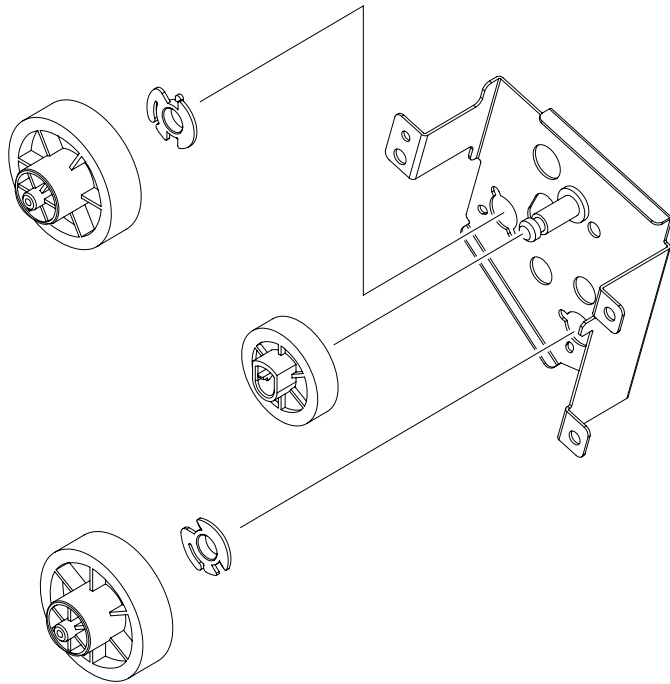


Figure 8-12 Face-down gear assembly

Table 8-12 Face-down gear assembly

Ref	Description	Part number	Qty
	Face-down gear assembly	RM1-1305-000	1

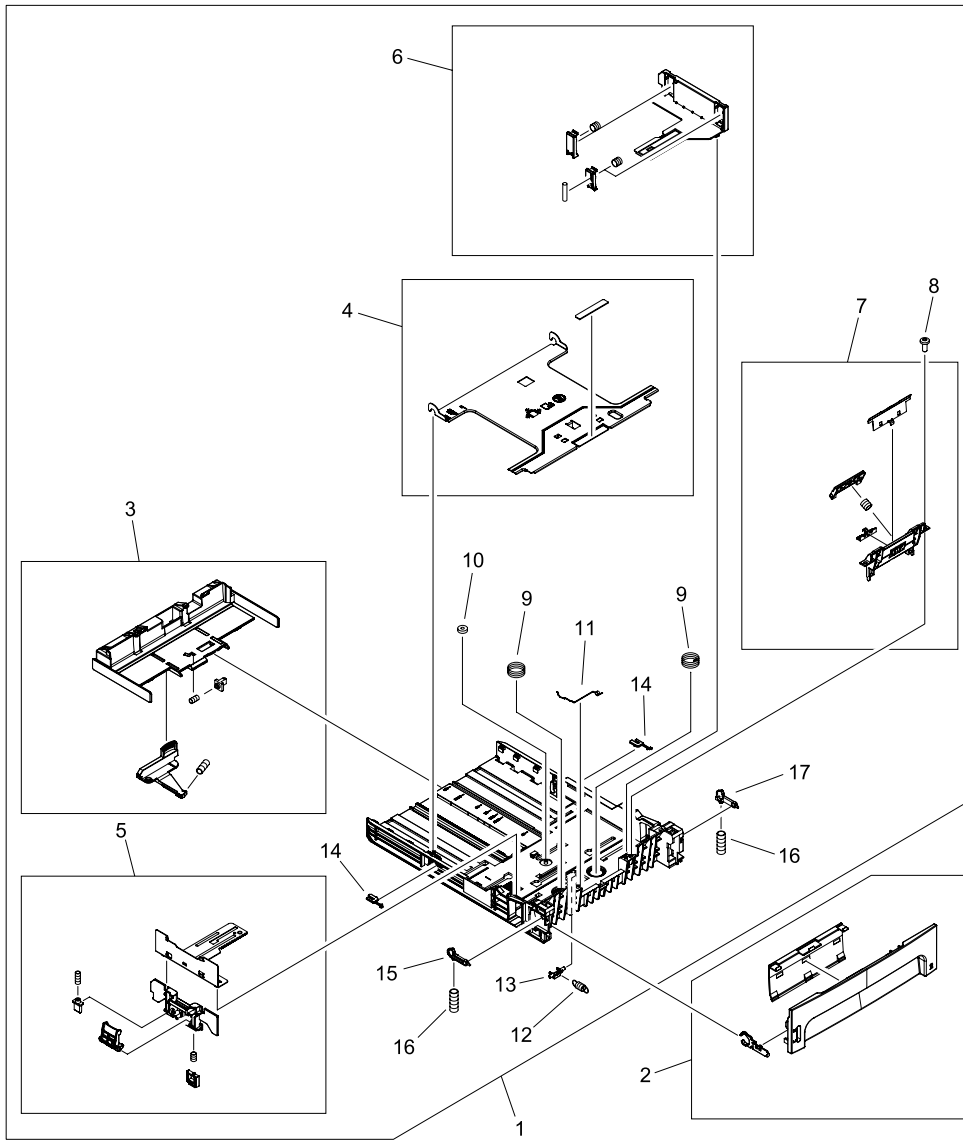
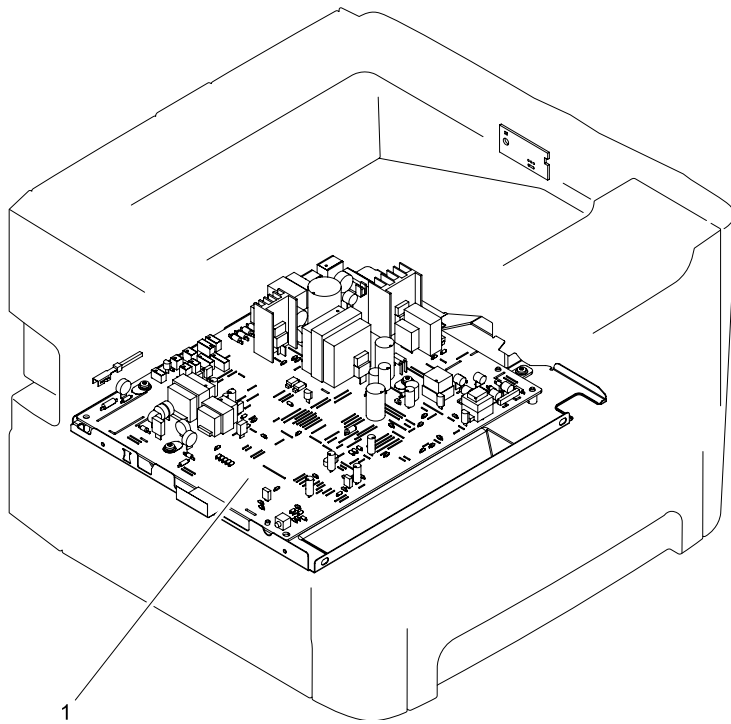


Figure 8-13 Cassette assembly

Table 8-13 Cassette assembly

Ref	Description	Part number	Qty
	Cassette	RM1-4251-000	1
1	Cassette body assembly	RC1-3483-000	1
2	Cassette cover assembly	RM1-4252-000	1
3	Back end limit assembly	RM1-1295-000	1
4	Plate, lifter	RL1-0522-000	1
5	Left paper side-end assembly	RM1-1296-000	1
6	Right paper side-end assembly	RM1-1297-020	1
7	Separation pad assembly	RM1-1298-000	1
8	Screw, M4x10	XB4-7401-005	2
9	Spring, compression	RC1-3489-000	2
10	Gear, 10T	RU5-0328-000	1
11	Spring, grounding	RC1-3492-000	1
12	Spring, tension	RU5-2324-000	1
13	Lock, lifter plate	RC1-3490-000	1
14	Stopper, claw	RC1-4198-000	2
15	Stopper, cassette left	RC1-3508-000	1
16	Spring, compression	RU5-2327-000	2
17	Stopper, cassette right	RC1-3507-000	1



1
Figure 8-14 PCB assembly locations

Table 8-14 PCB assembly locations

Ref	Description	Part number	Qty
1	ECU assembly (110 V)	RM1-4273-000	1
1	ECU assembly (220 V)	RM1-4274-000	1

Alphabetical parts list

Table 8-15 Alphabetical parts list

Description	Part number	Table and page
Arm lock	RC1-3561-000	Internal components (4 of 4) on page 185
Arm, cam	RC2-0405-000	Internal components (2 of 4) on page 179
Arm, idler roller	RC1-3482-000	Internal components (1 of 4) on page 177
Arm, link	RC2-0406-000	Internal components (2 of 4) on page 179
Arm, tag	RC2-0392-000	Internal components (2 of 4) on page 179
Back end limit assembly	RM1-1295-000	Cassette assembly on page 199
Base, separation pad	RC2-0419-000	Internal components (1 of 4) on page 177
Bushing	RB2-2897-000	Internal components (1 of 4) on page 177
Bushing	RC1-3665-000	Internal components (1 of 4) on page 177
Bushing	RC2-0356-000	Internal components (3 of 4) on page 183
Bushing	RC2-0357-000	Internal components (3 of 4) on page 183
Bushing	RC1-3562-000	Internal components (4 of 4) on page 185
Bushing	RC1-3615-000	Fuser assembly on page 193
Bushing	RC2-0297-000	Fuser assembly on page 193
Bushing	RC2-0298-000	Fuser assembly on page 193
Bushing, left	RB2-2896-000	Internal components (1 of 4) on page 177
Bushing, right	RB2-2895-000	Internal components (1 of 4) on page 177
Cable, memory tag	RM1-4163-000	Internal components (2 of 4) on page 179
Cam	RC2-0410-000	Internal components (2 of 4) on page 179
Cam, M.P., left	RC2-0387-000	Internal components (4 of 4) on page 185
Cam, M.P., right	RC2-0388-000	Internal components (4 of 4) on page 185

Table 8-15 Alphabetical parts list (continued)

Description	Part number	Table and page
Cam, right	RC1-3546-000	Internal components (2 of 4) on page 179
Cap, continuity	RA0-1068-000	Internal components (4 of 4) on page 185
Cartridge-door assembly	RM1-4266-000	Cartridge-door assembly on page 175
Cassette	RM1-4251-000	Assembly locations (1 of 2) on page 169
Cassette	RM1-4251-000	Cassette assembly on page 199
Cassette body assembly	RC1-3483-000	Cassette assembly on page 199
Cassette cover assembly	RM1-4252-000	Cassette assembly on page 199
Connector, drawer	VS1-7258-007	Internal components (2 of 4) on page 179
Cover, connector	RC2-0332-000	Covers on page 173
Cover, drum	RC1-3563-000	Internal components (3 of 4) on page 183
Cover, fixing	RC2-0300-000	Fuser assembly on page 193
Cover, front	RC2-0330-000	Covers on page 173
Cover, multipurpose	RM2-0407-000	Cartridge-door assembly on page 175
Cover, paper pick-up roller	RC2-0420-000	Internal components (4 of 4) on page 185
Cover, registration gear	RC1-3708-000	Internal components (3 of 4) on page 183
Delivery frame assembly	RM1-1291-000	Fuser assembly on page 193
Delivery sensor PCB assembly	RM1-1251-000	Fuser assembly on page 193
Duct	RC2-0351-000	Internal components (2 of 4) on page 179
Duct	RC2-0354-000	Internal components (2 of 4) on page 179
ECU assembly (110 V)	RM1-4273-000	Assembly locations (2 of 2) on page 171
ECU assembly (110 V)	RM1-4273-000	ECU assembly on page 189
ECU assembly (110 V)	RM1-4273-000	PCB assembly locations on page 201
ECU assembly (220 V)	RM1-4273-000	Assembly locations (2 of 2) on page 171
ECU assembly (220 V)	RM1-4274-000	ECU assembly on page 189

Table 8-15 Alphabetical parts list (continued)

Description	Part number	Table and page
ECU assembly (220 V)	RM1-4274-000	PCB assembly locations on page 201
Eliminator, static charge	RC2-0358-000	Internal components (3 of 4) on page 183
Expansion-tray assembly	RM1-4269-000	Cartridge-door assembly on page 175
Face-down gear assembly	RM1-1305-000	Assembly locations (1 of 2) on page 169
Face-down gear assembly	RM1-1305-000	Face-down gear assembly on page 197
Fan	RK2-1589-000	Internal components (2 of 4) on page 179
Film guide assembly (110 V)	RM1-4249-000	Fuser assembly on page 193
Film guide assembly (220 V)	RM1-4250-000	Fuser assembly on page 193
Flag, intertwine prevention	RC1-3622-000	Fuser assembly on page 193
Flag, M.P. sensor	RC2-0415-000	Internal components (1 of 4) on page 177
Flag, paper delivery sensor	RC1-3613-000	Fuser assembly on page 193
Flag, paper-sensing	RC1-3472-000	Internal components (1 of 4) on page 177
Frame, fixing	RC2-0295-000	Fuser assembly on page 193
Fuser assembly (110 V)	RM1-4247-000	Assembly locations (2 of 2) on page 171
Fuser assembly (110 V)	RM1-4247-000	Fuser assembly on page 193
Fuser assembly (220 V)	RM1-4248-000	Assembly locations (2 of 2) on page 171
Fuser assembly (220 V)	RM1-4248-000	Fuser assembly on page 193
Gear, 10T	RU5-0328-000	Cassette assembly on page 199
Gear, 14T	RU5-0929-000	Internal components (4 of 4) on page 185
Gear, 17T	RU5-0330-000	Fuser assembly on page 193
Gear, 19T	RU5-0332-000	Internal components (1 of 4) on page 177
Gear, 19T	RU5-0927-000	Internal components (4 of 4) on page 185
Gear, 26T	RU5-0928-000	Internal components (4 of 4) on page 185
Gear, 29T	RU5-0331-000	Internal components (1 of 4) on page 177
Gear, 33T	RU5-0320-000	Internal components (3 of 4) on page 183

Table 8-15 Alphabetical parts list (continued)

Description	Part number	Table and page
Guide, cable	RC2-1569-000	Internal components (1 of 4) on page 177
Guide, cable	RC2-0397-000	Internal components (2 of 4) on page 179
Guide, cartridge font	RC2-0340-000	Internal components (4 of 4) on page 185
Guide, cartridge, left lower	RC2-0339-000	Internal components (4 of 4) on page 185
Guide, cartridge, left upper	RC2-0425-000	Internal components (4 of 4) on page 185
Guide, cartridge, right lower	RC2-0346-000	Internal components (2 of 4) on page 179
Guide, cartridge, right upper	RC2-0426-000	Internal components (2 of 4) on page 179
Guide, cassette, left center 1	RC1-3461-000	Internal components (4 of 4) on page 185
Guide, cassette, left center 2	RC1-3462-000	Internal components (4 of 4) on page 185
Guide, cassette, left front	RL1-0518-000	Internal components (4 of 4) on page 185
Guide, cassette, left rear	RC1-3463-000	Internal components (4 of 4) on page 185
Guide, cassette, right center 1	RC1-3456-000	Internal components (2 of 4) on page 179
Guide, cassette, right center 2	RC1-3457-000	Internal components (2 of 4) on page 179
Guide, cassette, right front	RL1-0517-000	Internal components (2 of 4) on page 179
Guide, cassette, right rear	RC2-0416-000	Internal components (2 of 4) on page 179
Guide, F.F.C	RC2-0423-000	Internal components (4 of 4) on page 185
Guide, F.F.C	RC2-0424-000	Internal components (4 of 4) on page 185
Guide, fixing entrance	RC2-0296-000	Fuser assembly on page 193
Guide, fixing, upper	RC1-3607-000	Fuser assembly on page 193
Guide, M.P. cable	RC2-0335-000	Internal components (4 of 4) on page 185
Guide, paper separate, lower	RC1-3611-000	Fuser assembly on page 193
Guide, reverse	RC2-0323-000	Internal components (1 of 4) on page 177
Guide, shutter, front	RC2-0428-000	Internal components (2 of 4) on page 179

Table 8-15 Alphabetical parts list (continued)

Description	Part number	Table and page
Guide, shutter, rear	RC1-3535-000	Internal components (2 of 4) on page 179
Guide, transfer front	RC2-0359-000	Internal components (3 of 4) on page 183
Hinge, multipurpose, left	RC2-0421-000	Cartridge-door assembly on page 175
Hinge, multipurpose, right	RC2-0422-000	Cartridge-door assembly on page 175
Holder contact	RC2-0342-000	Internal components (4 of 4) on page 185
Holder, drawer connector	RC2-0396-000	Internal components (2 of 4) on page 179
Holder, fan	RC2-0349-000	Internal components (2 of 4) on page 179
Holder, leaf spring	RC1-3627-000	Fuser assembly on page 193
Holder, M.P. sensor	RC2-0414-000	Internal components (1 of 4) on page 177
Holder, M.P. solenoid	RC2-0334-000	Internal components (4 of 4) on page 185
Holder, panel PCB	RC2-0316-000	Covers on page 173
Holder, paper pick-up roller	RC2-0386-000	Internal components (4 of 4) on page 185
Holder, separate lower guide	RC2-0429-000	Fuser assembly on page 193
Holder, switch	RC1-3727-000	Internal components (2 of 4) on page 179
Inlet/switch cable assembly	RM1-4169-000	Internal components (2 of 4) on page 179
Inner cover assembly	RM1-4267-000	Cartridge-door assembly on page 175
Label, stapler prohibition	RC1-3794-000	Covers on page 173
Label, transfer guide open	RC1-3796-000	Internal components (3 of 4) on page 183
Left cover assembly	RL1-1529-000	Covers on page 173
Left paper side-end assembly	RM1-1296-000	Cassette assembly on page 199
Lever, cartridge contact	RC1-3542-000	Internal components (4 of 4) on page 185
Lever, pressure release sensor, left	RC1-3619-000	Fuser assembly on page 193
Lever, pressure release, left	RC1-3617-000	Fuser assembly on page 193
Lever, pressure release, right	RC1-3616-000	Fuser assembly on page 193
Lever, pressure-release sensor, right	RC1-3618-000	Fuser assembly on page 193

Table 8-15 Alphabetical parts list (continued)

Description	Part number	Table and page
Link, gear release	RC1-3668-000	Internal components (1 of 4) on page 177
Lock, lifter plate	RC1-3490-000	Cassette assembly on page 199
M.P. lifting-plate assembly	RM1-4268-000	Cartridge-door assembly on page 175
M.P. sensor PCB assembly	RM1-4162-000	Internal components (1 of 4) on page 177
Main drive assembly	RM1-4253-000	Assembly locations (1 of 2) on page 169
Main drive assembly	RM1-4253-000	Main drive assembly on page 191
Microswitch	RK2-0534-000	Internal components (4 of 4) on page 185
Motor, DC	RK2-1567-000	Internal components (2 of 4) on page 179
Needle, fixing static charge	RC2-0299-000	Fuser assembly on page 193
Pad, M.P. separation	RL1-1524-000	Internal components (1 of 4) on page 177
Paper pick-up gear assembly	RM1-1301-000	Internal components (1 of 4) on page 177
Paper pick-up gear assembly	RM1-4275-000	Internal components (4 of 4) on page 185
Paper retaining assembly	RM1-4276-000	Internal components (1 of 4) on page 177
Paper-feed guide assembly	RM1-4263-000	Internal components (1 of 4) on page 177
Paper-sensor PCB assembly	RM1-4159-000	Internal components (3 of 4) on page 183
Paper-width sensor assembly	RM1-4245-000	Internal components (3 of 4) on page 183
Plate, drum grounding	RC1-3565-000	Internal components (3 of 4) on page 183
Plate, drum grounding	RC1-3541-000	Internal components (4 of 4) on page 185
Plate, fixing reinforcement	RC1-3606-000	Fuser assembly on page 193
Plate, grounding	RC2-1568-000	Internal components (2 of 4) on page 179
Plate, lifter	RL1-0522-000	Cassette assembly on page 199
Plate, pressure, left	RC1-3624-000	Fuser assembly on page 193
Plate, pressure, right	RC1-3623-000	Fuser assembly on page 193

Table 8-15 Alphabetical parts list (continued)

Description	Part number	Table and page
Plate, registration grounding	RC2-0384-000	Internal components (3 of 4) on page 183
Plate, solenoid holder	RC1-3459-000	Internal components (2 of 4) on page 179
Plate, transfer grounding	RC1-3698-000	Internal components (3 of 4) on page 183
Rear cover assembly	RM1-4277-000	Covers on page 173
Registration assembly	RM1-4244-000	Assembly locations (1 of 2) on page 169
Registration assembly	RM1-4244-000	Internal components (3 of 4) on page 183
Retainer, spring	RA0-1189-000	Fuser assembly on page 193
Right cover assembly	RL1-1530-000	Covers on page 173
Right paper side-end assembly	RM1-1297-020	Cassette assembly on page 199
Ring, conductive rubber	RC1-3628-000	Fuser assembly on page 193
Rod, grounding	RC2-0350-000	Internal components (2 of 4) on page 179
Roller	RC1-0950-000	Internal components (4 of 4) on page 185
Roller, face-down	RL1-0527-000	Internal components (1 of 4) on page 177
Roller, face-up	RC1-3633-000	Fuser assembly on page 193
Roller, idler	RC1-3481-000	Internal components (1 of 4) on page 177
Roller, M.P. paper pick-up	RL1-1525-000	Internal components (4 of 4) on page 185
Roller, paper pick-up	RL1-0540-000	Internal components (1 of 4) on page 177
Roller, paper pickup idler	RC1-3470-000	Internal components (1 of 4) on page 177
Roller, pressure	RC2-0303-000	Fuser assembly on page 193
Roller, transfer	RM1-4279-000	Internal components (3 of 4) on page 183
Scanner assembly	RM1-4262-000	Internal components (2 of 4) on page 179
Screw, M4x10	XB4-7401-005	Cassette assembly on page 199
Screw, RS, M3x6	XA9-1495-000	Internal components (1 of 4) on page 177
Screw, RS, M3x6	XA9-1561-000	Internal components (2 of 4) on page 179

Table 8-15 Alphabetical parts list (continued)

Description	Part number	Table and page
Screw, RS, M3x6	XA9-1495-000	Internal components (4 of 4) on page 185
Screw, RS, M3x6 (HP LJ P2015)	XA9-1495-000	Internal components (2 of 4) on page 179
Screw, RS, M3x8	XA9-1504-000	Internal components (1 of 4) on page 177
Screw, RS, M3x8	XA9-1504-000	Internal components (2 of 4) on page 179
Screw, RS, M3x8	XA9-1504-000	Internal components (3 of 4) on page 183
Screw, RS, M3x8	XA9-1504-000	Internal components (4 of 4) on page 185
Screw, tap, binding head, M3x8	XB4-7300-809	Covers on page 173
Screw, tap, binding head, M3x8	XB4-7300-809	Internal components (1 of 4) on page 177
Screw, tap, binding head, M3x8	XB4-7300-809	Internal components (2 of 4) on page 179
Screw, tap, binding head, M3x8	XB4-7300-809	Internal components (3 of 4) on page 183
Screw, tap, binding head, M3x8	XB4-7300-809	Fuser assembly on page 193
Screw, tap, M3x6	XA9-1503-000	Internal components (1 of 4) on page 177
Screw, tap, M3x6	XA9-1503-000	Internal components (2 of 4) on page 179
Screw, tap, M3x6	XA9-1503-000	Fuser assembly on page 193
Screw, tap, M3x8	XA9-1648-000	Internal components (2 of 4) on page 179
Screw, tapping, truss head, M4x10	XB4-7401-005	Internal components (1 of 4) on page 177
Screw, tapping, truss head, M4x10	XB4-7401-005	Internal components (3 of 4) on page 183
Screw, toothed washer, M4x6	XB2-7400-606	Internal components (2 of 4) on page 179
Screw, with washer, M3x8	XA9-1420-000	Internal components (3 of 4) on page 183
Screw, with washer, M4x12	XA9-1422-000	Internal components (3 of 4) on page 183
Screw, with washer, M4x12	XA9-1422-000	Fuser assembly on page 193
Separation pad assembly	RM1-1298-000	Cassette assembly on page 199
Shaft, paper pick-up drive	RC1-3471-000	Internal components (1 of 4) on page 177
Sheet, fixing bottom	RC2-0431-000	Fuser assembly on page 193

Table 8-15 Alphabetical parts list (continued)

Description	Part number	Table and page
Sheet, insulator	RC2-0314-000	Covers on page 173
Sheet, noise absorb	RC2-0312-000	Covers on page 173
Sheet, noise absorb	RC2-0311-000	Covers on page 173
Sheet, plate bottom	RC2-1578-000	Internal components (4 of 4) on page 185
Sheet, registration damper	RC1-3695-000	Internal components (3 of 4) on page 183
Shutter link assembly	RM1-1321-000	Internal components (3 of 4) on page 183
Side plate, fixing, left	RC1-3605-000	Fuser assembly on page 193
Side plate, fixing, right	RC1-3604-000	Fuser assembly on page 193
Side plate, M.P. drive	RL1-1531-000	Internal components (4 of 4) on page 185
Solenoid	RK2-1587-000	Internal components (4 of 4) on page 185
Solenoid (HP LJ P2015)	RK2-0424-000	Internal components (2 of 4) on page 179
Spring compression	RU5-2894-000	Internal components (1 of 4) on page 177
Spring, compression	RU5-2323-000	Internal components (1 of 4) on page 177
Spring, compression	RU5-2335-000	Internal components (2 of 4) on page 179
Spring, compression	RC1-3736-000	Internal components (3 of 4) on page 183
Spring, compression	RU5-2144-000	Internal components (3 of 4) on page 183
Spring, compression	RU5-2338-000	Internal components (3 of 4) on page 183
Spring, compression	RU5-2337-000	Internal components (4 of 4) on page 185
Spring, compression	RC1-3625-000	Fuser assembly on page 193
Spring, compression	RU5-2901-000	Fuser assembly on page 193
Spring, compression	RC1-3489-000	Cassette assembly on page 199
Spring, compression	RU5-2327-000	Cassette assembly on page 199
Spring, contact	RC2-0344-000	Internal components (3 of 4) on page 183
Spring, contact	RC1-3719-000	Internal components (4 of 4) on page 185

Table 8-15 Alphabetical parts list (continued)

Description	Part number	Table and page
Spring, grounding	RC1-3700-000	Internal components (3 of 4) on page 183
Spring, grounding	RC1-0944-000	Internal components (4 of 4) on page 185
Spring, grounding	RC1-3492-000	Cassette assembly on page 199
Spring, tension	RU5-2895-000	Cartridge-door assembly on page 175
Spring, tension	RU5-2898-000	Internal components (1 of 4) on page 177
Spring, tension	RA0-1090-000	Fuser assembly on page 193
Spring, tension	RU5-2324-000	Cassette assembly on page 199
Spring, torsion	RC1-3543-000	Internal components (4 of 4) on page 185
Spring, torsion	RC2-0427-000	Internal components (4 of 4) on page 185
Spring, torsion	RC1-3614-000	Fuser assembly on page 193
Spring, transfer, right	RC1-3702-000	Internal components (3 of 4) on page 183
Stopper, cassette left	RC1-3508-000	Cassette assembly on page 199
Stopper, cassette right	RC1-3507-000	Cassette assembly on page 199
Stopper, claw	RC1-4198-000	Cassette assembly on page 199
Top cover assembly	RM1-4272-000	Covers on page 173
Top sensor assembly	RM1-1283-000	Internal components (3 of 4) on page 183

Numerical parts list

Table 8-16 Numerical parts list

Part number	Description	Table and page
RA0-1068-000	Cap, continuity	Internal components (4 of 4) on page 185
RA0-1090-000	Spring, tension	Fuser assembly on page 193
RA0-1189-000	Retainer, spring	Fuser assembly on page 193
RB2-2895-000	Bushing, right	Internal components (1 of 4) on page 177
RB2-2896-000	Bushing, left	Internal components (1 of 4) on page 177
RB2-2897-000	Bushing	Internal components (1 of 4) on page 177
RC1-0944-000	Spring, grounding	Internal components (4 of 4) on page 185
RC1-0950-000	Roller	Internal components (4 of 4) on page 185
RC1-3456-000	Guide, cassette, right center 1	Internal components (2 of 4) on page 179
RC1-3457-000	Guide, cassette, right center 2	Internal components (2 of 4) on page 179
RC1-3459-000	Plate, solenoid holder	Internal components (2 of 4) on page 179
RC1-3461-000	Guide, cassette, left center 1	Internal components (4 of 4) on page 185
RC1-3462-000	Guide, cassette, left center 2	Internal components (4 of 4) on page 185
RC1-3463-000	Guide, cassette, left rear	Internal components (4 of 4) on page 185
RC1-3470-000	Roller, paper pickup idler	Internal components (1 of 4) on page 177
RC1-3471-000	Shaft, paper pick-up drive	Internal components (1 of 4) on page 177
RC1-3472-000	Flag, paper-sensing	Internal components (1 of 4) on page 177
RC1-3481-000	Roller, idler	Internal components (1 of 4) on page 177
RC1-3482-000	Arm, idler roller	Internal components (1 of 4) on page 177
RC1-3483-000	Cassette body assembly	Cassette assembly on page 199
RC1-3489-000	Spring, compression	Cassette assembly on page 199

Table 8-16 Numerical parts list (continued)

Part number	Description	Table and page
RC1-3490-000	Lock, lifter plate	Cassette assembly on page 199
RC1-3492-000	Spring, grounding	Cassette assembly on page 199
RC1-3507-000	Stopper, cassette right	Cassette assembly on page 199
RC1-3508-000	Stopper, cassette left	Cassette assembly on page 199
RC1-3535-000	Guide, shutter, rear	Internal components (2 of 4) on page 179
RC1-3541-000	Plate, drum grounding	Internal components (4 of 4) on page 185
RC1-3542-000	Lever, cartridge contact	Internal components (4 of 4) on page 185
RC1-3543-000	Spring, torsion	Internal components (4 of 4) on page 185
RC1-3546-000	Cam, right	Internal components (2 of 4) on page 179
RC1-3561-000	Arm lock	Internal components (4 of 4) on page 185
RC1-3562-000	Bushing	Internal components (4 of 4) on page 185
RC1-3563-000	Cover, drum	Internal components (3 of 4) on page 183
RC1-3565-000	Plate, drum grounding	Internal components (3 of 4) on page 183
RC1-3604-000	Side plate, fixing, right	Fuser assembly on page 193
RC1-3605-000	Side plate, fixing, left	Fuser assembly on page 193
RC1-3606-000	Plate, fixing reinforcement	Fuser assembly on page 193
RC1-3607-000	Guide, fixing, upper	Fuser assembly on page 193
RC1-3611-000	Guide, paper separate, lower	Fuser assembly on page 193
RC1-3613-000	Flag, paper delivery sensor	Fuser assembly on page 193
RC1-3614-000	Spring, torsion	Fuser assembly on page 193
RC1-3615-000	Bushing	Fuser assembly on page 193
RC1-3616-000	Lever, pressure release, right	Fuser assembly on page 193
RC1-3617-000	Lever, pressure release, left	Fuser assembly on page 193
RC1-3618-000	Lever, pressure-release sensor, right	Fuser assembly on page 193
RC1-3619-000	Lever, pressure release sensor, left	Fuser assembly on page 193
RC1-3622-000	Flag, intertwine prevention	Fuser assembly on page 193
RC1-3623-000	Plate, pressure, right	Fuser assembly on page 193

Table 8-16 Numerical parts list (continued)

Part number	Description	Table and page
RC1-3624-000	Plate, pressure, left	Fuser assembly on page 193
RC1-3625-000	Spring, compression	Fuser assembly on page 193
RC1-3627-000	Holder, leaf spring	Fuser assembly on page 193
RC1-3628-000	Ring, conductive rubber	Fuser assembly on page 193
RC1-3633-000	Roller, face-up	Fuser assembly on page 193
RC1-3665-000	Bushing	Internal components (1 of 4) on page 177
RC1-3668-000	Link, gear release	Internal components (1 of 4) on page 177
RC1-3695-000	Sheet, registration damper	Internal components (3 of 4) on page 183
RC1-3698-000	Plate, transfer grounding	Internal components (3 of 4) on page 183
RC1-3700-000	Spring, grounding	Internal components (3 of 4) on page 183
RC1-3702-000	Spring, transfer, right	Internal components (3 of 4) on page 183
RC1-3708-000	Cover, registration gear	Internal components (3 of 4) on page 183
RC1-3719-000	Spring, contact	Internal components (4 of 4) on page 185
RC1-3727-000	Holder, switch	Internal components (2 of 4) on page 179
RC1-3736-000	Spring, compression	Internal components (3 of 4) on page 183
RC1-3794-000	Label, stapler prohibition	Covers on page 173
RC1-3796-000	Label, transfer guide open	Internal components (3 of 4) on page 183
RC1-4198-000	Stopper, claw	Cassette assembly on page 199
RC2-0295-000	Frame, fixing	Fuser assembly on page 193
RC2-0296-000	Guide, fixing entrance	Fuser assembly on page 193
RC2-0297-000	Bushing	Fuser assembly on page 193
RC2-0298-000	Bushing	Fuser assembly on page 193
RC2-0299-000	Needle, fixing static charge	Fuser assembly on page 193
RC2-0300-000	Cover, fixing	Fuser assembly on page 193
RC2-0303-000	Roller, pressure	Fuser assembly on page 193
RC2-0311-000	Sheet, noise absorb	Covers on page 173
RC2-0312-000	Sheet, noise absorb	Covers on page 173

Table 8-16 Numerical parts list (continued)

Part number	Description	Table and page
RC2-0314-000	Sheet, insulator	Covers on page 173
RC2-0316-000	Holder, panel PCB	Covers on page 173
RC2-0323-000	Guide, reverse	Internal components (1 of 4) on page 177
RC2-0330-000	Cover, front	Covers on page 173
RC2-0332-000	Cover, connector	Covers on page 173
RC2-0334-000	Holder, M.P. solenoid	Internal components (4 of 4) on page 185
RC2-0335-000	Guide, M.P. cable	Internal components (4 of 4) on page 185
RC2-0339-000	Guide, cartridge, left lower	Internal components (4 of 4) on page 185
RC2-0340-000	Guide, cartridge front	Internal components (4 of 4) on page 185
RC2-0342-000	Holder contact	Internal components (4 of 4) on page 185
RC2-0344-000	Spring, contact	Internal components (3 of 4) on page 183
RC2-0346-000	Guide, cartridge, right lower	Internal components (2 of 4) on page 179
RC2-0349-000	Holder, fan	Internal components (2 of 4) on page 179
RC2-0350-000	Rod, grounding	Internal components (2 of 4) on page 179
RC2-0351-000	Duct	Internal components (2 of 4) on page 179
RC2-0354-000	Duct	Internal components (2 of 4) on page 179
RC2-0356-000	Bushing	Internal components (3 of 4) on page 183
RC2-0357-000	Bushing	Internal components (3 of 4) on page 183
RC2-0358-000	Eliminator, static charge	Internal components (3 of 4) on page 183
RC2-0359-000	Guide, transfer front	Internal components (3 of 4) on page 183
RC2-0384-000	Plate, registration grounding	Internal components (3 of 4) on page 183
RC2-0386-000	Holder, paper pick-up roller	Internal components (4 of 4) on page 185
RC2-0387-000	Cam, M.P., left	Internal components (4 of 4) on page 185

Table 8-16 Numerical parts list (continued)

Part number	Description	Table and page
RC2-0388-000	Cam, M.P., right	Internal components (4 of 4) on page 185
RC2-0392-000	Arm, tag	Internal components (2 of 4) on page 179
RC2-0396-000	Holder, drawer connector	Internal components (2 of 4) on page 179
RC2-0397-000	Guide, cable	Internal components (2 of 4) on page 179
RC2-0405-000	Arm, cam	Internal components (2 of 4) on page 179
RC2-0406-000	Arm, link	Internal components (2 of 4) on page 179
RC2-0410-000	Cam	Internal components (2 of 4) on page 179
RC2-0414-000	Holder, M.P. sensor	Internal components (1 of 4) on page 177
RC2-0415-000	Flag, M.P. sensor	Internal components (1 of 4) on page 177
RC2-0416-000	Guide, cassette, right rear	Internal components (2 of 4) on page 179
RC2-0419-000	Base, separation pad	Internal components (1 of 4) on page 177
RC2-0420-000	Cover, paper pick-up roller	Internal components (4 of 4) on page 185
RC2-0421-000	Hinge, multipurpose, left	Cartridge-door assembly on page 175
RC2-0422-000	Hinge, multipurpose, right	Cartridge-door assembly on page 175
RC2-0423-000	Guide, F.F.C	Internal components (4 of 4) on page 185
RC2-0424-000	Guide, F.F.C	Internal components (4 of 4) on page 185
RC2-0425-000	Guide, cartridge, left upper	Internal components (4 of 4) on page 185
RC2-0426-000	Guide, cartridge, right upper	Internal components (2 of 4) on page 179
RC2-0427-000	Spring, torsion	Internal components (4 of 4) on page 185
RC2-0428-000	Guide, shutter, front	Internal components (2 of 4) on page 179
RC2-0429-000	Holder, separate lower guide	Fuser assembly on page 193
RC2-0431-000	Sheet, fixing bottom	Fuser assembly on page 193
RC2-1568-000	Plate, grounding	Internal components (2 of 4) on page 179

Table 8-16 Numerical parts list (continued)

Part number	Description	Table and page
RC2-1569-000	Guide, cable	Internal components (1 of 4) on page 177
RC2-1578-000	Sheet, plate bottom	Internal components (4 of 4) on page 185
RK2-0424-000	Solenoid (HP LJ P2015)	Internal components (2 of 4) on page 179
RK2-0534-000	Microswitch	Internal components (4 of 4) on page 185
RK2-1567-000	Motor, DC	Internal components (2 of 4) on page 179
RK2-1587-000	Solenoid	Internal components (4 of 4) on page 185
RK2-1589-000	Fan	Internal components (2 of 4) on page 179
RL1-0517-000	Guide, cassette, right front	Internal components (2 of 4) on page 179
RL1-0518-000	Guide, cassette, left front	Internal components (4 of 4) on page 185
RL1-0522-000	Plate, lifter	Cassette assembly on page 199
RL1-0527-000	Roller, face-down	Internal components (1 of 4) on page 177
RL1-0540-000	Roller, paper pick-up	Internal components (1 of 4) on page 177
RL1-1524-000	Pad, M.P. separation	Internal components (1 of 4) on page 177
RL1-1525-000	Roller, M.P. paper pick-up	Internal components (4 of 4) on page 185
RL1-1529-000	Left cover assembly	Covers on page 173
RL1-1530-000	Right cover assembly	Covers on page 173
RL1-1531-000	Side plate, M.P. drive	Internal components (4 of 4) on page 185
RM1-1251-000	Delivery sensor PCB assembly	Fuser assembly on page 193
RM1-1283-000	Top sensor assembly	Internal components (3 of 4) on page 183
RM1-1291-000	Delivery frame assembly	Fuser assembly on page 193
RM1-1295-000	Back end limit assembly	Cassette assembly on page 199
RM1-1296-000	Left paper side-end assembly	Cassette assembly on page 199
RM1-1297-020	Right paper side-end assembly	Cassette assembly on page 199

Table 8-16 Numerical parts list (continued)

Part number	Description	Table and page
RM1-1298-000	Separation pad assembly	Cassette assembly on page 199
RM1-1301-000	Paper pick-up gear assembly	Internal components (1 of 4) on page 177
RM1-1305-000	Face-down gear assembly	Assembly locations (1 of 2) on page 169
RM1-1305-000	Face-down gear assembly	Face-down gear assembly on page 197
RM1-1321-000	Shutter link assembly	Internal components (3 of 4) on page 183
RM1-4159-000	Paper-sensor PCB assembly	Internal components (3 of 4) on page 183
RM1-4162-000	M.P. sensor PCB assembly	Internal components (1 of 4) on page 177
RM1-4163-000	Cable, memory tag	Internal components (2 of 4) on page 179
RM1-4169-000	Inlet/switch cable assembly	Internal components (2 of 4) on page 179
RM1-4244-000	Registration assembly	Assembly locations (1 of 2) on page 169
RM1-4244-000	Registration assembly	Internal components (3 of 4) on page 183
RM1-4245-000	Paper-width sensor assembly	Internal components (3 of 4) on page 183
RM1-4247-000	Fuser assembly (110 V)	Assembly locations (2 of 2) on page 171
RM1-4247-000	Fuser assembly (110 V)	Fuser assembly on page 193
RM1-4248-000	Fuser assembly (220 V)	Assembly locations (2 of 2) on page 171
RM1-4248-000	Fuser assembly (220 V)	Fuser assembly on page 193
RM1-4249-000	Film guide assembly (110 V)	Fuser assembly on page 193
RM1-4250-000	Film guide assembly (220 V)	Fuser assembly on page 193
RM1-4251-000	Cassette	Assembly locations (1 of 2) on page 169
RM1-4251-000	Cassette	Cassette assembly on page 199
RM1-4252-000	Cassette cover assembly	Cassette assembly on page 199
RM1-4253-000	Main drive assembly	Assembly locations (1 of 2) on page 169
RM1-4253-000	Main drive assembly	Main drive assembly on page 191

Table 8-16 Numerical parts list (continued)

Part number	Description	Table and page
RM1-4262-000	Scanner assembly	Internal components (2 of 4) on page 179
RM1-4263-000	Paper-feed guide assembly	Internal components (1 of 4) on page 177
RM1-4266-000	Cartridge-door assembly	Cartridge-door assembly on page 175
RM1-4267-000	Inner cover assembly	Cartridge-door assembly on page 175
RM1-4268-000	M.P. lifting-plate assembly	Cartridge-door assembly on page 175
RM1-4269-000	Expansion-tray assembly	Cartridge-door assembly on page 175
RM1-4272-000	Top cover assembly	Covers on page 173
RM1-4273-000	ECU assembly (110 V)	Assembly locations (2 of 2) on page 171
RM1-4273-000	ECU assembly (220 V)	Assembly locations (2 of 2) on page 171
RM1-4273-000	ECU assembly (110 V)	ECU assembly on page 189
RM1-4273-000	ECU assembly (110 V)	PCB assembly locations on page 201
RM1-4274-000	ECU assembly (220 V)	ECU assembly on page 189
RM1-4274-000	ECU assembly (220 V)	PCB assembly locations on page 201
RM1-4275-000	Paper pick-up gear assembly	Internal components (4 of 4) on page 185
RM1-4276-000	Paper retaining assembly	Internal components (1 of 4) on page 177
RM1-4277-000	Rear cover assembly	Covers on page 173
RM1-4279-000	Roller, transfer	Internal components (3 of 4) on page 183
RM2-0407-000	Cover, multipurpose	Cartridge-door assembly on page 175
RU5-0320-000	Gear, 33T	Internal components (3 of 4) on page 183
RU5-0328-000	Gear, 10T	Cassette assembly on page 199
RU5-0330-000	Gear, 17T	Fuser assembly on page 193
RU5-0331-000	Gear, 29T	Internal components (1 of 4) on page 177
RU5-0332-000	Gear, 19T	Internal components (1 of 4) on page 177
RU5-0927-000	Gear, 19T	Internal components (4 of 4) on page 185

Table 8-16 Numerical parts list (continued)

Part number	Description	Table and page
RU5-0928-000	Gear, 26T	Internal components (4 of 4) on page 185
RU5-0929-000	Gear, 14T	Internal components (4 of 4) on page 185
RU5-2144-000	Spring, compression	Internal components (3 of 4) on page 183
RU5-2323-000	Spring, compression	Internal components (1 of 4) on page 177
RU5-2324-000	Spring, tension	Cassette assembly on page 199
RU5-2327-000	Spring, compression	Cassette assembly on page 199
RU5-2335-000	Spring, compression	Internal components (2 of 4) on page 179
RU5-2337-000	Spring, compression	Internal components (4 of 4) on page 185
RU5-2338-000	Spring, compression	Internal components (3 of 4) on page 183
RU5-2894-000	Spring compression	Internal components (1 of 4) on page 177
RU5-2895-000	Spring, tension	Cartridge-door assembly on page 175
RU5-2898-000	Spring, tension	Internal components (1 of 4) on page 177
RU5-2901-000	Spring, compression	Fuser assembly on page 193
VS1-7258-007	Connector, drawer	Internal components (2 of 4) on page 179
XA9-1420-000	Screw, with washer, M3x8	Internal components (3 of 4) on page 183
XA9-1422-000	Screw, with washer, M4x12	Internal components (3 of 4) on page 183
XA9-1422-000	Screw, with washer, M4x12	Fuser assembly on page 193
XA9-1495-000	Screw, RS, M3x6	Internal components (1 of 4) on page 177
XA9-1495-000	Screw, RS, M3x6 (HP LJ P2015)	Internal components (2 of 4) on page 179
XA9-1495-000	Screw, RS, M3x6	Internal components (4 of 4) on page 185
XA9-1503-000	Screw, tap, M3x6	Internal components (1 of 4) on page 177
XA9-1503-000	Screw, tap, M3x6	Internal components (2 of 4) on page 179
XA9-1503-000	Screw, tap, M3x6	Fuser assembly on page 193

Table 8-16 Numerical parts list (continued)

Part number	Description	Table and page
XA9-1504-000	Screw, RS, M3x8	Internal components (1 of 4) on page 177
XA9-1504-000	Screw, RS, M3x8	Internal components (2 of 4) on page 179
XA9-1504-000	Screw, RS, M3x8	Internal components (3 of 4) on page 183
XA9-1504-000	Screw, RS, M3x8	Internal components (4 of 4) on page 185
XA9-1561-000	Screw, RS, M3x6	Internal components (2 of 4) on page 179
XA9-1648-000	Screw, tap, M3x8	Internal components (2 of 4) on page 179
XB2-7400-606	Screw, toothed washer, M4x6	Internal components (2 of 4) on page 179
XB4-7300-809	Screw, tap, binding head, M3x8	Covers on page 173
XB4-7300-809	Screw, tap, binding head, M3x8	Internal components (1 of 4) on page 177
XB4-7300-809	Screw, tap, binding head, M3x8	Internal components (2 of 4) on page 179
XB4-7300-809	Screw, tap, binding head, M3x8	Internal components (3 of 4) on page 183
XB4-7300-809	Screw, tap, binding head, M3x8	Fuser assembly on page 193
XB4-7401-005	Screw, tapping, truss head, M4x10	Internal components (1 of 4) on page 177
XB4-7401-005	Screw, tapping, truss head, M4x10	Internal components (3 of 4) on page 183
XB4-7401-005	Screw, M4x10	Cassette assembly on page 199

A Accessory/Consumable addendum

This appendix provides information on the following topics:

- [Order parts and supplies](#)
- [Order parts, accessories, and supplies](#)
- [Supplies and accessories table](#)
- [10/100 networking print servers](#)
- [HP print cartridges](#)

Order parts and supplies

Parts

Order replacement parts from the following Web sites:

<http://h30074.www3.hp.com/csn-aux/srvcdlvry/epdo/default/ePDOLogin.asp> (technicians)

<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 A-1 Technical support Web sites

HP Customer Care Online	http://www.hp.com/support
Software drivers, support documentation, and answers to frequently asked questions	
HP Technical Training	http://education.itrc.hp.com/TrainerII/en-US/index.jsp
(North America)	
Classes and schedules	

Supplies

Printer 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.

Order parts, accessories, and supplies

- [Order directly from HP](#)
- [Order through service or support providers](#)
- [Order directly through the embedded Web server](#)

Order directly from HP

You can obtain the following directly from HP:

- **Replacement parts.** To order replacement parts in the U.S. see <http://www.hp.com/buy/parts>. Outside the United States, order parts by contacting your local authorized HP service center.
- **Supplies and accessories.** To order supplies in the U.S., see <http://www.hp.com/go/ljsupplies>. To order supplies worldwide, see <http://www.hp.com/ghp/buyonline.html>. To order accessories, see <http://www.hp.com/go/support/ljP2010series>.

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

1. In the Web browser on the computer, type the IP address for the MFP. The MFP status window appears.
2. In the **Other links** area, double-click **Order Supplies**. This provides a URL from which to purchase consumables. Supplies information with part numbers and MFP information is provided.
3. Select the part numbers that you want to order and follow the instructions on the screen.

Supplies and accessories table

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

Table A-2 Ordering information

	Item	Description or use	Order number
Print cartridges for the product	Smart print cartridges	Replacement print cartridges for the product.	Q7553A (3,000-page cartridge)
			Q7553X (7,000-page cartridge)
Supplementary documentation	<i>HP LaserJet family print media guide</i>	A guide to using paper and other print media with HP LaserJet printers.	5963-7863
			 NOTE: This document can be downloaded from http://www.hp.com/support/ljpaperguide/ .
Replacement parts	Media pickup roller (for tray 1)	Picks media from tray 1 and advances it through the printer.	CB366-67901
	Media pickup roller (for tray 2)	Picks media from tray 2 and advances it through the printer.	CB366-67902
Accessories	250-sheet paper tray (tray 3)	Provides an additional 250-sheet input tray.	Q5931A

10/100 networking print servers

Table A-3 HP LaserJet P2014 Series printer

Item and description	Order number
HP Jetdirect en3700 fast Ethernet print server	J7942A
HP Jetdirect en2400 802.11g wireless external print server (full featured, USB port)	J7951A
HP Jetdirect 175x fast-Ethernet external print server (value line, USB port)	J6035C

Must be Version C or later.

HP print cartridges

HP policy on non-HP print cartridges

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



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

Storing print cartridges

Do not remove the print cartridge from its package until you are ready to use it, and minimize exposure to light.

Print cartridge life expectancy

The average cartridge yield is 3000 pages in accordance with ISO/IEC 19752. Actual cartridge yield depends on specific use.

Saving toner

EconoMode is a feature that allows the printer to use less toner per page. Selecting this option may extend the life of the print cartridge and reduce your cost per page. However, it will also reduce print quality. The printed image is lighter, but it is adequate for printing drafts or proofs.

HP does not recommend the full-time use of EconoMode. If EconoMode is used full-time, it is possible that the toner supply will outlast the mechanical parts in the print cartridge. If print quality begins to degrade under these circumstances, you must install a new print cartridge, even if there is toner supply remaining in the cartridge. See [EconoMode on page 57](#) for more information.

B Service and support

Hewlett-Packard limited warranty statement

HP PRODUCT

HP LaserJet P2010 Series printers

DURATION OF LIMITED WARRANTY

One year from date of purchase

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.

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 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.

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Limited warranty for print cartridges and image drums

This HP Print Cartridge is warranted to be free from defects in materials and workmanship.

This warranty does not apply to print cartridges that (a) have been refilled, refurbished, remanufactured or tampered with in any way, (b) experience problems resulting from misuse, improper storage, or operation outside of the published environmental specifications for the printer product or (c) exhibit wear from ordinary use.

To obtain warranty service, please return the product to place of purchase (with a written description of the problem and print samples) or contact HP customer support. At HP's option, HP will either replace products that prove to be defective or refund your purchase price.

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HP Customer Care

Online services

For 24-hour access to information by using a modem or Internet connection

World Wide Web: Updated HP product software, product and support information, and printer drivers in several languages can be obtained from <http://www.hp.com/go/support/ljP2010series> (The site is in English.)

Online troubleshooting tools

HP Instant Support Professional Edition (ISPE) is a suite of Web-based problem solving tools for desktop computing and printing products. ISPE helps you quickly identify, diagnose, and resolve computing and printing problems. The ISPE tools can be accessed from <http://instantsupport.hp.com>.

Telephone support

Hewlett-Packard provides free telephone support during the warranty period. When you call, you will be connected to a responsive team that is waiting to help you. For the telephone number for your country/region, see the flyer that came in the box with the product, or visit <http://www.hp.com> then click **Contact HP**. Before calling HP, have the following information ready: product name and serial number, date of purchase, and description of the problem.

You can also find support on the Internet at <http://www.hp.com/go/support/ljP2010series>. Click the **support & drivers** block.

Software utilities, drivers, and electronic information

Go to <http://www.hp.com/go/support/ljP2010series>. (The site is in English, but printer drivers can be downloaded in several languages.)

You can obtain additional information over the telephone. For telephone numbers, see the flyer that came in the box with the device.

HP direct ordering for accessories or supplies

Order supplies from the following Web sites:

North America: <https://www.hp.com/post-embed/ordersupplies-na>

Latin America: <https://www.hp.com/post-embed/ordersupplies-la>

Europe and Middle East: <https://www.hp.com/post-embed/ordersupplies-emea>

Asia Pacific countries/regions: <https://www.hp.com/post-embed/ordersupplies-ap>

Order accessories from <http://www.hp.com> and click **Supplies & Accessories**. For more information, see [Supplies and accessories table on page 226](#).

To order supplies or accessories over the telephone, call the following numbers:

United States: 1-800-538-8787

Canada: 1-800-387-3154

To find the telephone numbers for other countries/regions, see the flyer that came in the box with the device.

HP service information

To locate HP-Authorized Dealers in the United States or Canada, call 1-800-243-9816 (United States) or 1-800-387-3867 (Canada). Or, go to <http://www.hp.com/go/cposupportguide>.

For service for your HP product in other countries/regions, call the HP Customer Support telephone number for your country/region. See the flyer that came 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).

Out-of-Warranty Service: 1-800-633-3600.

Availability of support and service

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

HP Care Pack™ Services and Service Agreements

HP has various service and support options that meet a wide range of needs. These options are not part of the standard warranty. Support services vary by location. For most products HP offers both in-warranty and post-warranty HP Care Pack Services and Service Agreements.

To identify service and support options for this device go to <http://www.hpexpress-services.com/10467a> and type the device model number. In North America, Service Agreement information can be obtained through HP Customer Care. Call 1-800-HPINVENT 1-800-474-6836 (U.S.) or 1-800-268-1221 (Canada). In other countries/regions please contact your country/region specific HP Customer Care Center. See the inbox flyer or go to <http://www.hp.com> for the HP Customer Care telephone number in your country/region.

Extended Service: 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 <http://www.hpexpress-services.com/10467a>.

Guidelines for repacking the printer

Use the following guidelines when repacking the printer:

- If possible, include print samples and 5 to 10 sheets of paper or other media that did not print correctly.
- Remove and keep any cables, trays, and optional accessories installed in the printer.
- Remove and keep the print cartridge.



CAUTION: To prevent damage to the print cartridge, store the print cartridge in its original packing material, or store it so that it is not exposed to light.

- If possible, use the original shipping container and packing material. *Shipping damage as a result of inadequate packing is your responsibility.* If you have already disposed of the printer's packing material, contact a local mailing service for information on repacking the printer.
- Hewlett-Packard recommends that you insure the equipment for shipment.

C Printer specifications

This appendix provides information on the following topics:

- [Physical specifications](#)
- [Electrical specifications](#)
- [Acoustic emissions](#)
- [Environmental specifications](#)
- [Printer capacities and ratings](#)
- [Memory specifications](#)
- [Port availability](#)

Physical specifications

Dimensions	<ul style="list-style-type: none">• Width: 350 mm (16.8 inches)• Depth: 361 mm (14.2 inches)• Height: 256 mm (10.0 inches)
Weight (3,000-page cartridge installed)	HP LaserJet P2010 series: 10.7 kg (23.6 lb)

Electrical specifications



WARNING! Power requirements are based on the country/region where the printer is sold. Do not convert operating voltages. Doing so might damage the printer and void the product warranty.

Table C-1 HP LaserJet P2010 Series printers

Power requirements (110)	110-127v (+/-10%), 50/60 Hz (+/-2)
Power requirements (230)	220v-240v (+/-10%), 50/60 Hz (+/-2 Hz)
Power consumption	<ul style="list-style-type: none">• During printing (24 ppm): 410 watts (average)• During Ready (Standby)/Sleep*: 7 Watts* Instant-on fuser technology• Off: 0 watts
Rated current	<ul style="list-style-type: none">• 4.9 amps at 115 volts• 2.9 amps at 230 volts



NOTE: Values are based on preliminary data. See www.hp.com for current information.

NOTE: The power reported is the highest value measured for monochrome printing using all standard voltages.

NOTE: The recovery time from Ready/Sleep mode to the start of printing is less than 10 seconds because of the instant-on fusing.

NOTE: The heat dissipation in Ready mode is 25 BTU/hour.

Acoustic emissions

Declared per ISO 9296

Table C-2 HP LaserJet P2010 Series printers

Sound power level	Printing (23 ppm): $L_{WA,d} = 6.24$ Bels A and 62.4 dB (A)
	Ready (Sleep): Inaudible
Sound pressure level bystander position	Printing (23 ppm): $L_{pA,m} = 50$ dB (A)
	Ready (Sleep): Inaudible



NOTE: Values are based on preliminary data. See <http://www.hp.com/go/support/ljP2010series> for current information.

NOTE: Configuration tested: HP LaserJet P2014 base unit, 23 ppm, standard tray, A4 paper, and simplex continuous print.

Environmental specifications

Operating environment

Printer plugged into an AC outlet:

- Temperature: 10° C to 32.5° C (50° F to 90.5° F)
 - Humidity: 20 to 80 percent (no condensation)
-

Storage environment

Printer unplugged from an AC outlet:

- Temperature: 0° C to 40° C (32° F to 104° F)
 - Humidity: 10 to 80 percent (no condensation)
-



NOTE: Values are based on preliminary data. See www.hp.com for current information.

Printer capacities and ratings

Print speed	HP LaserJet P2015 printer: <ul style="list-style-type: none">• 27 ppm (letter), 26 ppm (A4)• First page out in as few as 8.5 seconds
Tray 2 capacity	250 sheets of regular weight 75 g/m ² (20 lb) paper
Tray 1 capacity	50 sheets of regular weight 75 g/m ² ((20 lb)) paper
Optional input tray (tray 3) capacity	250 sheets of regular weight 75 g/m ² (20 lb) paper
Top (face down) output bin capacity	125 sheets of regular weight 75 g/m ² (20 lb) paper
Minimum paper size	76 by 127 mm (3 by 5 inches)
Maximum paper size	216 by 356 mm (8.5 by 14 inches)
Media weight	Output bin: 60 to 105 g/m ² (16 to 28 lbs) Straight through media path: 60 to 163 g/m ² (16 to 43 lbs)
Base memory	32 MB RAM
Print resolution	<ul style="list-style-type: none">• 1200 dpi: This setting uses ProRes 1200 to provide fine-line detail at 1200 x 1200 dpi.• 1200 effective dpi: This setting provides 1200 dpi effective output quality using FastRes 1200.• 600 dpi: This setting provides 600 x 600 dpi output with Resolution Enhancement technology (REt) for improved text.
Duty cycle	<ul style="list-style-type: none">• 10,000 single-sided pages per month (maximum)• 1,000 single-sided pages per month (average)
PCL	PCL 5e, PCL 6
Postscript emulation	HP postscript level 3 emulation

Memory specifications

Base memory	32 MB RAM
Upgrade memory expansion	100-pin, 66 MHz minimum speed

Port availability

USB	Compatible with High-speed USB 2.0 specifications
Network	RJ-45, Ethernet 10/100
(networking-equipped models only)	

D Regulatory information

FCC compliance

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

- Reorient or relocate the receiving antenna.
- Increase separation between equipment and receiver.
- Connect equipment to an outlet on a circuit different from that to which the receiver is located.
- Consult your dealer or an experienced radio/TV technician.



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

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

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 (O₃).

Power consumption

Power usage drops significantly while in Ready/Sleep mode, which saves natural resources and saves money without affecting the high performance of this product. To determine the ENERGY STAR® qualification status for this product see the Product Data Sheet or Specifications Sheet. Qualified products are also listed at:

<http://www.hp.com/hpinfo/globalcitizenship/environment/productdesign/ecolabels.html>

Toner consumption

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

Paper use

This product'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. Multilingual program information and instructions are included in every new HP LaserJet print cartridge and supplies package. You help reduce the toll on the environment further when you return multiple cartridges together rather than separately.

HP is committed to providing inventive, high-quality products and services that are environmentally sound, from product design and manufacturing to distribution, customer use and recycling. When you participate in the HP Planet Partners program, we ensure your HP LaserJet print cartridges are recycled properly, processing them to recover plastics and metals for new products and diverting millions of tons of waste from landfills. Since this cartridge is being recycled and used in new materials, it will not be returned to you. Thank you for being environmentally responsible!



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

Return and recycling instructions

United States and Puerto Rico

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

Multiple returns (two to eight cartridges)

1. Package each HP LaserJet print cartridge in its original box and bag.
2. Tape up to eight single boxes together using strapping or packaging tape (up to 70 lbs).
3. Use a single pre-paid shipping label.

OR

1. Use your own suitable box, or request a free bulk collection box from the <http://www.hp.com/recycle> or 1-800-340-2445 (holds up to eight HP LaserJet print cartridges).
2. Use a single pre-paid shipping label.

Single returns

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

Shipping

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

Non-US returns

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

Paper

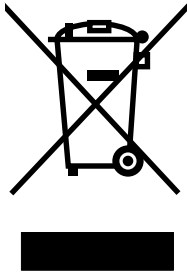
This product is capable of using recycled papers when the paper meets the guidelines outlined in the *HP LaserJet Printer Family Print Media Guide*. This product is suitable for the use of recycled paper according to EN12281:2002.

Material restrictions

This HP product does not contain added mercury.

This HP product does not contain a battery.

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



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

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 or www.hp.com/hpinfo/globalcitizenship/environment.

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 www.hp.com/go/environment or www.hp.com/hpinfo/globalcitizenship/environment.

Declaration of Conformity statements

Declaration of Conformity

according to ISO/IEC 17050-1 and EN 17050-1

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 P2011/P2012/P2013/P2014 Series
Regulatory Model ³⁾: BOISB-0602-00

Product Options: Including: Q5931A — Optional 250–Sheet Input Tray
ALL

Toner Cartridges: Q7553A / Q7553X

conforms to the following Product Specifications:

Safety: IEC 60950-1:2001 / EN 60950-1:2001 +A11
IEC 60825-1:1993 +A1 +A2/EN 60825-1:1994 +A1 +A2 (Class 1 Laser/LED Product)
GB4943-2001

EMC: CISPR22:1997 / EN55022:1998 Class B¹⁾
EN 61000-3-2:2000
EN 61000-3-3:1995 / A1
EN 55024:1998 +A1 +A2
FCC Title 47 CFR, Part 15 Class B²⁾ / ICES-003, Issue 4
GB9254-1998, GB17625.1-2003

Supplementary Information:

The product herewith complies with the requirements of the EMC Directive 2004/108/EC and the Low Voltage Directive 73/23/EEC, and carries the CE-Marking accordingly.

1) The product was tested in a typical configuration with Hewlett-Packard Personal Computer Systems.

2) This Device complies with Part 15 of the FCC Rules. Operation is subject to the following two Conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

3) For regulatory purposes, this product is assigned a Regulatory model number. This number should not be confused with the product name or the product number(s).

Boise, Idaho 83714, USA

July 2007

For Regulatory Topics ONLY, contact:

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

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

Regulatory statements

Laser safety statement

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

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



WARNING! Using controls, making adjustments, or performing procedures other than those specified in this user guide could 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). »

Korean EMI statement

B급 기기 (가정용 정보통신기기)

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

Laser statement for Finland

LASERTURVALLISUUS

LUOKAN 1 LASERLAITE

KLASS 1 LASER APPARAT

HP LaserJet P2010 -sarja, HP LaserJet P2011 -sarja, HP LaserJet P2012 -sarja, HP LaserJet P2013 -sarja -laserkirjoitin on käyttäjän kannalta turvallinen luokan 1 laserlaite. Normaalisissa käytössä kirjoittimen suojakotelointi estää lasersäteen pääsyn laitteen ulkopuolelle.

Laitteen turvallisuusluokka on määritetty standardin EN 60825-1 (1994) mukaisesti.

VAROITUS!

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

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 P2010 -sarja, HP LaserJet P2011 -sarja, HP LaserJet P2012 -sarja, HP LaserJet P2013 -sarja -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 785-800 nm

Teho 5 mW

Luokan 3B laser

Index

Symbols/Numerics

10/100 networking and wireless
print servers 227

A

accessories
 ordering 225
accessories, ordering 226
accessory error secondary
 messages 134
acoustics 239
agreements, maintenance 235

B

back cover, removing 77
batteries included 247
blank pages 137
block diagram 60
button, print-cartridge-door 3

C

cartridge door, removing 119
cartridges
 drum rotation check 153
 recycling 245
 replace 28
cartridges, print
 warranty 231
Cassette assembly, part
 numbers 198
checks
 drum rotation 153
 engine 152
 half-self-test 153
 heating element 153
 high-voltage power supply 154
circuit diagram 161
classes 224

cleaning

 high-voltage connection
 points 155
 high-voltage contacts 154
 media path 33
 pickup roller (tray 1) 34
 pickup roller (tray 2) 44
 printer 31

clearing jams 144

cold reset 159

Configuration page 21

connecting to the network 15

conserving toner 228

consumables

 ordering 224

contracts, maintenance 235

control panel

 description 5

 removing 83

 status-light patterns 124

covers

 back, removing 77

 cartridge door, removing 119

 left-side, removing 76

 part numbers 172

 right-side, removing 76

 top, removing 78

crooked pages 135

custom paper sizes 7

Customer Care 233

customer support

 maintenance agreements 235

D

dc controller 64

default settings, restoring 158, 159

Demo page 21

disposal, end-of-life 247

door

 print cartridge 3

 straight-through output 3

driver

 Macintosh, accessing 19

 Macintosh, installing 19

 Windows, accessing 17

 Windows, installing 17

drum

 rotation functional check 153

E

EconoMode 57

ECU

 part numbers 188

 removing 101

electrical specifications 238

electrostatic discharge (ESD) 74

Embedded Web Server (EWS)

 Configuration page 25

 device status 25

 Information tab 25

 Networking tab 25

 product support 25

 Settings tab 25

 shop for supplies 25

 supplies status 25

 using 24

end-of-life disposal 247

engine control system 60, 64

engine test 152

Environmental Product

 Stewardship Program 245

environmental

 specifications 12, 240

errors

 software 156

ESD (electrostatic discharge) 74

European Union, waste

 disposal 247

- EWS. See embedded Web server
- extended warranty 235
- F**
- fan
 - removing 89
- fatal error secondary messages 130
- FCC compliance 244
- features
 - network model 2
 - standard 2
- feeding problems, solving 135
- formatter
 - removing 85
- fuser
 - errors 133
 - removing 89, 90
- fuser assembly, part numbers 192
- G**
- garbled text 137
- gear assembly, part numbers 196
- graphics
 - missing 137
 - poor quality 138
- H**
- half-self-test functional check 153
- heating element check 153
- high-voltage PCA 64
- high-voltage power supply, checking 154
- HP Customer Care 233
- HP Customer Care Online 224
- HP internal network port 3
- HP SupportPack 235
- HP Technical Training 224
- I**
- image quality, troubleshooting
 - repetitive image defects 143
- image-formation system
 - block diagram 60
 - operations 69
 - testing 153
- improve print quality 139
- information pages
 - Configuration page 21
 - Demo page 21
 - Supplies Status page 21
- Information tab (embedded Web server) 25
- input tray
 - loading media 9
 - tray 1 3
 - tray 2 3
- install
 - Macintosh software 19
 - Windows software 17
- installing printer 12
- interlock assembly, removing 100
- internal components 61, 176
- J**
- jams
 - detection operations 67
- jams, clearing 144
- L**
- laser/scanner
 - errors 132
 - operations 60, 66
 - removing 86
- left-side cover, removing 76
- license, software 232
- life expectancy, print cartridge 228
- light patterns 124
- lights
 - accessory error secondary messages 134
 - fatal error secondary messages 130
- loading media
 - optional tray 3 9
 - tray 1 9
 - tray 2 9
- M**
- Macintosh
 - driver, accessing 19
 - driver, installing 19
 - PPDs 20
 - software 19
- main drive assembly, part numbers 190
- main gear assembly, removing 115
- main motor, removing 108
- maintenance
 - agreements 235
- manual-feed printing 10
- material restrictions 247
- Material Safety Data Sheet (MSDS) 247
- media
 - clearing jams 144
 - feeding operations 67
 - load 9
 - printing manually 10
 - problem solving 135
 - supported sizes 6
- media path, cleaning 33
- memory
 - cold reset 159
 - NVRAM initialization 158
- memory-tag-reader assembly, removing 87
- mercury-free product 247
- missing
 - graphics 137
 - text 137
- model number 3
- motor, removing 108
- N**
- network connections 15
- network port, HP internal 3
- network-setup problem-solving 157
- Networking tab (embedded Web server) 25
- NVRAM initialization 158
- O**
- on/off switch 3
- online customer support 233
- online support 224
- operating environment
 - specifications 12
- operating systems, supported 17
- operations
 - block diagram 60
 - engine control system 64
 - image-formation system 69
 - laser/scanner system 66
 - pickup/feed/delivery system 67
 - sequence of 63
- order supplies and accessories 226
- ordering
 - parts 224

- supplies 224
- supplies and accessories 225
- output bin
 - location 3
 - removing jams in 149
- output path, straight-through 10
- overview, product 3
- P**
- pages, skewed 135
- paper
 - custom sizes 7
 - feeding operations 67
 - supported sizes 6
- paper input trays
 - feeding problems, solving 135
- parallel connection 15
- parallel port 4
- part numbers
 - Cassette assembly 198
 - covers 172
 - ECU 188
 - fuser assembly 192
 - internal components 176
 - main drive assembly 190
 - top output bin gear assembly 196
- parts
 - ordering 224
 - removing and replacing 74, 75
- phone numbers
 - support 233
- phone numbers, ordering
 - supplies 224
- photosensitive drum
 - rotation functional checks 153
- physical specifications 12, 238
- pickup roller (tray 1) 34, 39
- pickup roller (tray 2) 44, 51
- pickup/feed/delivery system 60, 67
- port, USB location 4
- power
 - high-voltage PCA 64
 - sequence of operations 63
 - testing high-voltage 154
 - troubleshooting 122
- power receptacle 3
- power switch 3
- PPDs 20

- print cartridge
 - door 3
 - HP policy on 228
 - life expectancy 228
 - ordering 226
 - redistributing toner 30
 - storing 228
 - using HP cartridges 228
- print cartridges
 - recycling 245
 - replace 28
 - warranty 231
- print media
 - load 9
 - supported 6
- print quality
 - creases 142
 - curl 142
 - dropouts 139
 - EconoMode 57
 - gray background 140
 - improve 139
 - light or faded print 139
 - loose toner 141
 - misformed characters 141
 - page skew 142
 - toner scatter outline 143
 - toner smear 140
 - toner specks 139
 - vertical lines 140
 - vertical repetitive defects 141
 - wave 142
 - wrinkles 142
- print servers 227
- print-cartridge door, removing 119
- print-cartridge-door button 3
- printer
 - cleaning 31
 - connections 15
 - control panel 5
 - features 2
 - repacking 236
 - software problems 156
 - specifications 237
- printer driver
 - Macintosh 19
 - Windows 17
- printer information pages
 - Configuration page 21

- Demo page 21
- Supplies Status page 21
- printer, specifications 241
- printing
 - Configuration page 21
 - Demo page 21
 - manual feed 10
 - Supplies Status page 21
- product
 - features 2
 - overview 3
- Q**
- quality, troubleshooting
 - repetitive image defects 143
- R**
- recycling
 - HP printing supplies returns and environmental program 246
 - print cartridges 28
- redistributing toner 30
- registration assembly, removing 111
- regulatory statements
 - Canadian DOC regulations 249
 - declaration of conformity statements 248
 - environmental product stewardship program 245
 - FCC compliance 244
 - Korean EMI statement 249
 - laser statement for Finland 250
- removing a jammed page 144
- removing parts 74, 75
- repacking the printer 236
- repetitive defects, troubleshooting 143
- replace print cartridge 28
- replacement parts 226
- replacing
 - parts 74, 75
 - pickup roller (tray 1) 39
 - pickup roller (tray 2) 51
- reset, cold 159
- restoring default settings 158, 159
- right-side cover, removing 76
- rollers
 - diagrams 165

- locating 61
 - removing transfer 110
 - rotation check, drum 153
- S**
- saving toner 228
 - screws, replacing 74
 - sensors, media detection 67, 164
 - separation pad
 - diagrams 165
 - sequence of operations 63
 - serial number 4
 - service
 - agreements 235
 - setting up printer 12
 - Settings tab (embedded Web server) 25
 - settings, restoring default 158, 159
 - skewed pages 135
 - software
 - accessing Windows driver 17
 - Macintosh 19
 - printer drivers, Windows 17
 - problems 156
 - software license
 - agreement 232
 - supported operating systems 17
 - Windows 17
 - solenoids, removing
 - diagrams 163
 - tray 2 pickup 115
 - solving
 - blank pages 137
 - creases 142
 - curl 142
 - dropouts 139
 - feeding problems 135
 - garbled text 137
 - gray background 140
 - incomplete text 137
 - light or faded print 139
 - loose toner 141
 - misformed characters 141
 - missing graphics or text 137
 - page skew 142
 - poor graphics quality 138
 - printed page differs from onscreen page 137
 - printer software problems 156
 - skewed pages 135
 - toner scatter outline 143
 - toner smear 140
 - toner specks 139
 - vertical lines 140
 - vertical repetitive defects 141
 - wave 142
 - wrinkles 142
 - space requirements 12
 - special media
 - guidelines 7
 - special paper
 - guidelines 7
 - specifications
 - acoustics 239
 - capacities and ratings 241
 - electrical 238
 - environmental 12, 240
 - memory 241
 - physical 238
 - port availability 241
 - static precautions 74
 - status lights
 - accessory error secondary messages 134
 - fatal error secondary messages 130
 - status-light patterns 124
 - straight-through output door 3
 - straight-through output path 10
 - supplies
 - ordering 224, 225
 - recycling 245
 - Supplies Status page 21
 - supplies, ordering 226
 - support
 - Customer Care 233
 - maintenance agreements 235
 - supported media 6
 - supported operating systems 17
 - SupportPack, HP 235
 - switch, interlock 164
 - switch, power 3
- T**
- table, repetitive defect 143
 - technical support
 - maintenance agreements 235
 - Technical Training, HP 224
 - telephone numbers
 - support 233
 - telephone numbers, ordering supplies 224
 - tests
 - drum rotation 153
 - engine 152
 - half-self functional check 153
 - heating element 153
 - high-voltage power supply 154
 - text
 - garbled 137
 - missing 137
 - timing chart 160
 - toner
 - cartridge. See print cartridge
 - conserving 228
 - loose toner 141
 - low 139
 - print cartridge door 3
 - redistributing 30
 - scatter outline 143
 - smear 140
 - specks 139
 - storing print cartridges 228
 - tools, required 74
 - top cover, removing 78
 - top output bin gear assembly, part numbers 196
 - transfer roller, removing 110
 - tray 1
 - loading 9
 - location 3
 - tray 2
 - loading 9
 - location 3
 - tray 2 pickup solenoid, removing 115
 - tray 3 9
 - trays
 - feeding operations 67
 - troubleshooting
 - accessory error secondary messages 134
 - basic steps 122
 - drum rotation check 153
 - engine test 152
 - fatal error secondary messages 130
 - half self-test 153

- heating element 153
- image formation 153
- power 122

U

- USB connection 15
- USB port
 - location 4

W

- warranty
 - extended 235
 - license 232
 - print cartridge 231
 - product 230
- Web server, embedded 24
- Web sites
 - customer support 233
 - Material Safety Data Sheet (MSDS) 247
 - ordering supplies 225
- Web sites, ordering parts 224
- Windows
 - driver, accessing 17
 - driver, installing 17
- wire harnesses, replacing 74

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