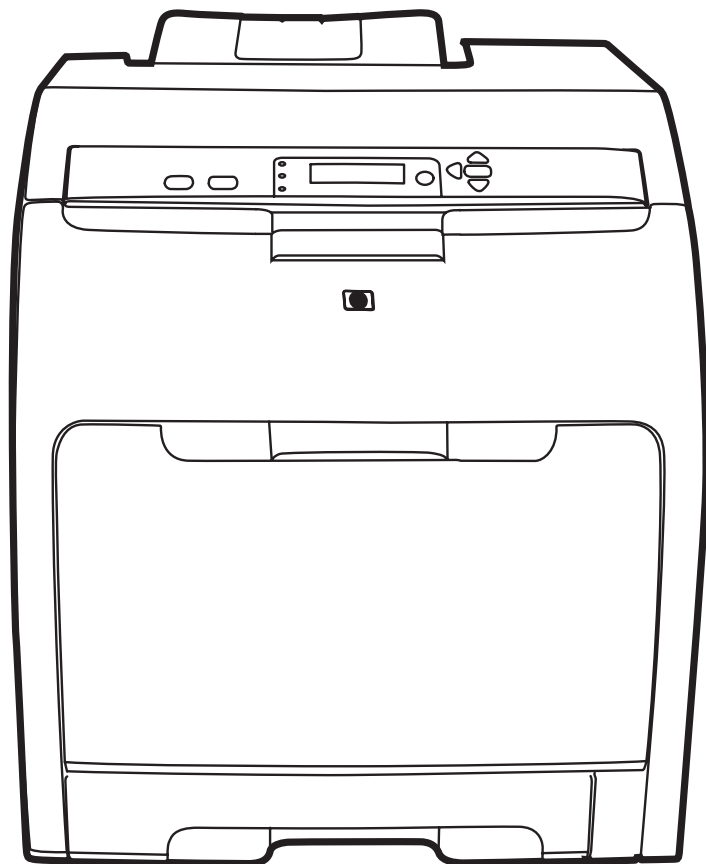# HP Color LaserJet 3000/3600/3800/CP3505 Series Printer

Service Manual

HP Color LaserJet 3000/3600/3800/CP3505 Series Printer

Service Manual

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1 Product information

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Quick access to printer information

Several references are available for use with this printer.

- **HP Color LaserJet 3000 Series printer**: www.hp.com/support/clj3000.

- **HP Color LaserJet 3600 Series printer**: www.hp.com/support/clj3600.

- **HP Color LaserJet 3800 Series printer**: www.hp.com/support/clj3800.

- **HP Color LaserJet CP3505 Series printer**: http://www.hp.com/support/cljcp3505.

Table 1-1 Printer guides

Guide	Description
Getting started guide	Provides step-by-step instructions for installing and setting up the printer.
HP Jetdirect Embedded Print Server Administrators Guide	Provides instructions to configure and troubleshoot the HP Jetdirect print server.
Accessory and consumable installation guides	Provide step-by-step instructions for installing the accessories and supplies. These guides are supplied with the optional printer accessories and supplies.
User guide	Provides detailed information for using and troubleshooting the printer. Available on the printer CD.
Online Help	Provides information about options that are available in the printer drivers. To view a Help file, open the online Help through the printer driver.

Printers at a glance

The HP Color LaserJet 3000, 3600, 3800, and CP3505 Series printers are available in the following configurations.

HP Color LaserJet 3000 Series printer

Table 1-2 HP Color LaserJet 3000 Series printer configurations

HP Color LaserJet 3000 printer	HP Color LaserJet 3000n printer	HP Color LaserJet 3000dn printer	HP Color LaserJet 3000dtn printer
• Prints up to 30 pages per minute (ppm) on letter-size media or 29 ppm on A4-size media in monochrome (black and white) and 15 ppm in color • 100-sheet multipurpose tray (tray 1) and 250-sheet input tray (tray 2) • Hi-Speed universal serial bus (USB) 2.0 port and enhanced input/output (EIO) slot • 64 MB RAM	The features of the HP Color LaserJet 3000 printer, plus: • 64 MB RAM (128 total) • HP Jetdirect full-featured embedded print server to connect to 10Base-T/100 Base-TX networks	The features of the HP Color LaserJet 3000 printer, plus: • 192 MB RAM (256 total) • HP Jetdirect full-featured embedded print server to connect to 10Base-T/100 Base-TX networks • Automatic 2-sided (duplex) printing	The features of the HP Color LaserJet 3000 printer, plus: • 192 MB RAM (256 total) • HP Jetdirect full-featured embedded print server to connect to 10Base-T/100 Base-TX networks • Automatic 2-sided (duplex) printing • 500-sheet input tray (tray 3)

HP Color LaserJet 3600 Series printer

Table 1-3 HP Color LaserJet 3600 Series printer configurations

HP Color LaserJet 3600 printer	HP Color LaserJet 3600n printer	HP Color LaserJet 3600dn printer
• 17 ppm print speed • 100-sheet multipurpose tray (tray 1) and 250-sheet input tray (tray 2) • Hi-Speed USB 2.0 port • 64 MB RAM	The features of the HP Color LaserJet 3600 printer, plus: • HP Jetdirect value-featured embedded print server to connect to 10Base-T/100Base-TX networks • 64 MB RAM	The features of the HP Color LaserJet 3600 printer, plus: • 64 MB RAM (128 total) • Automatic 2-sided (duplex) printing • HP Jetdirect value-featured embedded print server to connect to 10Base-T/100Base-TX networks

HP Color LaserJet 3800 Series printer

Table 1-4 HP Color LaserJet 3800 Series printer configurations

HP Color LaserJet 3800 printer	HP Color LaserJet 3800n printer	HP Color LaserJet 3800dn printer	HP Color LaserJet 3800dtn printer
• 22 ppm (letter-size) or 21 ppm (A4) print speed • 100-sheet multipurpose tray (tray 1) and 250-sheet input tray (tray 2) • Hi-Speed USB 2.0 port and EIO slot • 96 MB RAM	The features of the HP Color LaserJet 3800 printer, plus: • 64 MB RAM (160 total) • HP Jetdirect full-featured embedded print server to connect to 10Base-T/100Base-TX networks	The features of the HP Color LaserJet 3800 printer, plus: • 192 MB RAM (288 total) • Automatic 2-sided (duplex) printing • HP Jetdirect full-featured embedded print server to connect to 10Base-T/100Base-TX networks	The features of the HP Color LaserJet 3800 printer, plus: • 192 MB RAM (288 total) • Automatic 2-sided (duplex) printing • HP Jetdirect full-featured embedded print server to connect to 10Base-T/100Base-TX networks • 500-sheet input tray (tray 3)

HP Color LaserJet CP3505 Series printer

The HP Color LaserJet CP3505 is available in the configurations described below.

Table 1-5 HP Color LaserJet CP3505 configurations

HP Color LaserJet CP3505	HP Color LaserJet CP3505n	HP Color LaserJet CP3505dn	HP Color LaserJet CP3505x
• 22 ppm (letter-size) or 21 ppm (A4) print speed	HP Color LaserJet CP3505, plus:	HP Color LaserJet CP3505, plus:	HP Color LaserJet CP3505, plus:
• 100-sheet multipurpose tray (tray 1) and 250-sheet input tray (tray 2)	• 256 MB RAM	• 384 MB RAM	• 384 MB RAM
• Hi-Speed USB 2.0 port and EIO slot	• HP Jetdirect full-featured embedded print server to connect to 10Base-T/100Base-TX networks	• Automatic 2-sided (duplex) printing	• Automatic 2-sided (duplex) printing
• 256 megabytes (MB) of random access memory (RAM)		• HP Jetdirect full-featured embedded print server to connect to 10Base-T/100Base-TX networks	• HP Jetdirect full-featured embedded print server to connect to 10Base-T/100Base-TX networks
			• 500-sheet input tray (tray 3).

Features at a glance

Table 1-6 Features

Feature	HP Color LaserJet 3000 Series printer	HP Color LaserJet 3600 Series printer	HP Color LaserJet 3800 Series printer and HP Color LaserJet CP3505 Series printer
Performance	● 533 MHz processor	● 360 MHz processor	● 533 MHz processor
User interface	● Graphic display	● Graphic display	● Graphic display
	● Control-panel help	● Control-panel help	● Control-panel help
	● HP Easy Printer Care Software (a Windows®- or Macintosh-based status and troubleshooting tool)	● HP Easy Printer Care Software (a Windows- or Macintosh-based status and troubleshooting tool)	● HP Easy Printer Care Software (a Windows- or Macintosh-based status and troubleshooting tool)
	● Windows and Macintosh printer drivers	● Windows and Macintosh printer drivers	● Windows and Macintosh printer drivers
	● Embedded Web server to gain access to support and to order supplies (administrator tool for network-connected models only)	● Embedded Web server to configure network settings only (administrator tool for network-connected models only)	● Embedded Web server to gain access to support and to order supplies (administrator tool for network-connected models only)
	● HP formatter	● Host formatter	● HP formatter
Printer drivers	● HP PCL 5c	HP JetReady 4.2	● HP PCL 5c
	● HP PCL 6		● HP PCL 6
	● PostScript® 3 emulation		● PostScript 3 emulation
Job storage	● Fonts, forms, and other macros	None	● Fonts, forms, and other macros
	● Job retention		● Job retention
Fonts	● 80 internal fonts available for both PCL and PostScript 3 emulation	None	● 80 internal fonts available for both PCL and PostScript 3 emulation
	● 80 printer-matching screen fonts in TrueType format available with the software solution		● 80 printer-matching screen fonts in TrueType format available with the software solution
Expandability	● Optional 500-sheet input tray (tray 3) (standard on the HP Color LaserJet 3000dtn printer)	● Optional 500-sheet input tray (tray 3)	● Optional 500-sheet input tray (tray 3) (standard on the HP Color LaserJet 3800dtn and CP3505 printers)
	● Dual inline memory modules (DIMMs)		● DIMMs

Table 1-6 Features (continued)

Feature	HP Color LaserJet 3000 Series printer	HP Color LaserJet 3600 Series printer	HP Color LaserJet 3800 Series printer and HP Color LaserJet CP3505 Series printer
Connectivity	● Hi-Speed USB 2.0 cable interface	● Hi-Speed USB 2.0 cable interface	● Hi-Speed USB 2.0 cable interface
	● HP Jetdirect full-featured embedded print server (standard on the HP Color LaserJet 3000n, 3000dn, and 3000dtn printers)	● HP Jetdirect value-featured embedded print server (standard on the HP Color LaserJet 3600n and 3600dn printers)	● HP Jetdirect full-featured embedded print server (standard on the HP Color LaserJet 3800n, 3800dn, and 3800dtn printers and the HP Color LaserJet CP3505n, CP3505dn, and CP3505x printers)
	● HP Web Jetadmin software (standard on the HP Color LaserJet 3000n, 3000dn, and 3000dtn printers)	● HP Web Jetadmin software (standard on the HP Color LaserJet 3600n and 3600dn printers)	● HP Web Jetadmin software (standard on the HP Color LaserJet 3800n, 3800dn, and 3800dtn printers and the HP Color LaserJet CP3505n, CP3505dn, and CP3505x printers)
	● Enhanced input/output (EIO) slot		● Enhanced input/output (EIO) slot
Environmental features	● Sleep-mode setting		
	● High content of recyclable components and materials		
	● ENERGY STAR® qualified models; see http://www.hp.com/go/energystar		
Paper handling	● Input		
	● Tray 1 (multipurpose tray): A multipurpose tray for paper, transparencies, labels, and envelopes. Holds up to 100 sheets of paper or 20 envelopes.		
	● Tray 2: 250-sheet tray that automatically detects standard paper sizes up to legal and allows printing on custom-size paper.		
	● Tray 3: 500-sheet tray that automatically detect standard paper sizes up to legal and allows printing on custom-size paper.		
	● Output		
	● Face-up output bin		
	● Face-down output bin		
Supplies	● Supplies status page contains information about toner level, page count, and estimated pages remaining		
	● No-shake cartridge design		
	● Printer checks for authentic HP print cartridges at cartridge installation		
	● Internet-enabled supply-ordering capabilities (using HP Easy Printer Care Software)		
Accessibility	● The online user guide is compatible with text screen-readers.		
	● Print cartridges can be installed and removed by using one hand.		
	● All doors and covers can be opened by using one hand.		
	● Media can be loaded in tray 1 by using one hand.		

Walkaround

Figure 1-1 Front view (shown with optional 500-sheet paper feeder)

1	Output bin extender
2	Output bin
3	Top cover (This part is called the upper cover in this service manual.)
4	Printer control panel
5	Front door (This part is called the front cover in this service manual.)
6	Tray 1 (holds 100 sheets of standard paper) (This part is called the multipurpose-tray assembly in this service manual.)
7	Tray 2 cassette (holds 250 sheets of standard paper)
8	Tray 3 cassette (optional; holds 500 sheets of standard paper)
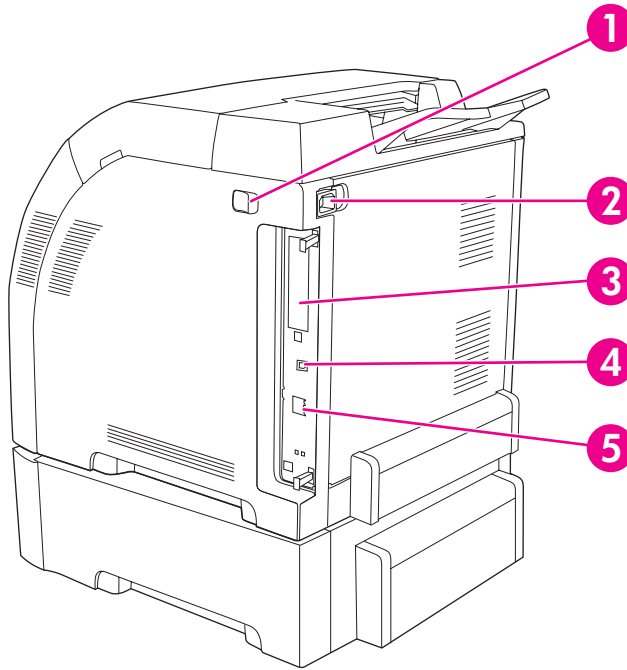
Figure 1-2 Back and side view

1	On/off switch
2	Power connection
3	EIO slot (available on the HP Color LaserJet 3000, 3800, and CP3505 Series printers)
4	Hi-Speed USB 2.0 port
5	Network port (available on the HP Color LaserJet 3000n, 3000dn, 3000dtn, 3600n, 3600dn, 3800n, 3800dn, and 3800dtn, CP3505n, CP3505dn, and CP3505x printers)

Control-panel overview

The control panel provides controls for printer functions and shows messages about the printer, print jobs, and supplies status.
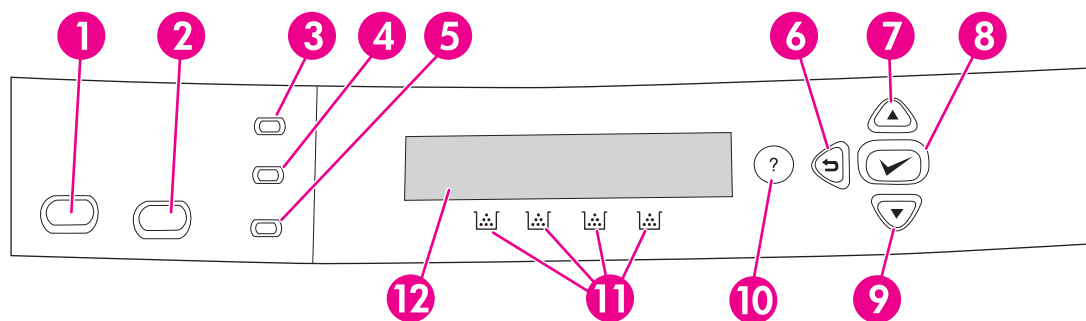
Figure 1-3 Control panel buttons and lights

Number	Button or light	Function
1	Stop button	Halts the current job, presents a choice to resume or cancel the current print job, clears media from the printer, and clears any continuable errors that are associated with the halted job. If the printer is not printing a job, pressing Stop pauses the printer.
2	Menu button	Opens and closes menus.
3	Ready light	Indicates that the printer is online or offline. See Control-panel indicator lights on page 11.
4	Data light	Indicates whether or not the printer is receiving data. See Control-panel indicator lights on page 11.
5	Attention light	Indicates that a critical error has occurred. See Control-panel indicator lights on page 11.
6	Back arrow (⤺) button	Navigates backward in nested menus.
7	Up arrow (▲) button	Navigates menus and text, and increases the values of numerical items in the display.
8	Select (✓) button	Makes selections, resumes printing after continuable errors, and overrides a non-HP print cartridge.
9	Down arrow (▼) button	Navigates menus and text, and decreases the values of numerical items in the display.
10	Help (?) button	Provides detailed information about printer messages or menus.
11	Supplies gauge	Shows the print cartridge-consumption levels. See Display on page 11.
12	Display	Shows status information, menus, help information, and error messages. See Display on page 11.

The printer communicates through the display and the lights on the control panel. The display shows status information, menus, help information, and error messages. The Ready, Data, and Attention lights provide at-a-glance information about the printer state.

You can perform most routine printing tasks from the computer through the printer driver or any software program. Use the control panel to access printer features that the printer driver or software program do not support. Any changes that you make from the computer override the printer control-panel settings. For information about using the printer driver, see Printer software on page 13.

Control-panel indicator lights

Indicator	On	Off	Flashing
Ready (green)	The printer is online (can accept and process data).	The printer is offline (paused), or is turned off.	The printer is attempting to stop printing and go offline. This usually results from a user's request to pause the current job.
Data (green)	The processed data is present in the printer, but more data is needed to complete the job, or the job is paused or waiting for errors to be cleared.	The printer is not processing or receiving data.	The printer is processing and receiving data.
Attention (amber)	A critical error has occurred. The printer requires attention.	No conditions exist that require attention.	An error has occurred. The printer requires attention.

Display

The printer display gives you complete, timely information about the printer and print jobs. Graphics illustrate levels of supplies. Menus provide access to printer functions and detailed information.

The top-level screen on the display has two areas: message/prompt and supplies gauge.
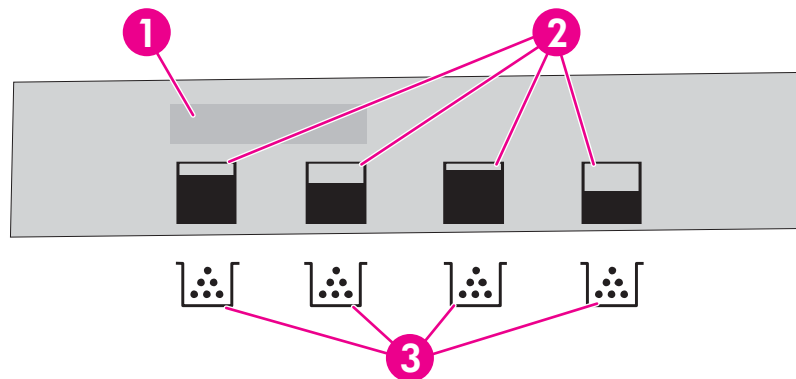
Figure 1-4 Printer display

1	Message/prompt area
2	Supplies gauge
3	Print cartridge colors from left to right: black, yellow, cyan, and magenta

The message and prompt areas of the display alert you to the state of the printer and tell you how to respond.

The supplies gauge shows the consumption levels of print cartridges (black, cyan, magenta, and yellow). When a non-HP print cartridge is installed, a **?** might appear instead of the consumption level. The supplies gauge appears whenever the printer shows the **Ready** state, and whenever the printer shows a warning or error message concerning a cartridge.

Printer software

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

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

For a list of printer drivers and updated HP printer software, go to the following Web sites:

● HP Color LaserJet 3000 Series printer, go to http://www.hp.com/go/clj3000_software

● HP Color LaserJet 3600 Series printer, go to http://www.hp.com/go/clj3600_software

● HP Color LaserJet 3800 Series printer, go to http://www.hp.com/go/clj3800_software

● HP Color LaserJet CP3505 Series printer, go to http://www.hp.com/go/cljcp3505_software

HP Color LaserJet 3000 Series printer, HP Color LaserJet 3800 Series printer, and HP Color LaserJet CP3505 Series printer drivers

The HP Color LaserJet 3000, 3800, and CP3505 Series printers use the PCL 5c, PCL 6, and PostScript 3 emulation PDL drivers.

> **NOTE:** For Windows 2000, Windows XP, and Windows Server 2003, the HP Color LaserJet 3000 and 3800 Series printers include a monochrome PCL 6 driver that can be installed for users who will be printing only black-and-white print jobs.

Table 1-7 Available printer drivers

Operating system[1]	PCL 5c	PCL 6[2]	PS 3 emulation
Windows 98, Windows Me (HP Color LaserJet 3000 and 3800 only)	✔	✔	✔
Windows 2000[3]	✔	✔	✔
Windows XP (32-bit)[4]	✔	✔	✔
Windows Server 2003 (32-bit)	✔	✔	✔
Windows Server 2003 (64-bit)	✔	✔	✔
Windows Vista (32–bit)	✔	✔	✔
Windows Vista (64–bit)	✔	✔	✔
Mac OS V9.2.2 and later, and OS X V10.2 and later (HP CLJ 3000 and 3800)			✔
Mac OS X V10.2.8 and later (HP CLJ CP3505)			✔

[1] Not all printer features are available from all drivers or operating systems.

[2] The HP Color LaserJet 3000 and 3800 Series printers include both a monochrome and color PCL 6 driver for Windows 2000, Windows XP, and Windows Server 2003 users.

[3] For Windows 2000 and Windows XP (32-bit and 64-bit), download the PCL 5 driver from http://www.hp.com/go/clj3000_software or http://www.hp.com/go/clj3800_software.

[4] For Windows XP (64-bit), download the PCL 6 driver from http://www.hp.com/go/clj3000_software or http://www.hp.com/go/clj3800_software.

HP Color LaserJet 3600 Series printer drivers

The HP Color LaserJet 3600 Series printer uses the HP JetReady 4.2 Page Description Language (PDL), a host-based printer language. HP JetReady 4.2 uses the combined power of the computer and the printer to render the printed page in a Windows or Macintosh system environment. HP JetReady 4.2 transfers the prerendered pages from the host computer to the printer and communicates instructions to the printer about how to convert the pages to data that can be printed.

The HP JetReady 4.2 PDL driver is available on the installation CD for the following operating systems:

●   Windows 98, Windows Millennium Edition (Me)

●   Windows 2000

●   Windows XP (32-bit and 64-bit)

●   Windows Server 2003 (32-bit and 64-bit)

●   Macintosh OS X V10.2 and later

NOTE: Not all printer features are available from all drivers or operating systems.

If your system did not automatically check the Internet for the latest drivers during software installation, download them from http://www.hp.com/go/clj3600_software.

Additional drivers

The following drivers are not included on the CD, but are available from http://www.hp.com/go/clj3000_software or http://www.hp.com/go/clj3800_software. These drivers are for the HP Color LaserJet 3000 and 3800 Series printers only.

● UNIX® model scripts

● Linux drivers

● OS/2 PS and PCL printer driver

NOTE: The OS/2 drivers are available from IBM and are packaged with OS/2. They are not available for Traditional Chinese, Simplified Chinese, Korean, and Japanese languages.

Software for networks

For a summary of available HP network installation and configuration software solutions, see the *HP Jetdirect Print Server Administrators Guide*. You can find this guide on the printer CD.

HP Web Jetadmin

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

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

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

UNIX

For HP-UX and Solaris networks, go to http://www.hp.com/support/net_printing to download the HP Jetdirect printer installer for UNIX.

NOTE: The HP Color LaserJet 3600 Series printer does not support UNIX printing. However, if UNIX is running CUPS and has the HPLIP or HPIJS system on it, the CLJ3600 can be used to print. See http://www.linuxprinting.org and look up the HP CLJ3600 for additional information.

Linux

For information, go to http://www.hp.com/go/linuxprinting.

Utilities

The HP Color LaserJet 3000, 3600, 3800, and CP3505 Series printers are equipped with several utilities that make it easy to monitor and manage the printer on a network.

HP Easy Printer Care Software

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

● Checking the printer status

● Checking the supplies status

● Setting up alerts

● Viewing printer documentation

● Gaining access to troubleshooting and maintenance tools

● HP Printer Utility for Mac

You can view the HP Easy Printer Care Software when the printer is directly connected to your computer or when it is connected to a network. Perform a complete software installation in order to use the HP Easy Printer Care Software.

Embedded Web server

NOTE: The HP Color LaserJet 3600 Series printer embedded Web server provides network configuration and status information only.

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

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

See Using the embedded Web server on page 35 for more information.

Other components and utilities

Several software programs are available for Windows and Macintosh users.

Windows	Macintosh OS
● Software installer automates the printing system installation	● PostScript Printer Description files (PPDs) for use with the Apple PostScript drivers that come with the Mac OS
● Online Web registration	● Use the HP Printer Utility to change printer settings, view the current status, and receive printer event updates from a Macintosh computers. This utility is supported for Mac OS X V10.2 and V10.3.

Print-media specifications

For optimum results, HP recommends using HP media that is designed for HP Color LaserJet printers. Use media with a weight between 75 g/m^2 to 120 g/m^2 (20 to 32 lb bond). Although the printer supports media with weights between 60 g/m^2 to 220 g/m^2 (16 to 58 lb bond), using lighter or heavier media could impact the paper-jam rate and the optimal print-quality performance.

Always use the correct media-type setting in the printer driver, and configure the trays for the correct media type. HP recommends testing any paper before buying it in large quantities.

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 1-8 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)	✔	✔	✔
A3	297 x 420 mm (11.69 x 16.54 inches)	✔		
A5	148 x 210 mm (5.83 x 8.27 inches)	✔	✔	✔
A6	105 x 148 mm (4.13 x 5.83 inches)	✔		
B5 (JIS)	182 x 257 mm (7.17 x 10.12 inches)	✔	✔	✔
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)	✔		
8.5 x 13 (custom)	216 x 330 mm (8.5 x 13 inches)	✔		
Custom	(148 - 216) x (210 - 356) mm ((5.83 - 8.5) x (8.27 - 14) inches)	✔		

Table 1-9 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)	✔		

Media type and tray loading

Minimum media dimensions are 148 x 210 mm (5.83 x 8.27 inches).

Maximum media dimensions are 216 x 356 mm (8.5 x 14 inches).

Table 1-10 Tray 1 media information

Media type	Media specifications	Media quantity	Driver settings	Paper orientation
Paper and cardstock, standard sizes	Range: 60 g/m² (16 lb) bond to 163 g/m² (43 lb) bond	Maximum stack height: 10 mm (0.6 inch) Equivalent to 100 sheets of 75 g/m² (20 lb) bond.	Plain or unspecified	N/A
Envelopes	Less than 60 g/m² (16 lb) bond to 90 g/m² (24 lb) bond	Up to 10 envelopes	Envelope	Short edge leading, flap on right side facing up
Labels	Maximum 0.23 mm (0.009 in.) thick	Maximum stack height: 10 mm (0.6 inch)	Labels	Side to be printed on facing down
Transparencies	Minimum 0.13 mm (0.005 in.) thick	Maximum stack height: 10 mm (0.6 inch)	Transparencies	Side to be printed on facing down
Heavy	0.13 mm (0.005 in.) thick	Maximum stack height: 10 mm (0.6 in.)	Light glossy, glossy, or heavy glossy	Side to be printed on facing down
Glossy	Range: 75 g/m² (20 lb) bond to 220 g/m² (48 lb) bond	Maximum stack height: 10 mm (0.6 in.)	Light glossy, glossy, or heavy glossy	Side to be printed on facing down
Cardstock	Range: 163 g/m² (43 lb) bond to 220 g/m² (48 lb) cover	60 sheets	Cardstock	Side to be printed on facing down

Table 1-11 Tray 2, tray 3, and tray 4 media information

Media type	Media specifications	Media quantity	Driver settings	Paper orientation	Output
Paper and cardstock, standard sizes	Range: 60 g/m² (16 lb) bond to 120 g/m² (32 lb) bond	Equivalent to 250 sheets (tray 2) or 500 sheets (tray 3) of 75 g/m² (20 lb) bond.	Plain or unspecified	N/A	
Labels	Maximum 0.13 mm (0.005 in.) thick	Maximum stack height: 50 sheets (tray 2), or 100 sheets (tray 3)	Labels	Side to be printed on facing up	
Transparencies	Minimum 0.13 mm (0.005 in.) thick	Maximum stack height: 50 sheets (tray 2), or 100 sheets (tray 3)	Transparencies	Side to be printed on facing up	
Heavy	0.13 mm (0.005 in.) thick	Maximum stack height: 100 sheets (tray 2), or 200 sheets (tray 3)	Light glossy, glossy, or heavy glossy	Side to be printed on facing up	
Glossy	Range: 106 g/m² (28 lb) bond to 120 g/m² (32 lb) bond	Maximum stack height: 100 sheets (tray 2), or 200 sheets (tray 3)	Light glossy, glossy, or heavy glossy	Side to be printed on facing up	

2 Installation and configuration

- [What is in the box](#)
- [Site requirements](#)
- [Connecting to a network or a computer](#)
- [Printer memory](#)

What is in the box

The following items come in the box with the printer.
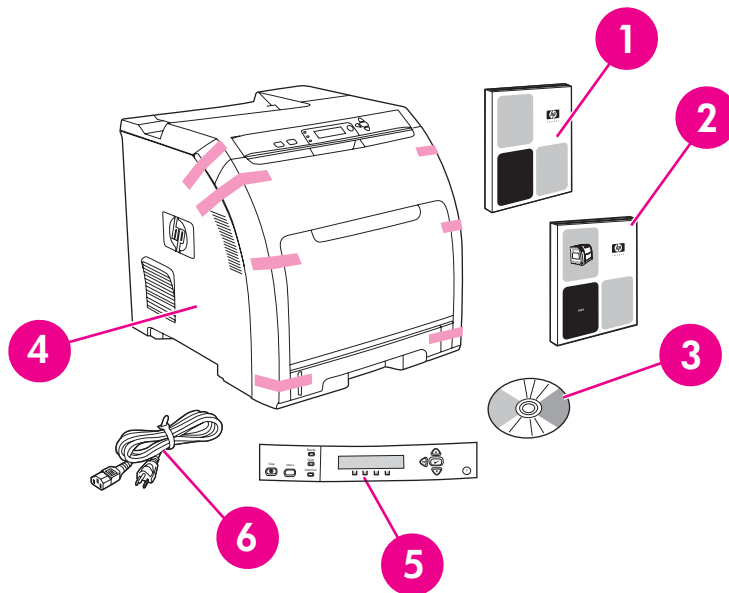
Figure 2-1 What is in the shipping box

1. Getting started guide

2. Warranty booklet

3. User guide on CD

4. Printer

5. Control-panel overlays (optional)

6. Power cord

Site requirements

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

Physical specifications

Table 2-1 Physical dimensions for the HP Color LaserJet 3000/3600/3800/CP3505 Series printers

Product	Height	Depth	Width	Weight[1]
Base model	400 mm (15.7 in)	450 mm (17.7 in)	400 mm (15.7 in)	20.3 kg (44.8 lbs)
Base model plus duplexer	423 mm (16.7 in)	450 mm (17.7 in)	400 mm (15.7 in)	21.5 kg (47.4 lbs)
Base model plus optional tray 3	540 mm (21.3 in)	450 mm (17.7 in)	400 mm (15.7 in)	25.4 kg (56 lbs)
Base model plus duplexer and optional tray 3	563 mm (22.2 in)	450 mm (17.7 in)	400 mm (15.7 in)	26.6 kg (58.6 lbs)

[1]   Printer weight does not include print cartridges.

Connecting to a network or a computer

To connect to a network

1. Connect the network cable to the printer.

2. Find the IP address. On the control panel, press Menu. Select **INFORMATION**, and then select **PRINT CONFIGURATION**. The IP address is on the embedded Jetdirect page, under "TCP/IP".

   > **NOTE:** You might need to assign an IP address depending on the type of network that is installed.

3. Configure an IP address (if necessary). On the control panel, press Menu. Select **CONFIGURE DEVICE**, select **I/O**, and then select **EMBEDDED JETDIRECT**. Select **TCP/IP**, select **CONFIG METHOD**, select **MANUAL**, and then select **MANUAL SETTINGS**. Use the control-panel buttons to specify the IP address.

4. Prepare for software installation. Quit all of the programs (including terminate-and-stay resident [TSR], antivirus, and firewall programs) on the print server or on each computer that will use the printer.

5. Install the software. Insert the CD that came with the printer, and then click Install Printer on the welcome screen. (If the welcome screen does not appear, click **Start**, and then click **Run**. Type X:SETUP, replace X with the CD-ROM drive letter, and then click **OK**.)

6. Follow the onscreen instructions. When prompted, select Wired Networking. The installer shows available printers. Select the appropriate IP address.

7. On the Installation Type screen select Full Installation to install the most common drivers and software, select Basic Installation to install the minimum set of drivers and software (recommended), or select Custom Installation.

   > **NOTE:** See the *HP Jetdirect Print Server Administrators Guide* for more information. You can find this guide on the printer CD.

To use Windows with a direct connection (USB)

1. Install the software from the CD before connecting the cable to the printer.

2. On the welcome screen, click **Install Printer**. The Setup Wizard appears.

   > **NOTE:** If the welcome screen does not appear, click **Start**, and then click **Run**. Type X:SETUP, replace X with the CD-ROM drive letter, and then click **OK**.

3. Follow the onscreen instructions. When prompted, connect a USB cable between the printer and the computer.

   > **NOTE:** HP does not recommend using USB hubs. Use a USB cable that is no longer than 2 meters (6.5 feet).

4. Click **Finish**. If prompted, restart the computer.

5. Test the software installation. Print a page from any program to make sure that the software is correctly installed.

NOTE: If the installation failed, reinstall the software.

NOTE: If the **New Hardware Found** message appears, insert the CD, follow the onscreen instructions, and accept the default selections.

To connect to a Macintosh computer

NOTE: The HP Color LaserJet CP3505 supports Macintosh OS X V10.28, V10.3, V10.4 or later. For Macintosh OS X V10.4, PPC and Intel core processor Macintosh are supported.

1. Connect a USB cable between the printer and the computer.

    NOTE: HP does not recommend using USB hubs. Use a USB cable that is no longer than 2 meters (6.5 feet).

2. Place the CD in the CD-ROM drive. For OS V9.1 to V9.2.*x*, go to step 3. For OS X, go to step 7.

3. Run the Installer and complete a custom install. Select all options, including **USB Components** (Classic). When prompted, restart the computer.

4. Run the Apple Desktop Printer Utility from HD/Applications/Utilities. Double-click **HP Printer (USB)**, and then click **OK**. Next to the **USB Printer Selection**, click **Change**.

5. Select the printer, and then click **OK**. Next to **Postscript Printer Description (PPD) File**, click **Auto Setup**, and then click **Create**. Save the printer setup.

6. On the desktop, highlight the printer. Click the **Printing** menu, and then click **Set Default Printer**. Go to step 10.

7. Run the Installer and complete an easy install.

    NOTE: If OS X and OS V9.1 (Classic) to V9.2.*x* (Classic) are installed on the same computer, the installer shows both the Classic and the OS X installation options.

8. From HD/Applications/Utilities/Print Center, start the Print Center. If the printer appears in the **Printer List**, delete the printer. Click **Add**. On the next page, click the drop-down menu, and then select **USB**.

9. From the **Printer Model** drop-down list, select **HP**. Under **Model Name**, select the printer, and then click **Add**.

10. Test the software installation. Print a page from any program to make sure that the software is correctly installed.

    NOTE: If the installation failed, reinstall the software.

Printer memory

📝 **NOTE:** This information applies to the HP Color LaserJet 3000, 3800, and CP3505 Series printers only.

The HP Color LaserJet 3000, 3800, and CP3505 Series printers have one DIMM slot.

● More printer memory DIMMs are available in 128, 256, and 512 MB increments.

● Other DIMM-based printer languages and printer options are available.

📝 **NOTE:** Single in-line memory modules (SIMMs) that are used on previous HP LaserJet printers are not compatible with these printers.

You might want to add more memory to the printer if you often print complex graphics or PostScript documents, if you use many downloaded fonts, or if a Jetdirect EIO print server will be installed for network printing capabilities. Additional memory also allows the printer to print multiple collated copies at the maximum speed.

Before ordering additional memory, see how much memory is currently installed by printing a configuration page. See .

Installing memory DIMMs

You can install more memory for the printer, and you can also install a font DIMM to print characters for languages such as Chinese or the Cyrillic alphabet.

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

To install memory DIMMs

1. Turn the printer off, and then disconnect all power and interface cables.
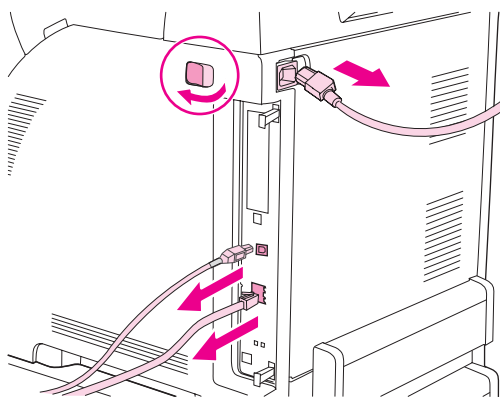
2. On the right side of the printer, gently pull the black tabs together, and then pull the formatter assembly from the printer.
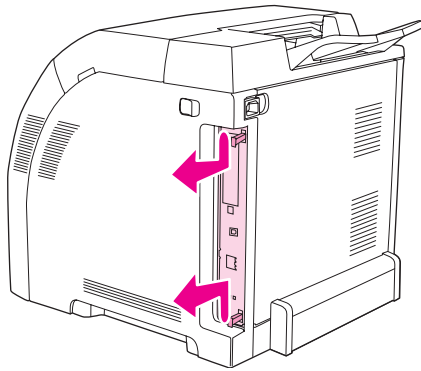
3. Place the formatter board on a clean, flat, grounded surface.

   To replace a DIMM that is currently installed, spread the latches apart on each side of the DIMM slot, lift the DIMM up at an angle, and pull it out.
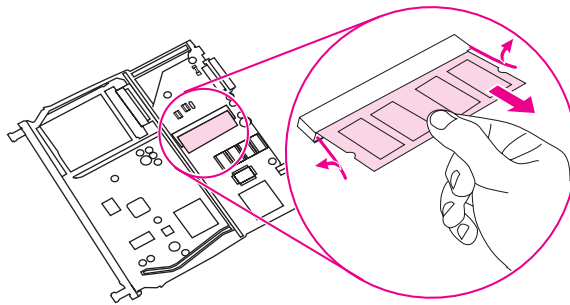
4. Remove the new DIMM from the antistatic package, and then locate the alignment notch on the bottom edge of the DIMM.
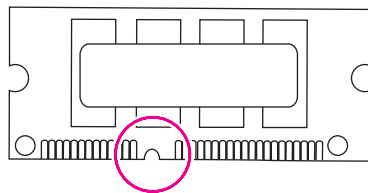
5. Holding the DIMM by the edges, align the notch on the DIMM with the bar in the DIMM slot at an angle and firmly press the DIMM into the slot until it is fully seated. When installed correctly, the metal contacts are not visible.
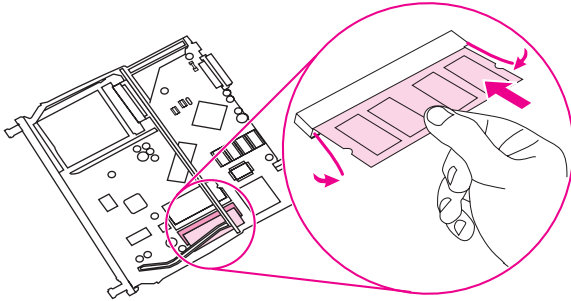
6. Push down on the DIMM until both latches engage the DIMM.
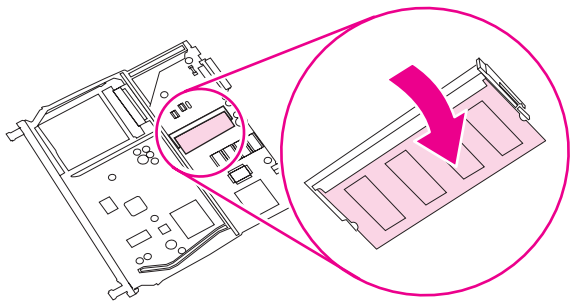
NOTE: If you have difficulty inserting the DIMM, make sure that the notch on the bottom of the DIMM is aligned with the bar in the slot. If the DIMM still does not go in, make sure that you are using the correct DIMM type.

7. Align the edge of the formatter board in the tracks at the top and bottom of the slot, and then slide the board into the printer. Push the formatter firmly until you hear the formatter latches click into place.
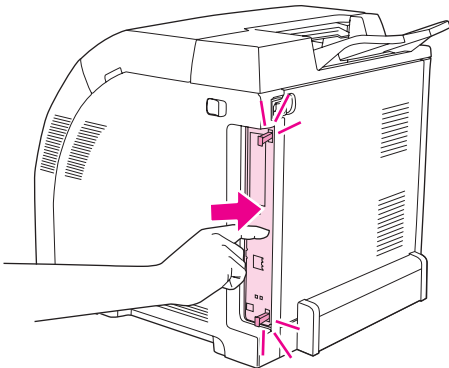
NOTE: After replacing the formatter, make sure that the control panel is functioning. If the printer fans and motors are operating correctly but the control panel is not, turn the power off, and then remove the formatter and reinstall it. You might have to repeat this step several times to seat the formatter correctly.

8. Reconnect the power cable and USB or network cable, and then turn on the printer.

9. After installing a memory DIMM, see Enabling memory on page 29.

Enabling memory

If you installed a memory DIMM, set the printer driver to recognize the newly added memory.

To enable memory for Windows

1. On the **Start** menu, point to **Settings**, and click **Printers** or **Printers and Faxes**.

2. Select this printer and select **Properties**.

3. On the **Configure** tab, click **More**.

4. In the **Total Memory** field, type or select the total amount of memory that is now installed.

5. Click **OK**.

6. Go to Checking DIMM installation on page 29.

Checking DIMM installation

Check that the DIMMs are installed correctly and working.

To check DIMM installation

1. Turn the printer on. Check that the printer is in the **Ready** state after it has gone through the startup sequence. If an error message appears, a DIMM might have been incorrectly installed.

2. Print a configuration page. See Using printer information pages on page 40.

3. Check the Installed Personalities and Options section on the configuration page and compare it with the configuration page that you printed before the DIMM installation.

4. If the information on the configuration page has *not* changed, one of the following situations exists:

    The DIMM might not be installed correctly. Repeat the installation procedure.

    -or-

    The DIMM might be defective. Try a new DIMM.

3   Maintenance

-
-
-
-
-
-

Understanding approximate supplies-replacement intervals

The following table lists the estimated replacement intervals for supplies and the control-panel messages that prompt you to replace each item. Usage conditions and print patterns can cause results to vary.

Item	Printer message	Page count (HP Color LaserJet 3000)	Page count (HP Color LaserJet 3600)	Page count (HP Color LaserJet 3800 and CP3505)
Black cartridges	**REPLACE BLACK CARTRIDGE**	6,500 pages[1]	6,000 pages[1]	6,000 pages[1]
Color cartridges	**REPLACE <COLOR> CARTRIDGE**	3,500 pages[1]	4,000 pages[1]	6,000 pages[1]

[1]   Approximate average A4-/letter-size page count based on 5% coverage of individual colors

You can use the embedded Web server to order supplies. See .

Replacing supplies

When you use genuine HP supplies, the printer automatically notifies you when supplies are nearly depleted. The notification to order supplies allows ample time to order new supplies before they need to be replaced.

Locating supplies

Supplies are identified by their labeling and their blue plastic handles.

The following figure illustrates the location of the print cartridges.
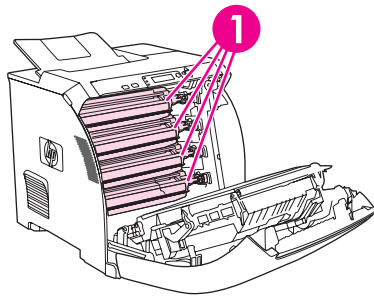
Figure 3-1 Supply-item locations

1	Print cartridges

Supply replacement guidelines

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

● Allow sufficient space above and in the front of the printer for removing supplies.

● Place the printer on a flat, sturdy surface.

For instructions about installing supplies, see the installation guides that came with each supply item, or see more information at http://www.hp.com/support/clj3000, http://www.hp.com/support/clj3600, http://www.hp.com/support/clj3800, or http://www.hp.com/support/cljcp3505. When you connect, select **Troubleshoot a Problem**.

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

Managing the print cartridge

This section provides information about HP print cartridges, including their life expectancies, how to store them, and how to identify genuine HP supplies. Information also appears about non-HP print cartridges.

HP print cartridges

When you use a genuine HP print cartridge, you can obtain several types of information:

- Amount of toner remaining
- Estimated number of pages remaining
- Number of pages printed

Non-HP print cartridges

Hewlett-Packard Company cannot recommend use of non-HP print cartridges, either new or remanufactured. Because they are not HP products, HP cannot influence their design or control their quality. Service or repair that is required as a result of using a non-HP print cartridge will *not* be covered under the printer warranty.

When you use a non-HP print cartridge, certain features, such as remaining toner-volume data, might not be available.

Using genuine HP supplies ensures the availability of all HP printing features.

Print-cartridge authentication

A message appears on the printer control-panel display if you insert a print cartridge that is not a genuine HP print cartridge. If you believe that you purchased a genuine HP supply, go to http://www.hp.com/go/anticounterfeit.

Print-cartridge storage

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

Always store the print cartridge in the correct environment. The storage temperature should be between -20°C and 40°C (-4°F to 104°F). The relative humidity should be between 10% and 90%.

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

Print-cartridge life expectancy

The life of the print cartridge depends on the amount of toner that print jobs require and the length of life for the components inside the cartridge. The page-yield specification that HP provides is a general guideline. Actual yield can vary according to usage conditions.

At any time, you can verify life expectancy by checking the supply level.

Checking the supply level

You can check the toner-supply level by using the control panel, the embedded Web server, or HP Web Jetadmin.

Using the control panel

1. Press Menu to open the **MENUS**.

2. Press ▼ to highlight **INFORMATION**.

3. Press ▼ to highlight **PRINT SUPPLIES STATUS**.

Using the embedded Web server

1. In your browser, type the IP address for the printer home page. This takes you to the printer status page.

2. On the left side of the screen, click **Supplies Status**. This takes you to the supplies status page, which provides print-cartridge information.

Using HP Web Jetadmin

In HP Web Jetadmin, select the printer. The device status page shows print-cartridge information.

Replacing print cartridges

When a print cartridge approaches the end of its useful life, a message to order a replacement appears on the control-panel display. The printer can continue to print with the current print cartridge until the control-panel message instructs you to replace the cartridge.

Replace a print cartridge when a **REPLACE <COLOR> CARTRIDGE** message appears on the printer control panel. The control-panel display indicates the color that should be replaced (if a genuine HP cartridge is currently installed).

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

📝 **NOTE:** For information about recycling used print cartridges, visit the HP LaserJet Supplies Web site at http://www.hp.com/go/recycle.

To replace the print cartridge

1. Open the front cover and ETB unit.

⚠ **CAUTION:** Do not place any item on the transfer unit while it is open. If the transfer unit is punctured, print-quality problems could result.

2. Remove the used print cartridge from the printer.

3. Remove the new print cartridge from the bag, and remove the tape-seal. Place the used print cartridge in the bag for recycling.
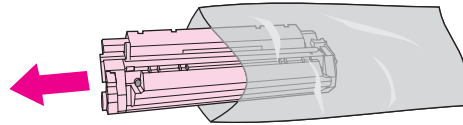
4. Align the print cartridge with the tracks inside the printer and insert the cartridge until it is completely seated.
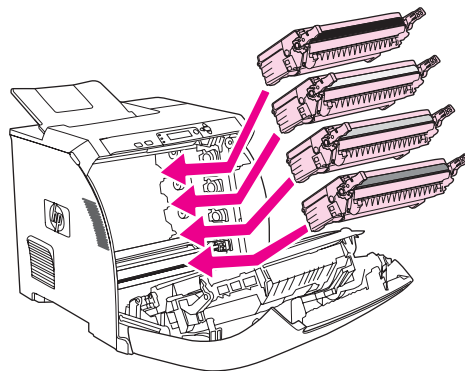
    NOTE: Use the blue cartridge handles when installing the new cartridge in the printer. Touching other areas of the print cartridge can damage the image drum and cause print-quality defects.

    NOTE: If a cartridge is in the wrong slot, the message **INCORRECT COLOR CARTRIDGE** appears on the control panel.

5. Close the front cover and then close the top cover. After a short while, **Ready** appears on the control panel.

6. Installation is complete. Place the used print cartridge in the box that the new cartridge came in. See the enclosed recycling guide for recycling instructions.

7. If you are using a non-HP print cartridge, check the control panel for further instructions.

For additional help, go to http://www.hp.com/support/clj3000, http://www.hp.com/support/clj3600, http://www.hp.com/support/clj3800, or http://www.hp.com/support/cljcp3505.

Cleaning the printer

Clean the outer surfaces with an HP Toner Cleaning Cloth or a water-dampened cloth.

⚠️ **WARNING!**   Before you begin these steps, turn the printer off and unplug all power cords to avoid shock hazard. Be careful when cleaning around the fuser area. It might be hot.

⚠️ **CAUTION:**   To avoid permanent damage to the print cartridge, do not use ammonia-based cleaners on or around the printer. If toner gets on your clothes, wipe it off with a dry cloth and wash your clothes in cold water. Hot water sets toner into fabric.

Component	Cleaning Method
Outer covers	Use an HP Toner Cleaning Cloth (part number 5090-3379) or a water-dampened cloth. Do not use solvents or ammonia-based cleaners.
Inside, general	With a dry, lint-free cloth, wipe any dust, spilled toner, and paper particles from the paper path area, the registration roller, and the print-cartridge cavity.
ETB attaching roller	Clean with lint-free paper. If dirt cannot be removed, dampen the paper with alcohol.
Paper-pickup rollers	Clean with lint-free paper. If dirt cannot be removed, dampen the paper with alcohol.

Cleaning spilled toner

Defective print cartridges can develop leaks. Also, after a jam has occurred, some toner might remain on the rollers and guides inside the printer. The pages that print immediately after the jam can pick up this toner. Use a vacuum that is designed for picking up fine particles. See .

⚠️ **CAUTION:**   When cleaning the printer, do not touch the ETB with the damp cloth or with your fingers.

Vacuum specifications

Do not use a conventional vacuum to vacuum the printer or any spilled toner. The toner particles used in this product might be too fine for effective vacuuming and could result in damage to conventional vacuums.

You can use a vacuum specifically designed for cleaning if it can filter fine particles (5 microns in diameter).

Calibrating the printer

Calibration is a printer function that optimizes print quality. If you experience any print-quality problems, calibrate the printer.

1. Press Menu.

2. Press ▼ to highlight **CONFIGURE DEVICE**, and then press ✓.

3. Press ▼ to highlight **PRINT QUALITY**, and then press ✓.

4. Press ▼ to highlight **FULL CALIBRATE NOW**, and then press ✓.

Tools for troubleshooting

Using printer information pages

> **NOTE:** Printer information pages for the HP Color LaserJet 3600 Series printer are available in English only.

Page description	How to print the page
Menu map Shows the control-panel menus and available settings	1. Press Menu. 2. Press ▼ to highlight **INFORMATION**, and then press ✓. 3. If **PRINT MENU MAP** is not highlighted, press ▲ or ▼ until it is highlighted, and then press ✓. The content of the menu map varies, depending on the options currently installed in the printer.
Configuration page Shows printer settings and installed accessories	1. Press Menu. 2. Press ▼ to highlight **INFORMATION**, and then press ✓. 3. Press ▼ to highlight **PRINT CONFIGURATION**, and then press ✓. > **NOTE:** If the printer contains an HP Jetdirect print server or an optional hard-disk accessory, an additional configuration page prints that provides information about those devices.
Supplies status page Shows print-cartridge toner levels	1. Press Menu. 2. Press ▼ to highlight **INFORMATION**, and then press ✓. 3. Press ▼ to highlight **PRINT SUPPLIES STATUS PAGE**, and then press ✓.
Usage page (HP Color LaserJet 3000, 3800, and CP3505 Series printers only) Shows a page count for each size of paper printed, the number of one-sided (simplexed) or two-sided (duplexed) pages, and the average percentage of coverage for each color	1. Press Menu. 2. Press ▼ to highlight **INFORMATION**, and then press ✓. 3. Press ▼ to highlight **PRINT USAGE PAGE**, and then press ✓.
Demo page Shows a color photograph that allows you to check print quality	1. Press Menu. 2. Press ▼ to highlight **INFORMATION**, and then press ✓. 3. Press ▼ to highlight **PRINT DEMO**, and then press ✓.
Color usage log Shows color-use statistics for the printer	1. Press Menu. 2. Press ▼ to highlight **INFORMATION**, and then press ✓. 3. Press ▼ to highlight **PRINT COLOR USAGE JOB LOG**, and then press ✓.

Page description	How to print the page
File directory (HP Color LaserJet 3000, 3800, and CP3505 Series printers only) Shows information for all installed mass-storage devices	1. Press Menu. 2. Press ▼ to highlight **INFORMATION**, and then press ✓. 3. Press ▼ to highlight **PRINT FILE DIRECTORY**, and then press ✓. **NOTE:** This option does not appear if no mass-storage devices are installed.
PCL or PS font list (HP Color LaserJet 3000, 3800, and CP3505 Series printers only) Shows which fonts are currently installed in the printer	1. Press Menu. 2. Press ▼ to highlight **INFORMATION**, and then press ✓. 3. Press ▼ to highlight **PRINT PCL FONT LIST** or **PRINT PS FONT LIST**, and then press ✓. **NOTE:** The font lists also show which fonts are resident on an optional hard-disk accessory or flash DIMM.

Configuring e-mail alerts

NOTE: If your host software does not support e-mail, this feature might not be available on the HP Color LaserJet 3600 Series printer.

You can use HP Web Jetadmin or the embedded Web server to configure the system to alert you of problems with the printer. The alerts take the form of e-mail messages to the e-mail account(s) that you specify.

Configure the following items:

- The printer(s) that you want to monitor

- The alerts that you want to receive (for example, alerts for jams, paper out, supplies status, and cover open)

- The e-mail account(s) to which the alerts should be forwarded

Software	Information location
HP Web Jetadmin	See HP Web Jetadmin on page 15 for general information about HP Web Jetadmin. See the HP Web Jetadmin Help system for details about alerts and how to set them up.
Embedded Web server	See Using the embedded Web server on page 41 for general information about the embedded Web server. See the embedded Web server Help system for details about alerts and how to set them up.

Using the embedded Web server

NOTE: The HP Color LaserJet 3600 Series printer embedded Web server provides network configuration and status information only.

- View printer-control status information.

- Set the type of media that is loaded in each tray.

- Determine the remaining life of all supplies and order new ones.

- View and change tray configurations.

- View and change the printer control-panel menu configuration.

- View and print internal pages.

- Receive notification of printer and supplies events.

- View and change network configuration.

- View support content that is specific to the current state of the printer.

- Restrict access to color printing features (HP Color LaserJet 3000, 3800, and CP3505 Series printers only).

When the printer is connected to the network, the embedded Web server is automatically available. You can open the embedded Web server from Windows 95 and later.

Use the embedded Web server to view printer and network status and to manage printing functions from your computer instead of from the printer control panel.

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

To open the embedded Web server by using a network connection

1. In a supported Web browser on your computer, type the IP address for the printer in the URL field. (To find the IP address, print a configuration page. See Using printer information pages on page 40.)

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

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

   See the following section for more information about each tab.

Embedded Web server sections

Tab or section	Description
Information tab Provides printer, status, and configuration information	● **Device Status**: Shows the printer status and shows the life remaining of HP supplies, with 0% indicating that a supply is empty. The page also shows the type and size of print media set for each tray. To change the default settings, click **Change Settings**. ● **Configuration Page**: Shows the information that is on the printer configuration page. ● **Supplies Status**: Shows the life remaining of HP supplies, with 0% indicating that a supply is empty. This page also provides supplies part numbers. To order new supplies, click **Order Supplies** in the **Other Links** area on the left side of the window. ● **Event log**: Shows a list of all printer events and errors. ● **Usage page**: Shows a summary of the number of pages the printer has printed, grouped by size and type. ● **Diagnostics Page**: Provides information about printer calibration, color density, and other parameters. ● **Device Information**: Shows the printer network name, address, and model information. To change these entries, click **Device Information** on the **Settings** tab. ● **Control Panel**: Shows messages from the printer control panel. ● **Color Usage Job Log**: Shows color print jobs on a job-by-job basis. ● **Print**: Use to send print jobs to the printer.
Settings tab Provides the ability to configure the printer from your computer	● **Configure Device**: Use to configure printer settings. This page contains the traditional menus found on printers using a control-panel display. ● **E-mail Server**: Network only. Use in conjunction with the **Alerts** page to set up incoming and outgoing e-mail, as well as to set e-mail alerts. ● **Alerts**: Network only. Use to set up to receive e-mail alerts for various printer and supplies events. ● **AutoSend**: Use to configure the printer to send automated e-mails regarding printer configuration and supplies to specific e-mail addresses. ● **Security**: Use to set a password that must be typed to gain access to the **Settings** and **Networking** tabs. Enable and disable certain features of the embedded Web server. ● **Edit Other Links**: Use to add or customize a link to another Web site. This link is displayed in the **Other Links** area on all embedded Web server pages. ● **Device Information**: Use to name the printer and assign an asset number to it. Type the name and e-mail address for the primary contact who will receive information about the printer. ● **Language**: Use to specify the language in which to display the embedded Web server information. ● **Date & Time**: Synchronizes with a network time server.

Tab or section	Description
	• **Wake Time**: Use to set or edit a wake time for the printer.
	• **Restrict Color**: Use to set color-print-job user restrictions.
	📝 **NOTE:** The **Settings** tab can be password-protected. If this printer is on a network, always consult with the printer administrator before changing settings on this tab.
Networking tab Provides the ability to change network settings from your computer	Network administrators can use this tab to control network-related settings for the printer when it is connected to an IP-based network. This tab does not appear if the printer is directly connected to a computer, or if the printer is connected to a network using anything other than an HP Jetdirect print server. 📝 **NOTE:** The **Networking** tab can be password-protected. If this printer is on a network, always consult with the printer administrator before changing settings on this tab.
Other links Contains links that connect you to the Internet	• **HP Instant Support™**: Connects to the HP Web site to help you find solutions. This service analyzes the printer error log and configuration information to provide diagnostic and support information specific to your printer. • **Order Supplies**: Connects to the HP Web site to order genuine HP supplies. • **Product Support**: Connects to the support site for the printer for help regarding general topics. 📝 **NOTE:** Internet access is necessary 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.

Using the HP Easy Printer Care Software

Use the HP Easy Printer Care Software for the following tasks:

- Check the printer status.

- Check supplies status.

- Set up alerts.

- Gain access to troubleshooting and maintenance tools.

Use the HP Easy Printer Care Software when the printer is directly connected to your computer or when it is connected to a network. A complete software installation is necessary in order to use the HP Easy Printer Care Software.

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

Supported operating systems

The HP Easy Printer Care Software is supported for Windows 2000 and Windows XP.

To use the HP Easy Printer Care Software

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

- On the **Start** menu, select **Programs**, select **HP**, and then select **HP Easy Printer Care Software**.

- In the Windows system tray (in the lower-right corner of the desktop), double-click the HP Easy Printer Care Software icon.

- Double-click the desktop icon.

HP Easy Printer Care Software sections

Section	Description
Overview tab Contains basic status information for the printer	- **Devices** list: Shows the printers that you can select. - **Device Status** section: Shows printer status information, including printer alert conditions, such as an empty print cartridge; device-identification information; control-panel messages; and print-cartridge levels. After correcting a printer problem, click ↻ to update the section. - **Supplies Status** section: Shows detailed supplies status, such as the percentage of toner remaining in the print cartridges and the status of the media that is loaded in each tray. - **Supplies Details** link: Opens the supplies status page to view more detailed information about printer supplies, ordering information, and recycling information.
Support tab Provides help information and links	- Provides device information, including alerts for items that need attention. - Provides links to troubleshooting information and tools. - Provides links to the HP Web site for registration and support, and for ordering supplies. 📝 **NOTE:** Connect to the Internet to visit these Web sites.
Supplies Ordering window Provides access to online or e-mail supplies ordering	- **Ordering list:** Shows the supplies that can be ordered for each printer. To order a certain item, click the **Order** check box for that item in the supplies list. - **Shop Online for Supplies:** Opens the HP supplies Web site in a new browser window. The information about selected items can be transferred to the Web site. - **Print Shopping List:** Prints the information about the selected supplies. - **Email Shopping List:** Creates a text list of selected items. The list can be copied into an e-mail message that is sent to a supplier. 📝 **NOTE:** Connect to the Internet to visit these Web sites.
Alert Settings window Use to configure the printer to automatically notify of printer issues	- Activate or deactivate the alerts feature for a certain printer. - Set when you want alerts to appear—either when printing to that particular printer, or whenever a printer event occurs. - Set alerts for only critical errors or for any error, including continuable errors. - Set what type of alert should appear (pop-up message or system tray alert, and e-mail message).

Section	Description
Device List tab Shows information about each printer in the **Devices** list	● Printer information, including printer name, make, and model ● An icon (if the **View as** drop-down box is set to **Tiles**, which is the default setting) ● Any current alerts for the printer If you click a printer in the list, the HP Easy Printer Care Software opens the **Overview** tab for that printer.
Find Other Printers window Use to add more printers to the printer list	Clicking the **Find Other Printers** link in the **Devices** list opens the **Find Other Printers** window. The window provides a utility that detects other network printers that can be added to the **Devices** list and then monitored from a computer.

Using the HP Printer Utility for Macintosh

To open the HP Printer Utility in Mac OS X V10.2

1. Open the Finder and click **Applications**.

2. Click **Library** and click **Printers**.

3. Click **hp** and click **Utilities**.

4. Double-click **HP Printer Selector** to open the HP Printer Selector.

5. Select the printer that you want to configure, and then click **Utility**.

To open the HP Printer Utility in Mac OS X V10.3

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

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

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

HP Printer Utility features

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

Item	Description
Color Cleaning	Prints a cleaning page.
Configuration Page	Prints a configuration page.
Supplies Status	Shows the printer supplies status and provides links for online supplies-ordering.
HP Support	Provides access to technical assistance, online supplies ordering, online registration, and recycling and return information.
File Upload	Transfers files from the computer to the printer.
Upload Fonts	Transfers font files from the computer to the printer.

Item	Description
Firmware Update	Transfers updated firmware files from the computer to the printer.
Duplex Mode	Turns on the automatic two-sided printing mode.
Economode Toner Density	Turns on the Economode setting to conserve toner, or adjusts toner density.
Resolution	Changes the resolution settings, including the REt setting.
Lock Resources	Locks or unlocks storage devices, such as a hard disk.
Stored Jobs	Manages print jobs that are stored on the printer hard disk.
Trays Configuration	Changes the default printer tray settings.
IP Settings	Changes the printer network settings and provides access to the embedded Web server.
Additional Settings	Provides access to the embedded Web server.
E-mail Alerts	Configures the printer to send e-mail notices for certain events.

4 Theory of operation

This chapter presents an overview of the major components of the HP Color LaserJet 3000/3600/3800/CP3505 Series printers, and includes a detailed discussion of the image-formation system.

- Engine control system

- Laser/scanner system

- Pickup-and-feed-system

- Image-formation system

Engine control system

The engine control system coordinates all printer functions and drives the other three systems.

The engine control system contains these components:

- DC controller

- High-voltage power-supply PCB

- Low-voltage power unit
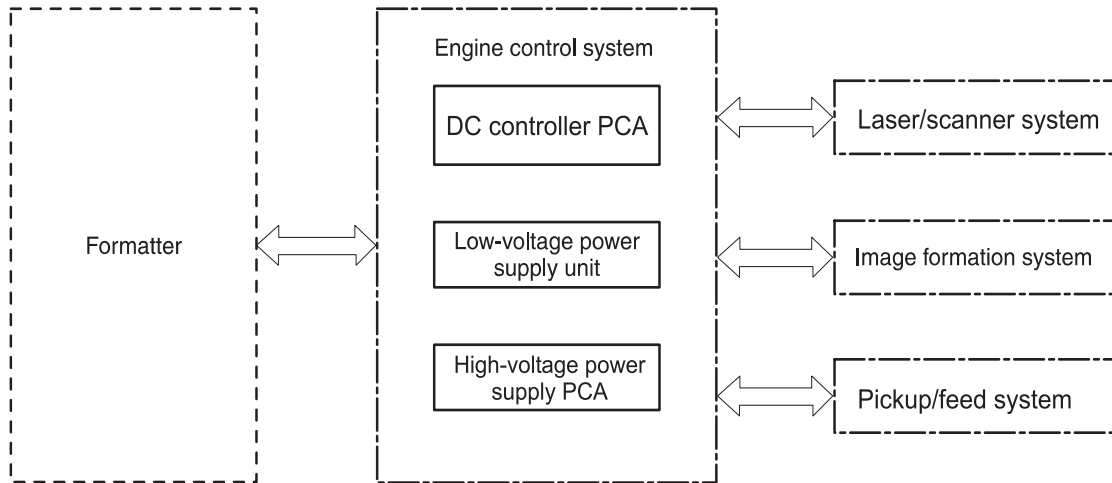
Figure 4-1 Engine control system components

Table 4-1 Sequence of operation

Period	Duration	Purpose	Remarks
WAIT	From the time the power is turned on or the door is closed until the drum-phase adjustment is complete	Clears the potential from the drum surface, adjusts the drum phase, and cleans the ETB	Detects the toner level, cartridge presence, and environment; completes any required calibration (color registration control and image stability)
STBY (Standby period)	From end of the WAIT or LSTR period until either the print command is received from the formatter or the power is turned off	Maintains the printer in readiness for a print command	The printer enters sleep mode when the formatter sends a sleep command, and performs color registration and the image stability control when the formatter sends those commands
INTR (Initial rotation)	From the time the print command is received until the media is picked up	Prepares the photosensitive drum for printing	

Table 4-1 Sequence of operation (continued)

Period	Duration	Purpose	Remarks
PRINT	From the end of INTR period until the fuser paper delivery sensor detects the trailing edge of paper	Forms the images on the photosensitive drum and transfers the toner image to the print media	Performs image stabilization at a specified print interval or at specified times
LSTR (Last rotation)	From the end of the PRINT period until the delivery motor stops rotating	Moves the printed sheet out of the printer	The printer enters the INTR period as soon as the formatter sends another print command

Power-on sequence
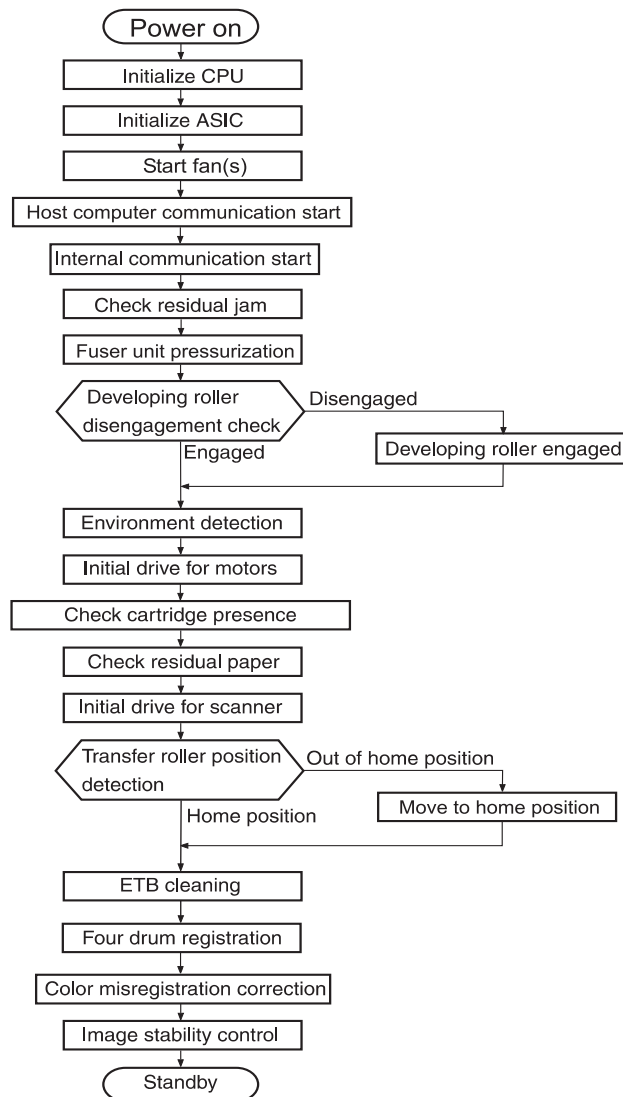
Figure 4-2 Power-on sequence

Motors, fans, and solenoids
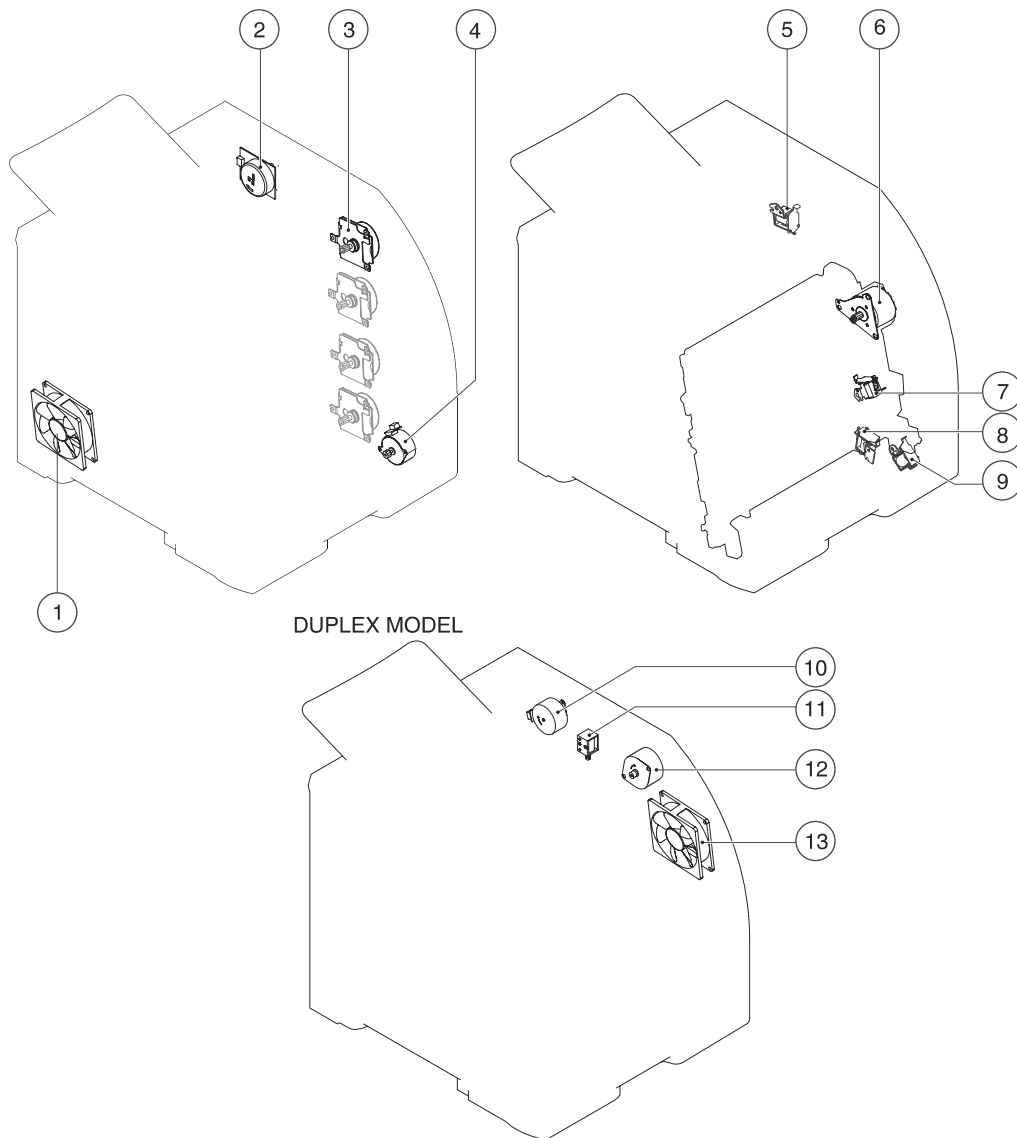
Figure 4-3 Motors, fans, and solenoids

1. Main fan (FM1)

2. Fuser drive motor (M1)

3. Print-cartridge drive motors (M6, M7, M8, M9))

4. Pickup-and-feed motor (M4)

5. Developing separation solenoids (SL5014, SL5015)

6. ETB drive motor (M5)

7. Developing separation solenoid (SL5011)

8. Cassette pickup solenoid (SL5012)

9. Multipurpose tray pickup solenoid (SL5013)

> 📝 **NOTE:** The following parts are included *only* on duplexing printer models.

10. Duplex reverse-drive motor (M11)

11. Duplex flapper solenoid (SL10)

12. Duplex-feed-drive motor (M10)

13. Door fan (duplex models only) (FM2)

Laser/scanner system

The formatter sends video signals to the DC controller, which controls the laser/scanner. When the laser/scanner system receives those signals it converts them to latent images on the photosensitive drum.
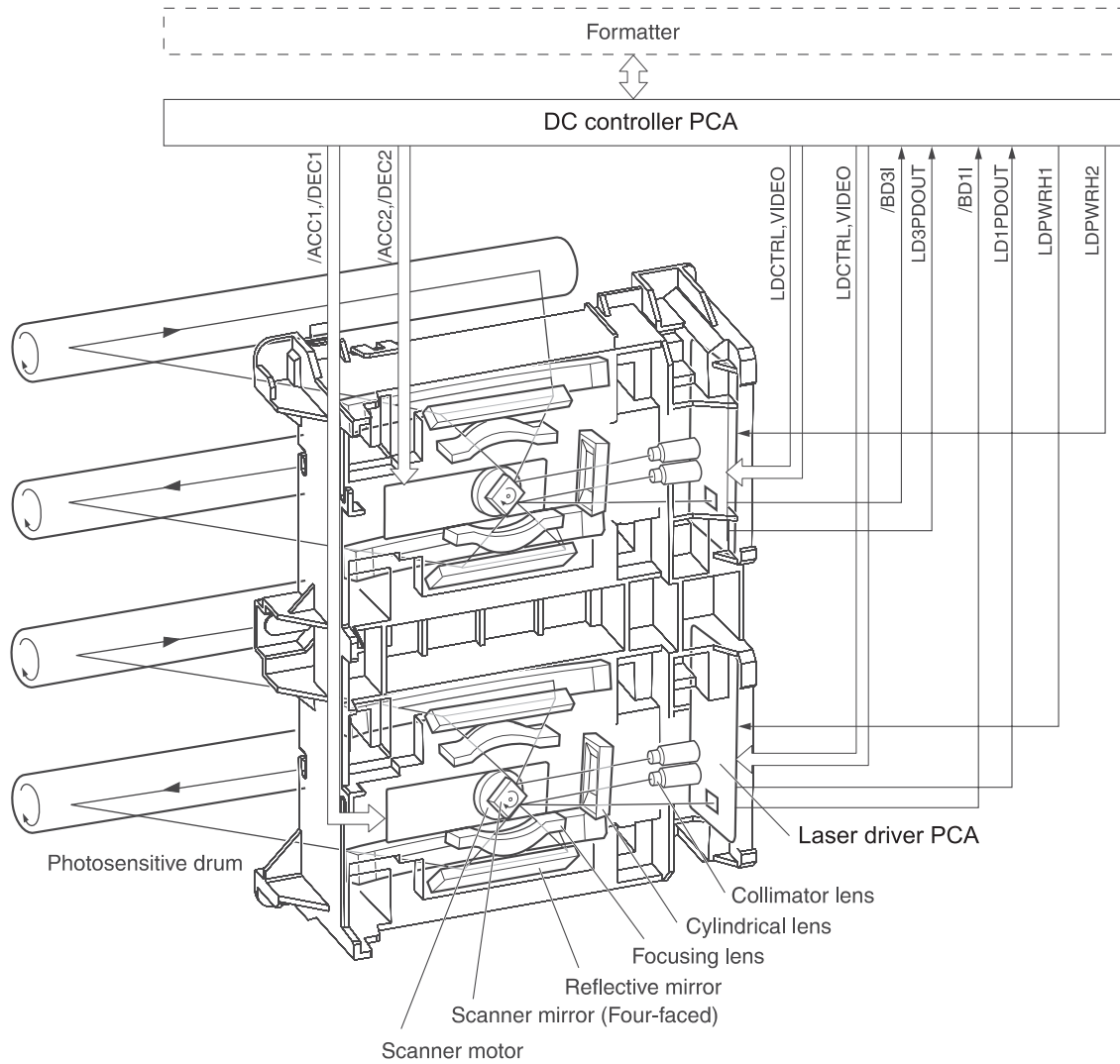
Figure 4-4 Laser/scanner system

Pickup-and-feed-system

The pickup and feed system consists of several types of feed rollers and sensors.

The DC controller drives the system by controlling the feed motor (M4), ETB motor (M5), and four drum motors (M6, M7, M8, M9) and the solenoids for the trays. In models that include an automatic duplex accessory, the duplexing feed motor (M10) and reversing motor (M11) are also part of the system.

📝 **NOTE:** Tray 2 must be installed in order to print from tray 1 or tray 3.
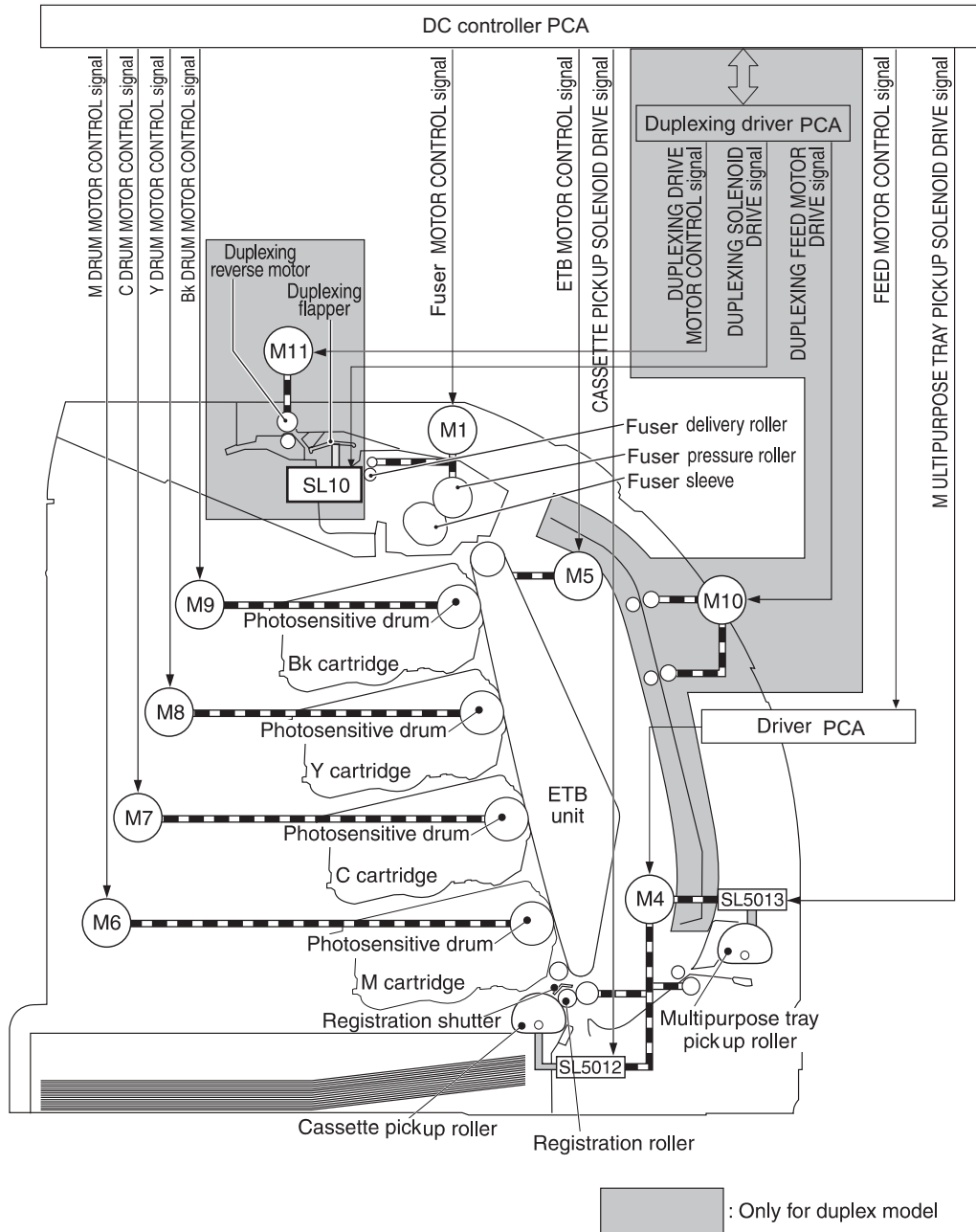
Figure 4-5 Pickup-and-feed system

Sensors in the pickup-and-feed system trays (cassettes)

Paper sensors detect media in the trays. Other sensors react to the media as it moves through the paper path. If the 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. In models that include an automatic duplex accessory, the paper path contains additional sensors that detect movement through the duplex path.
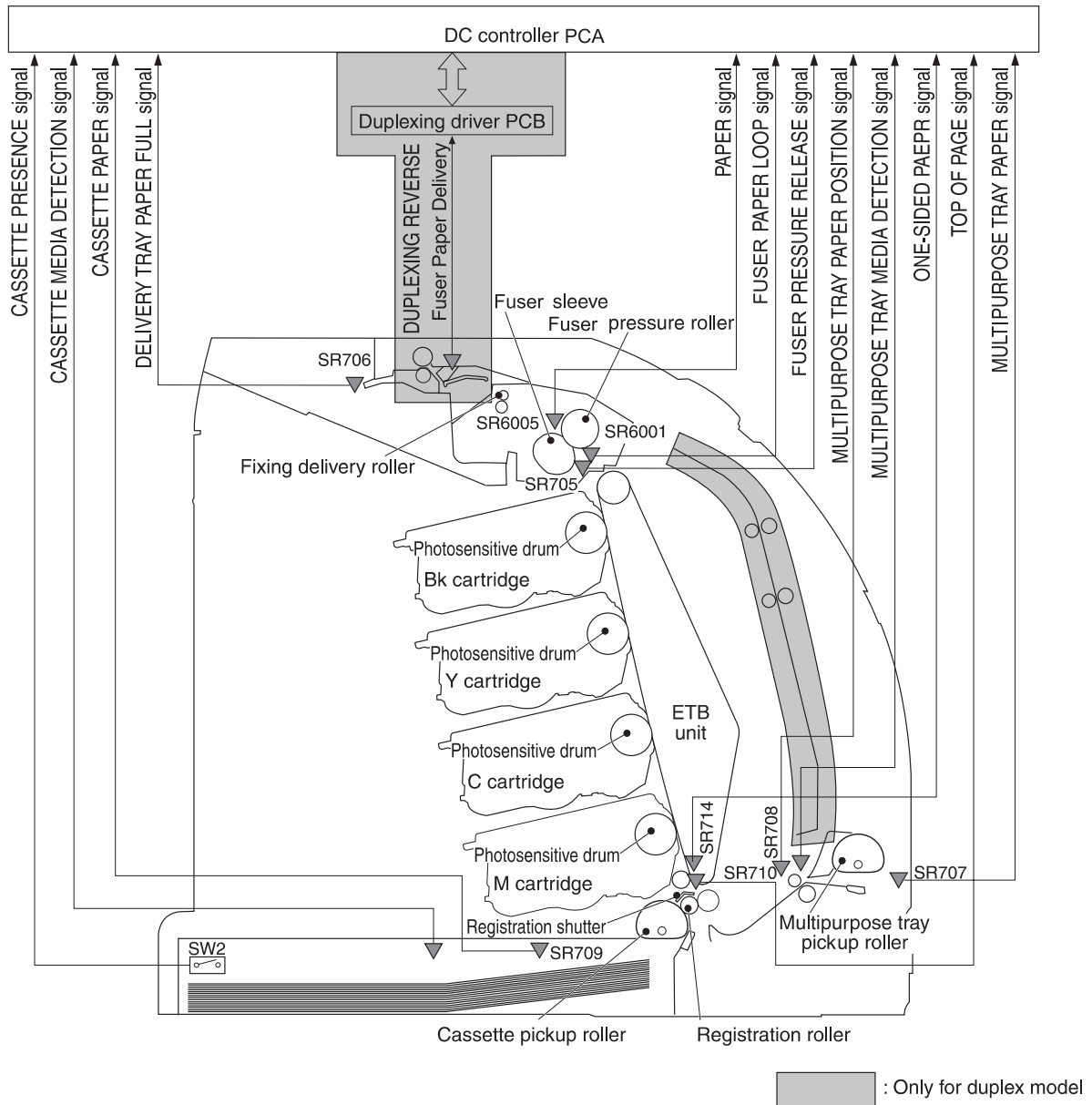
Figure 4-6 Pickup-and-feed system sensors

SR705	Fuser pressure-release sensor
SR706	Output-bin-full sensor
SR707	Multipurpose-tray paper sensor
SR708	Multipurpose-tray paper-position sensor (HP Color LaserJet 3000, 3800, and CP3505 Series printers only)

SR709	Cassette paper-presence sensor
SR710	Top-of-page sensor
SR714	One-sided paper sensor
SR6001	Paper-loop sensor
SR6005	Fuser paper delivery sensor
SW2	Cassette-presence switch

Cassette pickup mechanism

When the cassette is correctly installed, SW2 detects its presence. The cassette paper sensor (SR709) detects whether media is present in the cassette, and the cassette media sensor detects the type of media. When the cassette is correctly installed and the correct media type is present, the cassette pickup operation begins.

1. The DC controller receives a print command from the formatter, and then begins rotating the pickup-and-feed motor (M4) at the correct speed for the media type.

2. After the motor reaches the correct speed and the fuser is at the correct temperature, the cassette pickup solenoid (SL5012) turns on and the cassette pickup roller begins rotating.

3. The cassette lifting plate lifts the paper stack, and the cassette pickup roller picks up one sheet of media. The separation pad prevents multi-feeds.
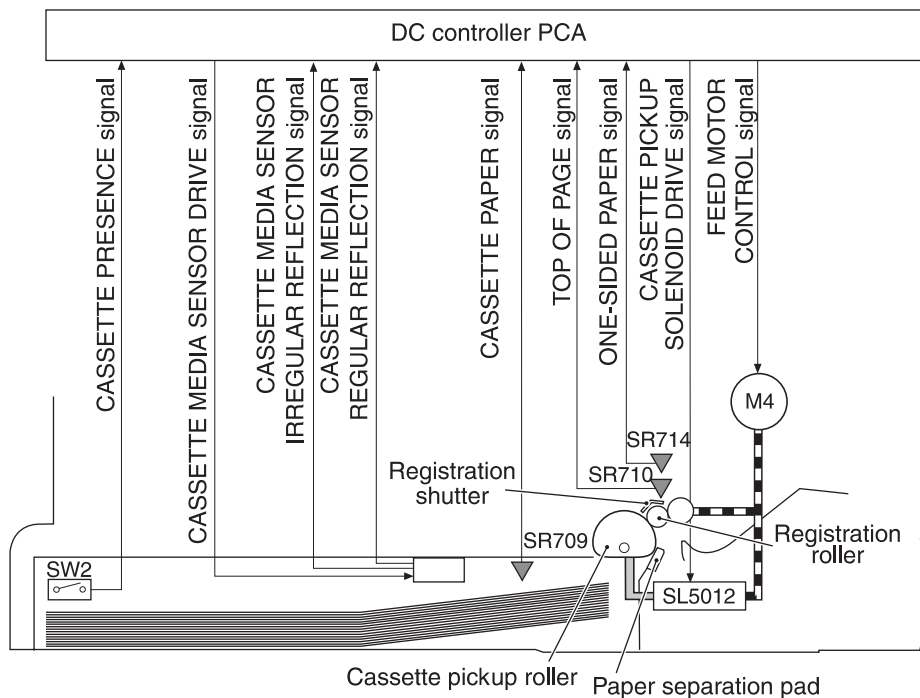
Figure 4-7 Cassette pickup mechanism

Multipurpose-tray pickup mechanism

The cassette must be installed in order for the multipurpose (MP) tray to operate. The MP tray paper sensor (SR707) detects whether media is present in the MP tray. When the cassette is correctly installed and media is present, the MP tray pickup operation begins.

1. The DC controller receives a print command from the formatter, and then begins rotating the pickup-and-feed motor (M4) at the correct speed for the media type.

2. After the motor reaches the correct speed and the fuser is at the correct temperature, the MP pickup solenoid (SL5013) turns on and the MP pickup roller begins rotating.

3. The MP pickup roller picks up one sheet of media. The separation pad prevents multi-feeds.

4. When the media reaches SR708, motor M4 stops, the MP tray media sensor detects the media, and then motor M4 restarts and resumes feeding media into the printer.
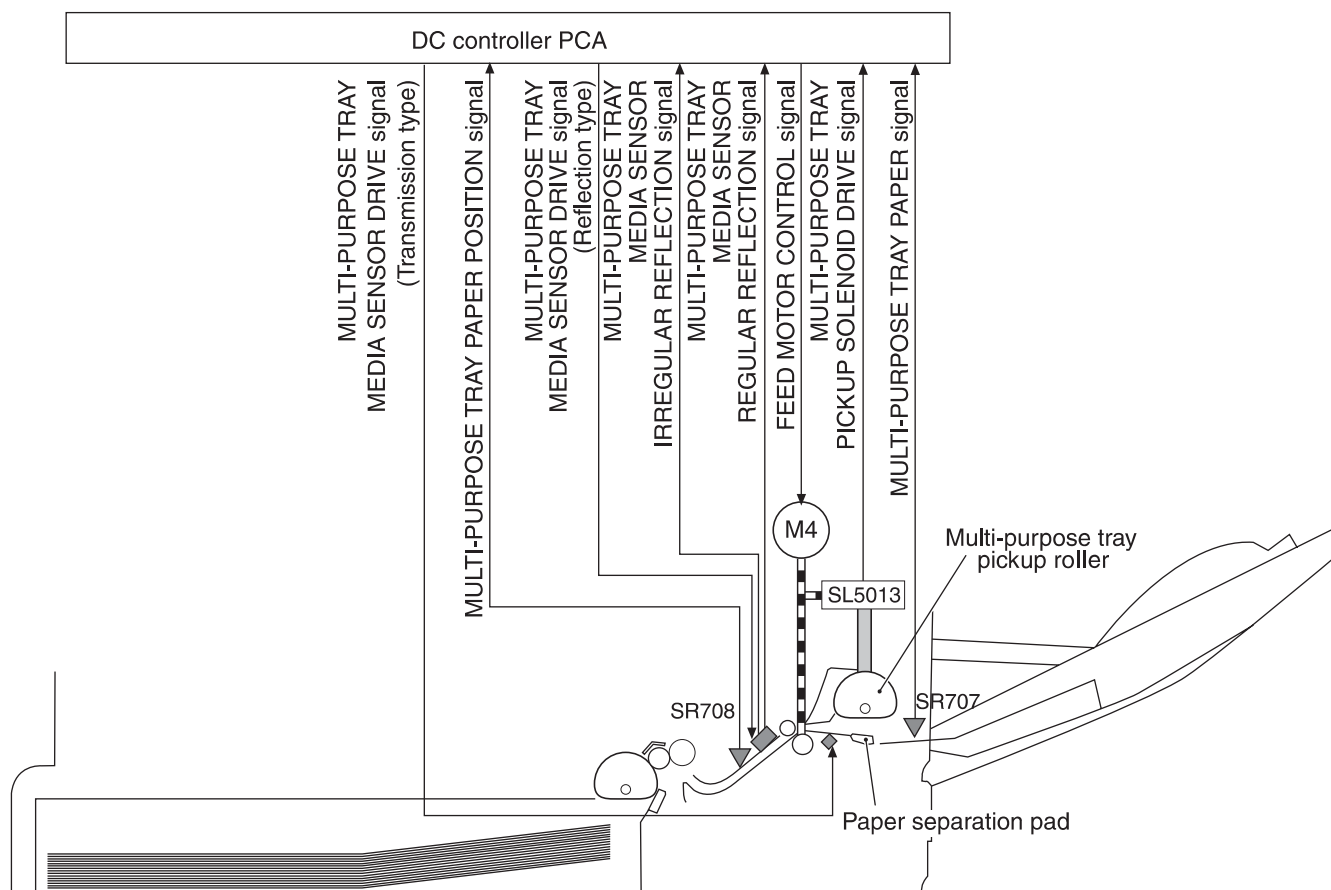
Figure 4-8 Multipurpose-tray pickup mechanism

Feed-speed control

To optimize print quality, the pickup-and-feed motor rotates at different speeds depending on the type of media.

NOTE: In the following table, normal speed is 22 ppm for the HP CLJ 3800 and CP3505 models, and normal speed is 18 ppm for the HP CLJ 3600 models. Normal speed is 30 ppm for the HP CLJ 3000 model (black mode only).

Media type	HP CLJ 3800 and CP3505	HP CLJ 3600	HP CLJ 3000 (full-color mode)	HP CLJ 3000 (monochrome mode)
Plain	22 ppm	17.6 to 18 ppm	15 ppm	30 ppm
Rough	17.6 to 18 ppm	17.6 to 18 ppm	15 ppm	15 ppm
Thin	22 ppm	17.6 to 18 ppm	15 ppm	30 ppm
Thick	17.6 to 18 ppm	17.6 to 18 ppm	15 ppm	15 ppm
Thicker	17.6 to 18 ppm	17.6 to 18 ppm	15 ppm	15 ppm
Postcard	17.6 to 18 ppm	17.6 to 18 ppm	15 ppm	15 ppm
Thicker postcard	11 ppm	11 ppm	15 ppm	15 ppm
Glossy	17.6 to 18 ppm	17.6 to 18 ppm	15 ppm	15 ppm
Heavy Glossy	11 ppm	11 ppm	15 ppm	15 ppm
Extra Heavy glossy	8.8 to 9 ppm	8.8 to 9 ppm	15 ppm	15 ppm
Envelope	17.6 to 18 ppm	17.6 to 18 ppm	15 ppm	15 ppm
Label	17.6 to 18 ppm	17.6 to 18 ppm	15 ppm	15 ppm
Gloss film	3.6 ppm	3.6 ppm	15 ppm	15 ppm
Transparency	3.6 ppm	3.6 ppm	15 ppm	15 ppm

Sensor jam detection
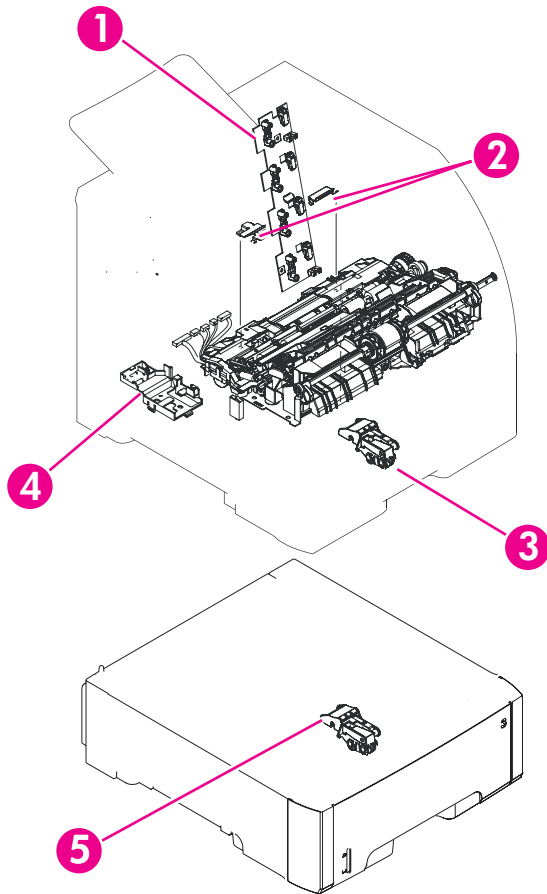
1. Cartridge sensor assembly

2. Paper and registration sensor covers

3. Cassette media sensor (HP Color LaserJet 3600, 3800, CP3505 only)

4. Temperature sensor

5. Media-sensor assembly (500-sheet feeder)

The following jams can occur during operation:

- Pick-up delay jam. The printer makes three attempts to pick up media from a tray. When the top-of-page sensor (SR710) does not detect the leading edge of a page within a specific time after the third attempt, the printing operation stops. The time varies depending on the printer model and the media source, as follows.

  HP CLJ 3000: 1.3 seconds from the cassette; 2.2 seconds from the multipurpose tray (tray 1); 2.3 seconds from the paper feeder

  HP CLJ 3600: for black printing, 1.0, 1.5, or 1.6 seconds; for color printing, 1.7, 2.7, or 2.9 seconds

  HP CLJ 3800 and CP3505: 1.3 seconds from the cassette; 2.2 seconds from the multipurpose tray (tray 1); 2.3 seconds from the paper feeder

- Pick-up stationary jam. The printing operation stops when the top-of-page sensor (SR710) does not detect the trailing edge of a page within a specific time after it has detected the leading edge.

  HP CLJ 3000: approximately 3.2 seconds

  HP CLJ 3600: for black printing in Normal mode, 2.3 seconds; for color printing in Normal mode, 4.6 seconds

  HP CLJ 3800 and CP3505: approximately 4.0 seconds

- Delivery delay jam. The printing operation stops when the fuser paper delivery sensor (SR6005) does not detect the leading edge of a page within a specific time after it has detected the leading edge.

  HP CLJ 3000: approximately 3.0 seconds (in Normal print mode)

  HP CLJ 3600: for black printing in Normal mode, 2.2 seconds; for color printing in Normal mode, 3.8 seconds

  HP CLJ 3800 and CP3505: approximately 3.8 seconds (in Normal print mode)

- Wrapping jam. The printing operation stops when the fuser paper delivery sensor (SR6005) does not detect any media within a specific time. The time varies depending on the length of the media that the top-of-page sensor (SR710) detected.

  HP CLJ 3000: approximately 1.9 seconds (in Normal print mode with letter-size media)

  HP CLJ 3600: for black printing in Normal mode with letter-size media, 1.3 seconds; for color printing in Normal mode with letter-size media, 2.4 seconds

  HP CLJ 3800 and CP3505: approximately 2.4 seconds (in Normal print mode with letter-size media)

- Delivery stationary jam. The printing operation stops when the fuser paper delivery sensor (SR6005) continues to detect paper for a specific time after the top-of-page sensor (SR710) detected its presence.

  HP CLJ 3000: approximately 3.1 seconds (in Normal print mode)

  HP CLJ 3600: for black printing in Normal mode, 2.2 seconds; for color printing, 3.9 seconds

  HP CLJ 3800 and CP3505: approximately 3.9 seconds (in Normal print mode)

- Duplexing pickup delay jam (for models that include an automatic duplex accessory). The printing operation stops when the top-of-page sensor (SR710) does not detect the leading edge of the second side of the paper within a specific time after the duplexing feed motor (M10) started rotating.

  HP CLJ 3000: approximately 2.0 seconds (in Normal print mode)

  HP CLJ 3600: for black printing in Normal mode, 1.4 seconds; for color printing, 2.5 seconds

  HP CLJ 3800 and CP3505: approximately 2.5 seconds (in Normal print mode)

- Residual-paper jam. The printing operation stops when any of the following sensors detects media during the initial sequence period:

  Top-of-page sensor (SR710)

  Paper-loop sensor (SR6001)

  Fuser paper delivery sensor (SR6005)

  Duplexing reverse sensor (SR823)

  Multipurpose tray (MPT) paper-position sensor (SR708)

- Door-open jam. The printing operation stops when the DC controller detects that a printer door is open.

Image-formation system

The image-formation system, which forms a toner image on media, consists of several interdependent systems:

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

The printer includes four print cartridges that contain the toner used to create the image on the media. Toner is applied in the following order, using only the colors necessary for a specific image: magenta (M), cyan (C), yellow (Y), and black (Bk).
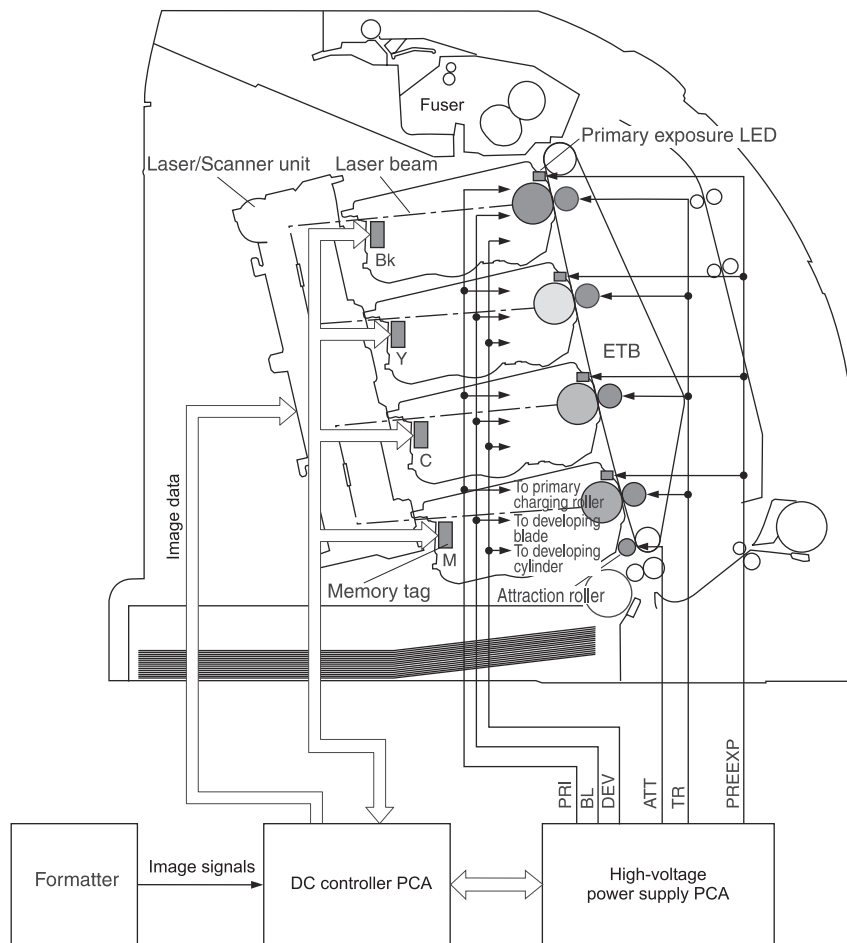
Figure 4-9 Image formation system

Image-formation process

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

1. Latent-image formation

2. Developing

3. Image transfer

4. Fusing

5. Transfer-belt cleaning

These processes are divided into ten steps, which are shown in and described in the following sections.
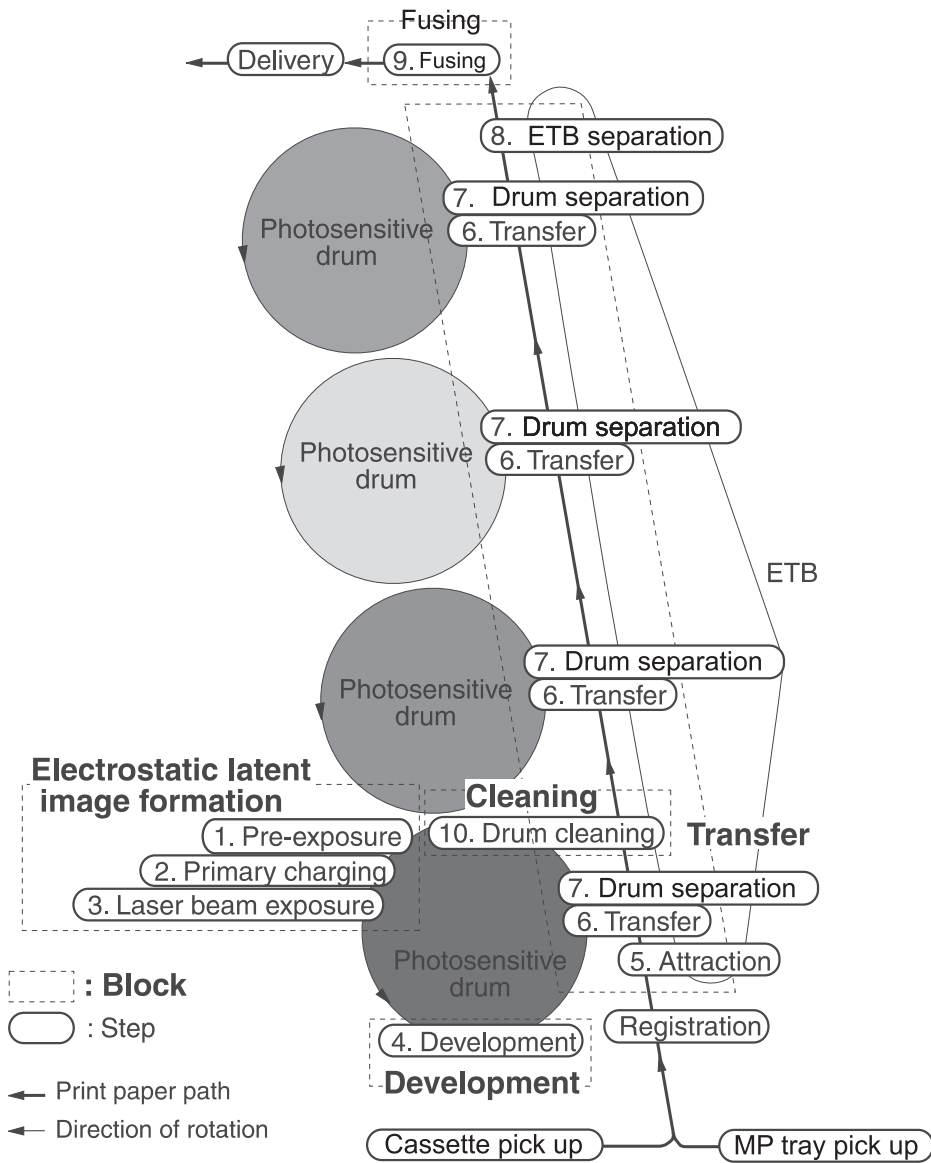
Figure 4-10 Image-formation steps

Latent-image formation stage

During the three steps that comprise this stage, a latent image is formed by applying a negative charge to the photosensitive drum. You cannot see this image on the drum.

Step 1: pre-exposure

The pre-exposure LED hits the photosensitive drum surface and eliminates any residual charge on the surface.
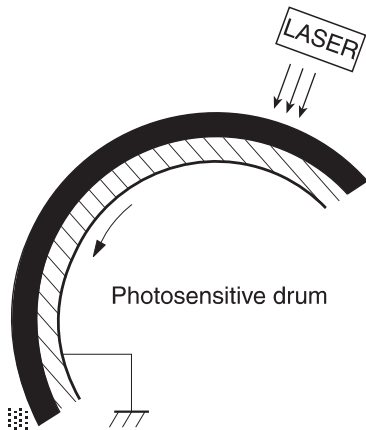
Figure 4-11 Pre-exposure

Step 2: primary charging

A high-voltage dc bias is applied to the primary charging roller, which is made of conductive rubber and is in contact with the drum surface. As the roller moves across the drum, it applies the negative charge to that surface.

Step 3: laser-beam exposure

The laser beam scans the photosensitive drum to neutralize the negative charge on portions of the drum surface. An electrostatic latent image is formed where the negative charge was neutralized.
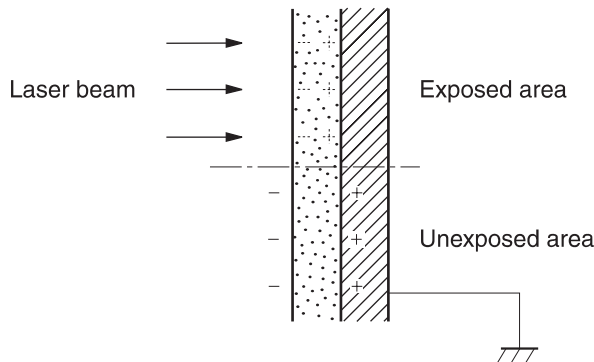
Figure 4-12 Laser-beam exposure

Developing stage

The developing cylinder comes in contact with the photosensitive drum and deposits toner on the electrostatic latent image.

Step 4: developing

Toner acquires a negative charge as a result of the friction from the developing cylinder rotating against the developing blade. When the negatively charged toner comes in contact with the drum, it adheres to the electrostatic latent image. When the toner is on the drum the image becomes visible.

Transfer stage

Step 5: media feed

The printer generates electrostatic force to pull a sheet of print media to the ETB. The sheet adheres to the belt and travels between the ETB engaged motor and the attraction roller.

The attraction roller transfer positive dc bias to the media so that the negatively charged toner can be easily transferred from the drum to the sheet.
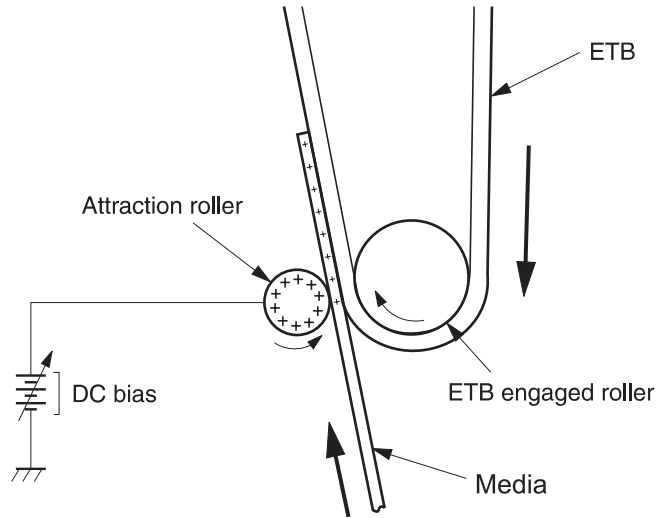
Figure 4-13 Media feed

Step 6: image transfer

The ETB carries the positively charged media over the photosensitive drum. As it passes between the transfer roller and the drum, the transfer roller applies a positive dc bias to the belt. Negatively charged media attracts negatively charged toner from the drum surface. This process is repeated for each toner color.
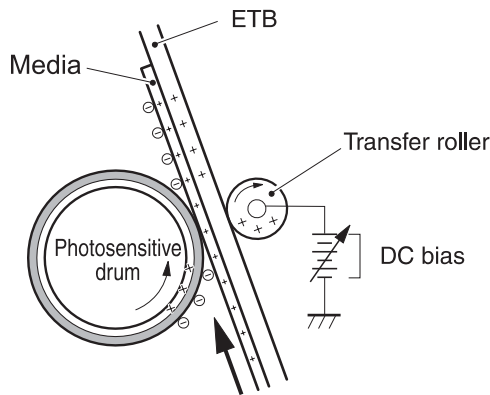
Figure 4-14 Image transfer

Step 7: separation from the drum

The beam strength or stiffness of media combined with the ETB holding force causes the media to separate from the drum. The sheet remains on the ETB and continues to travel through the printer.
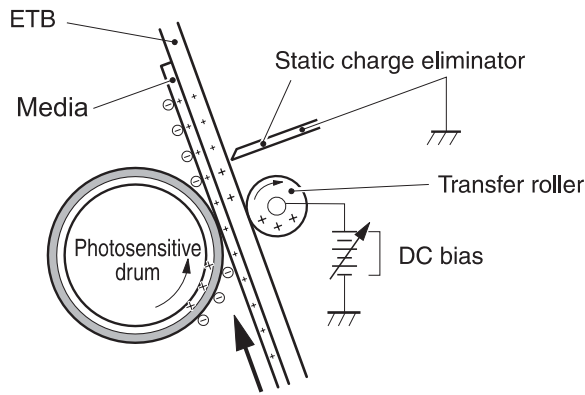
Figure 4-15 Separation from the drum

Step 8: separation from the ETB

The elasticity of the print media causes it to separate from the ETB. The static-charge eliminator is not involved during this step.

Fusing stage

Until the fusing stage is complete, the image is not permanently affixed to the print media. The toner can be easily smudged until the heat and pressure of the fusing process fix the image to the sheet.

Step 9: fusing

The printer uses a ceramic heater to accomplish the color-on-demand fusing process. The heater has a low heat capacity, which results in a short warm-up period and yields energy savings.
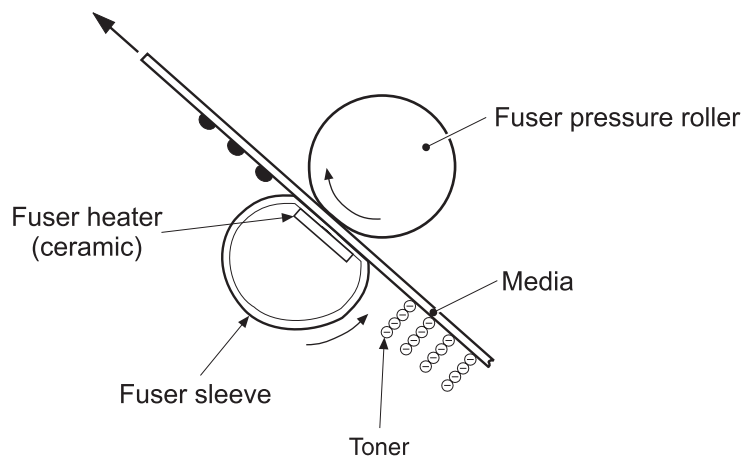
Figure 4-16 Fusing

Cleaning stage

Not all of the toner is removed from the photosensitive drum during the transfer stage. During the cleaning stage, the residual, or waste, toner is cleared from the drum surface to prepare the surface for the next latent-image formation.

Step 10: drum cleaning

The cleaning blade scrapes the residual toner off the surface of the photosensitive drum and deposits it in the waste-toner container. The drum is now clear, and is ready for the next image-formation process.

Print cartridge

This printer has four print cartridges: magenta (M), cyan (C), yellow (Y), and black (Bk). Each cartridge holds non-magnetic, single-component toner that is composed of resins in the four colors.

In addition to the toner, each cartridge contains a developing cylinder, toner-feed roller, and stirrer. The developer motor rotates these parts so that each print cartridge can deposit toner to form a visible image on the photosensitive drum.
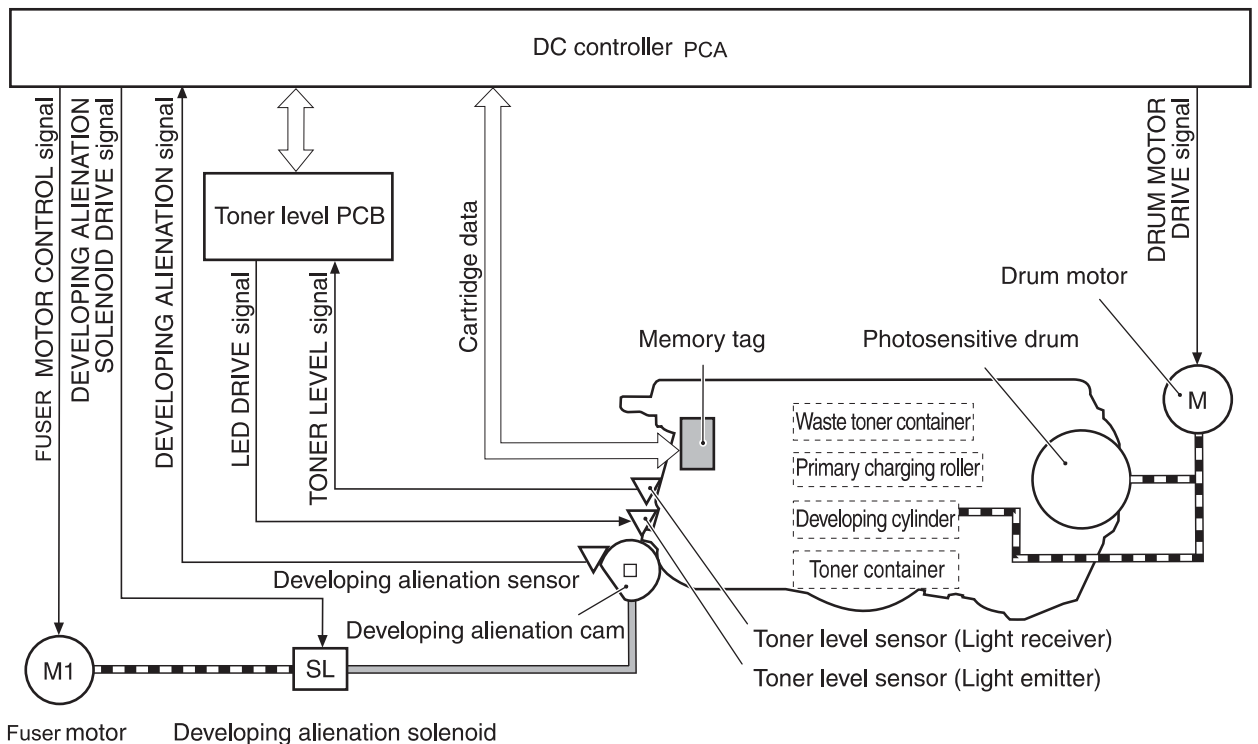
Figure 4-17 Print cartridge

The cartridges in this printer include the photosensitive drum, the primary charging roller, and the developing roller. Each cartridge performs these functions:

- Memory tag control

- Cartridge presence detection

- Developer roller engagement and disengagement control

Print-cartridge activation

A memory tag is a nonvolatile memory that is built into the print cartridge. The DC controller reads and writes data that is stored in the memory tag. The DC controller reads data at the following times:

● When the power is turned on

● When someone closes the front cover

● When it receives a command from the formatter

The DC controller writes information at the following times:

● At a specified interval during printing

● When it receives a command from the formatter

When the read/write operation fails or the wrong data is read or written, the DC controller determines that an error has occurred and notifies the formatter of a cartridge-memory abnormality. Printing then stops.
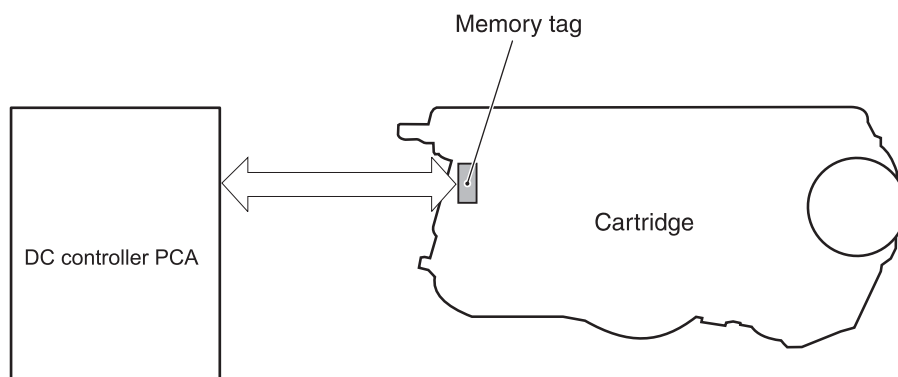
Figure 4-18 Print-cartridge activation

5 Removal and replacement

Removal and replacement strategy

Introduction

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

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

HP does not support repairing individual subassemblies or troubleshooting to the component level.

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

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

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

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

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

CAUTION: Do not bend or fold the flat flexible cables (FFCs) during removal or installation.

NOTE: To install a self-tapping screw, first turn it counterclockwise to align it with the existing thread pattern, and then carefully turn it clockwise to tighten. Do not overtighten. If a self-tapping screw-hole becomes stripped, repair the screw-hole or replace the affected assembly.

The printer shown in this chapter is a duplex model. It has a duplex fan mounted to the front cover, a duplex-feed-drive assembly, and a duplexing-reverse-drive assembly mounted under the upper (top) cover. Simplex model printers do not have these parts.

The electrostatic transfer belt (ETB) shown in this chapter is for the duplex model printer. The ETB for the simplex model looks different.

Required tools

- #2 Phillips screwdriver with a magnetic tip and a 152-mm (6-inch) shaft length

- Small flatblade screwdriver

- Needle-nose pliers

- ESD mat (if one is available)

- Penlight (optional)

⚠ **CAUTION:** Always use a Phillips screwdriver (callout 1). Do not use a pozidrive screwdriver (callout 2) or any motorized screwdriver. These can damage screws or screw threads.
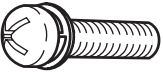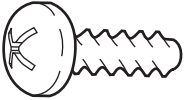
CAUTION: Do *not* pull directly on the wires to disconnect them. *Always* pull on the plastic body of a connector to avoid damaging the connector wires.
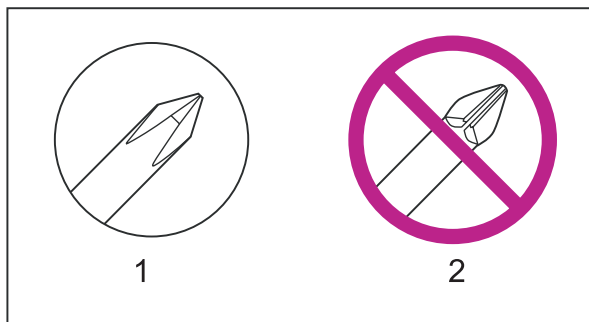
Figure 5-1 Phillips and pozidrive screwdriver comparison

Types of screws

Illustration	Description	Size	Part Number	Use
	Screw with washer	M3X8	XA9–1420–000CN	Used to secure metal components to metal components (for example, a ground wire to the frame)
	Screw, RS	M3X6 M3X10	XA9–1499–000CN	Used to secure metal to metal
	Screw, tapping, truss head	M4X10	XB4–7401–000CN	Used to secure anything to plastic

6 mm   8 mm   10 mm   M 3   M 4
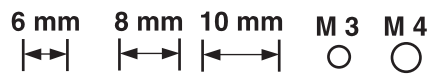
Service approach

Printer repair normally begins by using the printer internal diagnostics and the following two-step process:

1. Isolate the problem to the major system (for example, the network or server, or the printer).

2. Troubleshoot the problem by using the procedures in chapter 6.

After a faulty part is located, the printer can usually be repaired at the assembly level by replacing field-replaceable units (FRUs). Some mechanical assemblies might need to be repaired at the subassembly level. Hewlett-Packard Company does not support replacement of components on the printed circuit assembles.

Before performing service

- Remove all media.
- Unplug the power cable.
- Place the product on an ESD mat (if available).
- Remove the print cartridges.
- Remove the tray 2 cassette.

After performing service

- Return all media to the trays.
- Plug in the power cable.
- Reinstall the print cartridges.
- Reinstall the tray 2 cassette.

Print cartridges

1. Open the front cover.

Figure 5-2 Remove the print cartridges (1 of 2)

2. Grasp the two blue handles on the print cartridge, and pull the cartridge out of the printer.

Figure 5-3 Remove the print cartridges (2 of 2)

External doors, covers, and panels

Front cover

This part is called the front door in the user documentation and in chapter 1, "Product information."

> 📝 **NOTE:** The printer shown in the following procedure is a duplex model, and has a fan mounted to the front-cover assembly. Simplex model printers do not have one.
>
> **NOTE:** The ETB shown in this procedure is for the duplex model printer. The ETB for the simplex model looks different.

1. Open the front cover.

2. Push in the two blue ETB latch buttons (callout 1) and pull the ETB out of the printer.
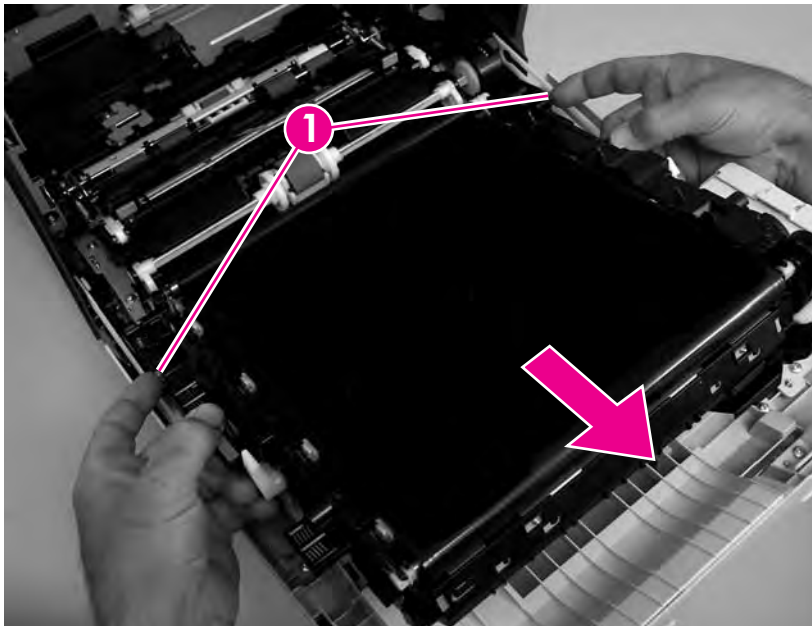
Figure 5-4 Remove the front cover (1 of 7)

3. Move the two ETB connectors (callout 2) to the raised position (as when the front cover is closed).
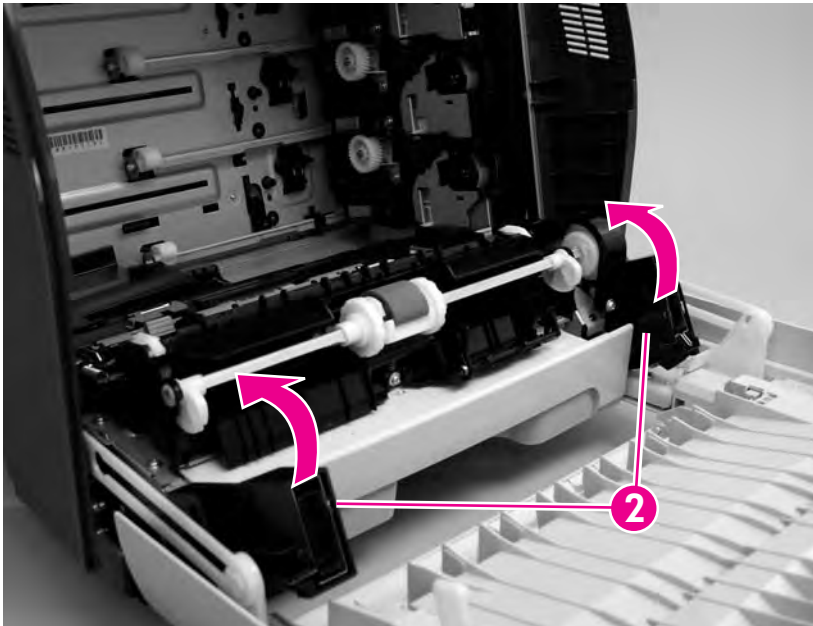
Figure 5-5 Remove the front cover (2 of 7)

4. Lift the front cover slightly, and then gently pry the retainer arms off of the clips.
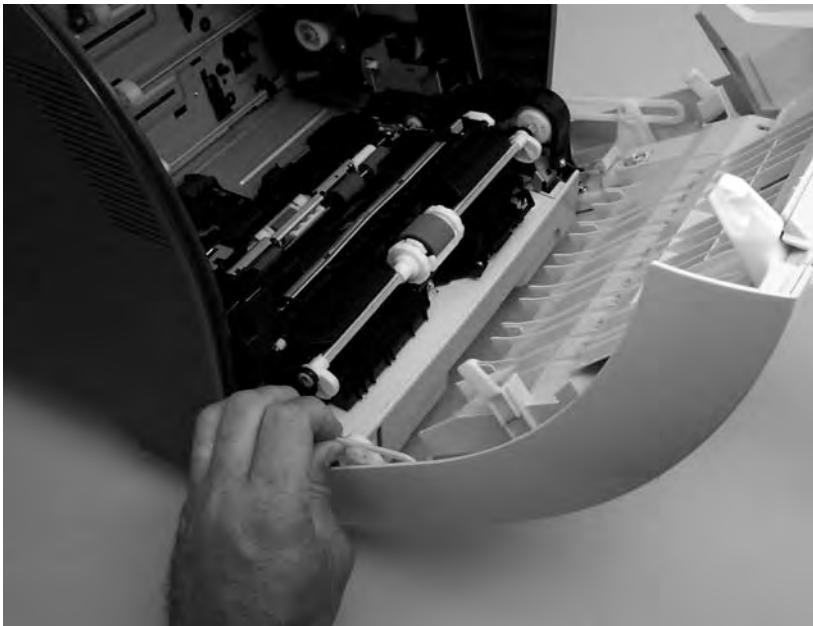
Figure 5-6 Remove the front cover (3 of 7)

5. For duplex models, use the following procedure to remove the fan. For simplex models, skip to the next step.

    a. Remove two screws (callout 3) that secure the fan to the cover and one screw that secures the wire-harness cover (callout 4).
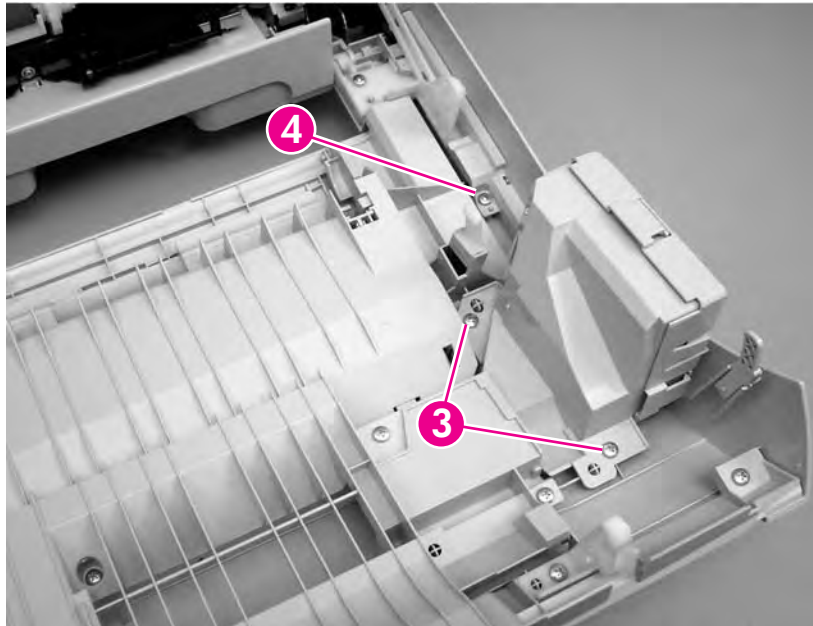
Figure 5-7 Remove the front cover (4 of 7)

    b. Use a small flatblade screwdriver to release the wire-harness-cover locking tab (callout 5) and remove the wire-harness cover.

Remove the fan and set it next to the printer.
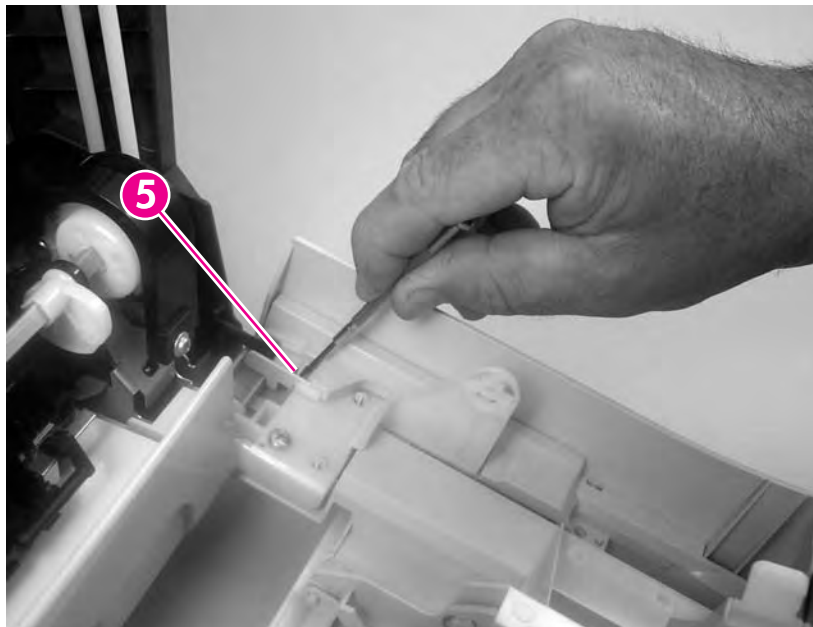
Figure 5-8 Remove the front cover (5 of 7)

6. Support the door and remove four screws (callout 6).
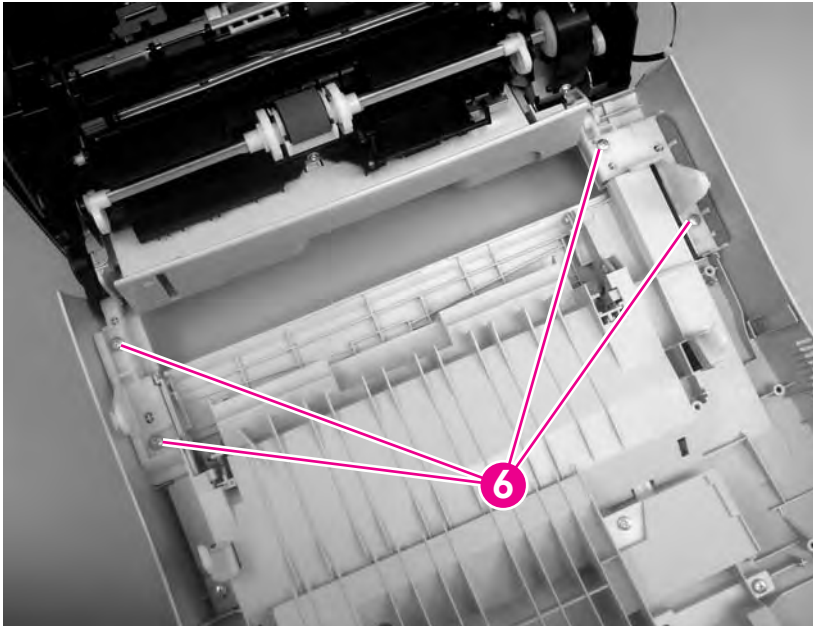
Figure 5-9 Remove the front cover (6 of 7)

7. Pull the front cover forward to remove it.
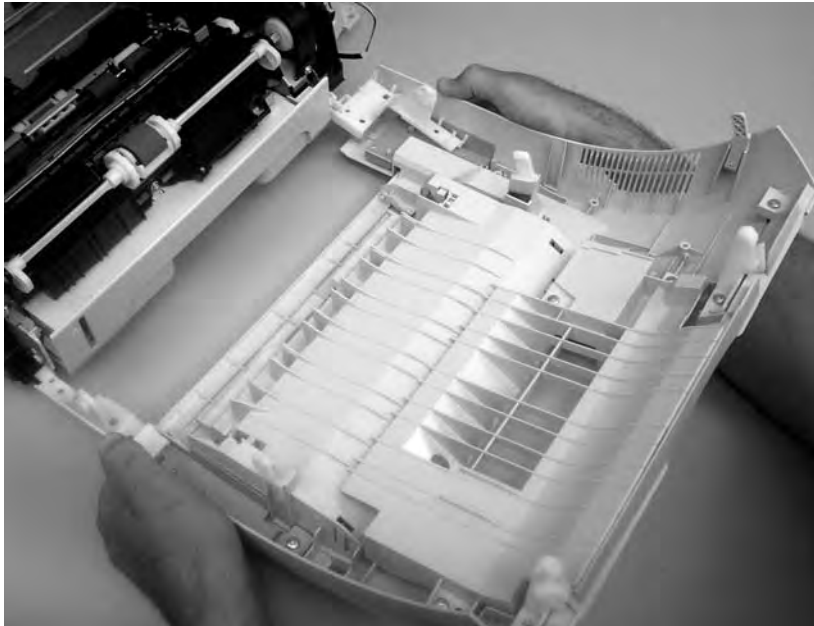
Figure 5-10 Remove the front cover (7 of 7)

💡 **TIP:** **Duplex model only**: When you reinstall the duplex-fan wire-harness, make sure that the wire-harness is clipped correctly to the door.
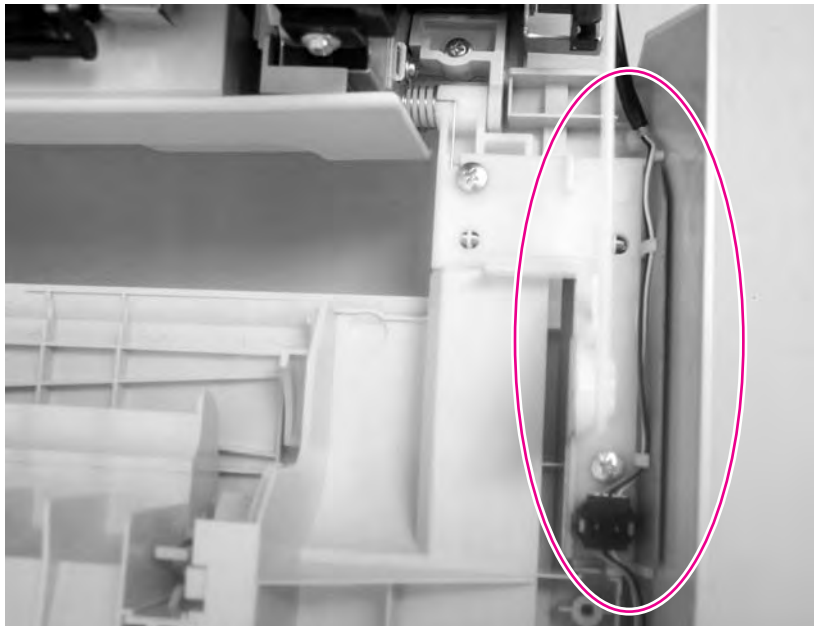
Upper cover (fuser door)

1. Rotate the output bin towards the front of the printer and remove it.

Figure 5-11 Remove the upper cover (1 of 5)

2. Open the upper cover, and then squeeze the two blue fuser-locking levers to release the fuser. Rotate the fuser up and out of the printer.

⚠ **CAUTION:** The fuser might be hot. Wait for the fuser to cool *before* you remove it.

Figure 5-12 Remove the upper cover (2 of 5)

3. Support the upper cover and remove four screws (callout 1).

> **NOTE:** The screw in the recessed area (see Figure 5-13 Remove the upper cover (3 of 5) on page 83) is longer than the other three mounting screws. Make sure to replace this screw in the correct location when installing the upper cover.
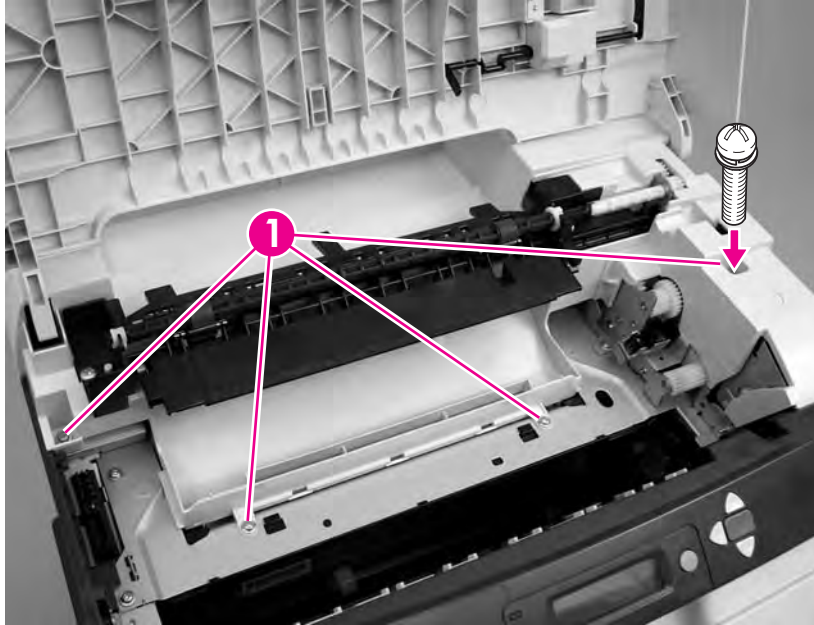
Figure 5-13 Remove the upper cover (3 of 5)

4. Lift up slightly on the right of the upper cover and disconnect one connector (callout 2).
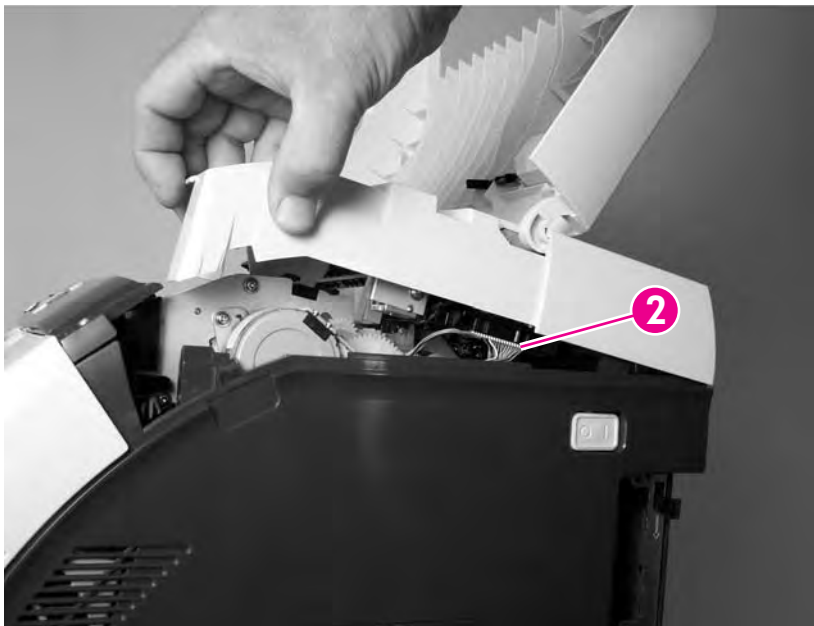
Figure 5-14 Remove the upper cover (4 of 5)

5. Lift the upper cover to remove it.

Figure 5-15 Remove the upper cover (5 of 5)

TIP: Make sure that the upper cover is seated correctly when it is reinstalled. Wire-harness cables can block the cover alignment pin and become pinched or frayed when the cover is fastened to the chassis.

Rear lower cover

1. Carefully flex the hinge bracket until you can dislodge the hinge pin. Move the rear lower cover away from the bracket to remove it.
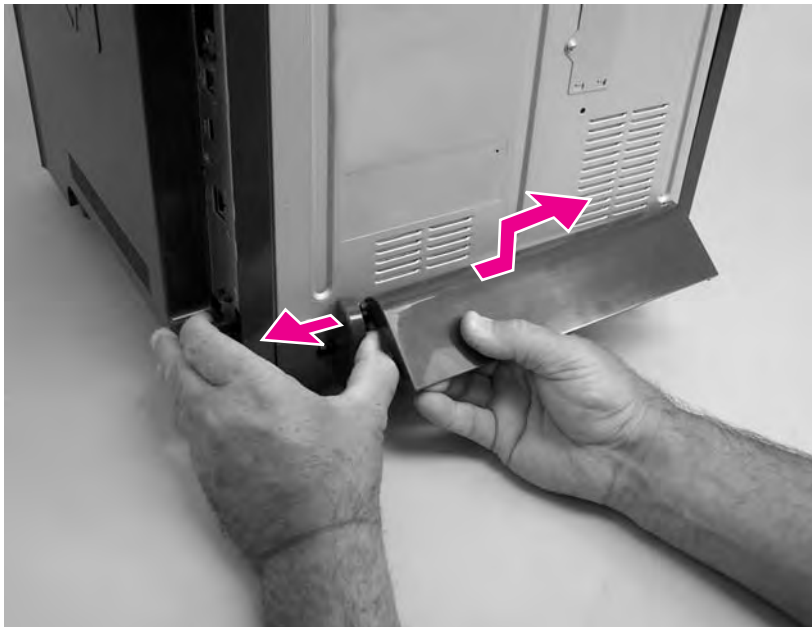
Figure 5-16 Remove the rear lower cover (1 of 2)

> **NOTE:** Step 2 is only necessary if you are removing the rear upper cover or installing a replacement hinge bracket.

2. Remove one screw (callout 1), and then remove the hinge bracket (callout 2).
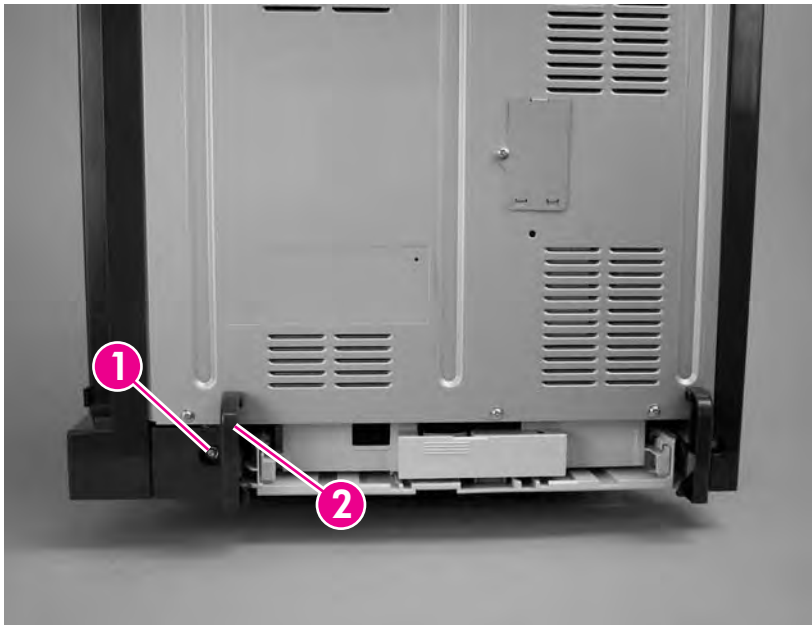
Figure 5-17 Remove the rear lower cover (2 of 2)

Left cover

1. Remove the following components:

   - Upper cover. See Upper cover (fuser door) on page 82.

   - Rear lower cover. See Rear lower cover on page 85.

2. Remove two screws (callout 1).
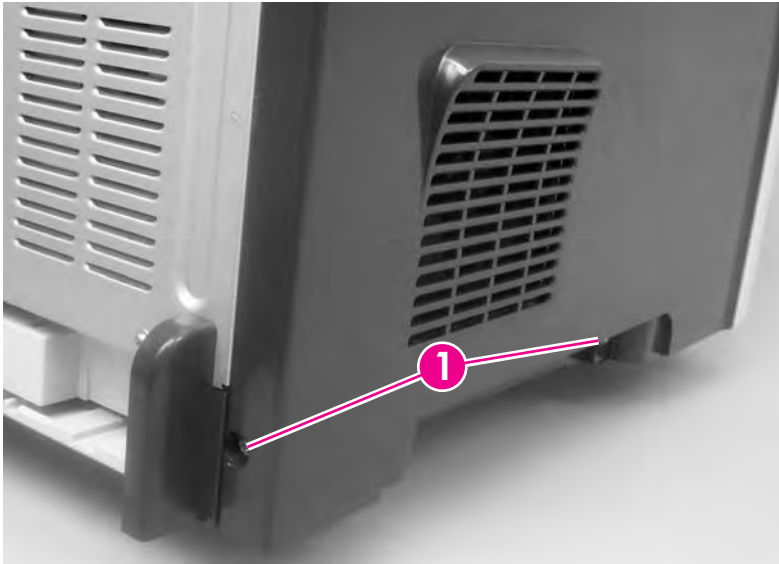
Figure 5-18 Remove the left cover (1 of 5)

3. Open the front cover.

4. Use a flatblade screwdriver to release the three locking tabs (callout 2) at the front of the left cover.
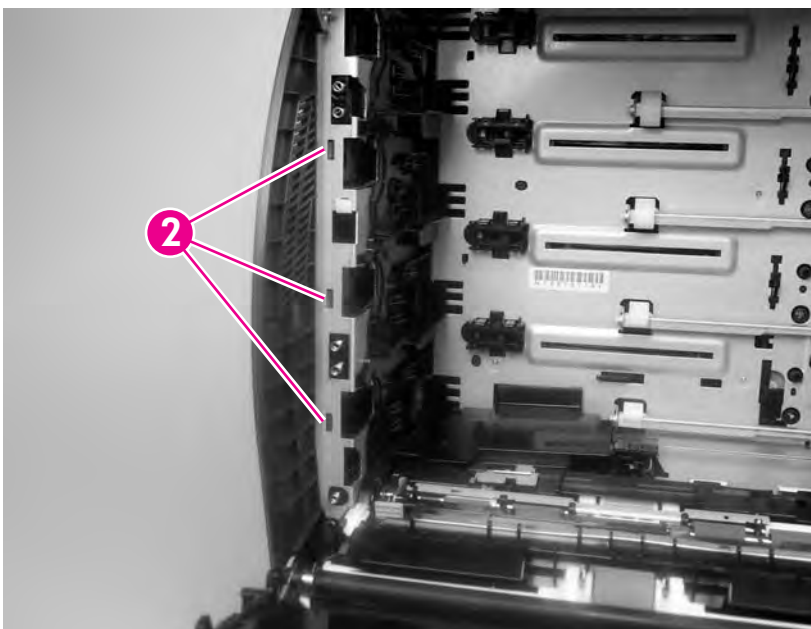
Figure 5-19 Remove the left cover (2 of 5)

5. Release the locking tab (callout 3) at the upper front of the left cover.
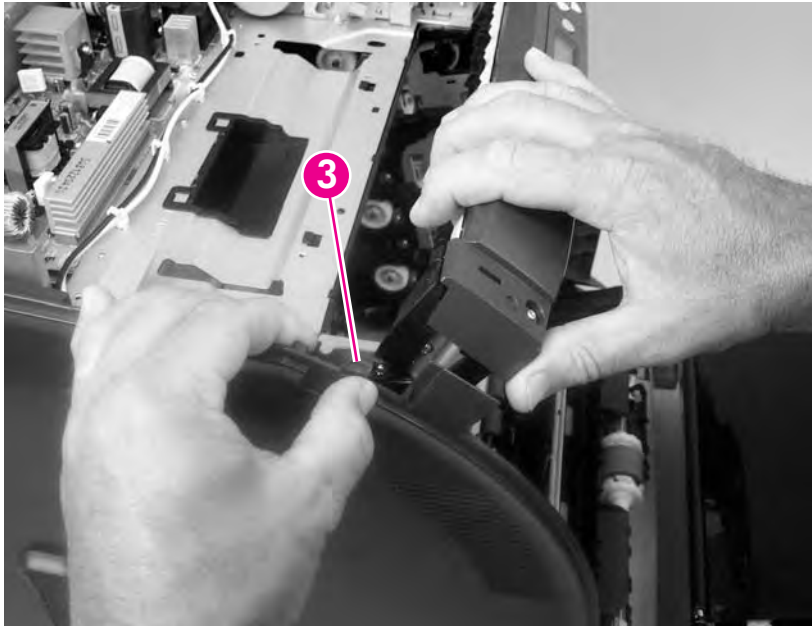
Figure 5-20 Remove the left cover (3 of 5)

6. Release the two locking tabs at the rear of the left cover.
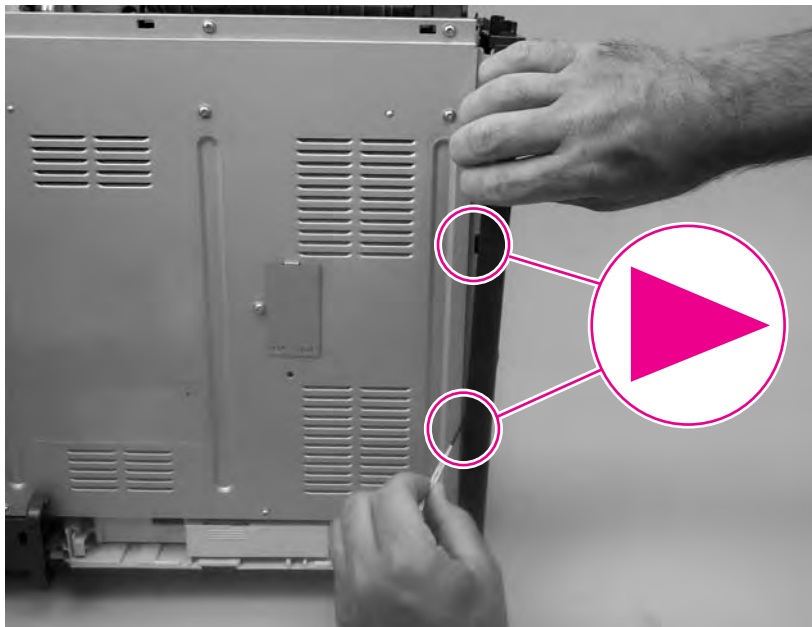
Figure 5-21 Remove the left cover (4 of 5)

7. Rotate the back of the cover away from the printer, and then slide the cover to the rear to disengage the two front locking tabs and release the cover.

Figure 5-22 Remove the left cover (5 of 5)

 NOTE: This photograph shows the two front locking tabs low on the inside of the left cover.

Right cover

1. Remove the following components:

   - Upper cover. See Upper cover (fuser door) on page 82.

   - Formatter cage. See Formatter cage on page 94.

2. Remove one screw (callout 1).

Figure 5-23 Remove the right cover (1 of 4)

3. Open the front cover.

4. Use a flatblade screwdriver to release the two locking tabs (callout 2) on the front of the right cover, and the tab on the printer chassis (callout 3).
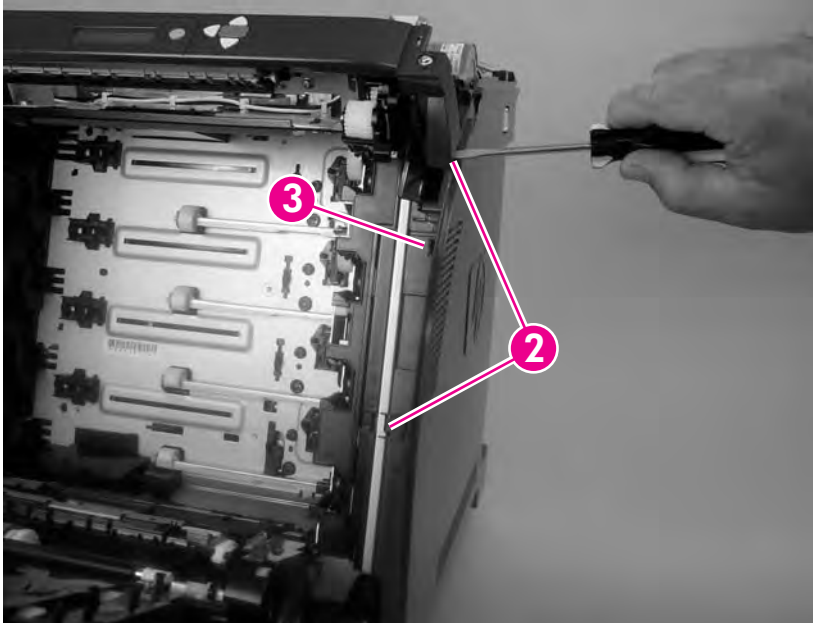
Figure 5-24 Remove the right cover (2 of 4)

NOTE: This photograph shows the front locking tabs on the inside of the right cover.
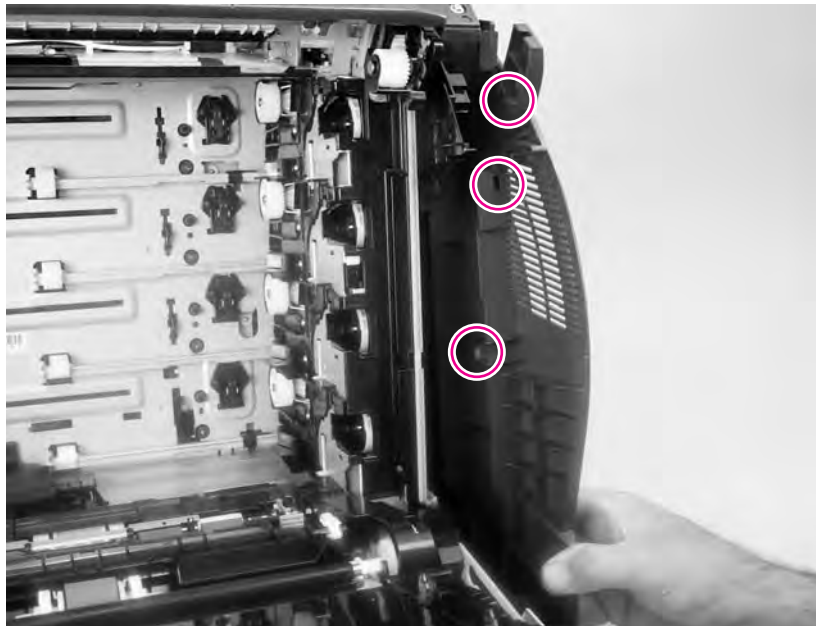
5. Remove the power-switch arm.
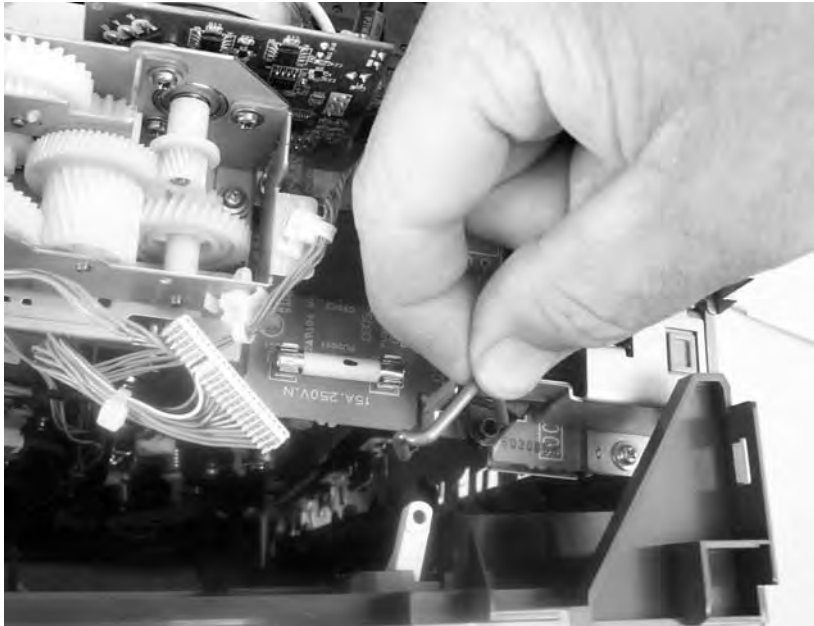
Figure 5-25 Remove the right cover (3 of 4)

6. Remove the cover by releasing the two rear locking tabs.
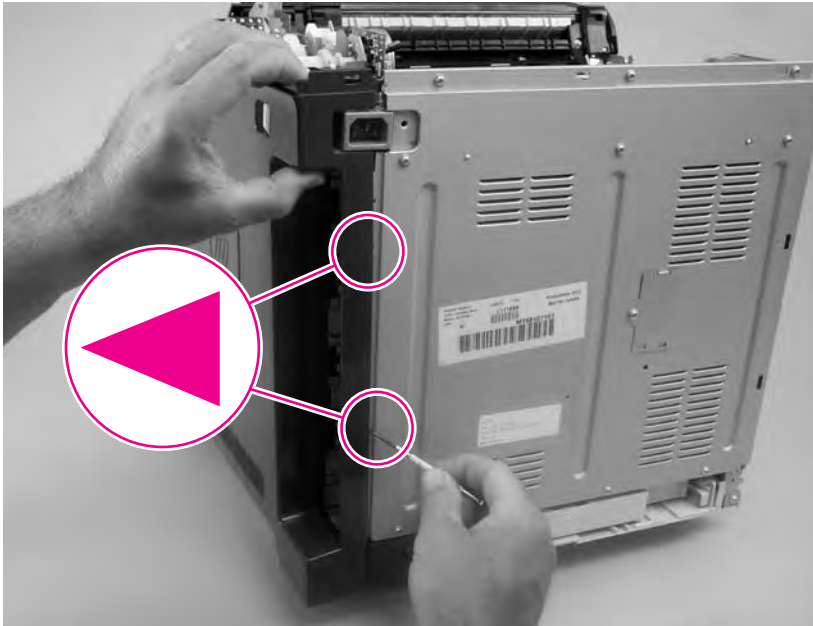
Figure 5-26 Remove the right cover (4 of 4)

TIP: When installing the right cover, make sure that the metal power-switch arm is engaged with the power switch.
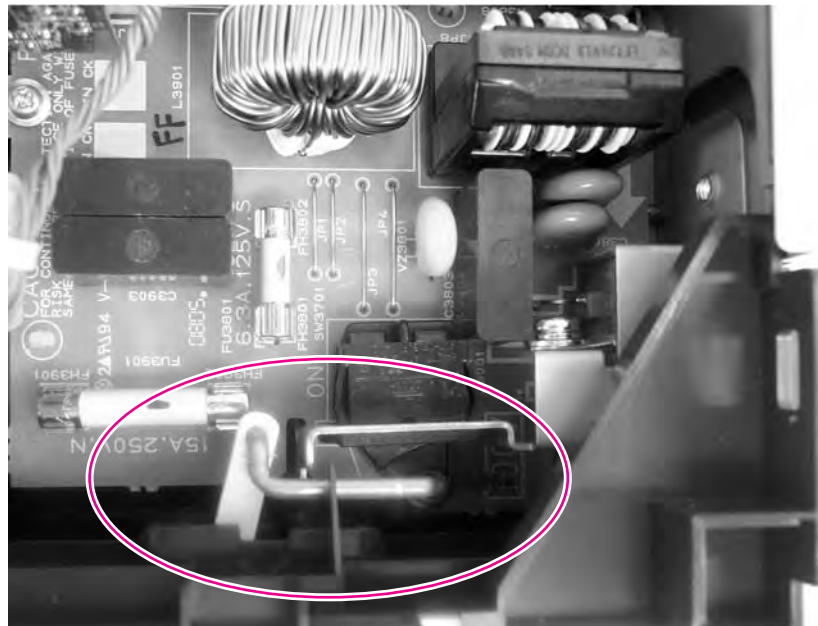
Rear upper cover

1. Remove the following components:

   - Upper cover. See <u>Upper cover (fuser door) on page 82</u>.

   - Rear lower cover. See <u>Rear lower cover on page 85</u>.

   - Left cover. See <u>Left cover on page 86</u>.

   - Right cover. See <u>Right cover on page 89</u>.

2. Release the cover by removing 10 screws (callout 1).
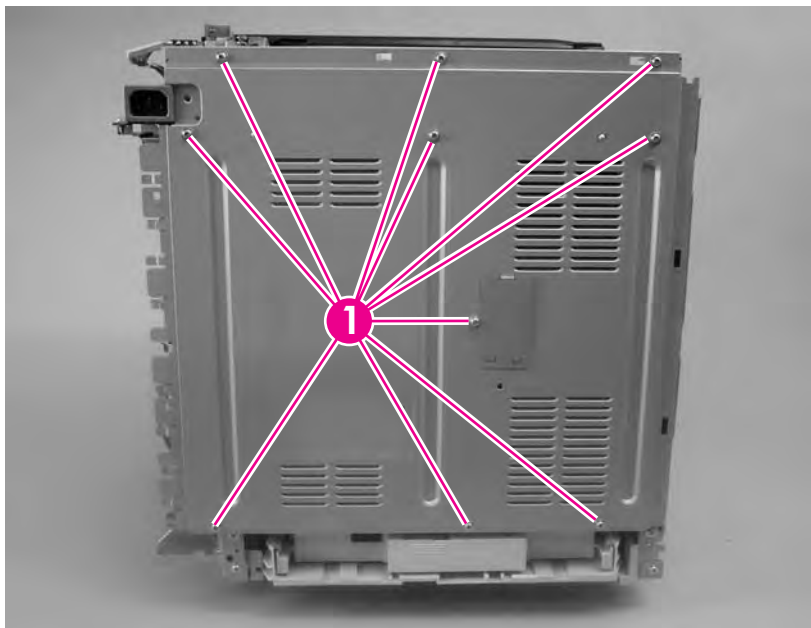
Figure 5-27 Remove the rear upper cover

Internal assemblies

Formatter cage

⚠️ **WARNING!** Do *not* replace the formatter and the DC controller at the same time. Install the replacement formatter and then turn the power on. After the printer initializes, turn the power off and install the replacement DC controller.

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

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

1. Before you install a replacement formatter, open the service menu (see) and record the following values:

   ● Mono cycle count

   ● Color cycle count

   ● Refurbish cycle count

   ● Serial number

   ● Service ID

2. Push in on the two black locking levers.

3. Pull the formatter cage away from the printer to remove it.
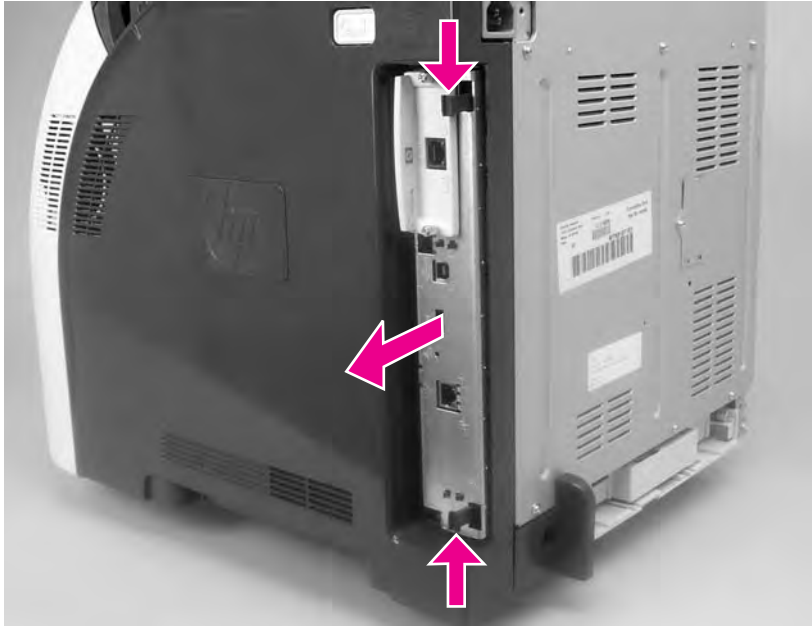
Figure 5-28 Remove the formatter cage

4. Open the service menu (see Service menu on page 228) and transfer the values from step 1 to the replacement formatter.

5. When you install a replacement formatter, you must calibrate the printer. See Calibrating the printer on page 39.

> **NOTE:** After replacing the formatter cage, make sure that the control panel is functioning. If the printer fans and motors are operating correctly but the control panel is not, turn the power off, and then remove the formatter cage and reinstall it. You might have to repeat this step several times to seat the formatter correctly.

Electrostatic transfer belt (ETB)

> **NOTE:** The ETB shown in this procedure is for the duplex model. The ETB for the simplex model looks different, but the procedure for removing it is the same as for the duplex model.

1. Open the front cover.

2. Push in the two blue latch buttons (callout 1) and pull the ETB out of the printer.
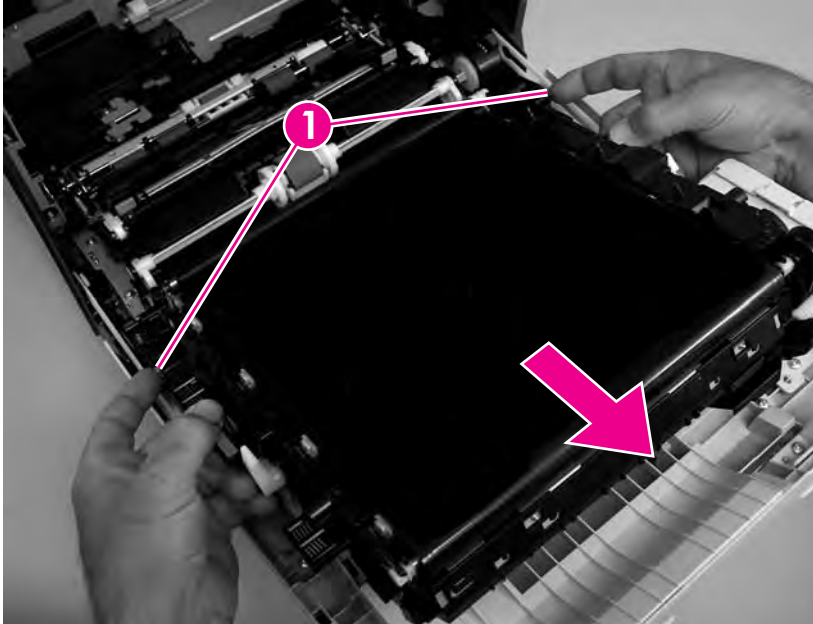
Figure 5-29 Remove the front ETB

Fuser

⚠ **CAUTION:** The fuser might be hot. Wait for the fuser to cool *before* you remove it.

1. Open the upper (top) cover (fuser door).

2. Squeeze the two blue fuser locking levers to release the fuser.

3. Rotate the fuser up and out of the printer.

Figure 5-30 Remove the fuser

Duplex fan

NOTE: The printer shown is the duplex model, and has a duplex fan mounted to the front-cover assembly. Simplex model printers do not have this part. If you are repairing a simplex model printer, ignore this procedure.

1. Open the front cover.

2. Remove the two screws (callout 1) that secure the fan to the front cover and one screw that secures the wire-harness cover (callout 2).
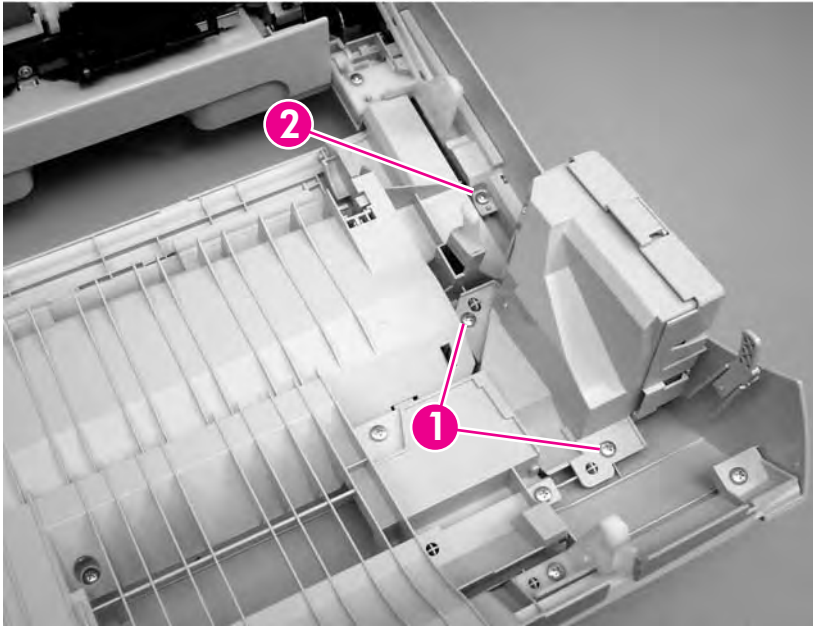
Figure 5-31 Remove the duplex fan (1 of 3)

3. Use a small flatblade screwdriver to release the wire-harness-cover locking tab (callout 3). Remove the harness cover.
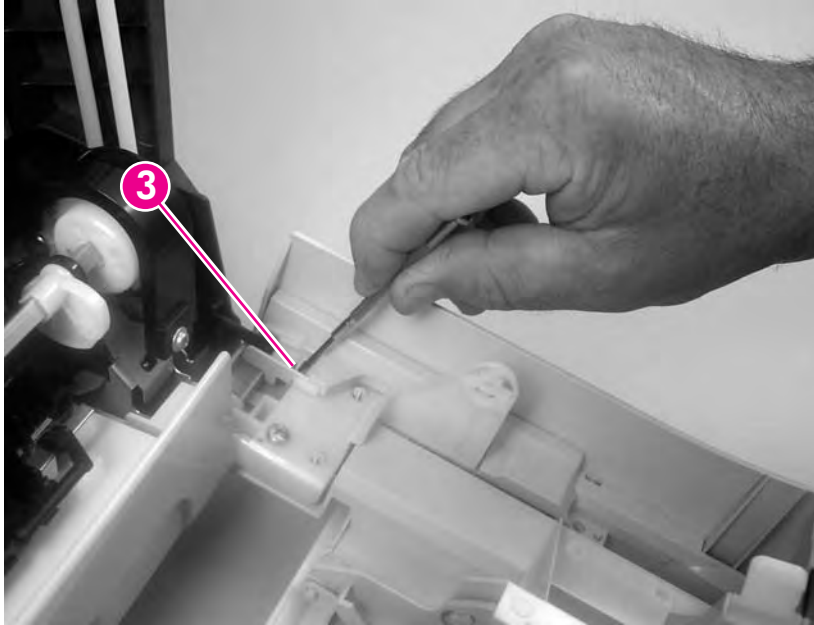
Figure 5-32 Remove the duplex fan (2 of 3)

📝 **NOTE:** When you reinstall the duplex-fan wire harness, make sure that the wire-harness is clipped correctly to the door.
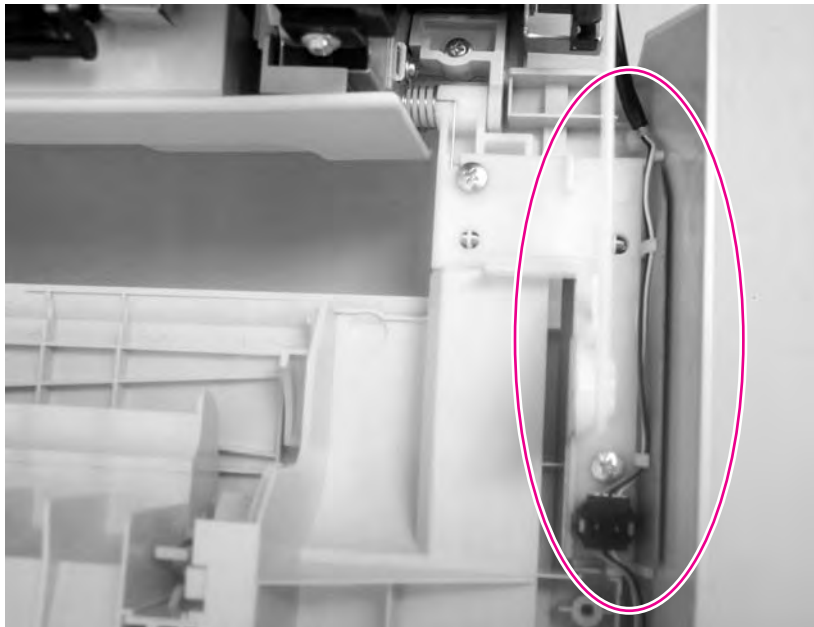
4. Disconnect one connector (callout 4) and remove the fan.
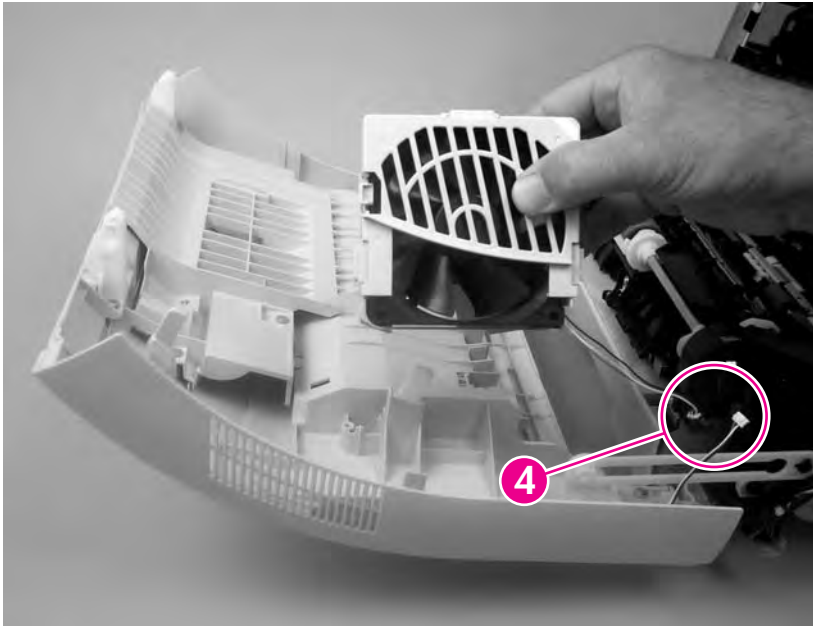
Figure 5-33 Remove the duplex fan (3 of 3)

💡 **TIP:** When you reinstall the duplex-fan wire-harness, make sure that the wire-harness is clipped correctly to the door.
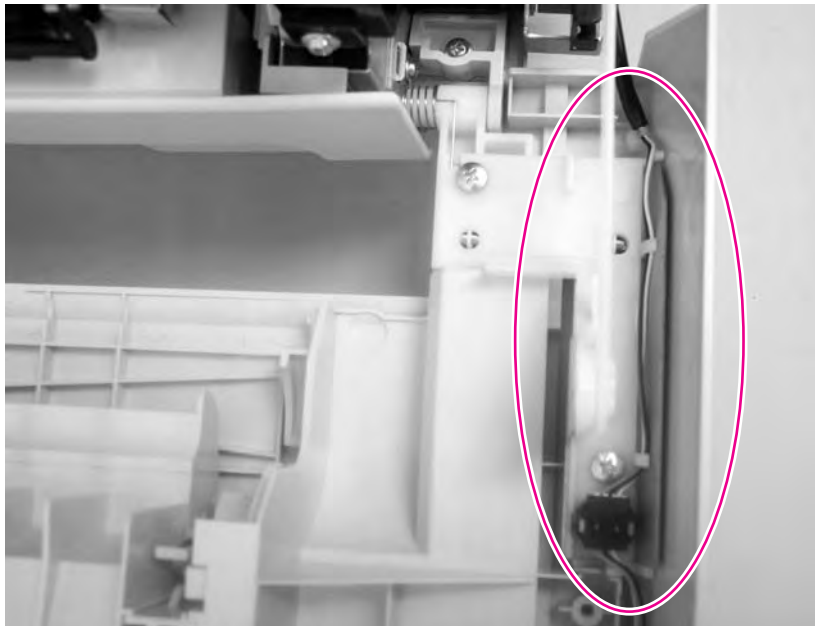
Print-cartridge drive motors

NOTE: The HP Color LaserJet 3000 uses a different black-print-cartridge drive motor from the HP Color LaserJet 3600/3800/CP3505 printer. You must use the correct black-print-cartridge drive motor for the HP Color LaserJet 3000. Make sure that you order the black-print-cartridge drive motor that is appropriate for the model. (The black-print-cartridge drive motor for the HP Color LaserJet 3000 has one additional pin in the wire-harness connector.)

1. Remove the right cover. See .

2. To remove the motor, disconnect one connector (callout 1) and remove three screws (callout 2). Repeat this procedure for the remaining print-cartridge motors.
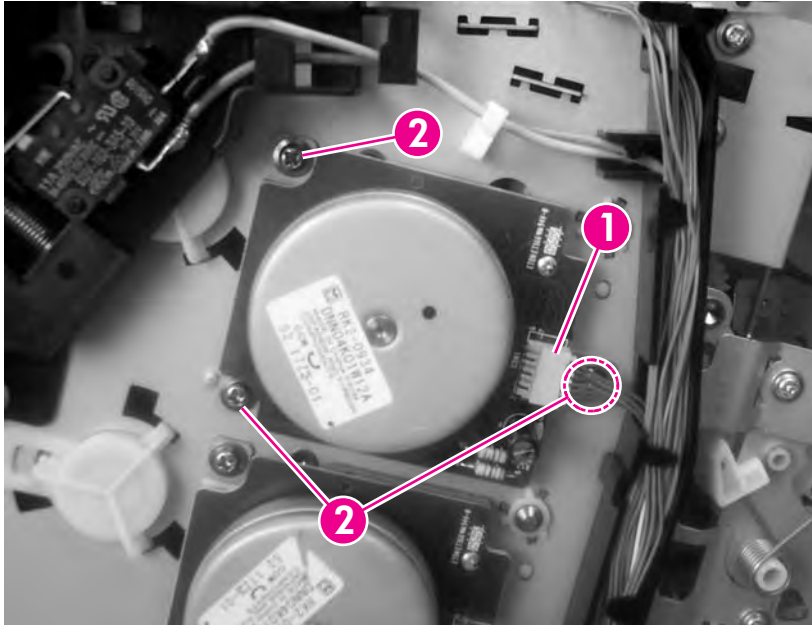
Figure 5-34 Remove the print-cartridge motor

Duplex-reverse-drive assembly

> **NOTE:** The printer shown is the duplex model, and contains a duplex-reverse-drive assembly. Simplex model printers do not have this part. If you are repairing simplex model printer, ignore the following procedure.

1. Remove the upper cover. See Upper cover (fuser door) on page 82.

2. Turn the upper cover over and place it on a flat surface.

3. Remove the duplex driver PCA. See Duplex-driver PCA on page 150.

4. Release the tab on the delivery-roller retainer, and rotate the retainer up into the unlocked position and remove it.
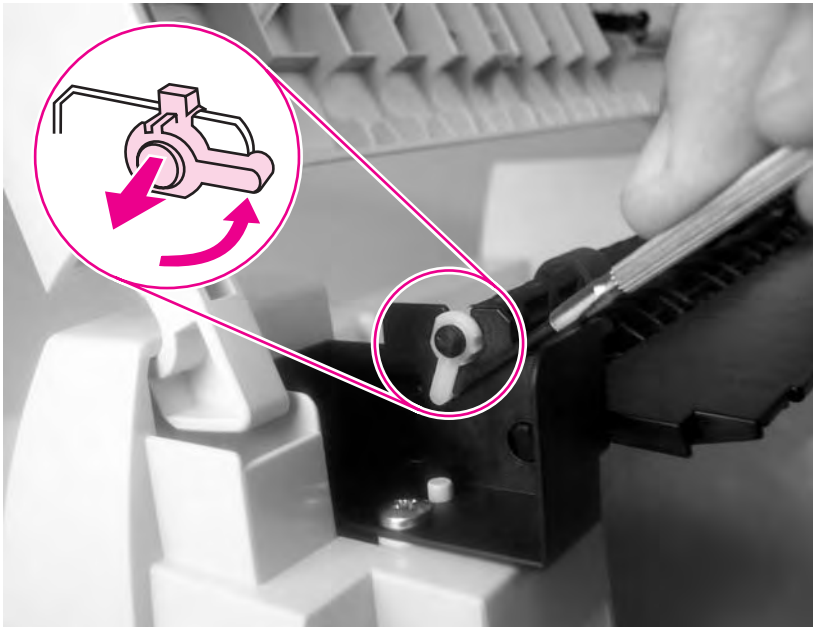
Figure 5-35 Remove the duplex-reverse-drive assembly (1 of 5)

5. Slide the delivery roller and retainer out of the upper cover.

> **NOTE:** When you reinstall the roller, make sure that the locking tabs on the right roller collar are inserted into the slots in the assembly.

Figure 5-36 Remove the duplex-reverse-drive assembly (2 of 5)

6. Remove two screws (callout 1), and then remove the delivery-guide assembly (callout 2).
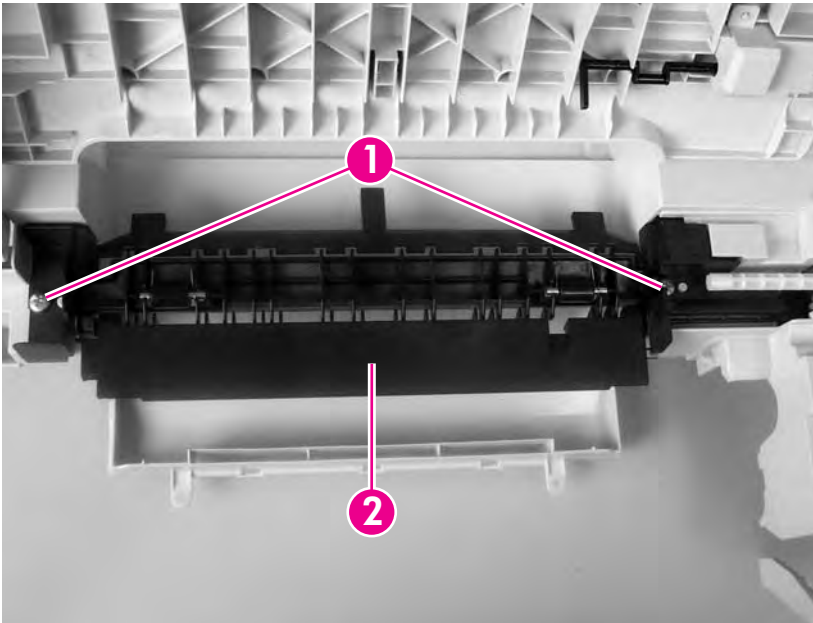
Figure 5-37 Remove the duplex-reverse-drive assembly (3 of 5)

7. Remove two screws (callout 3).
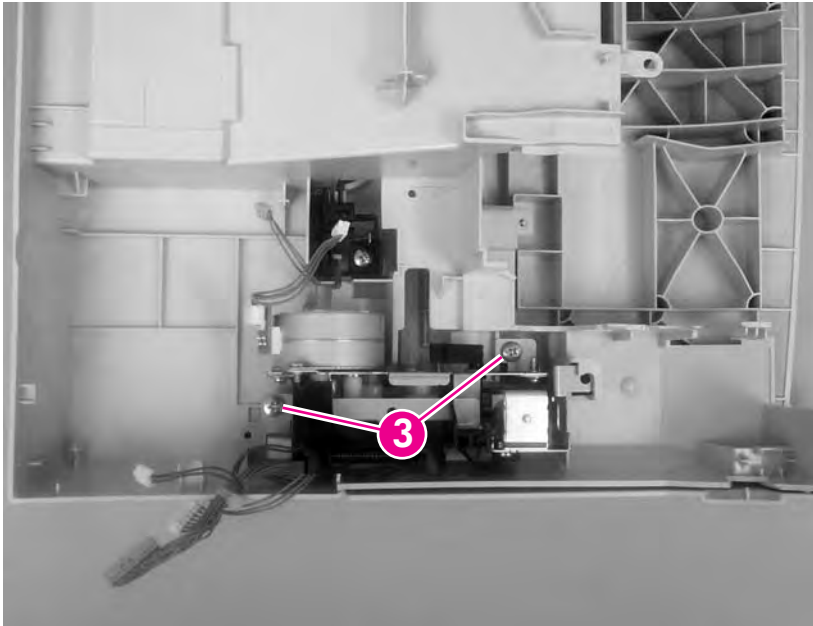
Figure 5-38 Remove the duplex-reverse-drive assembly (4 of 5)

8. Rotate the duplex-reverse-drive assembly up and out of the upper cover.
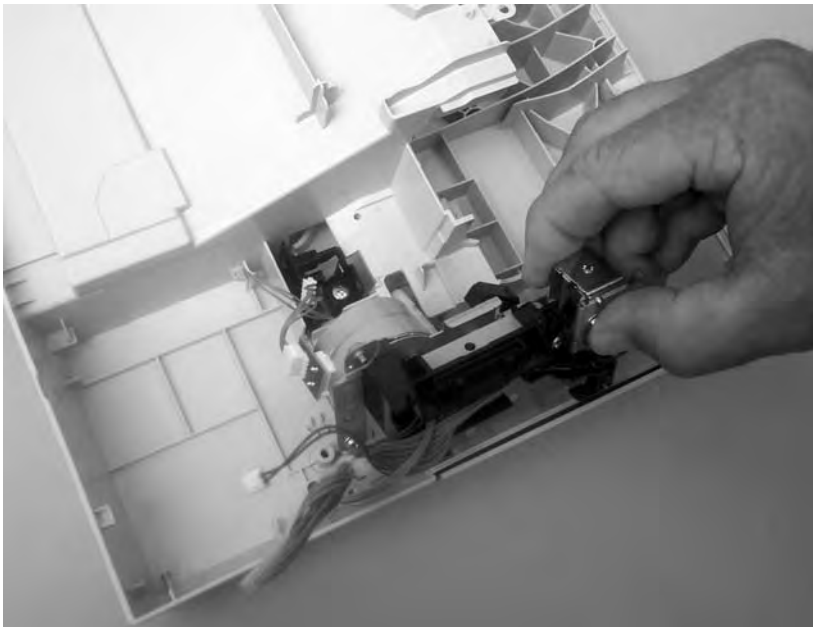
Figure 5-39 Remove the duplex-reverse-drive assembly (5 of 5)

Duplex-feed-drive assembly

📝 **NOTE:** The printer shown is the duplex model, and contains a duplex-feed drive assembly. Simplex model printers do not have this part. If you are repairing a simplex model printer, ignore the following procedure.

1. Remove the following components:

   ● Upper cover. See .

   ● Right cover. See .

2. Disconnect one connector (callout 1) and remove three screws (callout 2).
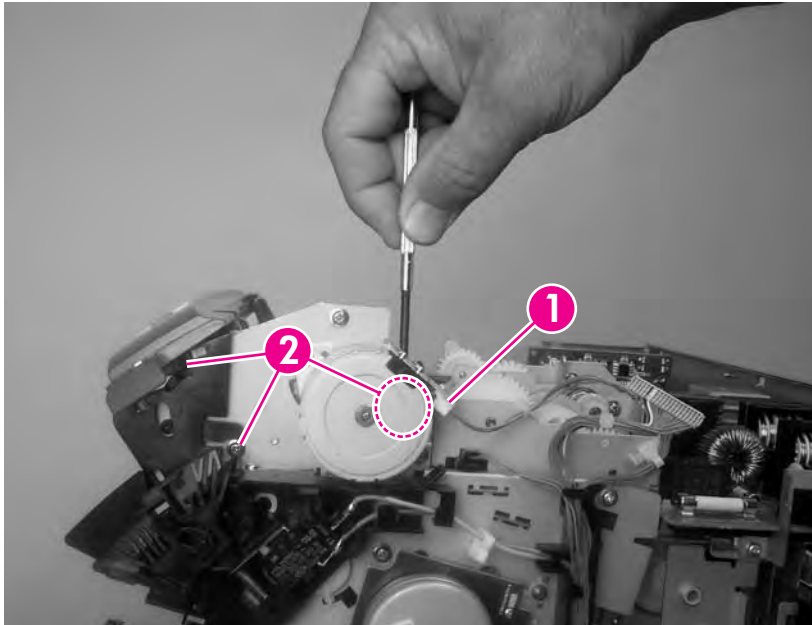
Figure 5-40 Remove the duplex-feed-drive assembly (1 of 2)

3. Carefully lift and rotate the duplex-feed-drive assembly to remove it.
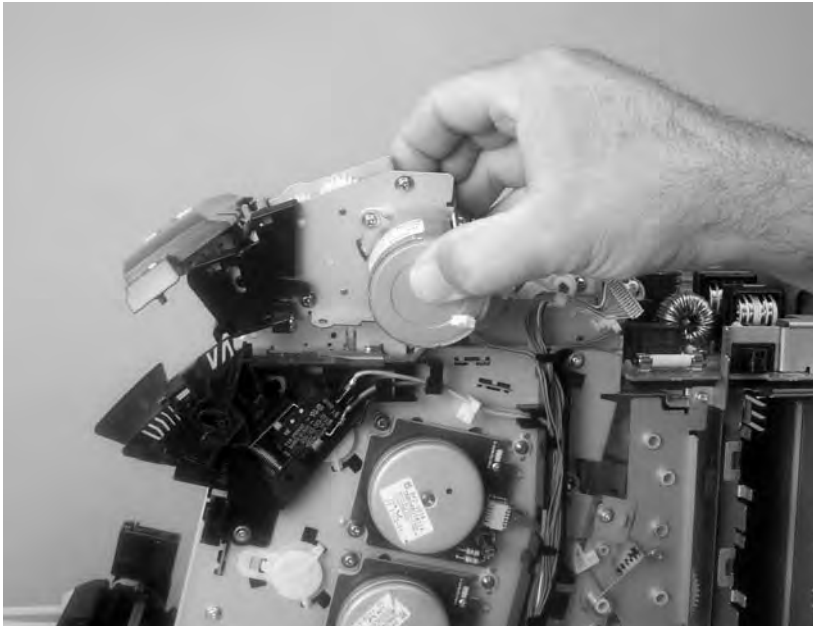
Figure 5-41 Remove the duplex-feed-drive assembly (2 of 2)

Fuser drive assembly

1. Remove the following components:

   ● Upper cover. See <u>Upper cover (fuser door) on page 82</u>.

   ● Right cover. See <u>Right cover on page 89</u>.

   ● Duplex-feed-drive assembly (duplex model only). See <u>Duplex-feed-drive assembly on page 105</u>.

2. Disconnect one connector (callout 1) and release two cable clamps (callout 2).
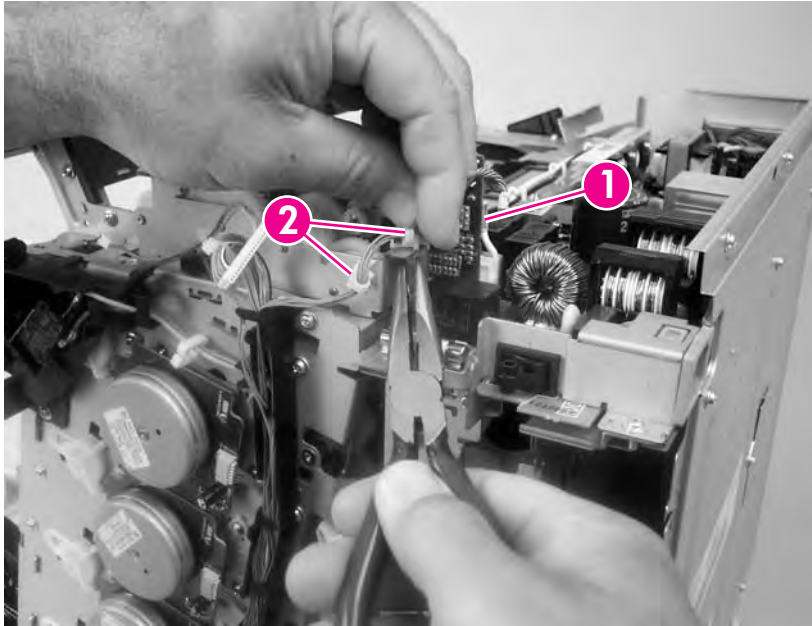
Figure 5-42 Remove the fuser drive assembly (1 of 4)

3. Remove four screws (callout 3).
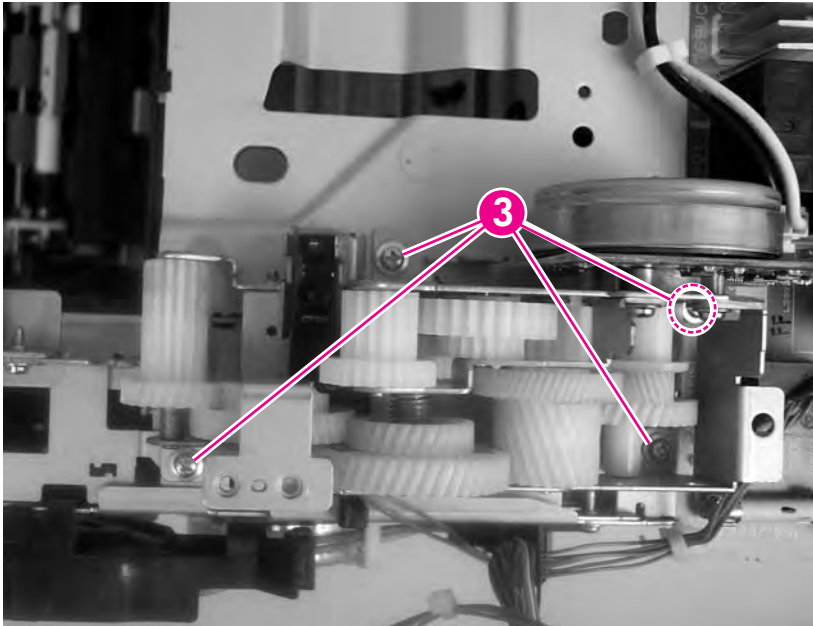
Figure 5-43 Remove the fuser drive assembly (2 of 4)

4. Disconnect one connector (callout 4; J213) on the driver PCA assembly and remove the wire-harness from the guide (callout 5).
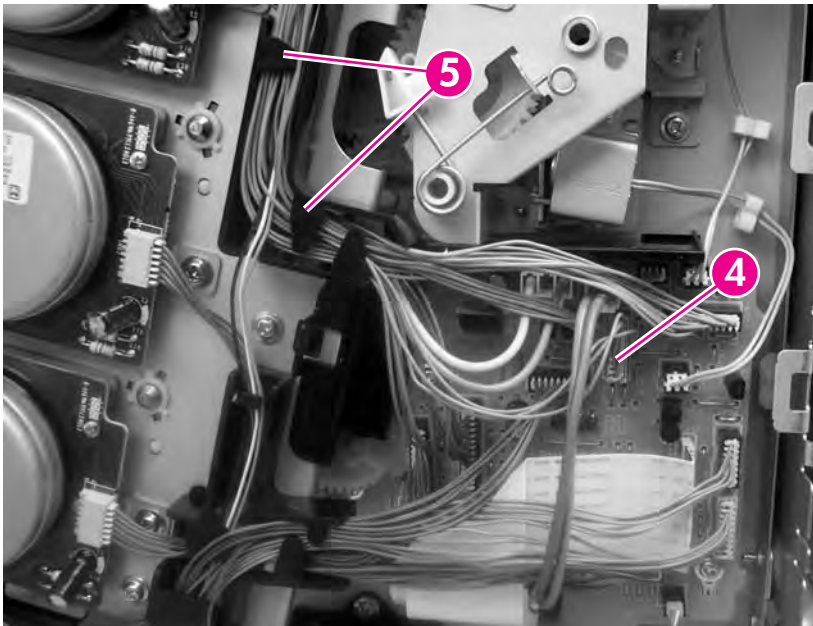
Figure 5-44 Remove the fuser drive assembly (3 of 4)

TIP: You might have to use needle-nose pliers to reattach the cable straps to the two cable clamps.

5. Lift the fuser drive assembly off of the printer chassis.
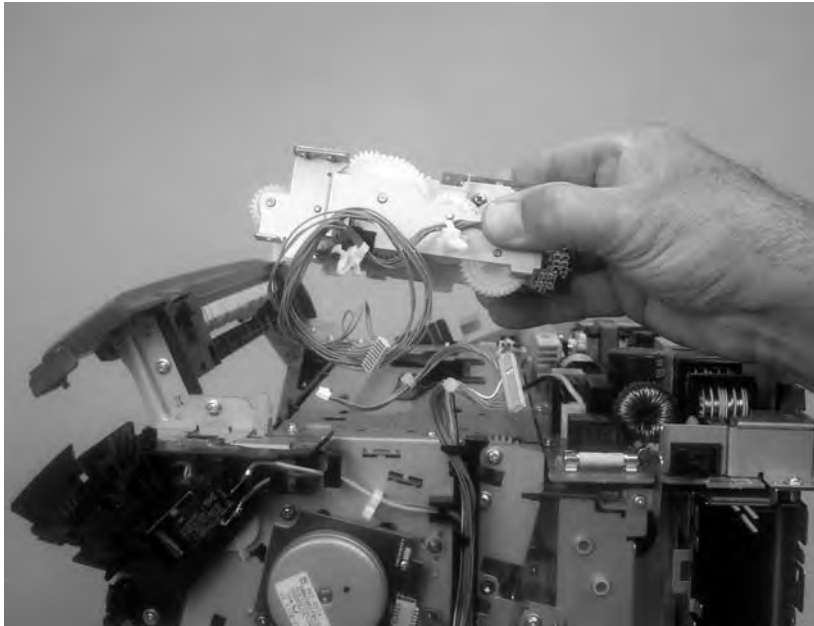
Figure 5-45 Remove the fuser drive assembly (4 of 4)

Developing separation-drive assembly

1. Remove the following components:

   - Upper cover. See Upper cover (fuser door) on page 82.

   - Right cover. See Right cover on page 89.

   - Fuser. See Fuser on page 97.

2. Use a small flatblade screwdriver to release the wire-guide locking tab (callout 1), and then move the guide slightly towards the front of the printer.
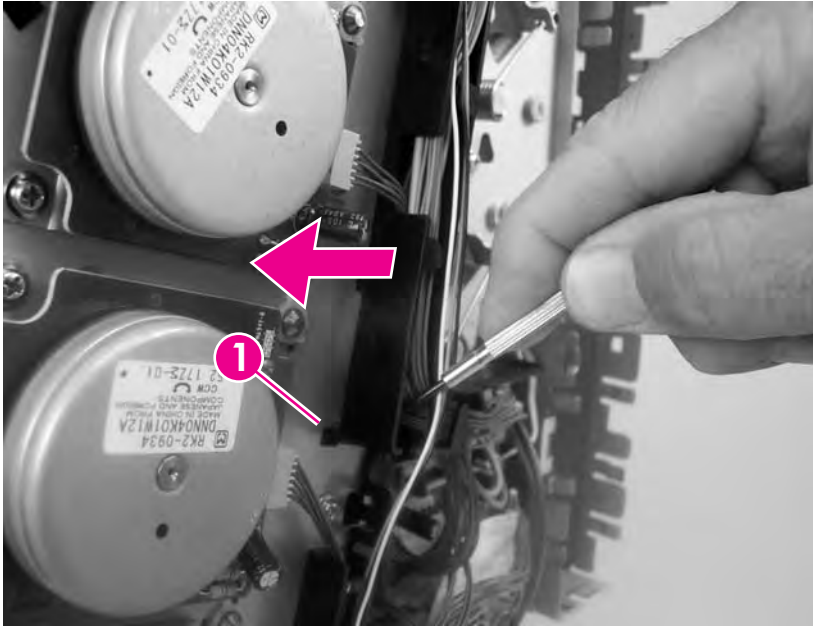
Figure 5-46 Remove the developing separation-drive assembly (1 of 4)

3. Remove three screws (callout 2) and the sheet-metal plate (callout 3).
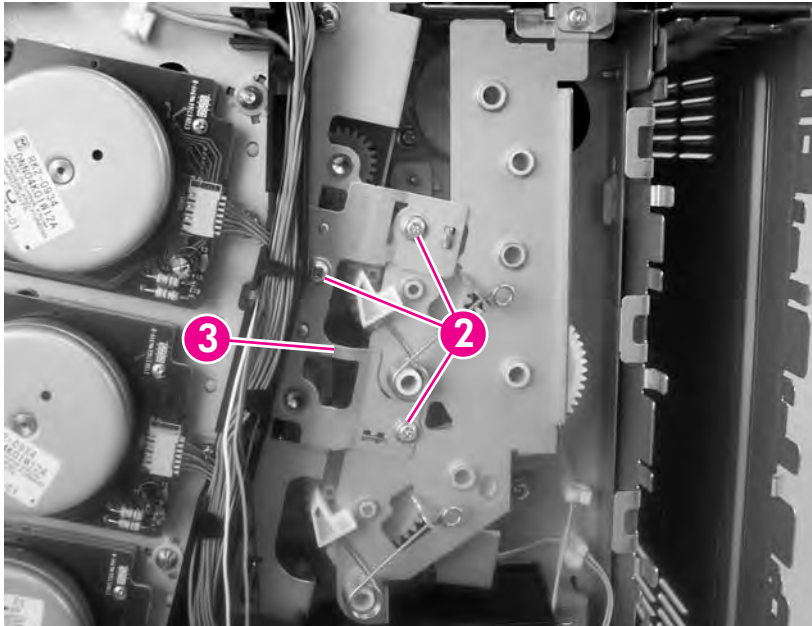
Figure 5-47 Remove the developing separation-drive assembly (2 of 4)

4. Disconnect two connectors (callout 4; J403 and J405) on the driver PCA and remove the wire-harnesses from the two retainers (callout 5).
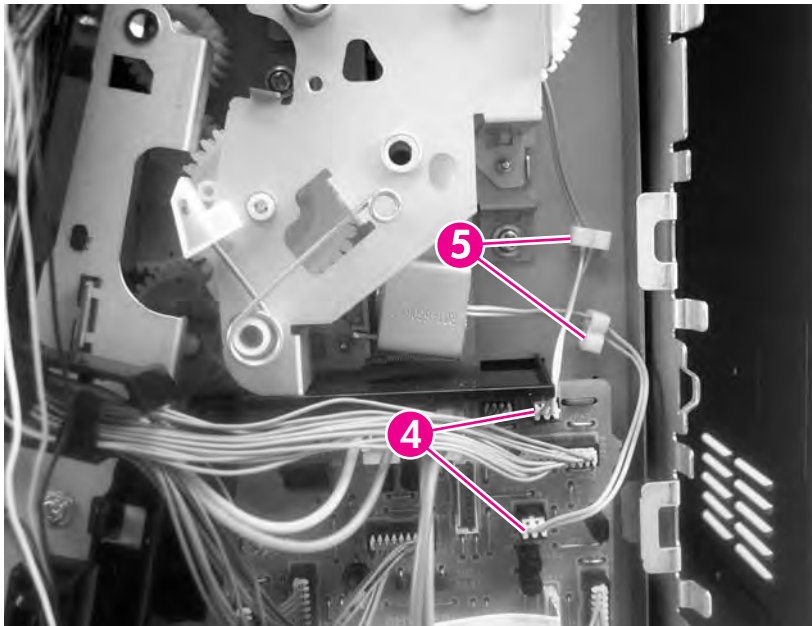
Figure 5-48 Remove the developing separation-drive assembly (3 of 4)

☼ **TIP:** When you reinstall the developing separation-drive assembly, the upper solenoid wire-harness connects to J405 and the lower solenoid wire-harness connects to J403.

5. Remove three screws (callout 6) to release the developing separation-drive assembly.
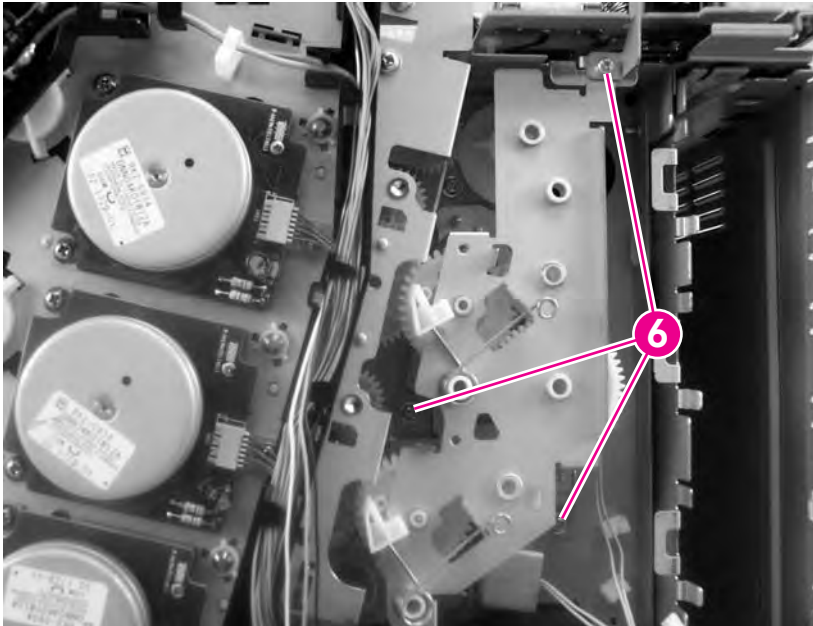
Figure 5-49 Remove the developing separation-drive assembly (4 of 4)

NOTE: The upper drive gear (callout 7) behind the developing separation-drive assembly is *not* captive. Be careful not to lose the gear.
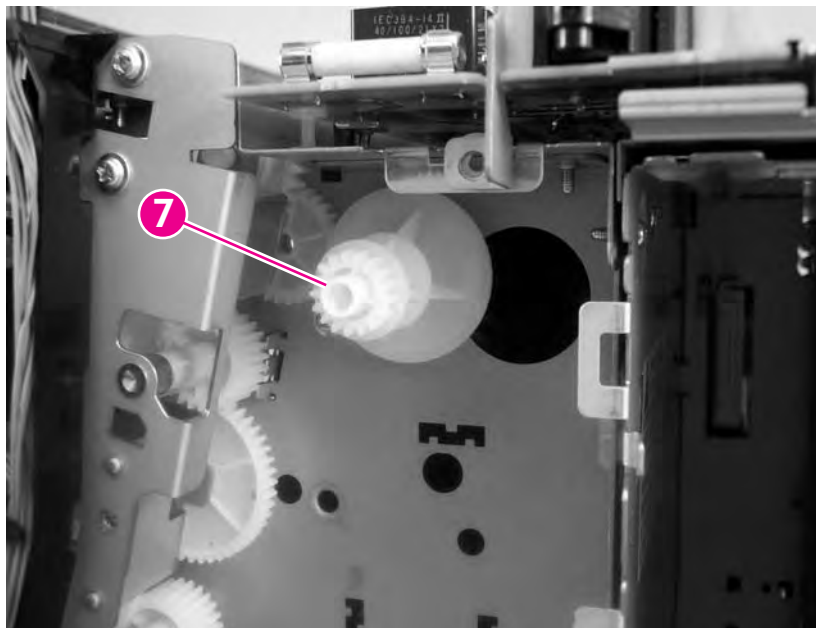
Pickup-and-feed assembly

NOTE: After replacing the pickup-and-feed assembly you must perform a media-sensor calibration. Failure to do so can lead to print-quality issues.

1. Remove the following components:

   ● Front cover. See .

   ● Left cover. See .

2. Disconnect one connector (callout 1) on the left side of the printer.

TIP: Remove the wire-harness from the guide on the pickup-and-feed assembly to make it easier to detach the connector.
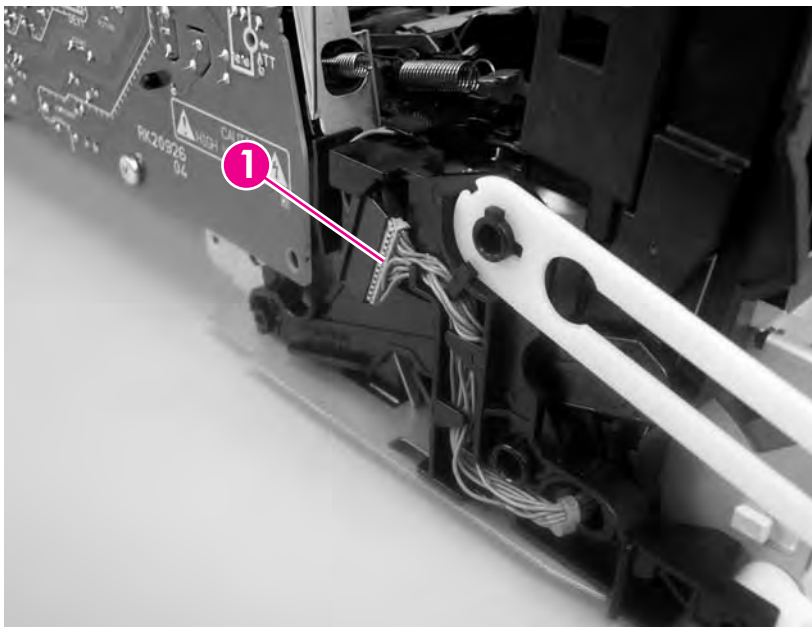
Figure 5-50 Remove the pickup-and-feed assembly (1 of 8)

3. Remove one screw (callout 2), and then remove the gear cover.
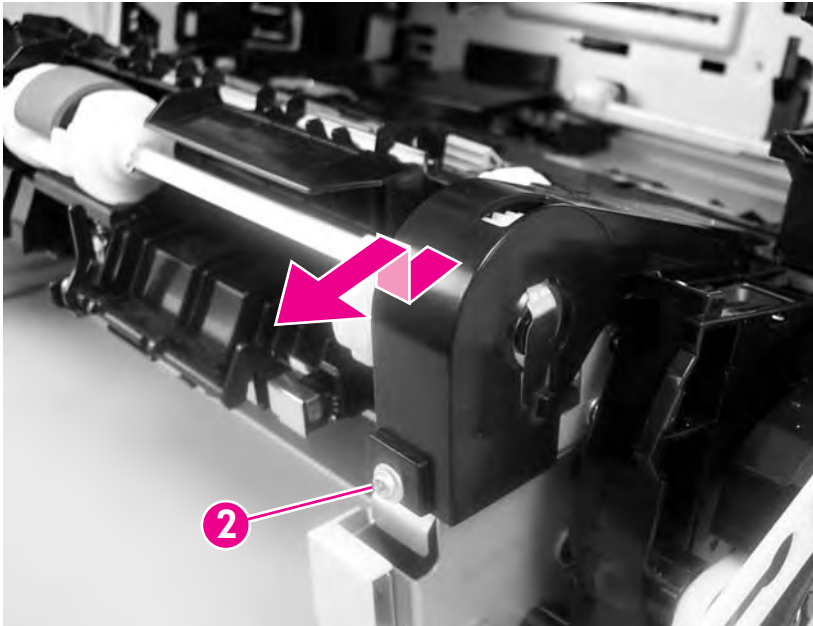
Figure 5-51 Remove the pickup-and-feed assembly (2 of 8)

4. Remove two screws (callout 3), and then remove the two sheet-metal covers (callout 4).

⚠ **CAUTION:** Do not bend the locator tabs on the covers.
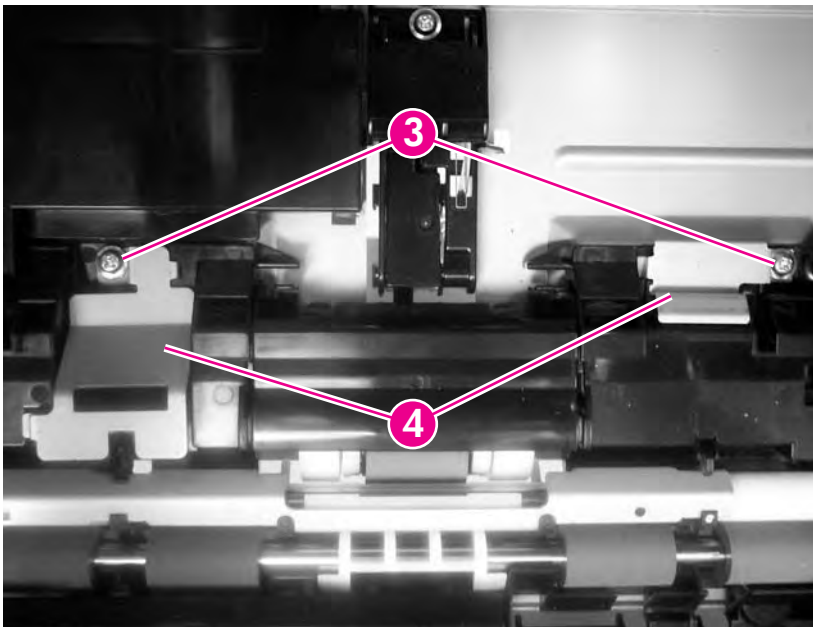
Figure 5-52 Remove the pickup-and-feed assembly (3 of 8)

5. Release the locking tab (callout 5) on the pickup-and-feed driver PCA cover (callout 6), and then remove the cover.

⚠ **CAUTION:** Do not damage or bend the print-cartridge high-voltage springs (callout 7) when you remove the cover.

💡 **TIP:** It might be easier to remove the cover if you squeeze the right end of the cover, and then lift it slightly up and to the right to release it.
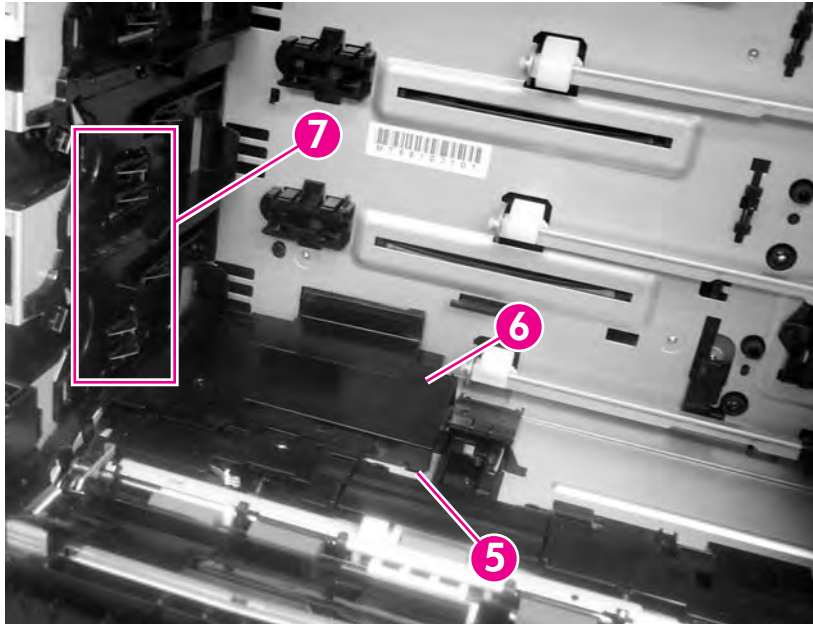
Figure 5-53 Remove the pickup-and-feed assembly (4 of 8)

6. Disconnect five connectors (callout 8).
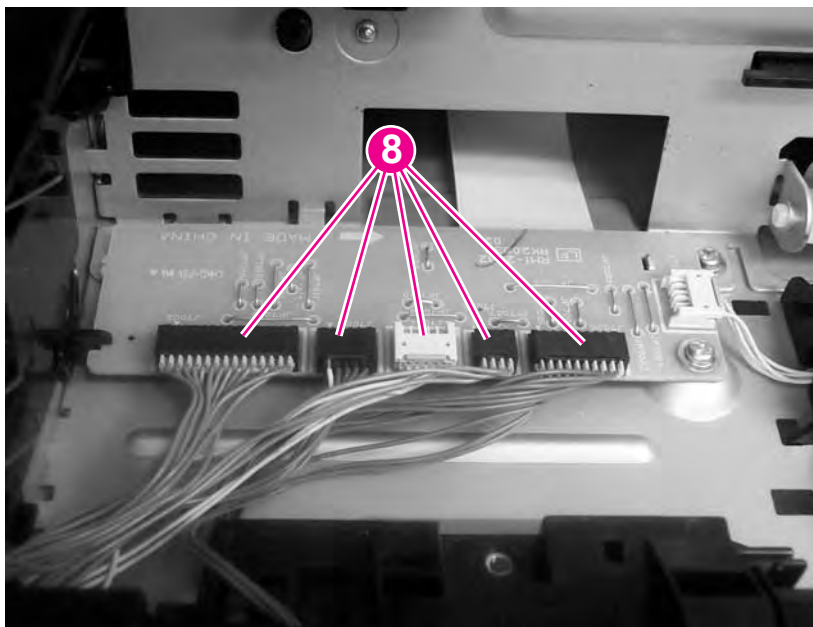
Figure 5-54 Remove the pickup-and-feed assembly (5 of 8)

7. Remove two screws (callout 9) from the left side of the assembly.
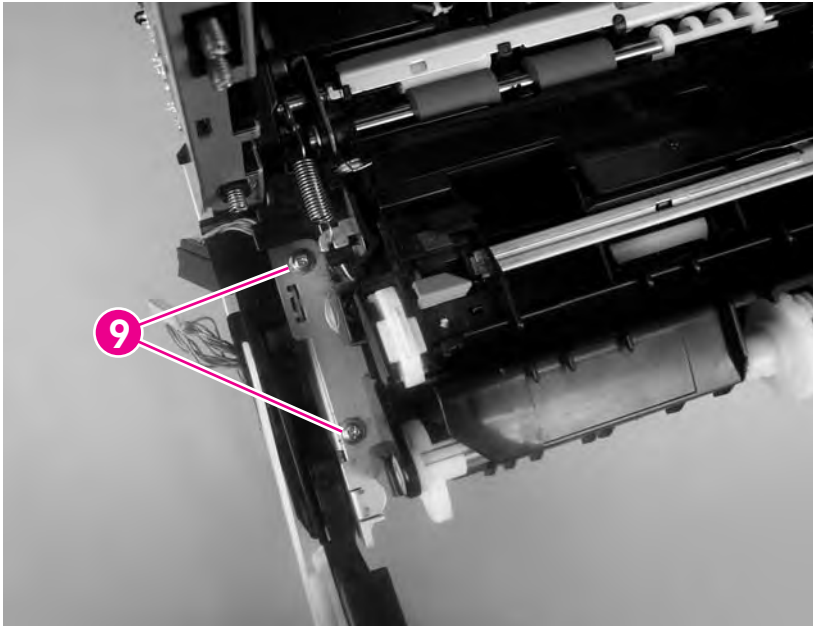
Figure 5-55 Remove the pickup-and-feed assembly (6 of 8)

8. Remove two screws (callout 10) from the right side of the assembly.

> 💡 **TIP:** When you reinstall the lower screw, you might need to rotate the cam so it does not block access to the screw-hole.
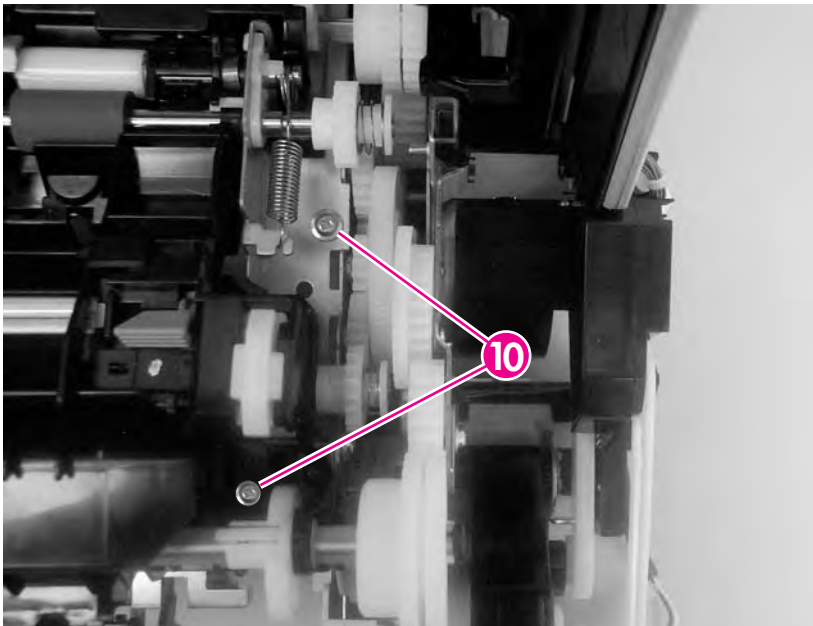
Figure 5-56 Remove the pickup-and-feed assembly (7 of 8)

9. Lift the pickup-and-feed assembly out of the printer.

Figure 5-57 Remove the pickup-and-feed assembly (8 of 8)

TIP: Slightly flex the chassis when you reinstall the pickup-and-feed assembly. Make sure that the assembly is flush with the chassis after it is installed.

NOTE: After replacing the pickup-and-feed assembly you must perform a media-sensor calibration. Failure to do so can lead to print-quality issues.

Calibrate the media sensor

Use the SERVICE menu to calibrate the media sensor. The SERVICE menu is locked and requires a PIN:

HP Color LaserJet 3000 Series printers: 11300005

HP Color LaserJet 3600 Series printers: 11360005

HP Color LaserJet 3800 Series printers: 11380005

HP Color LaserJet CP3505 Series printers: 06350507

1. Press Menu.

2. Press ▼ to highlight SERVICE, and then press ✓.

3. Press ▲ or ▼ until the first digit of the PIN appears.

4. Press ✓ to save the digit. The control-panel display replaces the digit with an asterisk. Press ⤺ at any time to move to the previous digit.

5. Repeat steps 3 and 4 until all eight digits are typed.

6. Press ▲ or ▼ to select NEW TRAY 1 MEDIA SENSOR.

7. Select TRAY 1.

8. Select YES.

Pickup-drive assembly

1. Remove the following components:

   ● Front cover. See Front cover on page 77.

   ● Right cover. See Right cover on page 89.

   ● Pickup-and-feed assembly. See Pickup-and-feed assembly on page 113.

2. Release the locking tab (callout 1) on the cassette guide rail to the right, and slide the rail forward to remove it.
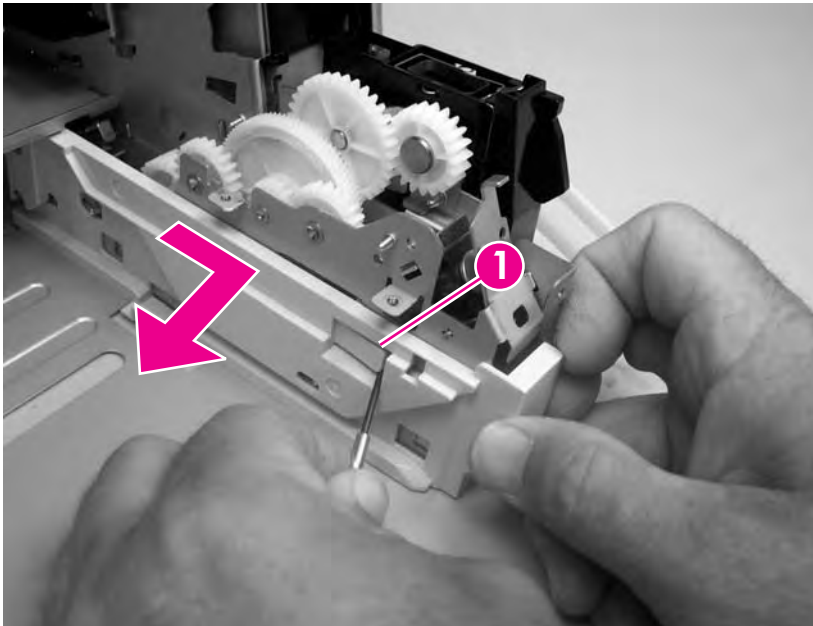
Figure 5-58 Remove the pickup-drive assembly (1 of 13)

NOTE: This photograph shows the locking tab and retainers on the guide rail.
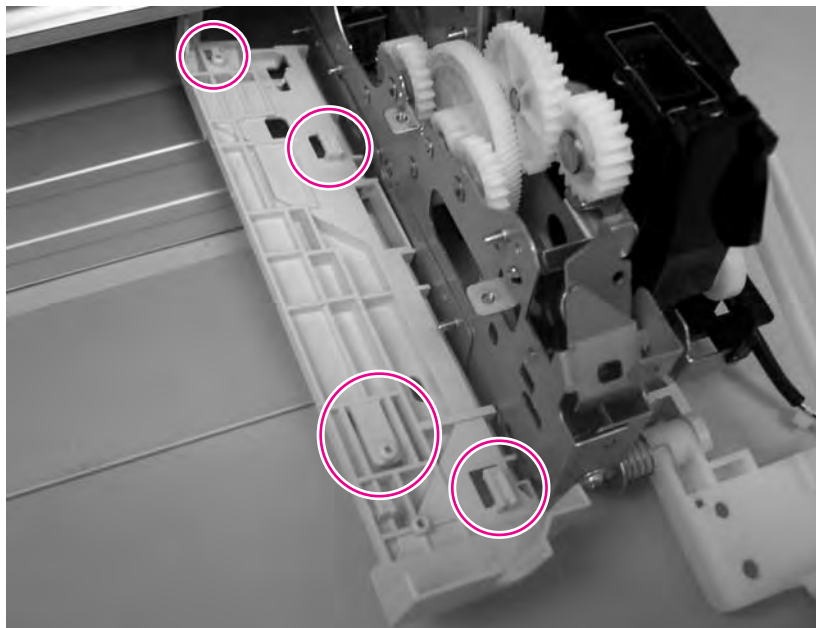
3. Remove one screw (callout 2) and remove the front-cover hinge (callout 3).
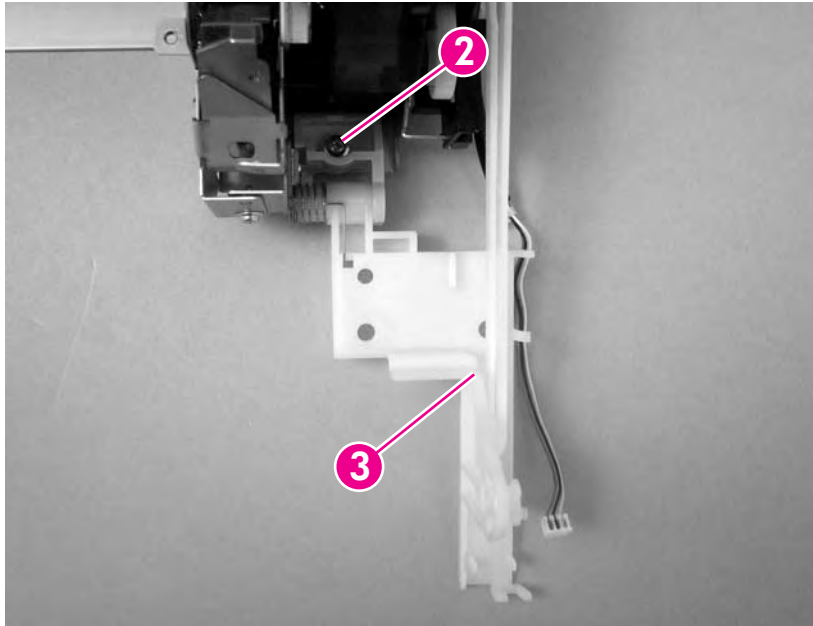
Figure 5-59 Remove the pickup-drive assembly (2 of 13)

4. Rotate the retainer arm (callout 4) up until the tab on the pivot pin (callout 5) is aligned with the slot in the retainer arm, and then slide the retainer off of the pivot pin.
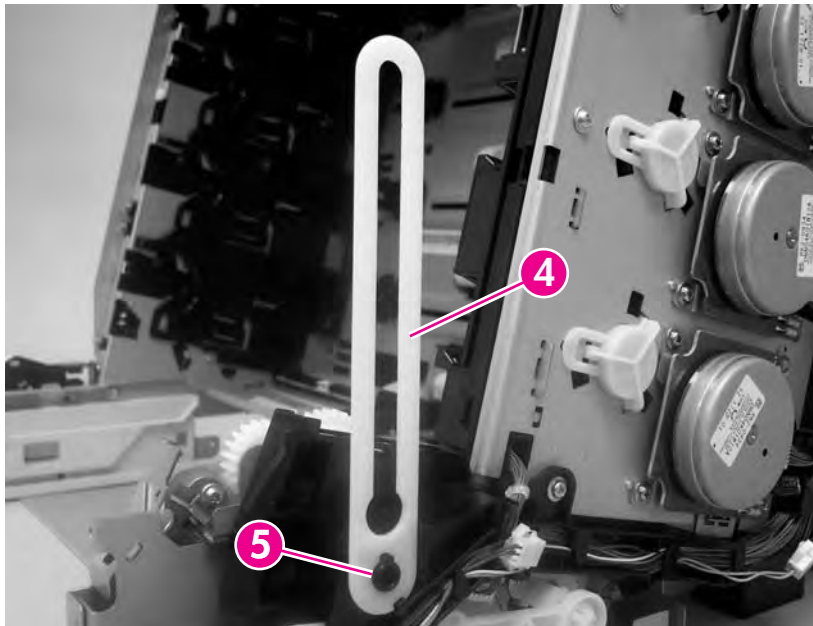
Figure 5-60 Remove the pickup-drive assembly (3 of 13)

5. Remove all of the wire-harnesses from the guide (callout 6).
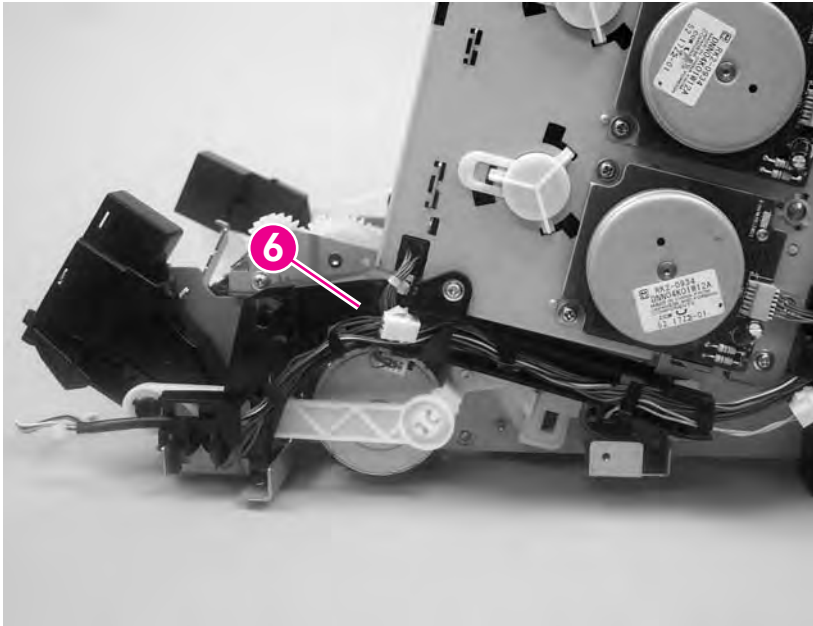
Figure 5-61 Remove the pickup-drive assembly (4 of 13)

6. Disconnect three connectors (callout 7).
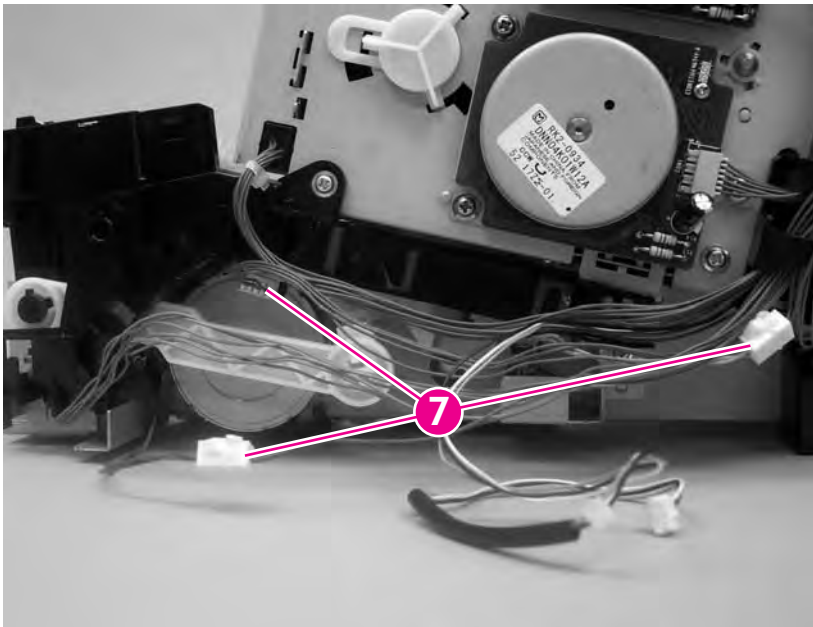
Figure 5-62 Remove the pickup-drive assembly (5 of 13)

7. Remove one screw (callout 8), and then lift up on the locking tab (callout 9) to release it. Remove the guide (callout 10).
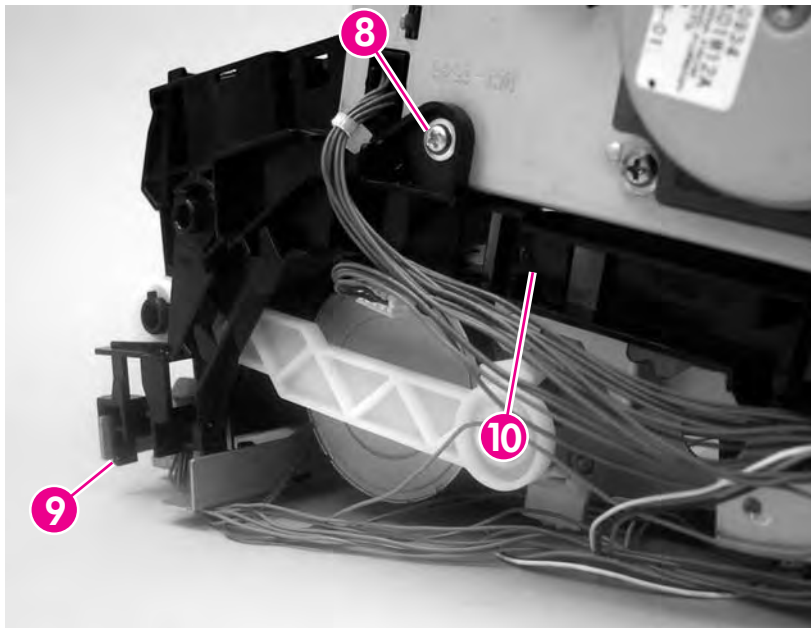
Figure 5-63 Remove the pickup-drive assembly (6 of 13)

☀ **TIP:** When you reinstall the guide, make sure that the rear locking tab is seated in the sheet-metal chassis.
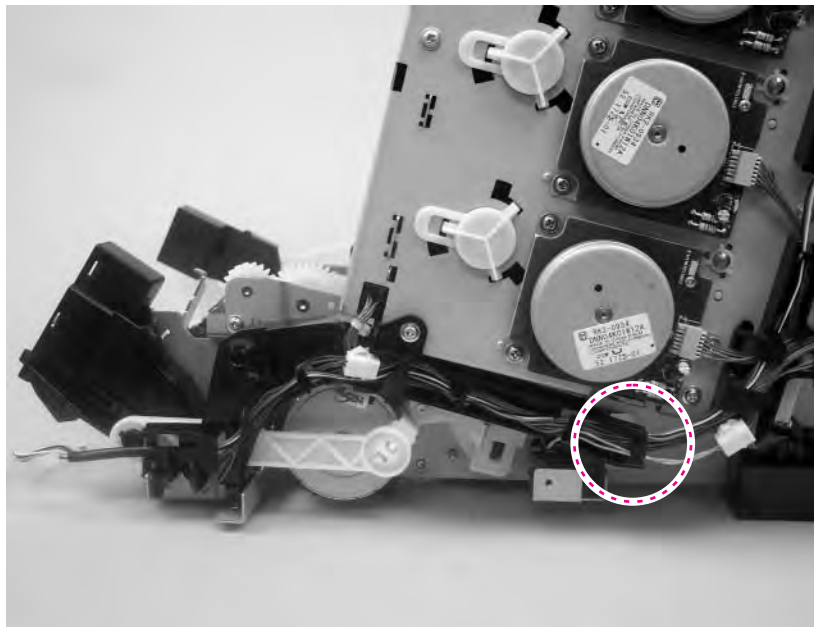
8. Release the retainer tabs on the ETB connector link arm (callout 11) and slide the link arm off of the pivot pin.
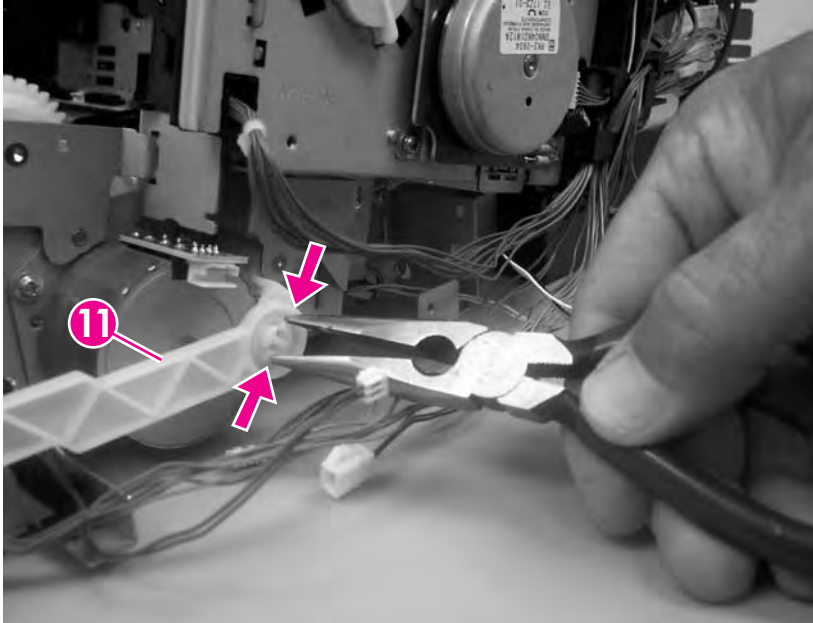
Figure 5-64 Remove the pickup-drive assembly (7 of 13)

9. Rotate the link arm until the tab on the pivot pin (callout 12) is aligned with the slot in the link arm. Remove the link arm.

> **TIP:** The link arm causes the print-cartridge-shutter doors to open when the front cover is closed. If the shutter doors are not operating correctly, make sure that the link arm is correctly installed.
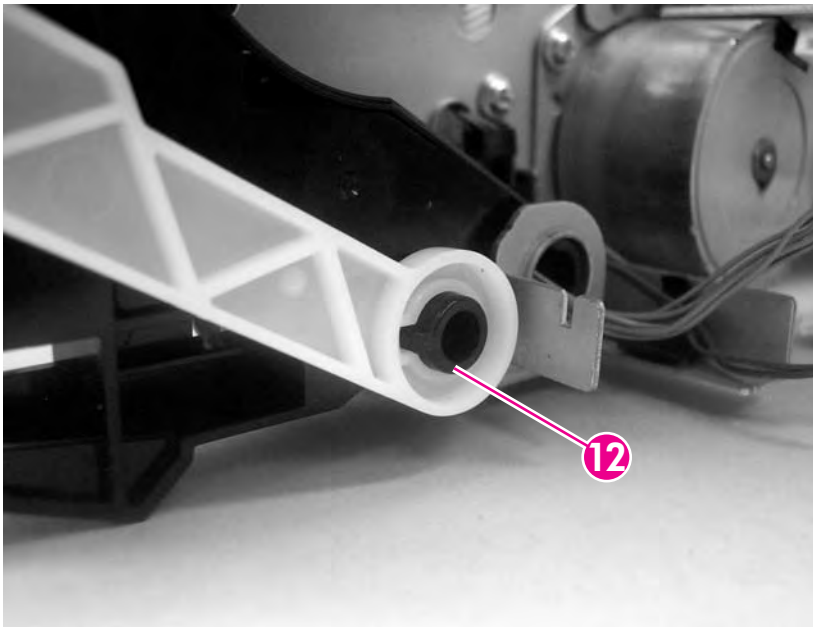
Figure 5-65 Remove the pickup-drive assembly (8 of 13)

10. Remove two screws (callout 13), and then remove the ETB connector bracket (callout 14).
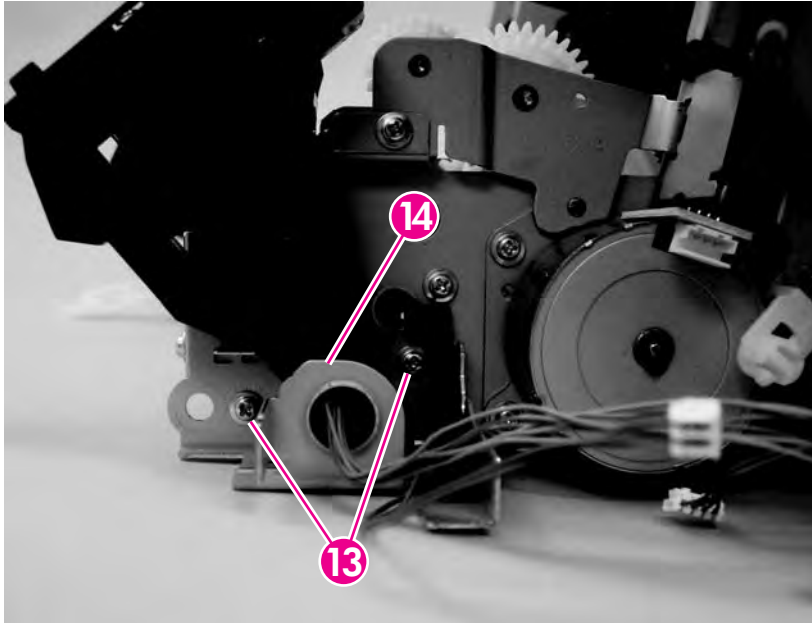
Figure 5-66 Remove the pickup-drive assembly (9 of 13)

11. Remove one screw (callout 15), and then remove the sheet-metal support bracket (callout 16).
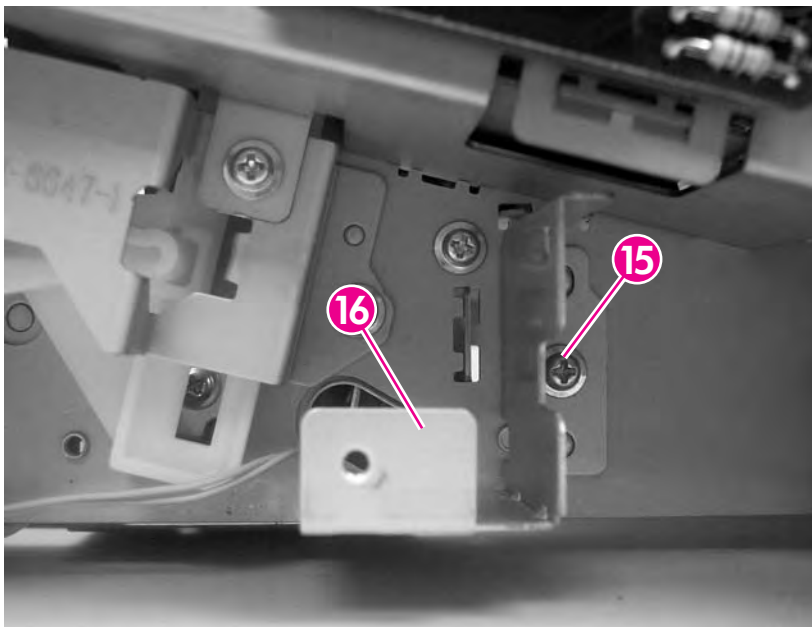
Figure 5-67 Remove the pickup-drive assembly (10 of 13)

12. Remove four screws (callout 17).
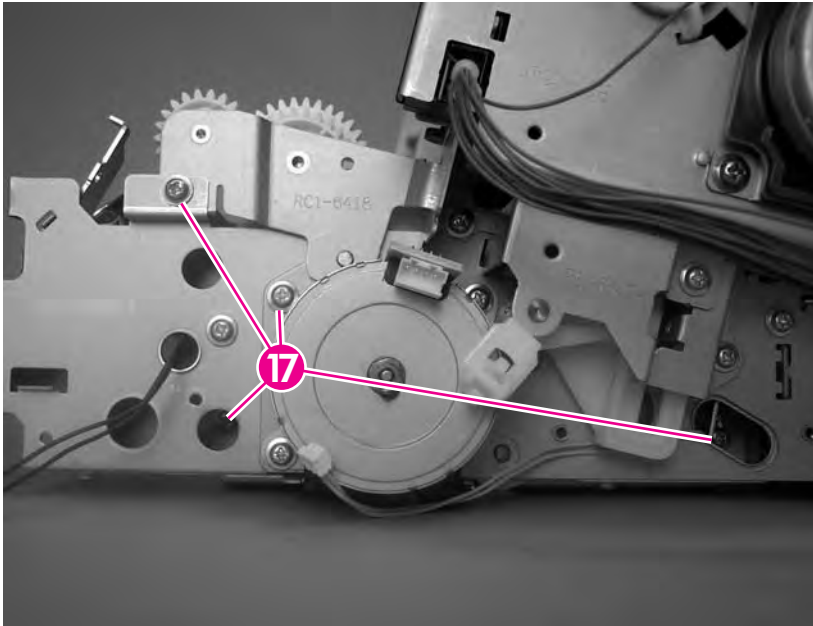
Figure 5-68 Remove the pickup-drive assembly (11 of 13)

13. Carefully turn the printer onto its right side. Gently pry the sheet-metal bottom plate off of its locator pins (callout 18) and away from the pickup-drive assembly (callout 19).

NOTE: The plastic printer foot can be dislodged when the bottom plate is separated from the chassis. Be careful to not lose the printer foot.
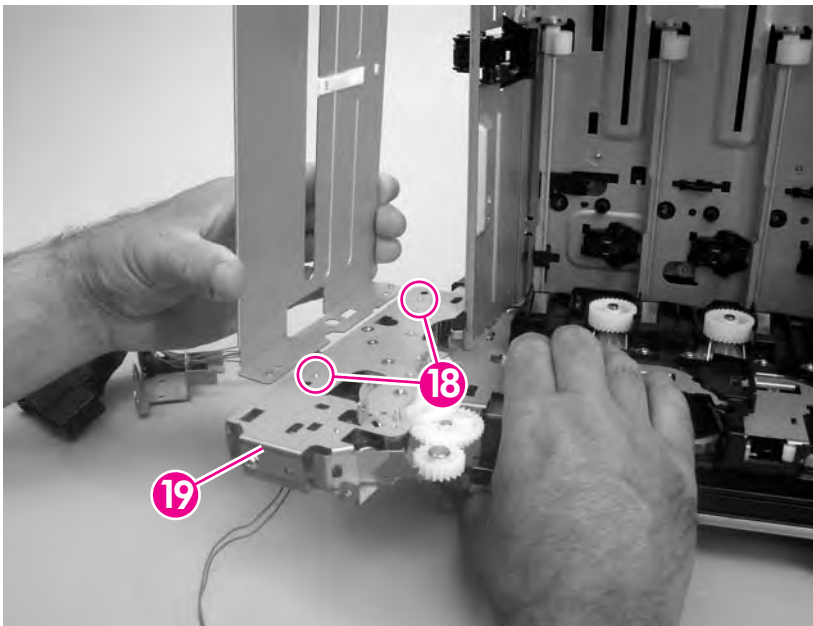
Figure 5-69 Remove the pickup-drive assembly (12 of 13)

14. Remove two screws (callout 20) to release the pickup-drive assembly.

📝 **NOTE:** shows the pickup drive assembly from the tray 2 cassette side.
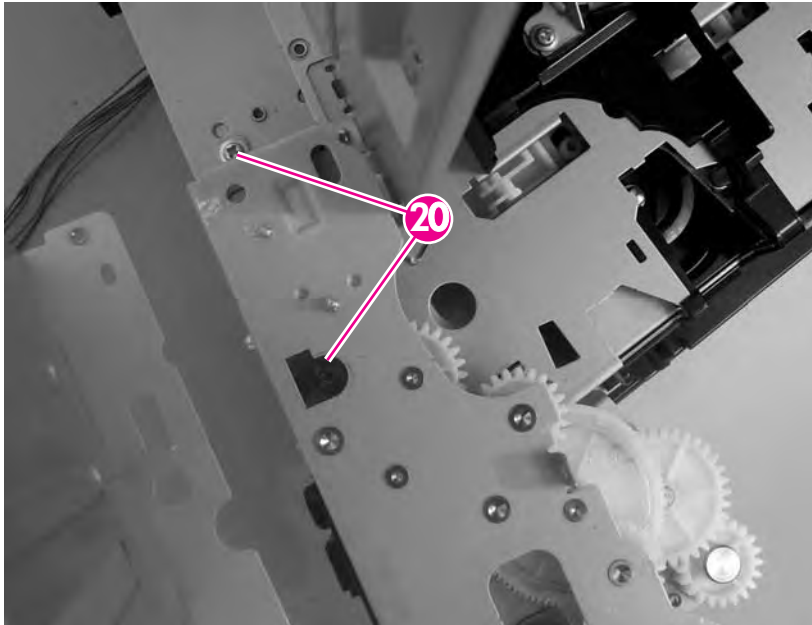
Figure 5-70 Remove the pickup-drive assembly (13 of 13)

⚠️ **CAUTION:** The small gear assembly above the pickup-drive-assembly motor is *not* captive. Do not lose the gears when you remove the drive assembly.
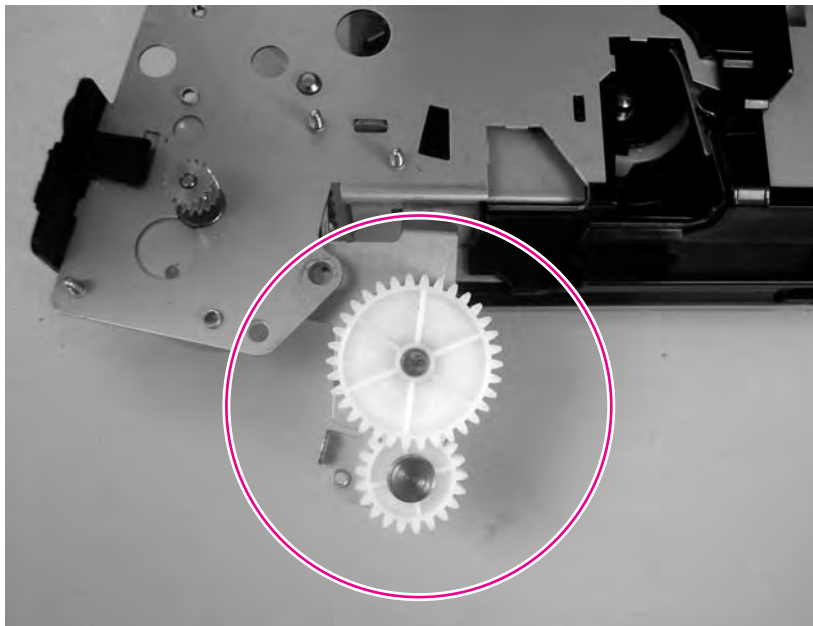
Laser/scanner assembly

> **NOTE:** Always perform a full calibration procedure when you replace the laser/scanner assembly.

1. Remove the following components:

   ● Upper cover. See Upper cover (fuser door) on page 82.

   ● Rear lower cover. See Rear lower cover on page 85.

   ● Left cover. See Left cover on page 86.

   ● Right cover. See Right cover on page 89.

   ● Rear upper cover. See Rear upper cover on page 93.

2. Remove four screws (callout 1) and remove the sheet-metal shield (callout 2).

> **NOTE:** Only three screws secure the sheet-metal shield, but removing the fourth screw is necessary for tasks later in this procedure.
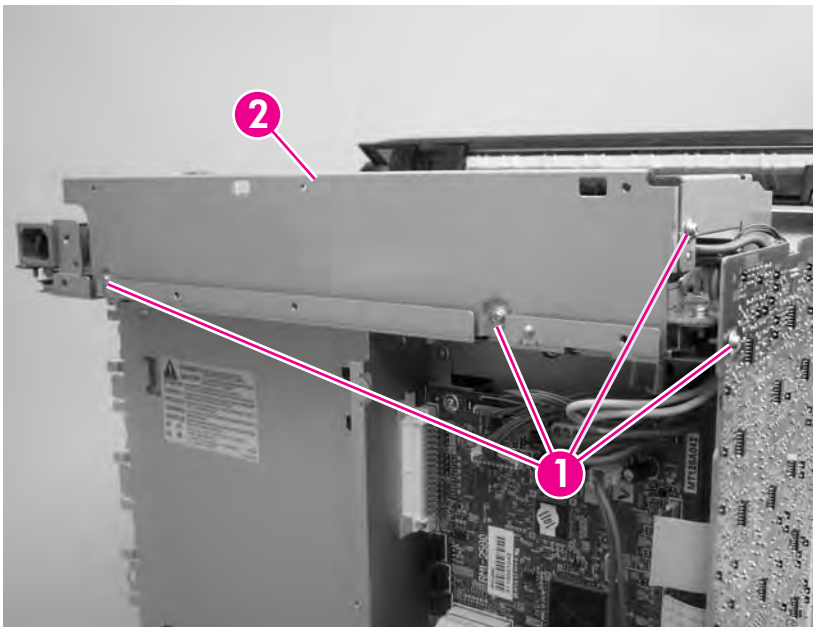
Figure 5-71 Remove the laser/scanner assembly (1 of 6)

3. Disconnect all of the wire-harness connectors and flat flexible cables (FFCs) on the DC controller PCA (eight wire-harness connectors and eight FFCs).

> ⚠ **CAUTION:** Do not bend or fold the FFCs during removal or installation.

> 📝 **NOTE:** Remove the wire-harnesses from all of the retainers near the DC controller.
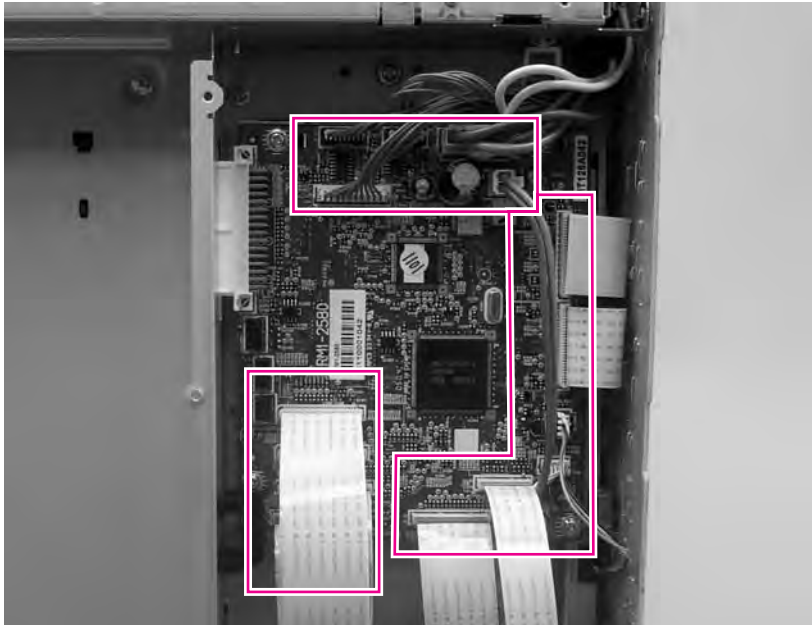
Figure 5-72 Remove the laser/scanner assembly (2 of 6)

4. Remove 10 screws (callout 3). Push up on the sheet-metal shield to release it from the printer chassis, and remove it.
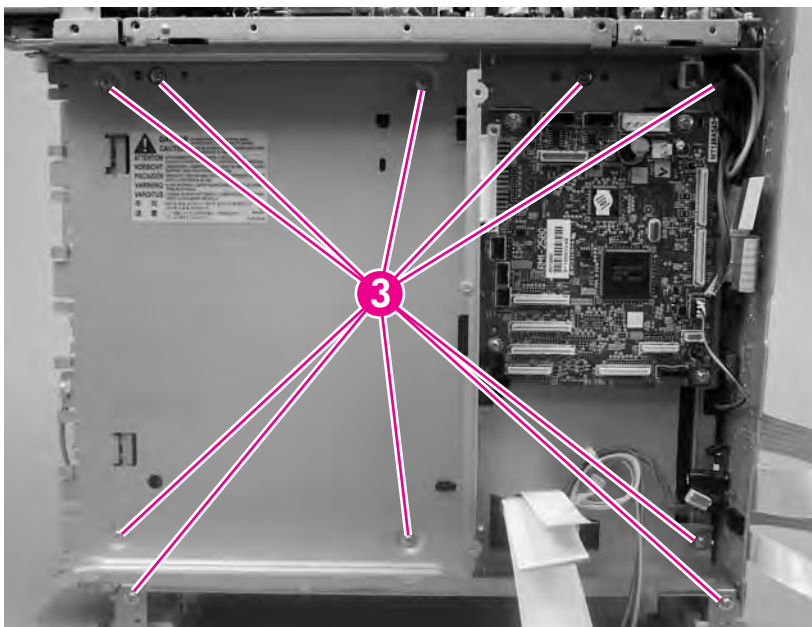
Figure 5-73 Remove the laser/scanner assembly (3 of 6)

5. Remove the laser/scanner wire-harness from the guide (callout 4) and the retainer (callout 5).
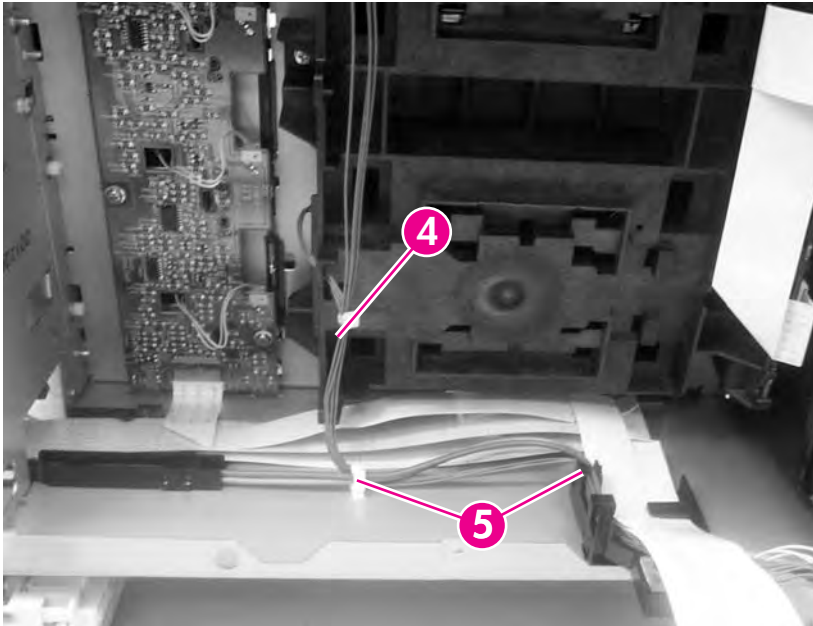
Figure 5-74 Remove the laser/scanner assembly (4 of 6)

6. Disconnect two FFCs (callout 6), and then remove five screws (callout 7). Remove the laser/scanner.

⚠ **CAUTION:** Do not bend or fold the FFCs during removal or installation.
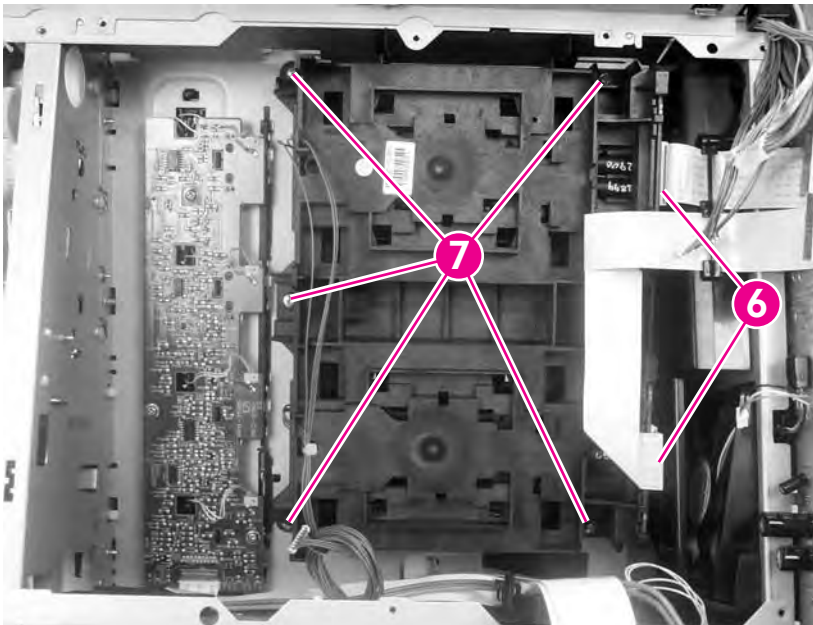
Figure 5-75 Remove the laser/scanner assembly (5 of 6)

🔅 **TIP:** When you reinstall the laser/scanner, the longest FFC connects to the bottom connector, and the short FFC connects to the top connector on the laser/scanner.

7. Disconnect two wire-harnesses (callout 8).

⚠️ **CAUTION:** To prevent ESD damage, do not touch the laser/scanner PCAs (callout 9) or the laser/scanner lenses (callout 10).
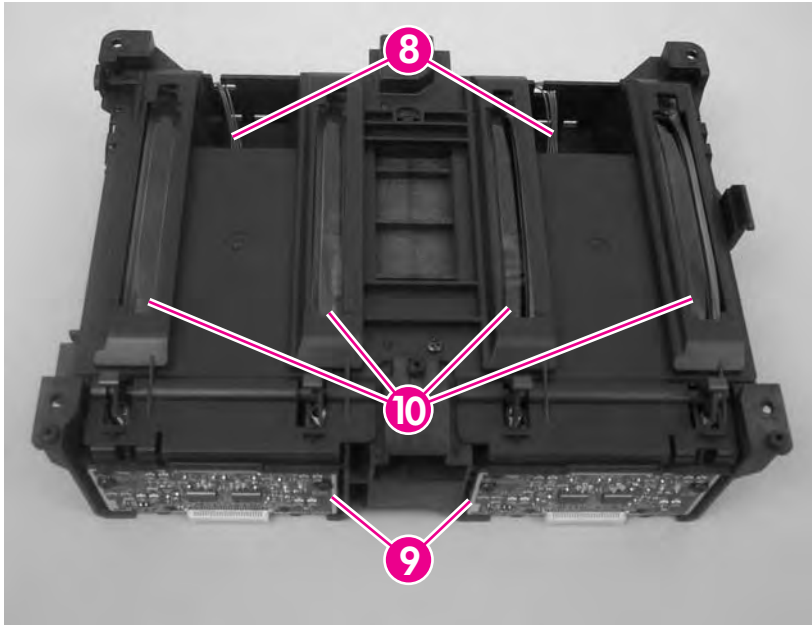
Figure 5-76 Remove the laser/scanner assembly (6 of 6)

Main fan

1. Remove the following components:

   ● Fuser. See Fuser on page 97.

   ● Upper cover. See Upper cover (fuser door) on page 82.

   ● Rear lower cover. See Rear lower cover on page 85.

   ● Left cover. See Left cover on page 86.

   ● Rear upper cover. See Rear upper cover on page 93.

   ● High-voltage power supply. See High-voltage power supply on page 140.

2. Disconnect one connector (callout 1; J1008) on the DC controller.
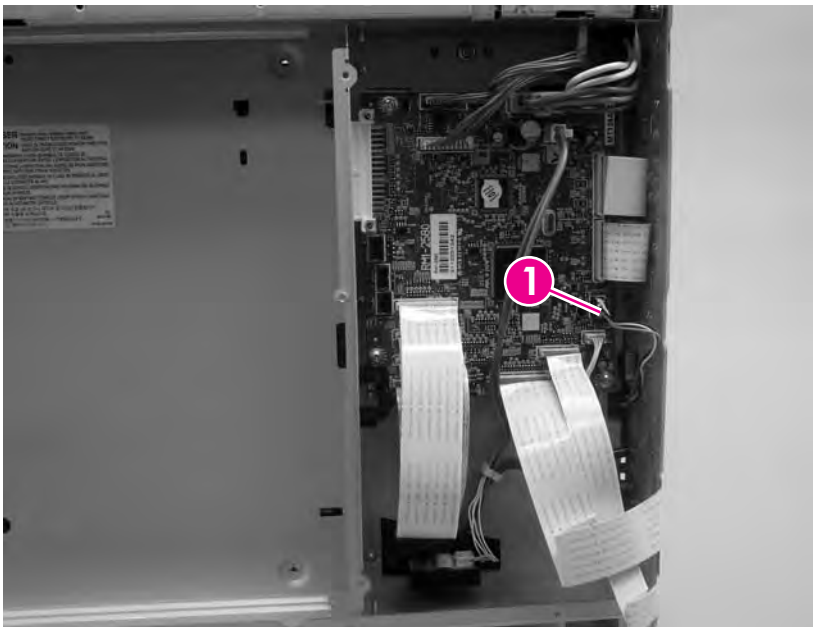
Figure 5-77 Remove the main fan (1 of 2)

3. Remove one screw (callout 2) to release the fan.
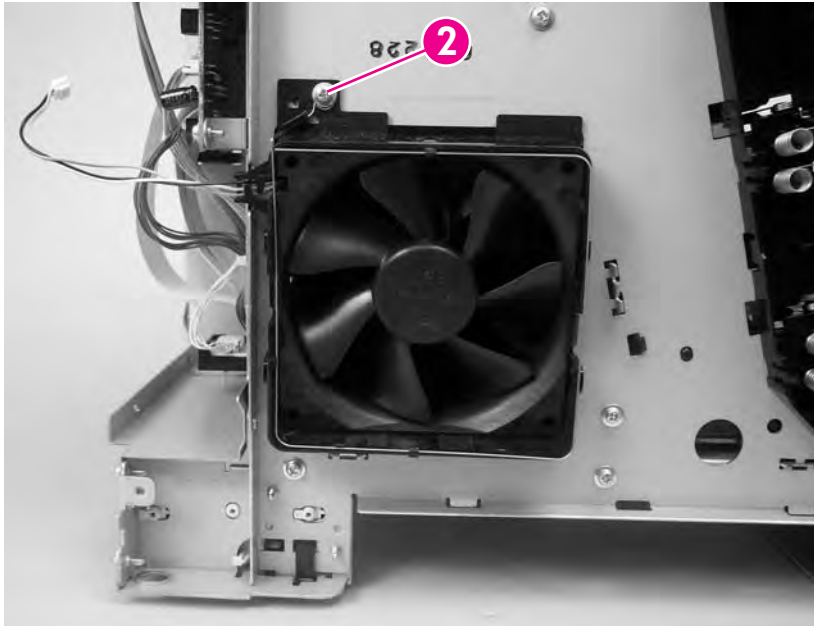
Figure 5-78 Remove the main fan (2 of 2)

Printed circuit assemblies (PCAs)

📝 **NOTE:** For information about removing the 500-sheet feeder PCA, see 500-sheet feeder driver PCA on page 166 in the 500-sheet feeder section of this chapter.

Low-voltage power-supply PCA

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

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

1. Remove the following components:

   ● Fuser. See Fuser on page 97.

   ● Upper cover. See Upper cover (fuser door) on page 82.

   ● Rear lower cover. See Rear lower cover on page 85.

   ● Left cover. See Left cover on page 86.

   ● Right cover. See Right cover on page 89.

   ● Rear upper cover. See Rear upper cover on page 93.

2. Disconnect four wire-harness (callout 1; J1004, J1005, J1002 and J1006) on the DC controller PCA and remove the wire-harnesses from the retainer.
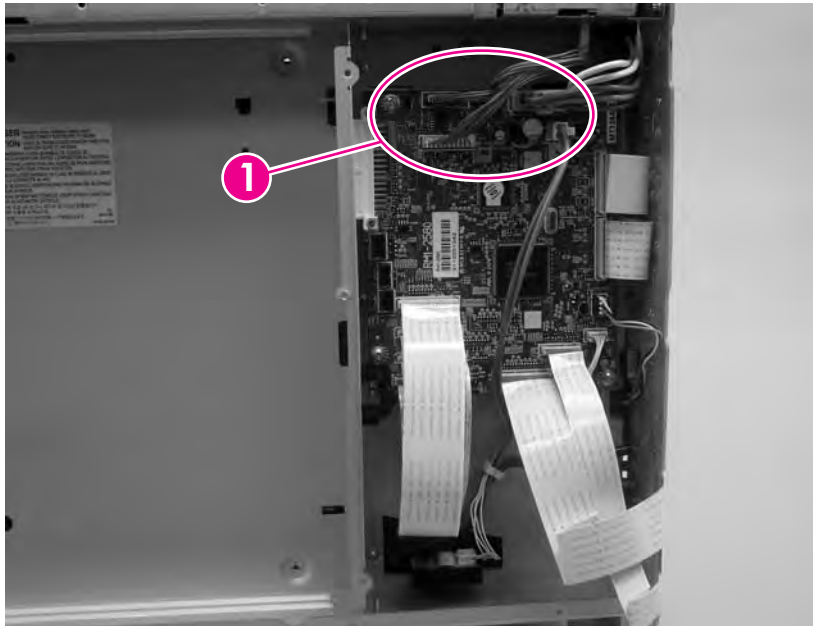
Figure 5-79 Remove the low-voltage power-supply PCA (1 of 6)

3. Remove four screws (callout 2), and then remove the sheet-metal shield (callout 3).

> **NOTE:** It might not appear that you need to remove the screw securing the high-voltage power supply to the chassis, but it must be removed to feed the low-voltage power supply wire-harnesses out of the printer later in this procedure.
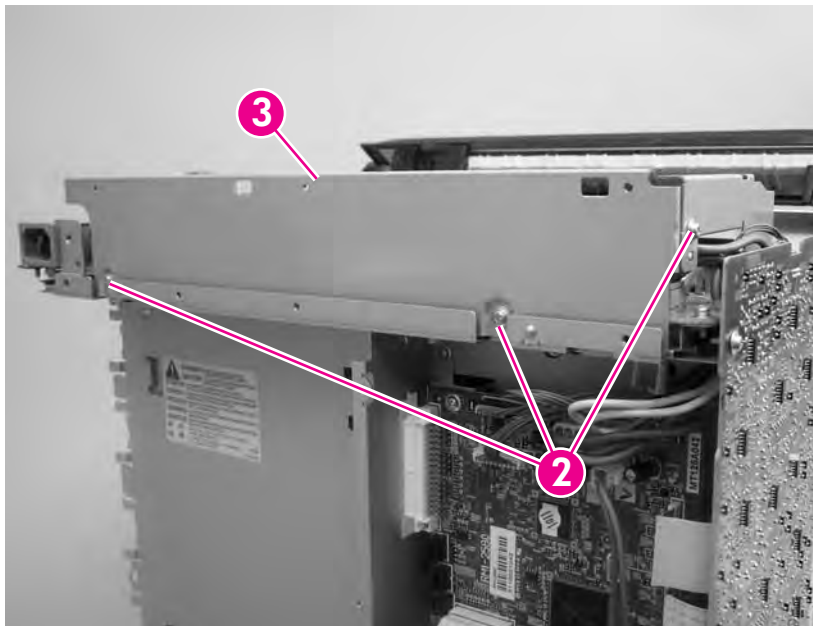
Figure 5-80 Remove the low-voltage power-supply PCA (2 of 6)

4. Remove one screw (callout 4).
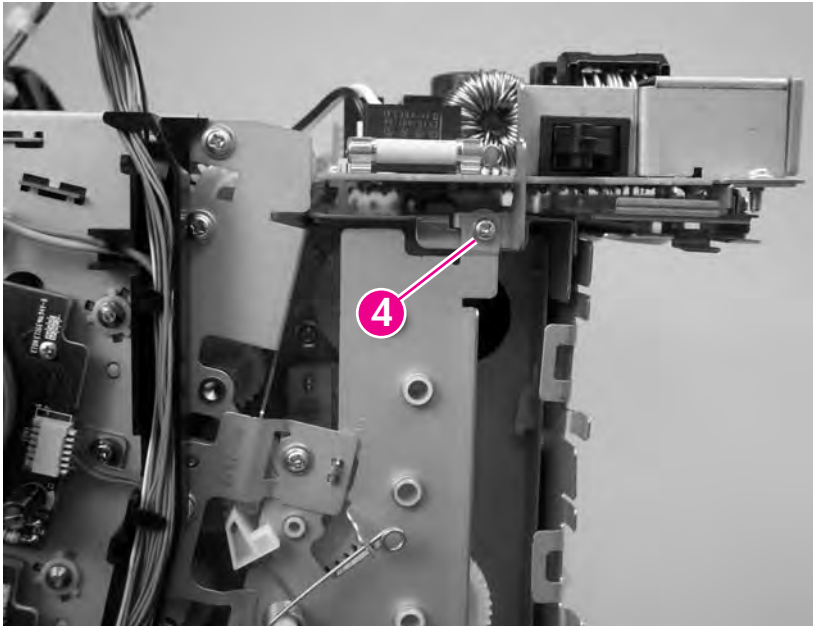
Figure 5-81 Remove the low-voltage power-supply PCA (3 of 6)

5. Disconnect one connector (callout 5), and remove five screws (callout 6).

📝 **NOTE:** Two of the screws have washers attached to them. Make sure that these screws are reinstalled in the same place that they are removed from.
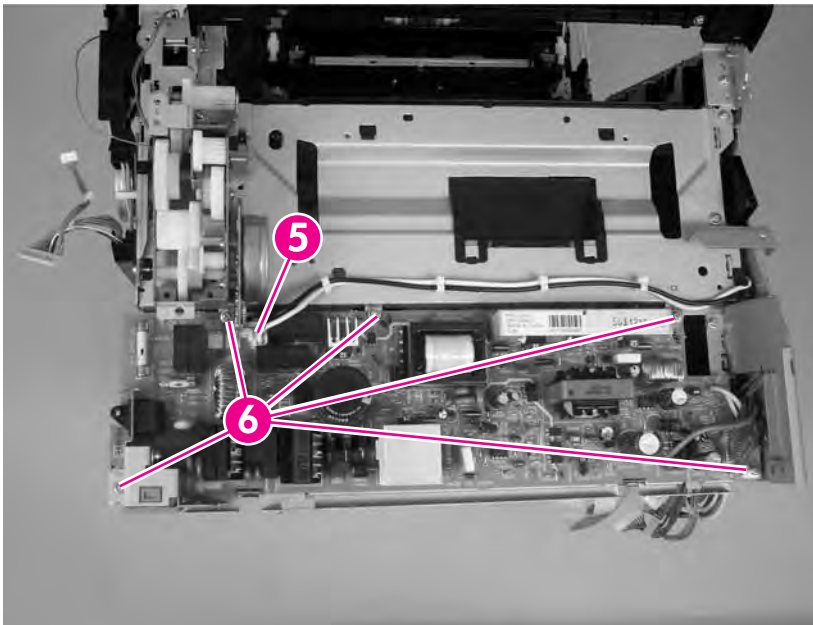
Figure 5-82 Remove the low-voltage power-supply PCA (4 of 6)

6. Use needle-nose pliers to gently squeeze the retainer tabs on the PCA standoff, and carefully pull up on the PCA to release it.
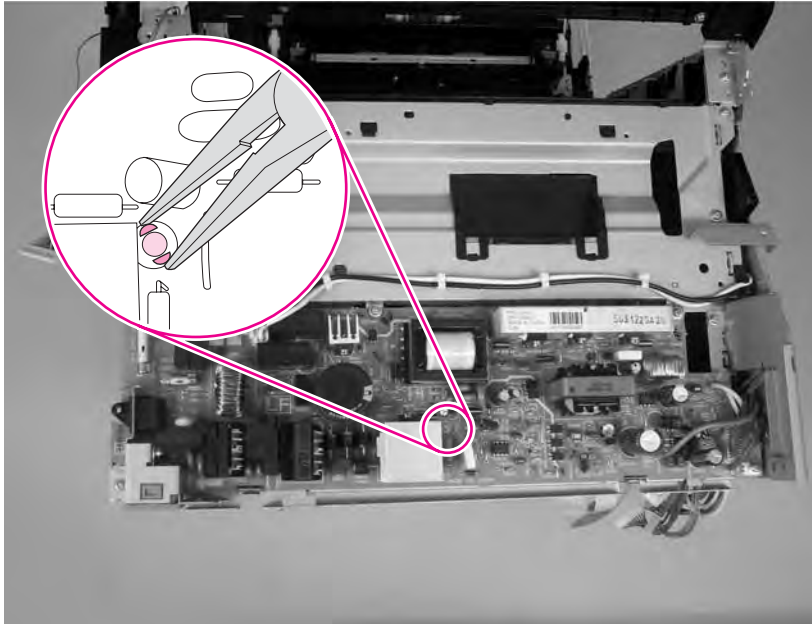
Figure 5-83 Remove the low-voltage power-supply PCA (5 of 6)

7. Lift the low-voltage power-supply PCA off of the printer chassis.
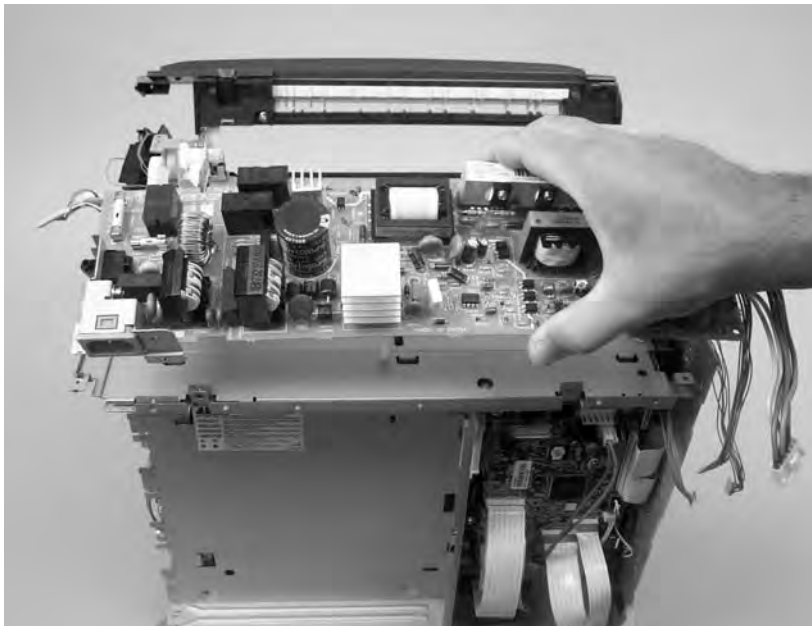
Figure 5-84 Remove the low-voltage power-supply PCA (6 of 6)

DC controller PCA

![Caution triangle] ![ESD warning symbol]

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

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

1. Remove the following components:

   ● Formatter cage. See .

   ● Fuser. See .

   ● Upper cover. See .

   ● Rear lower cover. See .

   ● Left cover. See .

   ● Rear upper cover. See .

2. Disconnect all of the wire-harness connectors and FFCs on the DC controller PCA (eight wire-harness connectors and eight FFCs).

![Caution triangle] **CAUTION:** Do not bend or fold the FFCs during removal or installation.

Figure 5-85 Remove the DC controller PCA (1 of 3)

3. Release four locking tabs (callout 1), and then remove the engine-test print switch (callout 2).
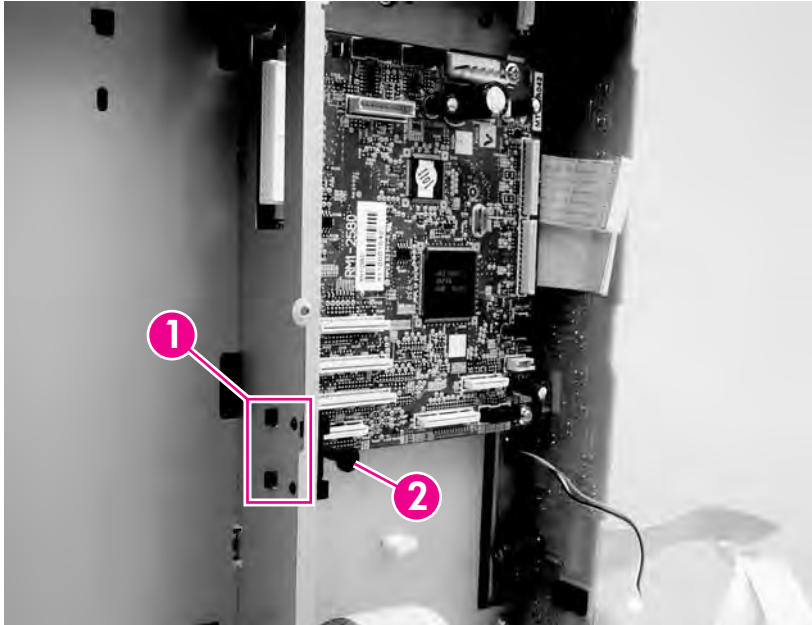
Figure 5-86 Remove the DC controller PCA (2 of 3)

4. Remove four screws (callout 3) to release the DC controller PCA.
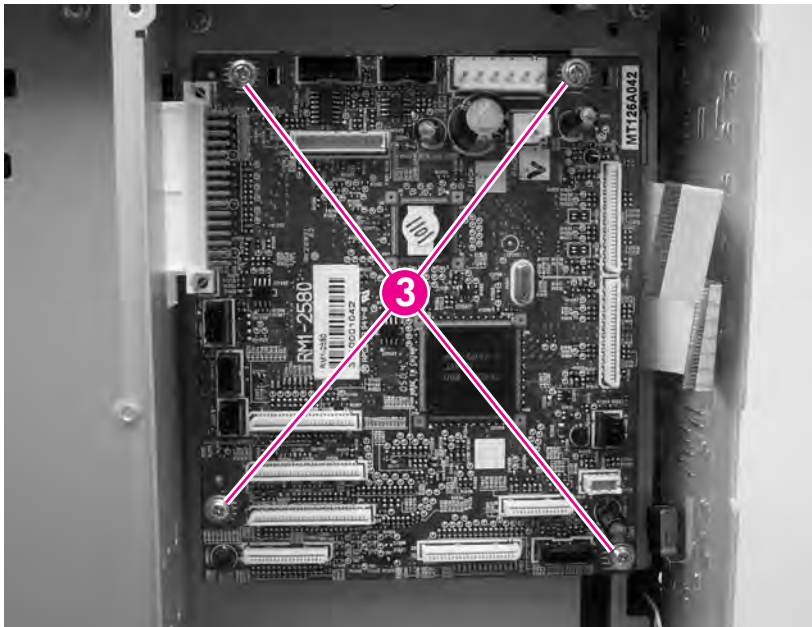
Figure 5-87 Remove the DC controller PCA (3 of 3)

High-voltage power supply

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

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

1. Remove the following components:

   ● Fuser. See Fuser on page 97.

   ● Upper cover. See Upper cover (fuser door) on page 82.

   ● Rear lower cover. See Rear lower cover on page 85.

   ● Left cover. See Left cover on page 86.

   ● Rear upper cover. See Rear upper cover on page 93.

2. Disconnect two FFCs (callout 1, J1009, and J1019) on the DC controller.

! **CAUTION:** Do not bend or fold the FFCs during removal or installation.
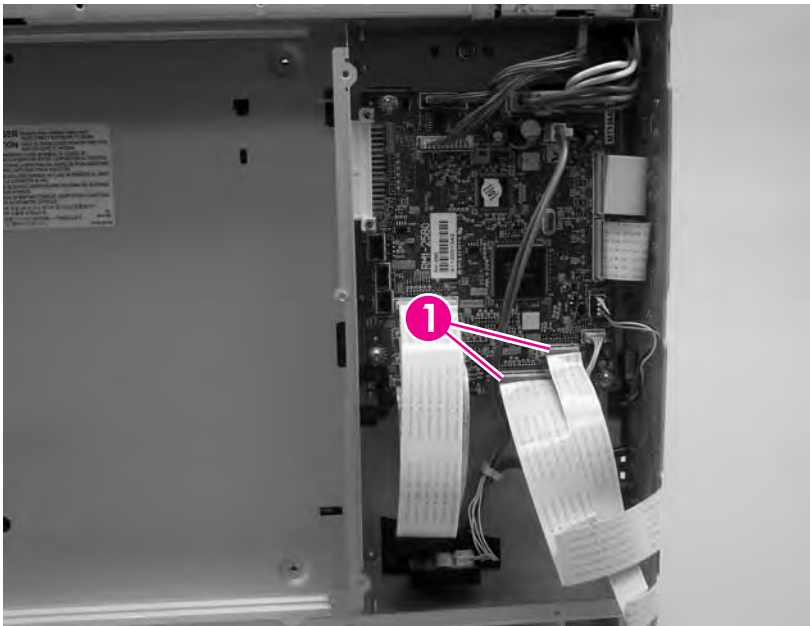
Figure 5-88 Remove the high-voltage power supply (1 of 3)

3. Remove four screws (callout 2), and then disconnect two connectors (callout 3).
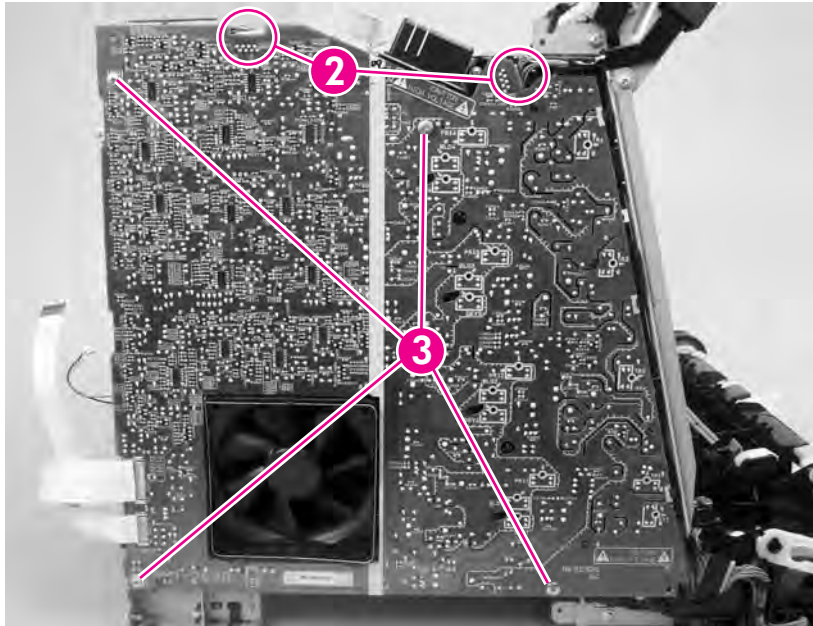
Figure 5-89 Remove the high-voltage power supply (2 of 3)

4. Release seven locking tabs (callout 4), and then remove the high-voltage power supply.
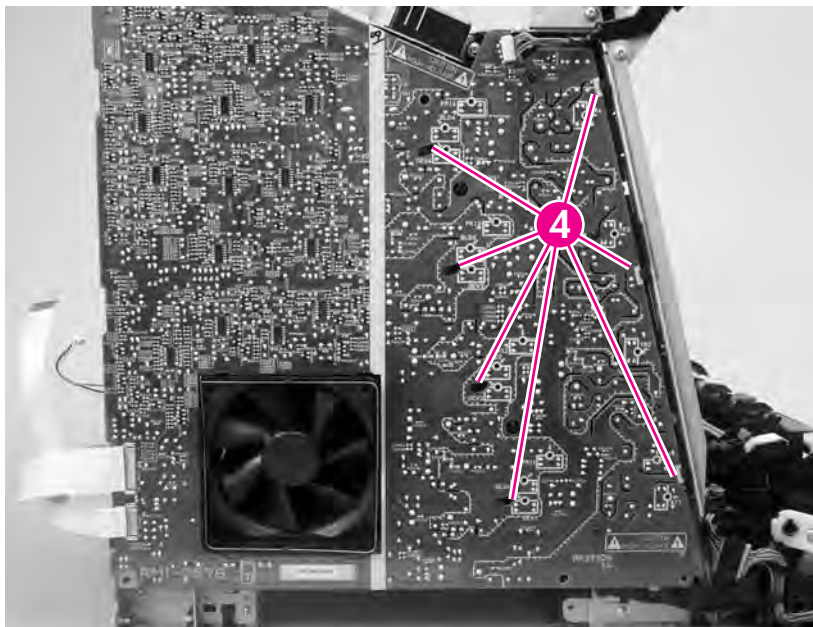
Figure 5-90 Remove the high-voltage power supply (3 of 3)

Memory-controller PCA

> ⚠️ **CAUTION:** ![ESD] PCAs are sensitive to electrostatic discharge (ESD). Look for the ESD reminder when removing PCAs. Always perform service work at an ESD-protected workstation or mat. If an ESD workstation or mat is not available, ground yourself by touching the sheet-metal chassis *before* touching an ESD-sensitive part.
>
> Protect the ESD-sensitive parts by placing them in ESD pouches when they are out of the printer.

1. Remove the following components:

   - Fuser. See .

   - Upper cover. See .

   - Rear lower cover. See .

   - Left cover. See .

   - Right cover. See .

   - Rear upper cover. See .

2. Remove one FFC (callout 1) from the cable guide (callout 2).

> ⚠️ **CAUTION:** Do not bend or fold the FFCs during removal or installation.

Figure 5-91 Remove the memory-controller PCA (1 of 2)

3. Disconnect four connectors (callout 3), and then remove three screws (callout 4) to release the memory-controller PCA.
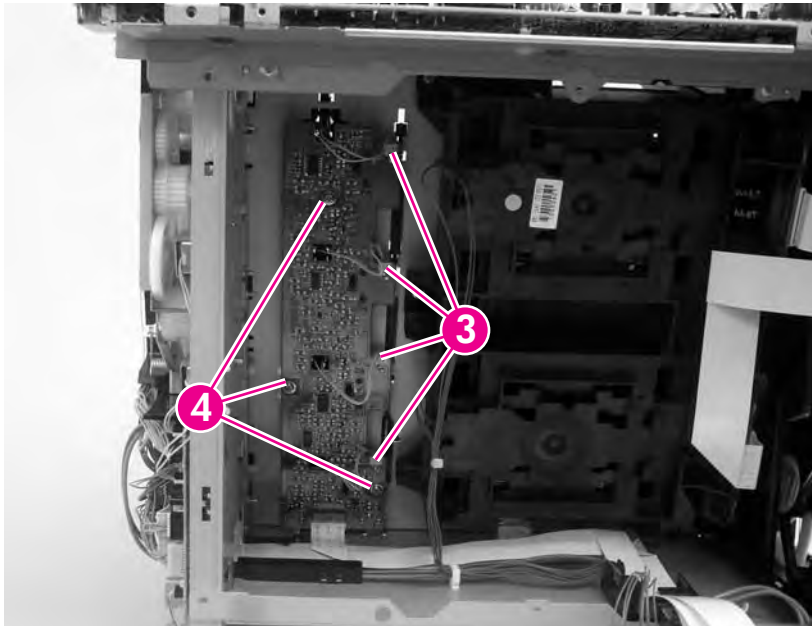
Figure 5-92 Remove the memory-controller PCA (2 of 2)

Driver PCA

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

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

1. Remove the following components:

    ●   Fuser. See Fuser on page 97.

    ●   Upper cover. See Upper cover (fuser door) on page 82.

    ●   Right cover. See Right cover on page 89.

2. Disconnect all of the connectors and FFCs on the driver PCA.

! **CAUTION:**   Do not bend or fold the FFCs during removal or installation.

Figure 5-93 Remove the driver PCA (1 of 2)

3. Remove two screws (callout 1) to release the driver PCA.
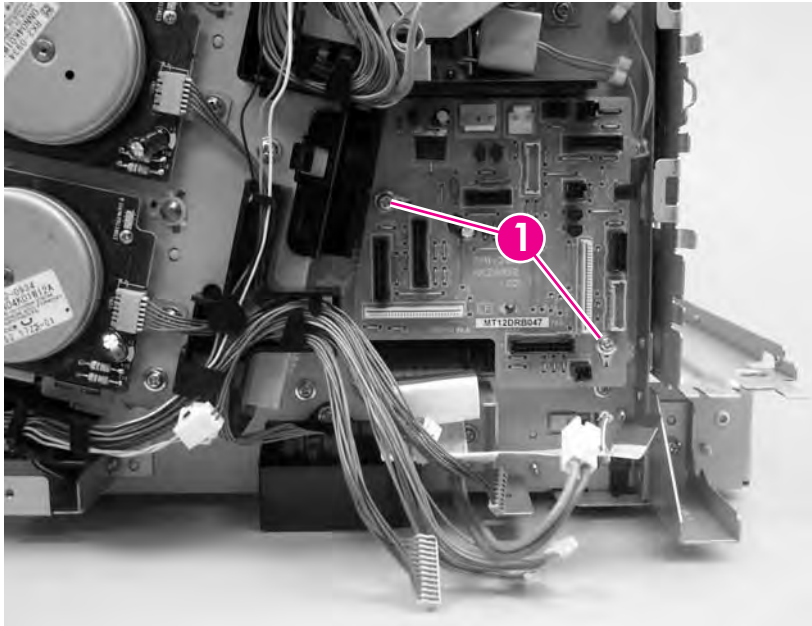
Figure 5-94 Remove the driver PCA (2 of 2)

Control panel

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

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

1. Remove the following components:

    ● Fuser. See Fuser on page 97.

    ● Upper cover. See Upper cover (fuser door) on page 82.

    ● Left cover. See Left cover on page 86.

2. Release the guide locking tab (callout 1) and disconnect one connector (callout 2).
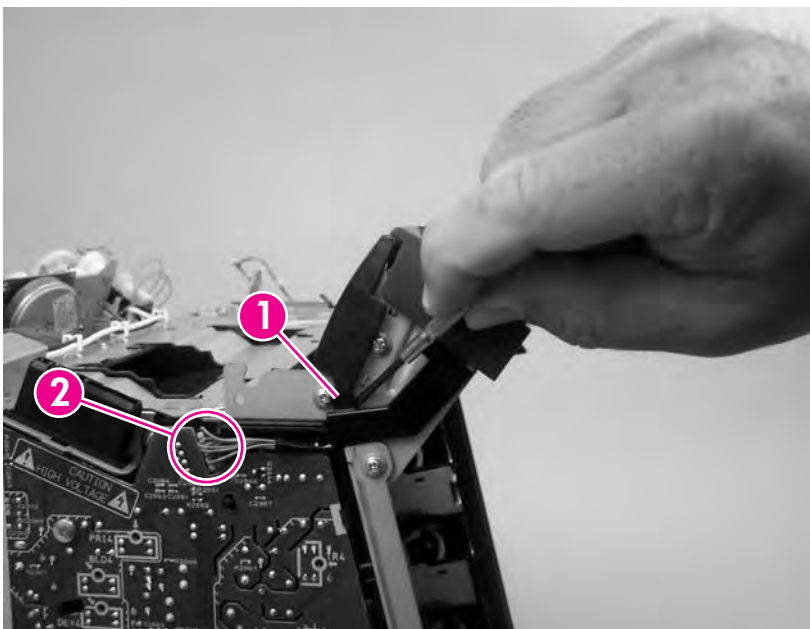
Figure 5-95 Remove the control panel (1 of 2)

3. Remove two screws (callout 3) to release the control panel.
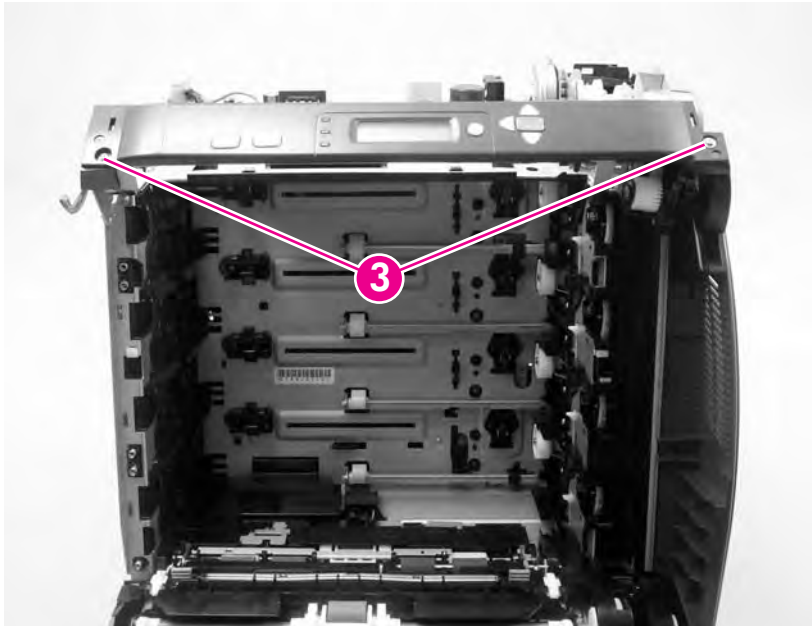
Figure 5-96 Remove the control panel (2 of 2)

Pickup-and-feed driver PCA

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

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

1. Open the front cover.

2. Release the locking tab (callout 1) on the pickup-and-feed driver PCA cover (callout 2), and then remove the cover.

! **CAUTION:** Do not damage or bend the print-cartridge high-voltage springs (callout 3) when you remove the cover.
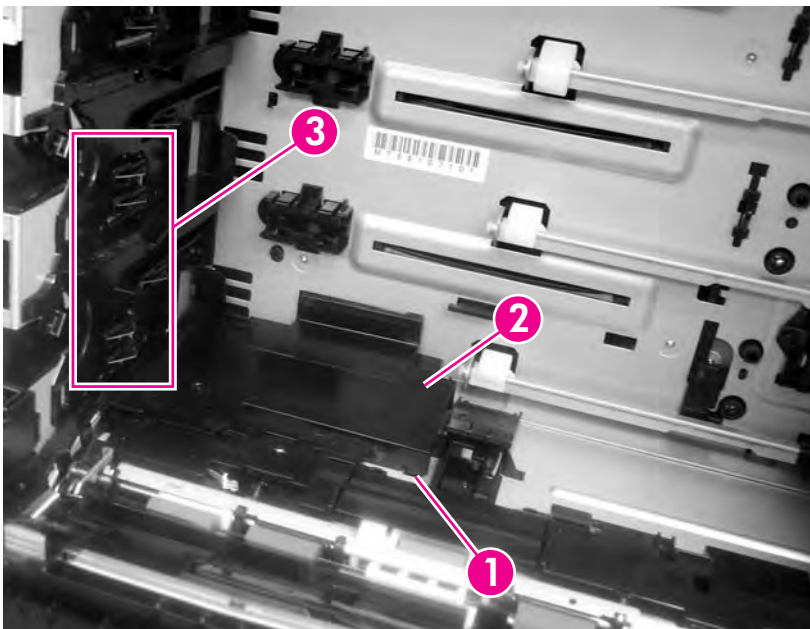
Figure 5-97 Remove the pickup-and-feed driver PCA (1 of 3)

3. Disconnect one FFC (callout 4; J014) on the DC controller.
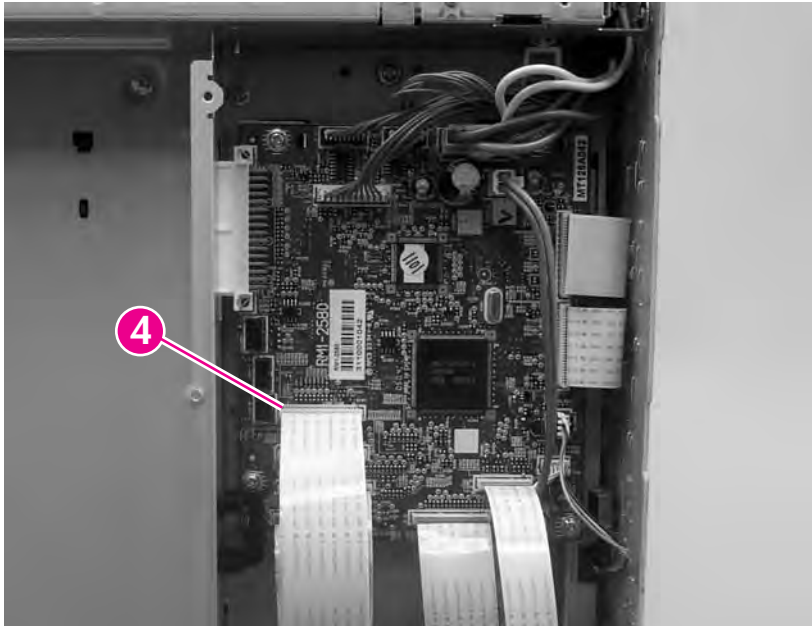
Figure 5-98 Remove the pickup-and-feed driver PCA (2 of 3)

4. Disconnect six connectors (callout 4), and remove one screw (callout 5) to release the pickup-and-feed driver PCA.

📝 **NOTE:** The HP Color LaserJet 3000 will not have the two white media-sensor connectors.
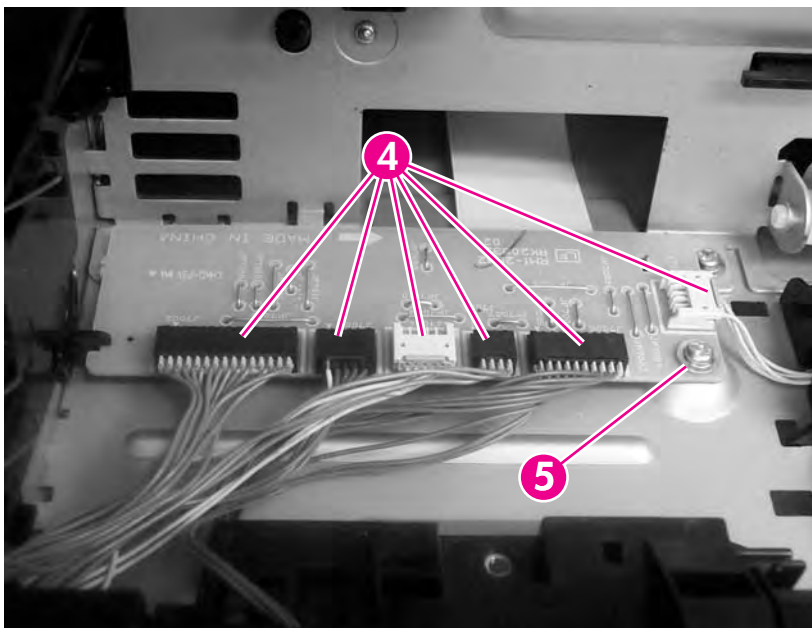
Figure 5-99 Remove the pickup-and-feed driver PCA (3 of 3)

Duplex-driver PCA

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

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

1. Remove the following components:

   ● Fuser. See Fuser on page 97.

   ● Remove the upper cover. See Upper cover (fuser door) on page 82.

2. Disconnect six connectors (callout 1).
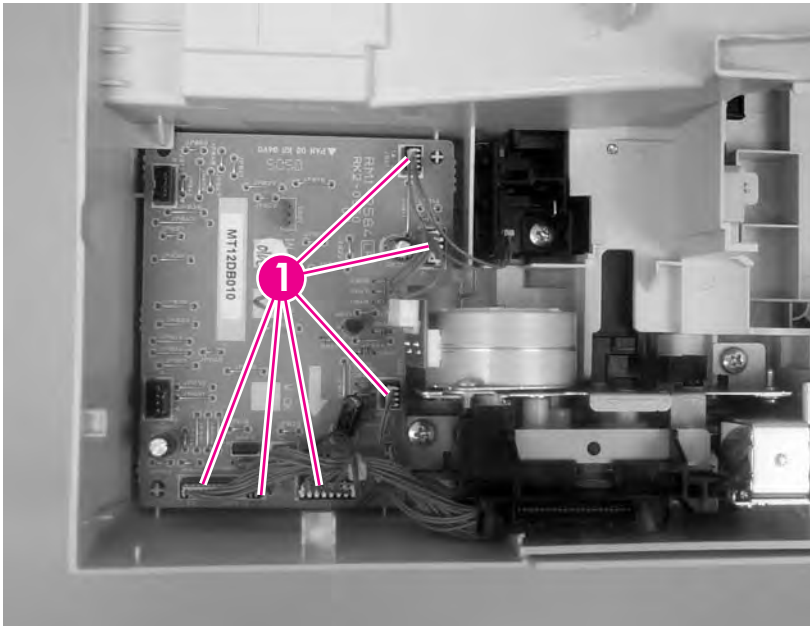
Figure 5-100 Remove the duplex-driver PCA (1 of 3)

3. Remove one screw (callout 2).
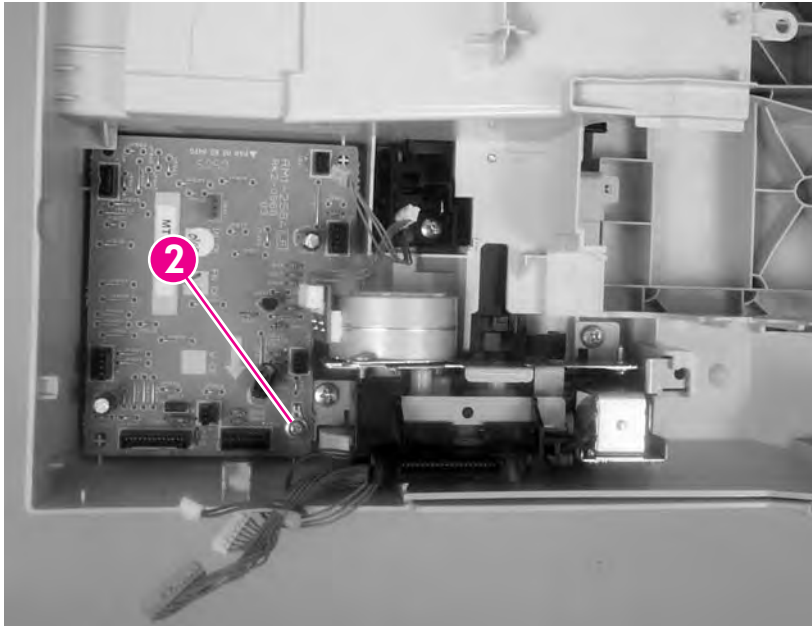
Figure 5-101 Remove the duplex-driver PCA (2 of 3)

4. Lift the duplex-driver PCA out of the upper cover.
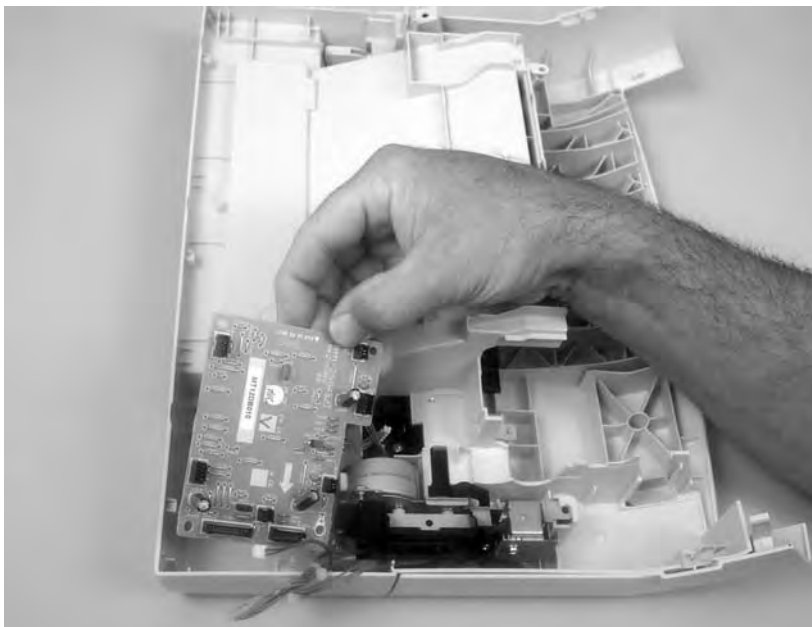
Figure 5-102 Remove the duplex-driver PCA (3 of 3)

Sensors

Cassette media sensor (HP LaserJet 3600/3800/CP3505)

NOTE: Always perform a full calibration procedure when you replace the cassette media sensor.

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

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

1. Open the front cover and remove the ETB. See Electrostatic transfer belt (ETB) on page 96.

2. Release the locking tab (callout 1) on the pickup-and-feed driver PCA cover (callout 2), and then remove the cover.

CAUTION: Do not damage or bend the print-cartridge high-voltage springs (callout 3) when you remove the cover.
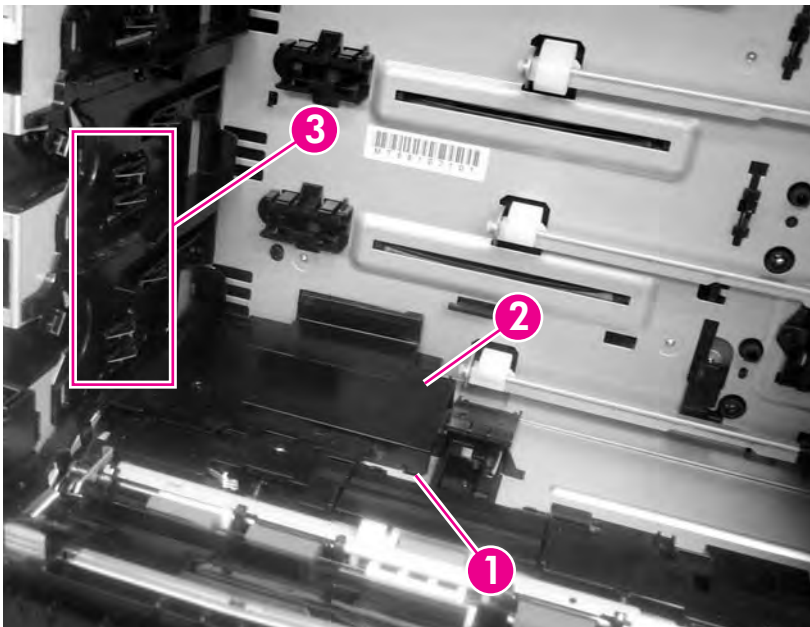
Figure 5-103 Remove the cassette media sensor (1 of 2)

3. Disconnect one connector (callout 4) and remove one screw (callout 5). Lift the cassette media sensor (callout 6) out of the printer.
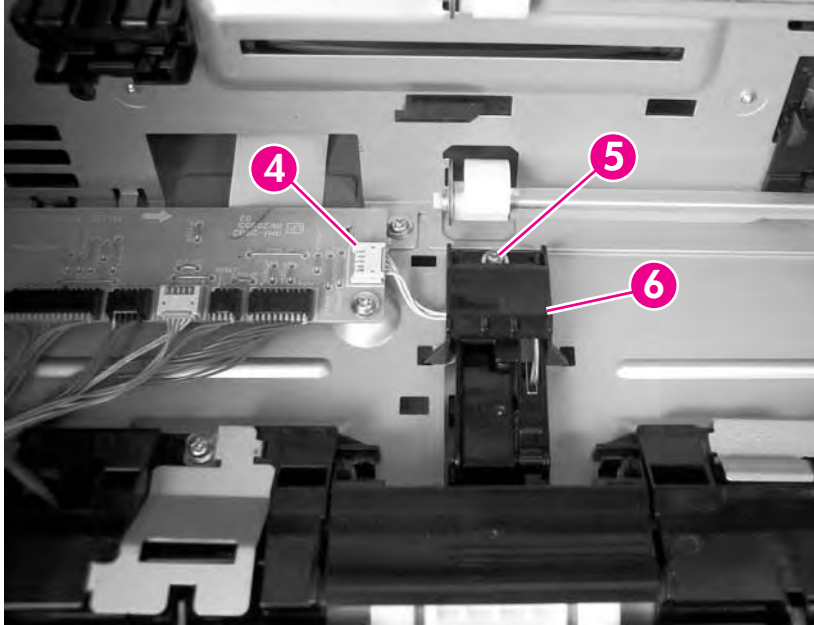
Figure 5-104 Remove the cassette media sensor (2 of 2)

Temperature sensor

> ⚠️ **CAUTION:** ![ESD] PCAs are sensitive to electrostatic discharge (ESD). Look for the ESD reminder when removing PCAs. Always perform service work at an ESD-protected workstation or mat. If an ESD workstation or mat is not available, ground yourself by touching the sheet-metal chassis *before* touching an ESD-sensitive part.
>
> Protect the ESD-sensitive parts by placing them in ESD pouches when they are out of the printer.

1. Remove the following components:

    ● Upper cover. See Upper cover (fuser door) on page 82.

    ● Rear lower cover. See Rear lower cover on page 85.

    ● Left cover. See Left cover on page 86.

    ● Right cover. See Right cover on page 89.

    ● Rear upper cover. See Rear upper cover on page 93.

2. Disconnect one connector (callout 1; J1018) and release the locking tab (callout 2). Remove the temperature sensor (callout 3).
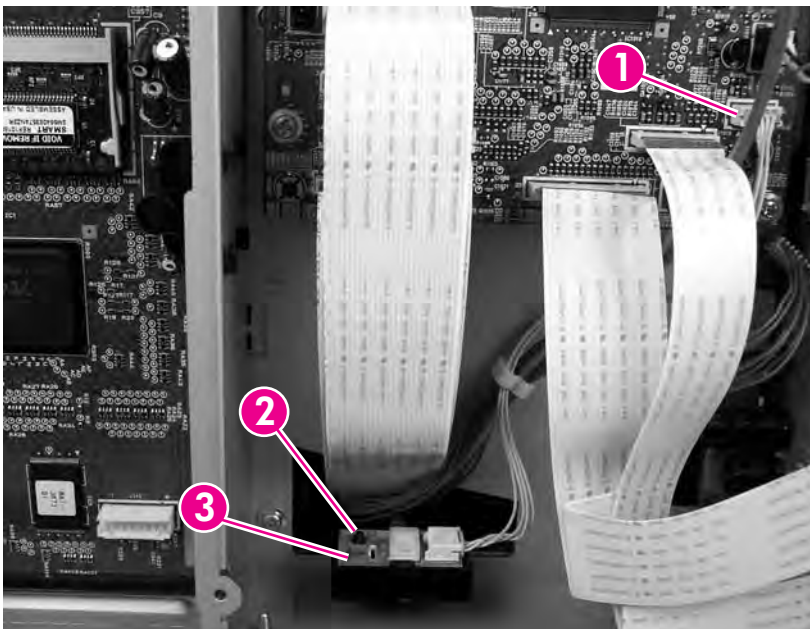
Figure 5-105 Remove the temperature sensor

Paper and registration sensor covers

1. Open the front cover and remove the ETB. See Electrostatic transfer belt (ETB) on page 96.

2. Remove two screws (callout 1) and the paper and registration sensor covers (callout 2).

> ⚠ **CAUTION:** Do not bend the locator tabs on the covers.
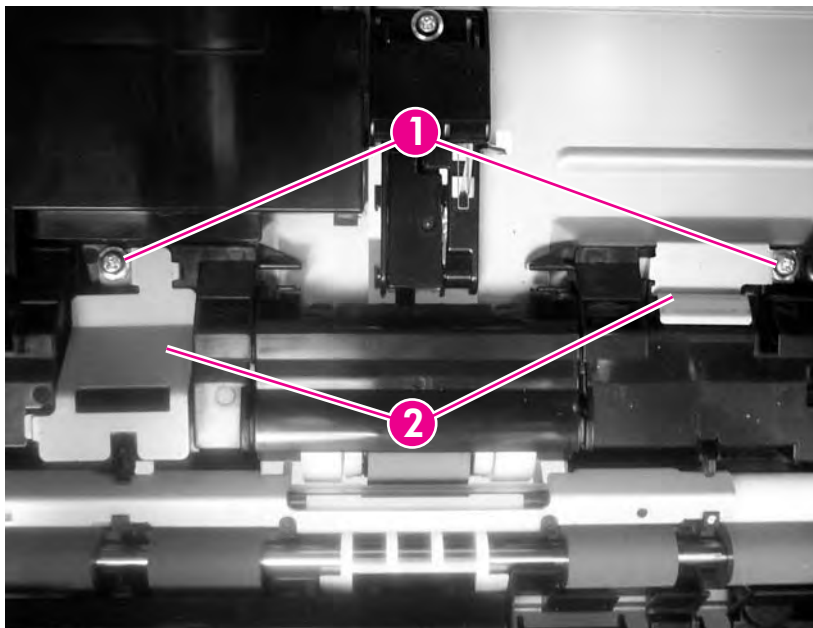
Figure 5-106 Remove the paper and registration sensor covers
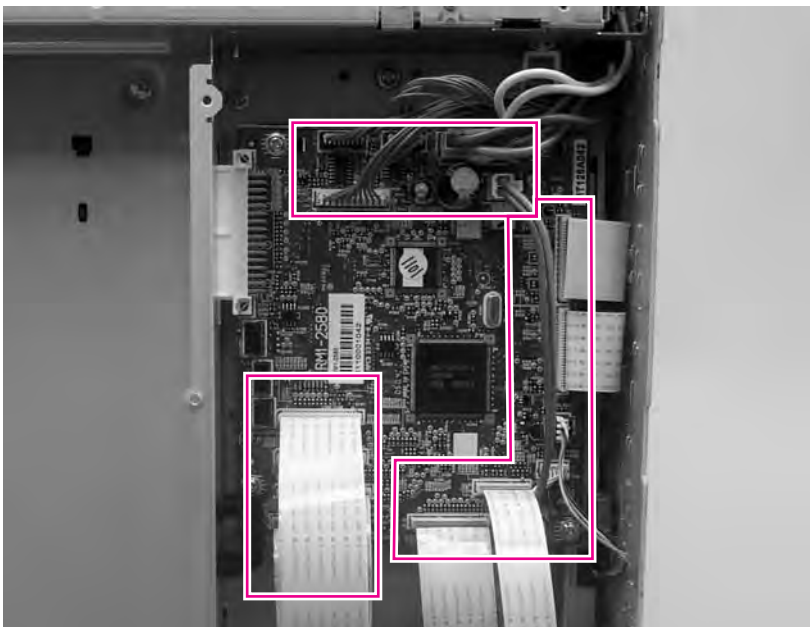
Cartridge-sensor PCA

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

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

1. Remove the following components:

   ● Upper cover. See Upper cover (fuser door) on page 82.

   ● Rear lower cover. See Rear lower cover on page 85.

   ● Left cover. See Left cover on page 86.

   ● Right cover. See Right cover on page 89.

   ● Rear upper cover. See Rear upper cover on page 93.

2. Remove four screws (callout 1) and remove the sheet-metal shield (callout 2).

Figure 5-107 Remove the cartridge-sensor PCA (1 of 4)

3. Disconnect all of the wire-harness connectors and flat flexible cables (FFCs) on the DC controller PCA (eight wire-harness connectors and eight FFCs).

> ⚠ **CAUTION:** Do not bend or fold the FFCs during removal or installation.

> 📝 **NOTE:** Remove the wire-harnesses from all of the retainers near the DC controller.
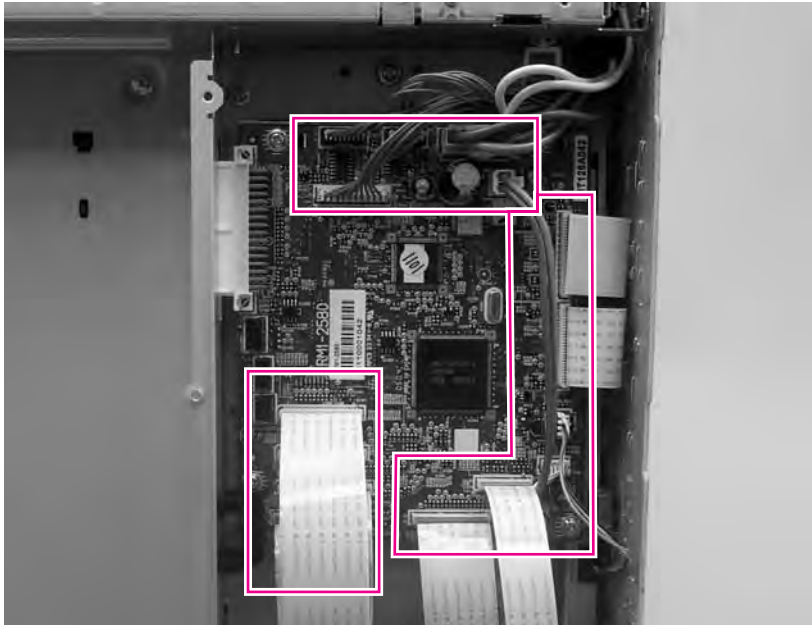
Figure 5-108 Remove the cartridge-sensor PCA (2 of 4)

4. Remove 10 screws (callout 3). Push up on the sheet-metal shield to release it from the printer chassis, and remove it.
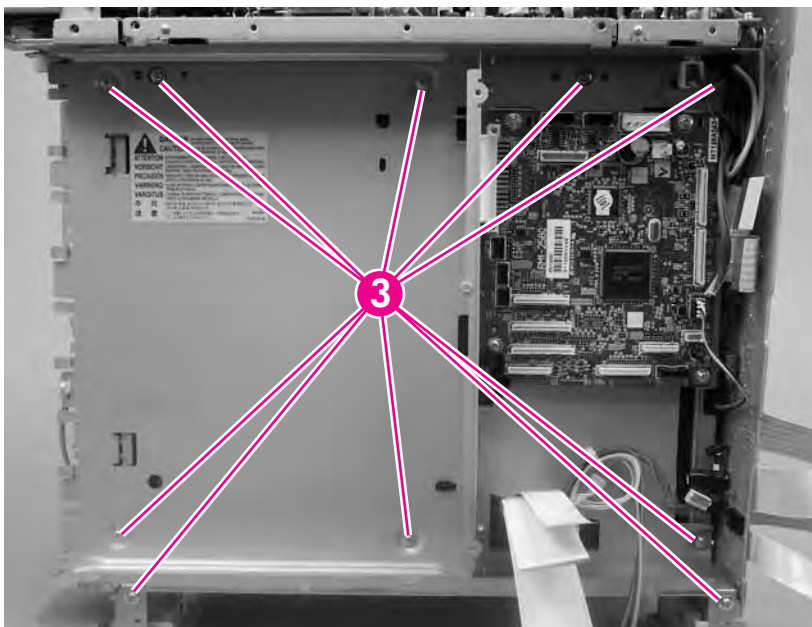
Figure 5-109 Remove the cartridge-sensor PCA (3 of 4)

5. Disconnect four connectors (callout 4) and remove three screws (callout 5). Remove the cartridge-sensor PCA from the printer.
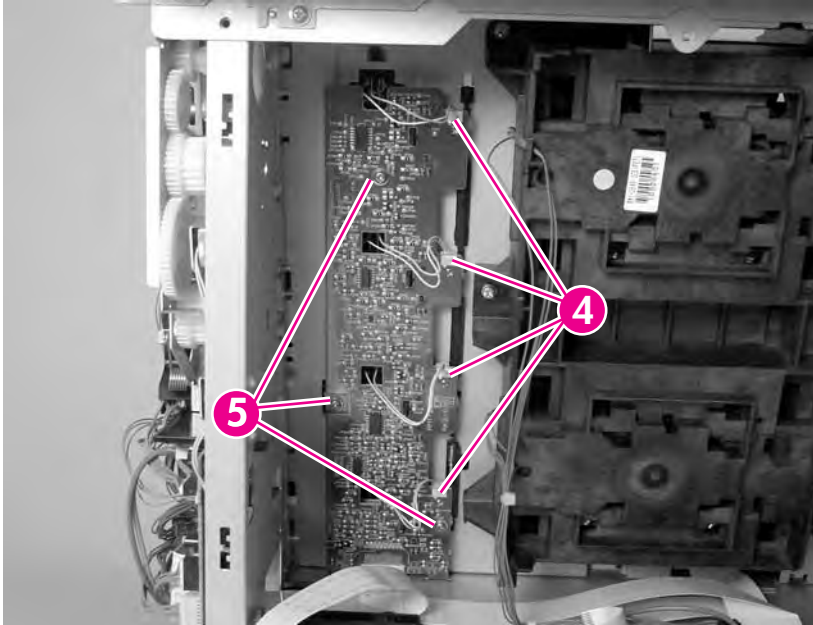
Figure 5-110 Remove the cartridge-sensor PCA (4 of 4)

500-sheet feeder

500-sheet feeder right cover

1. Remove one screw (callout 1).
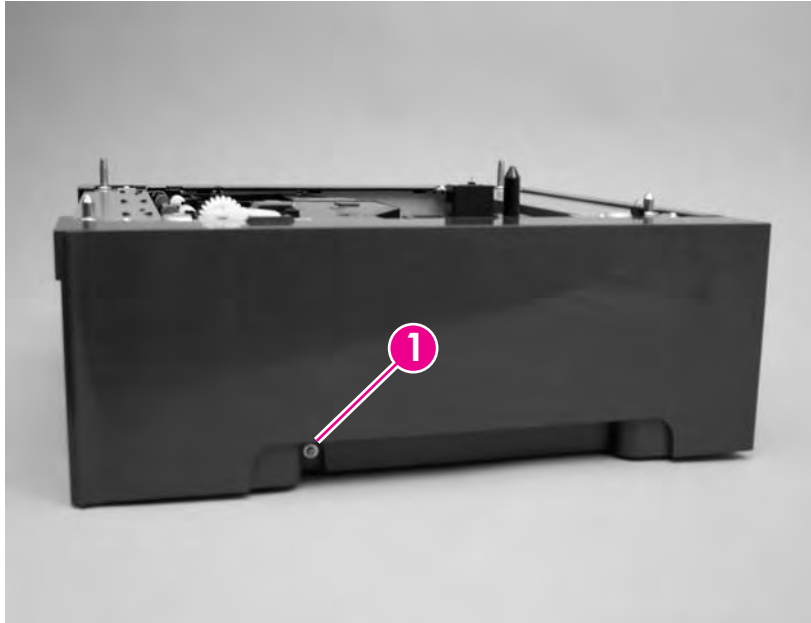
Figure 5-111 Remove the 500-sheet feeder right cover (1 of 3)

💡 **TIP:** Before proceeding, look at the following figure and note the location of the locking tabs on the right cover.
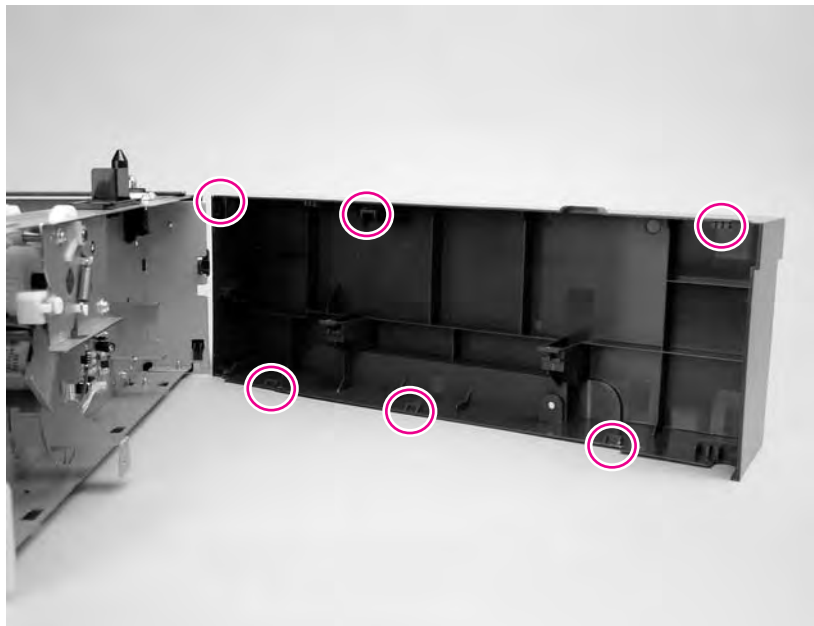
2. Carefully pry loose the two locking tabs along the top of the cover.
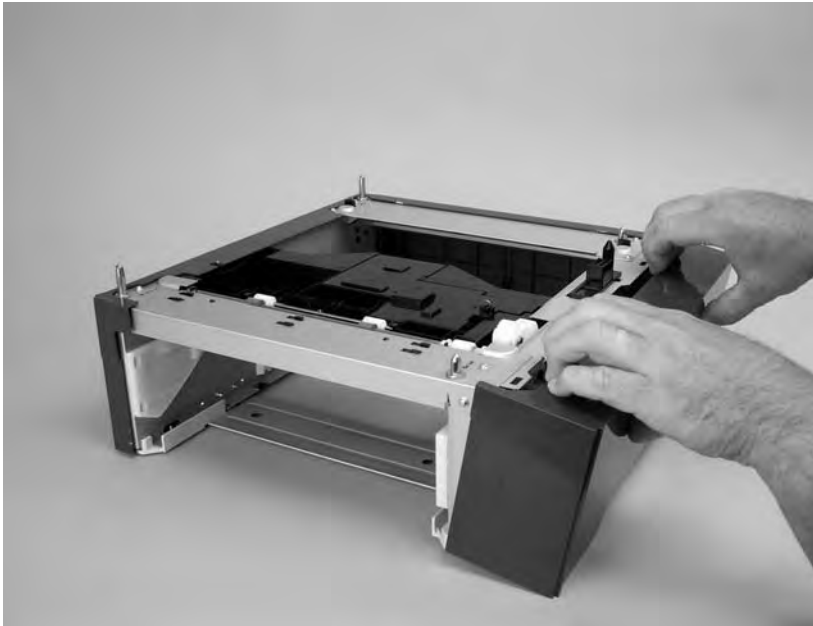
Figure 5-112 Remove the 500-sheet feeder right cover (2 of 3)

3. Rotate the top of the cover away from the feeder to release three locking tabs along the bottom of the cover.
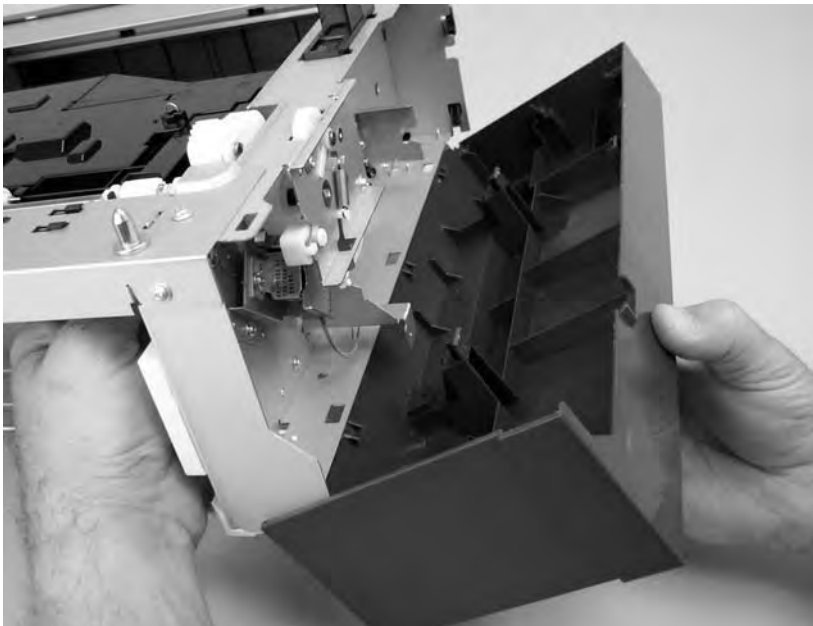
Figure 5-113 Remove the 500-sheet feeder right cover (3 of 3)

500-sheet feeder left cover

1. Remove one screw (callout 1).
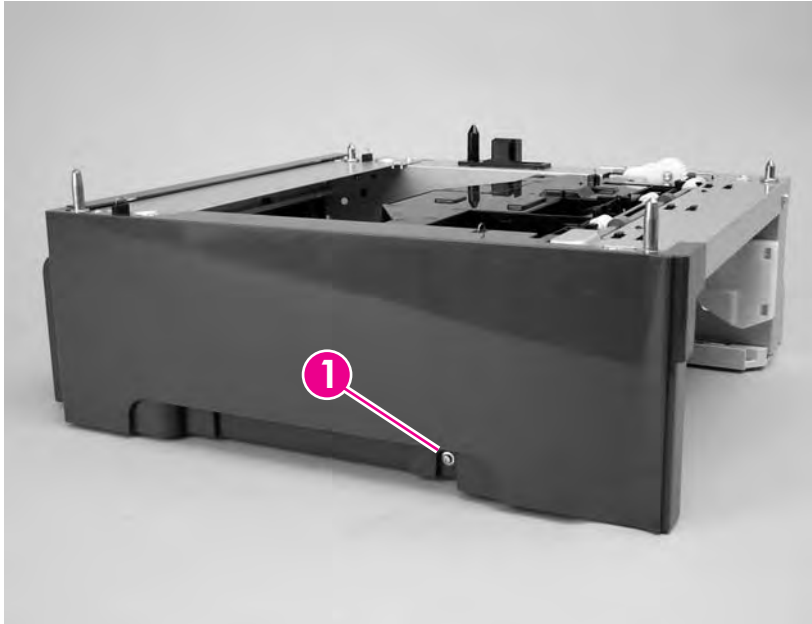
Figure 5-114 Remove the 500-sheet feeder left cover (1 of 5)

💡 **TIP:** Before proceeding, look at the following figure and note the location of the locking tabs on the left cover.
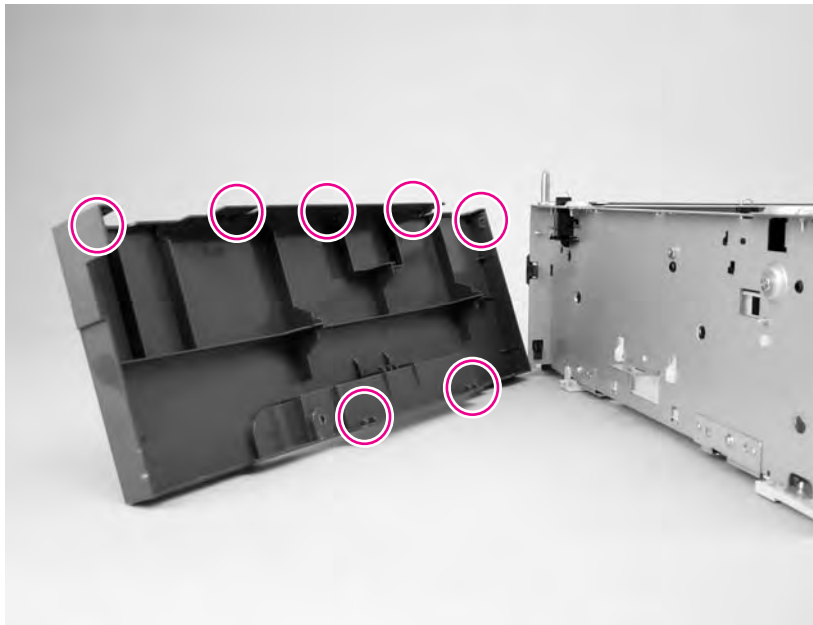
2. Carefully pry loose the three locking tabs along the top of the cover.
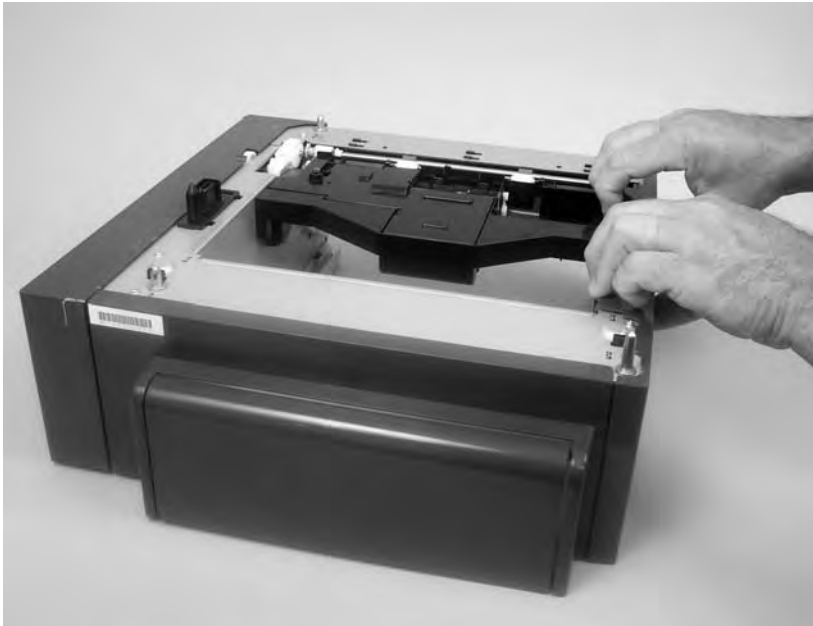
Figure 5-115 Remove the 500-sheet feeder left cover (2 of 5)

3. Use a flatblade screwdriver to release the locking tab at the front of the cover.
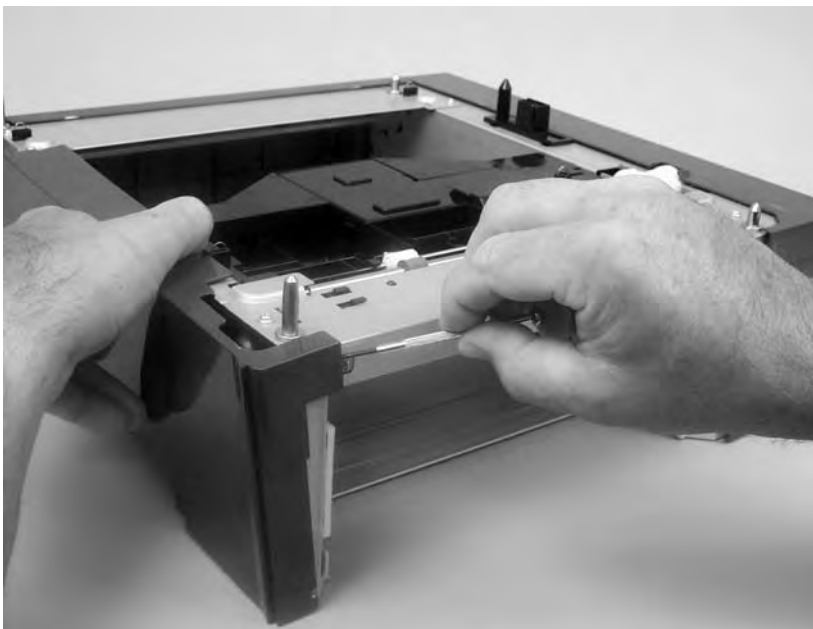
Figure 5-116 Remove the 500-sheet feeder left cover (3 of 5)

4. Use a flatblade screwdriver to release the locking tab at the rear of the cover.
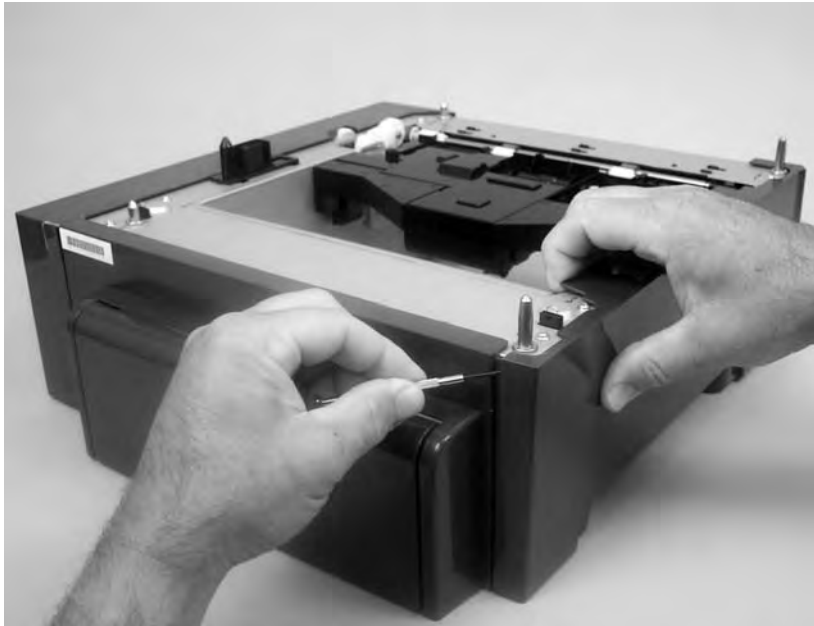
Figure 5-117 Remove the 500-sheet feeder left cover (4 of 5)

5. Rotate the top of the cover away from the feeder to release two locking tabs along the bottom of the cover.
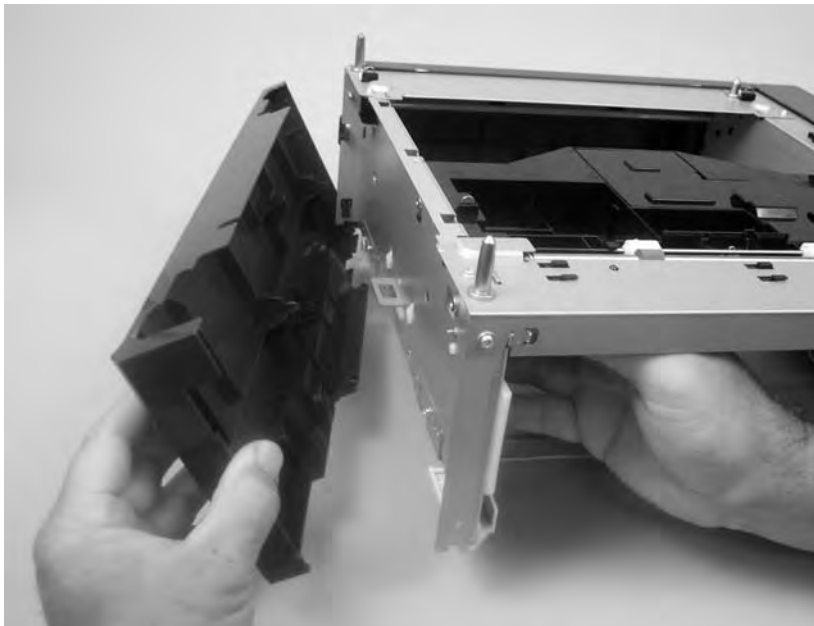
Figure 5-118 Remove the 500-sheet feeder left cover (5 of 5)

500-sheet feeder rear cover

1. Remove the following components:

   ● 500-sheet feeder right cover. See <u>500-sheet feeder right cover on page 159</u>.

   ● 500-sheet feeder left cover. See <u>500-sheet feeder left cover on page 161</u>.

2. Release the two locking tabs along the side of the cover.
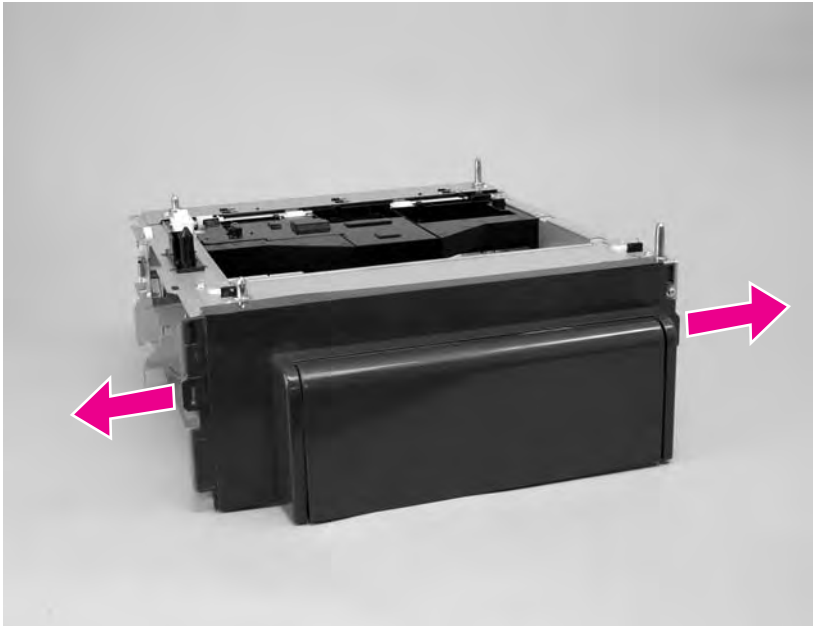
Figure 5-119 Remove the 500-sheet feeder rear cover (1 of 3)

TIP: Before proceeding, look at the following figure and note the location of the locking tabs on the rear cover.
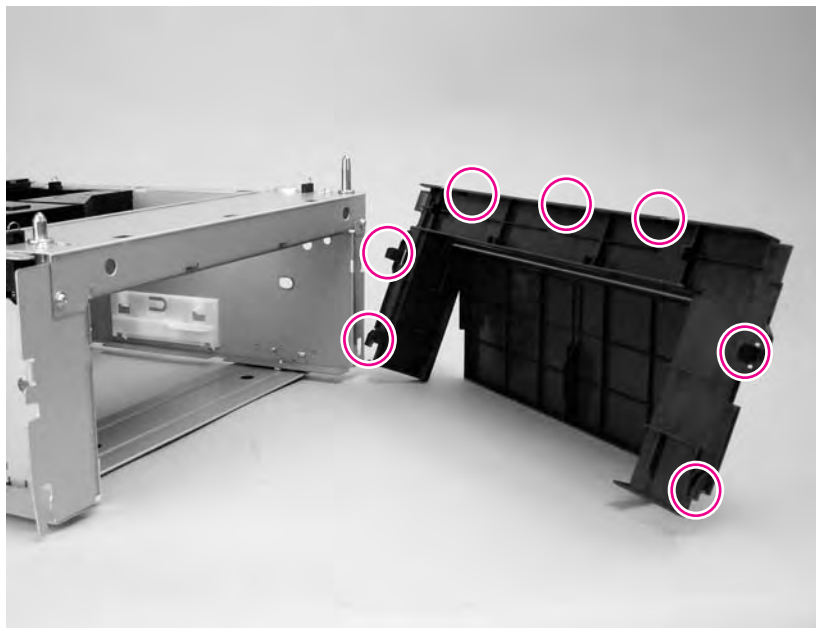
3. Carefully pry loose the three locking tabs along the top of the cover.
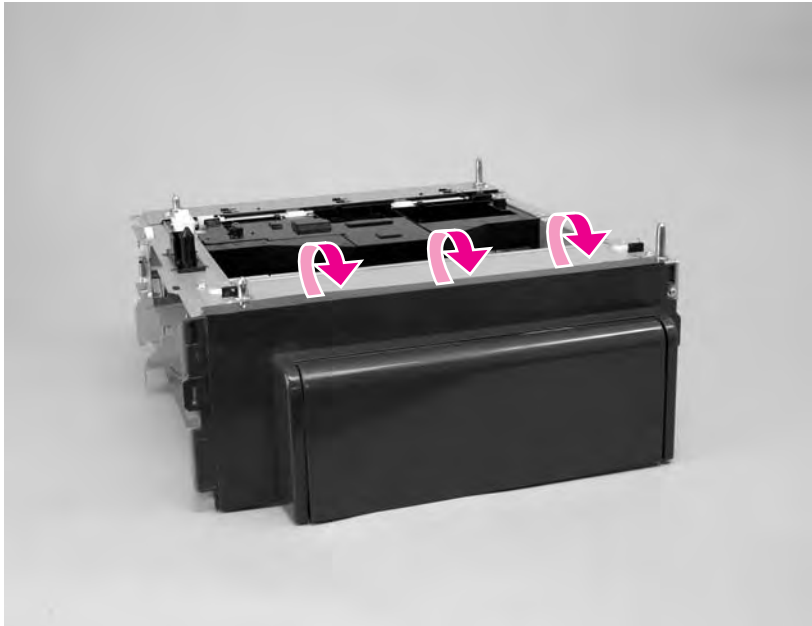
Figure 5-120 Remove the 500-sheet feeder rear cover (2 of 3)

4. Rotate the cover up and away from the feeder chassis to remove it.
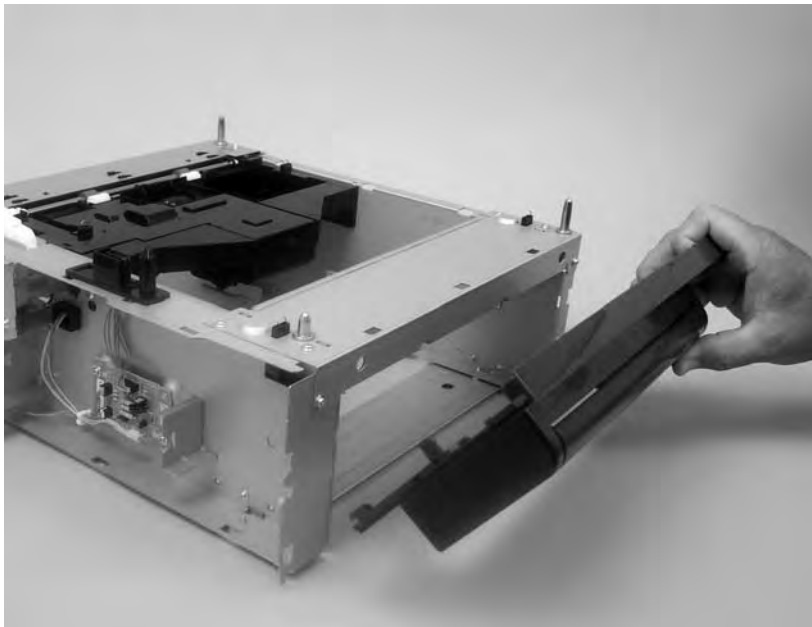
Figure 5-121 Remove the 500-sheet feeder rear cover (3 of 3)
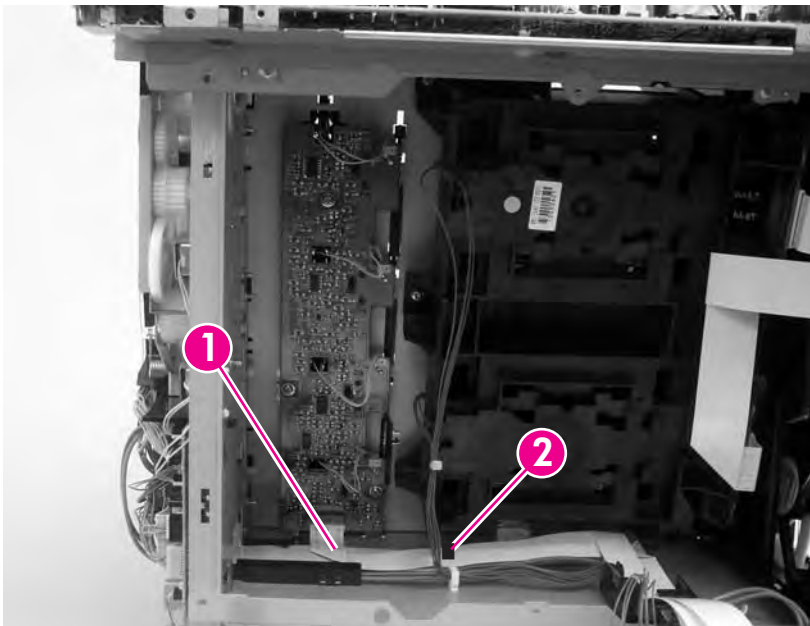
500-sheet feeder driver PCA

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

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

1. Remove the 500-sheet feeder right cover. See <u>500-sheet feeder right cover on page 159</u>.

2. Disconnect four connectors (callout 1)
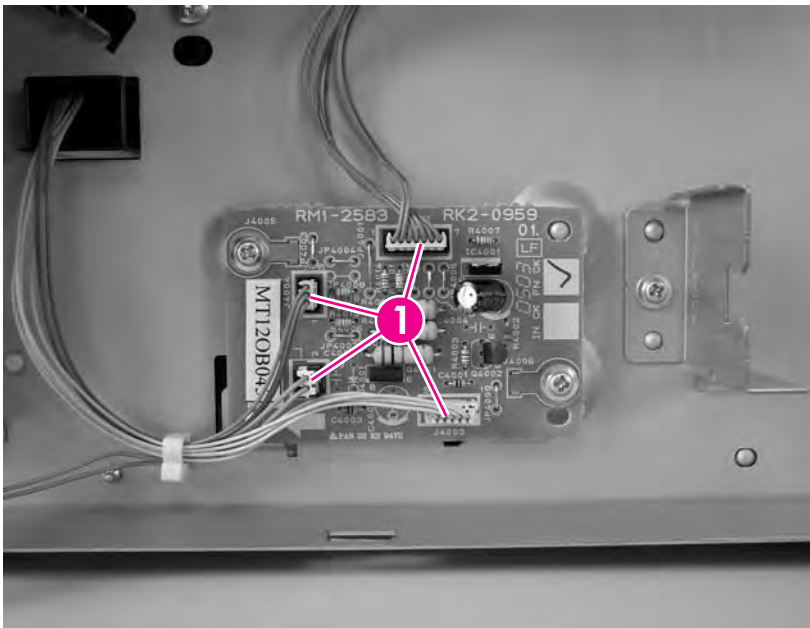
Figure 5-122 Remove the 500-sheet-feeder driver PCA (1 of 2)

3. Release the 500-sheet-feeder PCA by removing two screws (callout 2).
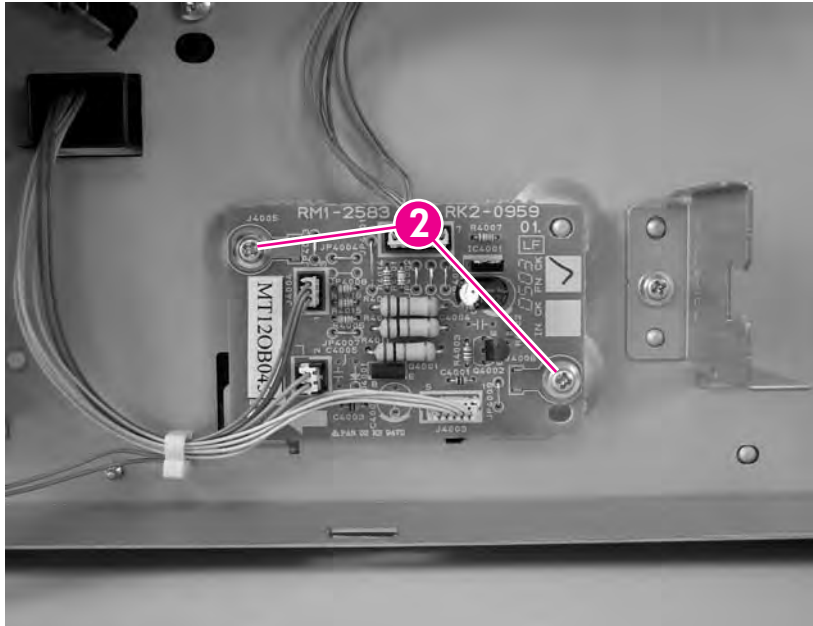
Figure 5-123 Remove the 500-sheet-feeder driver PCA (2 of 2)
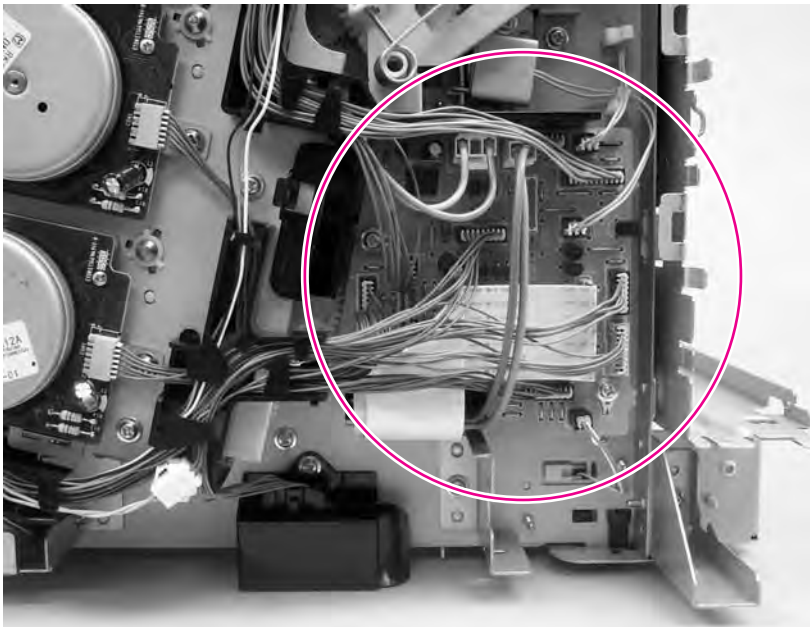
Media sensor (500-sheet feeder)

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

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

1. Remove the 500-sheet feeder right cover. See .

2. Disconnect one connector (callout 1; J4003).

Figure 5-124 Remove the media sensor (500-sheet feeder) (1 of 4)

3. Use a small flatblade screwdriver to release the top cover on the 500–sheet feeder pickup-and-feed assembly, and then remove the cover.

⚠ **CAUTION:** Be careful not to lose the grounding springs that are under this cover.
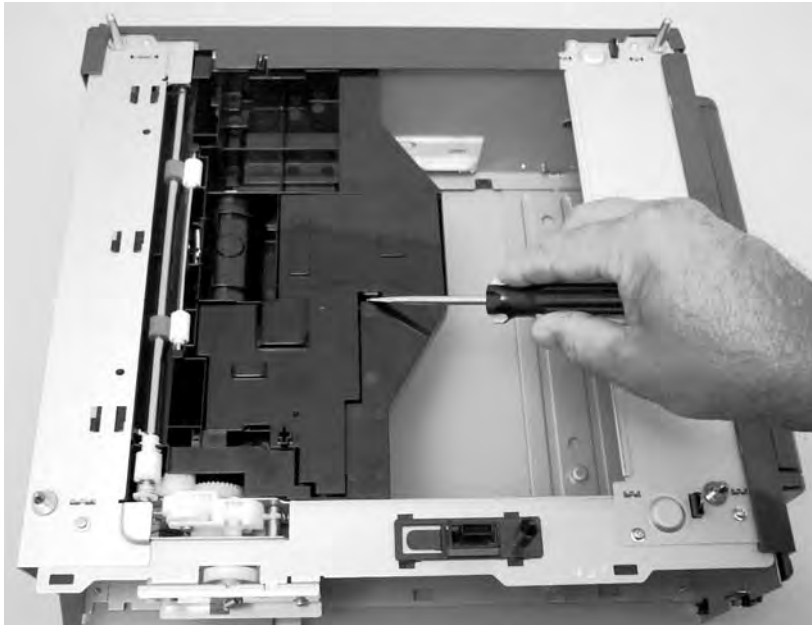
Figure 5-125 Remove the media sensor (500-sheet feeder) (2 of 4)

4. Remove the media sensor torsion spring (callout 2).
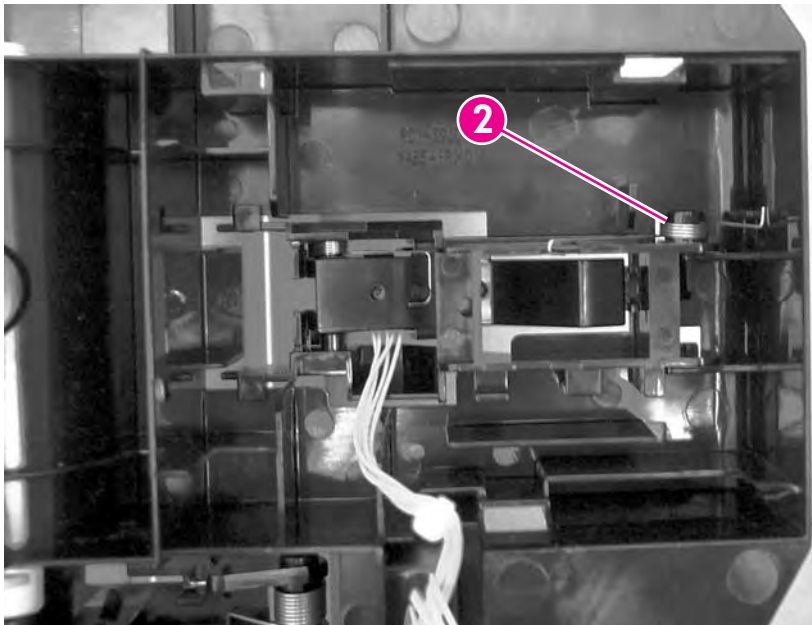
Figure 5-126 Remove the media sensor (500-sheet feeder) (3 of 4)

5. Raise the media sensor, and then slide it off of the hinges to remove it.

Figure 5-127 Remove the media sensor (500-sheet feeder) (4 of 4)

6 Troubleshooting

To use the information in this chapter, you should have a basic understanding of the HP LaserJet printing process. Explanations of each mechanical assembly, the printer systems, and the basic theory of operation are contained in Theory of operation on page 49. Do not perform any of these troubleshooting processes unless you understand the function of each printer component.

- Troubleshooting process
- Control-panel messages
- Jams
- Image defects
- Repetitive-defects troubleshooting
- Interface troubleshooting
- Service menu
- Diagnostics menu
- Diagnostics
- Test pages
- Engine resets
- Service ID

Troubleshooting process

When the printer malfunctions or encounters an unexpected situation, the printer control panel alerts you to the situation. This chapter also contains information to help diagnose and solve problems.

- Use the pre-troubleshooting checklist to evaluate the source of the problem and to reduce the number of steps that are required to fix the problem.

- Use the troubleshooting flowchart to pinpoint the root cause of hardware malfunctions. The flowchart guides you to the section of this chapter that contains steps for correcting the malfunction.

Before beginning any troubleshooting procedure, check the following issues:

- Are supply items within their rated life?

- Does the configuration page reveal any configuration errors?

> **NOTE:** The customer is responsible for checking supplies and for using supplies that are in good condition.

Pre-troubleshooting checklist

The following table includes basic questions to ask the customer to quickly help define the problem(s).

General topic	Questions
Environment	• Is the printer installed on a solid, level surface (+/- 1°)?
	• Is the power-supply voltage within ± 10 volts of the specified power source?
	• Is the power-supply plug inserted in the printer and the outlet?
	• Is the operating environment within the specified parameters that are listed in chapter 1?
	• Is the printer exposed to ammonia gas, such as that produced by diazo copiers or office cleaning materials?
	• Is the printer exposed to direct sunlight?
Media	• Does the customer use only supported media?
	• Is the media in good condition (no curls, folds, or distortion)?
	• Is the media stored correctly and within environmental limits?
Input trays	• Is the amount of media in the tray within specifications?
	• Is the media correctly placed in the tray?
	• Are the paper guides aligned with the stack?
	• Is the cassette installed in the printer correctly?
Print cartridges	• Is each print cartridge installed correctly?
Transfer unit and fuser	• Are the transfer unit and fuser installed correctly?
Covers	• Is the front cover closed?

General topic	Questions
Condensation	• Does condensation occur following a temperature change (particularly in winter following cold storage)? If so, wipe affected parts dry or leave the printer on for 10 to 20 minutes.
	• Was a print cartridge opened soon after being moved from a cold to a warm room? If so, allow the print cartridge to sit at room temperature for 1 to 2 hours.
Miscellaneous	• Check for and remove any non-HP components (print cartridges, memory modules, and EIO cards) from the printer.
	• If the hardware or software configuration has not changed or the problem is not associated with any specific software, contact the Customer Care Center (see chapter 1).
	• Remove the printer from the network and ensure that the failure is associated with the printer before beginning troubleshooting.
	• For any print-quality issues, calibrate the printer.

Troubleshooting flowchart

This flowchart highlights the general processes that you can follow to isolate and solve printer hardware problems quickly.

Each row depicts a major troubleshooting step. A "yes" answer to a question allows you to proceed to the next major step. A "no" answer indicates that additional testing is needed. Proceed to the appropriate section in this chapter, and follow the instructions there. After completing the instructions, proceed to the next major step in this troubleshooting flowchart.

Table 6-1 Troubleshooting flowchart

1 Power on	Is the printer on and does a readable message appear?	Follow the power-on troubleshooting checks.
	Yes ↓ No →	After the control-panel display is functional, go to step 2.
2 Control-panel messages	Does the message **Ready** appear on the control-panel display?	If an error message appears, see Control-panel messages on page 176.
	Yes ↓ No →	After the errors have been corrected, go to step 3.
3 Event log	Open the **DIAGNOSTICS** menu and print an event log to see the history of errors with this printer.	If the event log does not print, see Control-panel messages on page 176.
	Does the event log print?	If the paper jams inside the printer, see Jams on page 200.
		If error messages appear on the control-panel display when you try to print an event log, see Control-panel messages on page 176.
	Yes ↓ No →	After successfully printing and evaluating the event log, go to step 4.
4 Information pages	Open the **INFORMATION** menu and print the configuration pages to verify that all of the accessories are installed.	If accessories that are installed are not listed on the configuration page, remove the accessory and reinstall it.
	Are all of the accessories installed?	After evaluating the configuration pages, go to step 5.
	Yes ↓ No →	
5 Image quality	Does the print quality meet the customer's requirements?	Compare the images with the sample defects in the image-defect tables.
	Yes ↓ No →	After the print quality is acceptable, go to step 6.
6 Interface	Can the customer print successfully from the host computer?	Verify that all I/O cables are connected correctly and that a valid IP address is listed on the Jetdirect configuration page.
	Yes. This is the end of the troubleshooting process. No →	When the customer can print from the host computer, the troubleshooting process ends.

Power-on checks

When you turn on the printer, if it does not make any sound or if the control-panel display is blank, check the following items:

1. Verify that the printer is plugged directly into an active electrical outlet that has the correct voltage and not plugged into a surge protector or power strip.

2. Verify that the on/off switch is in the on position.

3. Make sure that the fan is running, which indicates that the system is operational.

4. Verify that the firmware DIMM and the formatter are seated and operating correctly.

5. Remove any HP Jetdirect or other devices, then try to turn the printer on again.

6. Make sure that the control-panel display is connected.

7. Run an engine test page to verify that the printer is functioning. Use a small pointed object to depress the test-page switch on the back of the printer.

8. Check the two fuses on the power supply.

9. If necessary, replace the power supply.

10. If necessary, replace the DC controller.

Control-panel messages

Control-panel message	Description	Recommended action
10.32.00 UNAUTHORIZED SUPPLY **Unauthorized supply in use** alternates with **For help press** ?	A new, non-HP supply has been installed. This message appears until an HP supply is installed or you press ✓.	If you believe that you purchased an HP supply, go to www.hp.com/go/anticounterfeit. Service or repairs that are required as a result of using non-HP supplies are not covered under HP warranty. To continue printing, press ✓. The first pending print job will be cancelled.
10.92.YY CARTRIDGES NOT ENGAGED	The print cartridges are not engaged correctly. YY Description: 00 Black 01 Cyan 02 Magenta 03 Yellow	1. Open and then close the front door. 2. Make sure all the print cartridges are seated correctly. 3. Turn the printer off and then on. 4. Inspect each cartridge lock-lever (on the right side). Open the front door and remove all cartridges and the ETB. Then use the ETB holder on the right side to move the lock-levers up and down. Replace the cartridge lock if it is broken. 5. Inspect the right side cam. This piece controls the movement of the cartridge engagement arm, the cartridge shutters, and the OPC drive. You can inspect this piece without taking off the covers by wiggling the white rod arm on the right side of the ETB. If it moves easily, the part is broken and should be replaced. 6. Inspect the ribbon cables. Folded or damaged ribbon cables can cause a short that generates an error. 7. Inspect the cartridge guide rails to see if any are damaged. 8. Upgrade the DC controller firmware. 9. Clean the contacts on the memory-controller PCA. 10. Verify that contact is being made with the E-label PCA on the print cartridge. Replace the print cartridge if the E-label PCA is missing. 11. On the DC controller, make sure that connectors J1022 and J1023 are seated correctly. On the driver PCA, make sure that connectors J201 and J401 are seated correctly. 12. Check the gears on the print-cartridge drive motors. Replace defective motors.

Control-panel message	Description	Recommended action
10.94.YY REMOVE SHIPPING LOCKS FROM ALL CARTRIDGES	If all the shipping locks have been removed, the problem might be with the connectors on the DC controller.	1. Remove all the print cartridges and check for orange shipping locks at each end of each cartridge. Remove any that remain. 2. Reinstall the print cartridges. 3. On the DC controller, make sure that connector J1020 is seated correctly 4. Replace the DC controller.
10.XX.YY SUPPLY MEMORY ERROR **For help press ?**	The printer cannot read or write to at least one print cartridge memory tag, or at least one memory tag is missing. XX Description: 00 e-label memory error YY Description: 00 Black 01 Cyan 02 Magenta 03 Yellow	1. Open the front door. 2. Remove the print cartridges, and then reinstall them. 3. Close the front door. 4. Turn the printer off and then on. 5. Clean the memory controller PCB contacts to the memory tag if they are dirty. 6. Replace the memory controller PCB if necessary. 7. Replace the DC controller PCB if necessary.
11.XX INTERNAL CLOCK ERROR alternates with **To continue press ✓**	The printer's internal clock is not working correctly. Printing can continue, but you are prompted to set the date and time each time you turn the printer on. XX Description: 01 Dead clock battery 02 Dead real-time clock	Turn the printer off and then on. If the error persists, replace the formatter.
13.01.00 JAM IN TRAY 1 alternates with **Clear jam then press ✓**	A page is jammed in the multipurpose tray. The printer attempted to feed paper from tray 1 (MP tray), but the leading edge did not get to the top-of-page sensor in time.	1. Verify that tray 2 is fully inserted into the engine. A portion of the tray 1 paper path dips into tray 2. 2. For media greater than 120 g/m², verify that the media-type settings in the control panel and driver are set to Cardstock. This enables the special mode that applies additional force for feeding heavier media. This printer is not capable of handling media heavier than 176 g/m². 3. If media is not loaded in tray 1 but an error is displayed, check the MP tray paper-present sensor by pressing the sensor and releasing it. If it springs back, it is operating properly; if it does not spring back, check the spring for the sensor.

Control-panel message	Description	Recommended action
		4. Check the registration flap for proper orientation; it should pivot freely to allow paper to feed from tray 2 or tray 1/3.
		5. Inspect ribbing (where accessible). If it is damaged, replace it.
13.01.00 JAM IN TRAY 2 alternates with **Clear jam then press** ✓	A page is jammed in tray 2. The printer attempted to feed paper from tray 2 (main cassette), but the leading edge did not get to the top-of-page sensor in time.	**1.** Check the registration flap for proper orientation; it should pivot freely to allow paper to feed from tray 2 or tray 1/3. **2.** Check the T2 pick roller lock mechanism. **3.** If using OHT, Label, or 120 g/m² media, follow restricted loading procedures (only 50 sheets of OHT/Label media or 100 sheets of 120 g/m² media may be loaded at one time). The lift plate springs are not stiff enough to handle greater quantities. **4.** Verify that the media basis weight does not exceed 120 g/m². If it does, run media from tray 1. **5.** Inspect the paper-length adjustment guide and verify that it is set correctly. **6.** Inspect the tray 2 paper-present sensor to make sure it is not stuck in the up position. Rotate the sensor upward and release; if it drops without hesitation, it is operating properly.
13.01.00 JAM IN TRAY 3 alternates with **Clear jam then press** ✓	A page is jammed in the multipurpose tray or tray 3. The printer attempted to feed paper from tray 3 (optional tray), but the leading edge did not get to the top-of-page sensor in time.	**1.** Verify that tray 2 is fully inserted into the engine. A portion of the tray 3 paper path is in tray 2. **2.** Verify that the pick roller is installed correctly. **3.** If using OHT, Label, or 120 g/m² media, follow restricted loading procedures (only 100 sheets of OHT/Label media or 200 sheets of 120 g/m² media may be loaded at one time). The lift plate springs are not stiff enough to handle greater quantities. **4.** Inspect the tray 3 paper-present sensor to make sure it is not stuck in the up position. Rotate the sensor upward and release; if it drops without hesitation, it is operating properly.

Control-panel message	Description	Recommended action
13.05.00 JAM INSIDE FRONT DOOR alternates with **For help press** ?	A jam has occurred inside the front door. The printer fed a sheet of paper from one of the trays and the paper made it to the top-of-page sensor in time. However, the paper did not subsequently reach the fuser paper-delivery sensor in time.	1. Inspect the PIU for damage. This is a delay jam; although the paper stopped in the fuser, the root cause is more likely a paper feed/pickup issue. 2. Inspect the fuser for pressure-roll cover damage.
13.06.00 FUSER JAM INSIDE TOP COVER alternates with **For help press** ?	A jam has occurred in the fuser. The printer fed a sheet of paper from one of the trays and it made it to the top-of-page sensor in time. However, the paper did not reach the fuser paper-delivery sensor in time.	1. Look for media in the fuser. 2. Remove curled sheets in the output bin. Curled sheets can cause jams, especially if using light media (less than 75 g/m^2). 3. For duplex engines, inspect the duplex diverter for proper orientation. If the duplex diverter is stuck in the down position, inspect the torsion spring on the left side of the diverter. It the diverter is operating sluggishly, replace it. 4. Inspect the fuser for pressure-roll-cover damage.
13.10.00 JAM INSIDE TOP COVER alternates with **For help press** ?	A page is jammed underneath the top cover. The printer fed a sheet of paper from one of the trays and the paper made it to the duplex switchback sensor in time. However, the paper remained there too long.	Open the top cover and remove any jammed media. Inspect the duplex switchback sensor for proper operation. Push the sensor flag and release it; it should spring back.
13.12.00 DUPLEX PATH JAM FRONT DOOR alternates with **For help press** ?	A jam has occurred in the duplex output area inside the front door.	Open the front door and clear the jam.
13.20.00 FUSER JAM INSIDE TOP COVER alternates with **For help press** ?	During a checking-printer cycle, the printer detected the presence of paper at the fuser paper-delivery sensor.	1. Remove the fuser and look for media. 2. Inspect the fuser paper-delivery sensor for proper orientation.
13.20.00 FUSER JAM INSIDE TOP COVER alternates with **For help press** ?	During a checking-printer cycle, the printer detected the presence of paper at the duplex switchback sensor.	1. Open the top cover and look for the presence of media in the duplex paper path. 2. Inspect the sensor for proper orientation.
13.20.00 JAM INSIDE FRONT DOOR	During a checking-printer cycle, the printer detected the presence of paper at the paper-loop sensor.	1. Open the front door and look for media. 2. Inspect the paper-loop sensor for proper orientation. 3. If no paper is present, the root cause is more likely a PIU issue. Inspect the PIU registration shutter for proper operation.

Control-panel message	Description	Recommended action
13.20.00 PAPER PATH JAM FRONT DOOR alternates with **For help press** ?	A page is jammed in the paper path. During a checking-printer cycle, the printer detected the presence of paper at either the top-of-page sensor or the MP-tray-media-position sensor.	1. Inspect the T2 pick-roller left-cam retention claw. 2. Inspect the TOP sensor for proper orientation. 3. Inspect the MP-tray-media-position sensor for proper orientation (HP CLJ 3600/3800/CP3505 only). 4. If no paper is present, the root cause is more likely a PIU issue. Inspect the PIU registration shutter for proper operation.
20 INSUFFICIENT MEMORY alternates with **For help press** ? **To continue press** ✓	The printer has received more data from the computer than fits in available memory.	1. Press ✓ to continue printing. **NOTE:** Data will be lost. 2. Reduce the complexity of the print job to avoid this error. 3. Adding memory to the printer might accommodate printing of more complex pages.
22 EIO X BUFFER OVERFLOW alternates with **To continue press** ✓	For the HP Color LaserJet 3000, 3800, and CP3505 Series printers with an EIO device only The printer EIO card in slot X has overflowed its I/O buffer during a busy state.	Press ✓ to continue printing. **NOTE:** Data will be lost.
22 EMBEDDED I/O BUFFER OVERFLOW	For the HP Color LaserJet 3000, 3800, and CP3505 Series printers only The embedded HP Jetdirect print server buffer has overflowed during a busy state.	Press ✓ to continue printing. **NOTE:** Data will be lost.
22 PARALLEL I/O BUFFER OVERFLOW alternates with **To continue press** ✓	For the HP Color LaserJet 3000, 3800, and CP3505 Series printers only The printer parallel buffer has overflowed during a busy state.	Press ✓ to continue printing. **NOTE:** Data will be lost.
22 SERIAL I/O BUFFER OVERFLOW alternates with **To continue press** ✓	For the HP Color LaserJet 3000, 3800, and CP3505 Series printers with an EIO device only The printer serial buffer has overflowed during a busy state.	Press ✓ to continue printing. **NOTE:** Data will be lost.
22 USB I/O BUFFER OVERFLOW alternates with **To continue press** ✓	The printer USB buffer has overflowed during a busy state.	Press ✓ to continue printing. **NOTE:** Data will be lost.
40 BAD SERIAL TRANSMISSION alternates with	For the HP Color LaserJet 3000, 3800, and CP3505 Series printers only.	Press ✓ to continue printing.

Control-panel message	Description	Recommended action
To continue press ✓	A serial data error (parity, framing, or line overrun) occurred while the printer was receiving data.	📝 **NOTE:** Data will be lost.
40 EIO X BAD TRANSMISSION alternates with **To continue press** ✓	For the HP Color LaserJet 3000, 3800, and CP3505 Series printers with an EIO device only The connection with the card in the EIO slot has broken.	Press ✓ to continue printing. 📝 **NOTE:** Data will be lost.
40 EMBEDDED I/O BAD TRANSMISSION alternates with **To continue press** ✓	The connection with the HP Jetdirect embedded print server has broken.	Press ✓ to continue printing.
41.3 UNEXPECTED SIZE IN TRAY X alternates with **LOAD TRAY X <TYPE> <SIZE>**	Media is loaded that is longer or shorter in the feed direction than the size configured for the tray.	1. Press ✓ to print from a different tray. 2. To print from the current tray, load the tray with the size and type indicated. Ensure that all trays are configured correctly before printing again.
41.5 UNEXPECTED TYPE IN TRAY X alternates with **LOAD TRAY X <TYPE> <SIZE>**	The printer senses a different media type from what is configured in the tray.	1. Press ✓ to print from a different tray. 2. To print from the current tray, load the tray with the size and type indicated. 3. If the paper pickup has been replaced, perform a media-sensor calibration (see the instructions at the end of the Pickup-and-feed assembly on page 113 section). Ensure that all trays are configured correctly before printing again.
41.X ERROR alternates with **To continue press** ✓	A printer error has occurred. X Description: 2 Beam-detected misprint error	1. Press ✓ to continue or press **?** for more information. 2. If the message persists after exiting the help, turn the printer off and then on.
49.XXXXX ERROR alternates with **To continue turn off then on**	A critical firmware error has occurred.	1. Turn the printer off and then on. 2. Try printing a job from a different program. If the job prints, try printing a different file from the original program. If the message appears only with a certain program or print job, contact the software vendor for assistance. 3. If the message persists with different programs and print jobs, disconnect all of the printer cables that connect to the network or the computer. 4. Turn the printer off.

Control-panel message	Description	Recommended action
		5. Remove all memory DIMMs or third-party DIMMs from the printer. (Do not remove the firmware DIMM in the lower slot J1).
		6. Remove the printer EIO card.
		7. Turn the printer on.
		8. If the error does not persist, install each DIMM and EIO device one at a time. Turn the printer off and then on again after installing each device.
		9. Replace DIMMs and EIO devices as necessary.
		10. Reconnect all of the printer cables.
		11. If the error persists, replace the firmware DIMM.
		12. Replace the formatter and calibrate the printer.
50.X FUSER ERROR **For help press** ?	A fuser error has occurred. X Description: 1 Low fuser temperature 2 Fuser-warmup service 3 High fuser temperature 4 Faulty fuser 7 Fuser pressure release mechanism failure 8 Low fuser temperature (subthermistor) 9 High fuser temperature (subthermistor)	⚠ **WARNING!** The fuser is hot. Turn the printer off an allow it to cool for approximately 10 minutes before removing the fuser. 50.1 Error: 1. Verify the fuser is installed correctly and fully seated. 2. Check that connector J6007 on the fuser is seated correctly. Replace the connector as necessary. 3. Turn off the printer. 4. Remove the fuser. 5. If there is *no* conduction in the main thermistor, measure the resistance between fuser connectors J6007LA-1 and J6007LA-3. If the resistance is not 100 kohms to 3 Mohms, replace the fuser. 6. If there is *no* conduction in the fuser heater, measure the resistance between fuser connectors J6007LAF-1 and J6007-2. If the resistance is not 5 ohms to 1 kohms (100 to 127 V) or 20 ohms to 1 kohms (220 to 240 V), replace the fuser. 7. Upgrade the DC controller firmware. 8. Replace the DC controller PCA.

Control-panel message	Description	Recommended action
		50.2 Error:
		1. Verify the fuser is installed correctly and fully seated.
		2. Check that connector J6007 on the fuser is seated correctly. Replace the connector as necessary.
		3. Turn off the printer.
		4. Remove the fuser.
		5. If there is *no* conduction in the subthermistor, measure the resistance between fuser connectors J6007LA-2 and J6007LA-3. If the resistance is not 100 kohms to 3 Mohms, replace the fuser.
		6. If there is *no* conduction in the fuser heater, measure the resistance between fuser connectors J6007LAF-1 and J6007-2. If the resistance is not 5 ohms to 1 kohms (100 to 127 V) or 20 ohms to 1 kohms (220 to 240 V), replace the fuser.
		7. Replace the DC controller PCA.
		50.3 Error:
		1. Verify the fuser is installed correctly and fully seated.
		2. Check that connector J6007 on the fuser is seated correctly. Replace the connector as necessary.
		3. Turn off the printer.
		4. Remove the fuser.
		5. Measure the resistance between fuser connectors J6007LA-1 and J6007LA-3. If the resistance is not 100 kohms to 3 Mohms, replace the fuser.
		6. Upgrade the DC controller firmware.
		7. Replace the DC controller PCA.
		50.4 Error:
		1. Improve the power supply if the power supply frequency is not 40 to 70 Hz.
		2. Verify that the proper fuser mode is set (especially for envelope printing).

Control-panel message	Description	Recommended action
		3. Replace the low-voltage power-supply PCA.
		4. Replace the DC controller PCA.
		50.7 Error:
		1. Verify the fuser is installed correctly and fully seated.
		2. Check that fuser connector J705, fuser motor connector J5008, and driver PCA connector J213 are seated correctly.
		3. Replace the fuser drive assembly.
		4. Replace the DC controller PCA.
		50.8 Error:
		1. Verify the fuser is installed correctly and fully seated.
		2. Check that connector J6007 on the fuser is seated correctly. Replace the connector as necessary.
		3. Turn off the printer.
		4. Remove the fuser.
		5. If there is *no* conduction in the subthermistor, measure the resistance between fuser connectors J6007LA-1 and J6007LA-3. If the resistance is not 100 kohms to 3 Mohms, replace the fuser.
		6. If there is *no* conduction in the fuser heater, measure the resistance between fuser connectors J6007LAF-1 and J6007-2. If the resistance is not 5 ohms to 1 kohms (100 to 127 V) or 20 ohms to 1 kohms (220 to 240 V), replace the fuser.
		7. Upgrade the DC controller firmware.
		8. Replace the DC controller PCA.
		50.9 Error:
		1. Verify the fuser is installed correctly and fully seated.
		2. Check that connector J6007 on the fuser is seated correctly. Replace the connector as necessary.
		3. Turn off the printer.
		4. Remove the fuser.

Control-panel message	Description	Recommended action
		5. Measure the resistance between fuser connectors J6007LA-2 and J6007LA-3. If the resistance is not 100 kohms to 3 Mohms, replace the fuser.
		6. Replace the DC controller PCA.
51.XY ERROR alternates with **To continue turn off then on**	A printer error has occurred. X Description: 2 laser Y Description: 0 Black 1 Cyan 2 Yellow 3 Magenta	1. Press ✓ to continue. 2. If the message persists, turn the printer off and then on. 3. Reseat DC controller connectors J1010, J1012, and J1021. 4. Replace the flat cable. 5. Replace the DC controller PCB as necessary.
53.10.01 ERROR UNSUPPORTED RAM	For the HP Color LaserJet 3000, 3800, and CP3505 Series printers only The memory DIMM is not a supported DIMM.	Install a supported DIMM.
53.XY.ZZ alternates with **CHECK RAM DIMM SLOT**	For the HP Color LaserJet 3600 Series printer only A printer error has occurred.	1. Turn the printer off and then on. 2. If the message persists, replace the DIMM. 3. Replace the formatter.
54.XX ERROR	An error has occurred with one of the toner-level sensors. XX Description: 15 Yellow 16 Magenta 17 Cyan 18 Black	1. Make sure that connector J1020 on the DC controller is seated correctly. 2. Replace the DC controller.
55.XX.YY DC CONTROLLER ERROR alternates with **To continue turn off then on**	A communication error between the DC controller and the formatter has occurred.	1. Turn the printer off. 2. Reconnect the connector between the DC controller and the formatter. 3. Verify that the formatter is seated correctly. 4. Replace the formatter.

Control-panel message	Description	Recommended action
57.XX PRINTER ERROR alternates with **To continue turn off then on**	A printer fan error has occurred. XX Description: 04 Main fan 06 Duplex fan	57.04 Error: **1.** Check that connector J1008 on the DC controller is seated correctly. **2.** Replace the fan. **3.** Replace the DC controller. 57.06 Error: **1.** Check that connectors J802, J823, and J850 on the duplex-driver PCA are seated correctly. **2.** Replace the fan. **3.** Replace the duplex-driver PCA.
59.30 ERROR **59.40 ERROR**	An error occurred with the fuser motor during startup or rotation.	**1.** Check that connectors J5008 on the fuser motor and J213 on the driver PCA are seated correctly. **2.** Replace the fuser. **3.** Replace the DC controller.
59.50 ERROR **59.60 ERROR**	An error occurred with the black print-cartridge drive motor during startup or rotation.	**1.** Check that connectors J5006 on the black print-cartridge drive motor and J208 on the driver PCA are seated correctly. **2.** Replace the black print-cartridge drive motor. **3.** Replace the driver PCA.
59.51 ERROR **59.61 ERROR**	An error occurred with the cyan print-cartridge drive motor during startup or rotation.	**1.** Check that connectors J5004 on the cyan print-cartridge drive motor and J207 on the driver PCA are seated correctly. **2.** Replace the cyan print-cartridge drive motor. **3.** Replace the driver PCA.
59.52 ERROR **59.62 ERROR**	An error occurred with the magenta print-cartridge drive motor during startup or rotation.	**1.** Check that connectors J5003 on the magenta print-cartridge drive motor and J207 on the driver PCA are seated correctly. **2.** Replace the magenta print-cartridge drive motor. **3.** Replace the driver PCA.

Control-panel message	Description	Recommended action
59.53 ERROR **59.63 ERROR**	An error occurred with the yellow print-cartridge drive motor during startup or rotation.	1. Check that connectors J5005 on the yellow print-cartridge drive motor and J208 on the driver PCA are seated correctly. 2. Replace the yellow print-cartridge drive motor. 3. Replace the driver PCA.
59.90 ERROR **59.A0 ERROR**	An error occurred with the ETB motor during startup or rotation.	1. Check that connectors J5002 on the ETB motor and J206 on the driver PCA are seated correctly. 2. Replace the ETB. 3. Replace the driver PCA.
59.C0 ERROR	An error occurred with the developing separation-drive assembly.	1. If the main drive assembly has been removed for service repair, verify that the main drive assembly is calibrated correctly. 2. Check that the following connectors on the driver PCA are seated correctly: J403, J405, J213. 3. Check that connector J1020 on the DC controller is seated correctly. 4. Check that connector J5008 on the fuser motor is seated correctly. 5. Replace the developing separation-drive assembly. 6. If the developing separation drive assembly has been replaced and the error still occurs, calibrate the developing separation drive assembly.
59.F0 ERROR	The transfer rollers in the ETB are not engaged.	1. Check that the following connectors on the driver PCA are seated correctly: J5002 on the ETB motor J5011 on the transfer-roller separation solenoid J206 on the driver PCA J1019 on the DC controller 2. Replace the ETB motor. 3. Replace solenoid SL5011. 4. Upgrade the DC controller firmware. 5. Replace the ETB. 6. Replace the high-voltage power supply PCA.

Control-panel message	Description	Recommended action
62 NO SYSTEM	No system was found.	1. Turn the printer off and then on.
		2. Reseat the firmware DIMM. Make sure that it is in slot 1 (the bottom slot).
		3. Download new firmware.
		4. Replace the firmware DIMM.
64 ERROR **For help press** ? alternates with **To continue turn off then on**	For the HP Color LaserJet 3600 Series printers only A scan buffer error has occurred.	1. Turn the printer off and then on. 2. Replace the firmware DIMM. 3. Replace the formatter PCB.
68.X PERMANENT STORAGE FULL alternates with **To continue press** ✓	A nonvolatile storage device is full. Press ✓ to clear the message. Printing can continue, but unexpected behavior could result. X Description: 0 Onboard NVRAM 1 Removable disk (flash or hard)	1. Press ✓ to continue. 2. For 68.0 errors, turn the printer off and then on. 3. If the error persists, perform an NVRAM initialization. 4. For 68.1 errors, use the HP Web Jetadmin software to delete files from the disk drive.
68.X PERMANENT STORAGE WRITE FAIL alternates with **To continue press** ✓	A nonvolatile storage device is full. Press ✓ to clear the message. Printing can continue, but unexpected behavior could result. X Description: 0 Onboard NVRAM 1 Removable disk	1. Press ✓ to continue. 2. For 68.0 errors, turn the printer off and then on. 3. If the error persists, perform an NVRAM initialization. 4. For 68.1 errors, use the HP Web Jetadmin software to delete files from the disk drive.
68.X STORAGE ERROR SETTINGS CHANGED alternates with **To continue press** ✓	One or more printer settings that were saved in the nonvolatile storage device are invalid and have been reset to the factory default. Press ✓ to clear the message. Printing can continue, but unexpected behavior could result.	1. Press ✓ to continue. 2. Turn the printer off and then on. 3. Check the printer settings to determine which settings have been changed.
79.XXXX ERROR alternates with **To continue turn off then on**	For the HP Color LaserJet 3000, 3800, and CP3505 Series printers only A critical hardware error has occurred.	1. Turn the printer off and then on. 2. Reseat the firmware DIMM. 3. Reseat the formatter PCB. 4. Replace the firmware DIMM. 5. Replace the formatter PCB.
8X.YYYY EIO ERROR	For the HP Color LaserJet 3000, 3800, and CP3505 Series printers only The EIO accessory card has encountered a critical error.	1. Turn the printer off and then on. 2. Reseat the EIO card. 3. Replace the EIO card.

Control-panel message	Description	Recommended action
8X.YYYY EMBEDDED JETDIRECT ERROR	The HP Jetdirect embedded print server has encountered a critical error.	Turn the printer off and then on.
<Date> <Time> **To change press** ✓ **To skip, press STOP**	The printer has an internal clock that tracks the date and time. You are prompted to set the correct date and time the first time you turn on the printer.	Press ✓ to change the date and time. Press Stop to skip this step. You can set the date and time later by using the **SYSTEM SETUP** menu.
Access Denied MENUS LOCKED	Because the printer administrator has enabled the control-panel security mechanism, you cannot modify control-panel settings. The message disappears after a few seconds, and the printer returns to **READY** or **BUSY** state.	Contact the printer administrator to change settings. Perform a cold reset to clear passwords.
ACTION NOT CURRENTLY AVAILABLE FOR TRAY X alternates with **Tray size cannot be ANY SIZE/ANY CUSTOM**	You are trying to set duplex registration for a tray that is configured for **ANY SIZE** or **ANY CUSTOM**. Duplex registration is not available when the tray size is set to either of these settings.	Change the size setting for the tray.
BAD DUPLEXER CONNECTION alternates with **To continue turn off then on**	The duplexer is not installed correctly.	1. Check that connector J850 is seated correctly. 2. Check that the connectors to the duplex-driver PCA are seated correctly. 3. Replace the duplex-drive PCA.
Calibrating...	The printer is calibrating.	Upgrade the DC controller firmware.
Canceling... <JOB NAME>	For the HP Color LaserJet 3600 Series printers only The printer is in the process of canceling a job. The message appears while the job is stopped, the paper path is flushed, and any remaining incoming data on the active data channel is received and discarded.	No action necessary.
Checking paper path	The engine is turning the rollers to check for possible jams.	No action necessary.
Checking printer	The engine is performing an internal test.	No action necessary.
CHOSEN PERSONALITY NOT AVAILABLE alternates with **To continue press** ✓	The printer encountered a request for a personality that did not exist in the printer. The job is cancelled and no pages are printed.	1. Press ✓ to continue. 2. Try a different driver. 📝 **NOTE:** For the HP Color LaserJet 3600 Series printers, you must use HP JetReady 4.2, the driver that was specifically designed for these printers.
CLEANING DISK X% COMPLETE alternates with **DO NOT POWER OFF**	For the HP Color LaserJet 3000, 3800, and CP3505 Series printers only The memory disk is being cleaned. This process might take up to an hour. During this time, no jobs can be printed.	Do not turn off the printer. Wait for the process to complete. The printer automatically restarts at the end of the cleaning process.

Control-panel message	Description	Recommended action
Cleaning...	The printer is performing a cleaning cycle.	No action necessary.
Cleaning...Do not grab paper	The printer is processing a cleaning page.	No action necessary.
Clearing event log	This message appears while the event log is cleared. The printer then returns to the **SERVICE** menu.	No action necessary.
Clearing paper path	The printer jammed or detected misplaced media. The printer is attempting to eject these pages automatically.	No action necessary.
CLOSE TOP COVER AND FRONT DOOR	If the top cover and front door are closed, the problem might be with the connections for the door-detection switch or the front door interlock lever.	Close the top cover and front door. 1. Make sure the top cover and front door are closed. 2. Verify that the interlock lever is snapped in place and is not broken or missing. 3. Verify that the following connectors are seated correctly: On the driver PCA: connectors J201, J202, and J203. On the DC controller: connectors J1022 and J1024. 4. Replace the DC controller.
CODE CRC ERROR	For the HP Color LaserJet 3000, 3800, and CP3505 Series printers only An error has occurred during a firmware upgrade.	Reinstall the firmware.
COLOR RFU FAILED	An error has occurred during a firmware upgrade.	Reinstall the firmware.
Creating...CLEANING PAGE	The printer is generating a cleaning page. The printer returns to the **Ready** state after the cleaning page is printed.	1. Load the cleaning page into the multipurpose tray. 2. Press Menu. 3. Select **PRINT QUALITY**, and then press ✓. 4. Select **PROCESS CLEANING PAGE**, and then press ✓.
DATA RECEIVED alternates with Ready	The printer received data and is waiting for a form feed. When the printer receives another file, the message disappears. The printer is paused.	If the printer is waiting for a form feed, press ✓ to continue. If the printer is paused, press Stop to continue.
Duplexing... Do not grab paper	During duplex printing, the paper emerges for a short time before it is pulled back into the printer.	Do not pick up pages until they come to rest in the output bin.
Event Log Empty	**SHOW EVENT LOG** was selected from the control panel, and the event log is empty.	No action necessary.

Control-panel message	Description	Recommended action
Genuine HP supplies installed	A new HP cartridge has been installed. The printer returns to the **Ready** state after approximately 10 seconds.	No action necessary.
GENUINE HP SUPPLIES DESIGNED FOR <PROD> alternates with **Ready**	This genuine HP supply was not designed for this printer and is not supported. The printer can print with this supply, but print quality might be affected.	Replace this supply with a genuine HP supply that is designed for this printer.
Incorrect	The PIN number is incorrect.	Contact the network administrator.
INCORRECT <COLOR> CARTRIDGE alternates with **For help press** ?	A color cartridge is installed in an incorrect slot.	Press ? for help. See Replacing print cartridges on page 35 for more information.
INCORRECT SUPPLIES **For status press** ✓	Two or more print cartridges are installed in the incorrect slot.	Press ✓ and then press ? for help. See Replacing supplies on page 33 for more information.
INFLATE FAILURE	For the HP Color LaserJet 3000, 3800, and CP3505 Series printers only An error has occurred during a firmware upgrade.	Reinstall the firmware.
Initializing permanent storage	This message appears when the printer is turned on to show that permanent storage is being initialized.	No action necessary.
Initializing...	This message appears when the printer is turned on and begins initialization.	No action necessary.
INSERT OR CLOSE TRAY X	A tray is open and the printer is trying to print from another tray.	Close the tray indicated so that printing can continue. 📝 **NOTE:** Tray 2 must be correctly installed in order to print from the MP tray.
INSTALL <COLOR> CARTRIDGE alternates with **For help press** ?	The cartridge is either not installed or not correctly installed in the printer.	1. Inspect each cartridge lock-lever (on the right side). Open the front door and remove all cartridges and the ETB. Then use the ETB holder on the right side to move the lock-levers up and down. 2. Make sure all the print cartridges are seated correctly. 3. Upgrade the DC controller firmware. See Replacing print cartridges on page 35 for more information.
INSTALL FUSER **For help press** ?	The fuser is either not installed or not correctly installed in the printer.	1. Press ? for help. 2. Make sure that the fuser is completely seated in its slot.

Control-panel message	Description	Recommended action
		3. Reseat the fuser.
		4. Turn the printer off and remove the fuser. Measure the resistance between the fuser connectors J5013LA-2 (MAINTH) and J5013LA-1 (GND). If it is not within the range of 330k to 50k ohms (at ambient temperature), replace the fuser.
		5. Measure the resistance between the fuser connectors J5013L-2 (FSRH) and J5013L-1 (FSRN). If it is not within the range of 12 to 52 ohms (at ambient temperature), replace the fuser.
		6. Replace the DC controller PCB.
INSTALL SUPPLIES **For status press** ✓	Two or more cartridges are missing.	Install the missing cartridges. Press ✓ and then press **?** for help. See Supply replacement guidelines on page 33 for more information.
INSUFFICIENT MEMORY TO LOAD FONTS/DATA	For the HP Color LaserJet 3000, 3800, and CP3505 Series printers only This message alternates with the name of the storage device. The storage device does not have enough memory to load the fonts or other data.	Press ✓ to continue printing without using the data. To solve the problem, increase the amount of memory for the device. Press **?** for more information.
LOAD TRAY X <TYPE> <SIZE> alternates with **For help press** **?**	Tray *X* is either empty or configured for a type and size other than that specified in the job. No other tray is available.	Press **?** for help.
LOAD TRAY X <TYPE> <SIZE> alternates with **To use another tray press** ✓	Tray *X* is either empty or configured for a type and size other than that specified in the job.	Press **?** for help, or press ✓ to print from another tray.
Loading program X alternates with **DO NOT POWER OFF**	For the HP Color LaserJet 3000, 3800, and CP3505 Series printers only Programs and fonts can be stored on the printer file system and are loaded into RAM when the printer is turned on. The *X* specifies a sequence number indicating the current program being loaded.	No action necessary.
MANUALLY FEED <TYPE> <SIZE> alternates with **For help press** **?**	The multipurpose tray is empty and no other tray is available.	Load media into the multipurpose tray, and press ✓ to continue. Press **?** for help.
MANUALLY FEED <TYPE> <SIZE>	Media is in the multipurpose tray, but the print job requires a specific type and size that is not currently available.	Press ✓ to print from the tray, or press **?** for help.

Control-panel message	Description	Recommended action
alternates with **To continue press** ✓		
MANUALLY FEED <TYPE> <SIZE> alternates with **To use another tray press** ✓	No media is in the multipurpose tray, and a print job requires a specific type and size that is available in another tray.	Press ✓ to print from another tray, or press ? for help.
MANUALLY FEED OUTPUT STACK alternates with **Then press** ✓ **to print second sides**	The first side of a manual 2-sided print job has been printed and the printer is paused until the output stack is reinserted.	Take the printed stack out of the output bin and reinsert it in the multipurpose tray to print the second side of the 2-sided print job. Press ✓ to continue.
MEM TEST FAILURE REPLACE DIMM 1	For the HP Color LaserJet 3000, 3800, and CP3505 Series printers only The memory DIMM has failed.	Install a supported memory DIMM.
Moving solenoid alternates with **To exit press STOP**	The printer is testing a solenoid.	No action necessary.
NON HP SUPPLY IN USE alternates with **Ready**	The printer has detected that a non-HP supply is currently installed but ✓ was pressed to override.	If you believe you purchased an HP supply, go to www.hp.com/go/anticounterfeit. Service or repairs that are required as a result of using non-HP supplies are not covered under HP warranty.
NON HP SUPPLY INSTALLED alternates with **For help press** ?	A new, non-HP supply has been installed. This message appears until an HP supply is installed or you press ✓.	If you believe you purchased an HP supply, go to www.hp.com/go/anticounterfeit. Service or repairs that are required as a result of using non-HP supplies are not covered under HP warranty. To continue printing, press ✓.
ORDER <COLOR> CARTRIDGE alternates with **Ready**	The identified print cartridge is nearing the end of its useful life. The printer is ready and will print for the estimated number of pages indicated.	Order the identified print cartridge. Printing will continue until **REPLACE <COLOR> CARTRIDGE** appears. 📝 **NOTE:** Estimated pages remaining is based on historical page coverage with this supply. **NOTE:** To prevent this message from appearing, in the **SYSTEM SETUP** menu, set **ORDER AT** to 0%.
ORDER SUPPLIES alternates with **Ready**	More than one supply item is low.	1. Press ✓ to identify which supplies should be ordered. 2. Order the supplies. Printing can continue until **REPLACE SUPPLIES** appears.

Control-panel message	Description	Recommended action
		Press **?** for help.
PERFORMING UPGRADE <X : YYY>% COMPLETE alternates with **DO NOT POWER OFF**	A firmware upgrade is in process.	No action necessary. Do not turn off the printer.
Performing... PAPER PATH TEST	The printer is performing a paper-path test.	No action necessary.
PRINTING STOPPED To continue press ✓	This message appears when a Print/Stop test runs and the time expires.	Press ✓ to continue printing.
Printing... CMYK SAMPLES	For the HP Color LaserJet 3000, 3800, and CP3505 Series printers only The printer is generating the CMYK samples page and will return to the **Ready** state when the page is printed.	No action necessary.
Printing... COLOR USAGE LOG	For the HP Color LaserJet 3000, 3800, and CP3505 Series printers only The printer is generating the color-usage log page and will return to the **Ready** state when the page is printed.	No action necessary.
Printing... CONFIGURATION	The printer is generating the configuration page and will return to the **Ready** state when the page is printed.	No action necessary.
Printing... DEMO PAGE	The printer is generating the demo page and will return to the **Ready** state when the page is printed.	No action necessary.
Printing... DIAGNOSTICS PAGE	The printer is generating the diagnostics page and will return to the **Ready** state when the page is printed.	No action necessary.
Printing... EVENT LOG	For the HP Color LaserJet 3000, 3800, and CP3505 Series printers only The printer is generating the event log page and will return to the **Ready** state when the page is printed.	No action necessary.
Printing... FILE DIRECTORY	For the HP Color LaserJet 3000, 3800, and CP3505 Series printers only The printer is generating the mass-storage-directory page and will return to the **Ready** state when the page is printed.	No action necessary.
Printing... FONT LIST	For the HP Color LaserJet 3000, 3800, and CP3505 Series printers only The printer is generating either the PCL or PS personality typeface list and will return to the **Ready** state when the page is printed.	No action necessary.
Printing... MENU MAP	The printer is generating the printer menu map and will return to the **Ready** state when the page is printed.	No action necessary.

Control-panel message	Description	Recommended action
Printing... PQ troubleshooting	The printer is generating the print-quality troubleshooting pages and will return to the **Ready** state when the pages are printed.	Follow the instructions on the printed pages.
Printing... REGISTRATION PAGE	The printer is generating the registration page and will return to the **SET REGISTRATION** menu when the page is printed.	Follow the instructions on the printed pages.
Printing... RGB SAMPLES	The printer is generating the RGB samples page and will return to the **Ready** state when the page is printed.	No action necessary.
Printing... SUPPLIES STATUS	The printer is generating the supplies status page and will return to the **Ready** state when the page is printed.	No action necessary.
Printing... USAGE PAGE	For the HP Color LaserJet 3000, 3800, and CP3505 Series printers only The printer is generating the usage page and will return to the online **Ready** state when the page is printed.	No action necessary.
Processing...	The printer is currently processing a job but is not yet picking pages. When the media begins to move, this message is replaced by a message that indicates the job status.	No action necessary.
Processing... from tray <X>	The printer is actively processing a job from the designated tray.	No action necessary.
RAM DISK DEVICE FAILURE alternates with **Ready** **To clear press** ✓	For the HP Color LaserJet 3000, 3800, and CP3505 Series printers only The RAM disk has failed.	1. Printing can continue for jobs that do not require the RAM disk. 2. To clear this message, press ✓.
RAM DISK FILE OPERATION FAILED alternates with **Ready** **To clear press** ✓	For the HP Color LaserJet 3000, 3800, and CP3505 Series printers only The printer received a PJL file system command that attempted to perform an illogical operation (for example, to download a file to a nonexistent directory).	1. Printing can continue. 2. To clear this message, press ✓. 3. If the message reappears, a problem might exist with the software program.
RAM DISK FILE SYSTEM IS FULL alternates with **Ready** **To clear press** ✓	For the HP Color LaserJet 3000, 3800, and CP3505 Series printers only The printer received a PJL file system command to store something on the file system, but the file system is full.	1. Use HP Web Jetadmin software to delete files from the RAM disk memory and try again. 2. To clear this message, press ✓.
RAM DISK IS WRITE PROTECTED alternates with **Ready** **To clear press** ✓	For the HP Color LaserJet 3000, 3800, and CP3505 Series printers only The file system is protected and no new files can be written to it.	1. To enable writing to the RAM disk memory, use HP Web Jetadmin to turn off write protection. 2. To clear this message, press ✓.

Control-panel message	Description	Recommended action
RAM DISK X Initializing alternates with **DO NOT POWER OFF**	For the HP Color LaserJet 3000, 3800, and CP3505 Series printers only The new RAM disk installed in slot *X* is initializing.	No action necessary.
Receiving upgrade	A firmware upgrade is in progress.	Do not turn the printer off until the printer returns to **Ready**.
REMOVE ALL PRINT CARTRIDGES alternates with **To exit press STOP key**	The printer is performing a component test.	Remove all print cartridges. After diagnostics are complete, reinstall all print cartridges.
REMOVE AT LEAST ONE PRINT CARTRIDGE alternates with **To exit press STOP key**	The printer is performing a disable-cartridge check or component test.	Remove one print cartridge. After the test is complete, reinstall the print cartridge.
REPLACE <COLOR> CARTRIDGE (out) alternates with **For help press ?**	The print cartridge has reached its end of life. Printing will not continue until the cartridge is replaced.	Press **?** for help. Or, if the cartridge is new: 1. Replace the memory controller PCB. 2. Replace the DC controller PCB.
REPLACE <COLOR> CARTRIDGE (REPLACE SUPPLIES = STOP AT LOW) alternates with **To continue press ✓.**	The print cartridge is nearing the end of its useful life and the **REPLACE SUPPLIES** setting in **SYSTEM SETUP** is set to **STOP AT LOW**. To override, press ✓.	1. Order the print cartridge. 2. Press ✓ to continue, or press **?** for help.
REPLACE SUPPLIES alternates with **For status press ✓**	At least two print cartridges are out and need to be replaced.	1. Press ✓ to identify which supplies should be replaced. 2. Press **?** for help.
REPLACE SUPPLIES alternates with **To continue press ✓**	More than one supply item is low, and the **REPLACE SUPPLIES** setting in **SYSTEM SETUP** is set to **STOP AT LOW**.	1. Press Menu and navigate to the **SUPPLIES STATUS** menu to identify which supplies should be ordered. 2. Order the supplies. 3. Press ✓ to continue printing.
REPLACE SUPPLIES **Override in use** alternates with **Ready**	At least one print cartridge is out, but printing is continuing. Print-quality problems might occur.	1. Press ✓ to identify which supplies should be ordered. 2. Order the identified supplies.
REPLACE SUPPLIES **Using black only**	At least one color print cartridge is out. Printing can continue, but only the black cartridge is being used.	1. Press ✓ to identify which supplies should be ordered. 2. Order the identified supplies.

Control-panel message	Description	Recommended action
alternates with **Ready**		
Request accepted please wait	The printer has accepted a request to print an internal page, but the current job must finish printing before the internal page will print.	No action necessary.
Resend upgrade	The firmware upgrade was not successful.	Attempt the upgrade again.
Restoring factory settings	The printer is restoring factory settings.	No action necessary.
Restoring...	The printer is restoring settings.	No action necessary.
RESTRICTED FROM PRINTING IN COLOR alternates with **Ready**	For the HP Color LaserJet 3000, 3800, and CP3505 Series printers only HP Color LaserJet 3000: The printer is set to print in black only, but the job is in color. HP Color LaserJet 3800 and CP3505: The message appears when the printer is set to **COLOR IF ALLOWED** and permissions do not exist to print in color.	HP Color LaserJet 3000: Enable color printing on the **SYSTEM SETUP** menu. Set **RESTRICT COLOR USE** to **ENABLE COLOR**. HP Color LaserJet 3800 and CP3505: Ask the network administrator to set the user or program permissions for color printing.
RFU LOAD ERROR	For the HP Color LaserJet 3000, 3800, and CP3505 Series printers only An error has occurred during a firmware upgrade.	Reinstall the firmware.
Rotating <COLOR> motor alternates with **To exit press STOP key**	A component test is in progress; the component selected is **<color> Cartridge motor**.	Press Stop to stop this test.
Rotating motor alternates with **To exit press STOP key**	The printer is testing a motor.	Press Stop to stop this test.
SANITIZING DISK X% COMPLETE alternates with **DO NOT POWER OFF**	For the HP Color LaserJet 3000, 3800, and CP3505 Series printers only The memory disk is being sanitized. This process might take up to an hour. During this time, no jobs can be printed.	Do not turn off the printer. Wait for the process to complete. The printer automatically restarts at the end of the sanitation process.
Setting saved	A menu selection has been saved.	No action necessary.
SIZE MISMATCH IN TRAY X alternates with **Ready**	The tray is loaded with a media size that is different from the size for which the tray is configured. Printing can continue from other trays, but not from this one.	1. Make sure the media guides are adjusted correctly. 2. On the **PAPER HANDLING** menu, configure the tray for the correct size.
Sleep mode on	The printer is in the sleep mode. Any button press or data received clears the sleep mode.	No action necessary. The printer automatically exits sleep mode.
STANDARD TOP BIN FULL	The output bin is full. Printing cannot continue.	Empty the output bin. Printing resumes automatically. If the message persists, inspect the delivery-tray paper-full sensor.

Control-panel message	Description	Recommended action
alternates with **Remove all paper from bin**		
To return to Ready press the STOP key	The printer has paused.	Press Stop to resume printing.
TRAY X <TYPE> <SIZE> alternates with **To change size or type press** ✓	The printer is reporting the current configuration of tray *X*.	No action necessary. Press ⏎ to clear the message. Press ✓ to change the type or size.
TRAY X EMPTY <TYPE> <SIZE> alternates with **Ready**	Tray 3 is empty, but the current print job does not require this tray.	Fill the tray. The message indicates the type and size of media for which the tray is currently configured.
TRAY X OPEN **For help press** ? alternates with **Ready**	The tray is open, but printing can continue. **NOTE:** If tray 2 is open, printing *cannot* continue.	Close the tray.
TRAY X OPEN OR EMPTY alternates with **Ready**	The tray is open or empty, but the current print job does not require this tray.	Close or fill the tray.
TYPE MISMATCH IN TRAY X alternates with **Ready**	The tray is loaded with a media type that is different from the type for which the tray is configured. Printing can continue from other trays.	On the **PAPER HANDLING** menu, configure the tray for the correct type.
Unauthorized supply in use alternates with **Ready**	The printer has detected that a non-HP supply is currently installed and ✓ was pressed to override.	If you believe you purchased an HP supply, go to www.hp.com/go/anticounterfeit. Service or repairs that are required as a result of using non-HP supplies are not covered under HP warranty.
USB ACCESSORY ERROR	For the HP Color LaserJet 3000, 3800, and CP3505 Series printers only The printer has detected too much current on the USB storage accessory.	1. Turn the printer off. 2. Remove the USB storage accessory. 3. Replace the USB storage accessory. 4. Turn the printer on.
USB Storage <X> initializing	For the HP Color LaserJet 3000, 3800, and CP3505 Series printers only The USB storage device is initializing.	No action necessary.
USB STORAGE <X> NOT FUNCTIONAL	For the HP Color LaserJet 3000, 3800, and CP3505 Series printers only The USB storage device is not working.	Replace the USB storage device.

Control-panel message	Description	Recommended action
USB STORAGE DEVICE FAILURE alternates with **Ready** **To clear press** ✓	For the HP Color LaserJet 3000, 3800, and CP3505 Series printers only The USB storage device has failed.	**1.** Printing can continue for jobs that do not require the storage device. **2.** To remove this message from the display, press ✓. **3.** If the message persists, turn the printer off, remove and re-install the storage device, and then turn the printer on. **4.** If the message persists, replace the storage device.
USB STORAGE FILE OPERATION FAILED alternates with **Ready** **To clear press** ✓	For the HP Color LaserJet 3000, 3800, and CP3505 Series printers only The printer received a PJL file system command that attempted to perform an illogical operation (for example, to download a file to a nonexistent directory).	**1.** Printing can continue. **2.** To remove this message from the display, press ✓. **3.** If the message reappears, a problem might exist in the software program.
USB STORAGE FILE SYSTEM IS FULL alternates with **Ready** **To clear press** ✓	For the HP Color LaserJet 3000, 3800, and CP3505 Series printers only The printer received a PJL file system command that attempted to store something on the file system but was unsuccessful because the file system is full.	**1.** Use HP Web Jetadmin software to delete files from the storage device, and then try again. **2.** To clear this message, press ✓.
USB STORAGE IS WRITE PROTECTED alternates with **Ready** **To clear press** ✓	For the HP Color LaserJet 3000, 3800, and CP3505 Series printers only The file system is protected and no new files can be written to it.	**1.** To enable writing to the storage device, use HP Web Jetadmin to turn off write protection. **2.** To clear this message, turn the printer off and then on.
USB STORAGE X REMOVED	For the HP Color LaserJet 3000, 3800, and CP3505 Series printers only The USB storage accessory was removed while the printer was turned on.	**1.** Turn the printer off. **2.** To continue using the USB storage accessory, reinstall it. **3.** Turn the printer on.
USE TRAY X <TYPE> <SIZE>	The printer is offering a selection of alternative media to use for the print job.	**1.** Use ▲ and ▼ to highlight a different size or type, and then press ✓ to select the size or type. **2.** Press ⤺ to return to the previous size or type.

Jams

Use this illustration to troubleshoot jams in the printer. For instructions to clear jams, see Clearing jams on page 202.
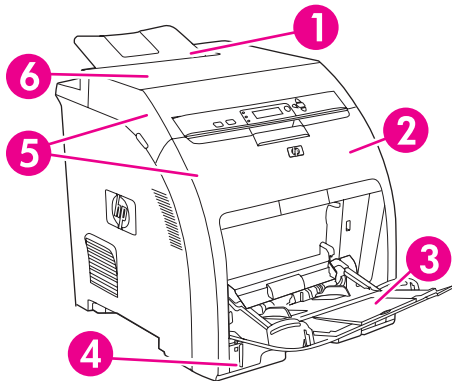
Figure 6-1 Jam locations (printer shown without optional tray 3)

1	Output bin
2	Paper path (inside the front cover)
3	Multipurpose tray (tray 1)
4	Trays 2, 3
5	Duplex path (inside the upper cover and the front cover of duplex models only)
6	Fuser (inside the top cover)

Jam recovery

This printer automatically provides jam recovery, a feature that specifies whether the printer should attempt to automatically reprint jammed pages.

- **AUTO** instructs the printer to attempt to reprint jammed pages.

- **OFF** instructs the printer not to attempt to reprint jammed pages.

NOTE: During the recovery process, the printer might reprint pages that were printed before the jam occurred. Be sure to remove any duplicated pages.

To improve print speed and increase memory resources, disable the jam recovery.

To turn off jam recovery

1. Press Menu.
2. Press ▼ to highlight **CONFIGURE DEVICE**, and then press ✓.
3. Press ▼ to highlight **SYSTEM SETUP**, and then press ✓.
4. Press ▼ to highlight **JAM RECOVERY**, and then press ✓.

5. Press ▼ to highlight **OFF**, and then press ✓.

6. Press Menu to return to the **Ready** state.

Avoiding jams

The table below lists common causes of jams and suggests solutions for resolving jams.

Table 6-2 Common causes of jams

Cause	Solution
The media does not meet HP-recommended specifications.	Use only media that meets HP specifications.
A supply item is installed incorrectly, causing repeated jams.	Verify that all print cartridges, the transfer unit, and the fuser are correctly installed.
You are reloading media that has already passed through a printer or copier.	Do not use media that has been previously printed on or copied.
A tray is loaded incorrectly.	Remove any excess media from the input tray. Be sure that the stack does not exceed the maximum stack height mark in the input tray.
The media is skewed.	The tray guides are not adjusted correctly. Adjust the guides so they hold the stack firmly in place without bending it.
The media is binding or sticking together.	Remove the stack and flex it, rotate it 180°, or flip it over. Reload the stack into the tray. NOTE: Do not fan paper. Fanning can create static electricity which can cause paper to stick together.
The media is removed before it settles into the output bin.	Reset the printer. Wait until the page completely settles in the output bin before removing it.
When duplexing, the paper is removed before the second side of the document is printed.	Reset the printer and print the document again. Wait until the page completely settles in the output bin before removing it.
The media is in poor condition.	Replace the media.
The internal rollers do not pick up media from tray 2 or tray 3.	Remove the top sheet of media. If it is heavier than 163 g/m^2 (43 lb), it might not be picked from the tray.
The media has rough or jagged edges.	Replace the media.
The media is perforated or embossed.	This type of media does not separate easily. You might need to feed single sheets from the multipurpose tray.
The supplies have reached the end of their useful life.	Check the printer control panel for messages prompting you to replace supplies, or print a supplies status page to verify the remaining life of the supplies.
The media was not stored correctly.	Replace the media. Media should be stored in the original packaging in a controlled environment.

Clearing jams

Procedures in the following sections correspond with a jam message that might appear on the control panel.

Jam in the multipurpose tray (tray 1)

1. Remove the media from the tray.
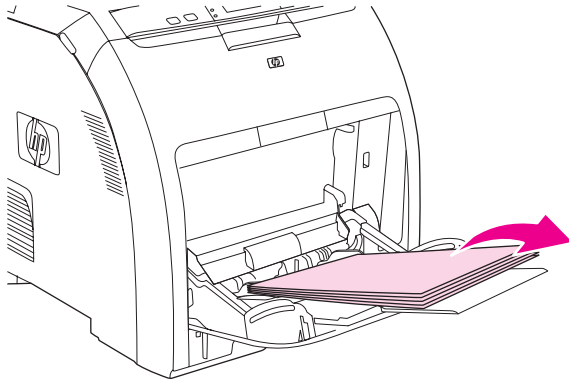
2. Grasp the jammed sheet by both corners and pull.
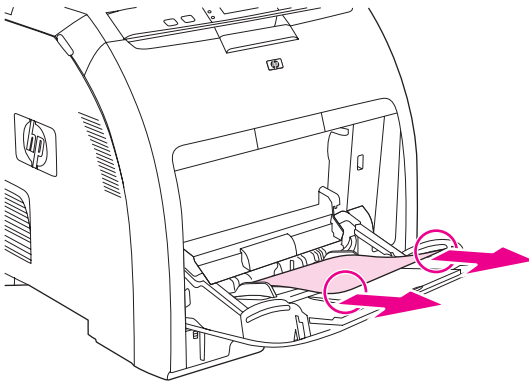
3. Place the media stack in the tray.
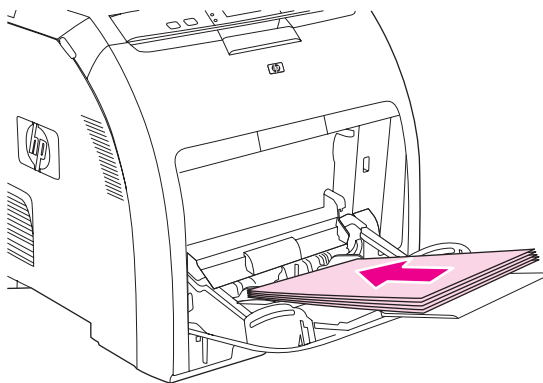
4. Confirm that the media guides are against the stack without bending it and that the stack does not extend above the fill tabs.
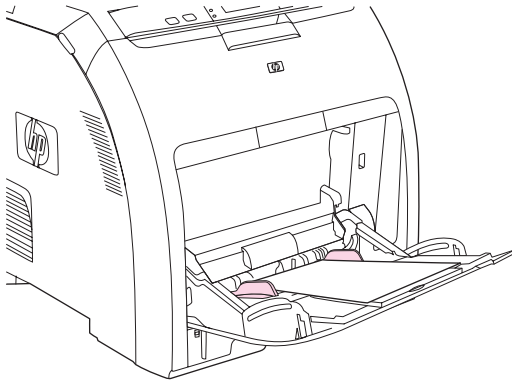
5. Press ✓ to resume printing.

Jam in tray 2 or tray 3

1. If the optional tray 3 is installed, pull it out and place it on a flat surface. If the jammed sheet is visible, remove it.
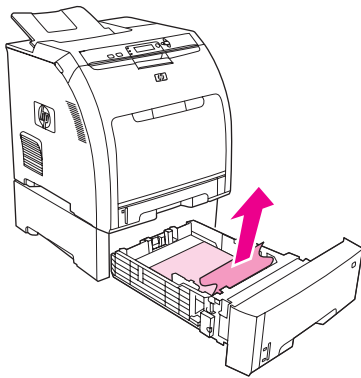
2. If the sheet is not visible, check inside the printer at the top of the tray opening. Remove any jammed media.

3. Pull out tray 2 and place it on a flat surface.
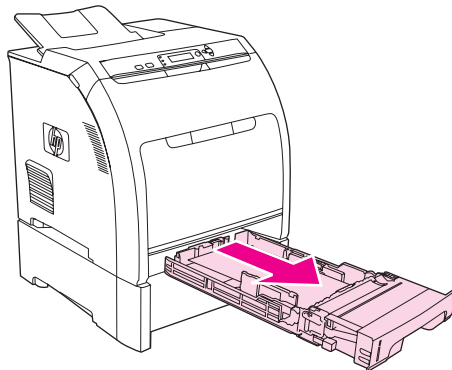
4. If the jammed sheet is visible, remove it.
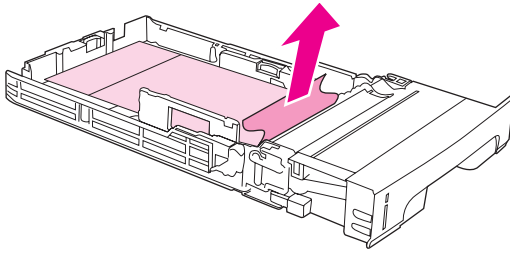
5. If the sheet is not visible, check inside the printer at the top of the tray opening. Remove any jammed media.
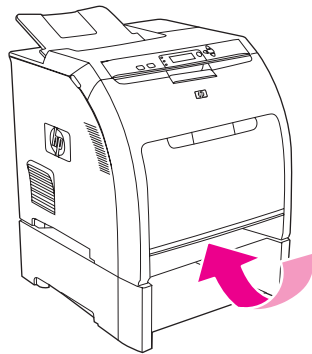
6. Replace tray 2 and optional tray 3.
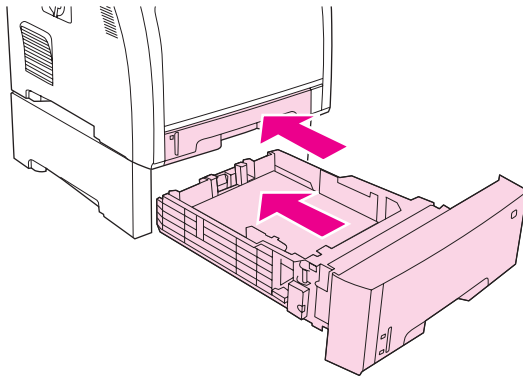
> 📝 **NOTE:** Use the multipurpose tray when printing on heavier paper.

7. Press ✓ to resume printing.

> 📝 **NOTE:** When printing from tray 2, printing resumes automatically.

Jam inside the fuser area (upper cover)

1. Open the upper cover.
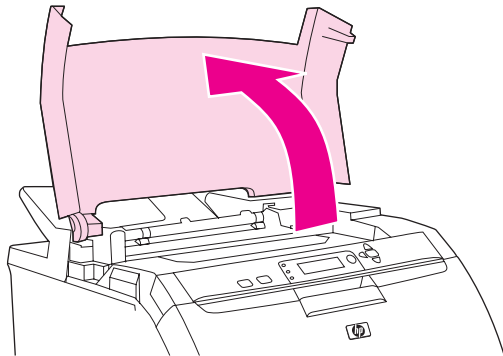
2. If the jammed sheet is visible, remove it and then close the upper cover.
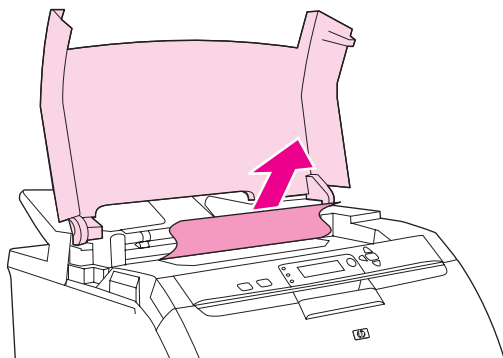
3. If the sheet is not visible, turn off the printer.
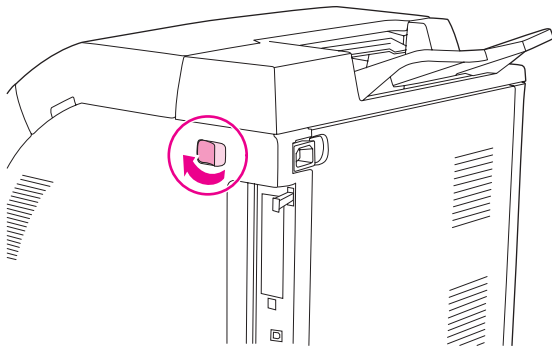
⚠ **WARNING!** The fuser will be hot. Wait 10 minutes before proceeding.

4. Place your thumbs on the fuser latches, squeeze the latches, and pull up on the fuser to remove it.
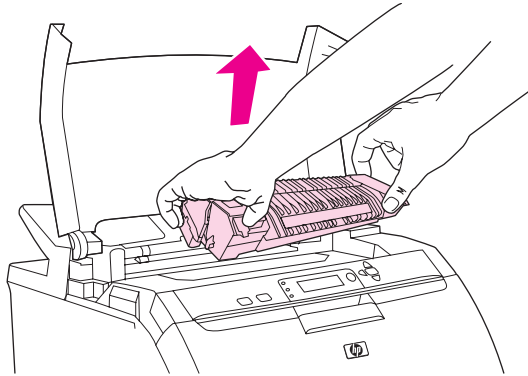
5. On the fuser, lift the shutter door.

⚠ **CAUTION:** Do not open the shutter door while the fuser is in the printer.
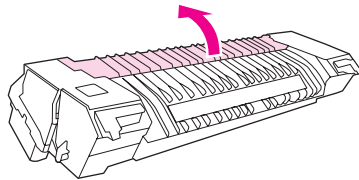
6. Remove any jammed sheets.

📝 **NOTE:** If the sheet tears, make sure that all fragments are removed before you resume printing.
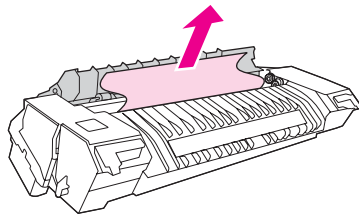
7. Hold the fuser with your thumbs on the latches, and then push both sides of the fuser into the printer. Press the fuser down until it clicks into place.
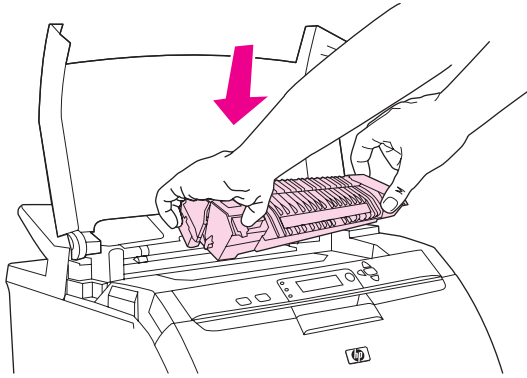
8. Close the upper cover and then turn on the printer.
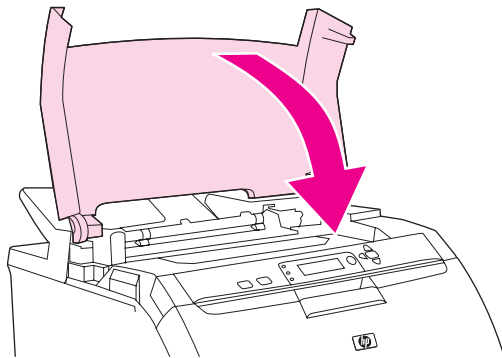
Jam inside the front cover

📝 **NOTE:** This part is called the front door in the user documentation and in chapter 1, "Product information".

1. Open the front cover.

⚠ **CAUTION:** Do not place anything on the transfer unit. Do not touch the top of the transfer unit or the contacts on the left side of it.

📝 **NOTE:** If the sheet tears, make sure that all fragments are removed before resuming printing.

2. Remove any visible media.
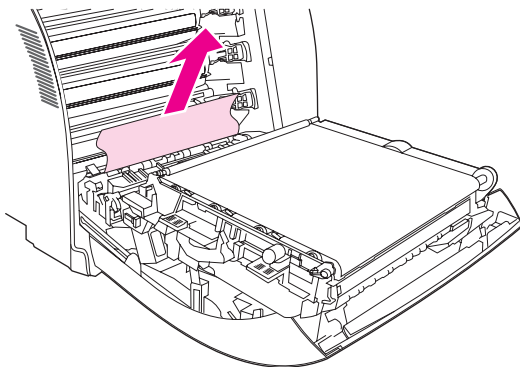
3. Locate the green registration-plate tabs that are below the bottom print cartridge.
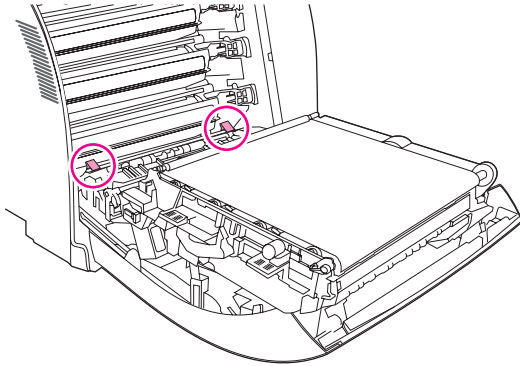
4. Press the tabs, and then lift the registration plate. Remove any jammed media, and then return the registration plate to its closed position.
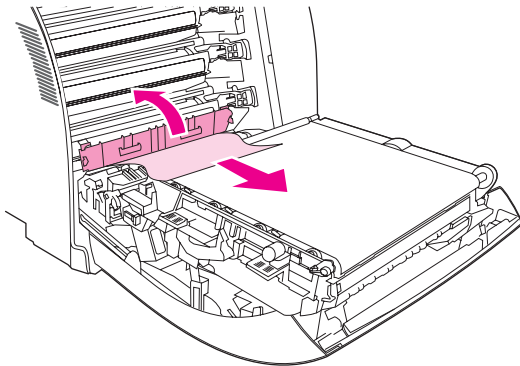
NOTE: If the sheet tears, make sure that all fragments are removed before resuming printing.

5. Close the front cover.
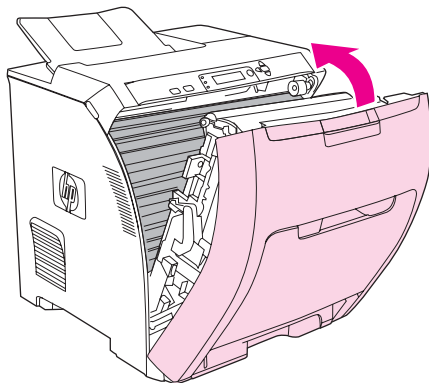
> 📝 **NOTE:** This issue occurs only in duplex models.

1. Turn off the printer, and open the upper cover.

   If any media is visible, remove it.
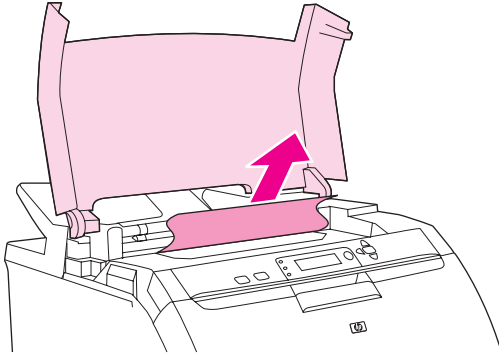
2. Open the front cover.

3. Rotate the transfer unit up and away from the front cover.
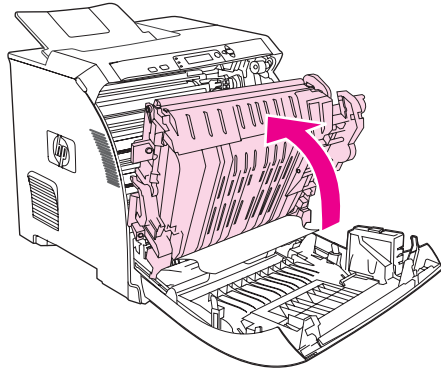
4. Remove any jammed sheets from under the transfer unit.
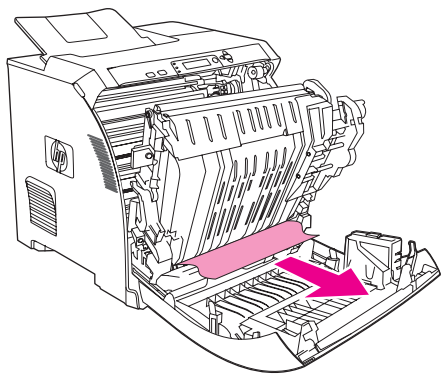
5. Locate the green registration-plate tabs that are below the bottom print cartridge.
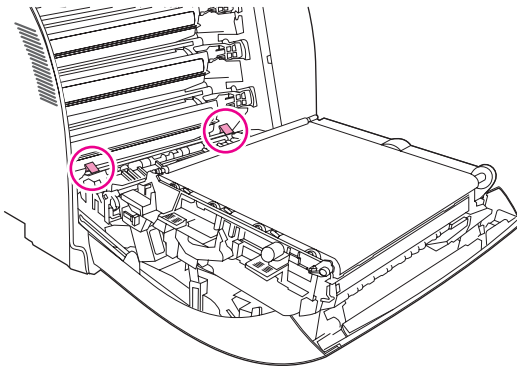
6. Press the tabs, and then lift the registration plate. Remove any jammed media, and then return the registration plate to its closed position.
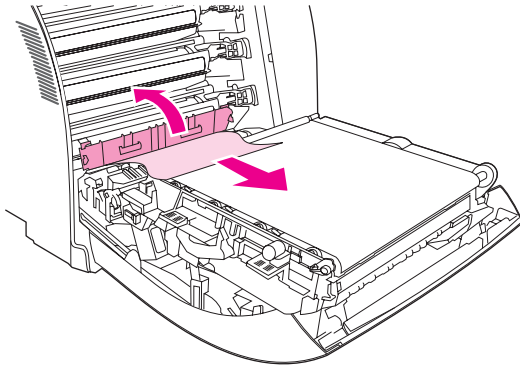
📝 **NOTE:** If the sheet tears, make sure that all fragments are removed before resuming printing.

7. Close the front cover and then turn on the printer.
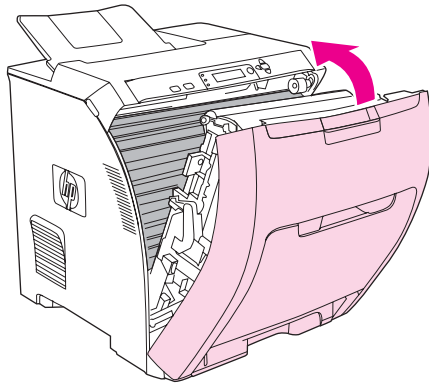
Image-formation troubleshooting

This section identifies issues that can affect print quality. For additional information, see the *HP LaserJet Printer Family Print Media Guide*.

Print-quality problems associated with media

Some print-quality problems arise from use of inappropriate print media.

● Use media that meets HP paper specifications.

● The gloss and transparency films are very smooth. Use paper that meets HP paper specifications.

● The driver setting is incorrect. To change the paper-type setting, see **Type and Size**.

● The media you are using is too heavy for the paper-type setting you selected, and the toner is not fusing to the paper.

- The moisture content of the paper is uneven, too high, or too low. Use paper from a different source, from an unopened ream of paper, or dry out the paper (100˚C [212˚F] for 24 hours).

- Some areas of the paper reject toner. Use paper from a different source or from an unopened ream of paper.

- The letterhead you are using is printed on rough paper. Use a smoother, xerographic paper. If this solves your problem, consult with the supplier of your letterhead to verify that the paper used meets the specifications for this printer.

- The paper is excessively rough. Use a smoother, xerographic paper.

- Avoid media containing metallic laminates or conductive surfaces.

Defects on overhead transparencies

Overhead transparencies can show the image-quality problems as any other type of media, as well as defects that are specific to printing on transparencies. Because transparencies are pliable while in the print path, the paper-handling components can also mark them.

NOTE: Allow transparencies to cool for at least 30 seconds before handling them.

- Change the pre-rotation setting in CONFIGURE DEVICE/PRINT QUALITY/OPTIMIZE/PRE-ROTATION=ON. This enhances transparency print quality by raising the fuser pressure roller temperature to more closely match the sleeve temperature.

- Change the transparency mode in CONFIGURE DEVICE/PRINT QUALITY/PRINT MODES/TRANSPARENCY to B TRNSPRNCY (Best Transparency) mode. This optimizes transparency print quality and minimizes transparency curl.

    NOTE: If the printer media sensor rejects a supported color laserjet transparency, make sure that the transparency is not from an old box. Try a new box.

- In the printer driver **Paper** tab, select **Transparency** as the paper type. Also, make sure that the tray is correctly configured for transparencies.

- Check that the transparencies meet the specifications for this printer. For more information about media specifications and for ordering information, consult the *HP LaserJet Printer Family Print Media Specification Guide.*

- If print-quality defects occur, then make sure that the transparencies are designed for correct toner adhesion. Use only transparencies that are designed for HP Color LaserJet printers.

- Handle transparencies by the edges. Oil from fingers can cause spots and smudges on the transparencies.

- Small, random, dark areas on the trailing edge of solid fill pages might be caused by transparencies sticking together in the output bin. Try printing the job in smaller batches.

- If the selected colors are not what you want when printed, then select different colors in the program or printer driver.

- If you are using a reflective overhead projector, then use a standard overhead projector instead.

Print-quality problems that are related to the environment

If the printer is operating in excessively humid or dry conditions, verify that the printing environment is within specifications. See the getting started guide for this printer for information about operating-environment specifications.

Print-quality problems that are related to jams

Make sure that all media is cleared from the paper path.

- If the printer recently jammed, print two to three pages to clean the printer.

- If the media does not pass through the fuser, image defects appear on subsequent documents. Print two to three pages to clean the printer.

Print-quality problems from toner buildup

Over time, toner and other particles can build up inside the printer. This buildup can cause the following print-quality problems:

- Marks at even intervals on the printed side of the page

- Toner that smears easily

- Toner specks on the page

- Vertical streaks or bands on the page

To correct these types of problems, clean the printer. See Cleaning the printer on page 38.

Print-quality troubleshooting pages

Use the built-in print-quality troubleshooting pages to help diagnose and solve print-quality problems.

1. Press Menu.

2. Press ▼ to highlight **DIAGNOSTICS**, and then press ✓.

3. Press ▼ to highlight **PQ TROUBLESHOOTING**, and then press ✓ to print the pages.

Image defects

If specific defects occur repeatedly, print a Print Quality Troubleshooting page and follow the instructions on the first page. If you cannot resolve the problem, use the information in this section to identify the root cause of the problem.

Image defects fall into the following categories. Links to possible causes and recommended solutions are included. In general, the items are listed in order, from minor repairs to major repairs. Check each item in the order in which it appears.

NOTE: Verify that all firmware has been upgraded to the latest version.

Table 6-3 Image defects

Image defect	Description	More information
Light image	Image light in all colors	See Table 6-4 Causes for light images on page 216.
Light color	Image light in a particular color	See Table 6-5 Causes for one color printing light on page 217.
Dark image	Image dark in all colors	See Table 6-6 Causes for dark images on page 217.
Dark color	Image dark in a particular color	See Table 6-7 Causes for one color printing darker than others on page 218.
Completely blank	No image prints	See Table 6-8 Causes for a completely blank image on page 218.
All black/solid color	Image is all black or solid color	See Table 6-9 Causes for an all black or solid colored image that extends to the edge of the page on page 218.
Dots in vertical lines	White dots appear in image	See Table 6-10 Causes for vertical lines of white dots on page 218.
Dirt on back of paper	Dirt on the back of the page	See Table 6-11 Causes for dirt on the back of the paper on page 219.
Dirt on front of paper	Dirt on the front of the page	See Table 6-12 Causes for dirt on the front of the paper on page 219.
Vertical lines	Vertical line appears in image	See Table 6-13 Causes for vertical lines on page 220.
White vertical lines	White vertical line appears in image	See Table 6-14 Causes for white vertical lines on page 220.
Horizontal lines	Horizontal line appears in image	See Table 6-15 Causes for horizontal line on page 220.
White horizontal lines	White horizontal line appears in image	See Table 6-16 Causes for white horizontal lines on page 221.
Missing color	Image in a particular color does not come out in color	See Table 6-17 Causes for a missing color on page 221.

Table 6-3 Image defects (continued)

Image defect	Description	More information
Blank spots	Blank spots appear in image	See Table 6-18 Causes for blank spots on page 222.
Poor fusing	Toner image is not fully fixed on the media	See Table 6-19 Causes for poor fusing on page 222.
Distorted Image	Image is distorted	See Table 6-19 Causes for poor fusing on page 222.
Color misregistration	Some color is misregistered	See Table 6-21 Causes for color misregistration on page 223.
Smearing	Image smeared in whole or in part	See Table 6-22 Causes for smearing on page 223.
Misplaced image	Whole image is incorrectly placed	See Table 6-23 Causes for a misplaced image on page 224.
Reversed color	White in image is output in color, and color is output in white	See Table 6-24 Causes for reversed color on page 224.
Snail tracks	Streaks on the page (that look like snail tracks); the media might wrinkle	See Table 6-25 Causes for snail tracks on page 224.

Light image

Table 6-4 Causes for light images

Cause	Solution
The image density is not adjusted correctly	Calibrate the printer.
The transfer unit has deteriorated	If the transfer unit is at the end of its life or its surface has deteriorated, replace the transfer unit. NOTE: A large white streak appearing slightly off-center of the transfer unit is not a defect. The transfer unit does not need to be replaced in this case.
Poor secondary-transfer-bias contacts exist	On the secondary transfer roller, check the bias contacts to the high-voltage PCB. Clean them, if necessary. Replace defective parts and deformed or damaged contacts.
The secondary transfer charging roller is deformed or has deteriorated	Replace the secondary transfer charging roller.
The high-voltage PCB is defective	Replace the high-voltage PCB.
The DC controller PCB is defective	Replace the DC controller PCB.
Contamination buildup on the scanner mirror or lenses	Replace the scanner assembly.

Light color

Use an external device to print a solid-filled image as an example of the problem. As the sample prints, turn the printer off and remove the cartridge. Open the cartridge shutter. If the toner image on

the drum before transfer is light for more than one color, go to step A. If the toner image on the photosensitive drum is not fully transferring to the transfer unit, go to step B in the following table.

Table 6-5 Causes for one color printing light

	Cause	Solution
Step A	Poor developing-bias contacts	Check the developing-bias contacts to the high-voltage PCB. Clean the contacts as necessary. Replace any deformed or damaged contacts.
	Contamination buildup on the scanner mirror or lenses	Replace the scanner assembly.
	Deteriorated cartridge (photosensitive drum)	Replace the cartridge that produces the light color.
	Defective high-voltage PCB	Replace the high-voltage PCB.
	Defective DC controller PCB	Replace the DC controller PCB.
Step B	Poor primary-transfer-bias contacts	On the transfer unit, check the primary transfer-bias-contacts to the high-voltage PCB. Clean the contacts as necessary. Replace any deformed or damaged contacts.
	Deformed or deteriorated primary-transfer charging roller	Replace the transfer unit.
	Defective high-voltage PCB	Replace the high-voltage PCB.
	Defective laser/scanner unit	Replace the laser/scanner unit.
	Defective DC controller PCB	Replace the DC controller PCB.

Dark image

Table 6-6 Causes for dark images

Cause	Solution
Image density is not adjusted correctly	Calibrate the printer.
Color misregistration sensor lens is dirty	Clean the color misregistration sensor lens.
Color misregistration sensor is defective	Replace the color misregistration sensor.
Environmental sensor is defective	Replace the environmental sensor.
DC controller PCB is defective	Replace the DC controller PCB.

Dark color

Table 6-7 Causes for one color printing darker than others

Cause	Solution
Poor contacts with the primary-charging bias, developing bias, or drum grounding	On the cartridge that is producing the darker color, check the primary-charging bias and developing-bias contacts to the high-voltage PCB, or the drum-grounding contacts. Clean the contacts as necessary. Replace any deformed or damaged contacts.
High-voltage PCB is defective	Replace the high-voltage PCB.
DC controller PCB is defective	Replace the DC controller PCB.

Completely blank image

Table 6-8 Causes for a completely blank image

Cause	Solution
High-voltage PCB is defective (no developing-bias output)	Replace the high-voltage PCB.
DC controller PCB is defective	Replace the DC controller PCB. Calibrate the printer after replacing the DC controller.

All black or solid color

Table 6-9 Causes for an all black or solid colored image that extends to the edge of the page

Cause	Solution
The formatter is not fully seated, or it is defective.	Print an engine test page to make sure that the printer is functioning. If the defect does not appear on the engine test page, replace the formatter.
Poor contacts with the primary-charging bias, developing bias, or drum grounding	On the cartridge that is producing the solid color, check the primary-charging bias and developing-bias contacts to the high-voltage PCB, or the drum-grounding contacts. Clean the contacts as necessary. Replace any deformed or damaged contacts.
Cartridge (primary-charging roller) is defective	Replace the cartridge that is producing the solid color.
High-voltage PCB is defective	Replace the high-voltage PCB.
DC controller PCB is defective	Replace the DC controller PCB. Calibrate the printer after replacing the DC controller.

Dots in vertical lines

Table 6-10 Causes for vertical lines of white dots

Cause	Solution
Transfer unit or primary-transfer charging roller is deformed or deteriorated	Replace the transfer unit.

Table 6-10 Causes for vertical lines of white dots (continued)

Cause	Solution
Secondary-transfer charging roller is deformed or deteriorated	Replace the secondary-transfer charging roller.
High-voltage PCB is defective	Replace the high-voltage PCB.
DC controller PCB is defective	Replace the DC controller PCB. Calibrate the printer after replacing the DC controller.

Dirt on back of paper

If the defect is repetitive dirt, go to step A; if not, go to step B.

Table 6-11 Causes for dirt on the back of the paper

	Cause	Solution
A	Repetitive debris (debris on the registration roller, pressure roller, feed roller, fuser delivery roller, or face-down delivery sub-roller)	See Table 6-26 Causes of repetitive defects on page 225 to identify the roller with which the problem is associated. Clean the dirty roller. Replace the roller if the dirt does not come off.
B	Dirty cassette pickup roller, feed guide, fuser inlet guide, or fuser delivery guide	Clean any dirt from the rollers. Replace the roller if the dirt does not come off.

Dirt on front of paper

If the defect appears in a particular color, go to step A. If it does *not* appear in a particular color *and* it is repetitive, go to step B. If it is not repetitive, go to step C.

Table 6-12 Causes for dirt on the front of the paper

	Cause	Solution
A	Defective cartridge (deteriorated toner or scratches on the developing cylinder, photosensitive drum, or primary charging roller)	Replace the cartridge of the color that matches the defect.
B	Repetitive dirt (dirty registration sub-roller, fuser sleeve, feed sub-roller, or face-down delivery roller)	See Table 6-26 Causes of repetitive defects on page 225 to identify the roller with which the problem is associated. Clean the dirty roller. Replace the roller if the dirt does not come off.
C	Dirty multipurpose tray pickup roller	Clean dirt from the roller. Replace the roller if the dirt does not come off.
	Defective transfer unit	Check the transfer-unit surface. If it is scratched or dented, replace it.
	Defective transfer-unit cleaning blade	Replace the transfer unit.

Vertical lines

Table 6-13 Causes for vertical lines

Cause	Solution
Photosensitive drum has grooves on the circumference	Replace the cartridge that produces the vertical lines. For both the OPC and the fuser, these "grooves" might just be dark lines going around the roller. The OPC and fuser can be cleaned in some instances. Use a fine lint-free cloth or coffee filter to gently rub the dark line off the OPC or fuser roller.
Fuser sleeve has grooves on the circumference	Replace the fuser.

White vertical lines

If the lines appear in a particular color, go to step A. If they appear in a full-color print, go to step B.

Table 6-14 Causes for white vertical lines

	Cause	Solution
A	Scratches on the circumference of the developing cylinder (print cartridge)	Replace the print cartridge.
	Scratches on the circumference of the photosensitive drum	Replace the print cartridge.
B	Vertical scratches on the transfer unit	Replace the transfer unit.
	Vertical scratches on the fuser sleeve	Replace the fuser.

Horizontal line

If the line appears in a particular color, go to step A. If it appears in the full-color print, go to step B.

Table 6-15 Causes for horizontal line

	Cause	Solution
A	The developing cylinder is deformed by remaining engaged with the photosensitive drum for too long.	See Table 6-26 Causes of repetitive defects on page 225 to determine whether a developing cylinder is involved. If so, print about 20 pages to solve the problem. If the problem is not resolved, replace the cartridge. Additionally, waiting overnight might help. Print several pages and then let the printer sit overnight. This allows the roller to reform, which can solve the issue.
	Horizontal scratches on the photosensitive drum (cartridge)	See Table 6-26 Causes of repetitive defects on page 225 to determine whether a photosensitive drum is involved. If so, replace the cartridge.

Table 6-15 Causes for horizontal line (continued)

	Cause	Solution
	The print-cartridge cleaning blade leaves a line of toner on the drum (C-blade blur). The line repeats every 77 mm (3.0 inches).	At the printer control panel, set CONFIGURE DEVICE/ PRINT QUALITY/OPTIMIZE/ PRE-ROTATION=ON.
B	Horizontal scratches on the fuser sleeve	See Table 6-26 Causes of repetitive defects on page 225 to determine whether a fuser sleeve is involved. If so, replace the fuser.

White horizontal line

If the line appears in a particular color, go to A. If it appears in full color, go to B.

Table 6-16 Causes for white horizontal lines

	Cause	Solution
A	Horizontal scratches on the photosensitive drum (cartridge)	See Table 6-26 Causes of repetitive defects on page 225 to determine whether a photosensitive drum is involved. If so, replace the print cartridge.
B	Horizontal scratches on the transfer unit	Check the transfer unit surface for horizontal scratches. If any, replace the transfer unit.
C	The fuser sleeve is deformed by remaining engaged with the pressure roller for too long	See Table 6-26 Causes of repetitive defects on page 225 to determine whether the fuser sleeve is involved. If so, replace the fuser.

Color missing

Table 6-17 Causes for a missing color

Cause	Solution
Defective laser shutter	Check the problem color laser shutter. Clean the shutter as necessary. Replace the shutter if it is deformed or damaged.
Poor developing-bias contacts	For the cartridge with the problem (color missing), check the developing-bias contacts to the high-voltage PCB. Clean contacts, if dirty. Replace defective parts if the contacts are deformed or damaged.
Defective cartridge (primary-charging roller)	Replace the problem (color missing) color cartridge.
Laser/scanner unit is defective	Replace the laser/scanner for any missing color. Calibrate the printer after replacing the laser/scanner.
High-voltage PCB is defective	Replace the high-voltage PCB.
DC controller PCB is defective	Replace the DC controller PCB. Calibrate the printer after replacing the DC controller.

Blank spots

Table 6-18 Causes for blank spots

Cause	Solution
Poor secondary-transfer-bias contacts	On the secondary-transfer roller, check the bias contacts to the high-voltage PCB. Clean the contacts as necessary. Replace any deformed or damaged contacts.
High-voltage PCB is defective	Replace the high-voltage PCB.
DC controller PCB is defective	Replace the DC controller PCB. Calibrate the printer after replacing the DC controller.

Poor fusing

Table 6-19 Causes for poor fusing

Cause	Solution
Printer is not properly set for media type	Check the media setting in the driver and in the control panel Set the printer for the media type being used.
Media is not within specifications	Use media that meets specifications.
Fuser is not within nip-width specifications	See Table 6-26 Causes of repetitive defects on page 225 to determine whether a fuser sleeve is involved. If so, replace the fuser sleeve unit.
Fuser sleeve is scarred or damaged	Replace the fuser.
Pressure roller is scarred or damaged	See Table 6-26 Causes of repetitive defects on page 225 to determine if a pressure roller is involved. If so, replace the fuser.
Thermistor is deteriorated	Replace the fuser.
DC controller PCB is defective	Replace the DC controller PCB. Calibrate the printer after replacing the DC controller.

Image distortion

Table 6-20 Causes for distortion or blurring

Cause	Solution
Transfer unit is defective	Replace the transfer unit. Calibrate the printer after replacing the transfer unit.
Secondary-transfer roller is defective	If it does not rotate smoothly or is deformed, replace the secondary-transfer roller.
DC controller PCB is defective	Replace the DC controller PCB. Calibrate the printer after replacing the DC controller.

Color misregistration

If the misregistration occurs in a particular color, go to A. If it occurs in all colors, go to step B. If another misregistration issue is evident, perform the steps in order.

Table 6-21 Causes for color misregistration

	Cause	Solution
	The printer is not calibrated correctly	Open the front door and remove the ETB shipping locks on each side of the ETB assembly, toward the bottom.
		Calibrate the printer.
	Media is not within specifications.	Verify that media meets specifications.
A	Cartridge is defective	Check if the photosensitive drum in the problem cartridge rotates smoothly. If not, replace the cartridge.
	Cartridge drive gears are worn or chipped	Check the drive gears connected to the problem cartridge. If a gear is worn or chipped, replace the gear.
B	Color misregistration sensor is dirty	Clean the color misregistration sensor lens.
	Color misregistration sensor is defective	Replace the color misregistration sensor.
	Transfer unit is defective	If the transfer unit does not rotate smoothly, replace it.
	Drive gears are worn or chipped	Check the drive gears between the image drive unit and the drum motor. If one is worn or chipped, replace it.
	Image drive unit is defective	Replace the image drive unit.
	Laser/scanner unit is defective	Replace the laser/scanner unit.
	DC controller PCB is defective	Replace the DC controller PCB.

Smearing

Table 6-22 Causes for smearing

Cause	Solution
Poor contacts exist to each cartridge and printer grounding	Use media that is within specifications.
	Verify that the proper fuser mode is set.
	Clean the grounding contacts on each cartridge and the printer. If the problem remains after cleaning, check the contacts for damage. Replace any deformed or damaged parts. Make sure that all contacts are connected correctly.
The movement of the fuser front paper sensor lever is not smooth	Reseat the lever to make the movement smooth.
Foreign substances or dirt on the fuser inlet guide	Clean the fuser inlet guide.

Misplaced image

Table 6-23 Causes for a misplaced image

Cause	Solution
The oblique rollers are worn (if problem only occurs on the back side of duplex printing only)	Replace the oblique rollers.
DC controller PCB is defective	Replace the DC controller PCB. Calibrate the printer after replacing the DC controller.

Reversed color

Table 6-24 Causes for reversed color

Cause	Solution
The FFC that connects the DC controller to the formatter is not correctly connected	Reseat the FFC to the DC controller PCB J1001.
DC controller PCB is defective	Replace the DC controller PCB.

Snail tracks

Table 6-25 Causes for snail tracks

Cause	Solution
This occurs in high-temperature, high-humidity environments on the second side of duplexing jobs when the fuser pressure roller is bent.	Use media that is within specifications.
	Verify that the proper fuser mode is set.
	See if the defect occurs when printing with light coverage. If so, reduce the toner coverage on the page.
	Replace the fuser.
	NOTE: This defect might be seen when using A4 media in duplex mode.

NOTE: See the print modes in CONFIGURE DEVICE/ PRINT QUALITY/ PRINT MODES to associate each paper type with a specific print mode. For example, several "BEST" print modes can be set for a specific media type to enhance print quality. Results will vary, depending on the media being used.

See the OPTIMIZE setting for additional print-quality adjustments.

Repetitive-defects troubleshooting

Defects on printer rollers can cause image defects to appear at regular intervals on the page. Use Table 6-26 Causes of repetitive defects on page 225 to determine which roller is causing the defect. To resolve the problem, try cleaning the roller. If the roller remains dirty after cleaning or if it is damaged, replace it.

Repetitive defects for the transfer unit normally appear on every other page, because the transfer belt is longer than a page. However, the period of the repetitive defect can vary depending on the type of media, and a repetitive defect can occur more than once on the same page.

> ⚠ **CAUTION:** Do not use solvents or oils to clean rollers. Instead, use lint-free paper to clean the roller. If dirt is difficult to remove, dampen the paper with rubbing alcohol.
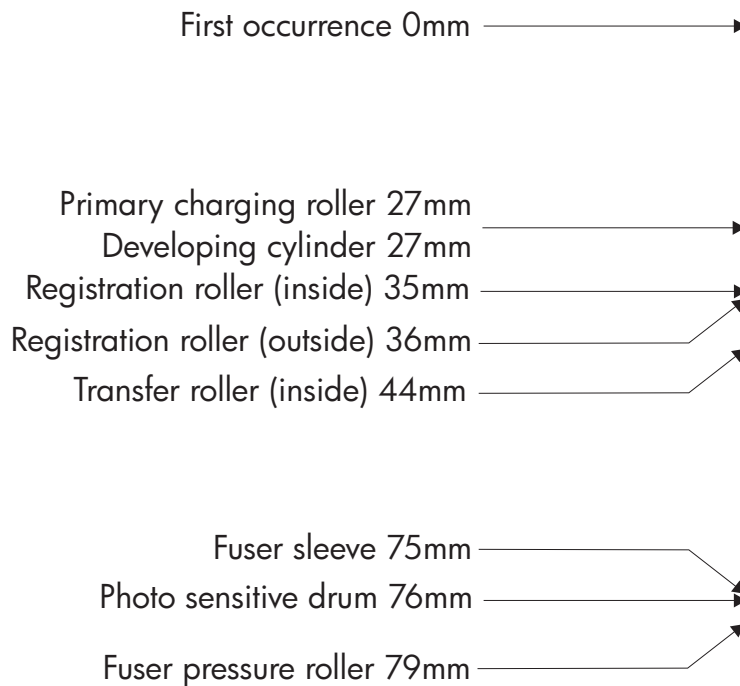
> 📝 **NOTE:** Defects on the tray 2 pickup roller or the multipurpose-tray pickup roller do not cause a repetitive defect, but instead cause a defect on the leading edge of the page.

Table 6-26 Causes of repetitive defects

Problem Area	Period of defect (mm)	Problem			
		Dirt on front	Blank spots	Dirt on back	Poor fuser
Primary charging roller	About 27	X	X		
Developing cylinder	About 27	X	X		
Registration roller (inside)	About 35	X			
Registration roller (outside)	About 36			X	
Transfer roller	About 44		X	X	
Fuser sleeve	About 75	X	X		X
Photosensitive drum	About 76	X	X		
Fuser pressure roller	About 79	X		X	X

Repetitive print defects are usually caused by a specific roller, cylinder, or drum in the printer or the print cartridge. Use the following figure to isolate the cause of repetitive print defects. Align the first occurrence of the defect with the top of the "ruler" (at the top or bottom of the misprinted page), and measure to the next occurrence of the defect to determine which roller, cylinder, or drum is causing the defect. When the defect pattern matches the pattern of the ruler, replace the indicated part.

First occurrence 0mm

Primary charging roller 27mm
Developing cylinder 27mm
Registration roller (inside) 35mm
Registration roller (outside) 36mm
Transfer roller (inside) 44mm

Fuser sleeve 75mm
Photo sensitive drum 76mm

Fuser pressure roller 79mm

Figure 6-2 Repetitive defect ruler

NOTE: Transfer unit defects usually appear on every other page because the transfer belt is longer than a page. However, the defect distance might vary depending on the type of media that is being used. It is possible to see a repetitive defect more than once on the same page.

Interface troubleshooting

Communication checks

📝 **NOTE:** Communication problems are normally the customer's responsibility. Time spent attempting to resolve these problems might not be covered by the Hewlett-Packard warranty.

Refer the customer to the network administrator for assistance in troubleshooting network problems.

If the printer is *not* connected to an MS-DOS-based host, use the following table to check the connection.

Table 6-27 Communication check

Check	Action
Does the computer configuration match the parameters described in the configuration instructions?	Verify that the configuration of the computer's communications port matches these parameters. View the Jetdirect configuration page for print server status, and to verify configuration parameters for operation on your network.
	📝 **NOTE:** If these parameters are not set correctly, an error message might appear on the control panel.

EIO troubleshooting

If the printer contains an optional HP Jetdirect print server and you cannot communicate with the printer over the network, verify the operation of the print server. Print a configuration page. If the Jetdirect card does not appear under "Installed personalities and options" on the configuration page, see the troubleshooting section of the *HP Jetdirect Print Server Administrators Guide* supplied with the print server.

If the host system and printer still do not communicate, replace the formatter PCB or the EIO card and reconfigure the printer. If the problem persists, use a protocol analyzer to find the source of the problem.

⚠ **CAUTION:** HP LaserJet printers are not designed to work with mechanical switch-box products that do not have surge protection. These devices generate high transient voltages that cause permanent damage to the formatter PCB. This circumstance is not covered under the Hewlett-Packard warranty.

Service menu

Using the Service menu

The **Service** menu is PIN protected for added security. Only authorized service technicians have access to the Service menu. When you select SERVICE from the list of menus, you are prompted to type your 8-digit PIN number. The following are the appropriate PIN numbers:

HP Color LaserJet 3000 Series printers: 11300005

HP Color LaserJet 3600 Series printers: 11360005

HP Color LaserJet 3800 Series printers: 11380005

HP Color LaserJet CP3505 Series printers: 06350507

1. Press Menu to open the **MENUS**.

2. Press ▼ to highlight **SERVICE**, and then press ✓.

3. Press ▲ or ▼ until the first digit of the PIN appears.

4. Press ✓ to save the digit. The control-panel display replaces the digit with an asterisk.

    Press ⤺ at any time to move to the previous digit.

5. Repeat steps 3 and 4 until all eight digits are typed.

Clear event log

Use this item to clear the printer internal event log.

Total page count

The page count that is stored in NVRAM and printed on the configuration page represents the number of pages that the formatter has formatted (not including engine-test prints). If you install a new formatter when repairing a printer, use this menu item to reset the page count to the previous value. In this way, the page count reflects the number of pages that the engine has printed rather than restarting the count for the new formatter. The page count is in two categories: total mono pages and total color pages.

Serial number

If you replace the formatter, use this item to reset the serial number of the printer.

Diagnostics menu

Menu item	Description
PRINT EVENT LOG	Prints an event log that shows the last 50 entries in the printer event log, starting with the most recent.
SHOW EVENT LOG	Shows the last 50 printer events on the control-panel display, starting with the most recent.
PQ TROUBLESHOOTING	Prints a series of print-quality assessment pages that help troubleshoot many print-quality problems.
PRINT DIAGNOSTICS PAGE	Prints the diagnostics page.
DISABLE CARTRIDGE CHECK	Prints with one or more cartridges removed so that you can diagnose print cartridge-related problems.
PAPER PATH SENSORS	Shows the values of the sensors. Values are updated as media passes each sensor. Jobs can be initiated from the control panel or sent from the computer.
PAPER PATH TEST	Tests the printer paper-handling features, such as the configuration of the trays.
MANUAL SENSOR TEST	Tests the paper-path sensors and switches for correct operation.
COMPONENT TEST	Activates individual parts independently to isolate noise, leaking, and other hardware issues.
PRINT/STOP TEST	Isolates print-quality issues more accurately by stopping the printer in mid-print cycle. Stopping the printer in mid-print cycle causes a jam that might need to be removed manually. *Only a service representative should perform this test.*

Diagnostics

The following section describes the printer's diagnostics.

LED diagnostics

Use the following procedure to help identify the cause of high-level printer problems. These problems are indicated by abnormalities in the printer's power-on sequence. The LED that the procedure refers to is on the formatter. This is the "heartbeat" LED that blinks on and off when the formatter is operating correctly.

Does the LED blink with four fast bursts at power on? If not, then perform the following checks:

● Check the firmware.

● Check the memory.

● Check the formatter.

Does the LED blink at a fast, steady rate during memory testing (one blink per 8 MB)? If not, then perform the following checks:

● Check the control-panel display for an error code.

● Check the memory.

● Check the formatter.

Is the LED off for about eight seconds, while the boot code is decompressing, before the display turns on? If not, then perform the following checks:

● Check the firmware.

● Check the control-panel display for correct connections and operation.

● Check the control-panel display for an error code.

Does the LED blink at a steady rate of one blink per second? If not, then perform the following checks:

● Check the firmware.

● Check the formatter.

● Check the control-panel display for an error code.

If the control-panel display does not illuminate, perform an engine test to check the engine. You must have media loaded in tray 2 for the engine test.

Diagnostics mode

Some of the diagnostics tests automatically put the printer into a special diagnostics mode. During the special diagnostics mode the printer performs actions that normally cause the printer to enter an error state. Always follow the control panel directions in the **DIAGNOSTICS** menu to exit the special diagnostics mode correctly and return the printer to a normal state.

Diagnostics that put the engine into the special diagnostics mode

Four diagnostics tests put the engine into a special state:

● Disable cartridge check

● Sensor test

● Manual sensor test

● Component test

While the printer is in the special diagnostics mode, the following message should appear:

READY DIAGNOSTICS MODE

TO EXIT PRESS STOP KEY

When the printer is in the special diagnostics mode, these four tests appear in the menu and are available to be run. To gain access into other diagnostic tests or to leave the special state, press Stop, and then select **Exit**. The printer resets itself, and then returns to the normal state.

> **NOTE:** You need to have a good understanding of how the printer operates in order to use the engine diagnostics successfully. Before proceeding with these diagnostic tests, make sure that you understand the information in chapter 4 of this manual.

Diagnostic tests

Different tests can be used to isolate different types of issues. For component or noise isolation, you can run the diagnostic test after removing the covers. Removing the covers provides a better view of the areas that are being tested. To operate the printer with the covers removed, the door switch lever (SW1, callout 1) must be depressed (this is the door-closed position).

> **WARNING!** Be careful when performing printer diagnostics to avoid the risk of injury. Only trained service personnel should open and run the diagnostics with the covers removed. Never touch any of the power supplies when the printer is turned on.
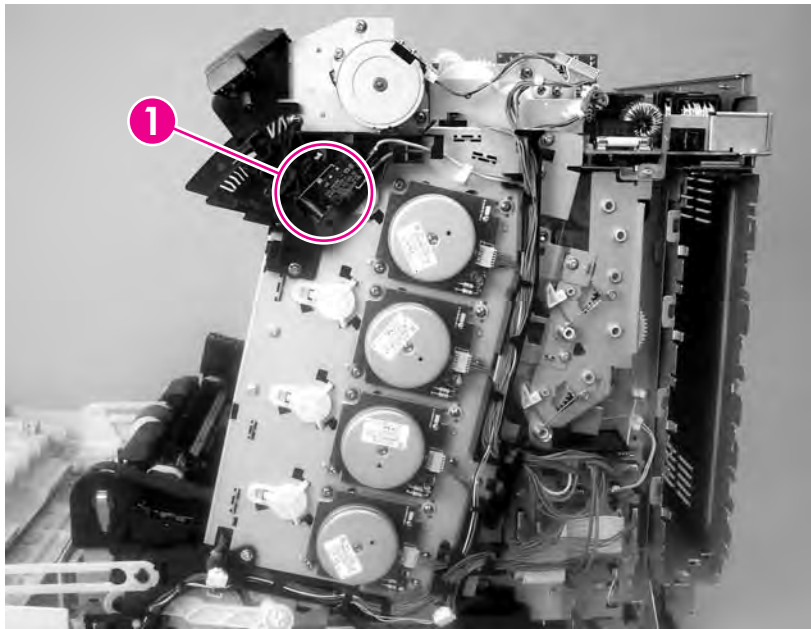
Figure 6-3 Door switch and fuser interlock

> **NOTE:** Any time that a cartridge is installed or removed while the covers are removed, the door interlock must be cycled to simulate opening and closing the top cover in order for the engine to recognize the change. When the covers are installed, the door switch and fuser interlock are automatically operated. When the covers are removed, you must perform these steps manually.

Individual diagnostic tests

The following sections explain in more detail how to operate the various diagnostics correctly.

Print the event log page

The event log lists the printer events, including jams, service errors, and other printer conditions.

1. Press Menu to open the **MENUS**.

2. Press ▼ to highlight **DIAGNOSTICS**, and then press ✓.

3. Press ▼ to highlight **PRINT EVENT LOG**, and then press ✓.

The message **Printing... EVENT LOG** appears on the display until the printer finishes printing the event log. The printer returns to the **Ready** state after printing the event log.

View the event log on the control-panel display

The event log lists the last 50 printer events on the control-panel display. (The most recent event is listed first.)

1. Press Menu to open the **MENUS**.

2. Press ▼ to highlight **DIAGNOSTICS**, and then press ✓.

3. Press ▼ to highlight **SHOW EVENT LOG**, and then press ✓.

Print the print-quality (PQ) troubleshooting pages

The PQ troubleshooting pages are print-quality assessment pages that you can use to troubleshoot print-quality problems. Follow the instructions on the first page of the print-quality troubleshooting pages to solve print-quality problems.

1. Press Menu to open the **MENUS**.

2. Press ▼ to highlight **DIAGNOSTICS**, and then press ✓.

3. Press ▼ to highlight **PQ TROUBLESHOOTING**, and then press ✓.

The message **PRINTING... PQ TROUBLESHOOTING** appears on the control-panel display until the printer finishes printing the PQ troubleshooting pages. The printer returns to the **Ready** state after printing the PQ troubleshooting pages.

Disable cartridge check (special mode test)

Use this diagnostic test to print internal pages or send an external job to the printer when one or more print cartridges are removed or exchanged. Because the cartridges are not keyed, the diagnostic test can be run when one to four cartridges have been removed or moved to another location (exchanged). Consumable supply errors are ignored while the printer is in this mode.

When the printer is in this mode, you can navigate the menus and print internal pages or send an external print job to the printer. This diagnostic test can be used to isolate print-quality problems that are related to individual cartridges and to isolate individual cartridge problems, such as noise.

> **NOTE:** Any time that a cartridge is installed or removed while the covers are removed, the door interlock must be cycled to simulate opening and closing the top cover in order for the engine to recognize the change. When the covers are installed, the door switch and fuser interlock are automatically operated. When the covers are removed, you must perform these steps manually.

1. Press Menu to open the **MENUS**.

2. Press ▼ to highlight **DIAGNOSTICS**, and then press ✓.

3. Press ▼ to highlight **DISABLE CARTRIDGE CHECK**, and then press ✓ .

To exit this diagnostic test, press Stop and then select **EXIT DIAGNOSTICS**.

Paper-path sensor test

This test shows the status of each paper-path sensor.

1. Press Menu to open the **MENUS**.

2. Press ▼ to highlight **DIAGNOSTICS**, and then press ✓ .

3. Press ▼ to highlight **PAPER PATH SENSORS**, and then press ✓ .

4. Print an internal page, and observe the status of the sensors as the page moves through the printer.

Paper-path test

This diagnostic test generates one or more test pages that you can use to isolate the cause of jams.

To isolate a problem, specify which input tray to use, specify whether to use the duplex path, and specify the number of copies to print. Print multiple copies to help isolate intermittent problems. The following options become available after you start the diagnostic feature:

- **PRINT TEST PAGE**. Run the paper-path test from the default settings: tray 2, no duplex, and one copy. To specify other settings, scroll down the menu and select the setting, and then scroll back up and select **PRINT TEST PAGE** to start the test.

- **SOURCE**. Select tray 1, tray 2, or optional tray 3.

- **DUPLEX**. Enable or disable 2-sided printing.

- **COPIES**. Select the number of sheets to use during the test.

1. Press Menu to open the **MENUS**.

2. Press ▼ to highlight **DIAGNOSTICS**, and then press ✓.

3. Press ▼ to highlight **PAPER PATH TEST**, and then press ✓.

4. Select the paper-path test options when the printer prompts you.

Manual sensor test (special mode test)

Use this diagnostic test to test the printer sensors and switches.

NOTE: To eliminate the flickering on the control-panel display during this test, leave the door switch in the open state.

1. Press Menu to open the **MENUS**.

2. Press ▼ to highlight **DIAGNOSTICS**, and then press ✓.

3. Press ▼ to highlight **MANUAL SENSOR TEST**, and then press ✓.

To exit this diagnostic, press the Stop button, and then select **EXIT DIAGNOSTICS**.

Menus cannot be opened during component tests, so ✓ serves the same function as the Stop button.

To toggle a sensor, find and move the sensor flags in the following locations.

Table 6–28 shows how these letter designations correspond to the paper-path sensors. For a diagram that shows the physical location of these sensors, see <u>Sensors in the pickup-and-feed system trays (cassettes) on page 56</u>.

NOTE: Sensor P is only present when the optional 500-sheet feeder is attached.

Table 6-28 Manual sensor test

	Name	Symbol	Paper-path sensors[1]	Manual sensor test[1]
A	Top-of-page sensor	SR710	0 or 1	0 or 1
B	Paper loop sensor	SR6001	0 or 1	0 or 1
C	N/A	N/A	0	0
D	Fuser paper delivery sensor	SR6005	0 or 1	0 or 1
E	Delivery-tray paper-full sensor	SR706	0 or 1	0 or 1
F	Fuser pressure-release sensor	SR705	0 or 1	0 or 1
G	Media sensor	J7007	0, 1, 3, 4, 5, 6, 7[2]	N/A
H	N/A	N/A	N/A	N/A
I	Multipurpose tray paper sensor	SR707	N/A	0 or 1
J	Cassette paper sensor	SR709	N/A	0 or 1
K	Door open detection switch	SW1	N/A	0 or 1
L	Developing estrangement sensor (Yellow, magenta, and cyan)	SR712	N/A	0 or 1
M	Developing estrangement sensor (Black)	SR711	N/A	0 or 1
N	Multipurpose tray media-position sensor	SR708	N/A	0 or 1
O	Duplex reverse sensor	SR823	0 or 1	0 or 1
P	Paper present sensor	SR4013	N/A	0 or 1

[1] 0 = off; 1 = on

[2] 0 = unknown media; 1 = normal media; 3 = overhead transparency; 4 = glossy; 5 = glossy film; 6 = heavy media; 7 = light media

Component test (special mode test)

Use the component test to exercise individual parts independently to isolate problems.

Each component test can be performed once or repeatedly. If **CONTINUOUS** is selected from the drop-down menu as the repeat option, the test will cycle the component on and off. This process continues for 2 minutes, and then the test ends.

📝 **NOTE:** The door interlock switch must be defeated to run any of the component tests. If covers are removed, the door switch must be manually cycled during some tests in order for the engine to recognize a change. The ETB assembly can be open, closed, or removed while some of these tests are executing. Print cartridges can be installed or removed during certain tests. The control-panel display prompts for the removal of some or all of the cartridges during certain tests in order to rotate and isolate certain components, and to protect the cartridges and ETB.

1. Press Menu to open the **MENUS**.

2. Press ▼ to highlight **DIAGNOSTICS**, and then press ✓.

3. Press ▼ to highlight **COMPONENT TEST**, and then press ✓.

4. Select the component test options when the printer prompts you.

Menus cannot be opened during component tests, so ✓ serves the same function as the Stop button.

You can perform the following component tests:

● **Transfer motors**. This test turns the components that are involved in the image-transfer process: the cartridge motors, the ETB motor and belt, and the print cartridges (if the ETB is closed). You can remove or install print cartridges during this test.

● **Belt only**. This test turns only the ETB motor and belt. The control-panel display prompts you to remove the cartridges because the ETB belt contacts the photosensitive drums and cannot turn without them also rotating the drums. Rotating the photosensitive drums can damage the belt or photosensitive drums. If covers are removed, you must manually activate the door switch after removing the cartridges in order to run the test.

● **Cartridge motors**. This test rotates only the print-cartridge drive motors. The control-panel display prompts you to remove at least one cartridge because the ETB belt contacts the photosensitive drums and cannot turn without also rotating the drums. The engine rotates the cartridge motor(s) for only the cartridges that are removed. To rotate all motors sequentially, remove all of the cartridges; to isolate one motor, remove only that cartridge. If covers are removed, you must manually activate the door switch after removing the cartridges in order to perform the test. Always start this test with all of the cartridges installed, and activate the door switch so that the printer recognizes the configuration. Then you can proceed with the test by removing one or more cartridges.

● **Black, Magenta, Yellow, Cyan laser/scanners**. Use these tests to rotate each scanner motor individually.

● **Fuser motor**. Use this test to rotate the fuser motor and drive gears.

● **Fuser pressure release motor**. Use this test to rotate the fuser pressure-release motor.

● **Alienation motor (also called the developing disengaging motor)**. This test moves the developing disengaging motor, clutches and gears, and plates through their positions.

● **ETB contact/alienation**. This test activates the ETB motors and solenoid.

● **Tray 1 pickup solenoid**. This test activates and releases the multipurpose tray (tray 1) pickup solenoid.

● **Tray 2 pickup motor**. This test activates and moves the tray 2 pickup motor and gear train.

- **Tray 2 pickup solenoid**. This test activates and releases the tray 2 pickup solenoid.

- **Tray 3 pickup motors and solenoids**. These tests run the same way as the tray 2 pickup motor and solenoid test.

    NOTE: You must have the tray partially installed or must manually lift the pickup roller assembly/lifter plate.

- **Duplexer pickup motor**. This test activates and moves the duplexer pickup motor.

Print/Stop test

Use this diagnostic test to isolate the cause of problems such as image-formation defects and jams in the engine. During this test you can stop the paper anywhere along the printer paper path. The test can be programmed to stop printing internal pages or an external print job when the paper reaches a certain position. The test can also be programmed to stop from 0 to 60,000 mS. If the timer is set to a value that is greater than the job print time, you can recover the printer the following ways:

- After the print job is complete, press Stop to return to the **DIAGNOSTICS** menu before the timer times out.

- After the timer times out, press Stop. Activate the door switch to restart the engine and return it to a normal state.

When the timer trips, the message **Printing stopped Press ✓ to continue** appears on the control-panel display. Press Menu to print the previously selected job. If you do not want the previous job to print, press Stop and then press Menu.

    NOTE: Do not attempt to perform a **Print/Stop test** while the printer is calibrating because you will be required to turn the printer off and then on again. If a jam message appears on the control-panel display during testing, activate the door switch.

Test pages

Engine test page

Print an engine test page to make sure that the printer is functioning. Use a small, pointed object to depress the test-page switch on the back of the printer.

Figure 6-4 Engine test page

Formatter test

Print a configuration page to make sure that the formatter is functioning.

1. Press Menu to open the **MENUS**.

2. Press ▼ to highlight **INFORMATION**, and then press ✓.

3. Press ▼ to highlight **PRINT CONFIGURATION**, and then press ✓.

Half-self test

Perform a half-self test to determine which stage of the print process is malfunctioning.

1. Press Menu.

2. Press ▼ to highlight **INFORMATION**, and then press ✓.

3. Press ▼ to highlight **PRINT DEMO**, and then press ✓ to print a demo page.

4. Open the front cover when the leading edge of the paper exits the printer.

5. Remove the print cartridges.

6. Open the print-cartridge drum shield to view the drum surface. If a dark and distinct toner image is present on the drum surface, then the two functions of the electrophotographic process are

functioning (image-formation and development). Any failure is occurring in the transfer or fusing stage.

Drum-rotation test

The photosensitive drum, located in the print cartridge, must rotate in order for the print process to work. The photosensitive drum receives its drive from the main motor through a system of gears on the right side of the printer.

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

1. Open the front door.

2. Remove the print cartridges.

3. Mark the drive gear on the cartridge with a felt-tipped marker. Make note of the position of the mark.

4. Install the print cartridges and close the front door. The startup sequence should rotate the drum enough to move the mark.

5. Open the front door and inspect the gear that was marked in step 3. Verify that the mark moved.

If the mark did not move, inspect the drive shaft that moves into the print-cartridge area when the front door is closed to make sure that it is meshing with the print cartridge. If the drive shaft looks functional and the drum does not move, then replace the print cartridge. If the drive shaft is damaged, then replace the printer.

Engine resets

Use the following information to perform system-wide reset procedures. Customers do not have access to this information.

Engine resets

Cold reset

A cold reset unlocks menus that have been previously locked and resets all control-panel menu items to the factory defaults. A cold reset does *not* clear the values in the Service menu, such as the serial number and the page counts.

> 📝 **NOTE:** Before performing a cold reset, print a menu map and a configuration page. Use the information on these pages to reset customer-specific settings.

> ⚠️ **CAUTION:** All HP Jetdirect settings are also reset. Be sure to print a configuration page before performing a cold reset. Make note of the IP address that is listed on the Jetdirect configuration page. You might need to restore the IP address after performing a cold reset.

To perform a cold reset

1. Turn the printer off and then on.

2. When the printer begins its initialization sequence, press and hold ✓ until all LEDs are lit.

3. Press ▼ until **COLD RESET** appears, and then press ✓.

NVRAM initialization

> ⚠️ **CAUTION:** All HP Jetdirect settings are also reset. Be sure to print a configuration page before performing an NVRAM initialization. Make note of the IP address that is listed on the Jetdirect configuration page. You need to restore the IP address after performing an NVRAM initialization.

Performing an NVRAM initialization resets the following settings and information:

- All menu settings are reset to factory default values.

- All localization settings, including language and country/region, are reset.

After performing an NVRAM initialization, reconfigure any computers that print to this printer so that the computers can recognize the printer.

To perform an NVRAM initialization

1. Turn the printer off and then on.

2. When the printer begins its initialization sequence, press and hold ▼ until all LEDs are lit.

3. Press ▲ one time, and then press Menu.

4. Press ▼ until **NVRAM INIT** appears, and then press ✓.

Hard-disk initialization

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

> **NOTE:** Before performing a hard-disk initialization, print a menu map and a configuration page. Use the information on these pages to reset any customer-specific settings.

To perform a hard-disk initialization

1. Turn the printer off and then on.

2. When the printer begins its initialization sequence, press and hold Menu until all LEDs are lit.

3. Press ↰ one time. **INITIALIZE DISK** appears on the control-panel display.

4. Press ✓ one time. A series of asterisks appears on the control-panel display. Wait for the printer to complete its initialization sequence.

Service ID

When printing from an HP Color LaserJet 3000/3600/3800/CP3505 Series printer, this information appears on the configuration page, which eliminates the need for customers to keep paper receipts for proof of the warranty. Because the printer has an internal clock, the availability of the service ID date depends on the printer being connected to a source that can provide the date, in this case a time server that is on the same network as the printer. When the printer is not connected to a date source, the service ID is not available, and **00000** appears on the configuration page.

Converting the Service ID to an actual date

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

1.   Add 1990 to YY to determine the actual year that the printer was installed.

2.   Divide DDD by 30 (and, if there is a remainder, add 1 to the quotient) to determine the month the printer was installed.

3.   The remainder from the calculation in step 2 is the day of the month. If no remainder resulted from the calculation in step 2, then the day of the month is the 30th.

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

1.   12 + 1990 = 2002, so the year is 2002.

2.   287 divided by 30 = 9 with a remainder of 17. Add 1 to 9 to get 10, so the month is October.

3.   The remainder (from the above calculation) is 17, so that is the day of the month.

4.   The complete date is 17-October-2002.

A 6-day grace period is built into the date system.

Restoring the Service ID

If you replace the formatter, the Service ID is lost and must be restored. Use this menu item to reset the Service ID, which is calculated based on the date the printer was first used. The date format is YYDDD. Use the following procedure to calculate the Service ID.

1.   To calculate YY, subtract 1990 from the calendar year.

2.   To calculate DDD, use the following formula: 30 * (calendar month – 1) + calendar day = DDD. (If the calendar day is 31, use 30 instead.)

Using October 17, 2002, as the date the printer was first used, the service ID conversion is as follows:

a.   2002 minus 1990 = 12, so YY = 12.

b.   10 minus 1 (calendar month minus 1) = 9.

c.   9 times 30 = 270.

d.   270 plus 17 (the calendar day) = 287, so DDD = 287.

e.   The complete service ID number is 12287.

Troubleshooting diagrams

The diagrams in this section include connector locations, DC controller connectors, major assembly locations, printer timing, and printed circuit block diagrams.

Connector locations

Use these diagrams to identify connector locations.
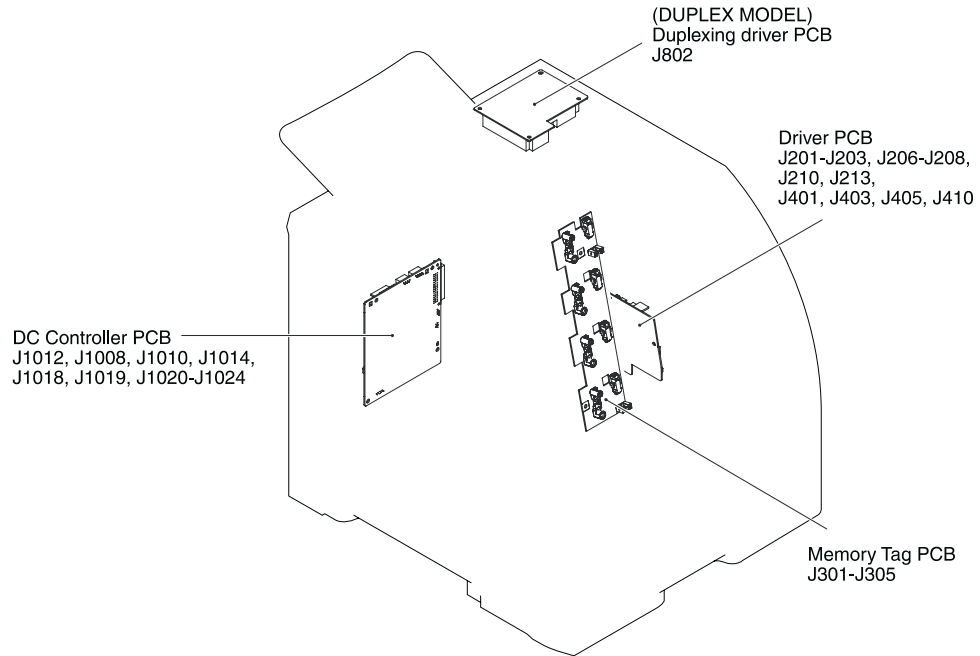
Figure 6-5 Printer connector locations

Paper Feeder Media Sensor
J4012

Paper Feeder Paper Sensor
J4013

500-Sheet Paper Feeder PCB
J4001-J4004
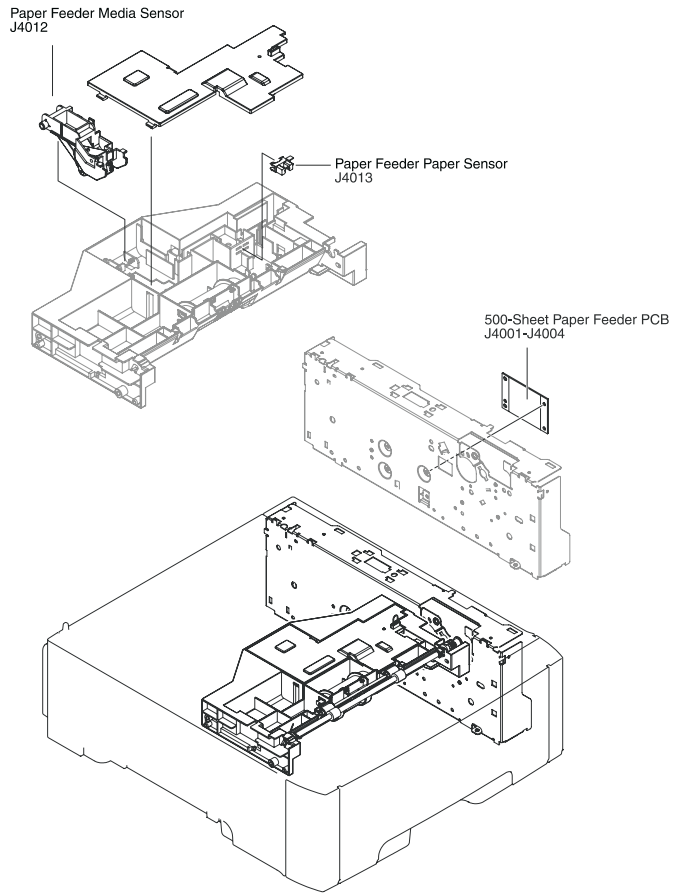
Figure 6-6 500-sheet tray connector locations

Major assemblies

Use this diagram to identify major assemblies in the printer.
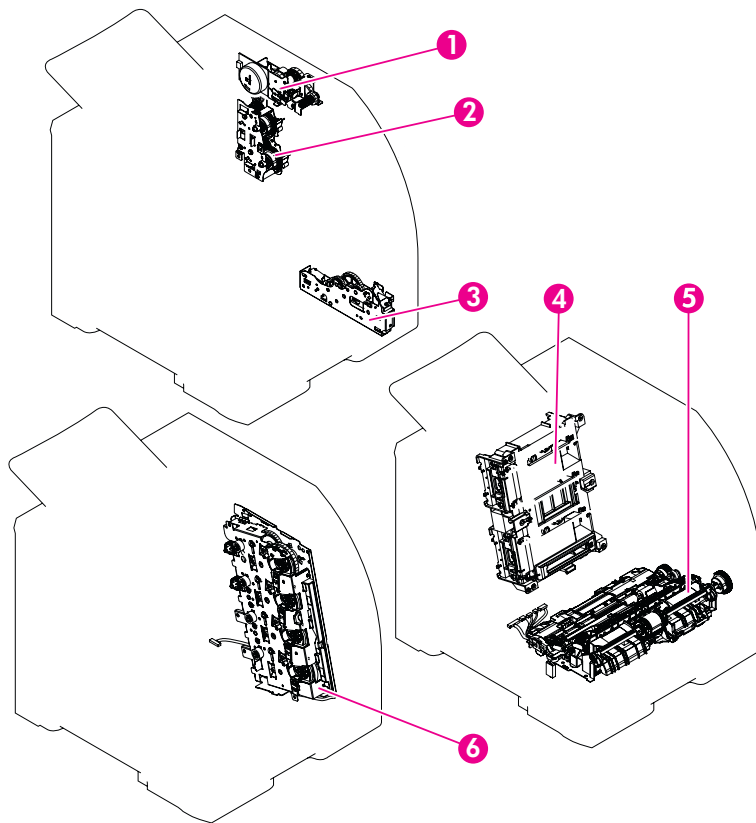
Figure 6-7 Major assemblies (1 of 5)

1. Fuser drive assembly
2. Developing-separation drive assembly
3. Pickup drive assembly
4. Laser/scanner assembly
5. Pickup-and-feed assembly
6. Main drive assembly
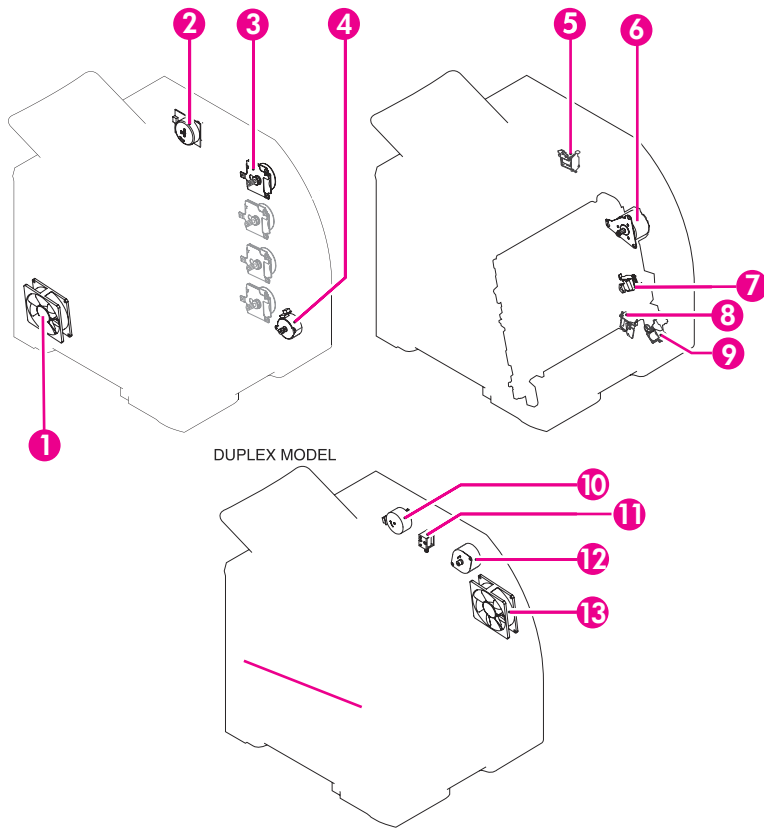
Figure 6-8 Major assemblies (2 of 5)

1. Main fan

2. Fuser drive motor

3. Print cartridge drive motors (M6, M7, M8, M9)

4. Pickup-and-feed motor (M4)

5. Developing separation solenoids (SL5014 and SL5015)

6. ETB drive motor (M5)

7. Developing separation solenoid (SL5011)

8. Cassette pickup solenoid (SL5012)

9. Multipurpose tray pickup solenoid (SL5013)

10. Duplex reverse-drive motor

11. Duplex flapper solenoid (SL10)

12. Duplex-feed-drive motor (M11)

13. Door fan (duplex models only)
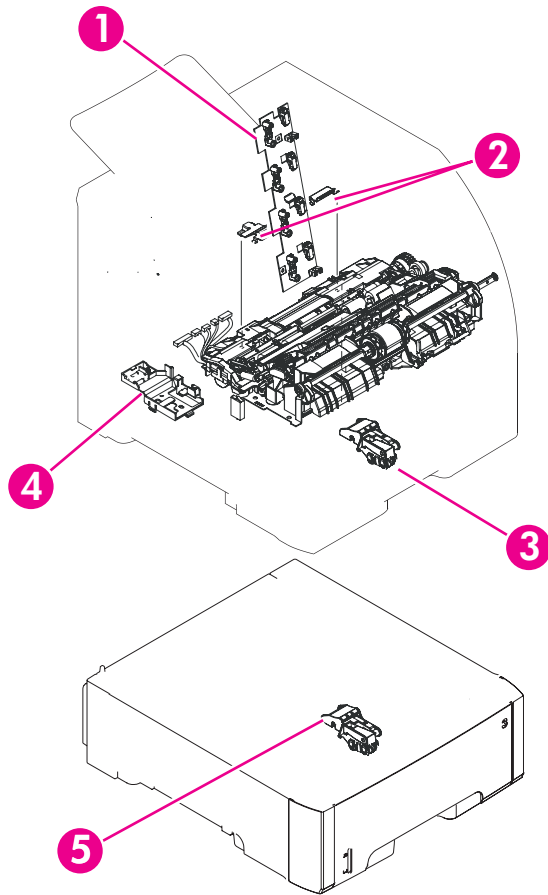
Figure 6-9 Major assemblies (3 of 5)

1. Cartridge sensor assembly

2. Paper and registration sensor covers

3. Cassette media sensor (HP Color LaserJet 3600, 3800, and CP3505 only)

4. Temperature sensor

5. Media sensor assembly (500-sheet feeder)
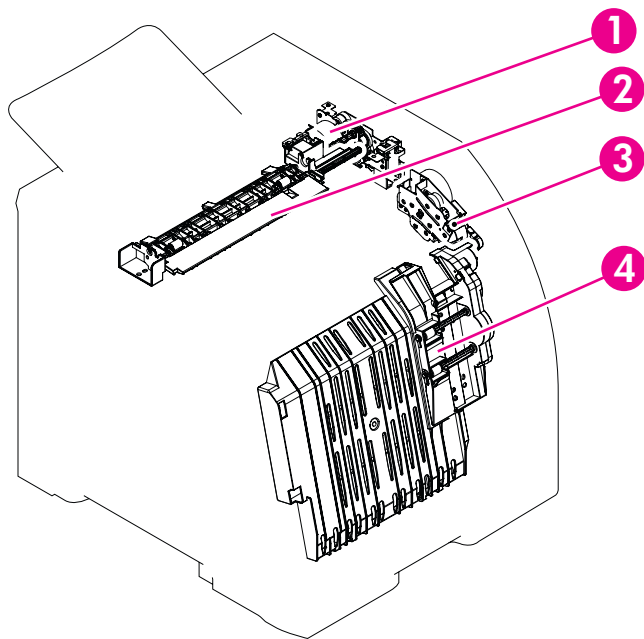
Figure 6-10 Major assemblies (4 of 5)

1. Duplex-reverse-drive assembly

2. Duplex-delivery-drive assembly

3. Duplex-feed-drive assembly

4. Position guide and duplex paper-feed assemblies
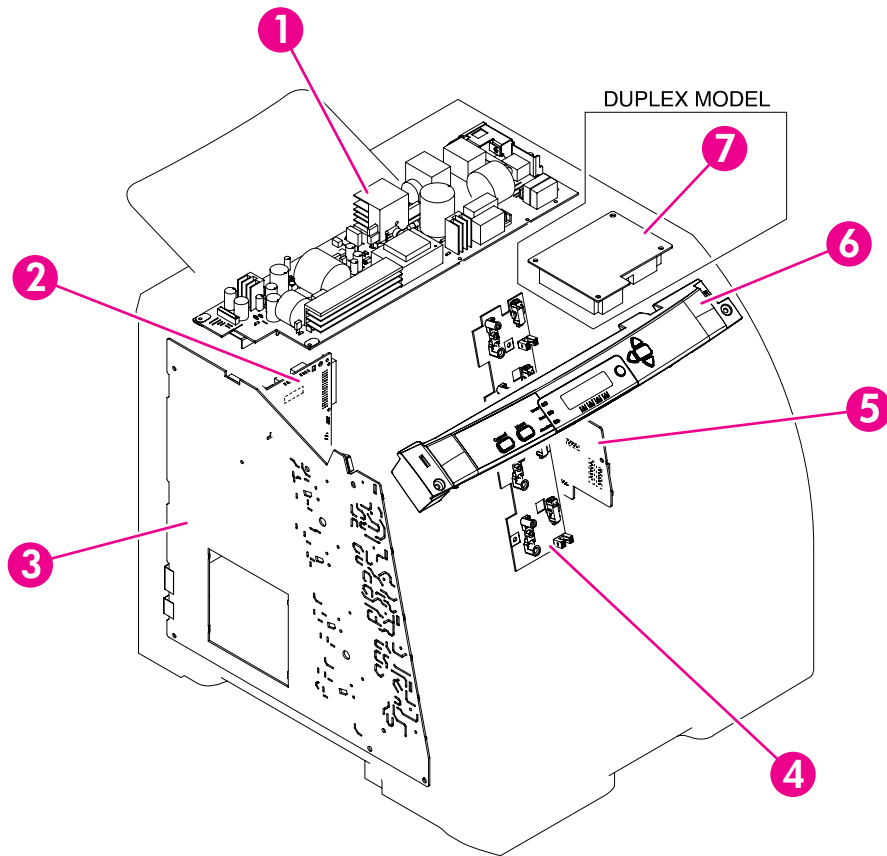
Figure 6-11 Major assemblies (5 of 5)

1. Low-voltage power supply
2. DC controller PCA
3. High-voltage power supply
4. Memory-controller PCA
5. Driver PCA
6. Control panel
7. Duplex-driver PCA

DC controller connectors

This diagram shows the connectors on the DC controller PCA.
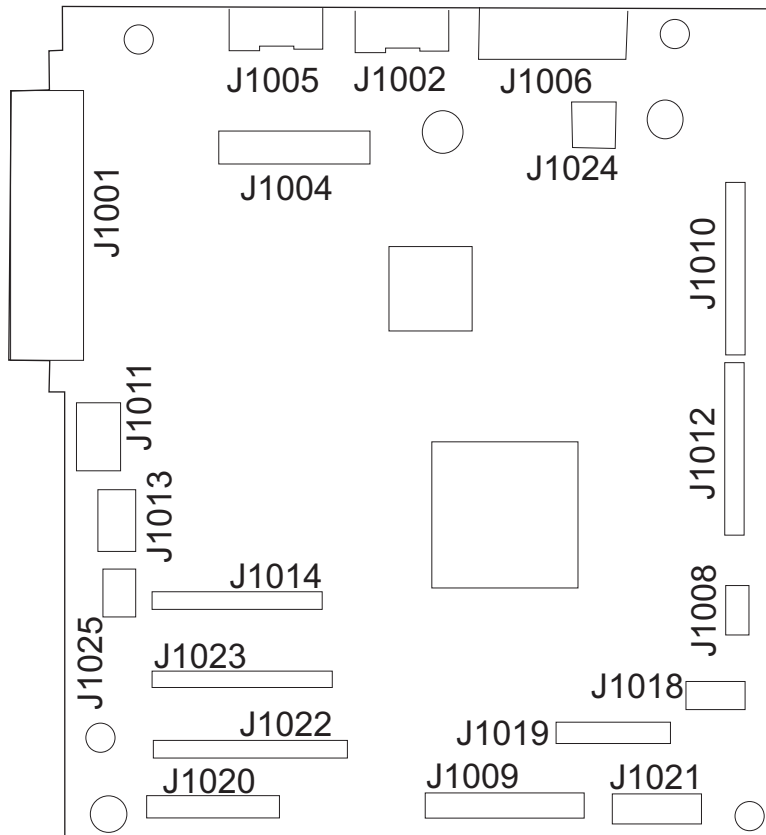
Figure 6-12 DC controller connectors

Timing diagram
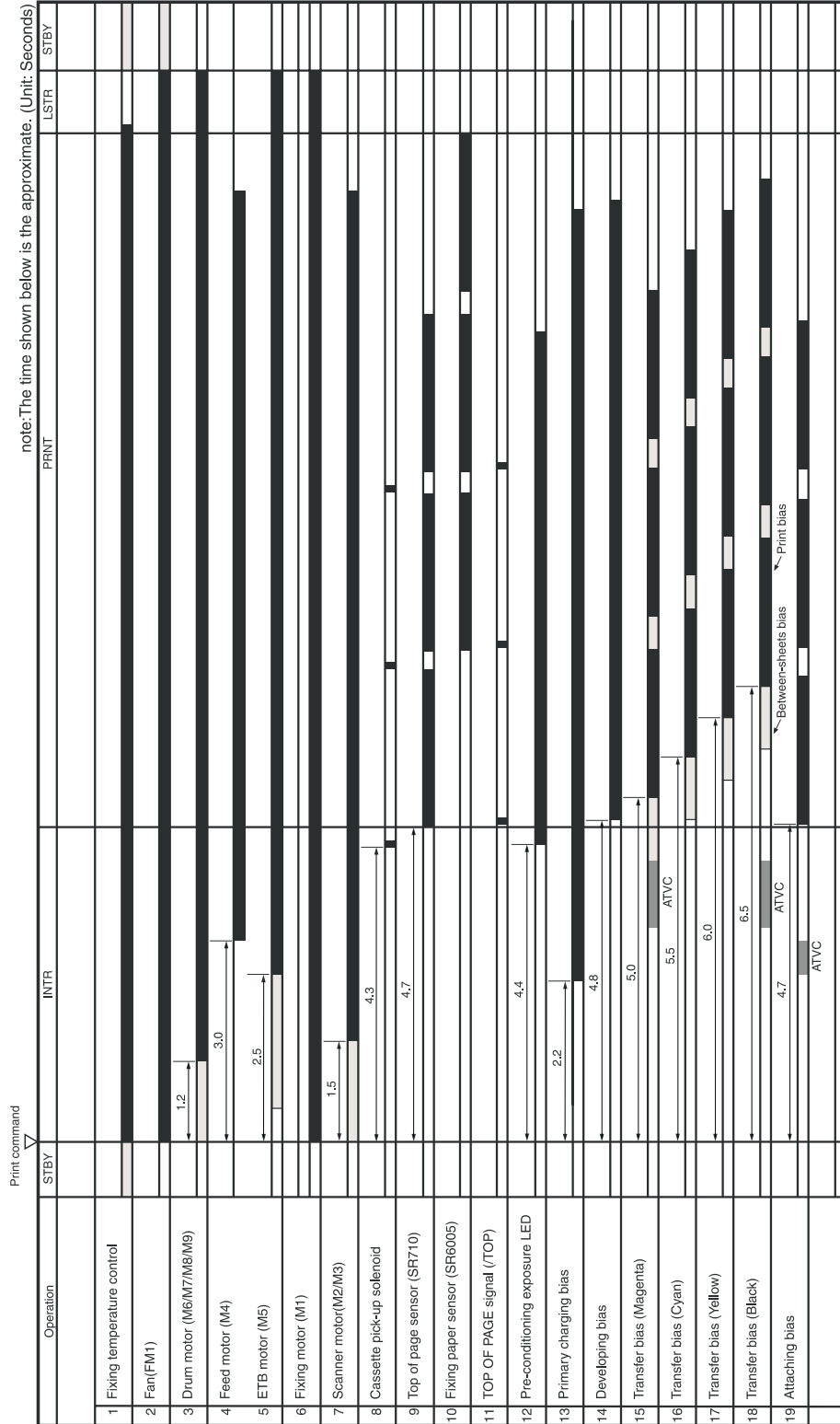
Figure 6-13 Timing diagram (HP LaserJet 3000/3800/CP3505)

Figure 6-14 Timing diagram (HP LaserJet 3600)

Circuit diagrams

The following diagrams show the printer circuits.
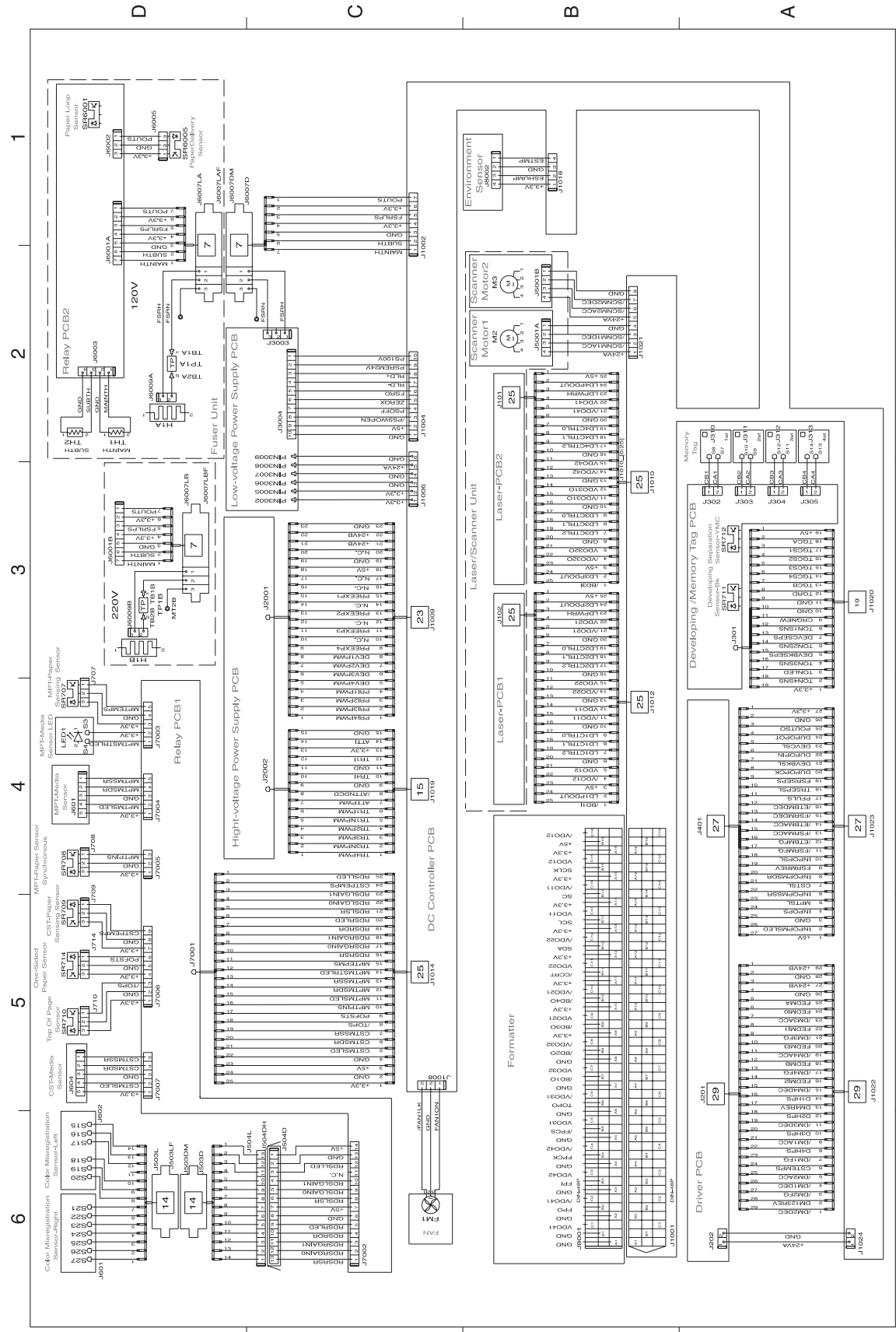
Figure 6-15 General circuit diagram (1 of 2)
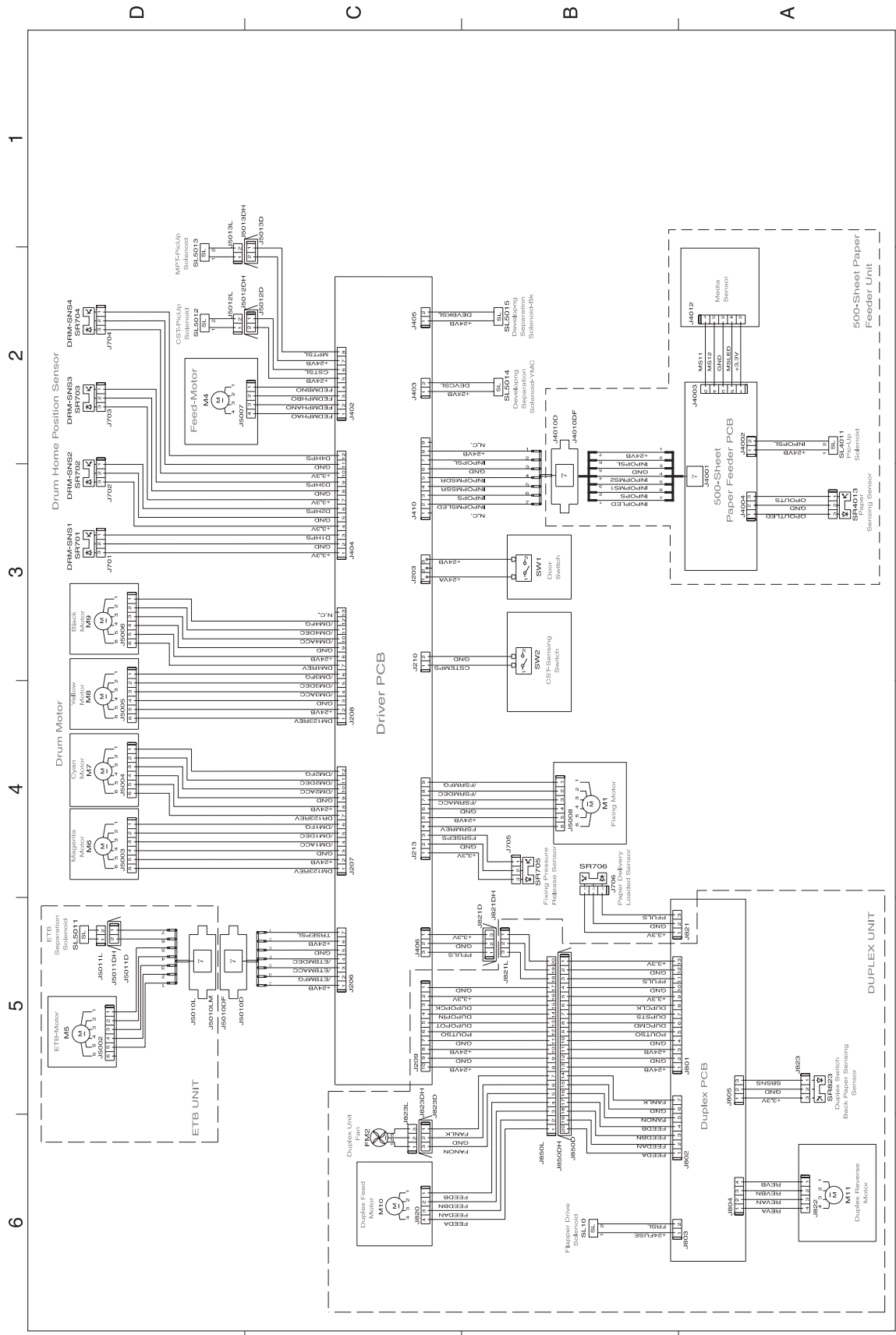
Figure 6-16 General circuit diagram (2 of 2)

7 Parts and diagrams

Ordering parts and supplies

This section describes Web resources for ordering parts and for technical support and resources for ordering related documentation and software.

Parts

Order replacement parts from the following Web sites:

- http://www.hp.com/ssg/parts/direct_order.html

- HP Parts Store: http://www.hp.com/buy/parts

- Partsurfer: http://partsurfer.hp.com

- HP Parts Portal: http://www.hp.com/go/HPparts

How to use the parts lists and diagrams

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

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

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

Types of screws

Illustration	Description	Size	Part Number	Use
	Screw w/washer	M3X8	XA9–1420–000CN	Used to secure metal components to metal components (for example, a ground wire to the frame)
	Screw, RS	M3X6 M3X10	XA9–1499–000CN	Used to secure metal to metal
	Screw, tapping, truss head	M4X10	XB4–7401–000CN	Used to secure anything to plastic

6 mm   8 mm   10 mm   M 3   M 4
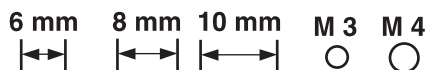
Related documentation and software

Table 7-1 Technical support Web sites

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

Accessories and supplies

Table 7-2 Accessories and supplies

Item	Part number	Service/exchange number	Description
Memory (DIMMs) (HP Color LaserJet 3000/3800/CP3505 Series only)	Q7721A	Q7721-67951	Synchronous 128 MB DDR SDRAM DIMM
	Q7722A	Q7722-67951	Synchronous 256 MB DDR SDRAM DIMM
	Q7723A	Q7723-67951	Synchronous 512 MB DDR SDRAM DIMM
500-sheet feeder (tray 3)	Q5985A	Q5985-67901	Optional accessory

Table 7-2 Accessories and supplies (continued)

Item	Part number	Service/exchange number	Description
Internal (EIO) connectivity for the HP Color LaserJet 3000, 3800, and CP3505 Series printers	J6073A		HP EIO high-performance hard disk
	J7934A		HP Jetdirect 620n print server (10/100-TX Ethernet)
	J7960A		HP Jetdirect 625n print server (10/100/1000T Ethernet)
	J7961A		HP Jetdirect 635n IPv6/IPsec/Gigabit print server
	J7972G		HP 1284 parallel card
	J6035D/G		HP Jetdirect 175x print server (fast Ethernet, value feature set, 10/100-TX, USB 1.1)
	J7942A		HP Jetdirect en3700 print server (fast Ethernet, 10/100-TX, USB 2.0)
	J7951A		HP Jetdirect ew2400 wired/wireless print server (fast Ethernet, value feature set, USB 2.0)
Printer supplies for the HP Color LaserJet 3000 Series printer	Q7560A	Q7560-67901	Black print cartridge
	Q7561A	Q7561-67901	Cyan print cartridge
	Q7562A	Q7562-67901	Yellow print cartridge
	Q7563A	Q7563-67901	Magenta print cartridge
Printer supplies for the HP Color LaserJet 3600 Series printer	Q6470A	Q6470-67901	Black print cartridge
	Q6471A	Q6471-67901	Cyan print cartridge
	Q6472A	Q6472-67901	Yellow print cartridge
	Q6473A	Q6473-67901	Magenta print cartridge
Printer supplies for the HP Color LaserJet 3800 and CP3505 Series printers	Q6470A	Q6470-67901	Black print cartridge
	Q7581A	Q7581-67901	Cyan print cartridge
	Q7582A	Q7582-67901	Yellow print cartridge
	Q7583A	Q7583-67901	Magenta print cartridge
Cable	C6518A		USB 2.0 printer cable (2-meter [6.5-feet] standard)

Table 7-2 Accessories and supplies (continued)

Item	Part number	Service/exchange number	Description
Media	C2934A		50 sheets HP Color LaserJet Transparencies (letter)
	C2936A		50 sheets HP Color LaserJet Transparencies (A4)
	Q2419A		50 sheets HP LaserJet High Gloss paper (letter)
	C4179A		200 sheets HP LaserJet High Gloss paper (letter)
	C4179B		200 sheets HP LaserJet High Gloss paper (A4)
	Q1298A		HP LaserJet Tough paper (letter)
	Q1298B		HP LaserJet Tough paper (A4)
	HPU1132		HP Premium Choice LaserJet paper (letter)
	CHP410		HP Premium Choice LaserJet paper (A4)
	HPJ1124		HP LaserJet paper (letter)
	CHP310		HP LaserJet paper (A4)
Reference, service, and training materials	5851-1468		*HP LaserJet Printer Family Print Media Specification Guide*
	5021-0337		*PCL/PLJ Technical Reference Package* For downloadable versions, go to http://www.hp.com/support/clj3000, http://www.hp.com/support/clj3600, http://www.hp.com/support/clj3800, or http://www.hp.com/support/cljcp3505. When connected, select **Manuals**.

Table 7-2 Accessories and supplies (continued)

Item	Part number	Service/exchange number	Description
Assembly, service, and training CD		Q5982-60114	CD based service and training information (English)
Service manual (this manual)		Q5982-90970	Printed copy of this manual
Control-panel overlays (HP Color LaserJet 3000 Series only)		Q7533-60112	German, French, Italian
		Q7533-60113	Spanish, Dutch, Portuguese, Catalan
		Q7533-60114	Finnish, Norwegian, Swedish, Slovak
		Q7533-60115	Czech, Hungarian, Polish
Control-panel overlays (HP Color LaserJet 3600/3800/CP3505 Series only)		Q5982-60107	French, Spanish, Portuguese
		Q5982-60108	German, French, Italian
		Q5982-60109	Spanish, Dutch, Portuguese, Catalan
		Q5982-60110	Finnish, Norwegian, Swedish, Slovak
		Q5982-60111	Czech, Hungarian, Polish
Formatter HP Color LaserJet 3000 Series	Q5982-67907		base and N models (new)
		Q5982-69001	base and N models (exchange)
	Q5982-67908		DN and DTN models (new)
		Q5982-69002	DN and DTN models (exchange)
Formatter HP Color LaserJet 3800 Series	Q5982-67907		base and N models (new)
		Q5982-69001	base and N models (exchange)
	Q5982-67908		DN and DTN models (new)
		Q5982-69002	DN and DTN models (exchange)
Formatter HP Color LaserJet CP3505 Series	CB441-67901		new
		CB441-69001	exchange

Table 7-2 Accessories and supplies (continued)

Item	Part number	Service/exchange number	Description
I controller (formatter) HP Color LaserJet 3600 Series only	Q5987-67901		I controller
Power cord	8120–5301		Power cord, OPT-903 3-COND 1.9-M-LG ROHS (110v)

External panels and covers
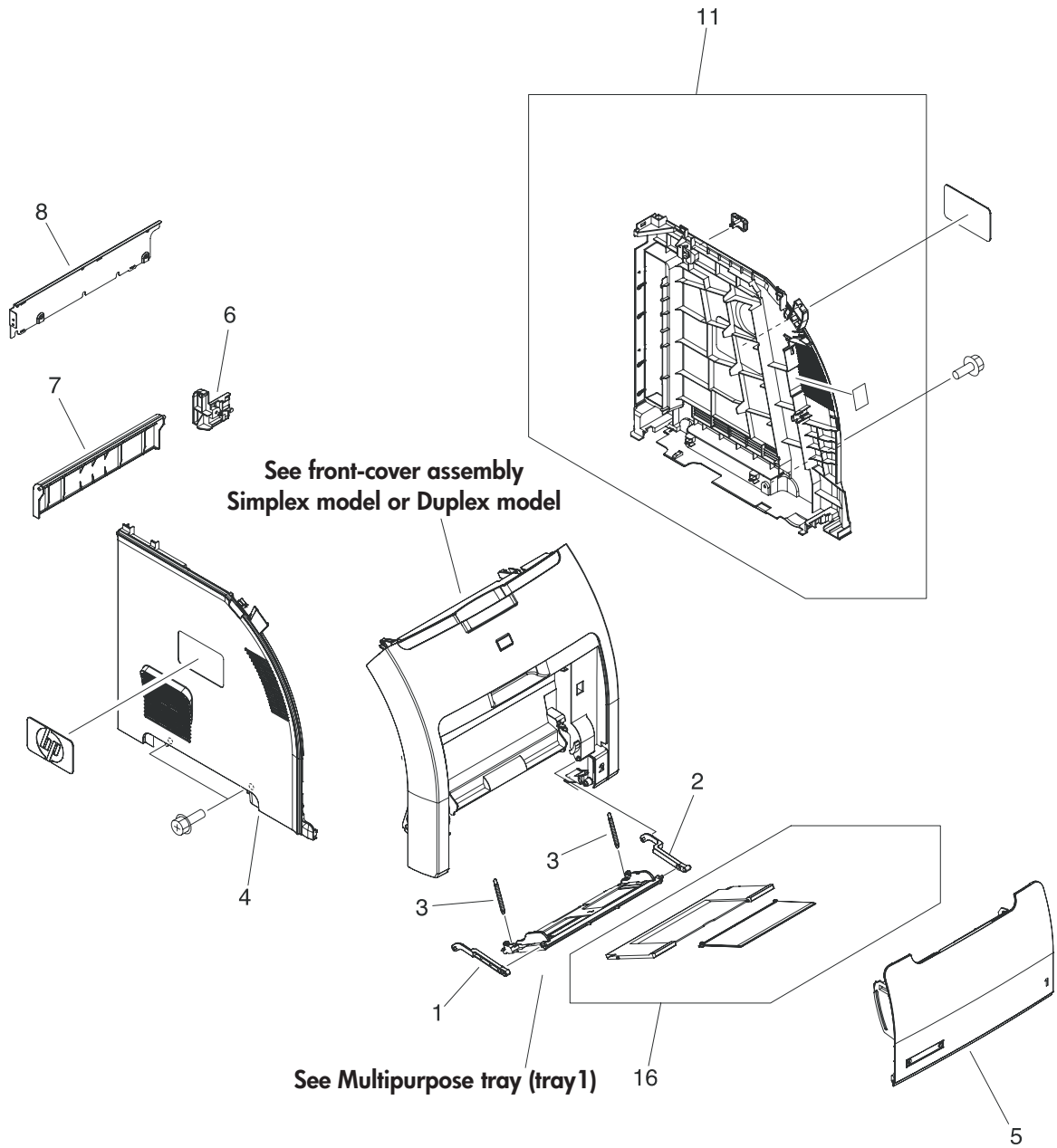
Figure 7-1 External panels and covers (1 of 2)

Table 7-3 External panels and covers (1 of 2)

Ref	Description	Part number	Qty
1	Link, multipurpose tray (tray 1) hinge left	RC1-6381-000CN	1
2	Link, multipurpose tray (tray 1) hinge right	RC1-6382-000CN	1
3	Spring, tension	RC1-6383-000CN	2
4	Cover, left	RC1-6687-000CN	1
5	Cover, multipurpose tray (tray 1)	RC1-6690-000CN	1
6	Cover, cassette rear right (hinge)	RC1-6691-000CN	1
7	Cover, cassette rear left	RC1-6792-000CN	1
8	Cover, rear lower	RC1-7550-000CN	1
11	Cover, right	RM1–2669–000CN	1
16	Multipurpose tray (tray 1) extension tray assembly	RM1-2710-000CN	1

SIMPLEX MODEL

DUPLEX MODEL

17

21

20

13

10

B

B

14

SIMPLEX MODEL

21

B

(J706)

14A

(J821)

14B

(SR706)

(J706)

A

A

22

15B

(J706)

15A

(J821)

(SR706)
(J706)

15

A

DUPLEX MODEL

(J804)

19

(J822)

12

(SW1)
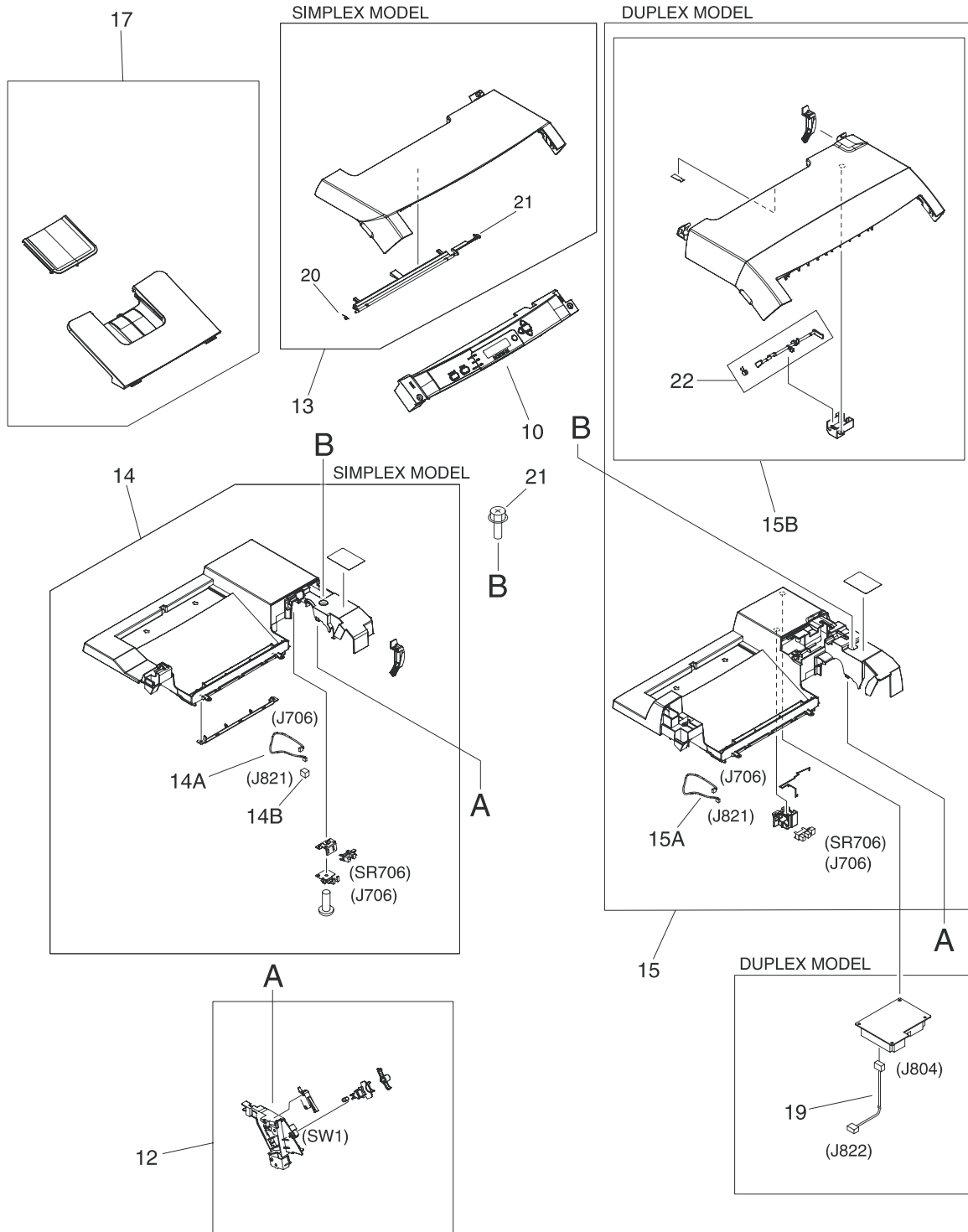
Figure 7-2 External panels and covers (2 of 2)

Table 7-4 External panels, and covers (2 of 2)

Ref	Description	Part number	Qty
12	Interlock-switch assembly	RM1-2670-000CN	1
13	Upper cover assembly (fuser door) (simplex models)	RM1-2671-000CN	1
14	Top-cover assembly (simplex models)	RM1-2672-030CN	1
14A	Cable, paper-full (simplex models)	RM1-2630-000CN	1
14B	Connector, snap-tight (simplex models)	VS1-7207-003CN	1
15	Top-cover assembly (duplex models)	RM1-2713-020CN	1
15A	Cable, paper-full (duplex models)	RM1-2620-000CN	1
15B	Upper cover assembly (fuser door) (duplex models)	RM1-2714-000CN	1
17	Face-down tray assembly (HP CLJ 3000)	RM1-2777-020CN	1
17	Face-down tray assembly (HP CLJ 3600/3800/CP3505)	RM1-2750-020CN	1
19	Cable, duplexing (duplex models)	RM1-2617-000CN	1
20	Torsion spring	RC1-7628-000CN	1
21	Simplex page-delivery flay	RC1-6286-000CN	1
22	Duplex page, duplex flag	RC1-6755-000CN	1
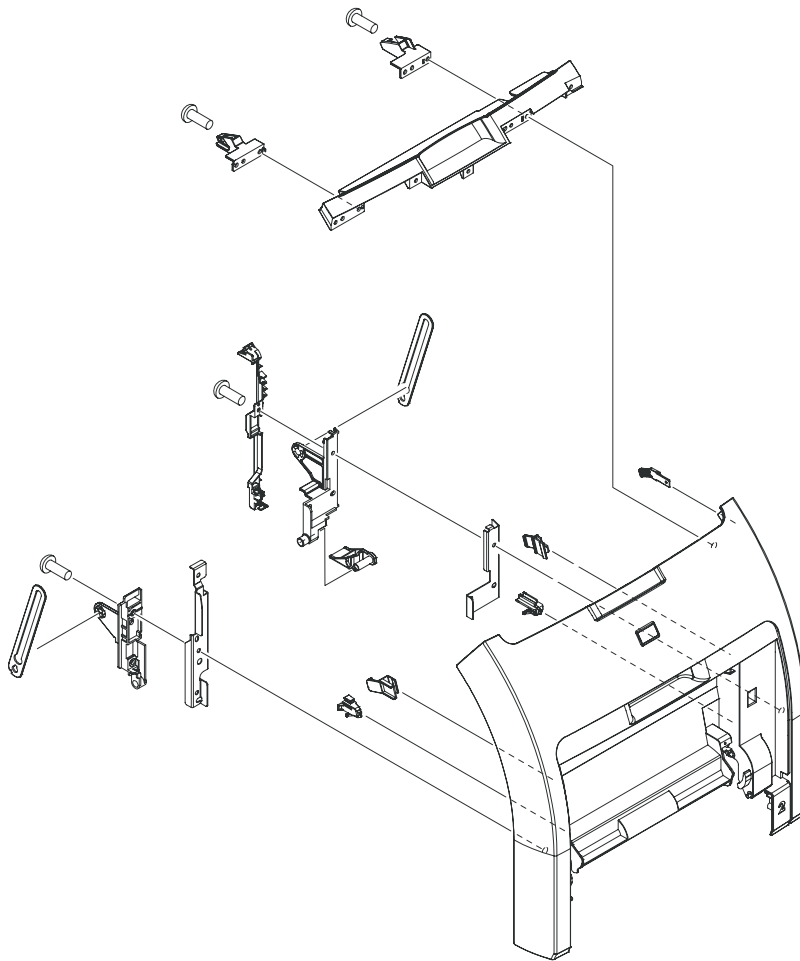
Figure 7-3 Front-cover assembly (simplex model)

Table 7-5 Front-cover assembly (simplex model)

Ref	Description	Part number	Qty
All	Front-cover assembly (simplex models)	RM1-2673-000CN	1
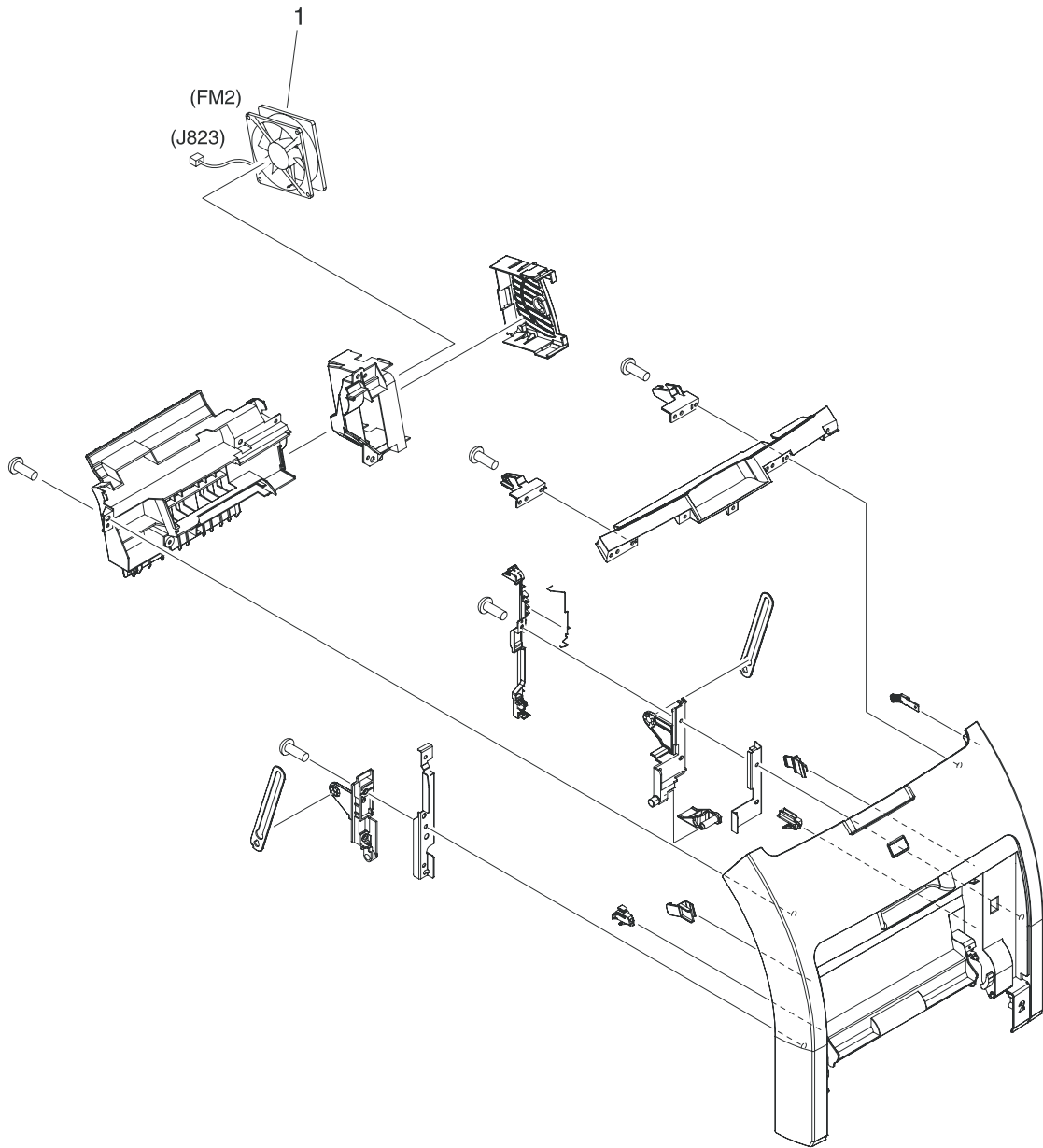
Figure 7-4 Front-cover assembly (duplex model)

Table 7-6 Front-cover assembly (duplex model)

Ref	Description	Part number	Qty
All	Front-cover assembly (duplex models)	RM1-2715-000CN	1
1	Fan (duplex models)	RK2-0954-000CN	1

Internal components
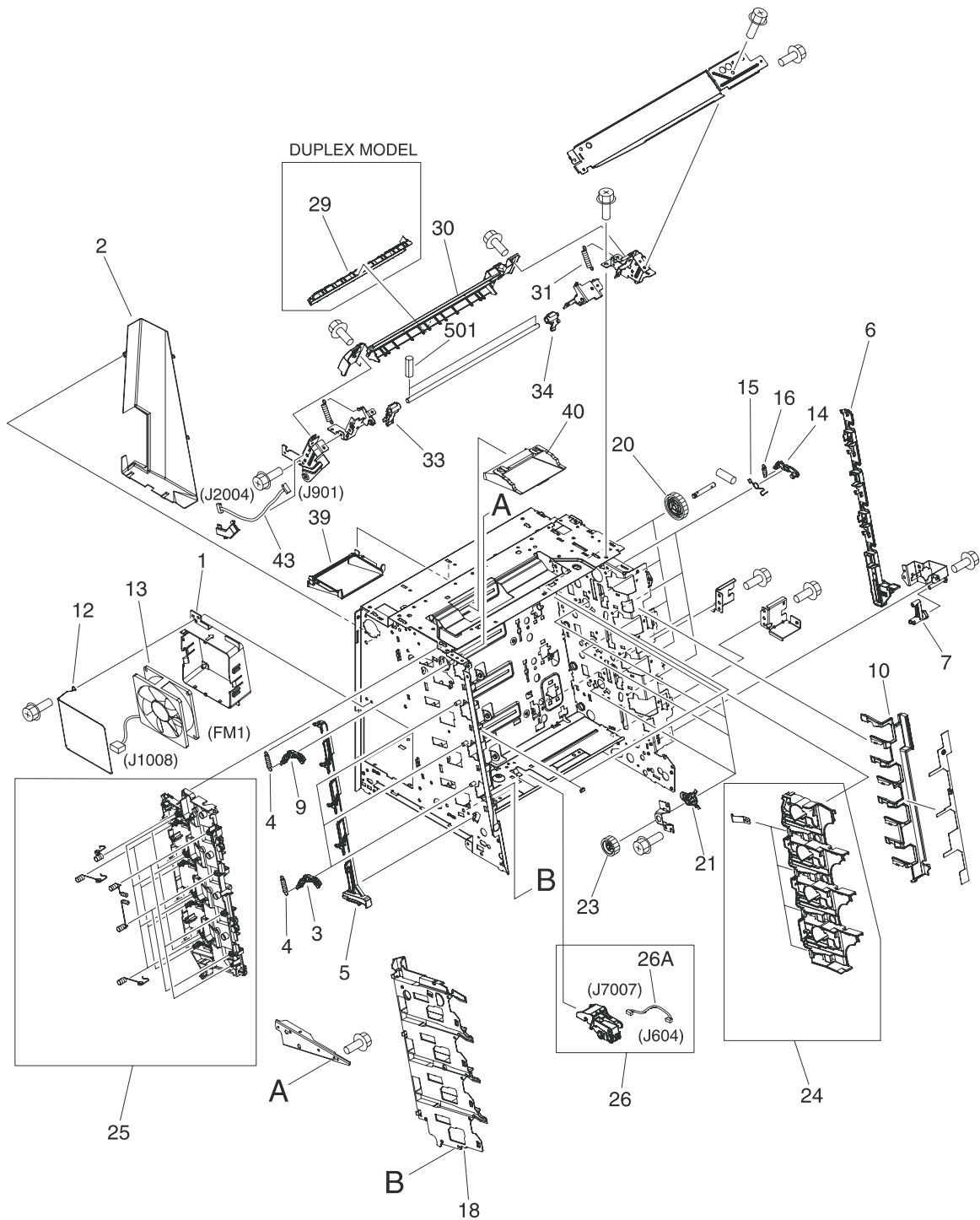
Figure 7-5 Internal components (1 of 5)

Table 7-7 Internal components (1 of 5)

Ref	Description	Part number	Qty
1	Holder, fan	RC1-6631-000CN	1
2	Duct, fan	RC1-6632-000CN	1
3	Lever lock, left	RC1-6633-000CN	3
4	Spring, tension	RC1-6634-000CN	4
5	Lever, lock slide, left	RC1-6636-000CN	1
6	Lever, lock slide, right	RC1-6643-000CN	1
7	Cam, slide, right	RC1-6645-000CN	1
9	Lever, lock, left upper	RC1-7618-000CN	1
10	Cover, slide plate, right	RC1-6824-000CN	1
12	Spring, grounding	RC1-7583-000CN	1
13	Fan	RK2-0954-000CN	1
14	Lever, lock, right	RC1-6640-000CN	4
15	Spring, grounding	RC1-6641-000CN	4
16	Spring, tension	RC1-6677-000CN	4
18	Guide, cartridge, left	RC1-6629-000CN	1
20	Gear, 58T	RC1–6571-000CN	4
21	Bushing	RC1-6573-000CN	4
23	Gear, 29T	RC1-6575-000CN	4
24	Cartridge, guide, right assembly	RM1-2771-000CN	1
25	Contact-holder assembly	RM1-2683-000CN	1
26	Media-sensor cassette assembly (HP CLJ 3600/3800/CP3505)	RM1-2756-000CN	1
26A	Cable, media sensor cassette assembly (HP CLJ 3600/3800/ CP3505)	RM1-2589-000CN	1
29	Guide, duplexing external (duplex models)	RC1-6744-000CN	1
30	Cover, guide crossmember	RC1-6795-000CN	1
31	Spring, tension	RC1-7552-000CN	2
33	Latch, left	RC1-7554-000CN	1
34	Latch, right	RC1-7555-000CN	1
39	Duct, 2	RC1-7547-000CN	1
40	Duct, 3	RC1-7548-000CN	1
43	Cable, panel	RM1-2596-000CN	1
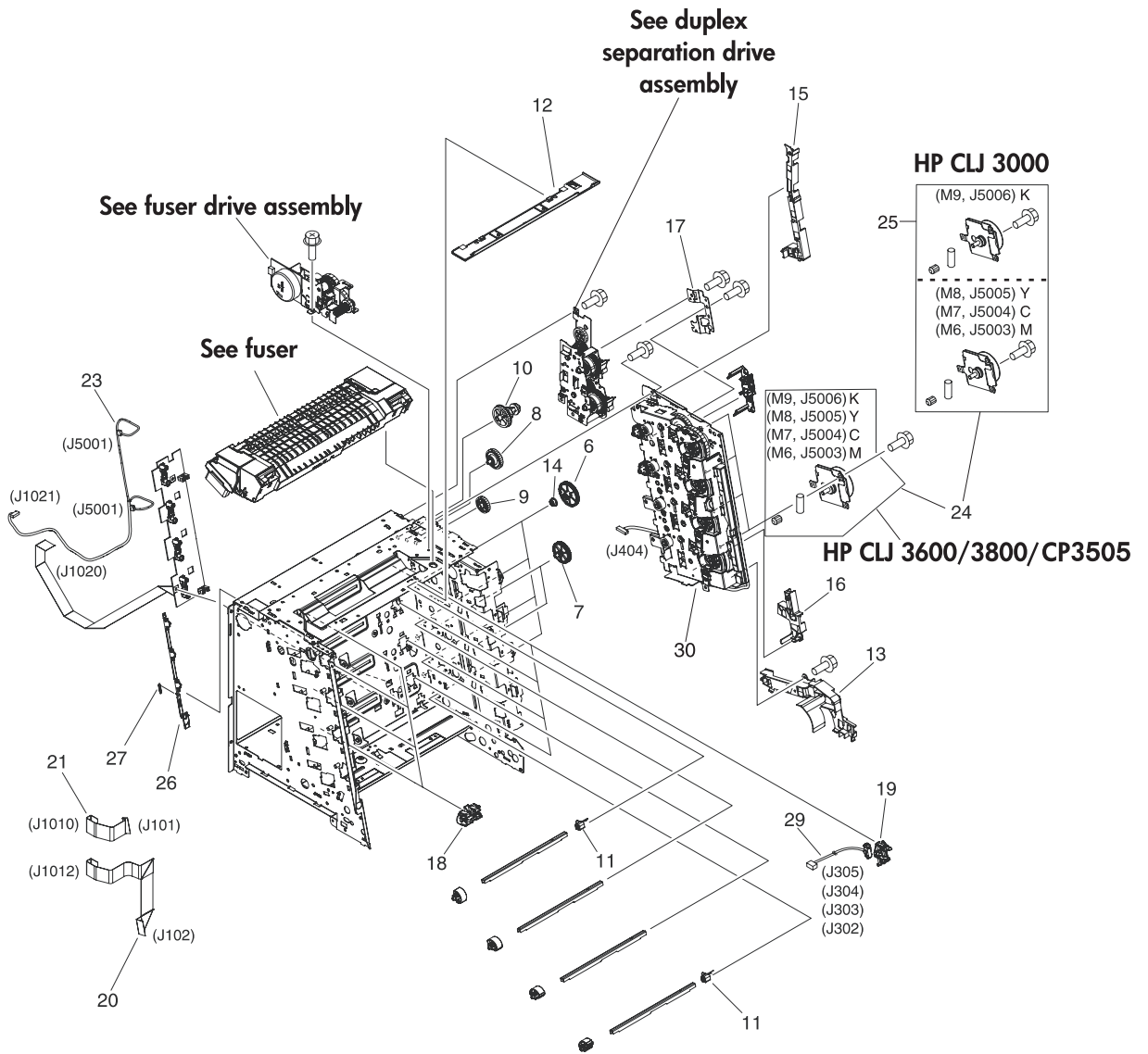
Figure 7-6 Internal components (2 of 5)

Table 7-8 Internal components (2 of 5)

Ref	Description	Part number	Qty
6	Cam, gear. 48T	RC1-6584-000CN	4
7	Gear, 41T	RC1-6589-000CN	2
8	Gear, 19T/30T	RC1-6593-000CN	1
9	Gear, 31T	RC1-6594-000CN	1
10	Gear, 17T/41T	RC1-6596-000CN	1
11	Flag, developing estrangement (developing separation)	RC1-6605-000CN	2
12	Cover, crossmember, upper	RC1-6668-000CN	1
13	Guide, cable, right 1	RC1-6682-000CN	1
14	Bushing	RC1-6823-000CN	4
15	Guide, cable, right 3	RC1-7544-000CN	1
16	Guide, cable, right 4	RC1-7545-000CN	1
17	Crossmember, drive side plate	RC1-7576-000CN	1
18	Cover, shutter, left	RC1-6651-000CN	4
19	Holder, toner cartridge	RC1-6771-000CN	4
20	Cable, scanner flat (long (HP CLJ 3000)	RK2-0971-000CN	1
20	Cable, scanner flat (long (HP CLJ 3600/3800/CP3505)	RK2-0966-000CN	1
21	Cable, scanner flat short	RK2-0967-000CN	1
23	Cable, scanner	RM1-2594-000CN	1
24	Drive-motor assembly, print-cartridge (HP CLJ 3600/3800/ CP3505: K, Y, C, M cartridges; HP CLJ 3000: Y, C, M cartridges only)	RM1-2689-000CN	1
25	Drive-motor assembly, print-cartridge (HP CLJ 3000: K cartridge only)	RM1-2773-000CN	1
26	Lever, sensing	RC1-7597-000CN	1
27	Spring, tension	RC1-7598-000CN	1
29	Cable, memory tag	RM1-2627-000CN	1
30	Main drive assembly	RM1-2751-000CN	1
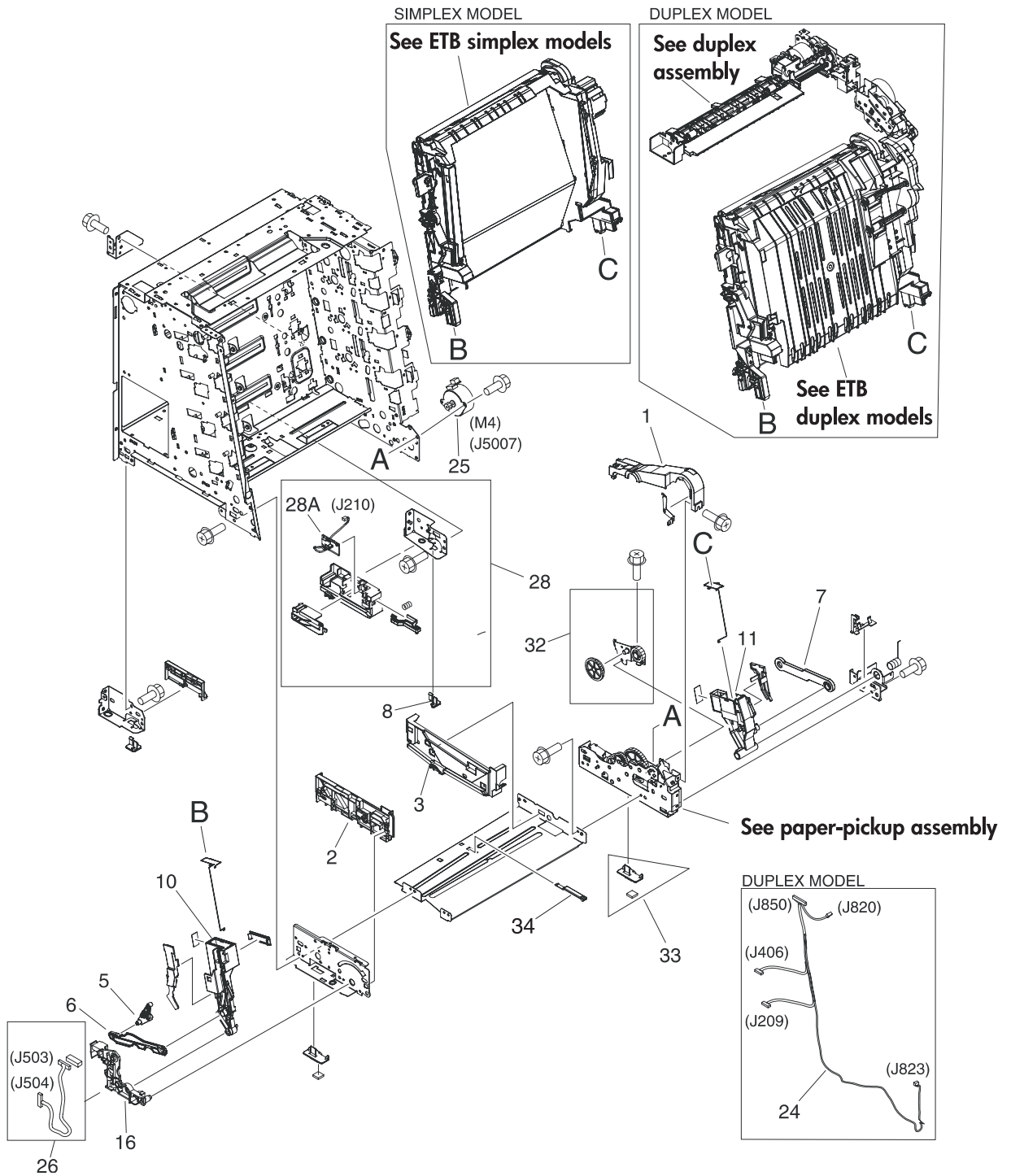
Figure 7-7 Internal components (3 of 5)

Table 7-9 Internal components (3 of 5)

Ref	Description	Part number	Qty
1	Cover, gear	RC1-6405-000CN	1
2	Guide, cassette front, left	RC1-6499-000CN	1
3	Guide, cassette front, right	RC1-6502-000CN	1
5	Cam, slide, left	RC1-6638-000CN	1
6	Rod, link, left	RC1-6639-000CN	1
7	Rod, link, right	RC1-6646-000CN	1
8	Foot, rear	RC1-6650-000CN	2
10	Holder, ETB, left	RC1-6673-000CN	1
11	Holder, ETB, right	RC1-6674-000CN	1
16	Mount, hinge, left	RC1-6684-000CN	1
24	Cable, duplex docking	RM1-2609-000CN	1
25	Motor, AC 24V, 9W	RK2-0939-000CN	1
26	Cable, sensor	RM1-2603-000CN	1
28	Right-rear base assembly	RM1-2678-000CN	1
28A	Cassette sensor PCA	RM1-2576-000CN	1
32	Plate, gear 3	RL1-1069-000CN	1
33	Foot, rubber assembly, front	RL1-1067-000CN	2
34	Plate lock release	RC1-6833-000CN	1
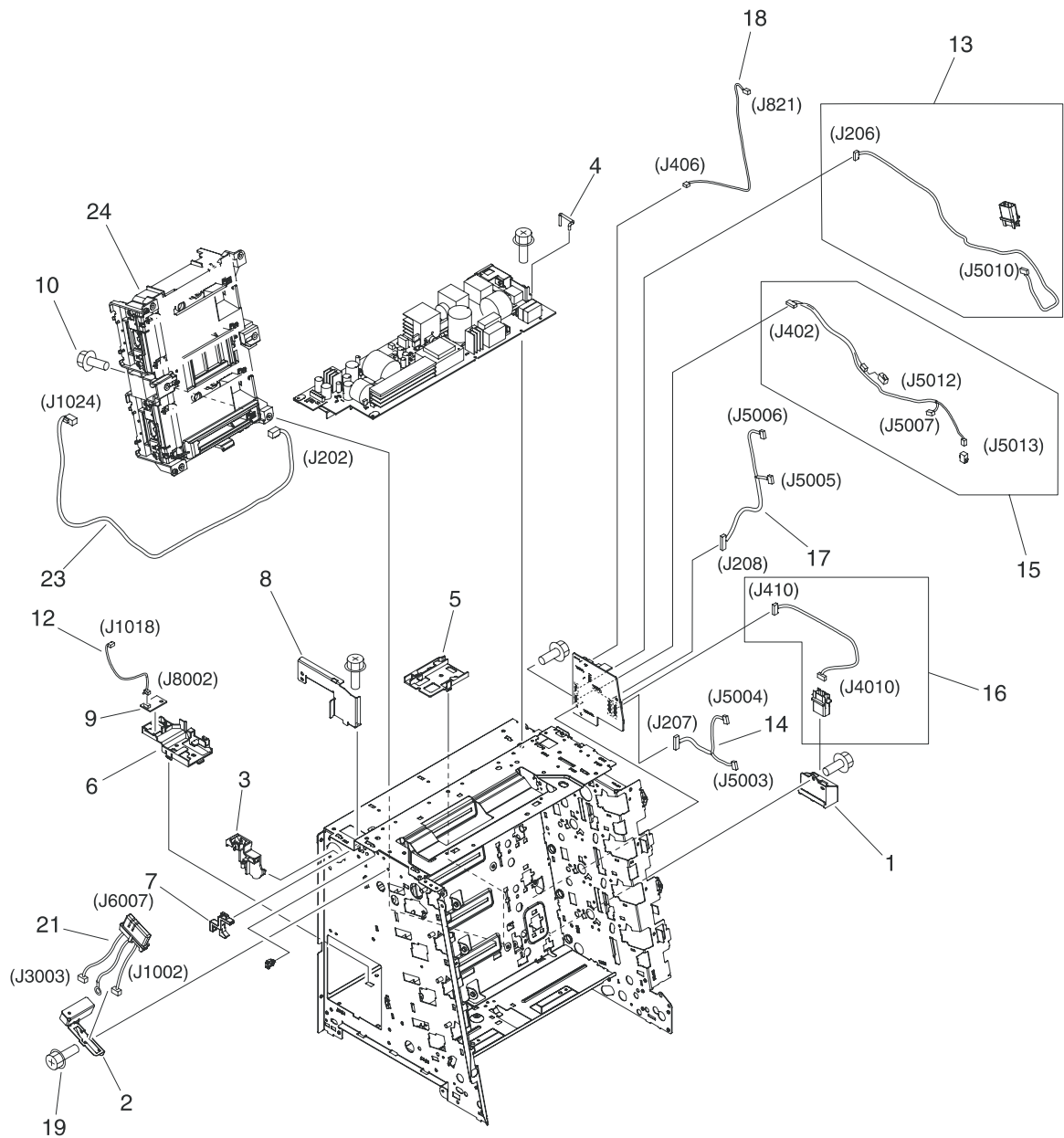
Figure 7-8 Internal components (4 of 5)

Table 7-10 Internal components (4 of 5)

Ref	Description	Part number	Qty
1	Holder, drawer connector	RC1-6652-000CN	1
2	Holder, drawer	RC1-6653-000CN	1
3	Guide, cable, left	RC1-6681-000CN	1
4	Arm, switch-link	RC1-6700-000CN	1
5	Guide, flexible flat cable 1	RC1-6772-000CN	1
6	Guide, flexible flat cable 2	RC1-6773-000CN	1
7	Guard, cable	RC1-6825-000CN	1
8	Bracket, left, rear	RC1-7551-000CN	1
9	Sensor, temperature	WP2-5214-000CN	1
12	Cable, environment sensor	RM1-2595-000CN	1
13	Cable, ETB	RM1-2608-000CN	1
14	Cable, drum motor	RM1-2610-000Cn	1
15	Cable, solenoid	RM1-2611-000CN	1
16	Cable, cassette	RM1-2613-000CN	1
17	Cable, drum motor (HP CLJ 3000)	RM1-2629-000CN	1
17	Cable, drum motor (HP CLJ 3600/3800/CP3505)	RM1-2614-000CN	1
18	Cable, paper-full	RM1-2628-000CN	1
21	Fuser cable assembly	RM1-2597-000CN	1
23	Cable, drive power	RM1-2605-000CN	1
24	Scanner assembly (HP CLJ 3000)	RM1-2952-000CN	1
24	Scanner assembly (HP CLJ 3600/3800/CP3505)	RM1-2640-000CN	1
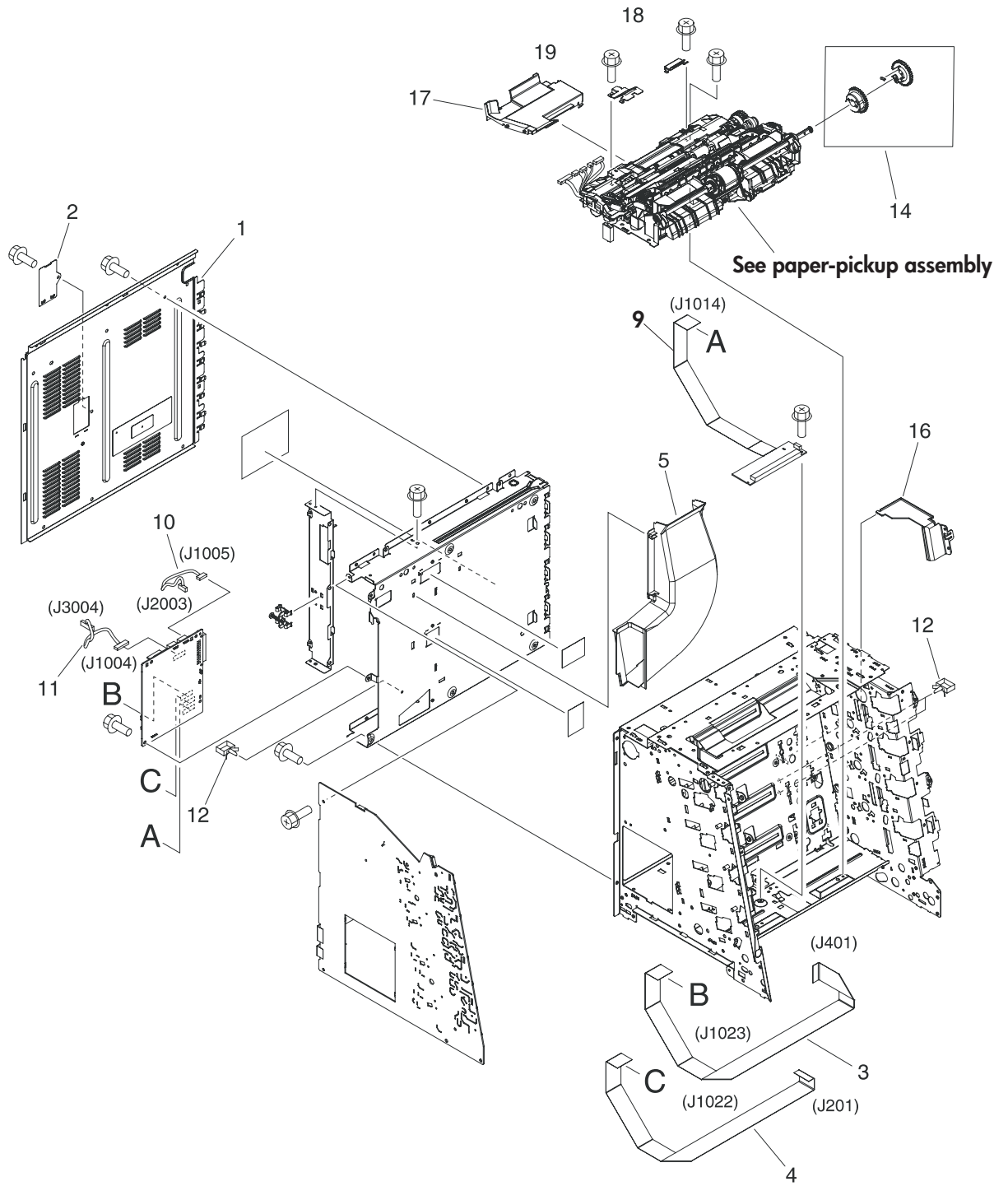
Figure 7-9 Internal components (5 of 5)

Table 7-11 Internal components (5 of 5)

Ref	Description	Part number	Qty
1	Cover, rear	RC1-6627-000CN	1
2	Cover	RC1-7577-000CN	1
3	Cable, drive flat 1	RK2-0969-000CN	1
4	Cable, drive flat 2	RK2-0970-000CN	1
5	Duct 1	RC1-7546-000CN	1
9	Relay, PCA (HP CLJ 3000 only)	RM1-2582-000CN	1
9	Relay, PCA (HP CLJ 3600/3800/CP3505 only)	RM1-2632-000CN	1
10	Cable, panel connecting	RM1-2587-000CN	1
11	Cable, power control	RM1-2592-000CN	1
12	Cable, clamp	WT2-5944-000CN	2
14	Multipurpose tray paper-pickup gear assembly	RM1-2704-000CN	1
16	Shield, PCA	RC1-7599-000CN	1
17	Cover, connector	RC1-6607-000CN	1
18	Cover, paper sensor	RC1-6611-000CN	1
19	Cover, registration sensor	RC1-6612-000CN	1

Paper-pickup drive assembly

(SL5012)

(J5012)

(SL5013)

(J5013)
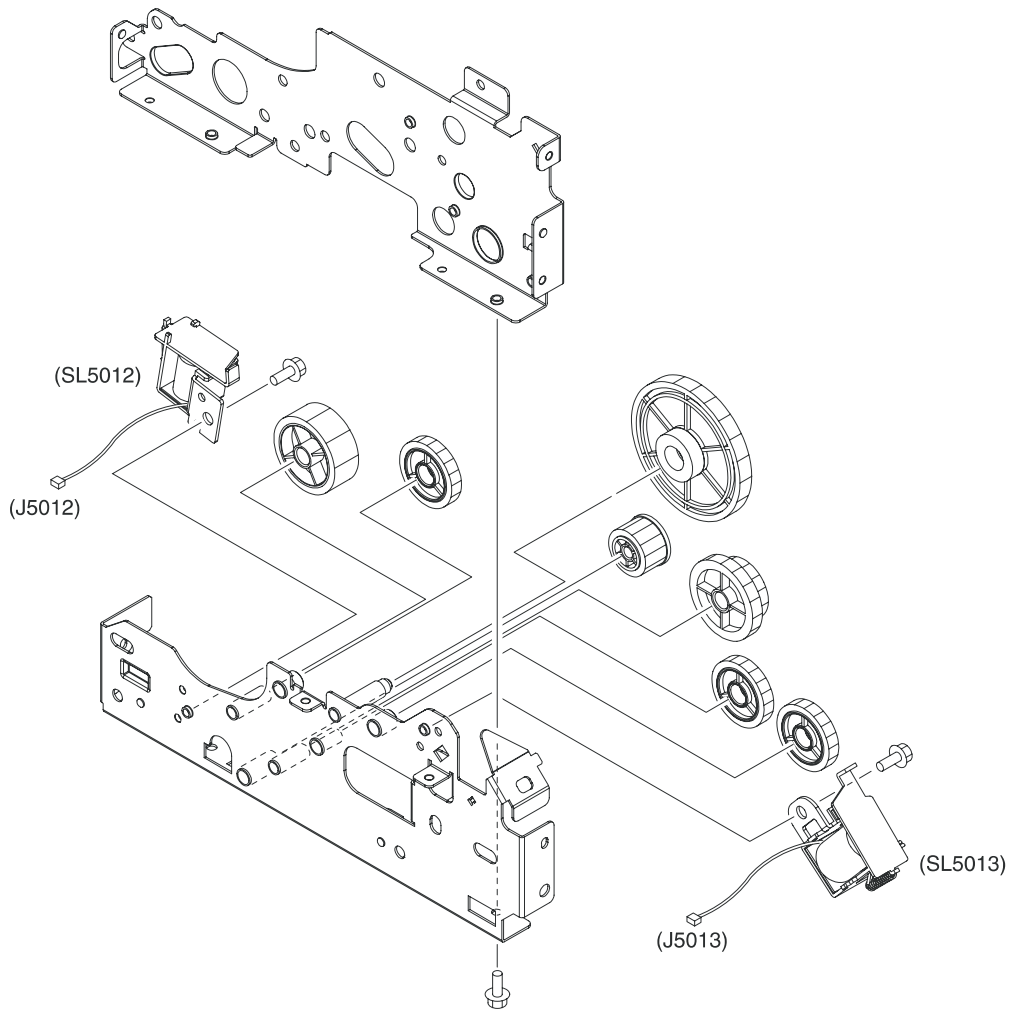
Figure 7-10 Paper-pickup drive assembly

Table 7-12 Paper-pickup drive assembly

Ref	Description	Part number	Qty
All	Paper-pickup drive assembly	RM1-2679-000CN	1

Duplexing-feed drive assembly (duplex models)

(M10)
(J820)
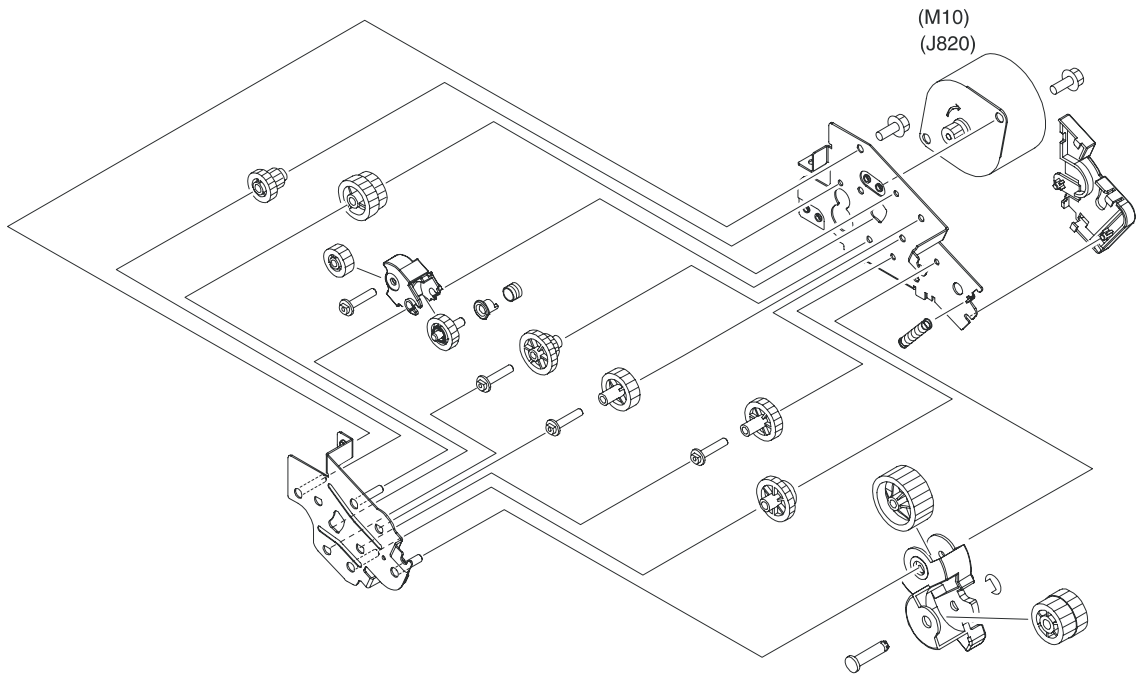
Figure 7-11 Duplexing-feed drive assembly (duplex models)

Table 7-13 Duplexing-feed drive assembly (duplex models)

Ref	Description	Part number	Qty
All	Duplexing-feed drive assembly (duplex models)	RM1-2720-000CN	1

Duplexing reverse-drive assembly (duplex models)
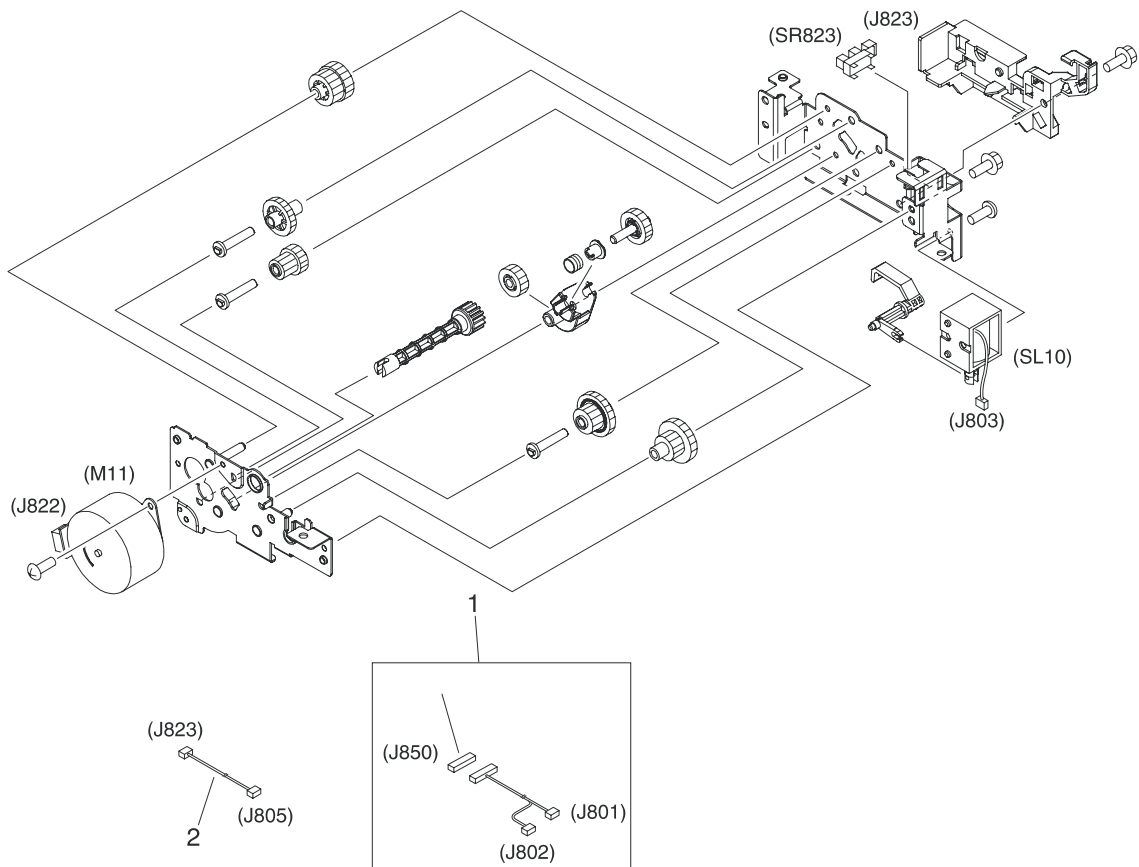
Figure 7-12 Duplexing reverse-drive assembly (duplex models)

Table 7-14 Duplexing reverse-drive assembly (duplex models)

Ref	Description	Part number	Qty
All	Duplexing reverse-drive assembly (duplex models)	RM1-2721-000CN	1
1	Cable, duplexing (duplex models)	RM1-2616-000CN	1
2	Cable, duplexing sensor (duplex models)	RM1-2618-000CN	1

Developing separation-drive assembly
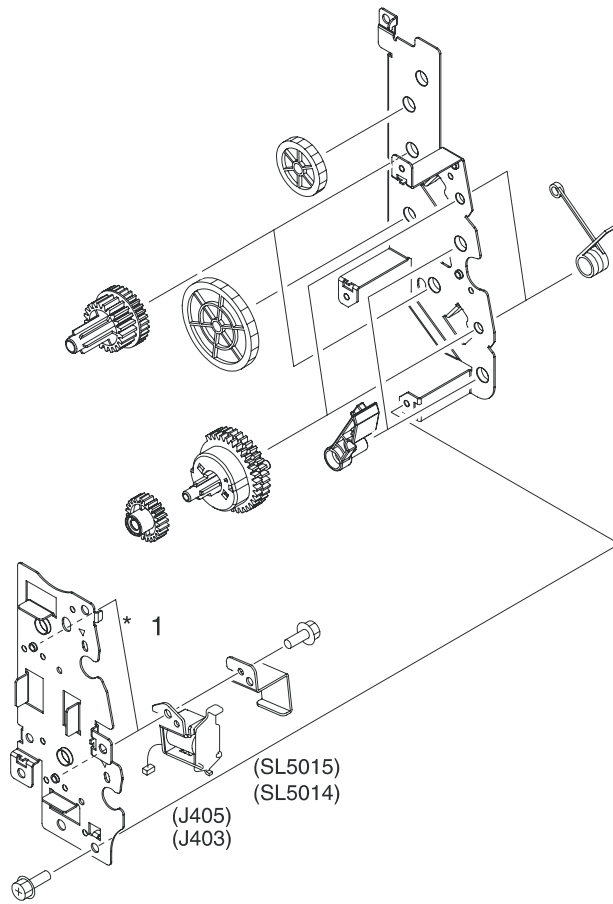
Figure 7-13 Developing separation-drive assembly

Table 7-15 Developing separation-drive assembly

Ref	Description	Part number	Qty
All	Developing separation (estrangement) drive assembly	RM1-2687-000CN	1

Fuser drive assembly
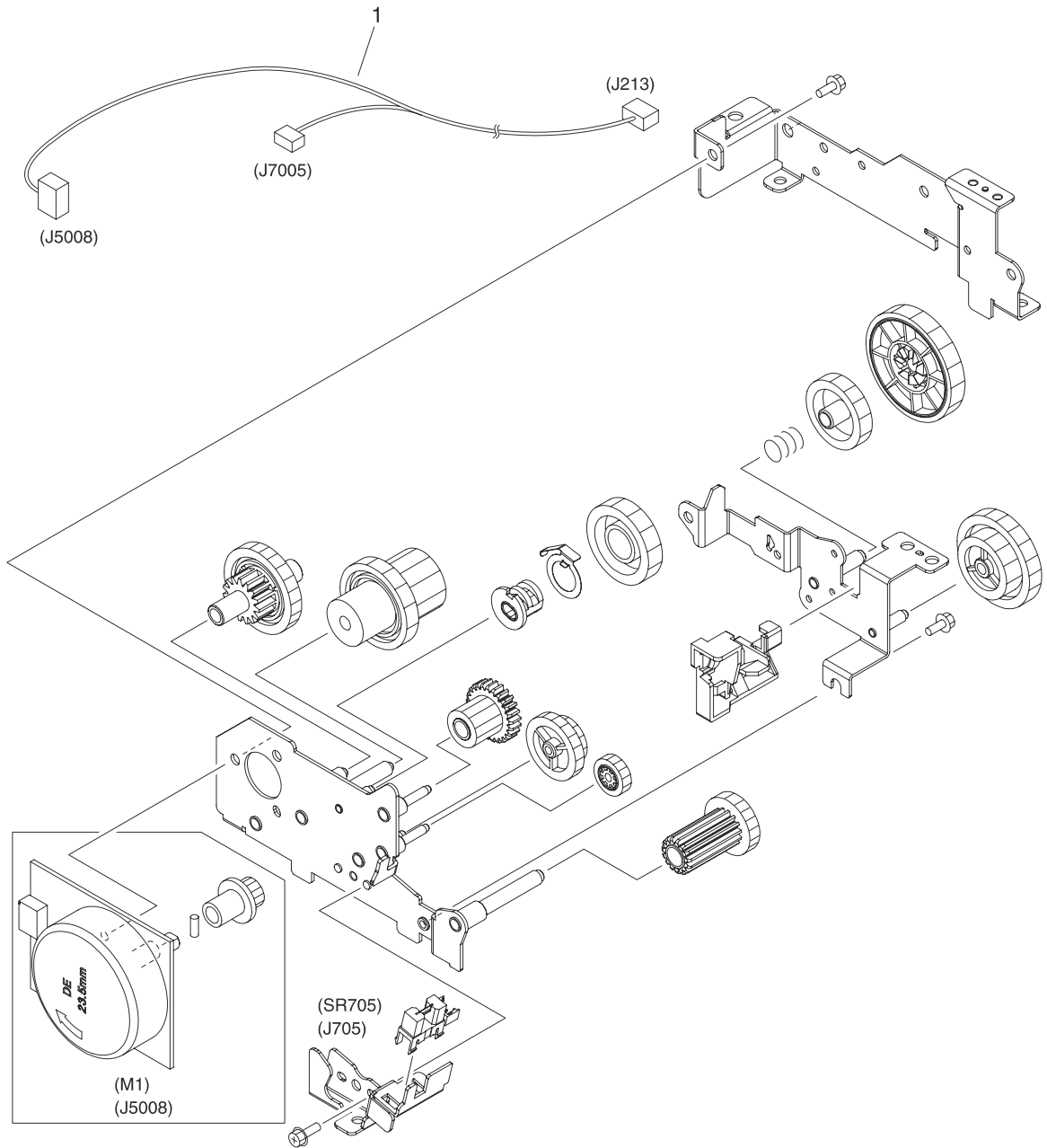
Figure 7-14 Fuser drive assembly

Table 7-16 Fuser drive assembly

Ref	Description	Part number	Qty
All	Fuser drive assembly	RM1-2668-000CN	1
1	Cable, fuser drive	RM1-2619-000CN	1

Cassette (tray 2)
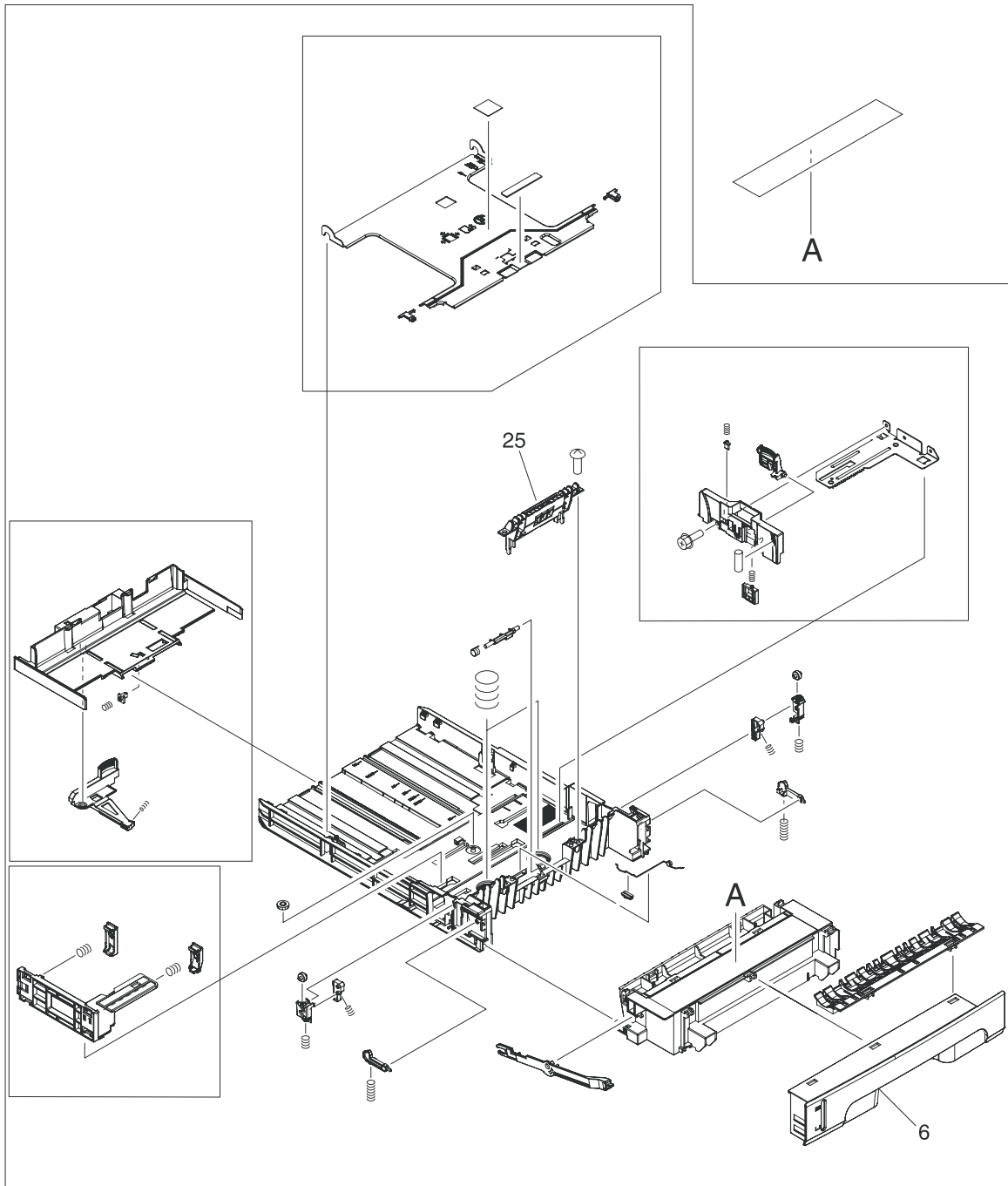
Figure 7-15 Cassette (tray 2)

Table 7-17 Cassette (tray 2)

Ref	Description	Part number	Qty
All	Cassette, 250-sheet	RM1-2705-000CN	1
6	Cover, cassette, front	RC1-6491-000CN	1
25	Separation-pad assembly	RM1-2709-000CN	1
NA	Lift plate activator	RC1-6833-020CN	1

Paper-pickup assembly (HP CLJ 3600/3800/CP3505)
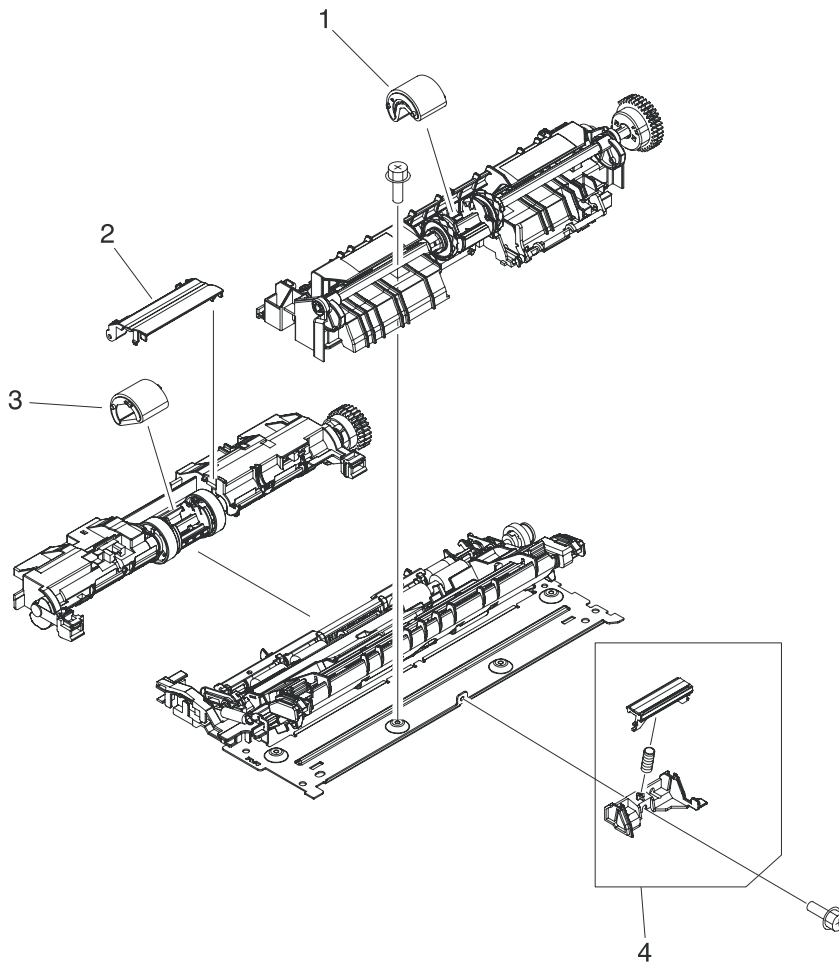
Figure 7-16 Paper-pickup assembly (HP CLJ 3600/3800/CP3505)

Table 7-18 Paper-pickup assembly (HP CLJ 3600/3800/CP3505)

Ref	Description	Part number	Qty
All	Paper-pickup assembly (HP CLJ 3600/3800/CP3505)	RM1-2755-000CN	1
1	Multipurpose tray roller (HP CLJ 3600/3800/CP3505)	RM1-2741-000CN	1
2	Cover, cassette roller assembly (HP CLJ 3600/3800/CP3505)	RC1-6609-000CN	1
3	Cassette	RM1-2702-000CN	1
4	Multipurpose tray separation-pad assembly (HP CLJ 3600/3800/CP3505)	RM1-2699-000CN	1

Paper-pickup assembly (HP CLJ 3000)
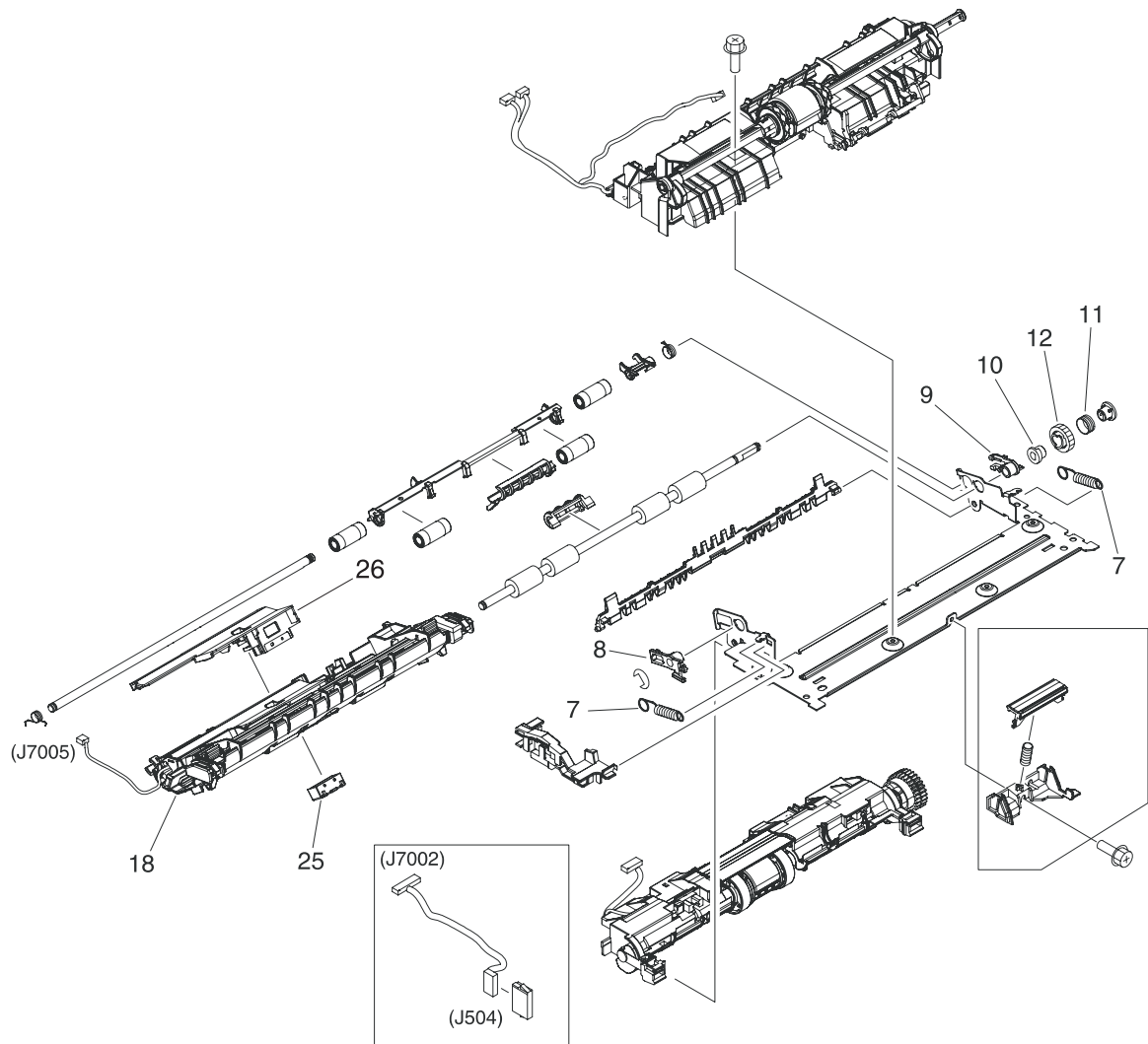
Figure 7-17 Paper-pickup assembly (HP CLJ 3000)

Table 7-19 Paper-pickup assembly (HP CLJ 3000)

Ref	Description	Part number	Qty
All	Paper-pickup assembly (HP CLJ 3000)	RM1-2774-000CN	1
7	Spring, tension (HP CLJ 3000)	RC1-6516-000CN	2
8	Bushing (HP CLJ 3000)	RC1-6517-000CN	1
9	Bushing (HP CLJ 3000)	RC1-6518-000CN	1
10	Pre-registration rachet (HP CLJ 3000)	RC1-6444-000CN	1
11	Spring, compression (HP CLJ 3000)	RC1-6520-000CN	1
12	Gear, 18T (HP CLJ 3000)	RC1-6521-000CN	1
18	Preregistration-guide assembly (HP CLJ 3000)	RM1-2775-000CN	1
25	Block, Multipurpose path (HP CLJ 3000)	RC1-7959-000CN	
26	Media sensor case	RC1-6394-000CN	1

Electronic transfer belt (simplex models)

6

(M5)
(J5002)

(SL5011)

(J5011)

A

A

(J503)
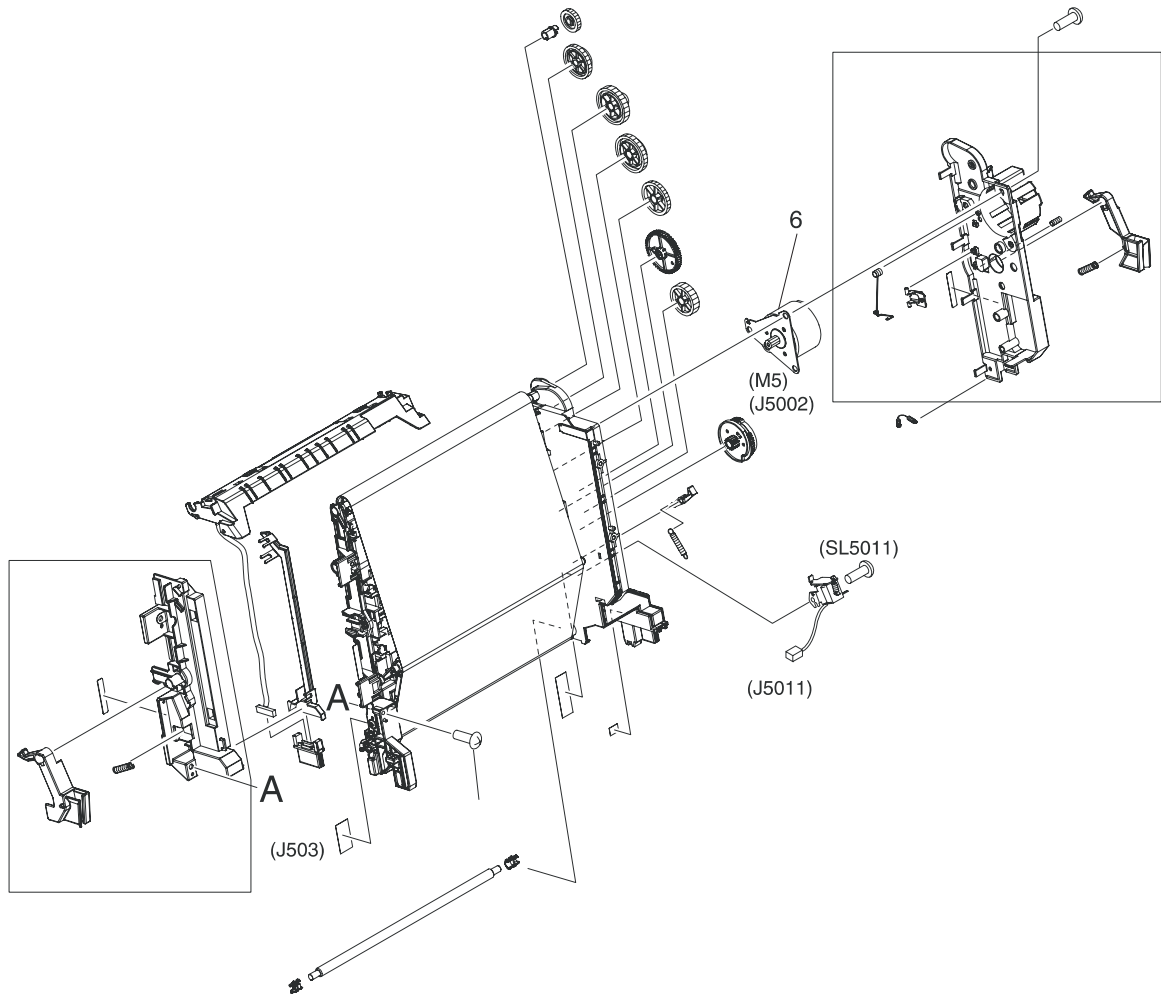
Figure 7-18 Electronic transfer belt (simplex models)

Table 7-20 Electronic transfer belt (simplex models)

Ref	Description	Part number	Qty
All	Electronic transfer belt (simplex models)	RM1-2759-000CN	1
6	Motor, DC (ETB) (simplex models)	RK2-0937-000CN	1

Electronic transfer belt (duplex models)

See electronic transfer belt (simplex models)
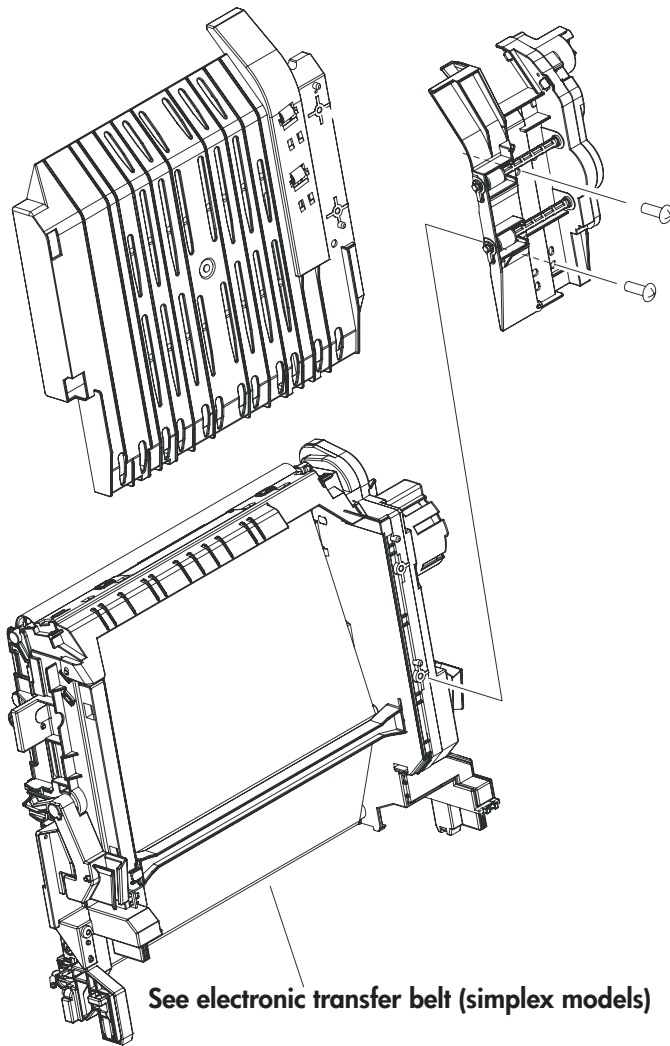
Figure 7-19 Electronic transfer belt (duplex models)

Table 7-21 Electronic transfer belt (duplex models)

Ref	Description	Part number	Qty
All	Electronic transfer belt (duplex models)	RM1-2752-000CN	1

Multipurpose tray assembly (tray 1)
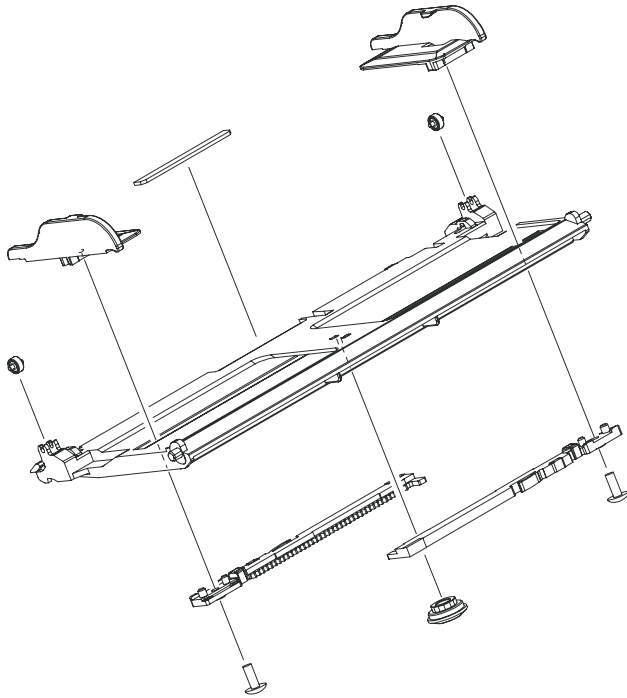
Figure 7-20 Multipurpose tray assembly (tray 1)

Table 7-22 Multipurpose tray assembly (tray 1)

Ref	Description	Part number	Qty
All	Multipurpose tray assembly (tray 1)	RM1-2711-000CN	1

Duplex-paper feed assembly (duplex models)

See Duplexing
reverse drive
assembly

See Duplexing
feed drive
assembly

4

3

1

2
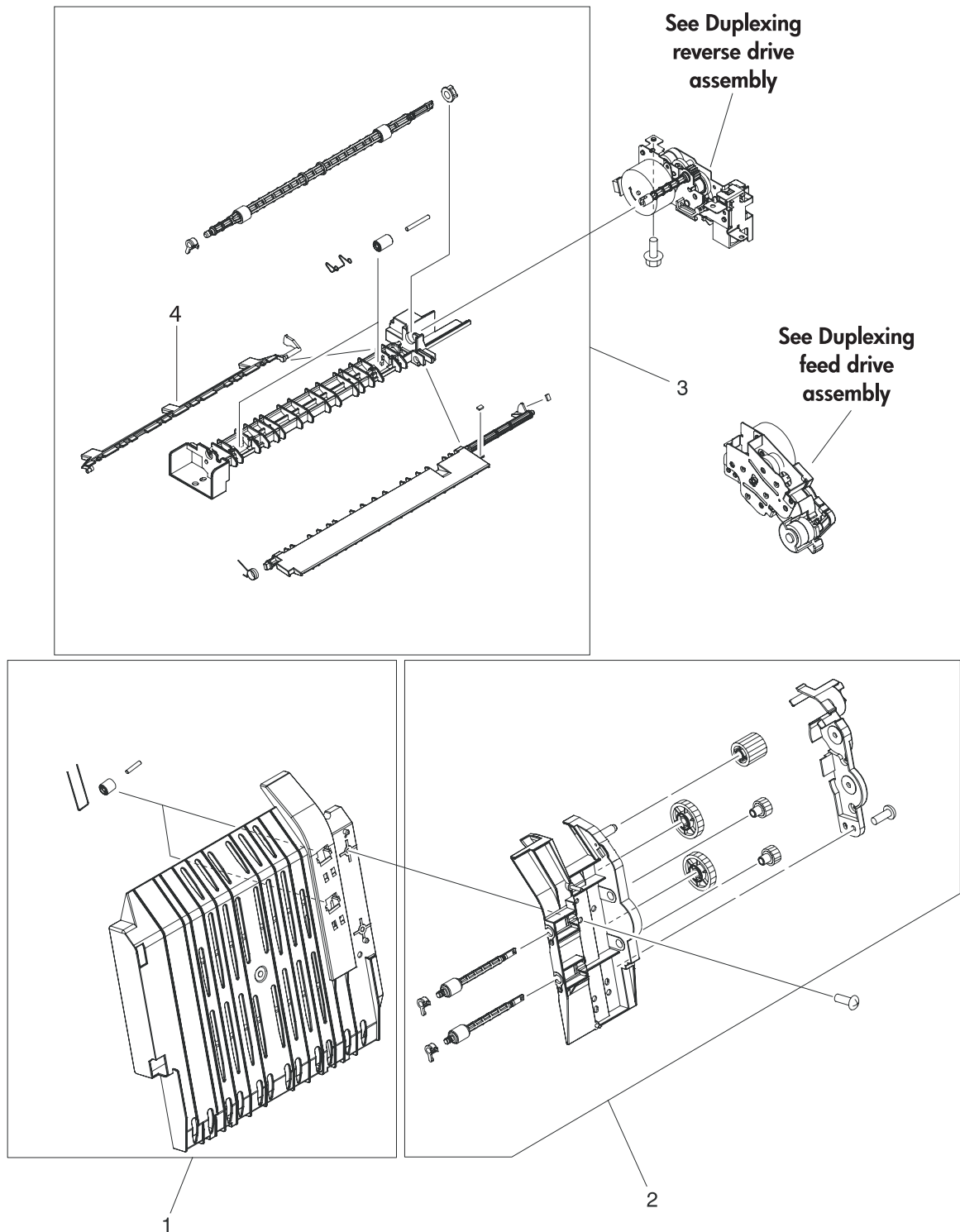
Figure 7-21 Duplex-paper feed assembly (duplex models)

Table 7-23 Duplex-paper feed assembly (duplex models)

Ref	Description	Part number	Qty
1	Duplex-paper feed assembly (duplex models)	RM1-2718-000CN	1
2	Position-guide assembly (duplex models)	RM1-2719-000CN	1
3	Lower guide assembly (duplex models)	RM1-2722-000CN	1
4	Duplex-output bin full flag	RC1-6755-000CN	1

Fuser
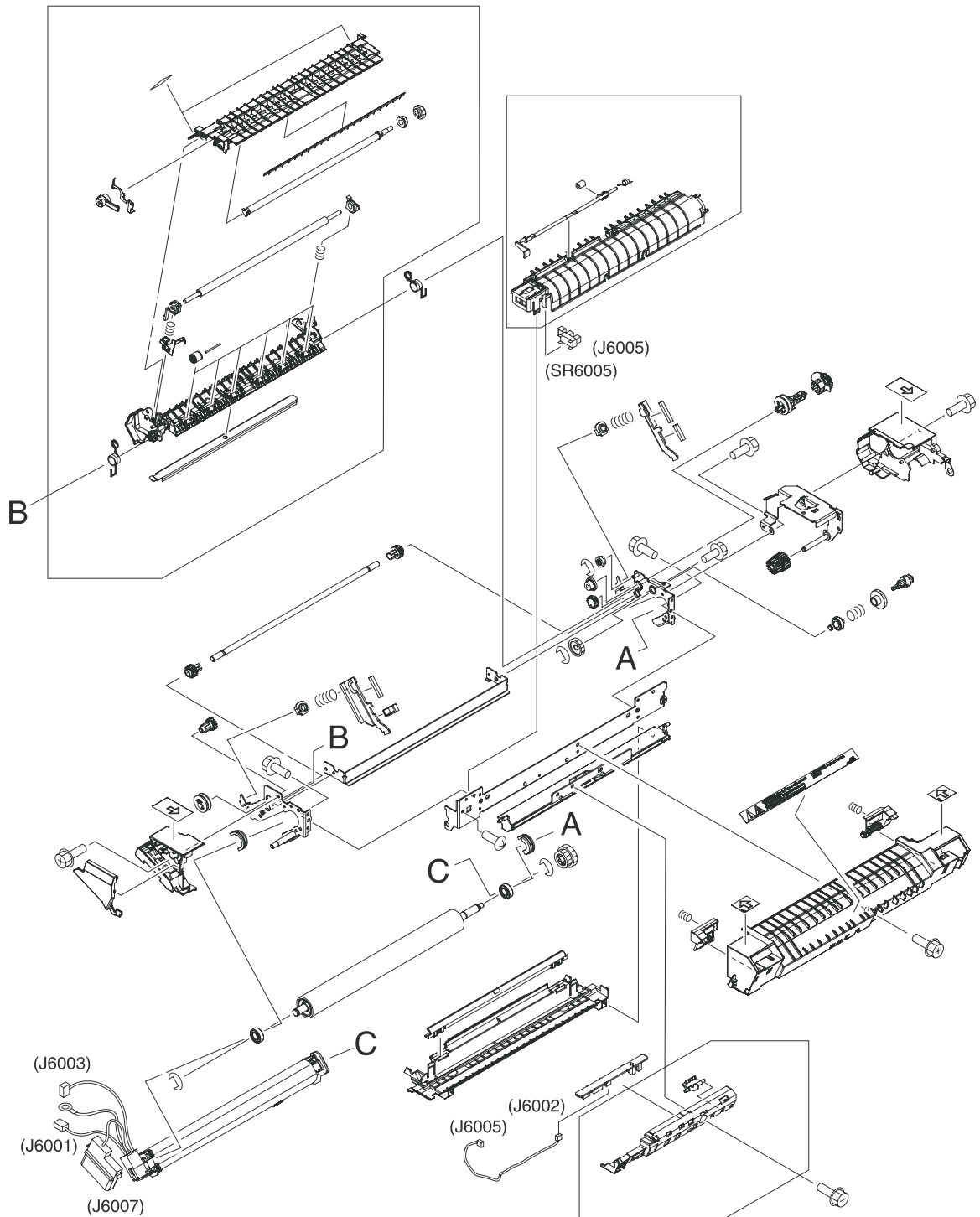
Figure 7-22 Fuser

Table 7-24 Fuser

Ref	Description	Part number	Qty
All	Fuser assembly 110V-127V	RM1-2665-000CN	1
All	Fuser assembly 220V-240V	RM1-2743-000CN	1

PCAs

DUPLEX MODEL
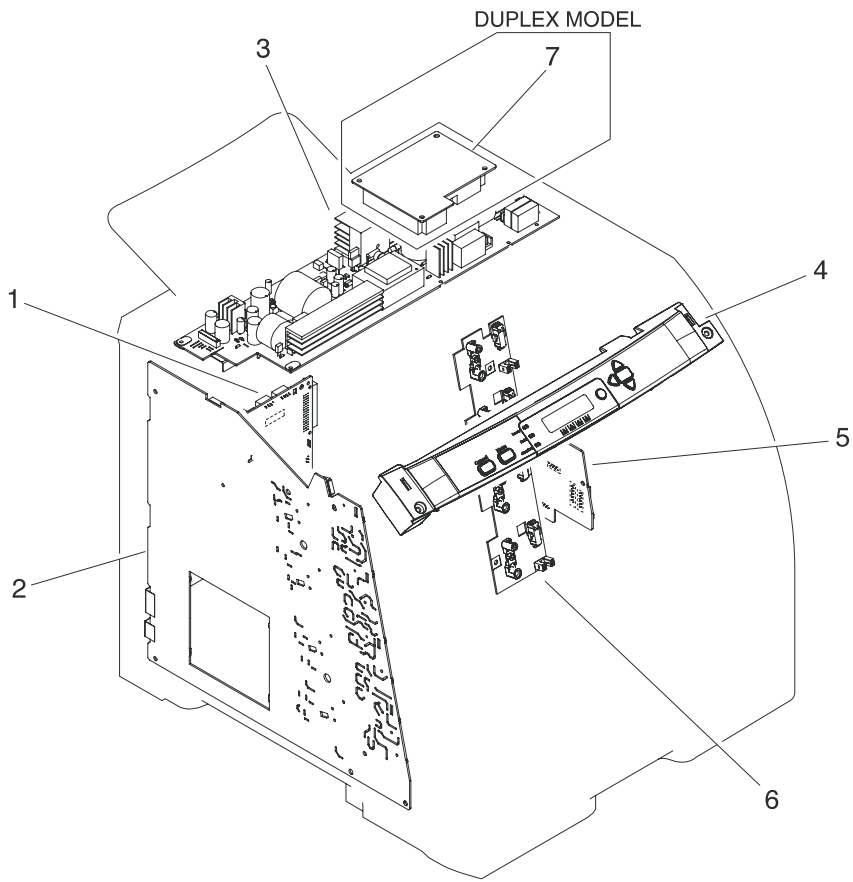
Figure 7-23 PCAs

Table 7-25 PCAs

Ref	Description	Part number	Qty
1	DC controller PCA assembly (HP CLJ 3000)	RM1-2600-000CN	1
1	DC controller PCA assembly (HP CLJ 3600/3800/CP3505)	RM1-2580-000CN	1
2	High-voltage PCA assembly	RM1-2578-000CN	1
3	Low-voltage power PCA assembly (110V-127V)	RM1-4377-000CN	1
3	Low-voltage power PCA assembly (220V-240V)	RM1-4378-000CN	1
4	Control panel-assembly (HP CLJ 3000)	RK2-0996-000CN	1
4	Control-panel assembly (HP CLJ 3600/3800/CP3505)	RK2-0989-000CN	1
5	Driver PCA	RM1-2581-000CN	1
6	Cartridge-sensor PCA	RM1-2585-000CN	1
7	Duplexing PCA assembly (duplex models)	RM1-2584-000CN	1
	Formatter, new, HP Color LaserJet 3000 and 3000n Series only (128 MB)	Q5982-67907	1
	Formatter, exchange, HP Color LaserJet 3000 and 3000n Series only (128 MB)	Q5982-69001	1
	Formatter, new, HP Color LaserJet 3000dn and 3000dtn Series only (256 MB)	Q5982-67908	1
	Formatter, exchange, HP Color LaserJet 3000dn and 3000dtn Series only (256 MB)	Q5982-69002	1
	Formatter, new, HP Color LaserJet 3800 and 3800n printers only (128 MB)	Q5982-67907	1
	Formatter, exchange, HP Color LaserJet 3800 and 3800n printers only (128 MB)	Q5982-69001	1
	Formatter, new, HP Color LaserJet 3800dn and 3800dtn printers only (256 MB)	Q5982-67908	1
	Formatter, exchange, HP Color LaserJet 3800dn and 3800dtn printers only (256 MB)	Q5982-69002	1
	Formatter, new, HP Color LaserJet CP3505	CB441-67901	1
	Formatter, exchange, HP Color LaserJet CP3505	CB441-69001	1
	I controller (formatter), HP Color LaserJet 3600 Series only	Q5987-67901	1
	Firmware, Compact Flash, HP Color LaserJet 3000 Series only	Q7725-67903	1
	Firmware, Compact Flash, HP Color LaserJet 3600/3800/ CP3505 Series only	Q7725-67902	1
	DIMM, 64 MB DDR SDRAM, HP Color LaserJet 3600 Series only	Q7800-67951	1

NOTE: This illustration does not show the relay PCA. See callout 9 in Figure 7-9 Internal components (5 of 5) on page 280.

500-sheet feeder cassette (tray 3)
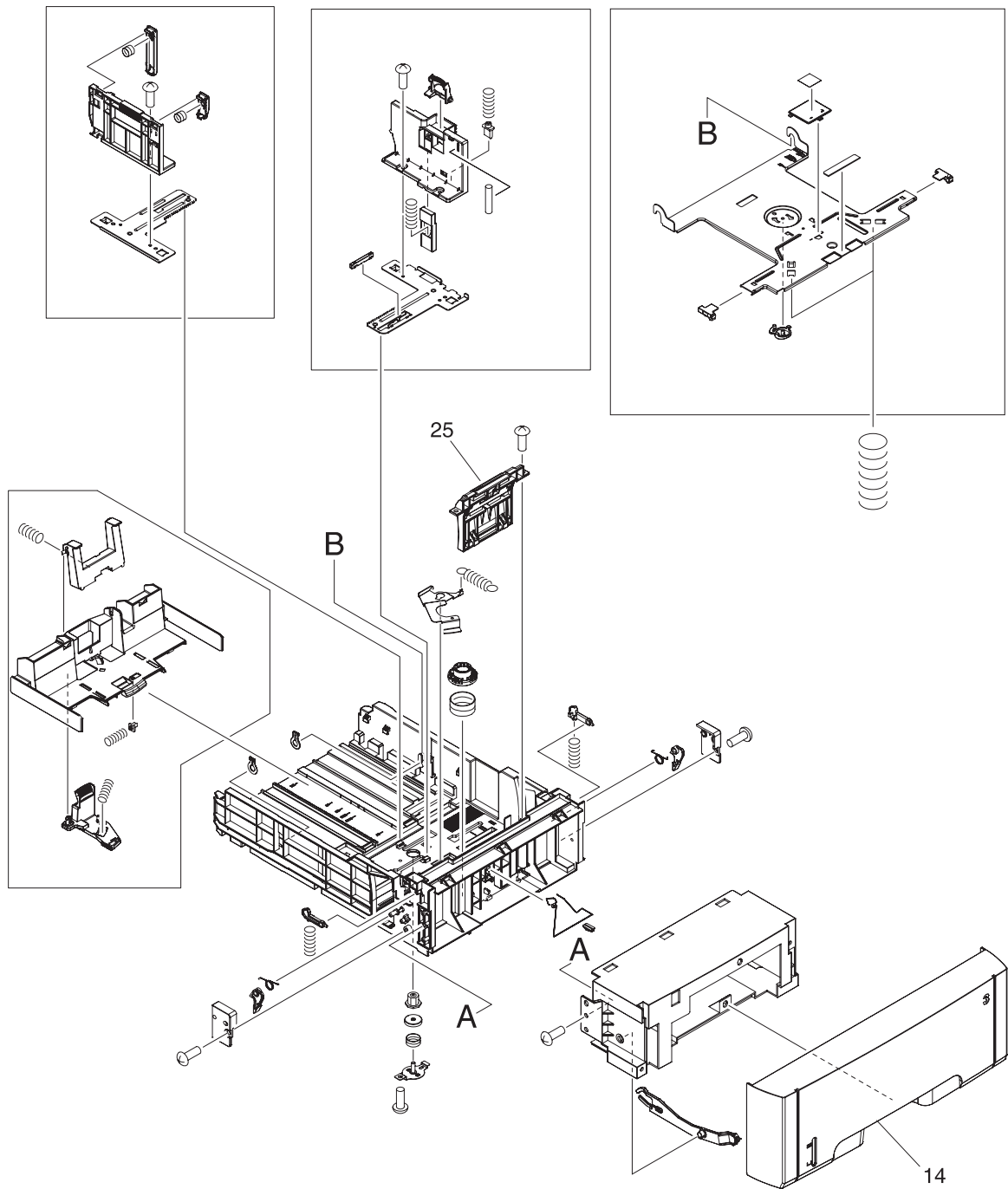
Figure 7-24 500-sheet feeder cassette (tray 3)

Table 7-26 500-sheet feeder cassette (tray 3)

Ref	Description	Part number	Qty
	500–sheet feeder and cassette	Q5985–67901	1
All	500–sheet cassette (only), tray 3	RM1-2732-000CN	1
14	Cover, 500-sheet cassette	RC1-6945-000CN	1
25	Separation-pad-holder assembly (500-sheet feeder)	RM1-2735-000CN	

500-sheet feeder paper-pickup assembly
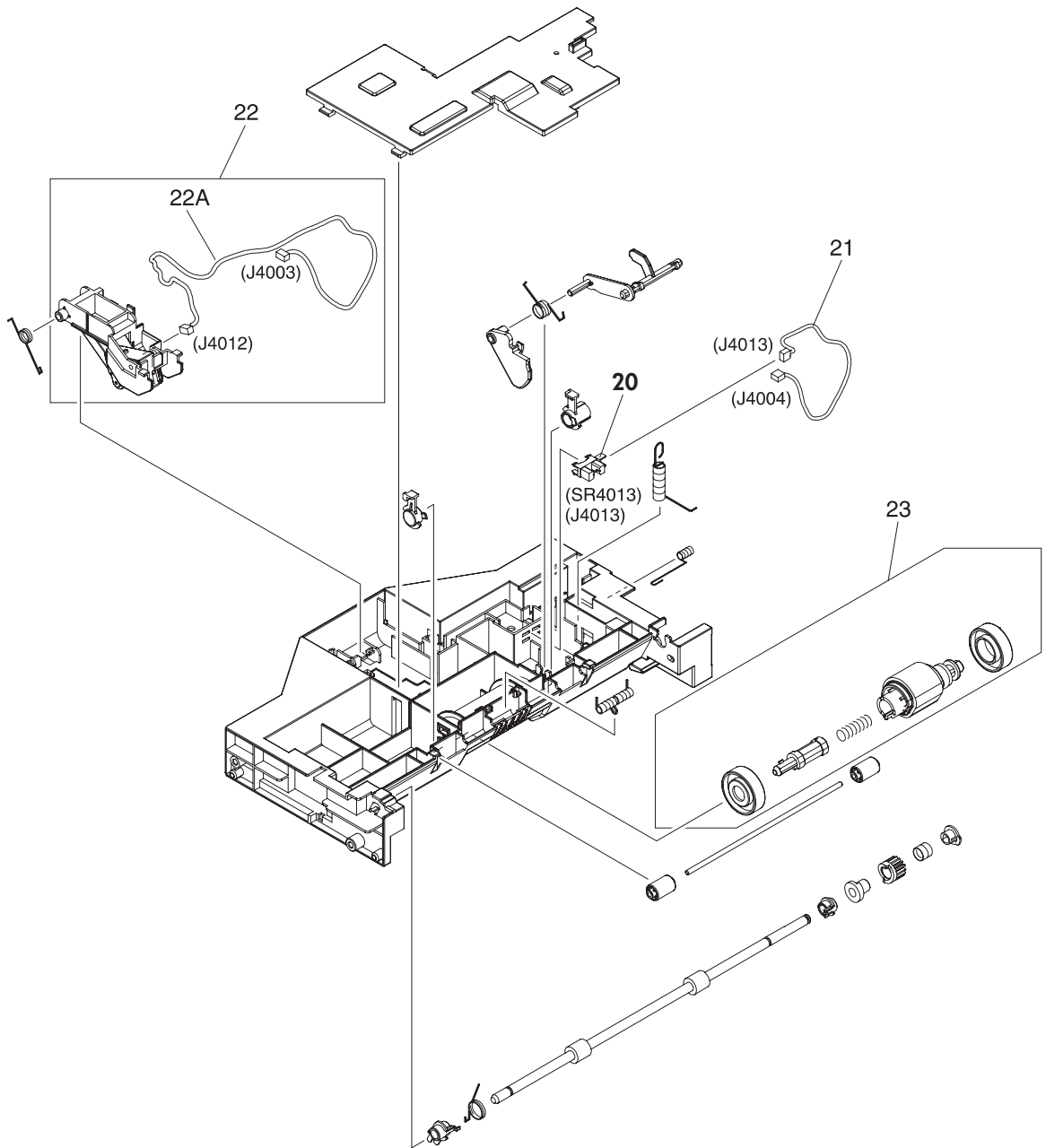
Figure 7-25 500-sheet feeder paper-pickup assembly

Table 7-27 500-sheet feeder paper-pickup assembly

Ref	Description	Part number	Qty
All	500-sheet feeder paper-pickup assembly	RM1-2725-000CN	1
20	Photointerruptor	WG8-5696-000CN	1
21	Cable, option sensor	RM1-2625-000CN	1
22	Sensor, media assembly	RM1-2757-000CN	1
22A	Cable, option media sensor (500-sheet feeder)	RM1-2624-000CN	1
23	Paper-pickup-roller assembly (500-sheet feeder)	RM1–2727–000CN	1

500-sheet feeder PCA
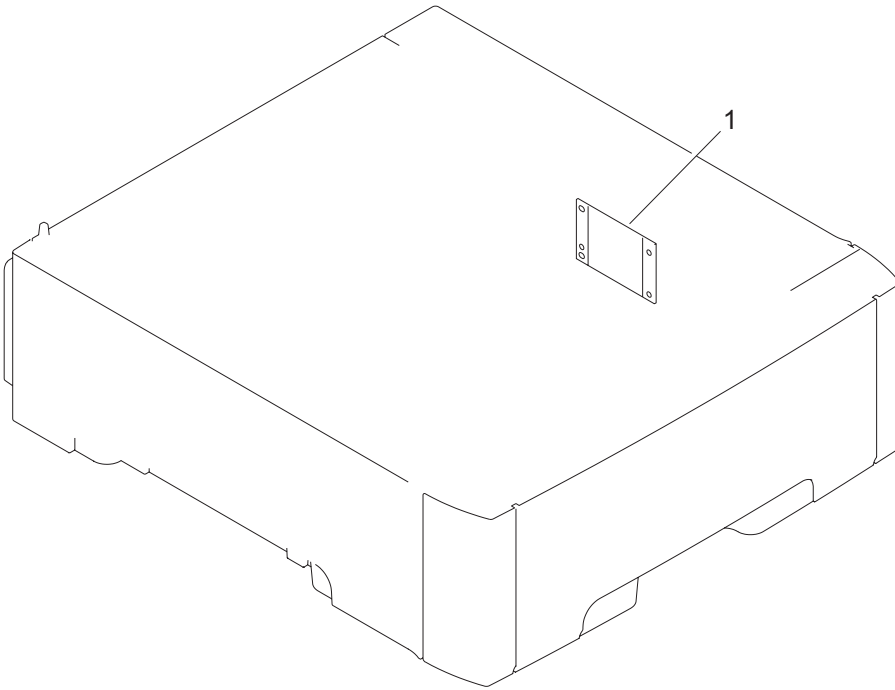
Figure 7-26 500-sheet feeder PCA

Table 7-28 500-sheet feeder PCA

Ref	Description	Part number	Qty
1	PCA assembly (500-sheet feeder)	RM1-2583-000CN	1

Alphabetical parts list

Table 7-29 Alphabetical parts list

Description	Part number	Table and page
500-sheet feeder paper-pickup assembly	RM1-2725-000CN	500-sheet feeder paper-pickup assembly on page 313
500–sheet cassette (only), tray 3	RM1-2732-000CN	500-sheet feeder cassette (tray 3) on page 311
500–sheet feeder and cassette	Q5985–67901	500-sheet feeder cassette (tray 3) on page 311
Arm, switch-link	RC1-6700-000CN	Internal components (4 of 5) on page 279
Block, Multipurpose path (HP CLJ 3000)	RC1-7959-000CN	Paper-pickup assembly (HP CLJ 3000) on page 297
Bracket, left, rear	RC1-7551-000CN	Internal components (4 of 5) on page 279
Bushing	RC1-6573-000CN	Internal components (1 of 5) on page 273
Bushing	RC1-6823-000CN	Internal components (2 of 5) on page 275
Bushing (HP CLJ 3000)	RC1-6517-000CN	Paper-pickup assembly (HP CLJ 3000) on page 297
Bushing (HP CLJ 3000)	RC1-6518-000CN	Paper-pickup assembly (HP CLJ 3000) on page 297
Cable, cassette	RM1-2613-000CN	Internal components (4 of 5) on page 279
Cable, clamp	WT2-5944-000CN	Internal components (5 of 5) on page 281
Cable, drive flat 1	RK2-0969-000CN	Internal components (5 of 5) on page 281
Cable, drive flat 2	RK2-0970-000CN	Internal components (5 of 5) on page 281
Cable, drive power	RM1-2605-000CN	Internal components (4 of 5) on page 279
Cable, drum motor	RM1-2610-000Cn	Internal components (4 of 5) on page 279
Cable, drum motor (HP CLJ 3000)	RM1-2629-000CN	Internal components (4 of 5) on page 279
Cable, drum motor (HP CLJ 3600/3800/CP3505)	RM1-2614-000CN	Internal components (4 of 5) on page 279
Cable, duplex docking	RM1-2609-000CN	Internal components (3 of 5) on page 277
Cable, duplexing (duplex models)	RM1-2617-000CN	External panels, and covers (2 of 2) on page 267

Table 7-29 Alphabetical parts list (continued)

Description	Part number	Table and page
Cable, duplexing (duplex models)	RM1-2616-000CN	Duplexing reverse-drive assembly (duplex models) on page 287
Cable, duplexing sensor (duplex models)	RM1-2618-000CN	Duplexing reverse-drive assembly (duplex models) on page 287
Cable, environment sensor	RM1-2595-000CN	Internal components (4 of 5) on page 279
Cable, ETB	RM1-2608-000CN	Internal components (4 of 5) on page 279
Cable, fuser drive	RM1-2619-000CN	Fuser drive assembly on page 291
Cable, media sensor cassette assembly (HP CLJ 3600/3800/CP3505)	RM1-2589-000CN	Internal components (1 of 5) on page 273
Cable, memory tag	RM1-2627-000CN	Internal components (2 of 5) on page 275
Cable, option media sensor (500-sheet feeder)	RM1-2624-000CN	500-sheet feeder paper-pickup assembly on page 313
Cable, option sensor	RM1-2625-000CN	500-sheet feeder paper-pickup assembly on page 313
Cable, panel	RM1-2596-000CN	Internal components (1 of 5) on page 273
Cable, panel connecting	RM1-2587-000CN	Internal components (5 of 5) on page 281
Cable, paper-full	RM1-2628-000CN	Internal components (4 of 5) on page 279
Cable, paper-full (duplex models)	RM1-2620-000CN	External panels, and covers (2 of 2) on page 267
Cable, paper-full (simplex models)	RM1-2630-000CN	External panels, and covers (2 of 2) on page 267
Cable, power control	RM1-2592-000CN	Internal components (5 of 5) on page 281
Cable, scanner	RM1-2594-000CN	Internal components (2 of 5) on page 275
Cable, scanner flat (long (HP CLJ 3000)	RK2-0971-000CN	Internal components (2 of 5) on page 275
Cable, scanner flat (long (HP CLJ 3600/3800/CP3505)	RK2-0966-000CN	Internal components (2 of 5) on page 275
Cable, scanner flat short	RK2-0967-000CN	Internal components (2 of 5) on page 275
Cable, sensor	RM1-2603-000CN	Internal components (3 of 5) on page 277
Cable, solenoid	RM1-2611-000CN	Internal components (4 of 5) on page 279

Table 7-29 Alphabetical parts list (continued)

Description	Part number	Table and page
Cam, gear. 48T	RC1-6584-000CN	Internal components (2 of 5) on page 275
Cam, slide, left	RC1-6638-000CN	Internal components (3 of 5) on page 277
Cam, slide, right	RC1-6645-000CN	Internal components (1 of 5) on page 273
Cartridge, guide, right assembly	RM1-2771-000CN	Internal components (1 of 5) on page 273
Cartridge-sensor PCA	RM1-2585-000CN	PCAs on page 309
Cassette	RM1-2702-000CN	Paper-pickup assembly (HP CLJ 3600/3800/CP3505) on page 295
Cassette sensor PCA	RM1-2576-000CN	Internal components (3 of 5) on page 277
Cassette, 250-sheet	RM1-2705-000CN	Cassette (tray 2) on page 293
Connector, snap-tight (simplex models)	VS1-7207-003CN	External panels, and covers (2 of 2) on page 267
Contact-holder assembly	RM1-2683-000CN	Internal components (1 of 5) on page 273
Control panel-assembly (HP CLJ 3000)	RK2-0996-000CN	PCAs on page 309
Control-panel assembly (HP CLJ 3600/3800/CP3505)	RK2-0989-000CN	PCAs on page 309
Cover	RC1-7577-000CN	Internal components (5 of 5) on page 281
Cover, 500-sheet cassette	RC1-6945-000CN	500-sheet feeder cassette (tray 3) on page 311
Cover, cassette rear left	RC1-6792-000CN	External panels and covers (1 of 2) on page 265
Cover, cassette rear right (hinge)	RC1-6691-000CN	External panels and covers (1 of 2) on page 265
Cover, cassette roller assembly (HP CLJ 3600/3800/CP3505)	RC1-6609-000CN	Paper-pickup assembly (HP CLJ 3600/3800/CP3505) on page 295
Cover, cassette, front	RC1-6491-000CN	Cassette (tray 2) on page 293
Cover, connector	RC1-6607-000CN	Internal components (5 of 5) on page 281
Cover, crossmember, upper	RC1-6668-000CN	Internal components (2 of 5) on page 275
Cover, gear	RC1-6405-000CN	Internal components (3 of 5) on page 277
Cover, guide crossmember	RC1-6795-000CN	Internal components (1 of 5) on page 273
Cover, left	RC1-6687-000CN	External panels and covers (1 of 2) on page 265

Table 7-29 Alphabetical parts list (continued)

Description	Part number	Table and page
Cover, multipurpose tray (tray 1)	RC1-6690-000CN	External panels and covers (1 of 2) on page 265
Cover, paper sensor	RC1-6611-000CN	Internal components (5 of 5) on page 281
Cover, rear	RC1-6627-000CN	Internal components (5 of 5) on page 281
Cover, rear lower	RC1-7550-000CN	External panels and covers (1 of 2) on page 265
Cover, registration sensor	RC1-6612-000CN	Internal components (5 of 5) on page 281
Cover, right	RM1–2669–000CN	External panels and covers (1 of 2) on page 265
Cover, shutter, left	RC1-6651-000CN	Internal components (2 of 5) on page 275
Cover, slide plate, right	RC1-6824-000CN	Internal components (1 of 5) on page 273
Crossmember, drive side plate	RC1-7576-000CN	Internal components (2 of 5) on page 275
DC controller PCA assembly (HP CLJ 3000)	RM1-2600-000CN	PCAs on page 309
DC controller PCA assembly (HP CLJ 3600/3800/CP3505)	RM1-2580-000CN	PCAs on page 309
Developing separation (estrangement) drive assembly	RM1-2687-000CN	Developing separation-drive assembly on page 289
DIMM, 64 MB DDR SDRAM, HP Color LaserJet 3600 Series only	Q7800-67951	PCAs on page 309
Drive-motor assembly, print-cartridge (HP CLJ 3000: K cartridge only)	RM1-2773-000CN	Internal components (2 of 5) on page 275
Drive-motor assembly, print-cartridge (HP CLJ 3600/3800/ CP3505: K, Y, C, M cartridges; HP CLJ 3000: Y, C, M cartridges only)	RM1-2689-000CN	Internal components (2 of 5) on page 275
Driver PCA	RM1-2581-000CN	PCAs on page 309
Duct 1	RC1-7546-000CN	Internal components (5 of 5) on page 281
Duct, 2	RC1-7547-000CN	Internal components (1 of 5) on page 273
Duct, 3	RC1-7548-000CN	Internal components (1 of 5) on page 273
Duct, fan	RC1-6632-000CN	Internal components (1 of 5) on page 273
Duplex page, duplex flag	RC1-6755-000CN	External panels, and covers (2 of 2) on page 267
Duplex-output bin full flag	RC1-6755-000CN	Duplex-paper feed assembly (duplex models) on page 305
Duplex-paper feed assembly (duplex models)	RM1-2718-000CN	Duplex-paper feed assembly (duplex models) on page 305

Table 7-29 Alphabetical parts list (continued)

Description	Part number	Table and page
Duplexing PCA assembly (duplex models)	RM1-2584-000CN	PCAs on page 309
Duplexing reverse-drive assembly (duplex models)	RM1-2721-000CN	Duplexing reverse-drive assembly (duplex models) on page 287
Duplexing-feed drive assembly (duplex models)	RM1-2720-000CN	Duplexing-feed drive assembly (duplex models) on page 285
Electronic transfer belt (duplex models)	RM1-2752-000CN	Electronic transfer belt (duplex models) on page 301
Electronic transfer belt (simplex models)	RM1-2759-000CN	Electronic transfer belt (simplex models) on page 299
Face-down tray assembly (HP CLJ 3000)	RM1-2777-020CN	External panels, and covers (2 of 2) on page 267
Face-down tray assembly (HP CLJ 3600/3800/CP3505)	RM1-2750-020CN	External panels, and covers (2 of 2) on page 267
Fan	RK2-0954-000CN	Internal components (1 of 5) on page 273
Fan (duplex models)	RK2-0954-000CN	Front-cover assembly (duplex model) on page 271
Firmware, Compact Flash, HP Color LaserJet 3000 Series only	Q7725-67903	PCAs on page 309
Firmware, Compact Flash, HP Color LaserJet 3600/3800/CP3505 Series only	Q7725-67902	PCAs on page 309
Flag, developing estrangement (developing separation)	RC1-6605-000CN	Internal components (2 of 5) on page 275
Foot, rear	RC1-6650-000CN	Internal components (3 of 5) on page 277
Foot, rubber assembly, front	RL1-1067-000CN	Internal components (3 of 5) on page 277
Formatter, exchange, HP Color LaserJet 3000 and 3000n Series only (128 MB)	Q5982-69001	PCAs on page 309
Formatter, exchange, HP Color LaserJet 3000dn and 3000dtn Series only (256 MB)	Q5982-69002	PCAs on page 309
Formatter, exchange, HP Color LaserJet 3800 and 3800n printers only (128 MB)	Q5982-69001	PCAs on page 309
Formatter, exchange, HP Color LaserJet 3800dn and 3800dtn printers only (256 MB)	Q5982-69002	PCAs on page 309
Formatter, exchange, HP Color LaserJet CP3505	CB441-69001	PCAs on page 309
Formatter, new, HP Color LaserJet 3000 and 3000n Series only (128 MB)	Q5982-67907	PCAs on page 309
Formatter, new, HP Color LaserJet 3000dn and 3000dtn Series only (256 MB)	Q5982-67908	PCAs on page 309
Formatter, new, HP Color LaserJet 3800 and 3800n printers only (128 MB)	Q5982-67907	PCAs on page 309

Table 7-29 Alphabetical parts list (continued)

Description	Part number	Table and page
Formatter, new, HP Color LaserJet 3800dn and 3800dtn printers only (256 MB)	Q5982-67908	PCAs on page 309
Formatter, new, HP Color LaserJet CP3505	CB441-67901	PCAs on page 309
Front-cover assembly (duplex models)	RM1-2715-000CN	Front-cover assembly (duplex model) on page 271
Front-cover assembly (simplex models)	RM1-2673-000CN	Front-cover assembly (simplex model) on page 269
Fuser assembly 110V-127V	RM1-2665-000CN	Fuser on page 307
Fuser assembly 220V-240V	RM1-2743-000CN	Fuser on page 307
Fuser cable assembly	RM1-2597-000CN	Internal components (4 of 5) on page 279
Fuser drive assembly	RM1-2668-000CN	Fuser drive assembly on page 291
Gear, 17T/41T	RC1-6596-000CN	Internal components (2 of 5) on page 275
Gear, 18T (HP CLJ 3000)	RC1-6521-000CN	Paper-pickup assembly (HP CLJ 3000) on page 297
Gear, 19T/30T	RC1-6593-000CN	Internal components (2 of 5) on page 275
Gear, 29T	RC1-6575-000CN	Internal components (1 of 5) on page 273
Gear, 31T	RC1-6594-000CN	Internal components (2 of 5) on page 275
Gear, 41T	RC1-6589-000CN	Internal components (2 of 5) on page 275
Gear, 58T	RC1–6571-000CN	Internal components (1 of 5) on page 273
Guard, cable	RC1-6825-000CN	Internal components (4 of 5) on page 279
Guide, cable, left	RC1-6681-000CN	Internal components (4 of 5) on page 279
Guide, cable, right 1	RC1-6682-000CN	Internal components (2 of 5) on page 275
Guide, cable, right 3	RC1-7544-000CN	Internal components (2 of 5) on page 275
Guide, cable, right 4	RC1-7545-000CN	Internal components (2 of 5) on page 275
Guide, cartridge, left	RC1-6629-000CN	Internal components (1 of 5) on page 273
Guide, cassette front, left	RC1-6499-000CN	Internal components (3 of 5) on page 277
Guide, cassette front, right	RC1-6502-000CN	Internal components (3 of 5) on page 277

Table 7-29 Alphabetical parts list (continued)

Description	Part number	Table and page
Guide, duplexing external (duplex models)	RC1-6744-000CN	Internal components (1 of 5) on page 273
Guide, flexible flat cable 1	RC1-6772-000CN	Internal components (4 of 5) on page 279
Guide, flexible flat cable 2	RC1-6773-000CN	Internal components (4 of 5) on page 279
High-voltage PCA assembly	RM1-2578-000CN	PCAs on page 309
Holder, drawer	RC1-6653-000CN	Internal components (4 of 5) on page 279
Holder, drawer connector	RC1-6652-000CN	Internal components (4 of 5) on page 279
Holder, ETB, left	RC1-6673-000CN	Internal components (3 of 5) on page 277
Holder, ETB, right	RC1-6674-000CN	Internal components (3 of 5) on page 277
Holder, fan	RC1-6631-000CN	Internal components (1 of 5) on page 273
Holder, toner cartridge	RC1-6771-000CN	Internal components (2 of 5) on page 275
I controller (formatter), HP Color LaserJet 3600 Series only	Q5987-67901	PCAs on page 309
Interlock-switch assembly	RM1-2670-000CN	External panels, and covers (2 of 2) on page 267
Latch, left	RC1-7554-000CN	Internal components (1 of 5) on page 273
Latch, right	RC1-7555-000CN	Internal components (1 of 5) on page 273
Lever lock, left	RC1-6633-000CN	Internal components (1 of 5) on page 273
Lever, lock slide, left	RC1-6636-000CN	Internal components (1 of 5) on page 273
Lever, lock slide, right	RC1-6643-000CN	Internal components (1 of 5) on page 273
Lever, lock, left upper	RC1-7618-000CN	Internal components (1 of 5) on page 273
Lever, lock, right	RC1-6640-000CN	Internal components (1 of 5) on page 273
Lever, sensing	RC1-7597-000CN	Internal components (2 of 5) on page 275
Lift plate activator	RC1-6833-020CN	Cassette (tray 2) on page 293
Link, multipurpose tray (tray 1) hinge left	RC1-6381-000CN	External panels and covers (1 of 2) on page 265
Link, multipurpose tray (tray 1) hinge right	RC1-6382-000CN	External panels and covers (1 of 2) on page 265

Table 7-29 Alphabetical parts list (continued)

Description	Part number	Table and page
Low-voltage power PCA assembly (110V-127V)	RM1-4377-000CN	PCAs on page 309
Low-voltage power PCA assembly (220V-240V)	RM1-4378-000CN	PCAs on page 309
Lower guide assembly (duplex models)	RM1-2722-000CN	Duplex-paper feed assembly (duplex models) on page 305
Main drive assembly	RM1-2751-000CN	Internal components (2 of 5) on page 275
Media sensor case	RC1-6394-000CN	Paper-pickup assembly (HP CLJ 3000) on page 297
Media-sensor cassette assembly (HP CLJ 3600/3800/CP3505)	RM1-2756-000CN	Internal components (1 of 5) on page 273
Motor, AC 24V, 9W	RK2-0939-000CN	Internal components (3 of 5) on page 277
Motor, DC (ETB) (simplex models)	RK2-0937-000CN	Electronic transfer belt (simplex models) on page 299
Mount, hinge, left	RC1-6684-000CN	Internal components (3 of 5) on page 277
Multipurpose tray (tray 1) extension tray assembly	RM1-2710-000CN	External panels and covers (1 of 2) on page 265
Multipurpose tray assembly (tray 1)	RM1-2711-000CN	Multipurpose tray assembly (tray 1) on page 303
Multipurpose tray paper-pickup gear assembly	RM1-2704-000CN	Internal components (5 of 5) on page 281
Multipurpose tray roller (HP CLJ 3600/3800/CP3505)	RM1-2741-000CN	Paper-pickup assembly (HP CLJ 3600/3800/CP3505) on page 295
Multipurpose tray separation-pad assembly (HP CLJ 3600/3800/CP3505)	RM1-2699-000CN	Paper-pickup assembly (HP CLJ 3600/3800/CP3505) on page 295
Paper-pickup assembly (HP CLJ 3000)	RM1-2774-000CN	Paper-pickup assembly (HP CLJ 3000) on page 297
Paper-pickup assembly (HP CLJ 3600/3800/CP3505)	RM1-2755-000CN	Paper-pickup assembly (HP CLJ 3600/3800/CP3505) on page 295
Paper-pickup drive assembly	RM1-2679-000CN	Paper-pickup drive assembly on page 283
Paper-pickup-roller assembly (500-sheet feeder)	RM1–2727–000CN	500-sheet feeder paper-pickup assembly on page 313
PCA assembly (500-sheet feeder)	RM1-2583-000CN	500-sheet feeder PCA on page 315
Photointerruptor	WG8-5696-000CN	500-sheet feeder paper-pickup assembly on page 313
Plate lock release	RC1-6833-000CN	Internal components (3 of 5) on page 277

Table 7-29 Alphabetical parts list (continued)

Description	Part number	Table and page
Plate, gear 3	RL1-1069-000CN	Internal components (3 of 5) on page 277
Position-guide assembly (duplex models)	RM1-2719-000CN	Duplex-paper feed assembly (duplex models) on page 305
Pre-registration rachet (HP CLJ 3000)	RC1-6444-000CN	Paper-pickup assembly (HP CLJ 3000) on page 297
Preregistration-guide assembly (HP CLJ 3000)	RM1-2775-000CN	Paper-pickup assembly (HP CLJ 3000) on page 297
Relay, PCA (HP CLJ 3000 only)	RM1-2582-000CN	Internal components (5 of 5) on page 281
Relay, PCA (HP CLJ 3600/3800/CP3505 only)	RM1-2632-000CN	Internal components (5 of 5) on page 281
Right-rear base assembly	RM1-2678-000CN	Internal components (3 of 5) on page 277
Rod, link, left	RC1-6639-000CN	Internal components (3 of 5) on page 277
Rod, link, right	RC1-6646-000CN	Internal components (3 of 5) on page 277
Scanner assembly (HP CLJ 3000)	RM1-2952-000CN	Internal components (4 of 5) on page 279
Scanner assembly (HP CLJ 3600/3800/CP3505)	RM1-2640-000CN	Internal components (4 of 5) on page 279
Sensor, media assembly	RM1-2757-000CN	500-sheet feeder paper-pickup assembly on page 313
Sensor, temperature	WP2-5214-000CN	Internal components (4 of 5) on page 279
Separation-pad assembly	RM1-2709-000CN	Cassette (tray 2) on page 293
Separation-pad-holder assembly (500-sheet feeder)	RM1-2735-000CN	500-sheet feeder cassette (tray 3) on page 311
Shield, PCA	RC1-7599-000CN	Internal components (5 of 5) on page 281
Simplex page-delivery flay	RC1-6286-000CN	External panels, and covers (2 of 2) on page 267
Spring, compression (HP CLJ 3000)	RC1-6520-000CN	Paper-pickup assembly (HP CLJ 3000) on page 297
Spring, grounding	RC1-7583-000CN	Internal components (1 of 5) on page 273
Spring, grounding	RC1-6641-000CN	Internal components (1 of 5) on page 273
Spring, tension	RC1-6383-000CN	External panels and covers (1 of 2) on page 265
Spring, tension	RC1-6634-000CN	Internal components (1 of 5) on page 273

Table 7-29 Alphabetical parts list (continued)

Description	Part number	Table and page
Spring, tension	RC1-6677-000CN	Internal components (1 of 5) on page 273
Spring, tension	RC1-7552-000CN	Internal components (1 of 5) on page 273
Spring, tension	RC1-7598-000CN	Internal components (2 of 5) on page 275
Spring, tension (HP CLJ 3000)	RC1-6516-000CN	Paper-pickup assembly (HP CLJ 3000) on page 297
Top-cover assembly (duplex models)	RM1-2713-020CN	External panels, and covers (2 of 2) on page 267
Top-cover assembly (simplex models)	RM1-2672-030CN	External panels, and covers (2 of 2) on page 267
Torsion spring	RC1-7628-000CN	External panels, and covers (2 of 2) on page 267
Upper cover assembly (fuser door) (duplex models)	RM1-2714-000CN	External panels, and covers (2 of 2) on page 267
Upper cover assembly (fuser door) (simplex models)	RM1-2671-000CN	External panels, and covers (2 of 2) on page 267

Numerical parts list

Part number	Description	Table and page
CB441-67901	Formatter, new, HP Color LaserJet CP3505	PCAs on page 309
CB441-69001	Formatter, exchange, HP Color LaserJet CP3505	PCAs on page 309
Q5982-67907	Formatter, new, HP Color LaserJet 3000 and 3000n Series only (128 MB)	PCAs on page 309
Q5982-67907	Formatter, new, HP Color LaserJet 3800 and 3800n printers only (128 MB)	PCAs on page 309
Q5982-67908	Formatter, new, HP Color LaserJet 3000dn and 3000dtn Series only (256 MB)	PCAs on page 309
Q5982-67908	Formatter, new, HP Color LaserJet 3800dn and 3800dtn printers only (256 MB)	PCAs on page 309
Q5982-69001	Formatter, exchange, HP Color LaserJet 3000 and 3000n Series only (128 MB)	PCAs on page 309
Q5982-69001	Formatter, exchange, HP Color LaserJet 3800 and 3800n printers only (128 MB)	PCAs on page 309
Q5982-69002	Formatter, exchange, HP Color LaserJet 3000dn and 3000dtn Series only (256 MB)	PCAs on page 309
Q5982-69002	Formatter, exchange, HP Color LaserJet 3800dn and 3800dtn printers only (256 MB)	PCAs on page 309
Q5985–67901	500–sheet feeder and cassette	500-sheet feeder cassette (tray 3) on page 311
Q5987-67901	I controller (formatter), HP Color LaserJet 3600 Series only	PCAs on page 309
Q7725-67902	Firmware, Compact Flash, HP Color LaserJet 3600/3800/CP3505 Series only	PCAs on page 309
Q7725-67903	Firmware, Compact Flash, HP Color LaserJet 3000 Series only	PCAs on page 309
Q7800-67951	DIMM, 64 MB DDR SDRAM, HP Color LaserJet 3600 Series only	PCAs on page 309
RC1-6286-000CN	Simplex page-delivery flay	External panels, and covers (2 of 2) on page 267
RC1-6381-000CN	Link, multipurpose tray (tray 1) hinge left	External panels and covers (1 of 2) on page 265
RC1-6382-000CN	Link, multipurpose tray (tray 1) hinge right	External panels and covers (1 of 2) on page 265
RC1-6383-000CN	Spring, tension	External panels and covers (1 of 2) on page 265
RC1-6394-000CN	Media sensor case	Paper-pickup assembly (HP CLJ 3000) on page 297
RC1-6405-000CN	Cover, gear	Internal components (3 of 5) on page 277
RC1-6444-000CN	Pre-registration rachet (HP CLJ 3000)	Paper-pickup assembly (HP CLJ 3000) on page 297

Table 7-30 Numerical parts list (continued)

Part number	Description	Table and page
RC1-6491-000CN	Cover, cassette, front	Cassette (tray 2) on page 293
RC1-6499-000CN	Guide, cassette front, left	Internal components (3 of 5) on page 277
RC1-6502-000CN	Guide, cassette front, right	Internal components (3 of 5) on page 277
RC1-6516-000CN	Spring, tension (HP CLJ 3000)	Paper-pickup assembly (HP CLJ 3000) on page 297
RC1-6517-000CN	Bushing (HP CLJ 3000)	Paper-pickup assembly (HP CLJ 3000) on page 297
RC1-6518-000CN	Bushing (HP CLJ 3000)	Paper-pickup assembly (HP CLJ 3000) on page 297
RC1-6520-000CN	Spring, compression (HP CLJ 3000)	Paper-pickup assembly (HP CLJ 3000) on page 297
RC1-6521-000CN	Gear, 18T (HP CLJ 3000)	Paper-pickup assembly (HP CLJ 3000) on page 297
RC1-6573-000CN	Bushing	Internal components (1 of 5) on page 273
RC1-6575-000CN	Gear, 29T	Internal components (1 of 5) on page 273
RC1-6584-000CN	Cam, gear. 48T	Internal components (2 of 5) on page 275
RC1-6589-000CN	Gear, 41T	Internal components (2 of 5) on page 275
RC1-6593-000CN	Gear, 19T/30T	Internal components (2 of 5) on page 275
RC1-6594-000CN	Gear, 31T	Internal components (2 of 5) on page 275
RC1-6596-000CN	Gear, 17T/41T	Internal components (2 of 5) on page 275
RC1-6605-000CN	Flag, developing estrangement (developing separation)	Internal components (2 of 5) on page 275
RC1-6607-000CN	Cover, connector	Internal components (5 of 5) on page 281
RC1-6609-000CN	Cover, cassette roller assembly (HP CLJ 3600/3800/CP3505)	Paper-pickup assembly (HP CLJ 3600/3800/CP3505) on page 295
RC1-6611-000CN	Cover, paper sensor	Internal components (5 of 5) on page 281
RC1-6612-000CN	Cover, registration sensor	Internal components (5 of 5) on page 281
RC1-6627-000CN	Cover, rear	Internal components (5 of 5) on page 281
RC1-6629-000CN	Guide, cartridge, left	Internal components (1 of 5) on page 273

Table 7-30 Numerical parts list (continued)

Part number	Description	Table and page
RC1-6631-000CN	Holder, fan	Internal components (1 of 5) on page 273
RC1-6632-000CN	Duct, fan	Internal components (1 of 5) on page 273
RC1-6633-000CN	Lever lock, left	Internal components (1 of 5) on page 273
RC1-6634-000CN	Spring, tension	Internal components (1 of 5) on page 273
RC1-6636-000CN	Lever, lock slide, left	Internal components (1 of 5) on page 273
RC1-6638-000CN	Cam, slide, left	Internal components (3 of 5) on page 277
RC1-6639-000CN	Rod, link, left	Internal components (3 of 5) on page 277
RC1-6640-000CN	Lever, lock, right	Internal components (1 of 5) on page 273
RC1-6641-000CN	Spring, grounding	Internal components (1 of 5) on page 273
RC1-6643-000CN	Lever, lock slide, right	Internal components (1 of 5) on page 273
RC1-6645-000CN	Cam, slide, right	Internal components (1 of 5) on page 273
RC1-6646-000CN	Rod, link, right	Internal components (3 of 5) on page 277
RC1-6650-000CN	Foot, rear	Internal components (3 of 5) on page 277
RC1-6651-000CN	Cover, shutter, left	Internal components (2 of 5) on page 275
RC1-6652-000CN	Holder, drawer connector	Internal components (4 of 5) on page 279
RC1-6653-000CN	Holder, drawer	Internal components (4 of 5) on page 279
RC1-6668-000CN	Cover, crossmember, upper	Internal components (2 of 5) on page 275
RC1-6673-000CN	Holder, ETB, left	Internal components (3 of 5) on page 277
RC1-6674-000CN	Holder, ETB, right	Internal components (3 of 5) on page 277
RC1-6677-000CN	Spring, tension	Internal components (1 of 5) on page 273
RC1-6681-000CN	Guide, cable, left	Internal components (4 of 5) on page 279
RC1-6682-000CN	Guide, cable, right 1	Internal components (2 of 5) on page 275

Table 7-30 Numerical parts list (continued)

Part number	Description	Table and page
RC1-6684-000CN	Mount, hinge, left	Internal components (3 of 5) on page 277
RC1-6687-000CN	Cover, left	External panels and covers (1 of 2) on page 265
RC1-6690-000CN	Cover, multipurpose tray (tray 1)	External panels and covers (1 of 2) on page 265
RC1-6691-000CN	Cover, cassette rear right (hinge)	External panels and covers (1 of 2) on page 265
RC1-6700-000CN	Arm, switch-link	Internal components (4 of 5) on page 279
RC1-6744-000CN	Guide, duplexing external (duplex models)	Internal components (1 of 5) on page 273
RC1-6755-000CN	Duplex page, duplex flag	External panels, and covers (2 of 2) on page 267
RC1-6755-000CN	Duplex-output bin full flag	Duplex-paper feed assembly (duplex models) on page 305
RC1-6771-000CN	Holder, toner cartridge	Internal components (2 of 5) on page 275
RC1-6772-000CN	Guide, flexible flat cable 1	Internal components (4 of 5) on page 279
RC1-6773-000CN	Guide, flexible flat cable 2	Internal components (4 of 5) on page 279
RC1-6792-000CN	Cover, cassette rear left	External panels and covers (1 of 2) on page 265
RC1-6795-000CN	Cover, guide crossmember	Internal components (1 of 5) on page 273
RC1-6823-000CN	Bushing	Internal components (2 of 5) on page 275
RC1-6824-000CN	Cover, slide plate, right	Internal components (1 of 5) on page 273
RC1-6825-000CN	Guard, cable	Internal components (4 of 5) on page 279
RC1-6833-000CN	Plate lock release	Internal components (3 of 5) on page 277
RC1-6833-020CN	Lift plate activator	Cassette (tray 2) on page 293
RC1-6945-000CN	Cover, 500-sheet cassette	500-sheet feeder cassette (tray 3) on page 311
RC1-7544-000CN	Guide, cable, right 3	Internal components (2 of 5) on page 275
RC1-7545-000CN	Guide, cable, right 4	Internal components (2 of 5) on page 275
RC1-7546-000CN	Duct 1	Internal components (5 of 5) on page 281

Table 7-30 Numerical parts list (continued)

Part number	Description	Table and page
RC1-7547-000CN	Duct, 2	Internal components (1 of 5) on page 273
RC1-7548-000CN	Duct, 3	Internal components (1 of 5) on page 273
RC1-7550-000CN	Cover, rear lower	External panels and covers (1 of 2) on page 265
RC1-7551-000CN	Bracket, left, rear	Internal components (4 of 5) on page 279
RC1-7552-000CN	Spring, tension	Internal components (1 of 5) on page 273
RC1-7554-000CN	Latch, left	Internal components (1 of 5) on page 273
RC1-7555-000CN	Latch, right	Internal components (1 of 5) on page 273
RC1-7576-000CN	Crossmember, drive side plate	Internal components (2 of 5) on page 275
RC1-7577-000CN	Cover	Internal components (5 of 5) on page 281
RC1-7583-000CN	Spring, grounding	Internal components (1 of 5) on page 273
RC1-7597-000CN	Lever, sensing	Internal components (2 of 5) on page 275
RC1-7598-000CN	Spring, tension	Internal components (2 of 5) on page 275
RC1-7599-000CN	Shield, PCA	Internal components (5 of 5) on page 281
RC1-7618-000CN	Lever, lock, left upper	Internal components (1 of 5) on page 273
RC1-7628-000CN	Torsion spring	External panels, and covers (2 of 2) on page 267
RC1-7959-000CN	Block, Multipurpose path (HP CLJ 3000)	Paper-pickup assembly (HP CLJ 3000) on page 297
RC1–6571-000CN	Gear, 58T	Internal components (1 of 5) on page 273
RK2-0937-000CN	Motor, DC (ETB) (simplex models)	Electronic transfer belt (simplex models) on page 299
RK2-0939-000CN	Motor, AC 24V, 9W	Internal components (3 of 5) on page 277
RK2-0954-000CN	Fan (duplex models)	Front-cover assembly (duplex model) on page 271
RK2-0954-000CN	Fan	Internal components (1 of 5) on page 273
RK2-0966-000CN	Cable, scanner flat (long (HP CLJ 3600/3800/CP3505)	Internal components (2 of 5) on page 275

Table 7-30 Numerical parts list (continued)

Part number	Description	Table and page
RK2-0967-000CN	Cable, scanner flat short	Internal components (2 of 5) on page 275
RK2-0969-000CN	Cable, drive flat 1	Internal components (5 of 5) on page 281
RK2-0970-000CN	Cable, drive flat 2	Internal components (5 of 5) on page 281
RK2-0971-000CN	Cable, scanner flat (long (HP CLJ 3000)	Internal components (2 of 5) on page 275
RK2-0989-000CN	Control-panel assembly (HP CLJ 3600/3800/CP3505)	PCAs on page 309
RK2-0996-000CN	Control panel-assembly (HP CLJ 3000)	PCAs on page 309
RL1-1067-000CN	Foot, rubber assembly, front	Internal components (3 of 5) on page 277
RL1-1069-000CN	Plate, gear 3	Internal components (3 of 5) on page 277
RM1-2576-000CN	Cassette sensor PCA	Internal components (3 of 5) on page 277
RM1-2578-000CN	High-voltage PCA assembly	PCAs on page 309
RM1-2580-000CN	DC controller PCA assembly (HP CLJ 3600/3800/CP3505)	PCAs on page 309
RM1-2581-000CN	Driver PCA	PCAs on page 309
RM1-2582-000CN	Relay, PCA (HP CLJ 3000 only)	Internal components (5 of 5) on page 281
RM1-2583-000CN	PCA assembly (500-sheet feeder)	500-sheet feeder PCA on page 315
RM1-2584-000CN	Duplexing PCA assembly (duplex models)	PCAs on page 309
RM1-2585-000CN	Cartridge-sensor PCA	PCAs on page 309
RM1-2587-000CN	Cable, panel connecting	Internal components (5 of 5) on page 281
RM1-2589-000CN	Cable, media sensor cassette assembly (HP CLJ 3600/3800/CP3505)	Internal components (1 of 5) on page 273
RM1-2592-000CN	Cable, power control	Internal components (5 of 5) on page 281
RM1-2594-000CN	Cable, scanner	Internal components (2 of 5) on page 275
RM1-2595-000CN	Cable, environment sensor	Internal components (4 of 5) on page 279
RM1-2596-000CN	Cable, panel	Internal components (1 of 5) on page 273
RM1-2597-000CN	Fuser cable assembly	Internal components (4 of 5) on page 279
RM1-2600-000CN	DC controller PCA assembly (HP CLJ 3000)	PCAs on page 309
RM1-2603-000CN	Cable, sensor	Internal components (3 of 5) on page 277

Table 7-30 Numerical parts list (continued)

Part number	Description	Table and page
RM1-2605-000CN	Cable, drive power	Internal components (4 of 5) on page 279
RM1-2608-000CN	Cable, ETB	Internal components (4 of 5) on page 279
RM1-2609-000CN	Cable, duplex docking	Internal components (3 of 5) on page 277
RM1-2610-000Cn	Cable, drum motor	Internal components (4 of 5) on page 279
RM1-2611-000CN	Cable, solenoid	Internal components (4 of 5) on page 279
RM1-2613-000CN	Cable, cassette	Internal components (4 of 5) on page 279
RM1-2614-000CN	Cable, drum motor (HP CLJ 3600/3800/CP3505)	Internal components (4 of 5) on page 279
RM1-2616-000CN	Cable, duplexing (duplex models)	Duplexing reverse-drive assembly (duplex models) on page 287
RM1-2617-000CN	Cable, duplexing (duplex models)	External panels, and covers (2 of 2) on page 267
RM1-2618-000CN	Cable, duplexing sensor (duplex models)	Duplexing reverse-drive assembly (duplex models) on page 287
RM1-2619-000CN	Cable, fuser drive	Fuser drive assembly on page 291
RM1-2620-000CN	Cable, paper-full (duplex models)	External panels, and covers (2 of 2) on page 267
RM1-2624-000CN	Cable, option media sensor (500-sheet feeder)	500-sheet feeder paper-pickup assembly on page 313
RM1-2625-000CN	Cable, option sensor	500-sheet feeder paper-pickup assembly on page 313
RM1-2627-000CN	Cable, memory tag	Internal components (2 of 5) on page 275
RM1-2628-000CN	Cable, paper-full	Internal components (4 of 5) on page 279
RM1-2629-000CN	Cable, drum motor (HP CLJ 3000)	Internal components (4 of 5) on page 279
RM1-2630-000CN	Cable, paper-full (simplex models)	External panels, and covers (2 of 2) on page 267
RM1-2632-000CN	Relay, PCA (HP CLJ 3600/3800/CP3505 only)	Internal components (5 of 5) on page 281
RM1-2640-000CN	Scanner assembly (HP CLJ 3600/3800/CP3505)	Internal components (4 of 5) on page 279
RM1-2665-000CN	Fuser assembly 110V-127V	Fuser on page 307

Table 7-30 Numerical parts list (continued)

Part number	Description	Table and page
RM1-2668-000CN	Fuser drive assembly	Fuser drive assembly on page 291
RM1-2670-000CN	Interlock-switch assembly	External panels, and covers (2 of 2) on page 267
RM1-2671-000CN	Upper cover assembly (fuser door) (simplex models)	External panels, and covers (2 of 2) on page 267
RM1-2672-030CN	Top-cover assembly (simplex models)	External panels, and covers (2 of 2) on page 267
RM1-2673-000CN	Front-cover assembly (simplex models)	Front-cover assembly (simplex model) on page 269
RM1-2678-000CN	Right-rear base assembly	Internal components (3 of 5) on page 277
RM1-2679-000CN	Paper-pickup drive assembly	Paper-pickup drive assembly on page 283
RM1-2683-000CN	Contact-holder assembly	Internal components (1 of 5) on page 273
RM1-2687-000CN	Developing separation (estrangement) drive assembly	Developing separation-drive assembly on page 289
RM1-2689-000CN	Drive-motor assembly, print-cartridge (HP CLJ 3600/3800/CP3505: K, Y, C, M cartridges; HP CLJ 3000: Y, C, M cartridges only)	Internal components (2 of 5) on page 275
RM1-2699-000CN	Multipurpose tray separation-pad assembly (HP CLJ 3600/3800/CP3505)	Paper-pickup assembly (HP CLJ 3600/3800/CP3505) on page 295
RM1-2702-000CN	Cassette	Paper-pickup assembly (HP CLJ 3600/3800/CP3505) on page 295
RM1-2704-000CN	Multipurpose tray paper-pickup gear assembly	Internal components (5 of 5) on page 281
RM1-2705-000CN	Cassette, 250-sheet	Cassette (tray 2) on page 293
RM1-2709-000CN	Separation-pad assembly	Cassette (tray 2) on page 293
RM1-2710-000CN	Multipurpose tray (tray 1) extension tray assembly	External panels and covers (1 of 2) on page 265
RM1-2711-000CN	Multipurpose tray assembly (tray 1)	Multipurpose tray assembly (tray 1) on page 303
RM1-2713-020CN	Top-cover assembly (duplex models)	External panels, and covers (2 of 2) on page 267
RM1-2714-000CN	Upper cover assembly (fuser door) (duplex models)	External panels, and covers (2 of 2) on page 267
RM1-2715-000CN	Front-cover assembly (duplex models)	Front-cover assembly (duplex model) on page 271
RM1-2718-000CN	Duplex-paper feed assembly (duplex models)	Duplex-paper feed assembly (duplex models) on page 305

Table 7-30 Numerical parts list (continued)

Part number	Description	Table and page
RM1-2719-000CN	Position-guide assembly (duplex models)	Duplex-paper feed assembly (duplex models) on page 305
RM1-2720-000CN	Duplexing-feed drive assembly (duplex models)	Duplexing-feed drive assembly (duplex models) on page 285
RM1-2721-000CN	Duplexing reverse-drive assembly (duplex models)	Duplexing reverse-drive assembly (duplex models) on page 287
RM1-2722-000CN	Lower guide assembly (duplex models)	Duplex-paper feed assembly (duplex models) on page 305
RM1-2725-000CN	500-sheet feeder paper-pickup assembly	500-sheet feeder paper-pickup assembly on page 313
RM1-2732-000CN	500–sheet cassette (only), tray 3	500-sheet feeder cassette (tray 3) on page 311
RM1-2735-000CN	Separation-pad-holder assembly (500-sheet feeder)	500-sheet feeder cassette (tray 3) on page 311
RM1-2741-000CN	Multipurpose tray roller (HP CLJ 3600/3800/CP3505)	Paper-pickup assembly (HP CLJ 3600/3800/CP3505) on page 295
RM1-2743-000CN	Fuser assembly 220V-240V	Fuser on page 307
RM1-2750-020CN	Face-down tray assembly (HP CLJ 3600/3800/CP3505)	External panels, and covers (2 of 2) on page 267
RM1-2751-000CN	Main drive assembly	Internal components (2 of 5) on page 275
RM1-2752-000CN	Electronic transfer belt (duplex models)	Electronic transfer belt (duplex models) on page 301
RM1-2755-000CN	Paper-pickup assembly (HP CLJ 3600/3800/CP3505)	Paper-pickup assembly (HP CLJ 3600/3800/CP3505) on page 295
RM1-2756-000CN	Media-sensor cassette assembly (HP CLJ 3600/3800/CP3505)	Internal components (1 of 5) on page 273
RM1-2757-000CN	Sensor, media assembly	500-sheet feeder paper-pickup assembly on page 313
RM1-2759-000CN	Electronic transfer belt (simplex models)	Electronic transfer belt (simplex models) on page 299
RM1-2771-000CN	Cartridge, guide, right assembly	Internal components (1 of 5) on page 273
RM1-2773-000CN	Drive-motor assembly, print-cartridge (HP CLJ 3000: K cartridge only)	Internal components (2 of 5) on page 275
RM1-2774-000CN	Paper-pickup assembly (HP CLJ 3000)	Paper-pickup assembly (HP CLJ 3000) on page 297
RM1-2775-000CN	Preregistration-guide assembly (HP CLJ 3000)	Paper-pickup assembly (HP CLJ 3000) on page 297
RM1-2777-020CN	Face-down tray assembly (HP CLJ 3000)	External panels, and covers (2 of 2) on page 267

Table 7-30 Numerical parts list (continued)

Part number	Description	Table and page
RM1-2952-000CN	Scanner assembly (HP CLJ 3000)	Internal components (4 of 5) on page 279
RM1-4377-000CN	Low-voltage power PCA assembly (110V-127V)	PCAs on page 309
RM1-4378-000CN	Low-voltage power PCA assembly (220V-240V)	PCAs on page 309
RM1–2669–000CN	Cover, right	External panels and covers (1 of 2) on page 265
RM1–2727–000CN	Paper-pickup-roller assembly (500-sheet feeder)	500-sheet feeder paper-pickup assembly on page 313
VS1-7207-003CN	Connector, snap-tight (simplex models)	External panels, and covers (2 of 2) on page 267
WG8-5696-000CN	Photointerruptor	500-sheet feeder paper-pickup assembly on page 313
WP2-5214-000CN	Sensor, temperature	Internal components (4 of 5) on page 279
WT2-5944-000CN	Cable, clamp	Internal components (5 of 5) on page 281

A   Printer specifications

Electrical specifications

⚠️ **WARNING!** Power requirements are based on the country/region where the printer is sold. Do not convert operating voltages. This can damage the printer and void the product warranty.

Table A-1 Electrical specifications for the HP Color LaserJet 3000 Series printers

Item	110-volt models	220-volt models
Power requirements	100 to 127 V (+/-10%)	220 to 240 V (+/-10%)
	50 to 60 Hz (+/-2 Hz)	50 to 60 Hz (+/-2 Hz)
Minimum recommended circuit capacity	6.5 A	3.5 A

Table A-2 Electrical specifications for the HP Color LaserJet 3600 Series printer

Item	110-volt models	220-volt models
Power requirements	100 to 127 V (+/-10%)	220 to 240 V (+/-10%)
	50 to 60 Hz (+/-2 Hz)	50 to 60 Hz (+/-2 Hz)
Minimum recommended circuit capacity	6.5 A	3.5 A

Table A-3 Electrical specifications for the HP Color LaserJet 3800 and HP Color LaserJet CP3505 Series printers

Item	110-volt models	220-volt models
Power requirements	100 to 127 V (+/-10%)	220 to 240 V (+/-10%)
	50 to 60 Hz (+/-2 Hz)	50 to 60 Hz (+/-2 Hz)
Minimum recommended circuit capacity	6.5 A	3.5 A

Power-consumption specifications

Table A-4 Power consumption (average, in watts)[1]

Product Model	Printing[2]	Ready[3]	Sleep[4]	Off	Heat output-Ready (BTU/hour)[5]
HP Color LaserJet 3000	409	29	13	0.5	100
HP Color LaserJet 3000n	409	29	13	0.5	100
HP Color LaserJet 3000dn	409	29	13	0.5	100
HP Color LaserJet 3000dtn	409	29	13	0.5	100
HP Color LaserJet 3600	337	51	15	0.5	171
HP Color LaserJet 3600n	337	51	15	0.5	171
HP Color LaserJet 3600dn	337	51	15	0.5	171
HP Color LaserJet 3800 HP Color LaserJet CP3505	437	48	15	0.5	162
HP Color LaserJet 3800n HP Color LaserJet CP3505n	437	48	15	0.5	162
HP Color LaserJet 3800dn HP Color LaserJet CP3505dn	437	48	15	0.5	162
HP Color LaserJet 3800dtn HP Color LaserJet CP3505x	407	46	15	0.7	162

[1] The power consumption reflects the highest values measured for color and monochrome printing when using standard voltages.

[2] HP Color LaserJet 3000: The printing speed is 15 ppm for letter-size media and 29 ppm for A4-size media. HP Color LaserJet 3600: The printing speed is 17 ppm for letter-size media and 17 ppm for A4-size media. HP Color LaserJet 3800 and CP3505: The printing speed is 20 ppm for letter-size media and 21 ppm for A4-size media.

[3] The default activation time from ready mode to sleep mode is 30 minutes.

[4] The recovery time from sleep mode to the start of printing is 6 seconds.

[5] Maximum heat dissipation for all models in ready mode is 171 BTU per hour.

NOTE: These values are subject to change.

Acoustic specifications

Table A-5 Acoustic emissions for the HP Color LaserJet 3000 Series printers[1]

Sound power level	Declared per ISO 9296
Printing (15 ppm)[2]	L_{WAd} = 6.9 Bels (A) [69 dB (A)]
Ready	L_{WAd} = 5.3 Bels (A) [53 dB (A)]
Sound pressure level: bystander position	**Declared per ISO 9296**
Printing (15 ppm)[2]	L_{pAm} = 55 dB (A)
Ready	L_{pAm} = 39 dB (A)

1   The HP Color LaserJet 3000dn was tested in simplex mode with A4-size media.

2   The color printing speed is 15 ppm for letter-size media and A4-size media. The monochrome printing speed is 30 ppm for letter-size media and 29 ppm for A4-size media.

Table A-6 Acoustic emissions for the HP Color LaserJet 3600 Series printer[1]

Sound power level	Declared per ISO 9296
Printing (17 ppm)[2]	L_{WAd} = 6.4 Bels (A) [64 dB (A)]
Sound pressure level: bystander position	**Declared per ISO 9296**
Printing (17 ppm)[2]	L_{pAm} = 49 dB (A)

1   The HP Color LaserJet 3600 printer was tested in simplex monochrome mode with A4-size media.

2   The printing speed is 17 ppm for letter-size media and 17 ppm for A4-size media.

Table A-7 Acoustic emissions for theHP Color LaserJet 3800 and HP Color LaserJet CP3505 Series printers[1]

Sound power level	Declared per ISO 9296
Printing (20 ppm)[2]	L_{WAd} = 6.4 Bels (A) [64 dB (A)]
Ready	L_{WAd} = 5.4 Bels (A) [54 dB (A)]
Sound pressure level: bystander position	**Declared per ISO 9296**
Printing (20 ppm)[2]	L_{pAm} = 50 dB (A)
Ready	L_{pAm} = 40 dB (A)

1   The HP Color LaserJet 3800n was tested in simplex mode with A4-size media.

2   The printing speed is 20 ppm for letter-size media and 21 ppm for A4-size media.

NOTE: These values are subject to change.

Operating-environment specifications

Environment	Recommended	Allowed
Temperature	17 to 25°C (62.6 to 77°F)	10 to 27°C (50 to 81°F)
Humidity	20 to 60% relative humidity (RH)	10 to 70% RH
Altitude	Not applicable	0 to 2,600 m (0 to 8,530 ft)

NOTE: These values are subject to change.

B Product warranty statements

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

Hewlett-Packard Limited Warranty Statement

HP PRODUCT	DURATION OF LIMITED WARRANTY
HP 3000/3600/3800/CP3505 Series printer	1 year, Onsite service

HP warrants to you, the end-user customer, that HP hardware and accessories will be free from defects in materials and workmanship after the date of purchase, for the period specified above. If HP receives notice of such defects during the warranty period, HP will, at its option, either repair or replace products which prove to be defective. Replacement products might be either new or equivalent in performance to new.

HP warrants to you that HP software will not fail to execute its programming instructions after the date of purchase, for the period specified above, due to defects in material and workmanship when properly installed and used. If HP receives notice of such defects during the warranty period, HP will replace software which does not execute its programming instructions due to such defects.

HP does not warrant that the operation of HP products will be uninterrupted or error free. If HP is unable, within a reasonable time, to repair or replace any product to a condition as warranted, you will be entitled to a refund of the purchase price upon prompt return of the product.

HP products might contain remanufactured parts equivalent to new in performance or might have been subject to incidental use.

Warranty does not apply to defects resulting from (a) improper or inadequate maintenance or calibration, (b) software, interfacing, parts or supplies not supplied by HP, (c) unauthorized modification or misuse, (d) operation outside of the published environmental specifications for the product, or (e) improper site preparation or maintenance.

TO THE EXTENT ALLOWED BY LOCAL LAW, THE ABOVE WARRANTIES ARE EXCLUSIVE AND NO OTHER WARRANTY OR CONDITION, WHETHER WRITTEN OR ORAL, IS EXPRESSED OR IMPLIED AND HP SPECIFICALLY DISCLAIMS ANY IMPLIED WARRANTIES OR CONDITIONS OF MERCHANTABILITY, SATISFACTORY QUALITY, AND FITNESS FOR A PARTICULAR PURPOSE. Some countries/regions, states or provinces do not allow limitations on the duration of an implied warranty, so the above limitation or exclusion might not apply to you. This warranty gives you specific legal rights and you might also have other rights that vary from country/region to country/region, state to state, or province to province. HP's limited warranty is valid in any country/region or locality where HP has a support presence for this product and where HP has marketed this product. The level of warranty service you receive might vary according to local standards. HP will not alter form, fit or function of the product to make it operate in a country/region for which it was never intended to function for legal or regulatory reasons.

TO THE EXTENT ALLOWED BY LOCAL LAW, THE REMEDIES IN THIS WARRANTY STATEMENT ARE YOUR SOLE AND EXCLUSIVE REMEDIES. EXCEPT AS INDICATED ABOVE, IN NO EVENT WILL HP OR ITS SUPPLIERS BE LIABLE FOR LOSS OF DATA OR FOR DIRECT, SPECIAL, INCIDENTAL, CONSEQUENTIAL (INCLUDING LOST PROFIT OR DATA), OR OTHER DAMAGE, WHETHER BASED IN CONTRACT, TORT, OR OTHERWISE. Some countries/regions, states or provinces do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion might not apply to you.

THE WARRANTY TERMS CONTAINED IN THIS STATEMENT, EXCEPT TO THE EXTENT LAWFULLY PERMITTED, DO NOT EXCLUDE, RESTRICT OR MODIFY AND ARE IN ADDITION TO THE MANDATORY STATUTORY RIGHTS APPLICABLE TO THE SALE OF THIS PRODUCT TO YOU.

Availability of support and service

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

HP maintenance agreements

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

Next-Day Onsite Service

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

C Regulatory statements

FCC regulations

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

● Reorient or relocate the receiving antenna.

● Increase separation between equipment and receiver.

● Connect equipment to an outlet on a circuit different from that to which the receiver is located.

● Consult your dealer or an experienced radio/TV technician.

NOTE: Any changes or modifications to the printer that are not expressly approved by HP could void the users authority to operate this equipment.

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

Declaration of conformity (HP Color LaserJet 3000 Series printer)

Declaration of Conformity
according to ISO/IEC Guide 22 and EN 45014

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

declares, that the product

Product Name:	HP Color LaserJet 3000 Series
Regulatory Model:[3]	BOISB-0504-01
	Including
	Q5985A Optional 500 Sheet Input Tray
Product Options:	ALL
Print Cartridges:	Q7560A, Q7561A, Q7562A, Q7563A

conforms to the following Product Specifications:

SAFETY:	IEC 60950-1:2001 / EN60950-1: 2001 +A11
	IEC 60825-1:1993 +A1+A2 / EN 60825-1:1994 +A1 +A2 (Class 1 Laser/LED Product) GB4943-2001
EMC:	CISPR22:1993 +A1 +A2 / EN55022:1994 +A1 +A2 - Class B[1]
	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 89/336/EEC and the Low Voltage Directive 73/23/EEC, and carries the CE-Marking accordingly.

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

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

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

<div align="center">Boise, Idaho 83713, USA</div>

<div align="center">**16 May, 2005**</div>

For Regulatory Topics Only:

Australia Contact	Product Regulations Manager, Hewlett-Packard Australia Ltd., 31-41 Joseph Street,, Blackburn, Victoria 3130, Australia
European Contact	Your Local Hewlett-Packard Sales and Service Office or Hewlett-Packard Gmbh, Department HQ-TRE / Standards Europe, Herrenberger Strasse 140, Bblingen, D-71034, Germany, (FAX+49-7031-14-3143)
USA Contact	Product Regulations Manager, Hewlett-Packard Company, PO Box 15, Mail Stop 160, Boise, ID 83707-0015, USA, (Phone: 208-396-6000)

Declaration of conformity (HP Color LaserJet 3600 Series and HP Color LaserJet 3800 Series printer)

Declaration of Conformity

according to ISO/IEC Guide 22 and EN 45014

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

declares, that the product

Product Names:[4]	HP Color LaserJet 3600 series / HP Color LaserJet 3800 Series
Regulatory Model:[3]	BOISB-0504-00
	Including
	Q5985A Optional 500 Sheet Input Tray
Product Options:	ALL
Print Cartridges:	Q6470A, Q6471A, Q6472A, Q6473A, Q7581A, Q7582A, Q7583A

conforms to the following Product Specifications:

SAFETY:	IEC 60950-1:2001 / EN60950-1: 2001 +A11
	IEC 60825-1:1993 +A1 +A2 / EN 60825-1:1994 +A1 +A2 (Class 1 Laser/LED Product)
	GB4943-2001
EMC:	CISPR22:1993 +A1 +A2 / EN55022:1994 +A1 +A2 - Class B[1]
	EN 61000-3-2:2000
	EN 61000-3-3:1995 +A1
	EN 55024:1998 +A1 +A2
	FCC Title 47 CFR, Part 15 Class B[2] / ICES-003, Issue 4
	GB9254-1998, GB17625.1-2003

Supplementary Information:

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

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

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

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

4) CLJ3600 series, CLJ3800 series, and CLJ CP3505 series are similar in design, but use various interface boards.

Boise, Idaho 83713, USA

16 May, 2005

For Regulatory Topics Only:

Australia Contact	Product Regulations Manager, Hewlett-Packard Australia Ltd., 31-41 Joseph Street,, Blackburn, Victoria 3130, Australia
European Contact	Your Local Hewlett-Packard Sales and Service Office or Hewlett-Packard Gmbh, Department HQ-TRE / Standards Europe, Herrenberger Strasse 140, Bblingen, D-71034, Germany, (FAX +49-7031-14-3143)
USA Contact	Product Regulations Manager, Hewlett-Packard Company, PO Box 15, Mail Stop 160, Boise, ID 83707-0015, USA, (Phone: 208-396-6000)

Declaration of conformity (HP Color LaserJet CP3505 Series printer)

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 Names:[3]	HP Color LaserJet CP3505 Series
Regulatory Model:[2]	BOISB-0504-00
	Including
	Q5985A - Optional 500 Sheet Input Tray
Product Options:	ALL
Print Cartridges:	Q6470A, Q7581A, Q7582A, Q7583A

conforms to the following Product Specifications:

SAFETY:	IEC 60950-1:2001 / EN60950-1: 2001 +A11
	IEC 60825-1:1993 +A1 +A2 / EN 60825-1:1994 +A1 +A2 (Class 1 Laser/LED Product)
	GB4943-2001
EMC:	CISPR22:2005 / EN55022:2006 - Class B[1]
	EN 61000-3-2:2000
	EN 61000-3-3:1995 +A1
	EN 55024:1998 +A1 +A2
	FCC Title 47 CFR, Part 15 Class B / ICES-003, Issue 4
	GB9254-1998, GB17625.1-2003

Supplementary Information:

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

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

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

2) For regulatory purposes, these products are assigned a Regulatory model number. This number should not be confused with the product name or the product number(s).

3) CLJ3600 series and CLJ3800 series are similar in design, but using various interface boards.

Boise, Idaho 83713, USA

February 1, 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, Böblingen, D-71034, Germany, (FAX +49-7031-14-3143)
USA Contact	Product Regulations Manager, Hewlett-Packard Company, PO Box 15, Mail Stop 160, Boise, ID 83707-0015, USA, (Phone: 208-396-6000)

Safety statements

Laser safety

The Center for Devices and Radiological Health (CDRH) of the U.S. Food and Drug Administration has implemented regulations for laser products manufactured since August 1,1976. Compliance is mandatory for products marketed in the United States. The printer is certified as a Class 1 laser product under the U.S. Department of Health and Human Services (DHHS) Radiation Performance Standard according to the Radiation Control for Health and Safety Act of 1968. Since radiation emitted inside the printer is completely confined within protective housings and external covers, the laser beam cannot escape during any phase of normal user operation.

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

Canadian DOC regulations

Complies with Canadian EMC Class B requirements.

Conforme la classe B des normes canadiennes de compatibilit lectromagntiques. CEM.

EMI statement (Korea)

B급 기기 (가정용 정보통신기기)

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

VCCI statement (Japan)

この装置は、情報処理装置等電波障害自主規制協議会（ＶＣＣＩ）の基準
に基づくクラスＢ情報技術装置です。この装置は、家庭環境で使用すること
を目的としていますが、この装置がラジオやテレビジョン受信機に近接して
使用されると、受信障害を引き起こすことがあります。
取扱説明書に従って正しい取り扱いをして下さい。

Power cord statement (Japan)

製品には、同梱された電源コードをお使い下さい。
同梱された電源コードは、他の製品では使用出来ません。

Laser statement for Finland

Luokan 1 laserlaite

Klass 1 Laser Apparat

HP Color LaserJet 3000, 3000n, 3000dn, 3000dtn, 3600, 3600n, 3600dn, 3800, 3800n, 3800dn, 3800dtn, CP3505, CP3505n, CP3505dn, CP3505x, laserkirjoitin on kyttjn kannalta turvallinen luokan 1 laserlaite. Normaalissa kytss kirjoittimen suojakotelointi est lasersteen psyn laitteen ulkopuolelle. Laitteen turvallisuusluokka on mritetty standardin EN 60825-1 (1994) mukaisesti.

VAROITUS !

Laitteen kyttminen muulla kuin kyttohjeessa mainitulla tavalla saattaa altistaa kyttjn turvallisuusluokan 1 ylittvlle nkymttmlle lasersteilylle.

VARNING !

Om apparaten anvnds p annat stt n i bruksanvisning specificerats, kan anvndaren utsttas fr osynlig laserstrlning, som verskrider grnsen fr laserklass 1.

HUOLTO

HP Color LaserJet 3000, 3000n, 3000dn, 3000dtn, 3600, 3600n, 3600dn, 3800, 3800n, 3800dn, 3800dtn, CP3505, CP3505n, CP3505dn, CP3505x -kirjoittimen sisll ei ole kyttjn huollettavissa olevia kohteita. Laitteen saa avata ja huoltaa ainoastaan sen huoltamiseen koulutettu henkil. Tllaiseksi huoltotoimenpiteeksi ei katsota vriainekasetin vaihtamista, paperiradan puhdistusta tai muita kyttjn ksikirjassa lueteltuja, kyttjn tehtvksi tarkoitettuja yllpitotoimia, jotka voidaan suorittaa ilman erikoistykaluja.

VARO !

Mikli kirjoittimen suojakotelo avataan, olet alttiina nkymttmllelasersteilylle laitteen ollessa toiminnassa. l katso steeseen.

VARNING !

Om laserprinterns skyddshlje ppnas d apparaten r i funktion, utsttas anvndaren fr osynlig laserstrlning. Betrakta ej strlen. Tiedot laitteessa kytettvn laserdiodin steilyominaisuuksista: Aallonpituus 775-795 nm Teho 5 m W Luokan 3B laser.

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