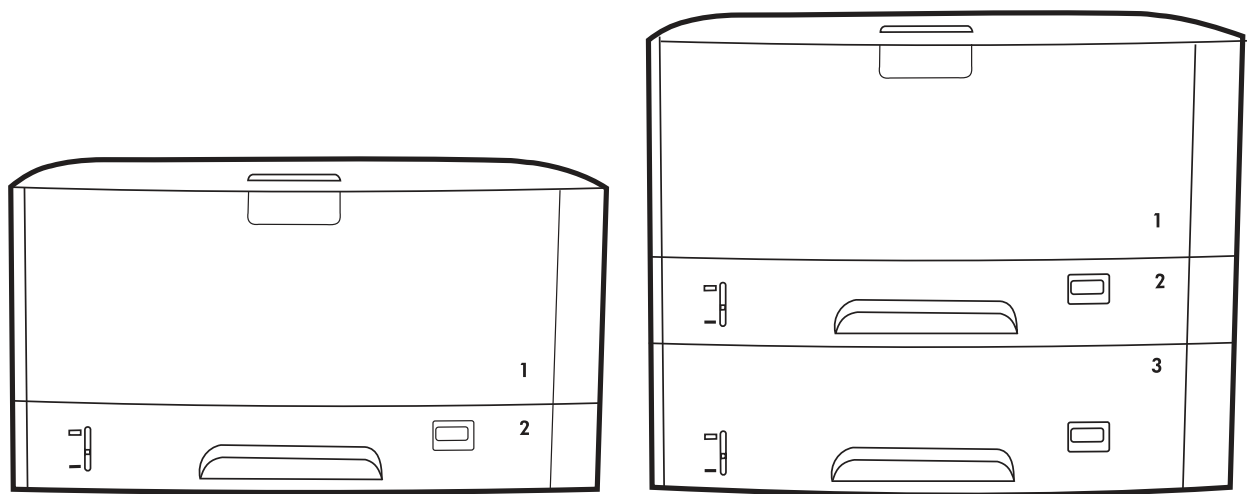


# HP LaserJet 5200/5200L Series printers

## Service Manual





# HP LaserJet 5200 Series printers

---

## Service Manual



## Copyright and license

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

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

The information contained herein is subject to change without notice.

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

Edition 1, 3/2006

Part number Q7543-90934

## Trademark credits

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

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

PostScript® is a trademarks of Adobe Systems Incorporated.

UNIX® is a registered trademark of The Open Group.

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





# Table of contents

## 1 Product information

Quick access to printer information .....	2
Printers at a glance .....	3
HP LaserJet 5200 Series printers .....	3
Features at a glance .....	4
Walkaround .....	6
Control-panel overview .....	8
Printer software .....	10
Printer drivers .....	10
Driver Autoconfiguration .....	10
Update Now .....	11
HP Driver Preconfiguration .....	11
Additional drivers .....	11
Opening the printer drivers .....	12
Software for Macintosh computers .....	12
Installing Macintosh printing system software for networks .....	13
Installing Macintosh printing system software for direct connections (USB) .....	13
To remove software from Macintosh operating systems .....	14
Software for networks .....	14
HP Web Jetadmin .....	14
UNIX .....	14
Linux .....	15
Utilities .....	15
HP Easy Printer Care Software .....	15
Embedded Web server .....	15
Other components and utilities .....	15
Selecting print media .....	16
Supported media sizes .....	16
Supported media types .....	18

## 2 Installation and configuration

What is in the box .....	20
Identification .....	21
Model and serial numbers .....	21
Site requirements .....	22
Physical specifications .....	22
Space requirements .....	22
Input/Output (I/O) configuration .....	23

Parallel configuration .....	23
USB configuration .....	23
Connecting the USB cable .....	23
Network configuration .....	24
Manually configuring TCP/IP parameters from the control panel .....	24
Setting an IP address .....	24
Setting the subnet mask .....	25
Setting the default gateway .....	25
Disabling network protocols (optional) .....	26
To enable or disable IPX/SPX .....	26
To enable or disable AppleTalk .....	26
To disable DLC/LLC .....	27
Enhanced I/O (EIO) configuration .....	27
HP Jetdirect EIO print servers .....	27
Connecting to a network or a computer .....	27
Installing printer memory .....	30
To install printer memory .....	30
Checking DIMM installation .....	34
Installing CompactFlash cards .....	35
Checking CompactFlash installation .....	39
Enabling memory (Windows only) .....	40

### 3 Maintenance

Managing supplies .....	42
Approximate print-cartridge replacement intervals .....	42
Managing the print cartridge .....	42
Print-cartridge life expectancy .....	42
Print-cartridge storage .....	42
HP print cartridges .....	42
HP policy on non-HP print cartridges .....	42
Print-cartridge authentication .....	43
HP fraud hotline and Web site .....	43
Checking supply levels .....	43
To check supplies by using the control panel .....	43
To check supplies by using HP Web Jetadmin .....	43
To check supplies using the embedded Web server .....	43
Replacing supplies and parts .....	44
Supply replacement guidelines .....	44
Life expectancy of consumable parts .....	44
Changing the print cartridge .....	44
To change the print cartridge .....	45
Cleaning the printer .....	48
Cleaning the printer manually .....	49
Cleaning the paper path using the printer control panel .....	49
Cleaning spilled toner .....	50
Vacuum specifications .....	50

### 4 Theory of operation

Engine control system .....	52
Power-on sequence .....	53

Motors, fans, and solenoids .....	53
Laser/scanner system .....	55
Pickup-and-feed-system .....	56
Cassette (tray 2) pickup mechanism .....	57
Multipurpose-tray (tray 1) pickup mechanism .....	58
Jam detection .....	58
Image-formation system .....	59
Image-formation process .....	60
Latent-image formation block .....	60
Step 1: primary charging .....	60
Step 2: laser-beam exposure .....	61
Development block .....	61
Step 3: developing .....	61
Transfer block .....	61
Step 4: image transfer .....	61
Step 5: separation from the drum .....	62
Fixing block .....	62
Step 6: fusing .....	62
Drum-cleaning block .....	62
Step 7: drum cleaning .....	62
Print cartridge .....	63
Print-cartridge activation .....	63

## 5 Removal and replacement

Removal and replacement strategy .....	66
Introduction .....	66
Required tools .....	66
Types of screws .....	67
Service approach .....	67
Before performing service .....	68
After performing service .....	68
Parts removal order .....	68
Customer self-repair parts .....	70
Tray 1 pickup roller .....	70
Tray 2 pickup roller .....	72
Tray 2 separation pad .....	73
Tray 3 retard roller .....	74
Tray 3 pickup and feed rollers .....	75
Formatter .....	76
CompactFlash cards .....	77
DIMMs .....	80
Control-panel overlay .....	84
Duplexer .....	84
External doors, covers, and panels .....	86
Right cover .....	86
Lower back cover .....	86
Face-up bin .....	87
Top cover .....	89
Left cover .....	92
Left front cover .....	94

Face-down cover .....	95
Tray 2 .....	96
Right front cover .....	96
Right lower cover .....	97
DC controller cover .....	100
Cartridge door unit .....	100
Control panel .....	108
Internal assemblies .....	110
Laser/scanner .....	110
Formatter .....	111
Fuser .....	112
Cassette-paper pickup unit .....	113
Face-down delivery unit .....	118
Main motor .....	120
Fuser motor .....	125
Main fan .....	126
Sub fan .....	129
Registration unit .....	134
Transfer roller .....	135
Paper-feed unit .....	136
Printed circuit assemblies (PCAs) .....	139
DC controller .....	139
High-voltage power supply .....	142
Low-voltage power supply PCA .....	151
Duplexer .....	155
Duplexer .....	155
Duplexer left cover .....	156
Duplexer right cover .....	157
Duplexer top cover .....	158
Duplexer back cover .....	159
Duplexer feed motor .....	161
Duplexer fan .....	164
Duplexer PCA .....	167
500-sheet feeder .....	169
500-sheet feeder front cover .....	169
500-sheet feeder left front cover .....	170
500-sheet feeder left cover .....	170
500-sheet feeder right front cover .....	172
500-sheet feeder right cover .....	173
500-sheet feeder rear dust cover .....	175
500-sheet feeder paper-pickup unit .....	176
500-sheet feeder lifter drive unit .....	180
500-sheet feeder drive unit .....	182
500-sheet feeder drive PCA .....	186
500-sheet feeder pickup motor .....	186

## 6 Troubleshooting

Introduction .....	191
Basic troubleshooting checklist .....	192
Factors that affect printer performance .....	192

Troubleshooting flowchart .....	193
Step 1: Does READY appear on the control-panel display? .....	193
Step 2: Can you print a configuration page? .....	193
Step 3: Can you print from a program? .....	194
Step 4: Does the job print as expected? .....	195
Step 5: Does the printer select the trays? .....	196
Solving general printing problems .....	198
Control-panel message types .....	201
Control-panel messages .....	202
Replacement-parts configuration .....	220
Formatter and DC controller .....	220
Formatter (new) .....	220
DC controller (new or previously installed in another printer) .....	220
Formatter .....	220
Guidelines for using paper .....	221
Printing special pages .....	222
Data collection .....	223
General paper-path troubleshooting .....	224
Paper-path checklist .....	224
Jams in tray 1 .....	225
Jams in tray 2 or the optional 500-sheet feeder .....	225
Common causes of jams .....	226
Jam locations .....	227
Jam recovery .....	229
Clearing jams .....	230
Clearing jams from the input-tray areas .....	230
Clearing jams from the print-cartridge area .....	231
Clearing jams from the output-bin areas .....	233
Clearing jams from the optional duplexer .....	235
Solving repeated jams .....	236
Troubleshooting print-quality problems .....	238
Print-quality problems associated with media .....	238
Print-quality problems associated with the environment .....	238
Print-quality problems associated with jams .....	238
Image-defect examples .....	238
Light print (partial page) .....	240
Light print (entire page) .....	240
Specks .....	241
Dropouts .....	241
Lines .....	242
Gray background .....	242
Toner smear .....	243
Loose toner .....	243
Repeating defects .....	244
Repeating image .....	244
Misformed characters .....	244
Page skew .....	245
Curl or wave .....	245
Wrinkles or creases .....	246
Vertical white lines .....	246

Tire tracks .....	247
White spots on black .....	247
Scattered lines .....	247
Blurred print .....	248
Random image repetition .....	248
Interface troubleshooting .....	250
Communication checks .....	250
AUTOEXEC.BAT standard configurations .....	250
Parallel MS-DOS commands .....	250
Printer Job Language (PJM) commands .....	250
@PJM [Enter] .....	250
UEL .....	251
@PJM COMMENT .....	251
@PJM INFO CONFIG .....	251
@PJM INFO ID .....	251
@PJM INFO USTATUS .....	251
@PJM INFO PAGECOUNT .....	251
@PJM JOB .....	251
@PJM EOJ .....	252
@PJM ECHO .....	252
@PJM USTATUS JOB=ON/OFF .....	252
@PJM USTATUSOFF .....	252
Changing printer-control-panel configuration settings .....	253
Changing control-panel settings .....	253
To change a control-panel setting .....	253
Show address .....	253
Tray-behavior options .....	254
Sleep Delay .....	255
Personality .....	256
Clearable warnings .....	256
Auto continue .....	257
Cartridge low .....	257
Cartridge-out response .....	257
Jam recovery .....	258
RAM disk .....	258
Language .....	259
Fuser modes .....	259
Using the control-panel menus .....	261
To use the menus .....	261
Show Me How menu .....	262
Retrieve Job menu .....	263
Information menu .....	264
Paper Handling menu .....	265
Configure Device menu .....	266
Printing submenu .....	266
Print Quality submenu .....	268
System Setup submenu .....	271
I/O submenu .....	275
Resets submenu .....	276
Diagnostics menu .....	277

Service menu .....	278
Tools for troubleshooting .....	279
Using the configuration page .....	279
Using the embedded Web server .....	280
Accessing the embedded Web server .....	281
Information tab .....	281
Settings tab .....	281
Setting the real-time clock .....	282
Networking tabs .....	282
Other links .....	282
Configuration pages .....	283
Configuration page .....	283
HP embedded Jetdirect page .....	283
Paper-handling configuration page .....	284
Finding important information on the configuration page .....	284
Print the supplies status page .....	285
Print the usage page .....	286
Print the file directory page .....	288
Print the PCL font list page .....	289
Print the PS font list page .....	290
Diagnostics .....	291
Embedded HP Jetdirect LEDs .....	291
Heartbeat LED .....	292
Printer resets .....	293
Cold reset .....	293
To perform a cold reset .....	293
NVRAM initialization .....	293
To initialize NVRAM .....	294
Perform the self test .....	294
Save + Restore .....	294
Replacing the formatter and the DC controller .....	295
Replacing the formatter only .....	295
Replacing the DC controller only .....	296
Service menu (service PIN codes) .....	296
Service ID .....	297
Restoring the Service ID .....	297
Converting the Service ID to an actual date .....	297
Test pages .....	298
Engine-test page .....	298
Formatter-test page .....	298
Troubleshooting network printing problems .....	299
Troubleshooting common Windows problems .....	300
Troubleshooting common Macintosh problems .....	301
Troubleshooting Linux problems .....	303
Troubleshooting common PostScript problems .....	304
General problems .....	304

## 7 Parts and diagrams

Parts .....	310
How to use the parts lists and diagrams .....	311

Types of screws .....	311
Related documentation and software .....	312
Accessories and supplies .....	312
External panels and covers .....	316
Internal components .....	320
Paper-feed assembly .....	326
Face-up delivery assembly .....	328
Face-down delivery assembly .....	330
PCAs .....	332
Fuser .....	334
Cassette (tray 2) .....	336
Cassette (tray 2) paper-pickup assembly .....	338
500-sheet feeder cassette (tray 3) .....	340
500-sheet feeder, cassette, external panels and covers .....	342
500-sheet feeder internal components .....	344
500-sheet feeder paper-pickup assembly .....	346
500-sheet feeder drive assembly .....	348
500-sheet feeder lifter-drive assembly .....	350
500-sheet feeder PCA .....	352
Duplexer .....	354
Duplexing PCA assembly .....	358
Duplexing-feed drive assembly .....	360
Alphabetical parts list .....	362
Numerical parts list .....	369

## Appendix A Printer specifications

Electrical specifications .....	378
Power-consumption specifications .....	379
Acoustic specifications .....	380
Operating-environment specifications .....	381

## Appendix B Product warranty

Hewlett-Packard Limited Warranty Statement .....	384
Availability of support and service .....	385
HP maintenance agreements .....	386
Next-Day Onsite Service .....	386

## Appendix C Regulatory statements

FCC regulations .....	388
Declaration of conformity .....	389
Safety statements .....	390
Laser safety .....	390
Canadian DOC regulations .....	390
EMI statement (Korea) .....	390
VCCI statement (Japan) .....	390
Power cord statement (Japan) .....	390
Laser statement for Finland .....	391

<b>Index .....</b>	<b>393</b>
--------------------	------------



# List of tables

Table 1-1	Printer guides .....	2
Table 1-2	HP LaserJet 5200 Series printer configurations .....	3
Table 1-3	Features .....	4
Table 2-1	Physical dimensions for the HP LaserJet 5200 Series printers .....	22
Table 4-1	Sequence of operation .....	52
Table 6-1	Causes for jams in tray 1 .....	225
Table 6-2	Causes for jams in tray 2 or the optional 500-sheet feeder .....	225
Table 6-3	Fuser modes .....	259
Table 6-4	Optimize modes .....	260
Table 6-5	Important information on the configuration pages .....	284
Table 7-1	Technical support Web sites .....	312
Table 7-2	Accessories and supplies .....	312
Table 7-3	External panels and covers .....	317
Table 7-4	External panels and covers .....	319
Table 7-5	Internal components (1 of 3) .....	321
Table 7-6	Internal components (2 of 3) .....	323
Table 7-7	Internal components (3 of 3) .....	325
Table 7-8	Paper-feed assembly .....	327
Table 7-9	Face-up delivery assembly .....	329
Table 7-10	Face-down delivery assembly .....	331
Table 7-11	PCA assembly .....	333
Table 7-12	Fuser .....	335
Table 7-13	Cassette (tray 2) .....	337
Table 7-14	Cassette (tray 2) paper-pickup assembly .....	339
Table 7-15	500-sheet feeder cassette (tray 3) .....	341
Table 7-16	500-sheet feeder cassette external panels and covers .....	343
Table 7-17	500-sheet feeder internal components .....	345
Table 7-18	500-sheet feeder paper-pickup assembly .....	347
Table 7-19	500-sheet feeder drive assembly .....	349
Table 7-20	500-sheet feeder lifter-drive assembly .....	351
Table 7-21	500-sheet feeder PCA .....	353
Table 7-22	Duplexer .....	355
Table 7-23	Duplexer .....	357
Table 7-24	Duplexing PCA assembly .....	359
Table 7-25	Duplexing-feed drive assembly .....	361
Table 7-26	Alphabetical parts list .....	362
Table 7-27	Numerical parts list .....	369
Table A-1	Electrical specifications for the HP LaserJet 5200 Series printer .....	378
Table A-2	Power consumption (average, in watts) .....	379
Table A-3	Sound power and pressure level .....	380

Table A-4   Operating-environment specifications ..... 381

# List of figures

Figure 1-1	Front view .....	6
Figure 1-2	Back view .....	7
Figure 1-3	Interface ports .....	7
Figure 1-4	Control panel buttons and lights .....	8
Figure 2-1	What is in the shipping box .....	20
Figure 2-2	Model and serial numbers .....	21
Figure 2-3	Space requirements .....	22
Figure 2-4	Parallel configuration .....	23
Figure 2-5	Connecting the USB cable .....	24
Figure 3-1	Cleaning the printer .....	48
Figure 4-1	Engine control system .....	52
Figure 4-2	Power-on sequence .....	53
Figure 4-3	Motors, fans, and solenoids (1 of 2) .....	53
Figure 4-4	Motors, fans, and solenoids (2 of 2) .....	54
Figure 4-5	Laser/scanner system .....	55
Figure 4-6	Pickup-and-feed-system .....	57
Figure 4-7	Cassette (tray 2) pickup mechanism .....	58
Figure 4-8	Image-formation system .....	59
Figure 4-9	Image-formation process .....	60
Figure 4-10	Primary charging .....	60
Figure 4-11	Laser-beam exposure .....	61
Figure 4-12	Image transfer .....	61
Figure 4-13	Separation from the drum .....	62
Figure 4-14	Fusing .....	62
Figure 4-15	Print cartridge .....	63
Figure 5-1	Screwdrivers .....	66
Figure 5-2	Parts removal order .....	69
Figure 5-3	Removing the tray 1 pickup roller (1 of 3) .....	70
Figure 5-4	Removing the tray 1 pickup roller (2 of 3) .....	71
Figure 5-5	Removing the tray 1 pickup roller (3 of 3) .....	71
Figure 5-6	Removing the tray 2 pickup roller (1 of 2) .....	72
Figure 5-7	Removing the tray 2 pickup roller (2 of 2) .....	72
Figure 5-8	Removing the tray 2 separation pad (1 of 3) .....	73
Figure 5-9	Removing the tray 2 separation pad (2 of 3) .....	73
Figure 5-10	Removing the tray 2 separation pad (3 of 3) .....	74
Figure 5-11	Removing the tray 3 retard roller (1 of 2) .....	74
Figure 5-12	Removing the tray 3 retard roller (2 of 2) .....	75
Figure 5-13	Removing the tray 3 pickup and feed rollers (1 of 2) .....	75
Figure 5-14	Removing the tray 3 pickup and feed rollers (2 of 2) .....	76
Figure 5-15	Removing the formatter .....	76

Figure 5-16	Removing the CompactFlash cards (1 of 10)	77
Figure 5-17	Removing the CompactFlash cards (2 of 10)	77
Figure 5-18	Removing the CompactFlash cards (3 of 10)	77
Figure 5-19	Removing the CompactFlash cards (4 of 10)	78
Figure 5-20	Removing the CompactFlash cards (5 of 10)	78
Figure 5-21	Removing the CompactFlash cards (6 of 10)	78
Figure 5-22	Removing the CompactFlash cards (7 of 10)	79
Figure 5-23	Removing the CompactFlash cards (8 of 10)	79
Figure 5-24	Removing the CompactFlash cards (9 of 10)	79
Figure 5-25	Removing the CompactFlash cards (10 of 10)	80
Figure 5-26	Removing the DIMMs (1 of 12)	80
Figure 5-27	Removing the DIMMs (2 of 12)	80
Figure 5-28	Removing the DIMMs (3 of 12)	81
Figure 5-29	Removing the DIMMs (4 of 12)	81
Figure 5-30	Removing the DIMMs (5 of 12)	82
Figure 5-31	Removing the DIMMs (6 of 12)	82
Figure 5-32	Removing the DIMMs (7 of 12)	82
Figure 5-33	Removing the DIMMs (8 of 12)	83
Figure 5-34	Removing the DIMMs (9 of 12)	83
Figure 5-35	Removing the DIMMs (10 of 12)	83
Figure 5-36	Removing the DIMMs (11 of 12)	84
Figure 5-37	Removing the DIMMs (12 of 12)	84
Figure 5-38	Removing the duplexer	85
Figure 5-39	Removing the right cover	86
Figure 5-40	Removing the lower back cover	86
Figure 5-41	Removing the face-up bin (1 of 4)	87
Figure 5-42	Removing the face-up bin (2 of 4)	87
Figure 5-43	Removing the face-up bin (3 of 4)	88
Figure 5-44	Removing the face-up bin (4 of 4)	88
Figure 5-45	Removing the top cover (1 of 5)	89
Figure 5-46	Removing the top cover (2 of 5)	90
Figure 5-47	Removing the top cover (3 of 5)	90
Figure 5-48	Removing the top cover (4 of 5)	91
Figure 5-49	Removing the top cover (5 of 5)	91
Figure 5-50	Removing the left cover (1 of 5)	92
Figure 5-51	Removing the left cover (2 of 5)	93
Figure 5-52	Removing the left cover (3 of 5)	93
Figure 5-53	Removing the left cover (4 of 5)	94
Figure 5-54	Removing the left cover (5 of 5)	94
Figure 5-55	Removing the left front cover	95
Figure 5-56	Removing the face-down cover	96
Figure 5-57	Removing tray 2	96
Figure 5-58	Removing the right front cover	97
Figure 5-59	Removing the right lower cover (1 of 4)	98
Figure 5-60	Removing the right lower cover (2 of 4)	98
Figure 5-61	Removing the right lower cover (3 of 4)	99
Figure 5-62	Removing the right lower cover (4 of 4)	99
Figure 5-63	Removing the DC controller cover	100
Figure 5-64	Removing the cartridge door unit (1 of 14)	101
Figure 5-65	Removing the cartridge door unit (2 of 14)	101

Figure 5-66	Removing the cartridge door unit (3 of 14)	102
Figure 5-67	Removing the cartridge door unit (4 of 14)	102
Figure 5-68	Removing the cartridge door unit (5 of 14)	103
Figure 5-69	Removing the cartridge door unit (6 of 14)	103
Figure 5-70	Removing the cartridge door unit (7 of 14)	104
Figure 5-71	Removing the cartridge door unit (8 of 14)	104
Figure 5-72	Removing the cartridge door unit (9 of 14)	105
Figure 5-73	Removing the cartridge door unit (10 of 14)	105
Figure 5-74	Removing the cartridge door unit (11 of 14)	106
Figure 5-75	Removing the cartridge door unit (12 of 14)	106
Figure 5-76	Removing the cartridge door unit (13 of 14)	107
Figure 5-77	Removing the cartridge door unit (14 of 14)	107
Figure 5-78	Removing the control panel (1 of 2)	108
Figure 5-79	Removing the control panel (2 of 2)	109
Figure 5-80	Removing the laser/scanner (1 of 3)	110
Figure 5-81	Removing the laser/scanner (2 of 3)	111
Figure 5-82	Removing the laser/scanner (3 of 3)	111
Figure 5-83	Removing the formatter	112
Figure 5-84	Removing the fuser	113
Figure 5-85	Removing the cassette-paper pickup unit (1 of 8)	114
Figure 5-86	Removing the cassette-paper pickup unit (2 of 8)	114
Figure 5-87	Removing the cassette-paper pickup unit (3 of 8)	115
Figure 5-88	Removing the cassette-paper pickup unit (4 of 8)	115
Figure 5-89	Removing the cassette-paper pickup unit (5 of 8)	116
Figure 5-90	Removing the cassette-paper pickup unit (6 of 8)	116
Figure 5-91	Removing the cassette-paper pickup unit (7 of 8)	117
Figure 5-92	Removing the cassette-paper pickup unit (8 of 8)	117
Figure 5-93	Removing the face-down delivery unit (1 of 4)	118
Figure 5-94	Removing the face-down delivery unit (2 of 4)	119
Figure 5-95	Removing the face-down delivery unit (3 of 4)	119
Figure 5-96	Removing the face-down delivery unit (4 of 4)	120
Figure 5-97	Removing the main motor (1 of 9)	121
Figure 5-98	Removing the main motor (2 of 9)	121
Figure 5-99	Removing the main motor (3 of 9)	122
Figure 5-100	Removing the main motor (4 of 9)	122
Figure 5-101	Removing the main motor (5 of 9)	123
Figure 5-102	Removing the main motor (6 of 9)	123
Figure 5-103	Removing the main motor (7 of 9)	124
Figure 5-104	Removing the main motor (8 of 9)	124
Figure 5-105	Removing the main motor (9 of 9)	125
Figure 5-106	Removing the fuser motor	126
Figure 5-107	Removing the main fan (1 of 5)	127
Figure 5-108	Removing the main fan (2 of 5)	127
Figure 5-109	Removing the main fan (3 of 5)	128
Figure 5-110	Removing the main fan (4 of 5)	128
Figure 5-111	Removing the main fan (5 of 5)	129
Figure 5-112	Removing the sub fan (1 of 8)	130
Figure 5-113	Removing the sub fan (2 of 8)	130
Figure 5-114	Removing the sub fan (3 of 8)	131
Figure 5-115	Removing the sub fan (4 of 8)	131

Figure 5-116	Removing the sub fan (5 of 8)	132
Figure 5-117	Removing the sub fan (6 of 8)	132
Figure 5-118	Removing the sub fan (7 of 8)	133
Figure 5-119	Removing the sub fan (8 of 8)	133
Figure 5-120	Removing the registration unit (1 of 2)	134
Figure 5-121	Removing the registration unit (2 of 2)	135
Figure 5-122	Removing the transfer roller	136
Figure 5-123	Removing the paper-feed unit (1 of 4)	137
Figure 5-124	Removing the paper-feed unit (2 of 4)	137
Figure 5-125	Removing the paper-feed unit (3 of 4)	138
Figure 5-126	Removing the paper-feed unit (4 of 4)	138
Figure 5-127	Removing the DC controller (1 of 5)	139
Figure 5-128	Removing the DC controller (2 of 5)	140
Figure 5-129	Removing the DC controller (3 of 5)	140
Figure 5-130	Removing the DC controller (4 of 5)	141
Figure 5-131	Removing the DC controller (5 of 5)	141
Figure 5-132	Removing the high-voltage power supply (1 of 17)	142
Figure 5-133	Removing the high-voltage power supply (2 of 17)	143
Figure 5-134	Removing the high-voltage power supply (3 of 17)	143
Figure 5-135	Removing the high-voltage power supply (4 of 17)	144
Figure 5-136	Removing the high-voltage power supply (5 of 17)	144
Figure 5-137	Removing the high-voltage power supply (6 of 17)	145
Figure 5-138	Removing the high-voltage power supply (7 of 17)	145
Figure 5-139	Removing the high-voltage power supply (8 of 17)	146
Figure 5-140	Removing the high-voltage power supply (9 of 17)	146
Figure 5-141	Removing the high-voltage power supply (10 of 17)	147
Figure 5-142	Removing the high-voltage power supply (11 of 17)	147
Figure 5-143	Removing the high-voltage power supply (12 of 17)	148
Figure 5-144	Removing the high-voltage power supply (13 of 17)	148
Figure 5-145	Removing the high-voltage power supply (14 of 17)	149
Figure 5-146	Removing the high-voltage power supply (15 of 17)	149
Figure 5-147	Removing the high-voltage power supply (16 of 17)	150
Figure 5-148	Removing the high-voltage power supply (17 of 17)	150
Figure 5-149	Removing the low-voltage power supply PCA (1 of 6)	151
Figure 5-150	Removing the low-voltage power supply PCA (2 of 6)	152
Figure 5-151	Removing the low-voltage power supply PCA (3 of 6)	152
Figure 5-152	Removing the low-voltage power supply PCA (4 of 6)	153
Figure 5-153	Removing the low-voltage power supply PCA (5 of 6)	153
Figure 5-154	Removing the low-voltage power supply PCA (6 of 6)	154
Figure 5-155	Removing the duplexer	155
Figure 5-156	Removing the duplexer left cover (1 of 2)	156
Figure 5-157	Removing the duplexer left cover (2 of 2)	156
Figure 5-158	Removing the duplexer right cover (1 of 2)	157
Figure 5-159	Removing the duplexer right cover (2 of 2)	157
Figure 5-160	Removing the duplexer top cover (1 of 3)	158
Figure 5-161	Removing the duplexer top cover (2 of 3)	158
Figure 5-162	Removing the duplexer top cover (3 of 3)	159
Figure 5-163	Removing the duplexer back cover (1 of 2)	160
Figure 5-164	Removing the duplexer back cover (2 of 2)	160
Figure 5-165	Removing the duplexer feed motor (1 of 5)	161

Figure 5-166	Removing the duplexer feed motor (2 of 5)	162
Figure 5-167	Removing the duplexer feed motor (3 of 5)	162
Figure 5-168	Removing the duplexer feed motor (4 of 5)	163
Figure 5-169	Removing the duplexer feed motor (5 of 5)	163
Figure 5-170	Removing the duplexer fan (1 of 5)	164
Figure 5-171	Removing the duplexer fan (2 of 5)	165
Figure 5-172	Removing the duplexer fan (3 of 5)	165
Figure 5-173	Removing the duplexer fan (4 of 5)	166
Figure 5-174	Removing the duplexer fan (5 of 5)	166
Figure 5-175	Removing the duplexer PCA (1 of 3)	167
Figure 5-176	Removing the duplexer PCA (2 of 3)	167
Figure 5-177	Removing the duplexer PCA (3 of 3)	168
Figure 5-178	Removing the 500-sheet feeder front cover (1 of 2)	169
Figure 5-179	Removing the 500-sheet feeder front cover (2 of 2)	169
Figure 5-180	Removing the 500-sheet feeder left front cover	170
Figure 5-181	Removing the 500-sheet feeder left cover (1 of 4)	171
Figure 5-182	Removing the 500-sheet feeder left cover (2 of 4)	171
Figure 5-183	Removing the 500-sheet feeder left cover (3 of 4)	172
Figure 5-184	Removing the 500-sheet feeder left cover (4 of 4)	172
Figure 5-185	Removing the 500-sheet feeder right front cover	173
Figure 5-186	Removing the 500-sheet feeder right cover (1 of 3)	174
Figure 5-187	Removing the 500-sheet feeder right cover (2 of 3)	174
Figure 5-188	Removing the 500-sheet feeder right cover (3 of 3)	175
Figure 5-189	Removing the 500-sheet feeder rear dust cover	176
Figure 5-190	Removing the 500-sheet feeder paper-pickup unit (1 of 6)	177
Figure 5-191	Removing the 500-sheet feeder paper-pickup unit (2 of 6)	177
Figure 5-192	Removing the 500-sheet feeder paper-pickup unit (3 of 6)	178
Figure 5-193	Removing the 500-sheet feeder paper-pickup unit (4 of 6)	178
Figure 5-194	Removing the 500-sheet feeder paper-pickup unit (5 of 6)	179
Figure 5-195	Removing the 500-sheet feeder paper-pickup unit (6 of 6)	179
Figure 5-196	Removing the 500-sheet feeder lifter drive unit (1 of 3)	180
Figure 5-197	Removing the 500-sheet feeder lifter drive unit (2 of 3)	181
Figure 5-198	Removing the 500-sheet feeder lifter drive unit (3 of 3)	181
Figure 5-199	Removing the 500-sheet feeder drive unit (1 of 7)	182
Figure 5-200	Removing the 500-sheet feeder drive unit (2 of 7)	183
Figure 5-201	Removing the 500-sheet feeder drive unit (3 of 7)	183
Figure 5-202	Removing the 500-sheet feeder drive unit (4 of 7)	184
Figure 5-203	Removing the 500-sheet feeder drive unit (5 of 7)	184
Figure 5-204	Removing the 500-sheet feeder drive unit (6 of 7)	185
Figure 5-205	Removing the 500-sheet feeder drive unit (7 of 7)	185
Figure 5-206	Removing the 500-sheet feeder drive PCA	186
Figure 5-207	Removing the 500-sheet feeder pickup motor (1 of 4)	187
Figure 5-208	Removing the 500-sheet feeder pickup motor (2 of 4)	187
Figure 5-209	Removing the 500-sheet feeder pickup motor (3 of 4)	188
Figure 5-210	Removing the 500-sheet feeder pickup motor (4 of 4)	188
Figure 6-1	Jam locations (1 of 2)	227
Figure 6-2	Jam locations (2 of 2)	228
Figure 6-3	Clearing jams from the input-tray areas (1 of 3)	230
Figure 6-4	Clearing jams from the input-tray areas (2 of 3)	230
Figure 6-5	Clearing jams from the input-tray areas (3 of 3)	231

Figure 6-6	Clearing jams from the print-cartridge area (1 of 3)	231
Figure 6-7	Clearing jams from the print-cartridge area (2 of 3)	232
Figure 6-8	Clearing jams from the print-cartridge area (3 of 3)	232
Figure 6-9	Clearing jams from the output-bin areas (1 of 4)	233
Figure 6-10	Clearing jams from the output-bin areas (2 of 4)	233
Figure 6-11	Clearing jams from the output-bin areas (3 of 4)	234
Figure 6-12	Clearing jams from the output-bin areas (4 of 4)	234
Figure 6-13	Clearing jams from the optional duplexer (1 of 4)	235
Figure 6-14	Clearing jams from the optional duplexer (2 of 4)	235
Figure 6-15	Clearing jams from the optional duplexer (3 of 4)	235
Figure 6-16	Clearing jams from the optional duplexer (4 of 4)	236
Figure 6-17	Configuration page	279
Figure 6-18	Embedded Web Server page	280
Figure 6-19	Jetdirect page	283
Figure 6-20	Paper-handling configuration page	284
Figure 6-21	Supplies status page	286
Figure 6-22	Usage page (1 of 2)	287
Figure 6-23	Usage page (2 of 2)	287
Figure 6-24	File directory page	288
Figure 6-25	PCL font list page	289
Figure 6-26	PS font list page	290
Figure 6-27	Formatter lights	291
Figure 6-28	Engine-test page switch	298
Figure 6-29	Circuit diagram (1 of 3)	305
Figure 6-30	Circuit diagram (2 of 3)	306
Figure 6-31	Circuit diagram (3 of 3)	307
Figure 7-1	External panel and covers	316
Figure 7-2	Cartridge door unit	318
Figure 7-3	Internal components (1 of 3)	320
Figure 7-4	Internal components (2 of 3)	322
Figure 7-5	Internal components (3 of 3)	324
Figure 7-6	Paper-feed assembly	326
Figure 7-7	Face-up delivery assembly	328
Figure 7-8	Face-down delivery assembly	330
Figure 7-9	PCA assembly	332
Figure 7-10	Fuser	334
Figure 7-11	Cassette (tray 2)	336
Figure 7-12	Cassette (tray 2) paper-pickup assembly	338
Figure 7-13	500-sheet feeder cassette (tray 3)	340
Figure 7-14	500-sheet feeder cassette external panels and covers	342
Figure 7-15	500-sheet feeder internal components	344
Figure 7-16	500-sheet feeder paper-pickup assembly	346
Figure 7-17	500-sheet feeder drive assembly	348
Figure 7-18	500-sheet feeder lifter-drive assembly	350
Figure 7-19	500-sheet feeder PCA	352
Figure 7-20	Duplexer (1 of 2)	354
Figure 7-21	Duplexer (2 of 2)	356
Figure 7-22	Duplexing PCA assembly	358
Figure 7-23	Duplexing-feed drive assembly	360



# 1 Product information

- [Quick access to printer information](#)
- [Printers at a glance](#)
- [Features at a glance](#)
- [Walkaround](#)
- [Control-panel overview](#)
- [Printer software](#)
- [Selecting print media](#)

## Quick access to printer information

Several references are available for use with this printer.

- **HP LaserJet 5200 Series printers:** [www.hp.com/support/lj5200](http://www.hp.com/support/lj5200) or [www.hp.com/support/lj5200L](http://www.hp.com/support/lj5200L).

**Table 1-1** Printer guides

Guide	Description
<b>Getting started guide</b>	Provides step-by-step instructions for installing and setting up the printer.
<b>HP Jetdirect Embedded Print Server Administrators Guide</b>  (Not available for the HP LaserJet 5200L.)	Provides instructions to configure and troubleshoot the HP Jetdirect print server.
<b>Accessory and consumable installation guides</b>  (Not available for the HP LaserJet 5200L.)	Provide step-by-step instructions for installing the accessories and supplies. These guides are supplied with the optional printer accessories and supplies.
<b>User guide</b>	Provides detailed information for using and troubleshooting the printer. Available on the printer CD.
<b>Online Help</b>	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 LaserJet 5200 Series printers are available in the following configurations.


### HP LaserJet 5200 Series printers

**Table 1-2** HP LaserJet 5200 Series printer configurations

HP LaserJet 5200	HP LaserJet 5200n	HP LaserJet 5200tn	HP LaserJet 5200dtn	HP LaserJet 5200L
<ul style="list-style-type: none"> <li>Prints up to 35 pages per minute (ppm)</li> <li>48 megabytes (MB) of random access memory (RAM), upgradable up to 512 MB</li> <li>100-sheet multipurpose tray (tray 1), 250-sheet input tray (tray 2), and 250-sheet output bin</li> <li>Hi-Speed universal serial bus (USB) 2.0 port, IEEE 1284-compliant parallel port, and enhanced input/output (EIO) slot</li> <li>One open dual inline memory module (DIMM) slot</li> <li>Two compact flash memory slots for accessibility</li> </ul>	<p>The features of the HP LaserJet 5200 printer, plus:</p> <ul style="list-style-type: none"> <li>64 MB RAM instead of 48 MB RAM</li> <li>HP Jetdirect full-featured embedded print server to connect to 10Base-T/100 Base-TX networks</li> </ul>	<p>The features of the HP LaserJet 5200 printer, plus:</p> <ul style="list-style-type: none"> <li>64 MB RAM instead of 48 MB RAM</li> <li>HP Jetdirect full-featured embedded print server to connect to 10Base-T/100 Base-TX networks</li> <li>500-sheet input tray (tray 3)</li> </ul>	<p>The features of the HP LaserJet 5200 printer, plus:</p> <ul style="list-style-type: none"> <li>128 MB RAM instead of 48 MB RAM</li> <li>HP Jetdirect full-featured embedded print server to connect to 10Base-T/100 Base-TX networks</li> <li>500-sheet input tray (tray 3)</li> <li>Automatic two-sided (duplex) printing</li> </ul>	<ul style="list-style-type: none"> <li>Prints up to 25 ppm</li> <li>32 MB RAM, upgradable to 128 MB</li> <li>100-sheet multipurpose tray (tray 1), 250-sheet input tray (tray 2), and 250-sheet output bin</li> <li>Hi-Speed universal serial bus (USB) 2.0 port and IEEE 1284-compliant parallel port</li> <li>One open DIMM slot</li> </ul>

# Features at a glance

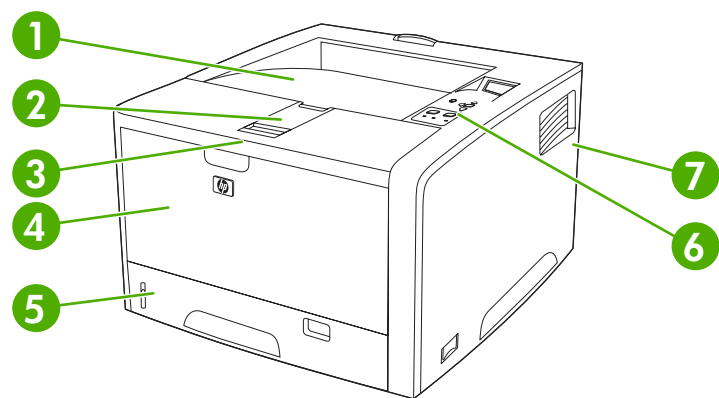
**Table 1-3** Features

Feature	Description
<b>Performance</b>	<ul style="list-style-type: none"> <li>460 MHz processor</li> </ul>
<b>User interface</b>	<ul style="list-style-type: none"> <li>Control-panel help</li> <li>Show Me How help topics in the control panel</li> <li>HP Easy Printer Care Software (a Web-based status and troubleshooting tool)</li> <li>Windows® and Macintosh printer drivers</li> <li>Embedded Web server to gain access to support and to order supplies (administrator tool for network-connected models only; not available for the HP LaserJet 5200L)</li> </ul>
<b>Printer drivers</b>	<ul style="list-style-type: none"> <li>HP PCL 5e</li> <li>HP PCL 6</li> <li>PostScript® 3 emulation</li> </ul>
<b>Resolution</b>	<ul style="list-style-type: none"> <li>FastRes 1200-produces 1200-dots-per-inch (dpi) print quality for fast, high-quality printing of business text and graphics</li> <li>ProRes 1200-produces 1200-dpi printing for the best quality in line art and graphic images (HP LaserJet 5200 Series printers)</li> <li>Produces 600-dpi print quality for fast, high-quality printing on business text and graphics (HP LaserJet 5200L) and HP FastRes 1200 to create 1200-printing</li> </ul>
<b>Storage features</b>	<ul style="list-style-type: none"> <li>Fonts, forms, and other macros</li> <li>Job retention</li> </ul>
<b>Fonts</b>	<ul style="list-style-type: none"> <li>103 built-in scalable PCL, 93 internal Postscript</li> <li>80 printer-matching screen fonts in TrueType format available with the software solution</li> <li>Additional fonts can be added by installing a CompactFlash font card (not available for the HP LaserJet 5200L)</li> </ul>
<b>Accessories</b>	<ul style="list-style-type: none"> <li>Optional 500-sheet input tray (tray 3) (standard on the HP 5200tn and HP LaserJet 5200dtn printers; not available for the HP LaserJet 5200L)</li> <li>Optional duplexer (standard on the HP LaserJet 5200dtn printer; not available for the HP LaserJet 5200L)</li> </ul> <div>  <p><b>NOTE</b> A minimum of 96 MB of total printer memory is needed to be able to print duplex jobs.</p> </div> <ul style="list-style-type: none"> <li>100-pin 133 MHz dual inline memory modules (DIMMs)</li> <li>CompactFlash cards (not available for the HP LaserJet 5200L)</li> <li>HP Jetdirect 620n Fast Ethernet print server (not available for the HP LaserJet 5200L)</li> </ul>
<b>Connectivity</b>	<ul style="list-style-type: none"> <li>IEEE 1284-compliant parallel connection</li> <li>Hi-Speed USB 2.0 connection</li> </ul>

**Table 1-3** Features (continued)

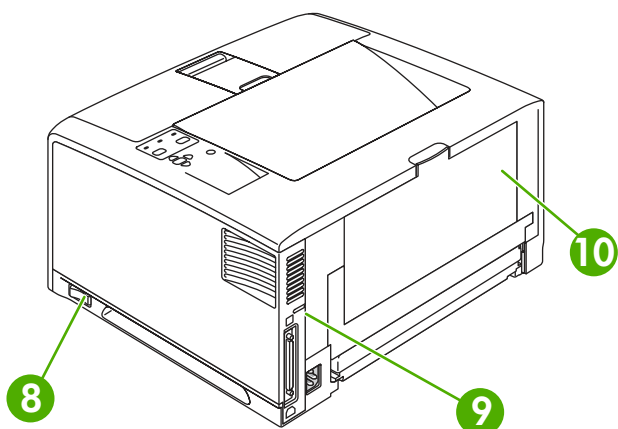
Feature	Description
	<ul style="list-style-type: none"><li>• HP Jetdirect full-featured embedded print server (standard on the HP LaserJet 5200n, HP LaserJet 5200tn, and HP LaserJet 5200dtn printers; not available for the HP LaserJet 5200L)</li><li>• HP Web Jetadmin software (not available for the HP LaserJet 5200L)</li><li>• EIO slot (not available for the HP LaserJet 5200L)</li></ul>
<b>Environmental features</b>	<ul style="list-style-type: none"><li>• Sleep delay setting</li><li>• ENERGY STAR® qualified</li></ul>
<b>Supplies</b>	<ul style="list-style-type: none"><li>• The supplies status page contains information about toner level, page count, and estimated pages remaining</li><li>• The printer checks for an authentic HP print cartridge at cartridge installation</li><li>• Internet-enabled supply-ordering capabilities (using HP Easy Printer Care Software)</li></ul>
<b>Accessibility</b>	<ul style="list-style-type: none"><li>• The online user guide is compatible with text screen-readers</li><li>• The print cartridge can be installed and removed by using one hand</li><li>• All doors and covers can be opened by using one hand</li><li>• Media can be loaded in tray 1 by using one finger</li></ul>

# Walkaround



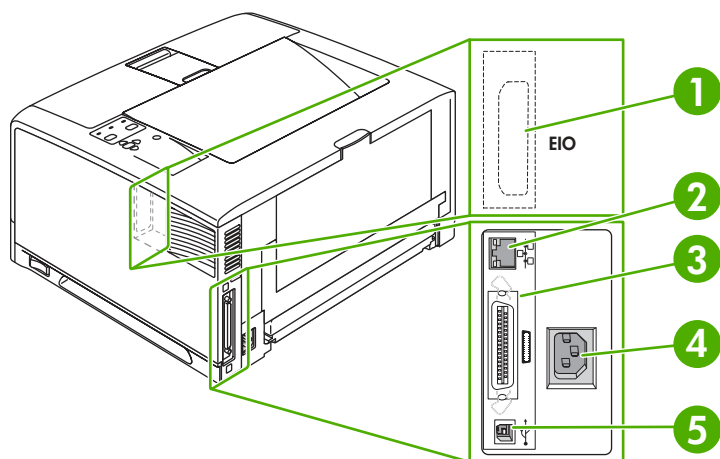
**Figure 1-1** Front view

1	Face-down bin
2	Long-media extension
3	Latch to open the front cover (provides access to the print cartridge)
4	Tray 1 (pull to open)
5	Tray 2
6	Control panel
7	Right-side cover (provides access to DIMMs and CompactFlash cards) and EIO slot (CompactFlash and EIO slot not available for the HP LaserJet 5200L)



**Figure 1-2** Back view

8	On/off switch
9	Interface ports
10	Face-up bin (pull to open)

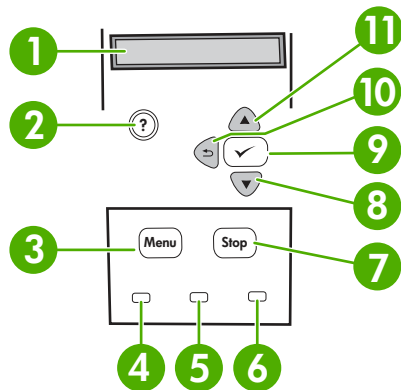


**Figure 1-3** Interface ports

1	EIO slot (not available for the HP LaserJet 5200L)
2	Network connection (HP LaserJet 5200n, 5200tn, and 5200dtn printers only)
3	IEEE 1284B-compliant parallel connection
4	Power-plug connection
5	Hi-Speed USB 2.0 connection

# Control-panel overview


The control panel provides controls for printer functions and shows messages about the printer, print jobs, and supplies status.



**Figure 1-4** Control panel buttons and lights

Number	Button or light	Function
1	Control-panel display	<ul style="list-style-type: none"> <li>Shows status information, menus, help information, and error messages.</li> </ul>
2	Help (?) button	<ul style="list-style-type: none"> <li>Provides information about the message on the control-panel display.</li> </ul>
3	Menu button	<ul style="list-style-type: none"> <li>Opens and closes menus.</li> </ul>
4	Ready light	<ul style="list-style-type: none"> <li><b>On:</b> The printer is online and ready to accept data to print.</li> <li><b>Off:</b> The printer cannot accept data because it is offline (paused) or has experienced an error.</li> <li><b>Blinking:</b> The printer is going offline. The printer stops processing the current print job and expels all of the active pages from the paper path.</li> </ul>
5	Data light	<ul style="list-style-type: none"> <li><b>On:</b> The printer has data to print, but is waiting to receive all of the data.</li> <li><b>Off:</b> The printer has no data to print.</li> <li><b>Blinking:</b> The printer is processing or printing the data.</li> </ul>
6	Attention light	<ul style="list-style-type: none"> <li><b>On:</b> The printer has experienced a problem. Make note of the message on the control-panel display, and then turn the printer off and on.</li> <li><b>Off:</b> The printer is functioning without error.</li> <li><b>Blinking:</b> Action is required. See the control-panel display.</li> </ul>
7	Stop button	<ul style="list-style-type: none"> <li>Cancels the current print job in process and expels all of the active pages from the paper path. The time that it takes to cancel the job depends on the size of the print job. (Press the button only once.) Also clears continuable errors that are associated with the canceled job.</li> </ul>



		 <b>NOTE</b> The control-panel lights cycle while the print job is cleared from both the printer and the computer, and then the printer returns to the Ready state.
8	Down ( ▼ ) button	<ul style="list-style-type: none"> <li>• Navigates to the next item in the list, or decreases the values of numeric items.</li> </ul>
9	Select ( ✓ ) button	<ul style="list-style-type: none"> <li>• Clears an error condition when the condition is clearable</li> <li>• Saves the selected value for an item</li> <li>• Performs the action that is associated with the item that is highlighted on the control-panel display</li> </ul>
10	Back ( ↶ ) button	<ul style="list-style-type: none"> <li>• Backs up one level in the menu tree or backs up one numeric entry</li> <li>• Closes menus if held down for more than 1 second</li> </ul>
11	Up ( ▲ ) button	<ul style="list-style-type: none"> <li>• Navigates to the previous item in the list, or increases the value of numeric items</li> </ul>

# 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.



**NOTE** For a list of printer drivers and updated HP printer software, go to [www.hp.com/go/lj5200\\_software](http://www.hp.com/go/lj5200_software) or [www.hp.com/go/lj5200L\\_software](http://www.hp.com/go/lj5200L_software).

## Printer drivers

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

The HP LaserJet 5200 Series printers uses the PCL 5e, PCL 6, and PostScript 3 emulation printer description language (PDL) drivers.

- Use the PCL 6 printer driver for the best overall performance.
- Use the PCL 5 printer driver for general office printing.
- Use the PS driver for printing from PostScript-based programs, for compatibility with PostScript Level 3 needs, or for PS flash font support.

Operating system	PCL 5e	PCL 6	PS 3 emulation
Windows 98, Windows Millennium (Me)	✓	✓	✓
Windows 2000	✓	✓	✓
Windows XP (32-bit)	✓	✓	✓
Windows Server 2003 (32-bit)	✓	✓	✓
Windows Server 2003 (64-bit)	✓	✓	✓
Mac OS X V10.2 and later			✓

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

<sup>2</sup> For Windows 2000 and Windows XP (32-bit and 64-bit), download the PCL 5 driver from [www.hp.com/go/lj5200\\_software](http://www.hp.com/go/lj5200_software) or [www.hp.com/go/lj5200L\\_software](http://www.hp.com/go/lj5200L_software).

<sup>3</sup> For Windows XP (64-bit), download the PCL 6 driver from [www.hp.com/go/lj5200\\_software](http://www.hp.com/go/lj5200_software) or [www.hp.com/go/lj5200L\\_software](http://www.hp.com/go/lj5200L_software).

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

## Driver Autoconfiguration

The HP LaserJet PCL 6 and PCL 5e drivers for Windows and the PS drivers for Windows 2000 and Windows XP feature automatic discovery and driver configuration for printer accessories at the time of installation. Some accessories that the Driver Autoconfiguration supports are the duplexing unit, optional

paper trays, and DIMMs. If the environment supports bidirectional communication, the installer presents Driver Autoconfiguration as an installable component by default for a typical installation and for a custom installation.



---

**NOTE** The duplexer and 500-sheet input tray (tray 3) are not available for the HP LaserJet 5200L.

---

## Update Now

If you have modified the configuration of the HP LaserJet 5200 Series printer since installation, the driver can be automatically updated with the new configuration in environments that support bidirectional communication. Click the **Update Now** button to automatically reflect the new configuration in the driver.



---

**NOTE** The **Update Now** feature is not supported in environments where shared Windows 2000 or Windows XP clients are connected to Windows 2000 or Windows XP hosts.

---

## HP Driver Preconfiguration

HP Driver Preconfiguration is a software architecture and set of tools that you can use to customize and distribute HP software in managed corporate printing environments. Using HP Driver Preconfiguration, information technology (IT) administrators can preconfigure the printing and device defaults for HP printer drivers before installing the drivers in the network environment. For more information, see the *HP Driver Preconfiguration Support Guide*, which is available at [www.hp.com/support/lj5200](http://www.hp.com/support/lj5200).

## Additional drivers

The following drivers are not included on the CD, but are available from [www.hp.com/go/lj5200\\_software](http://www.hp.com/go/lj5200_software).

- UNIX® model scripts
- Linux drivers

## Opening the printer drivers

Operating System	To change the settings for all print jobs until the software program is closed	To change the default settings for all print jobs	To change the product configuration settings
Windows 98 and Me	<ol style="list-style-type: none"> <li>1. On the <b>File</b> menu in the software program, click <b>Print</b>.</li> <li>2. Select the driver, and then click <b>Properties</b>.</li> </ol> <p>The steps can vary; this procedure is most common.</p>	<ol style="list-style-type: none"> <li>1. Click <b>Start</b>, click <b>Settings</b>, and then click <b>Printers</b>.</li> <li>2. Right-click the driver icon, and then select <b>Properties</b>.</li> </ol>	<ol style="list-style-type: none"> <li>1. Click <b>Start</b>, click <b>Settings</b>, and then click <b>Printers</b>.</li> <li>2. Right-click the driver icon, and then select <b>Properties</b>.</li> <li>3. Click the <b>Configure</b> tab.</li> </ol>
Windows 2000, XP, and Server 2003	<ol style="list-style-type: none"> <li>1. On the <b>File</b> menu in the software program, click <b>Print</b>.</li> <li>2. Select the driver, and then click <b>Properties</b> or <b>Preferences</b>.</li> </ol> <p>The steps can vary; this procedure is most common.</p>	<ol style="list-style-type: none"> <li>1. Click <b>Start</b>, click <b>Settings</b> (Windows 2000), and then click <b>Printers</b> or <b>Printers and Faxes</b> (Windows XP).</li> <li>2. Right-click the driver icon, and then select <b>Printing Preferences</b>.</li> </ol>	<ol style="list-style-type: none"> <li>1. Click <b>Start</b>, click <b>Settings</b> (Windows 2000), and then click <b>Printers</b> or <b>Printers and Faxes</b> (Windows XP).</li> <li>2. Right-click the driver icon, and then select <b>Properties</b>.</li> <li>3. Click the <b>Device Settings</b> tab.</li> </ol>
Mac OS X V10.2 or later	<ol style="list-style-type: none"> <li>1. On the <b>File</b> menu, click <b>Print</b>.</li> <li>2. Change the settings that you want on the various pop-up menus.</li> </ol>	<ol style="list-style-type: none"> <li>1. On the <b>File</b> menu, click <b>Print</b>.</li> <li>2. Change the settings that you want on the various pop-up menus.</li> <li>3. On the <b>Presets</b> pop-up menu, click <b>Save as</b> and type a name for the preset.</li> </ol> <p>These settings are saved in the <b>Presets</b> menu. To use the new settings, you must select the saved preset option every time you open a program and print.</p>	<ol style="list-style-type: none"> <li>1. In the Finder, on the <b>Go</b> menu, click <b>Applications</b>.</li> <li>2. Open <b>Utilities</b>, and then open <b>Print Center</b> (Mac OS X V10.2) or <b>Printer Setup Utility</b> (Mac OS X V10.3 or Mac OS X V10.4).</li> <li>3. Click on the print queue.</li> <li>4. On the <b>Printers</b> menu, click <b>Show Info</b>.</li> <li>5. Click the <b>Installable Options</b> menu.</li> </ol>



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

## Software for Macintosh computers

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

For network connections, use the embedded Web server (EWS) to configure the printer. See [Embedded Web server on page 15](#).

The printing system software includes the following components:

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

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

- **HP Printer Utility**

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

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

You can use the HP Printer Utility when your printer uses a universal serial bus (USB) cable or is connected to a TCP/IP-based network.



---

**NOTE** The HP Printer Utility is supported for Mac OS X V10.2 or later.

---

## Installing Macintosh printing system software for networks

1. Connect the network cable between the HP Jetdirect print server and a network port.
2. Insert the CD into the CD-ROM drive. If the CD does not run automatically, double-click the CD icon on the desktop.
3. Double-click the **Installer** icon in the HP LaserJet Installer folder.
4. Follow the instructions on the computer screen.
5. On the computer hard drive, open **Applications**, open **Utilities**, and then open **Print Center** or **Printer Setup Utility**.



---

**NOTE** If you are using Mac OS X V10.3 or Mac OS X V10.4, then the **Printer Setup Utility** has replaced the **Print Center**.

---

6. Click **Add Printer**.
7. Select **Rendezvous** as the connection type.
8. Select your printer from the list.
9. Click **Add Printer**.
10. Close the Print Center or the Printer Setup Utility.

## Installing Macintosh printing system software for direct connections (USB)



---

**NOTE** Macintosh computers do *not* support parallel port connections.

---

The Apple PostScript driver must be installed in order to use the PPD files. Use the Apple PostScript driver that came with your Macintosh computer.

1. Connect a USB cable between the USB port on the printer and the USB port on the computer. Use a standard 2-meter (6.56-foot) USB cable.
2. Insert the printer CD into the CD-ROM drive and run the installer. If the CD menu does not run automatically, double-click the CD icon on the desktop.
3. Double-click the **Installer** icon in the HP LaserJet Installer folder.
4. Follow the instructions on the computer screen.

USB queues are created automatically when the printer is attached to the computer. However, the queue will use a generic PPD if the installer has not been run before the USB cable is connected. Complete the following steps to change the queue PPD.

5. Open the Print Center or Printer Setup Utility.
6. Select the correct printer queue, and then click **Show Info** to open the **Printer Info** dialog box.
7. In the pop-up menu, select **Printer Model**, and then, in the pop-up menu in which **Generic** is selected, select the correct PPD for the printer.
8. Print a test page from any software program to make sure that the software is correctly installed.

If installation fails, reinstall the software. If this fails, see the installation notes or late-breaking readme files on the printer CD or the flyer that came in the printer box for help.

## To remove software from Macintosh operating systems

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

## Software for networks

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

### HP Web Jetadmin



**NOTE** HP Web Jetadmin is not available for the HP LaserJet 5200L.

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

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

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

## UNIX

For HP-UX and Solaris networks, go to [www.hp.com/support/net\\_printing](http://www.hp.com/support/net_printing) to download the HP Jetdirect printer installer for UNIX.

# Linux

For information, go to [www.hp.com/go/linuxprinting](http://www.hp.com/go/linuxprinting).

# Utilities

The printer is 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 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

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** An embedded Web server is not available for the HP LaserJet 5200L.

The printer is 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.

The embedded Web server provides an interface to the printer that anyone who has a network-connected computer and a standard Web browser can use. No special software is installed or configured, but you must have a supported Web browser on your computer. To gain access to the embedded Web server, type the IP address for the printer in the address line of the browser. (To find the IP address, print a configuration page. For more information about printing a configuration page, see [Configuration pages on page 283](#).)

For a complete explanation of the features and functionality of the embedded Web server, see [Using the embedded Web server on page 280](#).

## Other components and utilities

Windows	Macintosh OS
<ul style="list-style-type: none"><li>• Software installer — automates the printing system installation</li><li>• Online Web registration</li></ul>	<ul style="list-style-type: none"><li>• PostScript Printer Description files (PPDs)—use with the Apple PostScript drivers that come with the Mac OS</li><li>• The HP Printer Utility—change printer settings, view status, and set up printer-event notification from a Mac. This utility is supported for Mac OS X V10.2 and later.</li></ul>

## Selecting print media

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

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



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



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

## Supported media sizes



**NOTE** The 500-sheet input tray (tray 3) and duplexer are not available for the HP LaserJet 5200L.

**NOTE** Auto duplexing is only supported for media weights of 60 to 120 g/m<sup>2</sup> (16 to 32 lb).

Media size	Dimensions	Tray 1	Tray 2 and Tray 3	Auto duplex	Manual duplex
Letter	216 x 279 mm (8.5 x 11 in) 60 to 199 g/m <sup>2</sup> (16 to 53 lb)	✓	✓		✓
Letter-R	279 x 216 mm (11 x 8.5 in)	✓	✓	✓	✓
A4	211 x 297 mm (8.3 x 11.7 in)	✓	✓	✓	✓
A4-R	297 x 211 mm (11.7 x 8.3 in)	✓	✓	✓	✓
Legal	216 x 356 mm (8.5 x 14 in)	✓	✓	✓	✓
Executive	185 x 267 mm (7.3 x 10.5 in)	✓	✓	✓	✓
Executive (JIS)	216 x 330 mm (8.5 x 13 in)	✓	✓	✓	✓
A5	147 x 211 mm (5.8 x 8.3 in)	✓	✓	✓	✓
B5 (JIS)	183 x 257 mm (7.2 x 10.1 in)	✓	✓	✓	✓



Media size	Dimensions	Tray 1	Tray 2 and Tray 3	Auto duplex	Manual duplex
11 x 17	279 x 432 mm (11 x 17 in)	✓	✓	✓	✓
A3	297 x 419 mm (11.7 x 16.5 in)	✓	✓	✓	✓
B4 (JIS)	257 x 363 mm (10.1 x 14.3 in)	✓	✓	✓	✓
8K	269 x 391 mm (10.6 x 15.4 in)	✓	✓	✓	✓
8K	259 x 368 mm (10.2 x 14.5 in)	✓	✓	✓	✓
8K	273 x 394 mm (10.75 x 15.5 in)	✓	✓	✓	✓
16K	184 x 260 mm (7.24 x 10.24 in)	✓	✓	✓	✓
16K	195 x 270 mm (7.68 x 10.63 in)	✓	✓	✓	✓
16K	273 x 197 mm (10.75 x 7.75 in)	✓	✓	✓	✓
Statement	140 x 216 mm (5.5 x 8.5 in)	✓	✓		✓
12 x 18	305 x 457 mm (12 x 18 in)	✓			✓
A6	105 x 148 mm (4.14 x 5.83 in)	✓			✓
RA3	305 x 430 mm (12 x 16.93 in)	✓			✓
B6	128 x 182 mm (5.1 x 7.2 in)	✓			✓
S Postcard (JIS)	100 x 148 mm (3.94 x 5.83 in)	✓			✓
D Postcard (JIS)	148 x 200 mm (5.83 x 7.87 in)	✓			✓
Envelope #10	105 x 241 mm (4.13 x 9.5 in)	✓			
Envelope Monarch	98 x 191 mm (3.87 x 7.5 in)	✓			
Envelope C5	162 x 229 mm (6.38 x 9 in)	✓			
Envelope DL	110 x 220 mm (4.33 x 8.66 in)	✓			
Envelope B5	176 x 250 mm (6.93 x 9.84 in)	✓			
Custom		✓	✓	✓	✓

## Supported media types



**NOTE** The 500-sheet input tray (tray 3) and duplexer are not available for the HP LaserJet 5200L.

Media type	Weight	Tray 1	Tray 2 and Tray 3	Automatic duplex <sup>1</sup>	Manual duplex
Plain	60 to 199 g/m <sup>2</sup> (16 to 53 lb)	✓			✓
Plain	60 to 120 g/m <sup>2</sup> (16 to 32 lb)	✓	✓	✓	✓
Preprinted	60 to 120 g/m <sup>2</sup> (16 to 32 lb)	✓	✓	✓	✓
Letterhead	60 to 120 g/m <sup>2</sup> (16 to 32 lb)	✓	✓	✓	✓
Transparency	0.10 to 0.14 mm thick (4.7 to 5 mils thick)	✓	✓		
Prepunched	60 to 120 g/m <sup>2</sup> (16 to 32 lb)	✓	✓	✓	✓
Bond	60 to 120 g/m <sup>2</sup> (16 to 32 lb)	✓	✓	✓	✓
Recycled	60 to 120 g/m <sup>2</sup> (16 to 32 lb)	✓	✓	✓	✓
Envelopes	75 to 90 g/m <sup>2</sup> (20 to 24 lb)	✓			
Colored paper	60 to 120 g/m <sup>2</sup> (16 to 32 lb)	✓	✓	✓	✓
Labels	0.10 to 0.14 mm thick (4.7 to 5 mils thick)	✓	✓		
Cardstock	135 to 176 g/m <sup>2</sup> (36 to 47 lb)	✓			✓
Rough		✓			
Light	60 to 75 g/m <sup>2</sup> (16 to 20 lb)	✓			✓
Vellum	60 to 120 g/m <sup>2</sup> (16 to 32 lb)	✓			
Tough Paper	0.10 to 0.14 mm thick (4.7 to 5 mils thick)	✓			
Postcard	135 to 176 g/m <sup>2</sup> (36 to 47 lb)	✓			✓

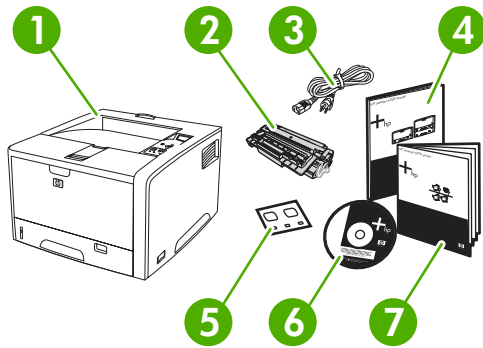
<sup>1</sup> Automatic two-sided printing (duplexing) requires an HP LaserJet printer that is equipped with the optional duplexer.

## 2 Installation and configuration

- [What is in the box](#)
- [Identification](#)
- [Site requirements](#)
- [Input/Output \(I/O\) configuration](#)
- [Installing printer memory](#)
- [Installing CompactFlash cards](#)
- [Checking CompactFlash installation](#)
- [Enabling memory \(Windows only\)](#)

## What is in the box

The following items come in the box with the printer.



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

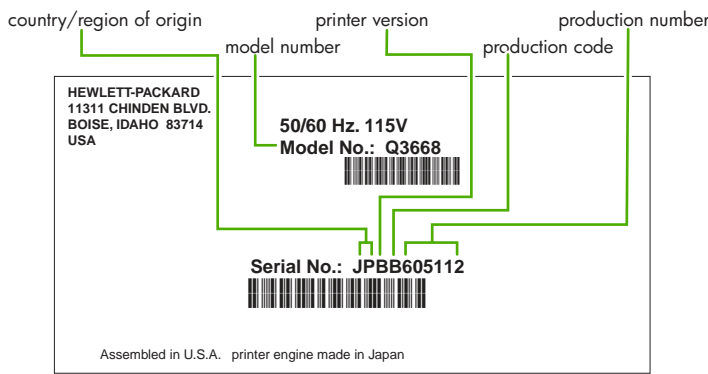
1. Printer
2. Print cartridge
3. Power cord
4. Getting started guide
5. Control-panel overlay
6. User guide and software on CD

# Identification

The following section describes printer identification.

## Model and serial numbers

The model number and serial numbers are listed on the identification labels located on the back of the printer. The model number is alphanumeric, such as Q7543A for an HP LaserJet 5200 printer. The serial number contains information about the country/region of origin, the printer version, production code, and the production number of the printer. The following is a sample identification label.



**Figure 2-2** Model and serial numbers

Model name	Model number
HP LaserJet 5200	Q7543A
HP LaserJet 5200n	Q7544A
HP LaserJet 5200tn	Q7545A
HP LaserJet 5200dtn	Q7546A
HP LaserJet 5200L	Q7547A

# 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



**NOTE** Printer weight does not include the print cartridge.

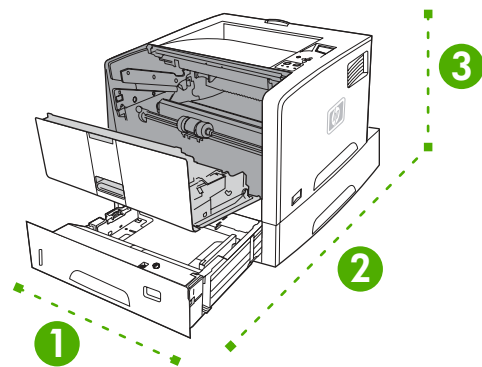
**Table 2-1** Physical dimensions for the HP LaserJet 5200 Series printers

Printer model	Height	Depth	Width	Weight
HP LaserJet 5200, 5200n, and 5200L	275 mm (10.8 in)	563 mm (22.2 in)	490 mm (19.3 in)	20.2 kg (44.5 lb)
HP LaserJet 5200tn	405 mm (15.9 in)	600 mm (23.6 in)	490 mm (19.3 in)	5200tn: 30.2 kg (66.5 lb)
HP LaserJet 5200dtn	405 mm (15.9 in)	600 mm (23.6 in)	490 mm (19.3 in)	5200dtn: 33.1 kg (73 lb)
500-sheet input tray (tray 3)	135 mm (5.3 in)	600 mm (23.6 in)	490 mm (19.3 in)	9 kg (20 lb)

## Space requirements

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

1. 533 mm (21 in)
2. 1,060 mm (42 in)
3. 409 mm (15.9 in)



**Figure 2-3** Space requirements

# Input/Output (I/O) configuration

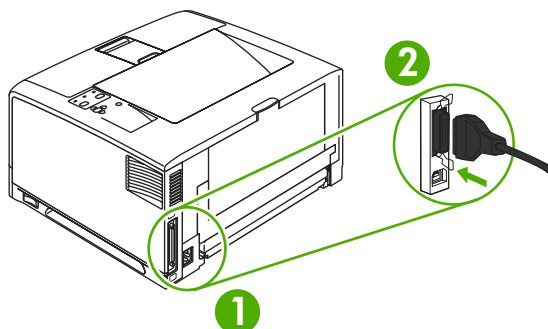
This section describes how to configure certain network parameters on the printer:

- [Parallel configuration](#)
- [USB configuration](#)
- [Network configuration](#)
- [Connecting to a network or a computer](#)

## Parallel configuration

The printer supports network and parallel connections at the same time. A parallel connection is made by connecting the printer to the computer using a bidirectional parallel cable (IEEE-1284 compliant) with a connector plugged into the printer parallel port. The cable can be a maximum of 10 meters (30 feet) long.

When used to describe a parallel interface, the term bidirectional indicates that the printer is able to both receive data from the computer and send data to the computer through the parallel port. While the parallel interface provides backwards compatibility, a USB or network connection is recommended to optimize performance.



**Figure 2-4** Parallel configuration

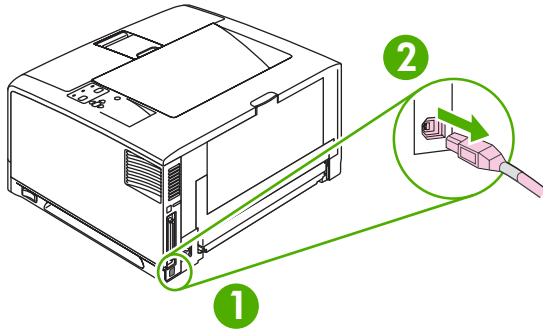
1	Parallel port
2	Parallel connector

## USB configuration

The printer supports a Hi-Speed USB 2.0 port. The USB cable can be a maximum of 5 meters (16.4 feet) long.

### Connecting the USB cable

Plug the USB cable into the printer. Plug the other end of the USB cable into the computer.



**Figure 2-5** Connecting the USB cable

1	USB port
2	USB connector

## Network configuration



**NOTE** Network configuration is not available for the HP LaserJet 5200L.

You might need to configure certain network parameters on the printer. You can configure these parameters from the printer control panel, the embedded Web server, or for most networks, from the HP Web Jetadmin software.



**NOTE** For more information about using the embedded Web server, see [Using the embedded Web server on page 280](#).

For a complete list of supported networks and for instructions on configuring network parameters from software, see the *HP Jetdirect Embedded Print Server Administrator's Guide*. The guide comes with printers in which an HP Jetdirect embedded print server is installed.

## Manually configuring TCP/IP parameters from the control panel

Use manual configuration to set an IP address, subnet mask, and default gateway.

### Setting an IP address

1. Press **Menu**.
2. Press ▼ to highlight **CONFIGURE DEVICE**, and then press ✓.
3. Press ▼ to highlight **I/O**, and then press ✓.
4. Press ▼ to highlight **EMBEDDED JETDIRECT**, and then press ✓.
5. Press ▼ to highlight **TCP/IP**, and then press ✓.
6. Press ▼ to highlight **MANUAL SETTINGS**, and then press ✓.
7. Press ▼ to highlight **IP Address:**, and then press ✓.
8. Press the ▲ or ▼ arrow to increase or decrease the number for the first byte of the IP address.



9. Press ✓ to move to the next set of numbers. (Press ⇐ to move to the previous set of numbers.)



**NOTE** To cycle through the numbers more quickly, hold down the arrow button.

10. Repeat steps 8 and 9 until the correct IP address is complete, and then press ✓ to save the setting.
11. Press **Menu** to return to the **Ready** state.

### Setting the subnet mask

1. Press **Menu**.
2. Press ▼ to highlight **CONFIGURE DEVICE**, and then press ✓.
3. Press ▼ to highlight **I/O**, and then press ✓.
4. Press ▼ to highlight **EMBEDDED JETDIRECT**, and then press ✓.
5. Press ▼ to highlight **TCP/IP**, and then press ✓.
6. Press ▼ to highlight **MANUAL SETTINGS**, and then press ✓.
7. Press ▼ to highlight **SUBNET MASK**, and then press ✓.
8. Press the ▲ or ▼ arrow to increase or decrease the number for the first byte of the subnet mask.
9. Press ✓ to move to the next set of numbers. (Press ⇐ to move to the previous set of numbers.)
10. Repeat steps 8 and 9 until the correct subnet mask is complete, and then press ✓ to save the subnet mask.
11. Press **Menu** to return to the **Ready** state.

### Setting the default gateway

1. Press **Menu**.
2. Press ▼ to highlight **CONFIGURE DEVICE**, and then press ✓.
3. Press ▼ to highlight **I/O**, and then press ✓.
4. Press ▼ to highlight **EMBEDDED JETDIRECT**, and then press ✓.
5. Press ▼ to highlight **TCP/IP**, and then press ✓.
6. Press ▼ to highlight **MANUAL SETTINGS**, and then press ✓.
7. Press ▼ to highlight **DEFAULT GATEWAY**, and then press ✓.
8. Press the ▲ or ▼ arrow to increase or decrease the number for the first byte of the default gateway.
9. Press ✓ to move to the next set of numbers. (Press ⇐ to move to the previous set of numbers.)
10. Repeat steps 8 and 9 until the correct default gateway is complete, and then press ✓ to save the default gateway.
11. Press **Menu** to return to the **Ready** state.

## Disabling network protocols (optional)

By factory default, all supported network protocols are enabled. Disabling unused protocols has the following benefits:

- Decreases printer-generated network traffic
- Prevents unauthorized users from printing to the printer
- Provides only pertinent information on the configuration page
- Allows the printer control panel to display protocol-specific error and warning messages

### To enable or disable IPX/SPX



**NOTE** Do not disable this protocol when using systems that print to the printer using IPX/SPX.

1. Press **Menu**.
2. Press ▼ to highlight **CONFIGURE DEVICE**, and then press ✓.
3. Press ▼ to highlight **I/O**, and then press ✓.
4. Press ▼ to highlight **EMBEDDED JETDIRECT**, and then press ✓.
5. Press ▼ to highlight **IPX/SPX**, and then press ✓.
6. Press ▼ or ▲ to select the desired option.
7. Press ✓ to set the selected option.
8. Press **Menu** to return to the **Ready** state.

### To enable or disable AppleTalk



**NOTE** Do *not* disable this protocol when using systems that print to the printer using AppleTalk.

1. Press **Menu**.
2. Press ▼ to highlight **CONFIGURE DEVICE**, and then press ✓.
3. Press ▼ to highlight **I/O**, and then press ✓.
4. Press ▼ to highlight **EMBEDDED JETDIRECT**, and then press ✓.
5. Press ▼ to highlight **APPLETALK**, and then press ✓.
6. Press ▼ or ▲ to select the desired option.
7. Press ✓ to set the selected option.
8. Press **Menu** to return to the **Ready** state.

## To disable DLC/LLC



**NOTE** Do not disable this protocol when using systems that print to the printer using DLC/LLC.

1. Press **Menu**.
2. Press ▼ to highlight **CONFIGURE DEVICE**, and then press ✓.
3. Press ▼ to highlight **I/O**, and then press ✓.
4. Press ▼ to highlight **EMBEDDED JETDIRECT**, and then press ✓.
5. Press ▼ to highlight **DLC/LLC**, and then press ✓.
6. Press ▼ or ▲ to select the desired option.
7. Press ✓ to set the selected option.
8. Press **Menu** to return to the **Ready** state.

## Enhanced I/O (EIO) configuration



**NOTE** EIO configuration is not available for the HP LaserJet 5200L.

**NOTE** If you are adding a print server to the base model, additional printer memory might be required (minimum of 64 MB).

The enhanced input/output (EIO) slot holds compatible accessory devices, such as the HP Jetdirect print server network cards or other devices. Plugging an EIO network card into the slot increases the number of network interfaces available to the printer.

### HP Jetdirect EIO print servers

HP Jetdirect print servers (network cards) can be installed in EIO slots. These cards support multiple network protocols and operating systems. HP Jetdirect print servers facilitate network management by allowing you to connect a printer directly to your network at any location. HP Jetdirect print servers also support the Simple Network Management Protocol (SNMP), which provides network managers with remote printer management and troubleshooting through the HP Web Jetadmin software.



**NOTE** Configure the card either through the control panel, the printer installation software, or with HP Web Jetadmin software. See the HP Jetdirect print server documentation for more information.

## 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, run SETUP.EXE from the root directory of the CD.)
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)/parallel

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



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

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 5 meters (16.4 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.

## To connect to a Macintosh computer

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 5 meters (16.4 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.

---

## Installing printer memory

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

One DIMM slot and two CompactFlash slots (CompactFlash slots are not available for the HP LaserJet 5200L) are available for upgrading the printer with the following item:

- More printer memory—DIMMs are available in 32, 64, 128, 256, and 512 MB.
- CompactFlash font cards—Unlike standard printer memory, CompactFlash cards can be used to permanently store downloaded items, such as fonts and forms, even when the printer is off. These cards can also be used to enable the printer to print non-Roman characters.
- Other DIMM- and CompactFlash-based printer languages and printer options.

For ordering information, see [Accessories and supplies on page 312](#).



**NOTE** Single inline memory modules (SIMMs) used in previous HP LaserJet printers are not compatible with the printer.

The printer also has one EIO slot for expanding the printer networking capabilities. The EIO slot can be used to upgrade the printer with an additional network connection, such as a wireless print server, network card, or a connectivity card for a serial or AppleTalk connection (not available for the HP LaserJet 5200L).



**NOTE** Some HP LaserJet 5200 Series printers come with a network device already installed. The EIO slot may be used to provide networking capabilities in addition to those already built into the printer (not available for the HP LaserJet 5200L).

To find out how much memory is installed in the printer, or to find out what is installed in the EIO slots, print a configuration page. See [Configuration pages on page 283](#).

## To install printer memory

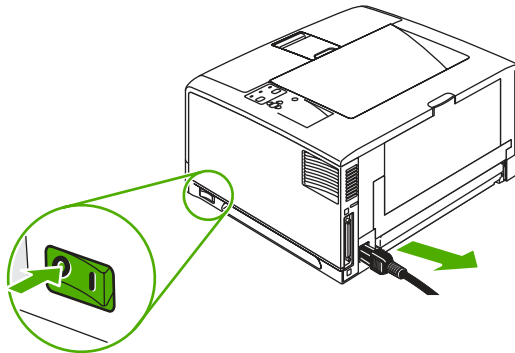


**CAUTION** Static electricity can damage DIMMs. When handling DIMMs, either wear an antistatic wrist strap or frequently touch the surface of the DIMM antistatic package, then touch bare metal on the printer.

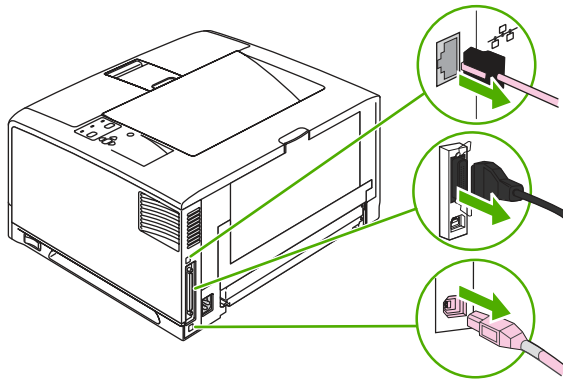
The HP LaserJet 5200 Series printers come with one DIMM slot. If desired, you can replace a DIMM installed in the slot with a higher memory DIMM for all HP LaserJet 5200 Series printers.

If you have not already done so, print a configuration page to find out how much memory is installed in the printer before adding more memory. See [Configuration pages on page 283](#).

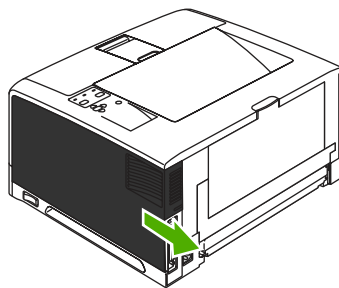
1. After the configuration page has printed, turn the printer off and disconnect the power cord.



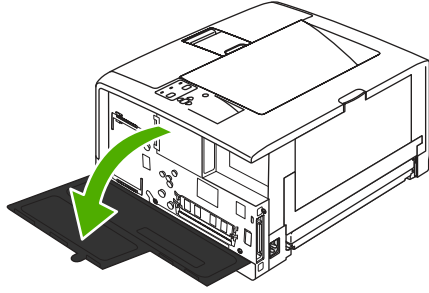
2. Disconnect all interface cables.



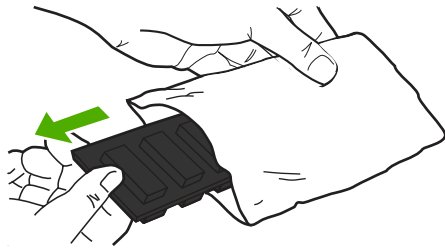
3. Remove the right side panel by sliding it toward the rear of the printer until the side slides from the printer.



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



5. Remove the DIMM from the antistatic package.

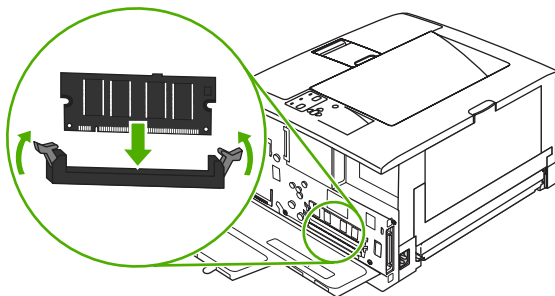


---

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

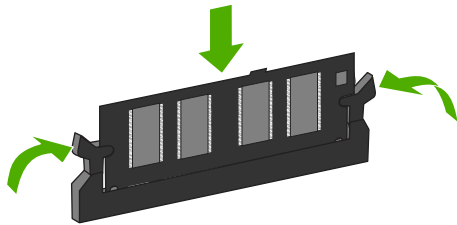
---

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



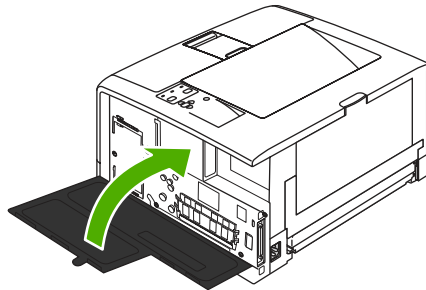


7. Press the DIMM straight into the slot, and press firmly. Make sure the locks on each side of the DIMM snap into place.

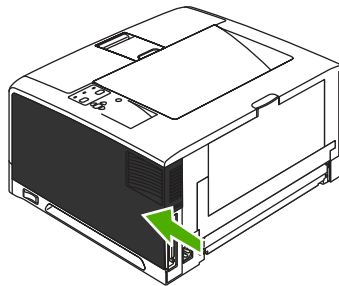


**NOTE** To remove a DIMM, first release the locks.

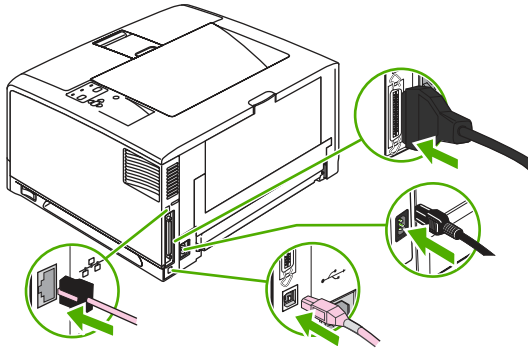
8. Close the access door, and press firmly until it snaps into place.



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



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



11. Turn the printer on.

## Checking DIMM installation

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

### To verify that DIMMs are installed correctly

1. Turn the printer on. Check that the Ready light is illuminated after the printer has gone through the startup sequence. If an error message appears, a DIMM might have been incorrectly installed.
2. Print a configuration page (see [Configuration pages on page 283](#)).
3. Check the memory section on the configuration page and compare it to the configuration page that was printed before the memory installation. If the amount of memory has not increased, the DIMM might not be installed correctly, or the DIMM might be defective. Repeat the installation procedure. If necessary, install a different DIMM.



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

# Installing CompactFlash cards

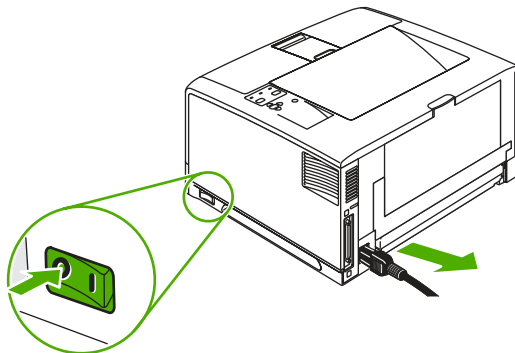


**NOTE** CompactFlash cards are not available for the HP LaserJet 5200L.

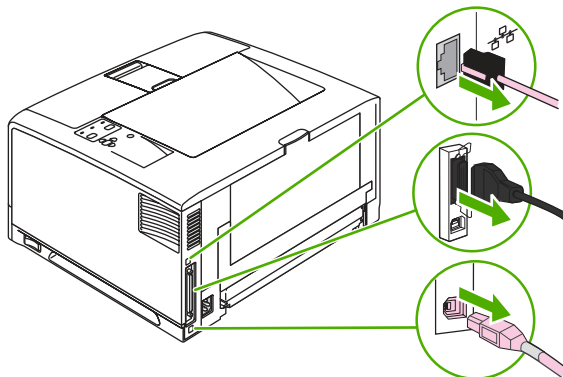
Up to two CompactFlash cards can be installed to add fonts to the printer.

## To install a CompactFlash card

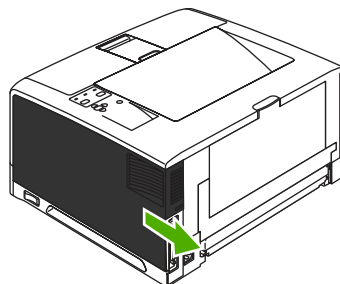
1. After the configuration page has printed, turn the printer off and disconnect the power cord.



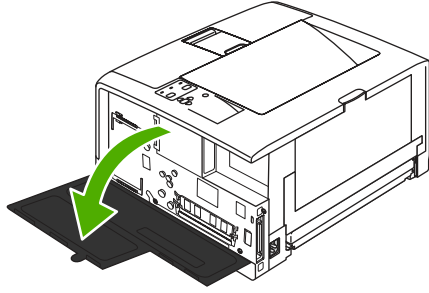
2. Disconnect all interface cables.



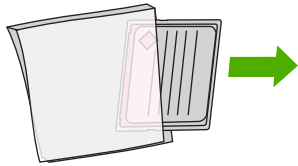
3. Remove the right side panel by sliding it towards the rear of the printer until the side slides from the printer.



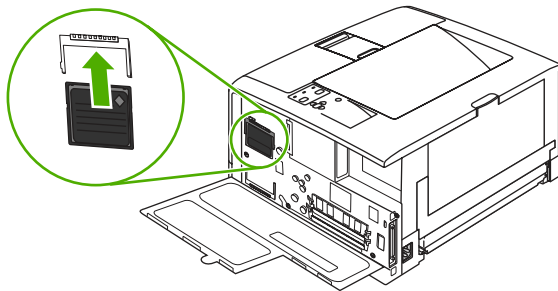
4. Open the access door by pulling on the metal tab.



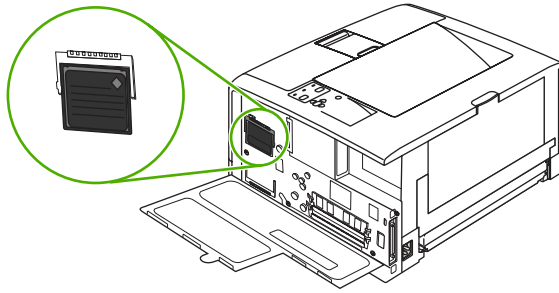
5. Remove the new CompactFlash card from its package.



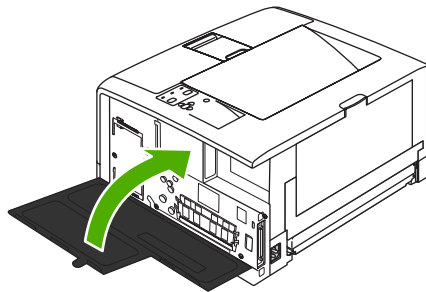
6. Hold the CompactFlash card by its edges and line up the grooves in the side of the card with the tabs in the CompactFlash card slot.



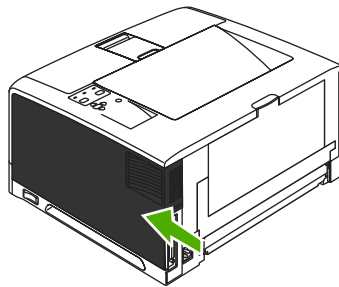
7. Slide the CompactFlash card into place.



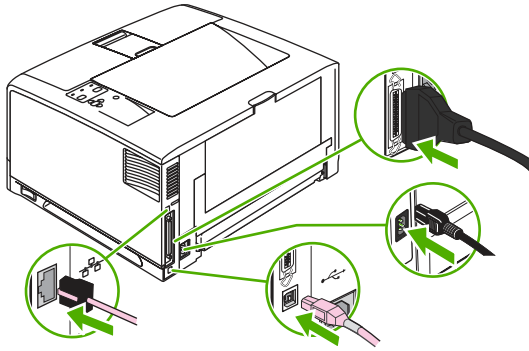
8. Close the access door, and press firmly until it snaps into place.



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



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



Use Device Storage Manager in HP Web Jetadmin to manage fonts. For more information, see the Help in HP Web Jetadmin.

# Checking CompactFlash installation

After installing the CompactFlash card, make sure that the installation was successful.

## To verify that CompactFlash cards are installed correctly

1. Turn the printer on. Check that the Ready light is illuminated after the printer has gone through the startup sequence. If an error message appears, a CompactFlash card might have been incorrectly installed.
2. Print a configuration page (see [Configuration pages on page 283](#)).
3. Check the installed personalities and options section on the configuration page and compare it to the configuration page that was printed before to verify CompactFlash installation. If there is not any information on the installed CompactFlash card, repeat the installation procedure. If necessary, install a different CompactFlash card.



---

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

---

## Enabling memory (Windows only)

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**.



# 3 Maintenance

- [Managing supplies](#)
- [Replacing supplies and parts](#)
- [Cleaning the printer](#)

# Managing supplies

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

## Approximate print-cartridge replacement intervals

Print cartridge	Page count	Approximate time period
Black	12,000 pages	6 months

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

<sup>2</sup> Approximate average A4-/letter-size page count based on approximately 5% coverage.

To order supplies online, go to [www.hp.com/support/lj5200](http://www.hp.com/support/lj5200) or [www.hp.com/support/lj5200L](http://www.hp.com/support/lj5200L).

## Managing the print cartridge

### Print-cartridge life expectancy

The average cartridge yield is 12,000 pages in accordance with ISO/IEC 19752. Actual cartridge yield depends on specific use.



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

### Print-cartridge storage

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



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

### HP print cartridges

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

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

### HP policy on non-HP print cartridges

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



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

To install a new HP print cartridge, see [Changing the print cartridge on page 44](#). To recycle the used cartridge, follow the instructions included with the new cartridge.

## Print-cartridge authentication

The printer automatically authenticates the print cartridge when it is inserted into the printer. During authentication, the printer will let you know whether a cartridge is a genuine HP print cartridge.

If the printer control-panel message states that this is not a genuine HP print cartridge and you believe you purchased an HP print cartridge, see [HP fraud hotline and Web site on page 43](#).

## HP fraud hotline and Web site

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

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

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

## Checking supply levels

You can check the toner-supply level by using the control panel, HP Web Jetadmin (not available for the HP LaserJet 5200L), or the embedded Web server (not available for the HP LaserJet 5200L).

### To check supplies by using the control panel

1. Press **Menu**.
2. Press ▼ to highlight **INFORMATION**, and then press ✓.
3. Press ▼ to highlight **PRINT SUPPLIES STATUS**, and then press ✓.

### To check supplies by using HP Web Jetadmin

1. In HP Web Jetadmin, select **PRINTER**, and then press ✓.
2. The supplies status page displays the print-cartridge information.

### To check supplies using the embedded Web server

1. In a Web browser, type the IP address for the printer home page.
2. On the left side of the computer screen, click **Supplies Status**. The supplies status page displays the print-cartridge information.

# Replacing supplies and parts

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

## Supply replacement guidelines

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

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

For instructions on installing supplies, see the installation guides provided with each supply item or see more information at [www.hp.com/support/lj5200](http://www.hp.com/support/lj5200) or [www.hp.com/support/lj5200L](http://www.hp.com/support/lj5200L).



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

## Life expectancy of consumable parts

Deteriorated or damaged consumable parts might need to be replaced at least once before the warranty expires. Only replace parts that are faulty.

	Part	Part number	Quantity	Life expectancy (pages)
1	Cassette pickup roller	RM1-0731-030	1	200,000
2	Cassette paper separation pad	RM1-2546-000	1	200,000
3	Tray 1 pickup roller	RL1-0915-000	1	200,000
4	Tray 1 separation pad	RM1-2462-000	1	200,000
5	Transfer roller	RM1-2485-000		200,000
6	Paper-feed pickup roller (tray 2)	RM1-0036-000	1	200,000
7	Paper-feed separation roller (tray 2)	RM1-0037-000	1	200,000
8	Paper-feed feed roller (tray 3)	RM1-0037-000	1	200,000

## Changing the print cartridge

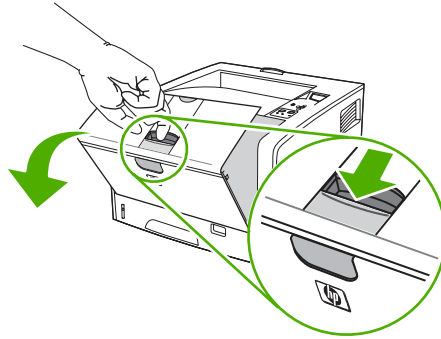
When a print cartridge approaches the end of useful life, a message appears on the control panel recommending that you order a replacement. The printer can continue to print using the current print cartridge until a message appears instructing you to replace the cartridge.



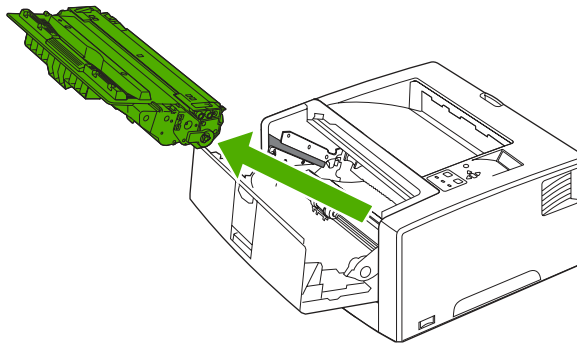
**NOTE** If toner gets on clothing, wipe it off with a dry cloth and wash the clothes in cold water. Hot water sets toner into fabric.

## To change the print cartridge

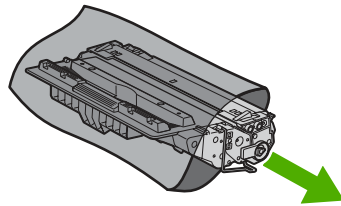
1. Open the front cover.



2. Remove the used print cartridge from the printer.



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

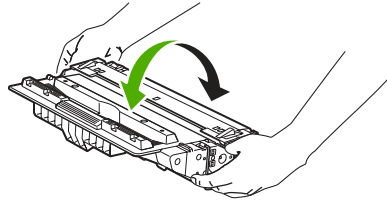


4. Grasp both sides of the print cartridge and distribute the toner by gently rocking the print cartridge.

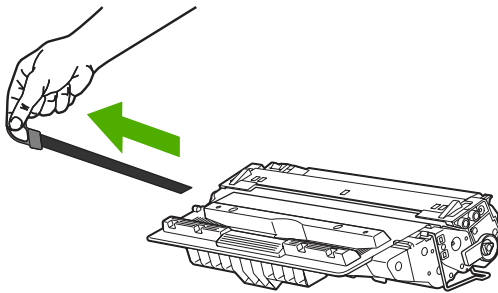
---

**CAUTION** Hold the print cartridge by the end caps.

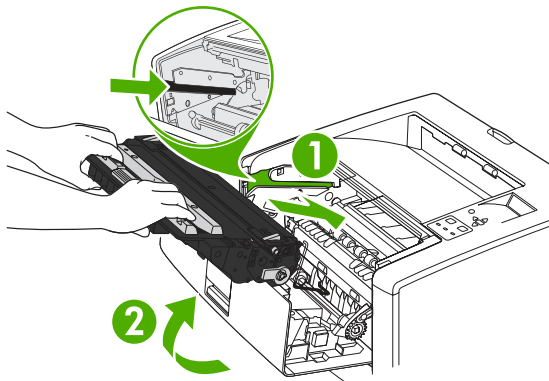
---



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



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



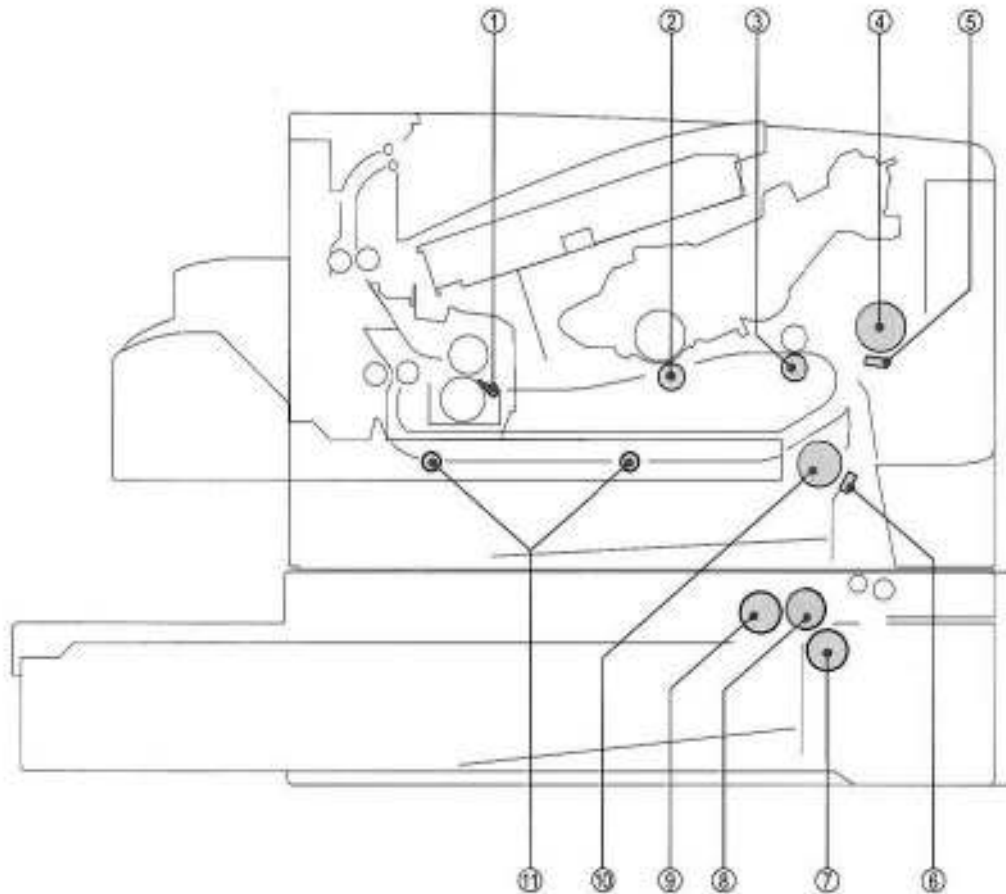
After a short time, the control panel should display **Ready**.

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

For additional help, go to [www.hp.com/support/lj5200](http://www.hp.com/support/lj5200) or [www.hp.com/support/lj5200L](http://www.hp.com/support/lj5200L). For information about recycling used print cartridges, go to [www.hp.com/go/recycle](http://www.hp.com/go/recycle).

## Cleaning the printer

During the printing process, paper, toner, and dust particles can accumulate inside the printer. Over time, this buildup can cause print-quality problems, such as toner specks or smearing (see [Troubleshooting print-quality problems on page 238](#)). This printer has a cleaning mode that can correct and prevent these types of problems.



**Figure 3-1** Cleaning the printer

1. **Fuser unit inlet guide:** Wipe with a lint-free cloth.
2. **Transfer charging roller:** Do *not* touch or clean the transfer charging roller it is absolutely necessary. If you must clean the transfer charging roller, clean it with a dry-lint free cloth. Do *not* touch the roller and do *not* use water or solvent to clean it.
3. **Registration roller:** Wipe with a lint-free cloth.
4. **Tray 1 pickup roller:** Wipe with a lint-free cloth.
5. **Tray 1 separation pad:** Wipe the rubber part with a lint-free cloth.
6. **Tray 2 separation pad:** Wipe the rubber part with a lint-free cloth.
7. **Paper-feeder separation roller:** Wipe with a lint-free cloth.
8. **Paper-feeder feed roller:** Wipe with a lint-free cloth.



9. **Paper-feeder pickup roller:** Wipe with a lint-free cloth.
10. **Tray 2 pickup roller:** Wipe with a lint-free cloth.
11. **Duplexer feed rollers:** Wipe with a lint-free cloth.

## Cleaning the printer manually

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.
Paper-pickup rollers	Clean with lint-free paper. If dirt cannot be removed, dampen the paper with alcohol.

## Cleaning the paper path using the printer control panel

1. Press **Menu**.
2. Press **▼** to highlight **CONFIGURE DEVICE**, and then press **✓**.
3. Press **▼** to highlight **PRINT QUALITY**, and then press **✓**.



**NOTE** If your printer has an automatic duplexer, go to step 7.

4. Press **▼** to highlight **CREATE CLEANING PAGE**, and then press **✓**.
5. Remove all paper from tray 1.
6. Remove the cleaning page and load it face-down in tray 1.



**NOTE** If you are not in the menus, navigate to **PRINT QUALITY** by using the previous instructions.

7. At the printer control panel, press **▼** to highlight **PROCESS CLEANING PAGE**, and then press **✓**.

## 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 particle.

### Vacuum specifications

Do not use a conventional vacuum designed for LaserJet printers or copiers 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).



---

**NOTE** Dispose of waste toner in accordance with local requirements. Do not discharge toner particles into drains.

---

## 4 Theory of operation

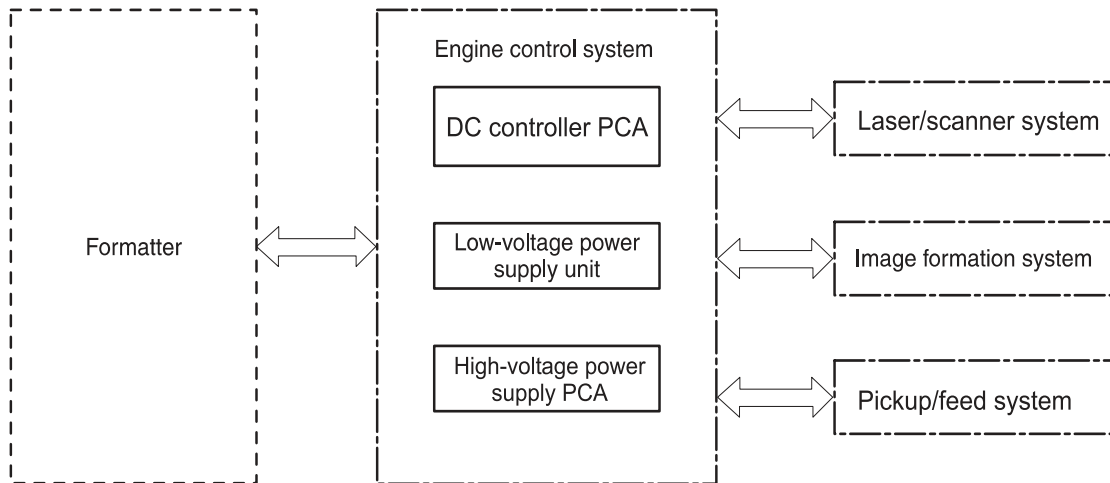
This chapter presents an overview of the major components of the HP LaserJet 5200 Series printers, and includes a detailed discussion of the image-formation system.

# 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 PCA
- High-voltage power supply PCA
- Low-voltage power supply unit



**Figure 4-1** Engine control system

**Table 4-1** Sequence of operation

Period	Duration	Purpose	Remarks
WAIT period	From the time the power is turned on until the initial drive for the main motor is complete	Removes the charge that creates a potential difference from the drum surface, and adjusts the drum phase	Detects cartridge presence
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 and maintains the heater at a targeted temperature	
INTR (Initial rotation)	From the time the print command is received until the pickup solenoid is turned on	Prepares the photosensitive drum for printing and cleans the transfer charging roller	
PRINT	From the end of INTR period until the fuser paper sensor detects the trailing edge of paper	Forms the images on the photosensitive drum and transfers the toner image to the print media	
LSTR (Last rotation)	From the end of the PRINT period until the fuser motor stops rotating	Moves the last printed sheet out of the printer	The printer enters the INTR period as soon as the formatter sends another print command

## Power-on sequence

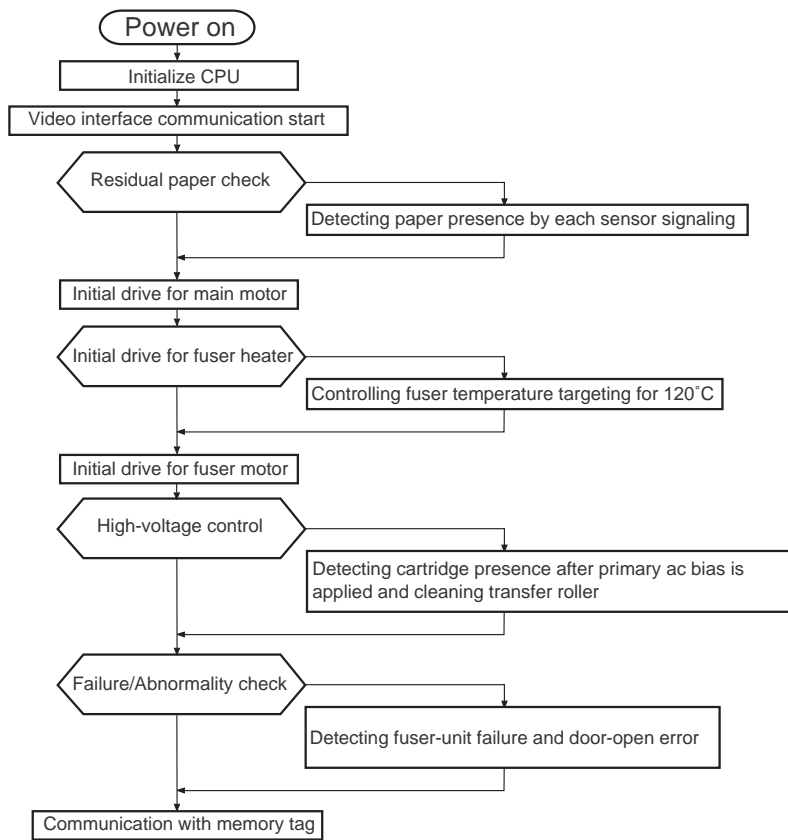


Figure 4-2 Power-on sequence

## Motors, fans, and solenoids

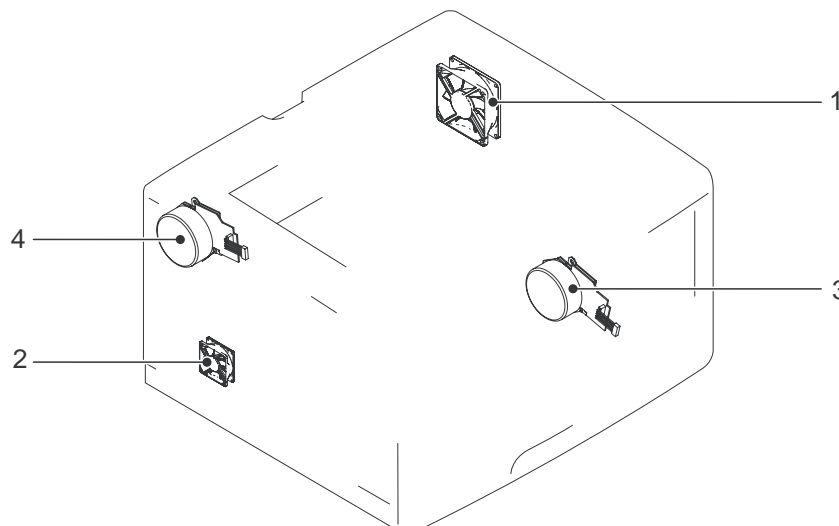
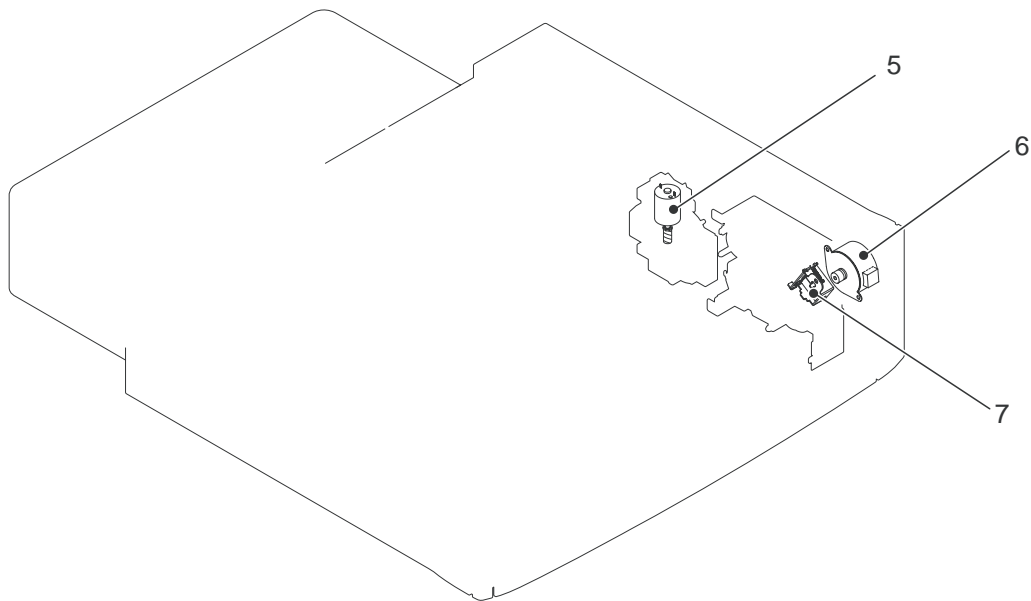


Figure 4-3 Motors, fans, and solenoids (1 of 2)

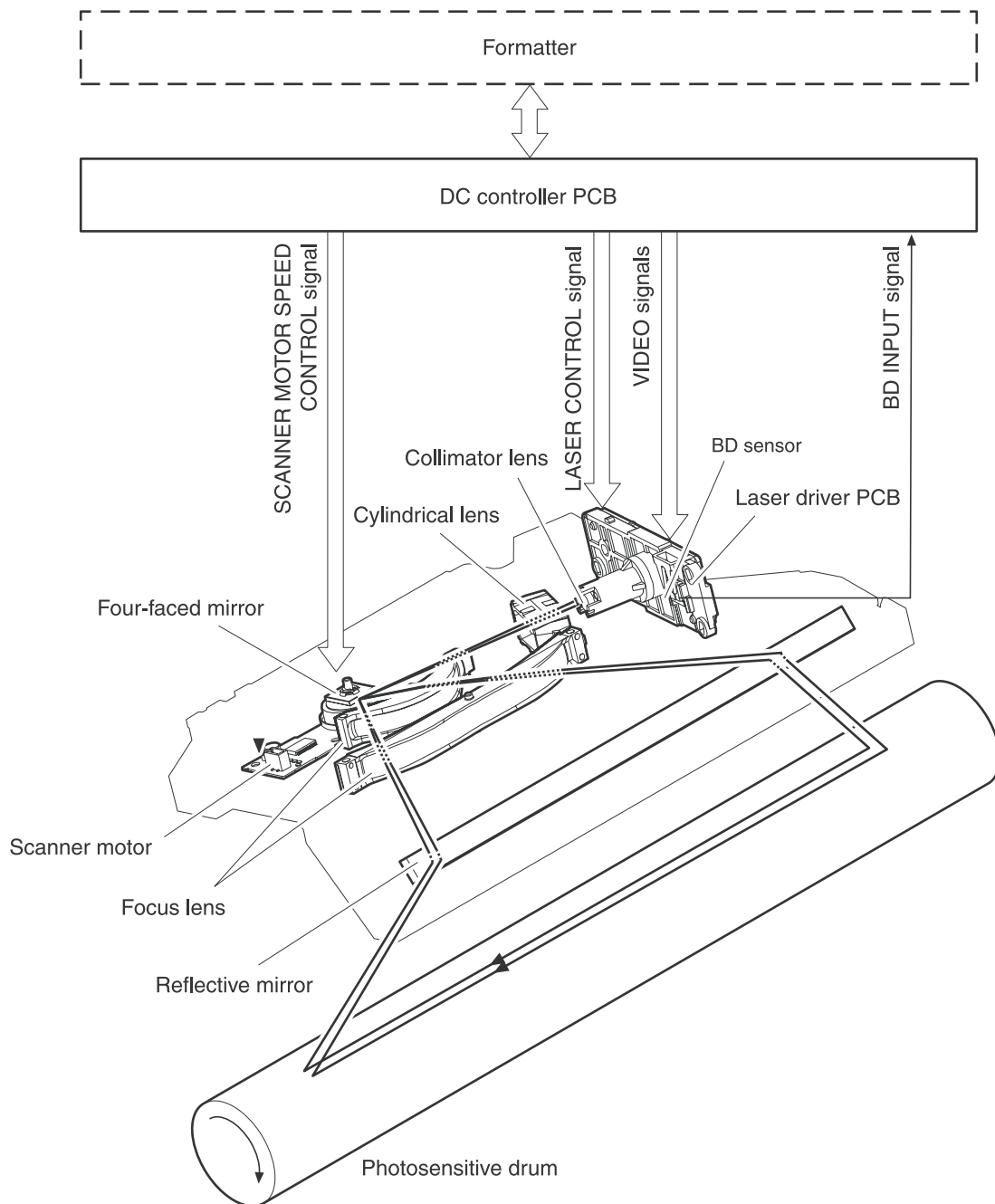


**Figure 4-4** Motors, fans, and solenoids (2 of 2)

1. Main fan (FM1)
2. Sub fan
3. Main motor
4. Fuser motor
5. Lifter motor
6. Paper-feeder pickup motor
7. Paper-feeder pickup solenoid

## 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 4-5** Laser/scanner system

## Pickup-and-feed-system

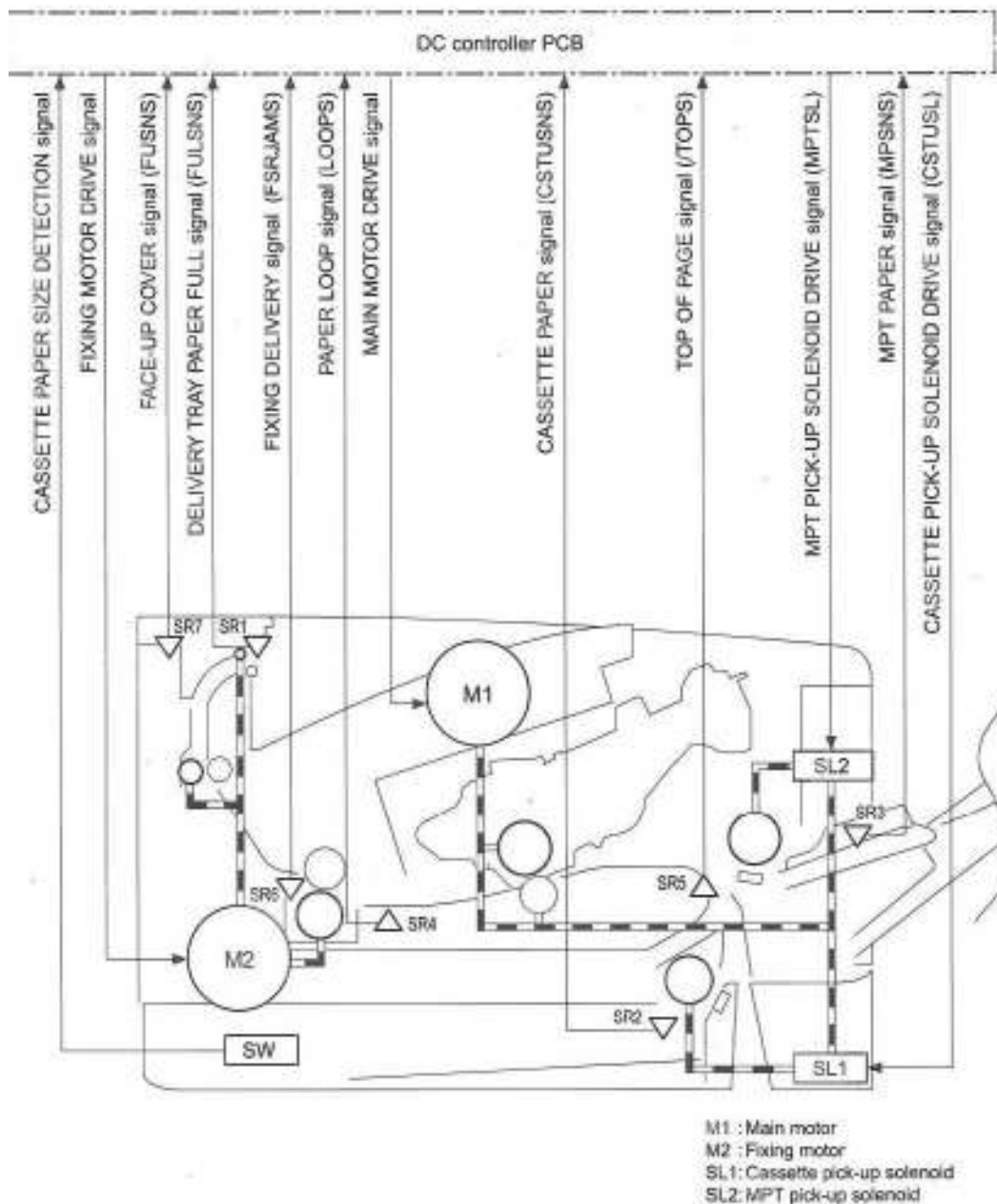
The pickup-and-feed system consists of two pickup sources (tray 2, which is the cassette, and tray 1, the multipurpose tray) and two delivery destinations (face-down top bin and face-up rear bin).

The multipurpose paper sensor (SR3) detects paper in the multipurpose tray, and the cassette paper sensor (SR2) detects media in tray 2.

The DC controller controls the main motor, fuser motor, cassette pick-up solenoid, and multipurpose pickup solenoid.

The four sensors (top-of-page sensor, paper-loop sensor, fuser-delivery sensor, and bin paper-full sensor) on the paper-transport path detect the arrival and passage of media. If the media does not reach or pass each sensor within a specified period of time, the DC controller determines that a jam has occurred and alerts the formatter.





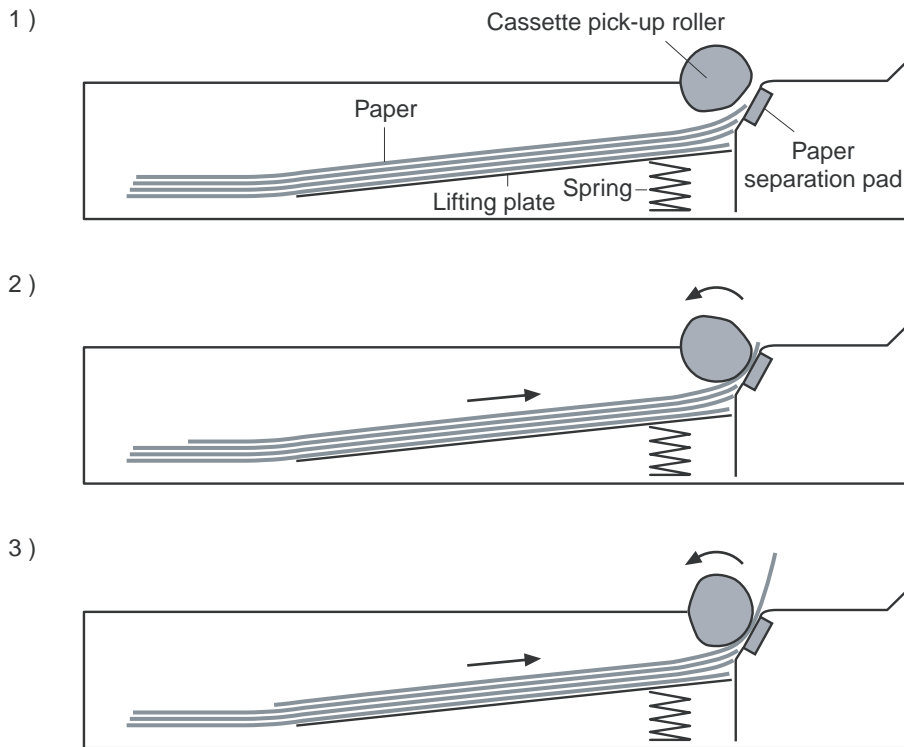
**Figure 4-6** Pickup-and-feed-system

## Cassette (tray 2) pickup mechanism

When tray 2 is correctly installed, SW detects its presence. The cassette paper sensor (SR2) detects whether media is in the cassette, and the cassette media sensor detects the type of media. When tray 2 is correctly installed and contains the correct media type, the pickup operation begins.

1. The DC controller receives a print command from the formatter, and then begins rotating the pickup-and-feed motor (M1) at the correct speed for the media type.
2. After the motor reaches the correct speed and the fuser reaches the correct temperature, the cassette pickup solenoid (SL1) turns on and the cassette pickup roller begins rotating.

3. The cassette lifting plate lifts the media stack, and the cassette pickup roller picks up one sheet. The separation pad prevents multi-feeds.



**Figure 4-7** Cassette (tray 2) pickup mechanism

## Multipurpose-tray (tray 1) pickup mechanism

Tray 2 must be installed in order for tray 1, the multipurpose (MP) tray, to operate. The MP-tray paper sensor (SR3) detects whether media is present. When tray 1 is correctly installed and contains media, the MP-tray pickup operation begins.

1. The DC controller receives a print command from the formatter and rotates the main motor (M1) 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 (SL2) turns on and the MP pickup roller rotates.
3. The MP pickup roller picks up one sheet of media. The separation pad prevents multi-feeds.
4. The MP tray media sensor detects the media type as the media enters the printer.

## Jam detection

1. Cartridge sensor assembly
2. Paper and registration sensor covers
3. Cassette media sensor

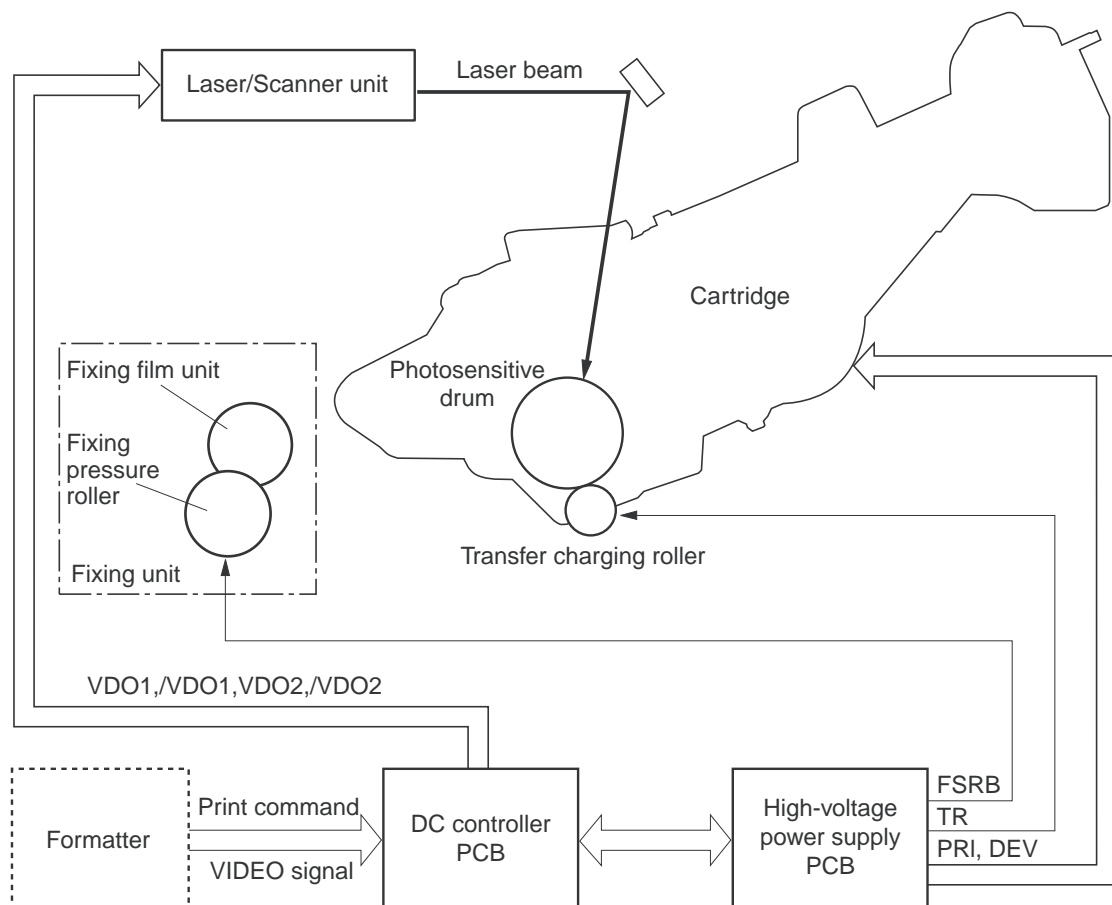
A pick-up delay jam can occur during operation. The printer makes three attempts to pick up media from a tray. When the top-of-page sensor (SR5) does not detect the leading edge of a page within 4.5 seconds after the third attempt, the printing operation stops.

## 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 one print cartridge that contains the toner that is used to create the image on the media.

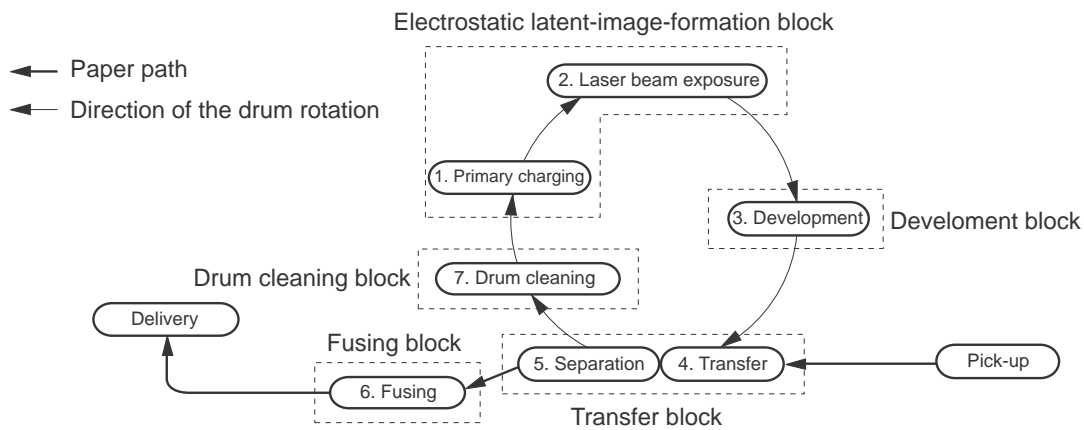


**Figure 4-8** Image-formation system

## Image-formation process

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

1. Latent-image formation
2. Developing
3. Image transfer
4. Fusing



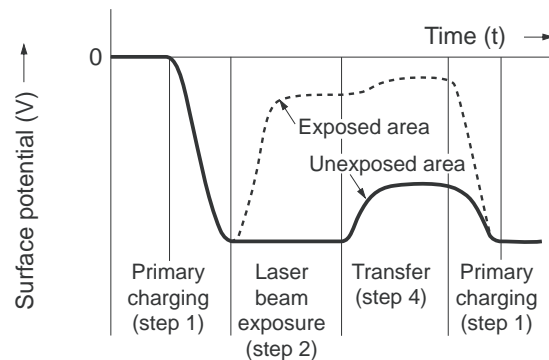
**Figure 4-9** Image-formation process

## Latent-image formation block

During the two steps that comprise this block, a negative charge is applied to the photosensitive drum to form a latent image, which is invisible.

### Step 1: primary charging

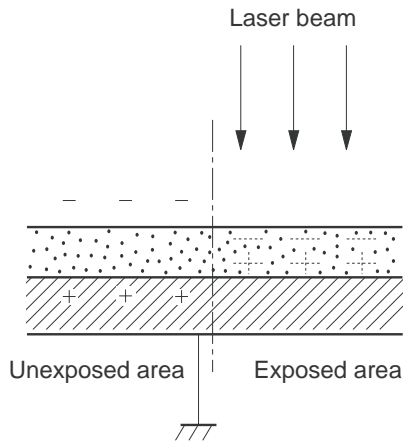
A high-voltage DC bias is applied to the primary charging roller, which is made of conductive rubber and is in contact with the drum surface. As the roller moves across the drum, it applies the negative charge.



**Figure 4-10** Primary charging

## Step 2: 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 forms where the negative charge was neutralized.



**Figure 4-11** Laser-beam exposure

## Development block

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

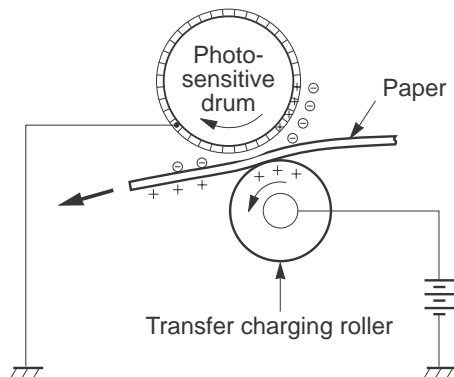
## Step 3: developing

Toner acquires a negative charge from the friction that occurs when the developing cylinder rotates against the developing blade. When the negatively charged toner comes in contact with the drum, it adheres to the electrostatic latent image, which becomes visible.

## Transfer block

## Step 4: image transfer

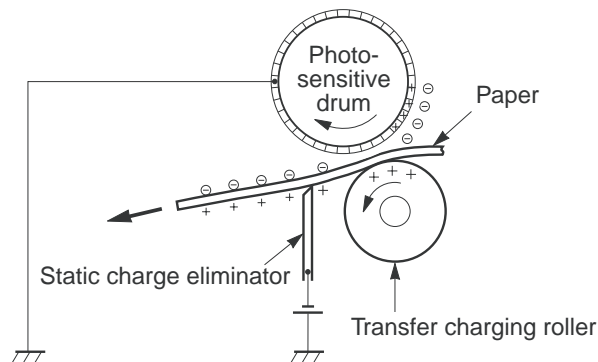
The positively charged media is transferred over the photosensitive drum. As the media passes between the transfer roller and the drum, the transfer roller applies a positively DC bias to the media. The positively charged media attracts the negatively charged toner from the drum surface.



**Figure 4-12** Image transfer

## Step 5: separation from the drum

The elasticity of the print media causes it to separate from the drum surface. The sheet continues travelling through the printer. The static charge eliminator reduces static discharge.



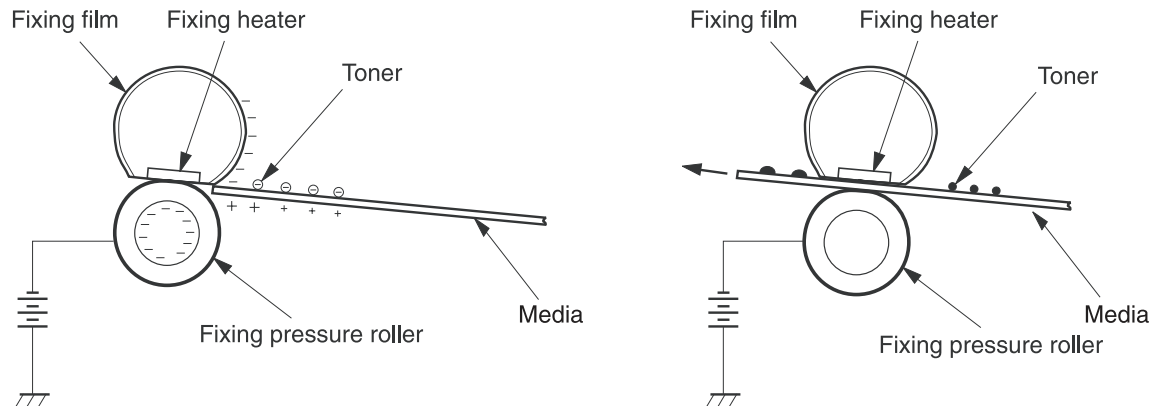
**Figure 4-13** Separation from the drum

## Fixing block

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 6: fusing

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



**Figure 4-14** Fusing

## Drum-cleaning block

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

## Step 7: drum cleaning

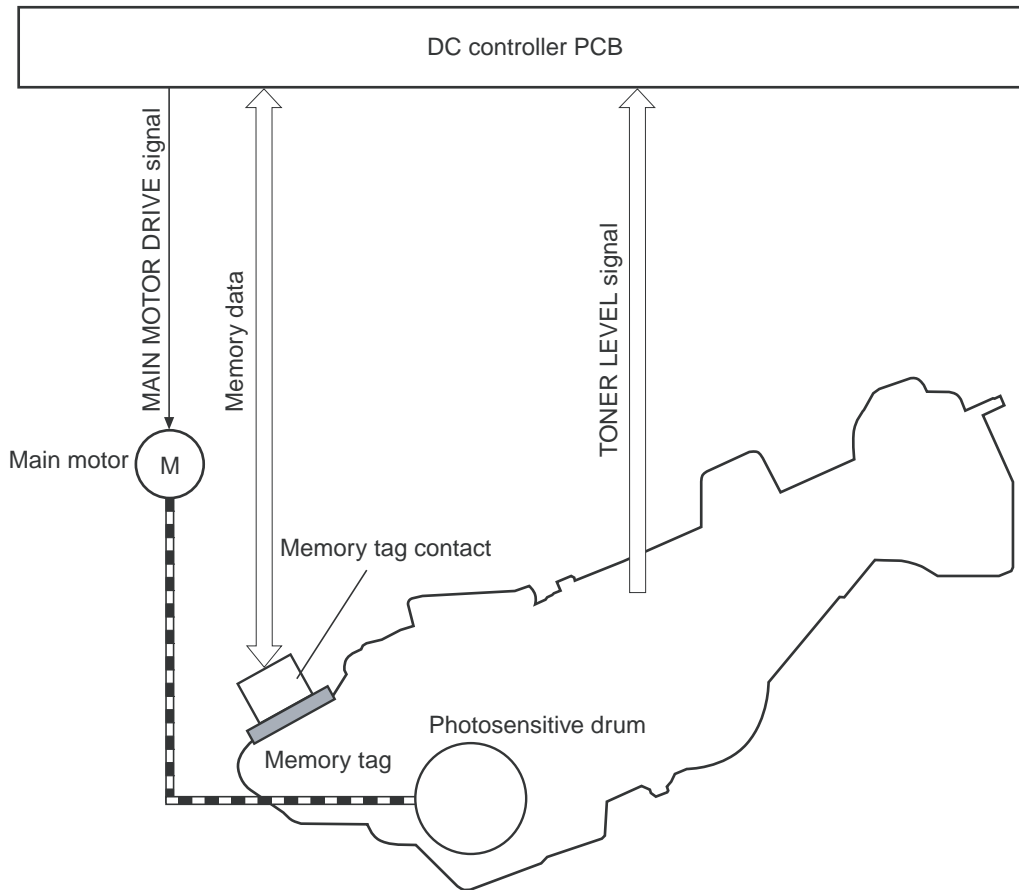
The cleaning blade scrapes the residual toner off the surface of the photosensitive drum and deposits it in the waste-toner container. The drum is now clear, and is ready for the next image-formation process.

## Print cartridge

This printer has one print cartridge that holds magnetic, single-component toner. In addition to the toner, the cartridge contains a developing cylinder, toner-feed roller, and stirrer. The developer motor rotates these parts so that the print cartridge can deposit toner to form a visible image on the photosensitive drum.

The print cartridge in this printer includes the photosensitive drum, the primary charging roller, and the developing roller. The cartridge performs these functions:

- Memory-tag control
- Developing-roller engagement and disengagement control



**Figure 4-15** Print cartridge

## 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.



# 5 Removal and replacement

- [Removal and replacement strategy](#)
- [Customer self-repair parts](#)
- [External doors, covers, and panels](#)
- [Internal assemblies](#)
- [Printed circuit assemblies \(PCAs\)](#)
- [Duplexer](#)
- [500-sheet feeder](#)

# 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. 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.

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.

---

## Required tools

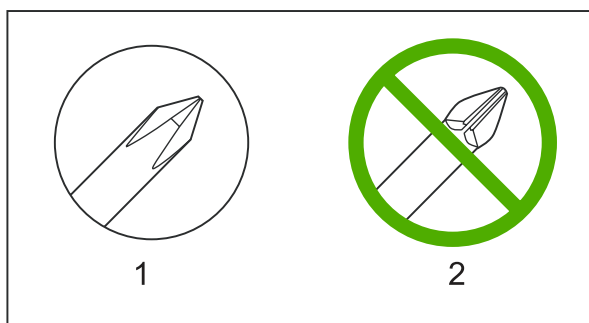
- #2 Phillips screwdriver with a magnetic tip and a 152-mm (6-inch) shaft length
- Small flatblade screwdriver
- Needle-nose pliers
- ESD strap (if one is available)
- Penlight



---

**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.




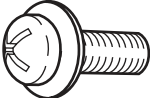
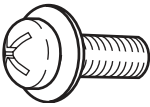
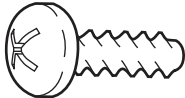
---



**Figure 5-1** Screwdrivers

**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.

## 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	M3X6	XA9-1503-000CN	
	Screw	M3X8	XA9-1686-000CN	
	Screw	P-M3X8	XB4-5300-807CN	
	Screw, tapping, truss head	M4X10	XB4-7401-005CN	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:

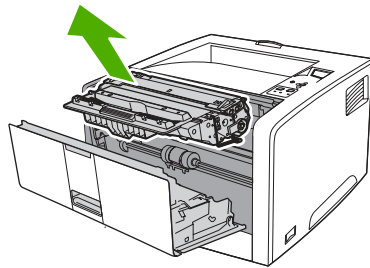
1. Isolate the problem to the major system (for example, the network or server, or the printer).
2. Troubleshoot the problem by using the procedures in chapter 6.

After you locate a faulty part, the printer can usually be repaired at the assembly level by replacing 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 assemblies.

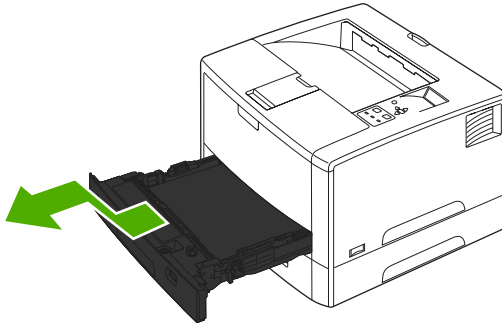
## Before performing service

**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 and damage to the device can result.* The power must be on for certain functional checks during troubleshooting. However, the power supply should be disconnected during parts removal.

1. Remove all media.
2. Place the product on an ESD mat (if available).
3. Remove the print cartridge.



4. Remove tray 2.

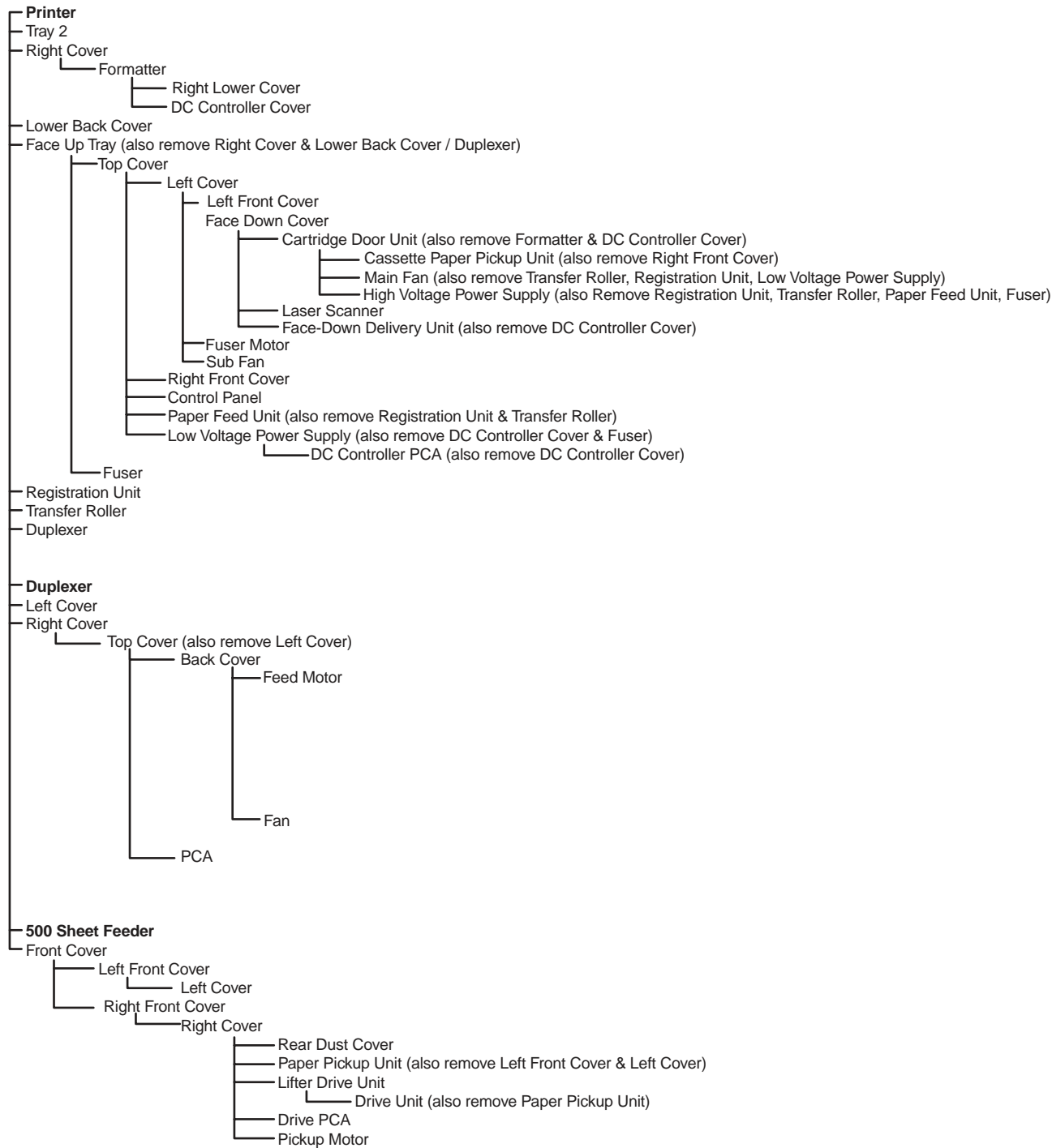


## After performing service

- Return all media to the trays.
- Plug in the power cable and turn on the printer.
- Reinstall the print cartridge.
- Reinstall tray 2.

## Parts removal order

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



**Figure 5-2** Parts removal order

## Customer self-repair parts

The user replaces print cartridges as they are depleted. Chapter 3 explains when to replace these supplies and provides instructions about replacing them. Additional instructions on other user-replaceable parts are provided in this section.

The printer tracks the amount of use on the customer-replaceable supplies by keeping a page count.

Swapping supplies between printers might cause a misrepresentation of supply life values and is not recommended.

### Tray 1 pickup roller

1. Open tray 1 (callout 1).



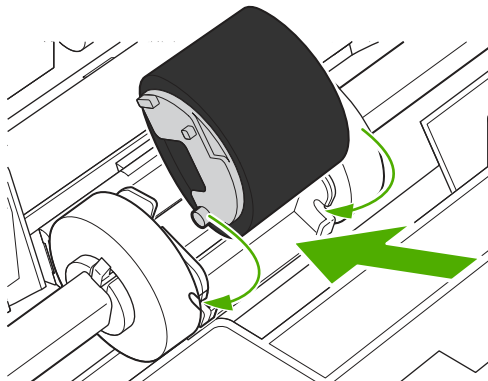
**Figure 5-3** Removing the tray 1 pickup roller (1 of 3)

2. Push out the two black tabs (callout 2) and remove the tray 1 pickup roller.



**Figure 5-4** Removing the tray 1 pickup roller (2 of 3)

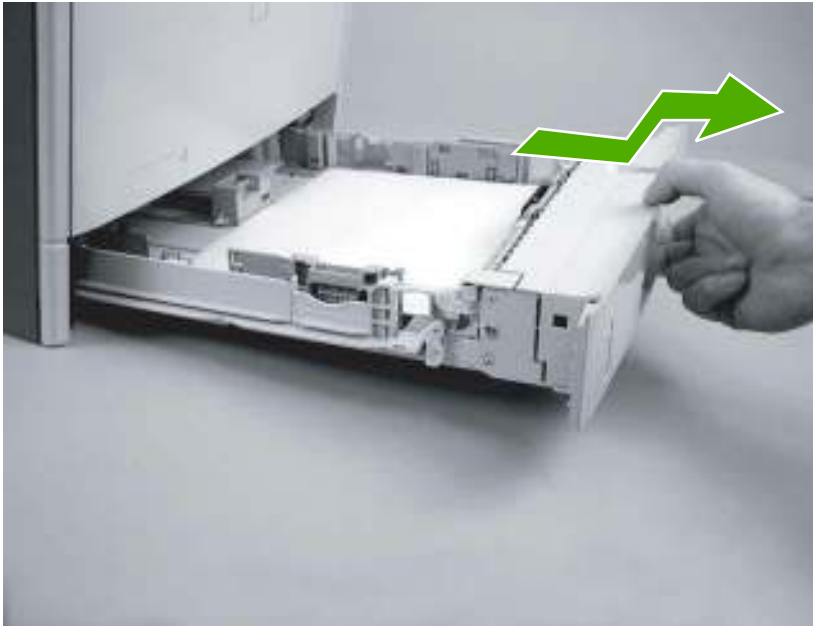
3. Insert the new tray 1 pickup roller.



**Figure 5-5** Removing the tray 1 pickup roller (3 of 3)

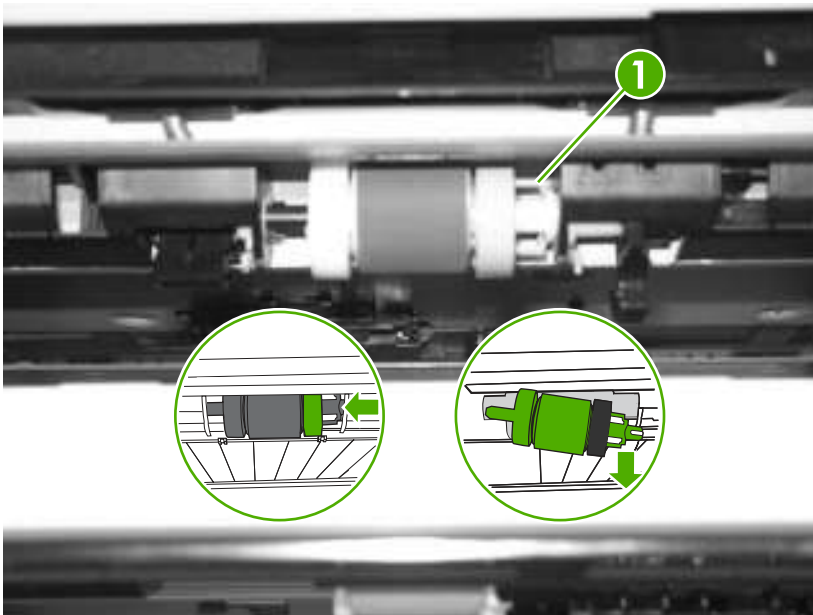
## Tray 2 pickup roller

1. Remove tray 2.



**Figure 5-6** Removing the tray 2 pickup roller (1 of 2)

2. From the front of the printer, look up inside the printer to identify the roller.
3. Squeeze the two blue tabs (callout 1) together, push to the left, and pull the roller down to remove it.

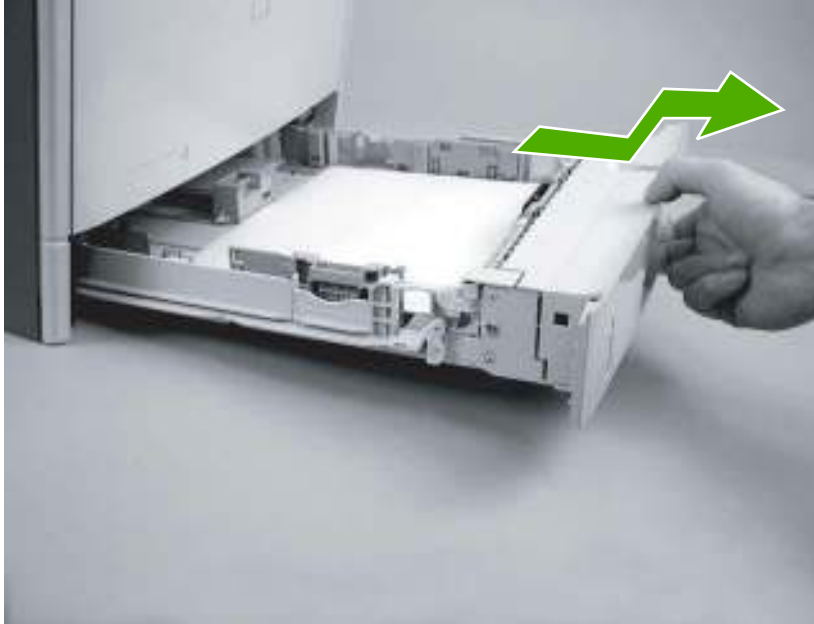


**Figure 5-7** Removing the tray 2 pickup roller (2 of 2)



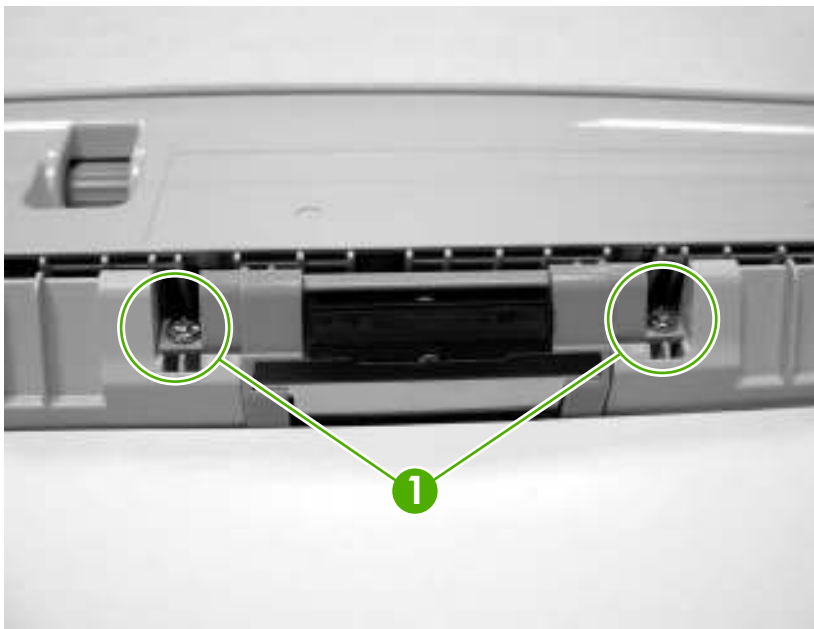
## Tray 2 separation pad

1. Remove tray 2.



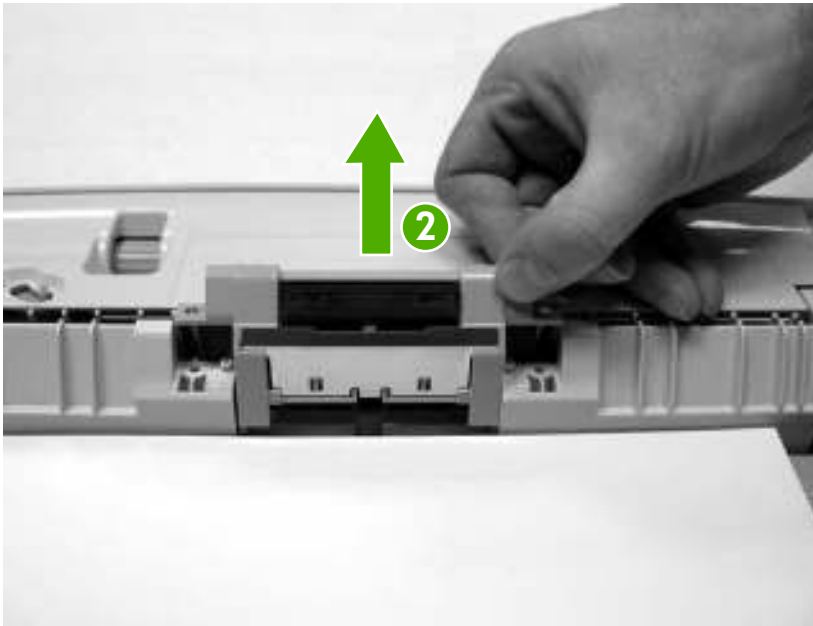
**Figure 5-8** Removing the tray 2 separation pad (1 of 3)

2. Remove two screws (callout 1).



**Figure 5-9** Removing the tray 2 separation pad (2 of 3)

3. Lift up the separation pad (callout 2) to remove it.



**Figure 5-10** Removing the tray 2 separation pad (3 of 3)

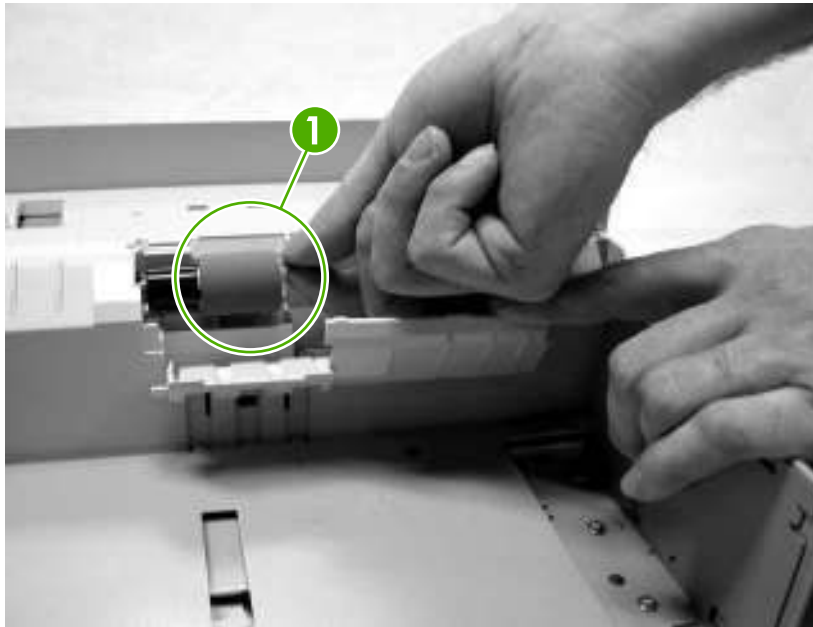
### Tray 3 retard roller

1. Remove tray 3.



**Figure 5-11** Removing the tray 3 retard roller (1 of 2)

2. Remove the tray 3 retard roller (callout 1).



**Figure 5-12** Removing the tray 3 retard roller (2 of 2)

3. Insert the new tray 3 retard roller.

## Tray 3 pickup and feed rollers

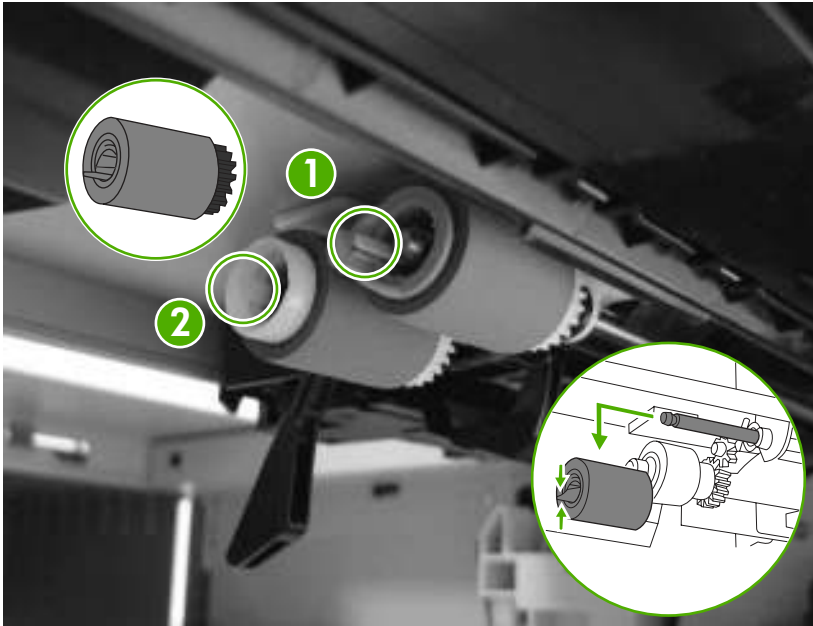
1. Remove tray 3.



**Figure 5-13** Removing the tray 3 pickup and feed rollers (1 of 2)

2. From the front of the printer, look up inside the printer to identify two rollers.
3. Remove the blue pickup roller by squeezing the left side of the roller tab (callout 1) and slide it to the left to remove the pickup roller.

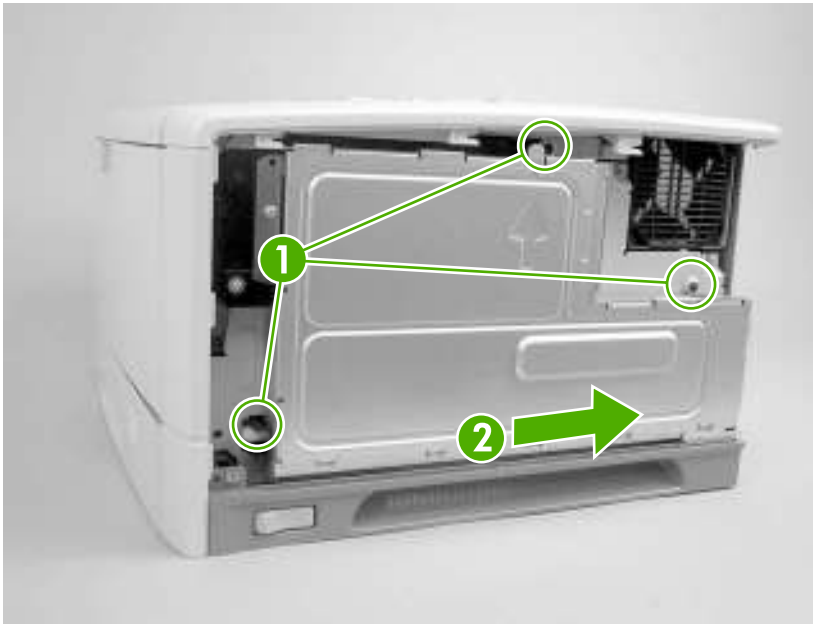
4. To remove the feed roller (callout 2), pinch the white tab and slide the feed roller to the left to remove it.



**Figure 5-14** Removing the tray 3 pickup and feed rollers (2 of 2)

## Formatter

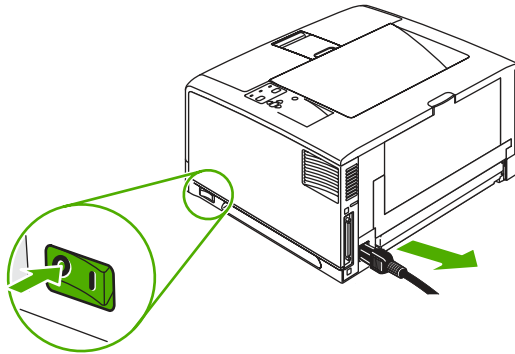
1. Remove the right cover. See [Right cover on page 86](#).
2. Remove three screws (callout 1).
3. Slide the formatter (callout 2) toward the back of the printer and remove it.



**Figure 5-15** Removing the formatter

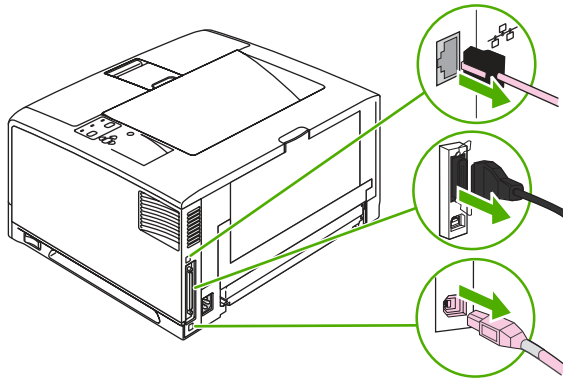
## CompactFlash cards

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



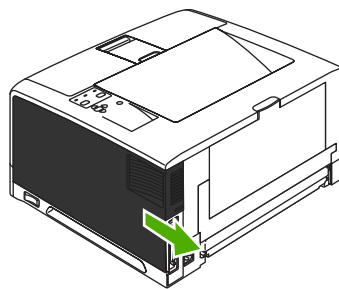
**Figure 5-16** Removing the CompactFlash cards (1 of 10)

2. Disconnect all interface cables.



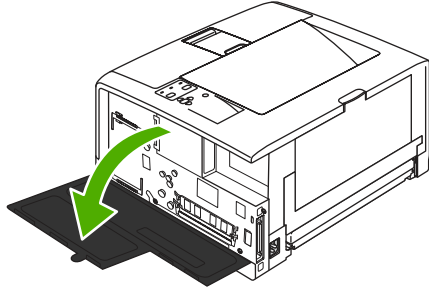
**Figure 5-17** Removing the CompactFlash cards (2 of 10)

3. Remove the right side panel by sliding it toward the rear of the printer until the side slides from the printer.



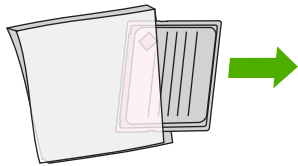
**Figure 5-18** Removing the CompactFlash cards (3 of 10)

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



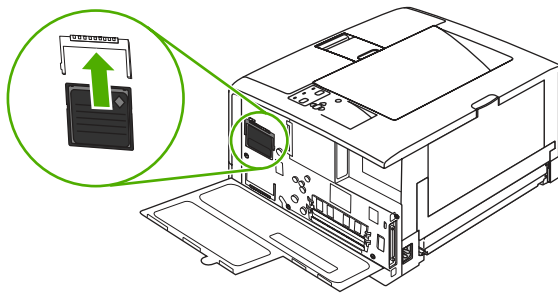
**Figure 5-19** Removing the CompactFlash cards (4 of 10)

5. Remove the new CompactFlash card from its package.



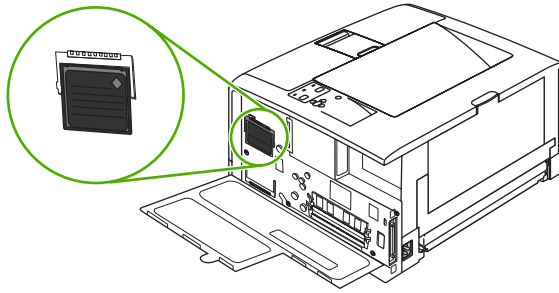
**Figure 5-20** Removing the CompactFlash cards (5 of 10)

6. Hold the CompactFlash card by its edges and line up the grooves in the side of the card with the tabs in the CompactFlash card slot.



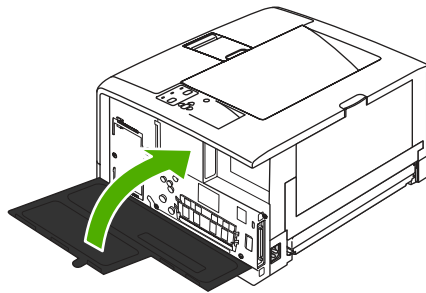
**Figure 5-21** Removing the CompactFlash cards (6 of 10)

7. Slide the CompactFlash card into place.



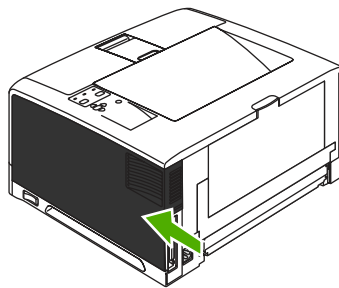
**Figure 5-22** Removing the CompactFlash cards (7 of 10)

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



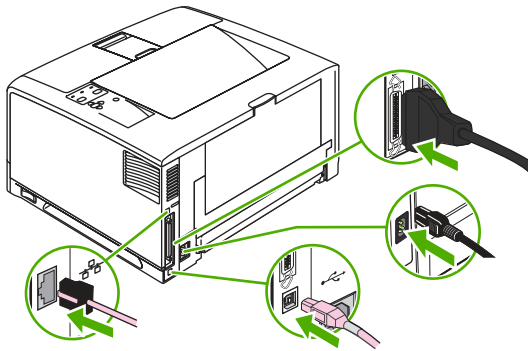
**Figure 5-23** Removing the CompactFlash cards (8 of 10)

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



**Figure 5-24** Removing the CompactFlash cards (9 of 10)

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

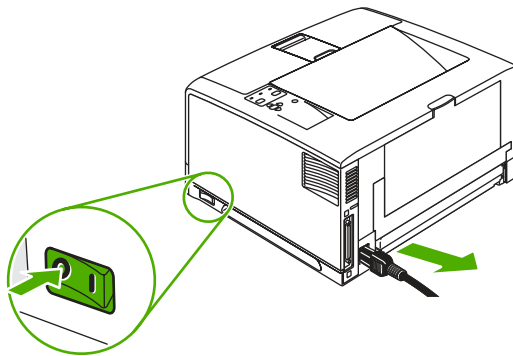


**Figure 5-25** Removing the CompactFlash cards (10 of 10)

Use Device Storage Manager in HP Web Jetadmin to manage fonts. For more information, see the Help in HP Web Jetadmin.

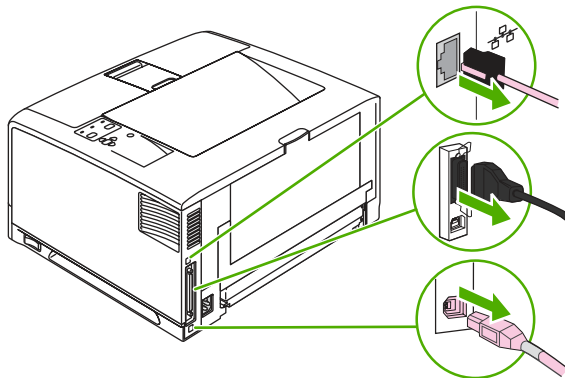
## DIMMs

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



**Figure 5-26** Removing the DIMMs (1 of 12)

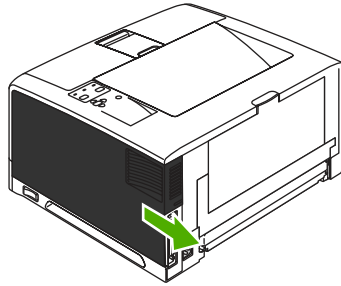
2. Disconnect all interface cables.



**Figure 5-27** Removing the DIMMs (2 of 12)

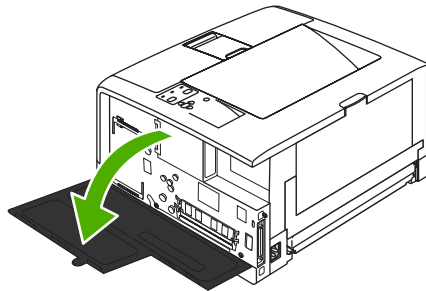


3. Remove the right side panel by sliding it toward the rear of the printer until the side slides from the printer.



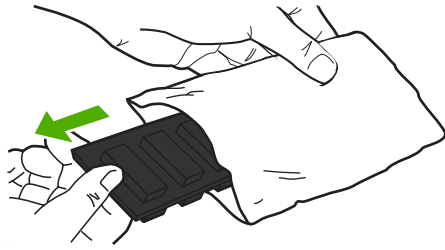
**Figure 5-28** Removing the DIMMs (3 of 12)

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



**Figure 5-29** Removing the DIMMs (4 of 12)

5. Remove the DIMM from the antistatic package.

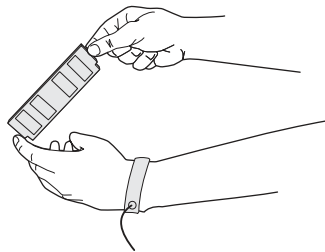


**Figure 5-30** Removing the DIMMs (5 of 12)

---

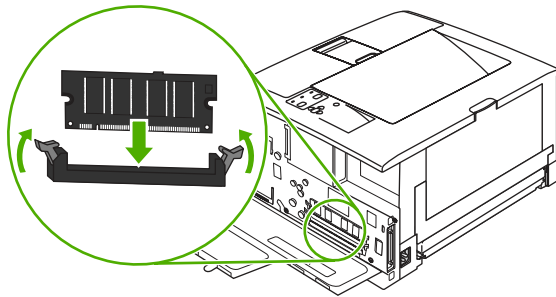
**CAUTION** To reduce the possibility of damage caused by static electricity, always wear an electrostatic discharge (ESD) wrist strap or touch the surface of the antistatic package before handling DIMMs.

---



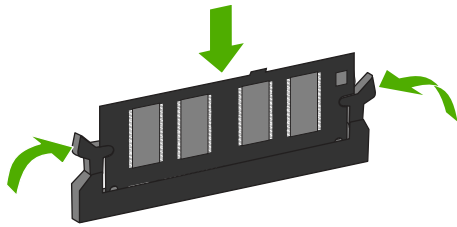
**Figure 5-31** Removing the DIMMs (6 of 12)

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



**Figure 5-32** Removing the DIMMs (7 of 12)

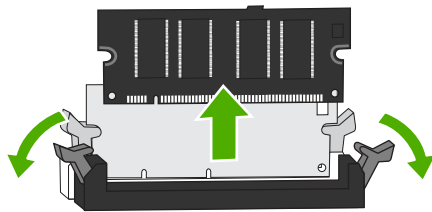
7. Press the DIMM straight into the slot, and press firmly. Make sure the locks on each side of the DIMM snap into place.



**Figure 5-33** Removing the DIMMs (8 of 12)

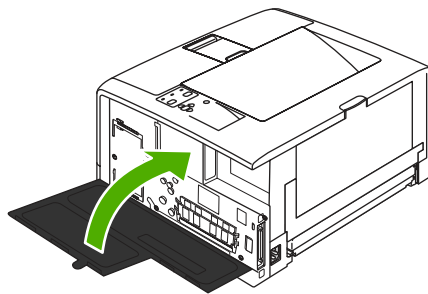


**NOTE** To remove a DIMM, first release the locks.



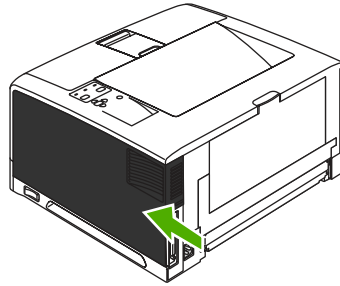
**Figure 5-34** Removing the DIMMs (9 of 12)

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



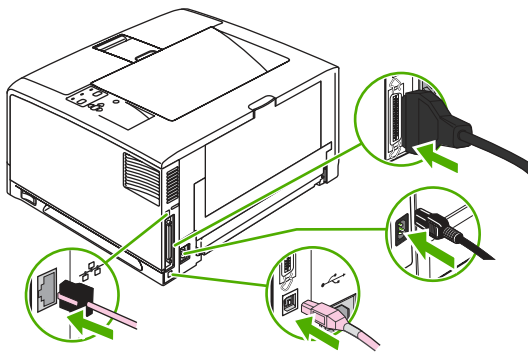
**Figure 5-35** Removing the DIMMs (10 of 12)

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



**Figure 5-36** Removing the DIMMs (11 of 12)

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



**Figure 5-37** Removing the DIMMs (12 of 12)

11. Turn the printer on.

## Control-panel overlay

Some printer models are shipped without the control-panel overlay installed or you want to use a different label. Use this procedure to install a control-panel overlay for a language other than English.

1. Remove the backing from the adhesive side of the label.
2. Position the new label over the top of the control panel.

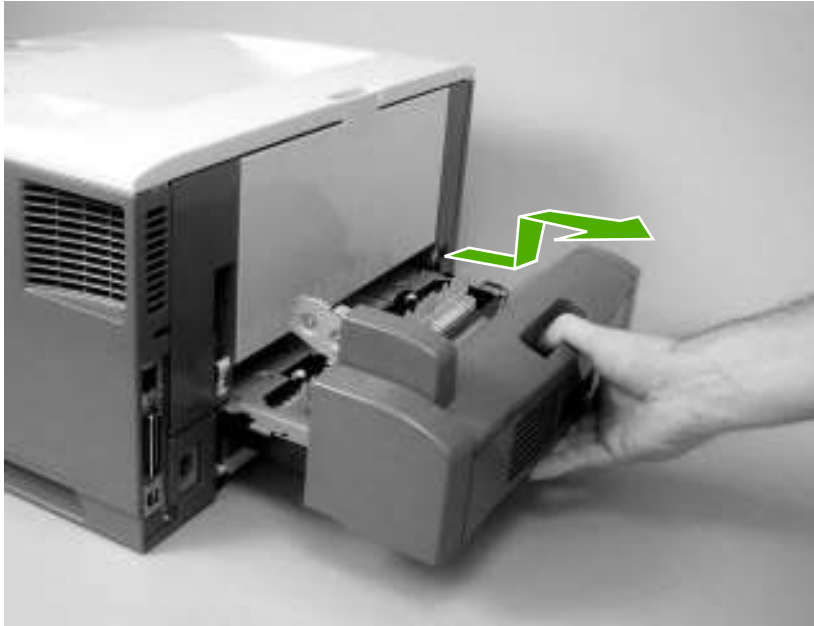
## Duplexer



**NOTE** A minimum of an additional 64 MB is needed when adding a duplexer to the printer.

1. At the back of the printer, pull out the duplexer until it stops.

2. Lift up the duplexer and slightly pull it toward you to remove it.



**Figure 5-38** Removing the duplexer

## External doors, covers, and panels

### Right cover

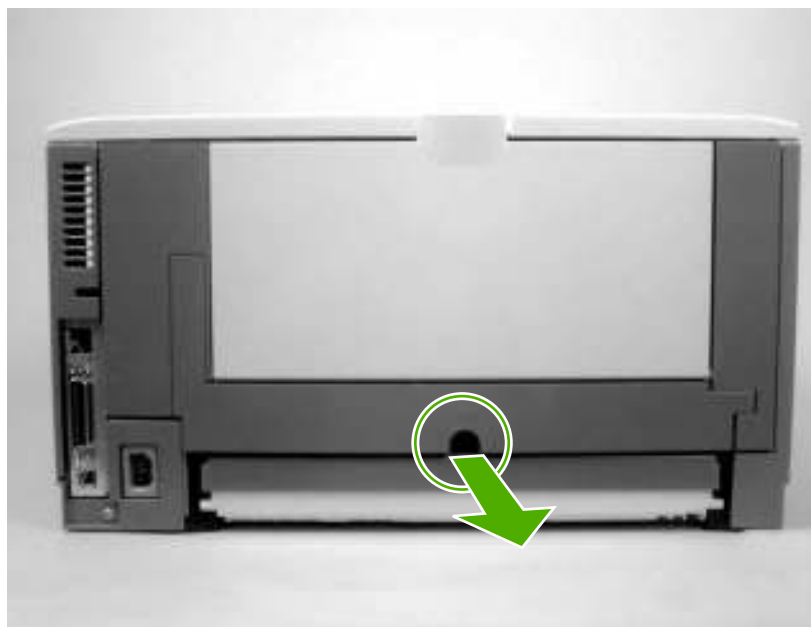
Slide the right cover toward the back of the printer and remove it.



**Figure 5-39** Removing the right cover

### Lower back cover

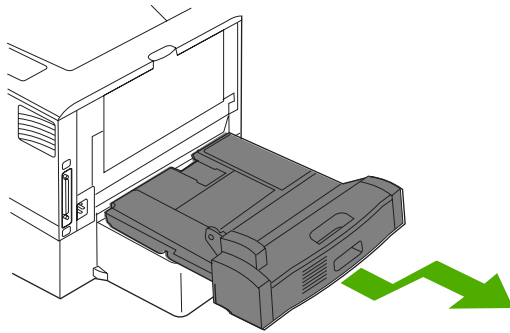
At the back of the printer, insert your finger into the hole and pull your finger toward you to remove the lower back cover.



**Figure 5-40** Removing the lower back cover

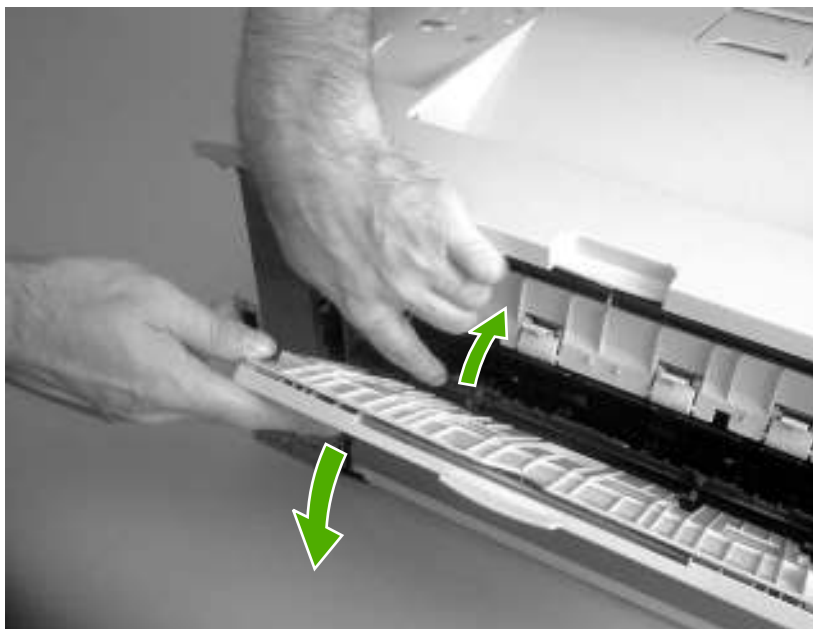
## Face-up bin

1. Remove the duplexer (if installed). See [Duplexer on page 84](#).



**Figure 5-41** Removing the face-up bin (1 of 4)

2. Open the face-up bin.
3. Release the fuser nip by pulling up on the black plastic section of the tray and pulling it toward the inside of the printer to release it.

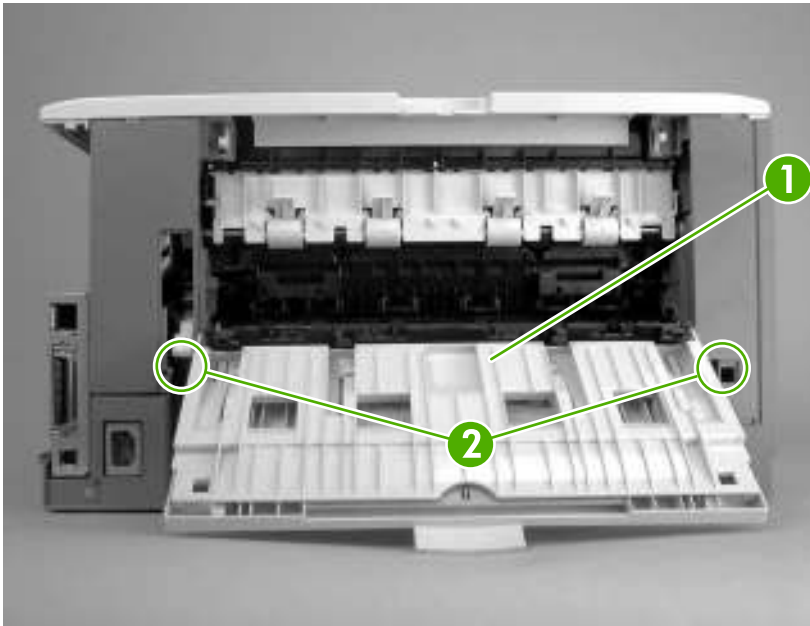


**Figure 5-42** Removing the face-up bin (2 of 4)

4. When the fuser nip is released, the face-up bin (callout 1) should release. Loosen two screws (callout 2) that are recessed in the printer.



**NOTE** The two screws will not come out.



**Figure 5-43** Removing the face-up bin (3 of 4)

5. Close the face-up bin.
6. Gently pull the bottom of the face-up bin out, and then pull it up to remove it.

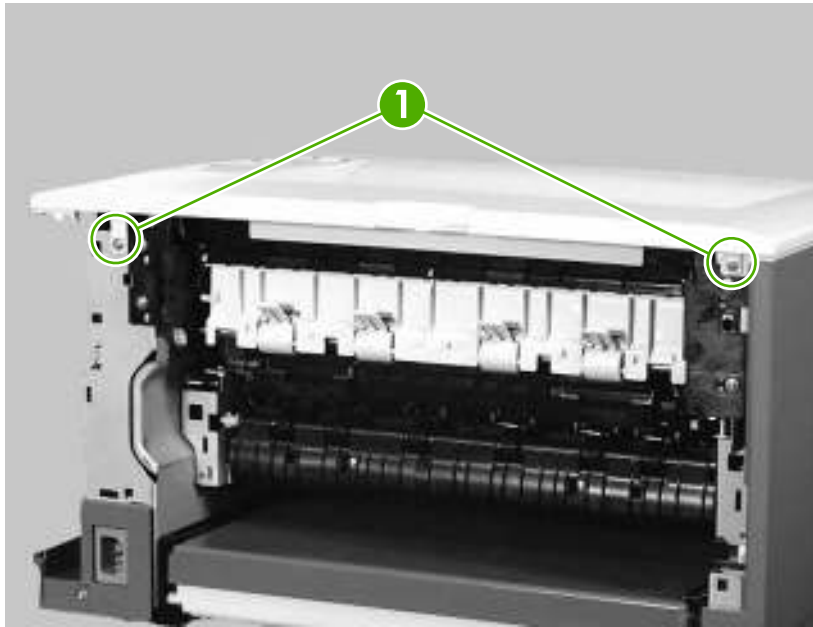


**Figure 5-44** Removing the face-up bin (4 of 4)



## Top cover

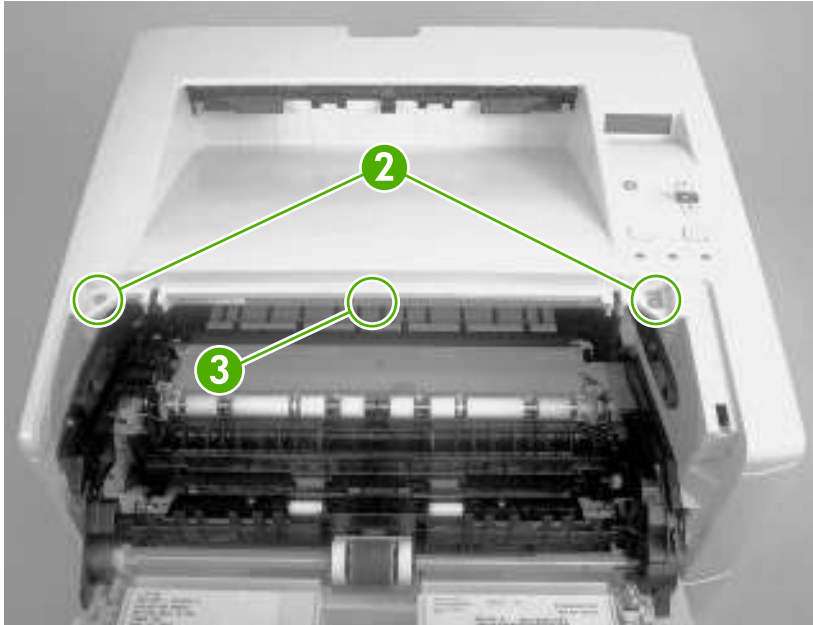
1. Remove the following components:
  - Right cover. See [Right cover on page 86](#).
  - Lower back cover or duplexer. See [Lower back cover on page 86](#) or [Duplexer on page 84](#).
  - Face-up bin. See [Face-up bin on page 87](#).
2. Remove two screws (callout 1).



**Figure 5-45** Removing the top cover (1 of 5)

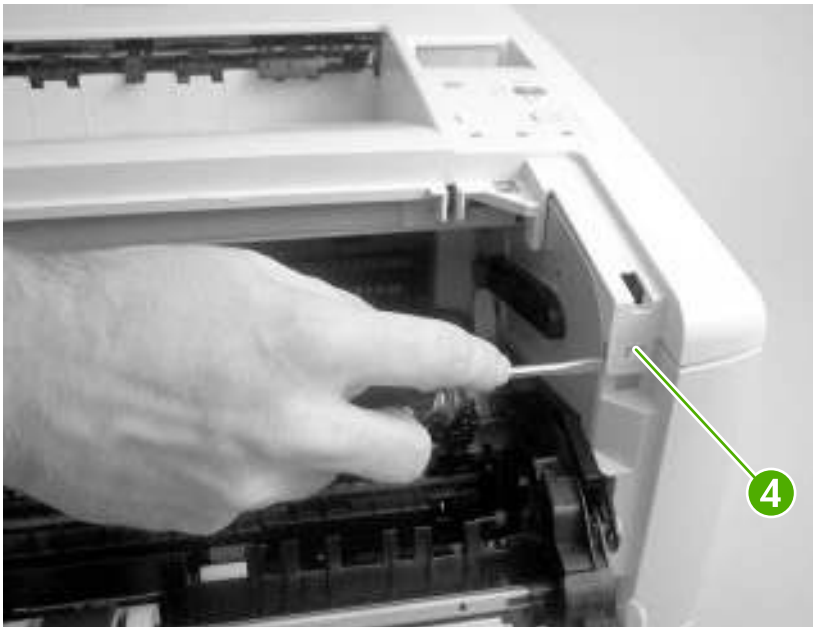
3. Open the print-cartridge door.

4. Remove two screws (callout 2) and release the tab (callout 3) in the center of the printer.



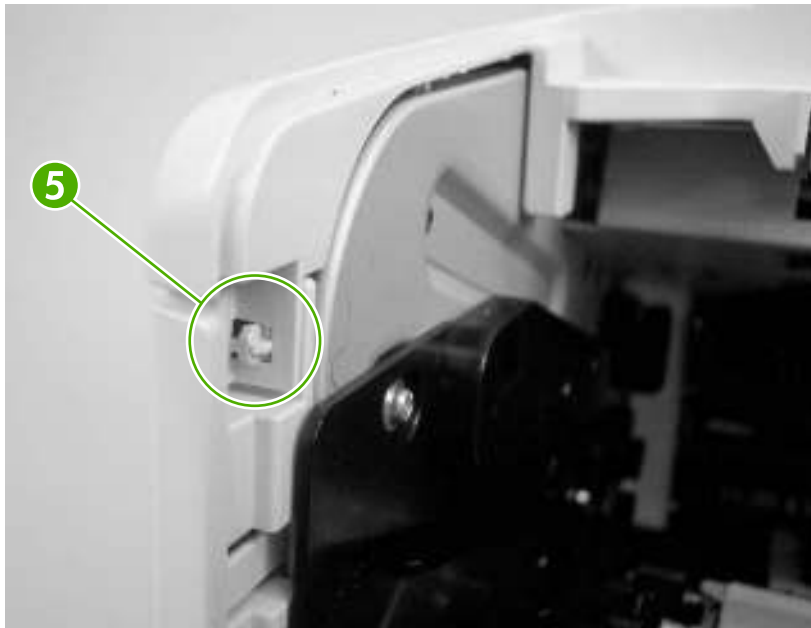
**Figure 5-46** Removing the top cover (2 of 5)

5. Unhook one claw (callout 4) on the right side of the printer.



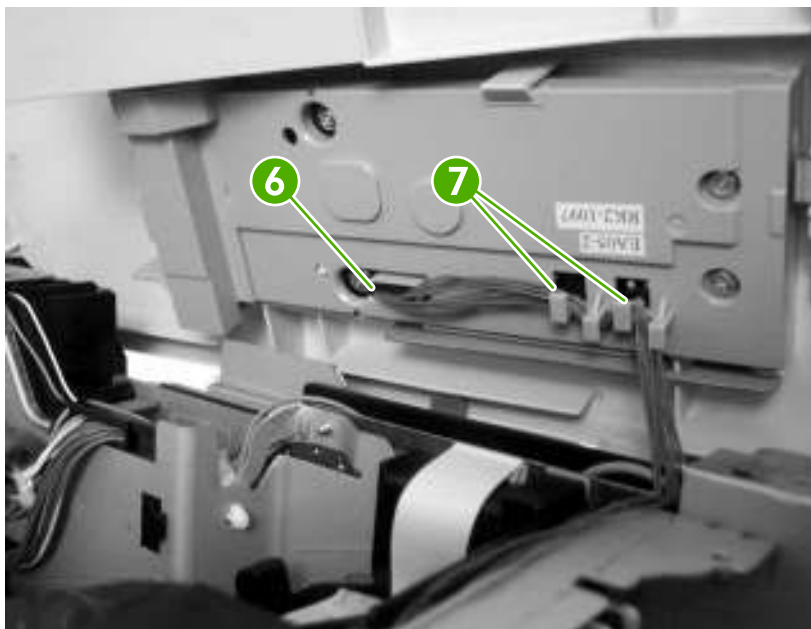
**Figure 5-47** Removing the top cover (3 of 5)

6. Hold up the top cover and release one alignment pin (callout 5) on the left side of the printer by pushing the pin to one side.



**Figure 5-48** Removing the top cover (4 of 5)

7. Gently lift up the left side of the top cover to disconnect one cable connector (callout 6) and release the cable from the guides (callout 7).



**Figure 5-49** Removing the top cover (5 of 5)

8. Remove the top cover.

## Left cover

1. Remove the following components:

- Right cover. See [Right cover on page 86](#).
- Lower back cover or duplexer. See [Lower back cover on page 86](#) or [Duplexer on page 84](#).
- Face-up bin. See [Face-up bin on page 87](#).
- Top cover. See [Top cover on page 89](#).

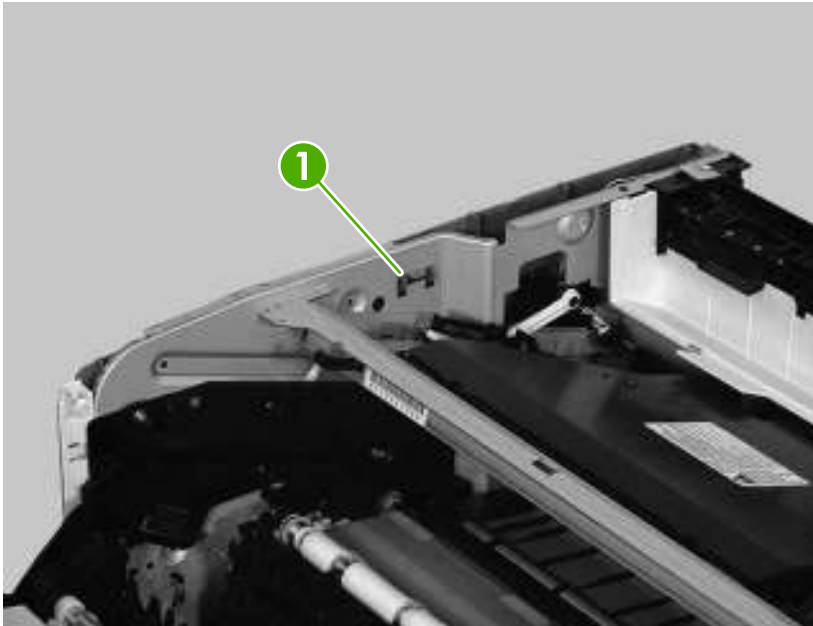


**NOTE** Remove tray 3 if one is installed.



**CAUTION** Unhook claws in the correct order.

2. Unhook one claw (callout 1).

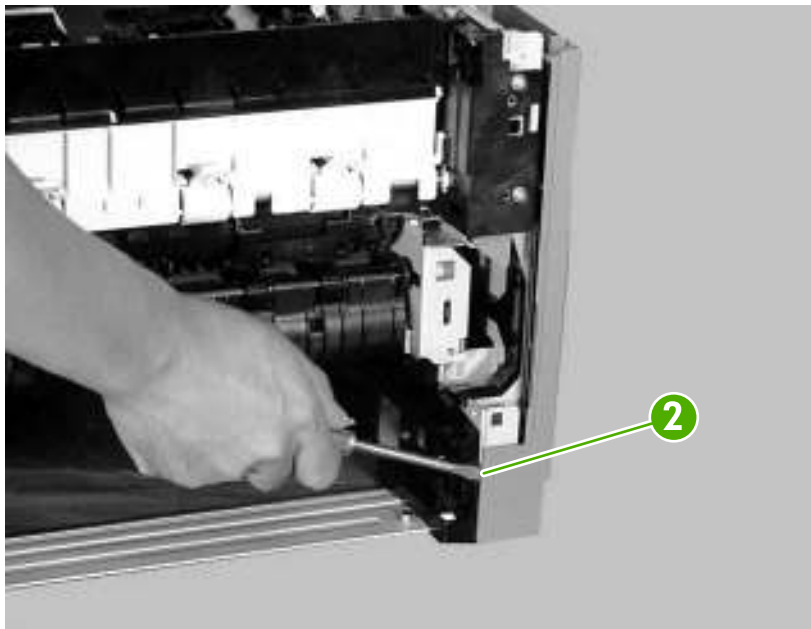


**Figure 5-50** Removing the left cover (1 of 5)

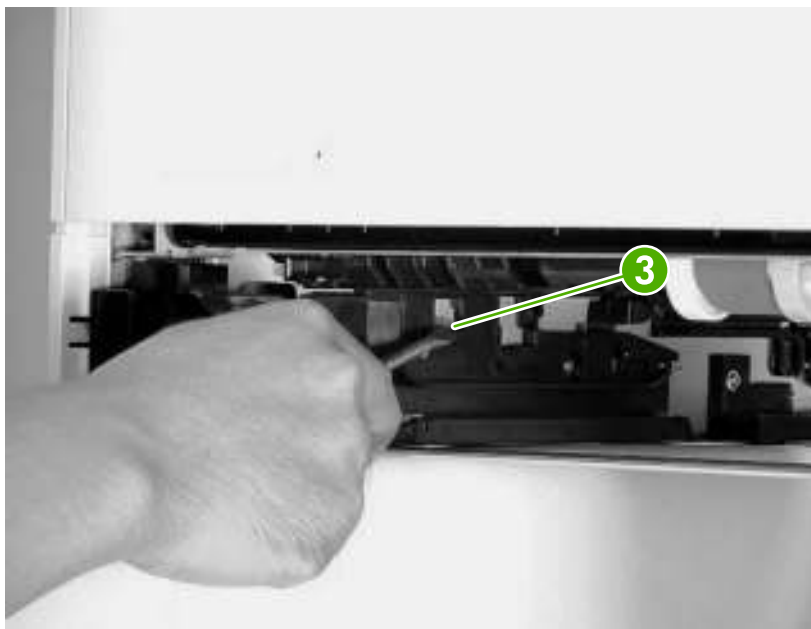
3. Unhook two more claws in the order shown in the following photos.



**NOTE** The tab in callout 4 is located in the lower left rear of the printer where tray 2 is normally installed.

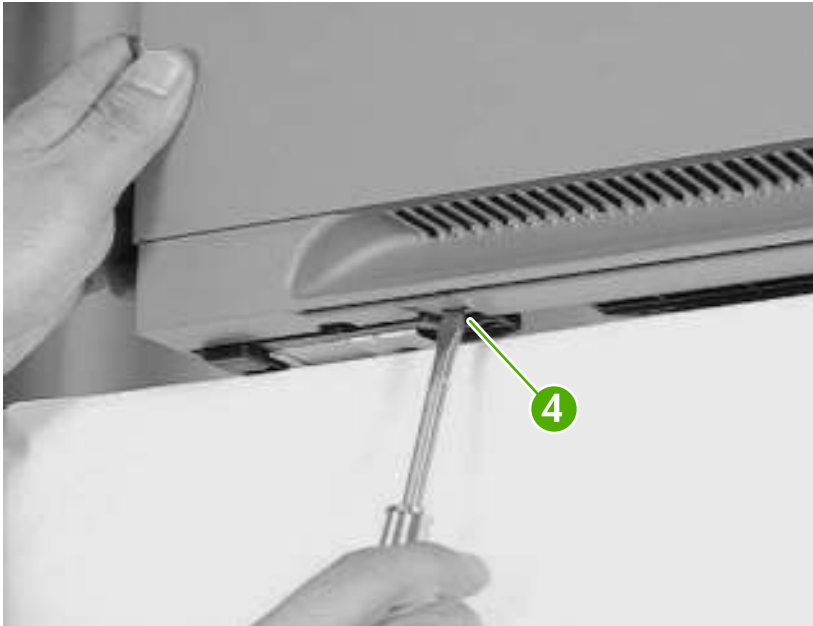


**Figure 5-51** Removing the left cover (2 of 5)

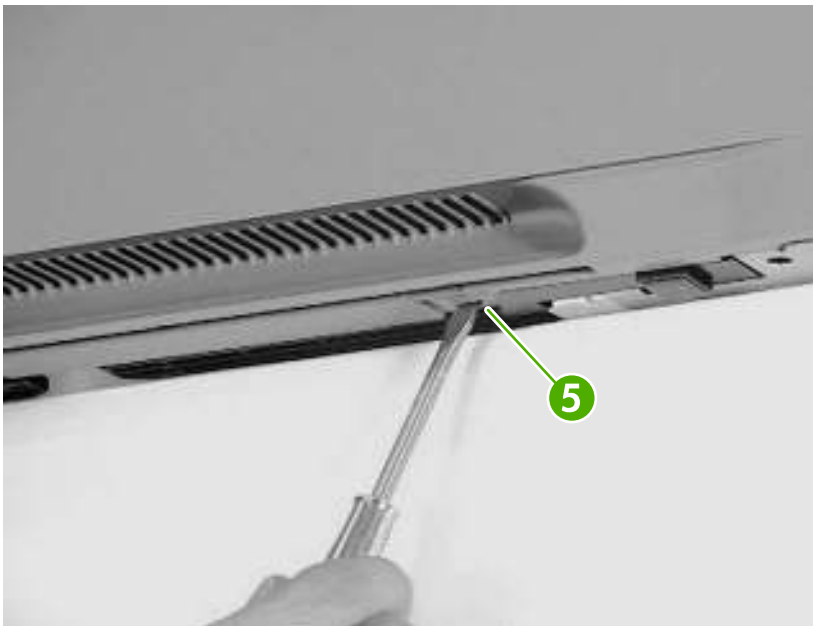


**Figure 5-52** Removing the left cover (3 of 5)

4. Move the printer to the edge of the table and release two claws in the order shown in the following photos.



**Figure 5-53** Removing the left cover (4 of 5)



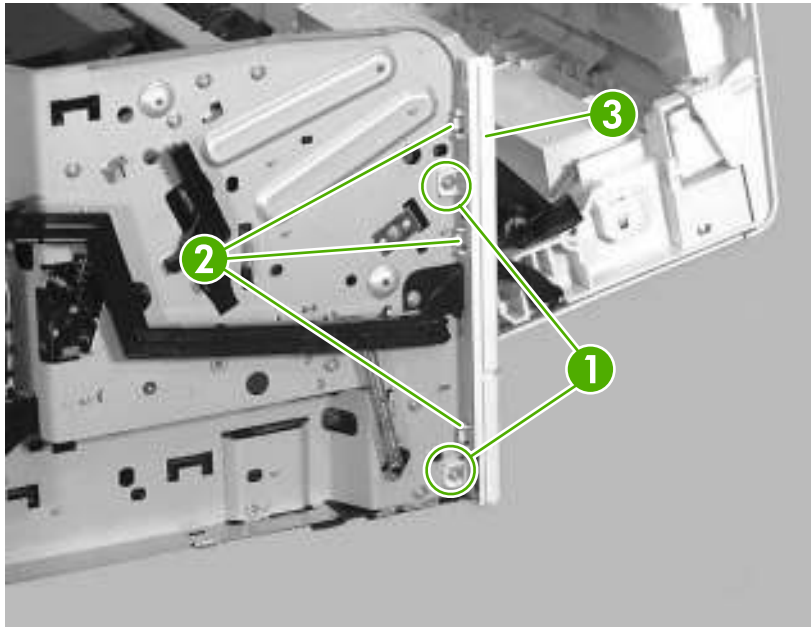
**Figure 5-54** Removing the left cover (5 of 5)

5. Remove the left cover.

## Left front cover

1. Remove the following components:
  - Right cover. See [Right cover on page 86](#).
  - Lower back cover or duplexer. See [Lower back cover on page 86](#) or [Duplexer on page 84](#).

- Face-up bin. See [Face-up bin on page 87](#).
  - Top cover. See [Top cover on page 89](#).
  - Left cover. See [Left cover on page 92](#).
2. Open the print-cartridge door.
  3. Remove two screws (callout 1) and release three tabs (callout 2).
  4. Remove the left front cover (callout 3).



**Figure 5-55** Removing the left front cover

## Face-down cover

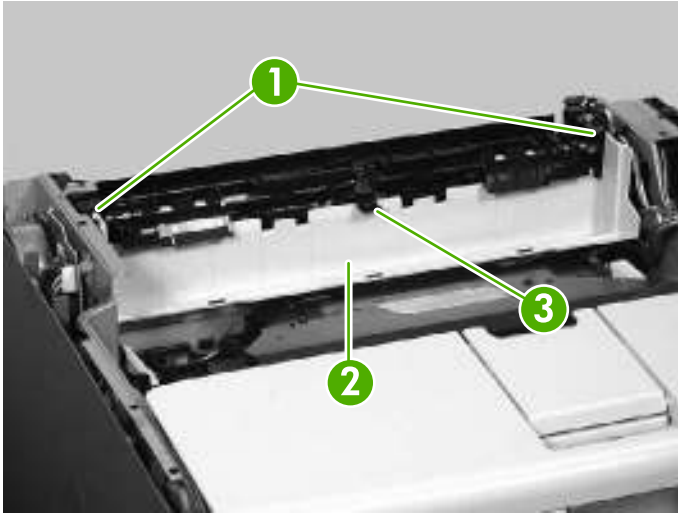
1. Remove the following components:
  - Right cover. See [Right cover on page 86](#).
  - Lower back cover or duplexer. See [Lower back cover on page 86](#) or [Duplexer on page 84](#).
  - Face-up bin. See [Face-up bin on page 87](#).
  - Top cover. See [Top cover on page 89](#).
2. Unhook two claws (callout 1).

3. Lift up the face-down cover (callout 2) and pull firmly to remove it.

---

**CAUTION** Make sure you do not damage the output delivery flag (callout 3).

---



**Figure 5-56** Removing the face-down cover

## Tray 2

Pull out the cassette tray and lift up to remove it.



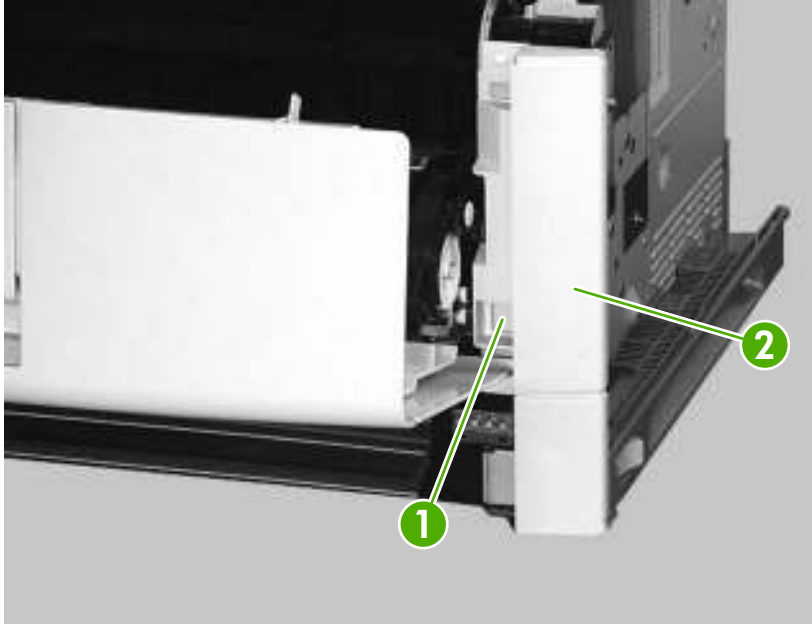
**Figure 5-57** Removing tray 2

## Right front cover

1. Remove the following components:
  - Right cover. See [Right cover on page 86](#).
  - Lower back cover or duplexer. See [Lower back cover on page 86](#) or [Duplexer on page 84](#).



- Face-up bin. See [Face-up bin on page 87](#).
  - Top cover. See [Top cover on page 89](#).
2. Open the print-cartridge door.
  3. Move the printer toward the edge of the table and release one tab (callout 1).
  4. Slide the right front cover down (callout 2) to remove it.

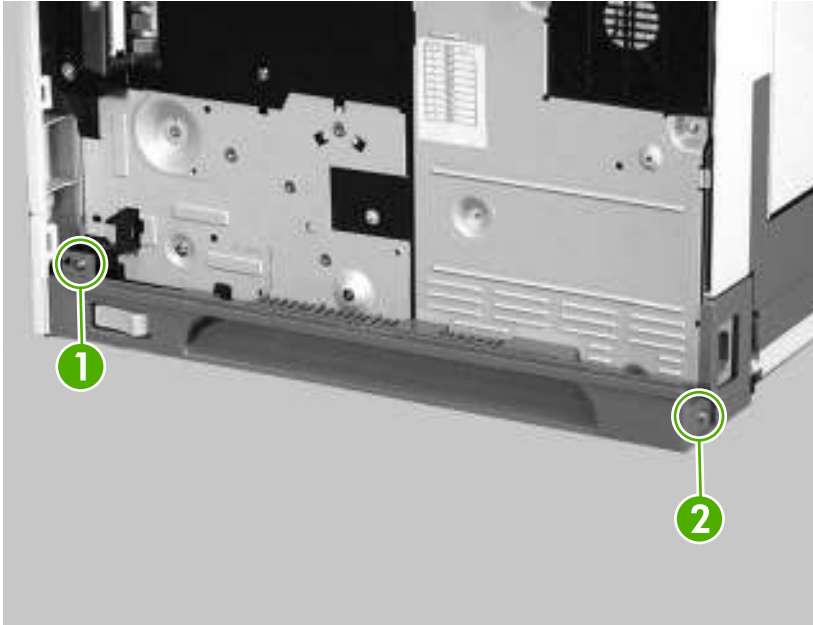


**Figure 5-58** Removing the right front cover

## Right lower cover

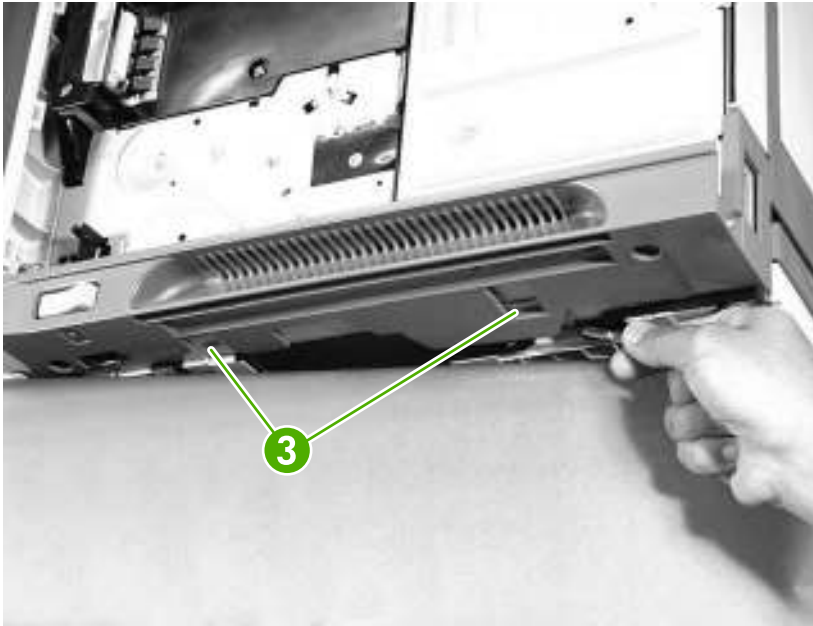
1. Remove the following components:
  - Right cover. See [Right cover on page 86](#).
  - Formatter. See [Formatter on page 76](#).

2. Remove one self-tapping screw (callout 1) and one other screw (callout 2).



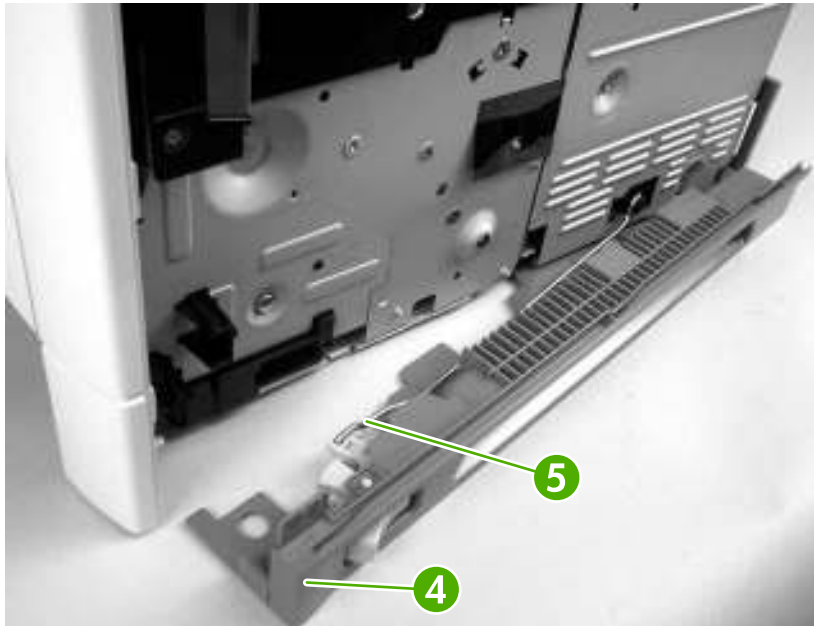
**Figure 5-59** Removing the right lower cover (1 of 4)

3. Move the printer toward the edge of the table and unhook two claws (callout 3) on the bottom of the printer.



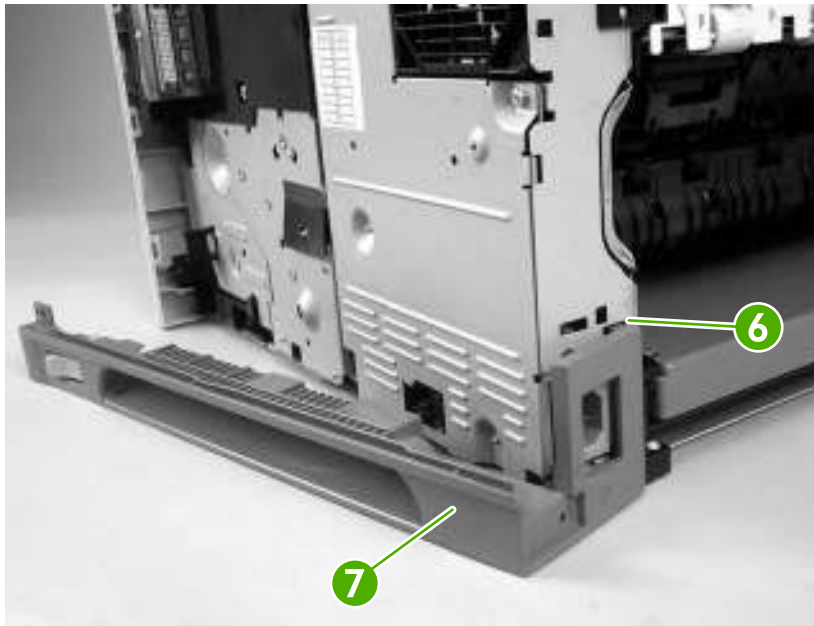
**Figure 5-60** Removing the right lower cover (2 of 4)

4. Pull the front of the right lower cover (callout 4) toward you. Lift up the power-switch rod (callout 5) and remove it.



**Figure 5-61** Removing the right lower cover (3 of 4)

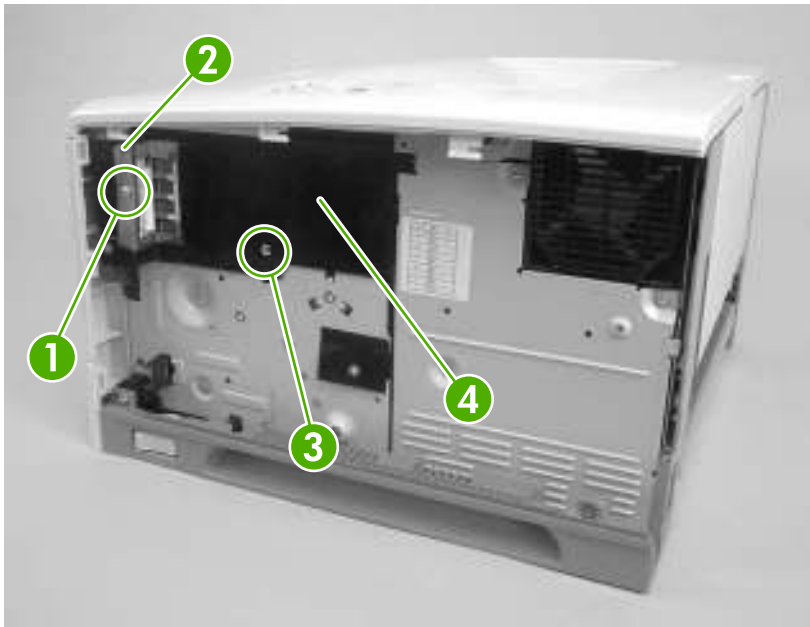
5. Unhook one claw (callout 6) and remove the right lower cover (callout 7).



**Figure 5-62** Removing the right lower cover (4 of 4)

## DC controller cover

1. Remove the following components:
  - Right cover. See [Right cover on page 86](#).
  - Formatter. See [Formatter on page 76](#).
2. Remove one screw (callout 1) and one grounding plate (callout 2).
3. Remove one screw (callout 3) and the DC controller cover (callout 4).

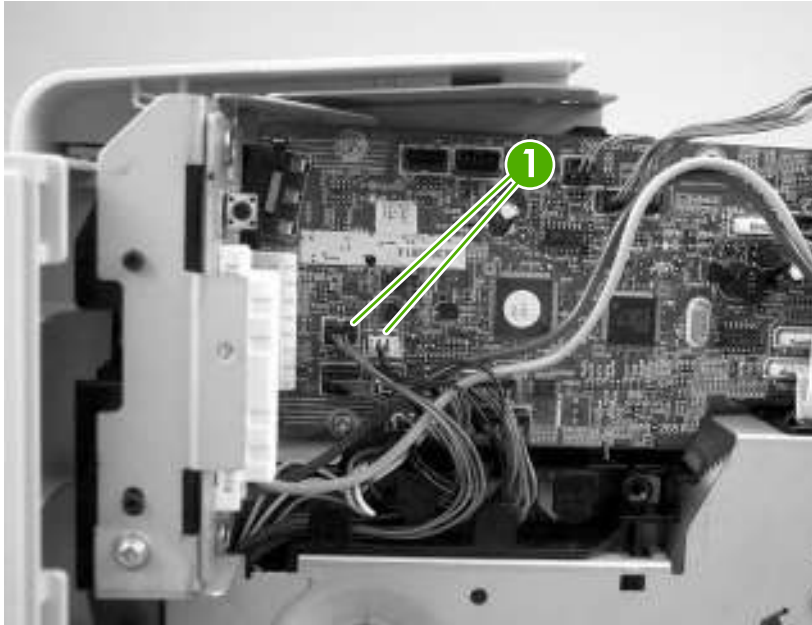


**Figure 5-63** Removing the DC controller cover

## Cartridge door unit

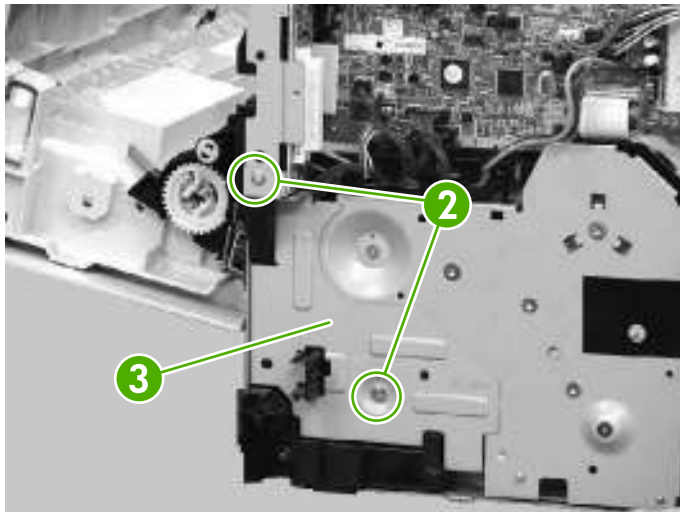
1. Remove the following components:
  - Right cover. See [Right cover on page 86](#).
  - Formatter. See [Formatter on page 76](#).
  - Lower back cover or duplexer. See [Lower back cover on page 86](#) or [Duplexer on page 84](#).
  - Face-up bin. See [Face-up bin on page 87](#).
  - Top cover. See [Top cover on page 89](#).
  - Left cover. See [Left cover on page 92](#).
  - Right lower cover. See [Right lower cover on page 97](#).
  - DC controller cover. See [DC controller cover on page 100](#).

2. Disconnect two connectors (callout 1) on the DC controller.



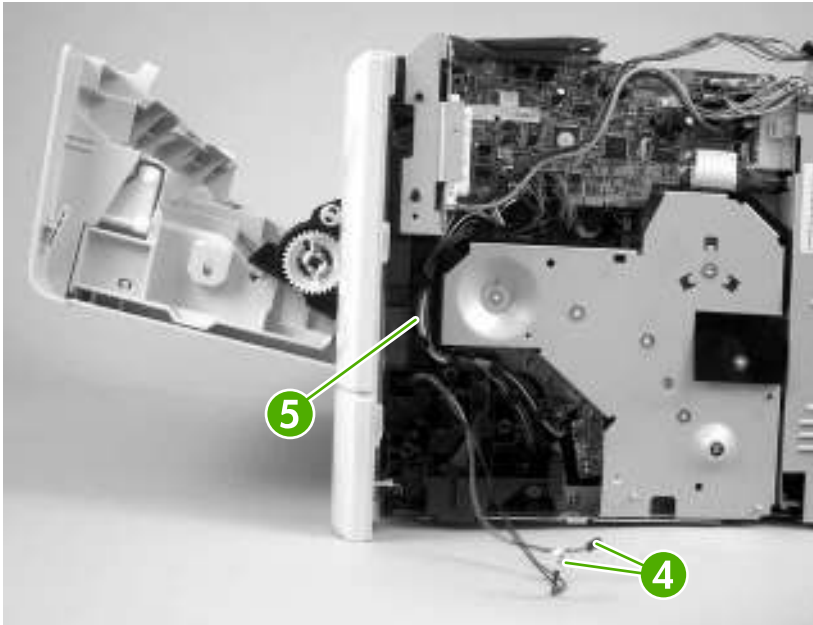
**Figure 5-64** Removing the cartridge door unit (1 of 14)

3. Open the cartridge door, remove two screws (callout 2), and remove the metal plate (callout 3).



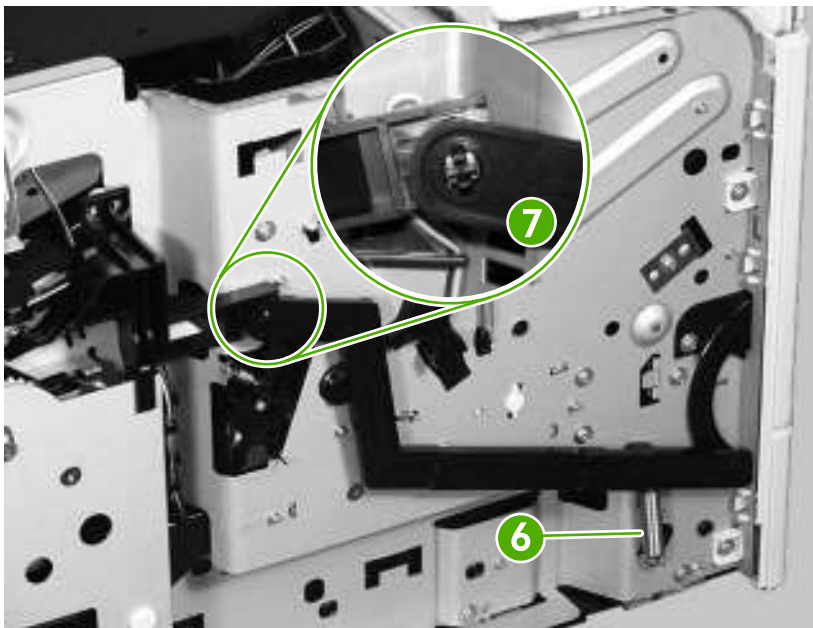
**Figure 5-65** Removing the cartridge door unit (2 of 14)

4. Release two cables (callout 4) from the cable guide (callout 5).



**Figure 5-66** Removing the cartridge door unit (3 of 14)

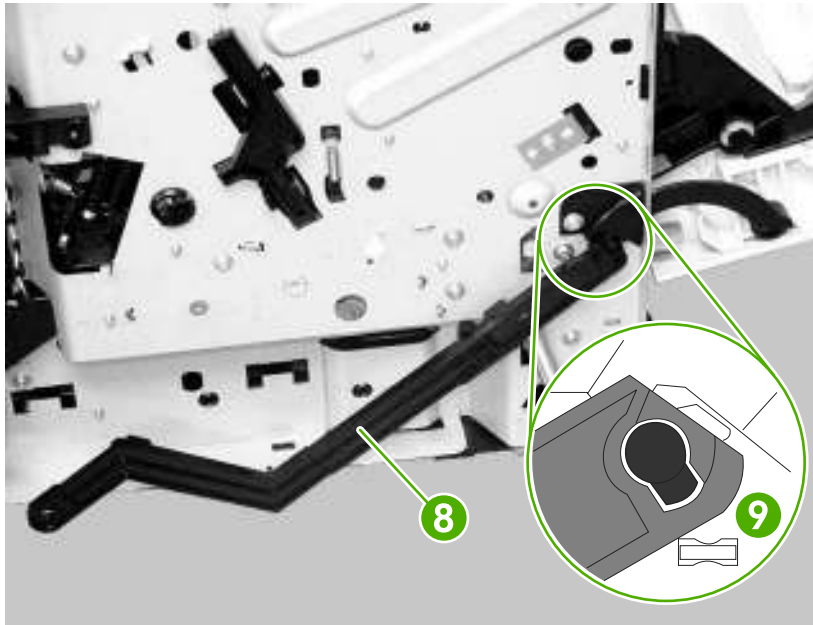
5. On the left side of the printer, close the cartridge door and release one spring (callout 6).
6. Use needle-nose pliers to unhook the claw (callout 7) on the plastic arm.



**Figure 5-67** Removing the cartridge door unit (4 of 14)

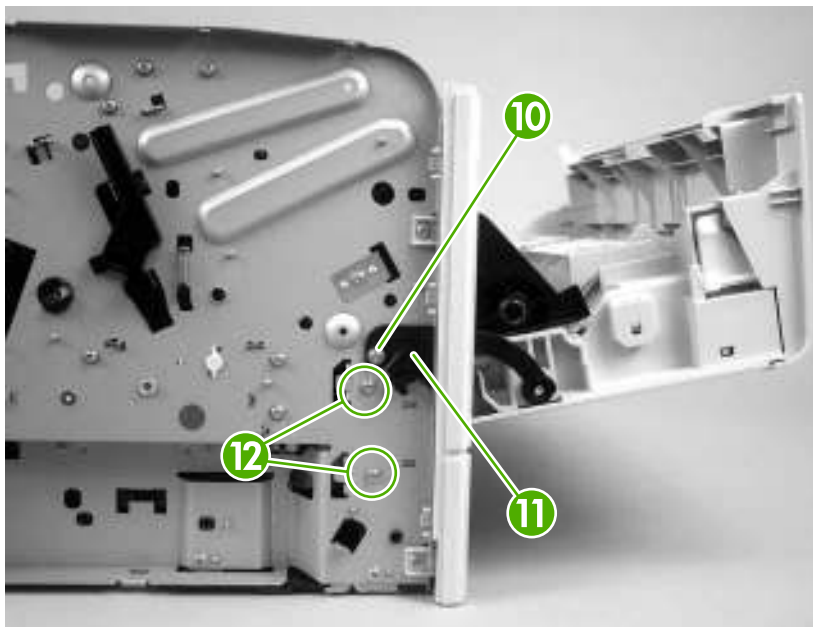
7. Open the cartridge door.

8. Rotate the plastic arm (callout 8) down to unhook the plastic arm from the claw (callout 9).



**Figure 5-68** Removing the cartridge door unit (5 of 14)

9. Remove one screw (callout 10), remove the guide (callout 11), and remove two screws (callout 12).



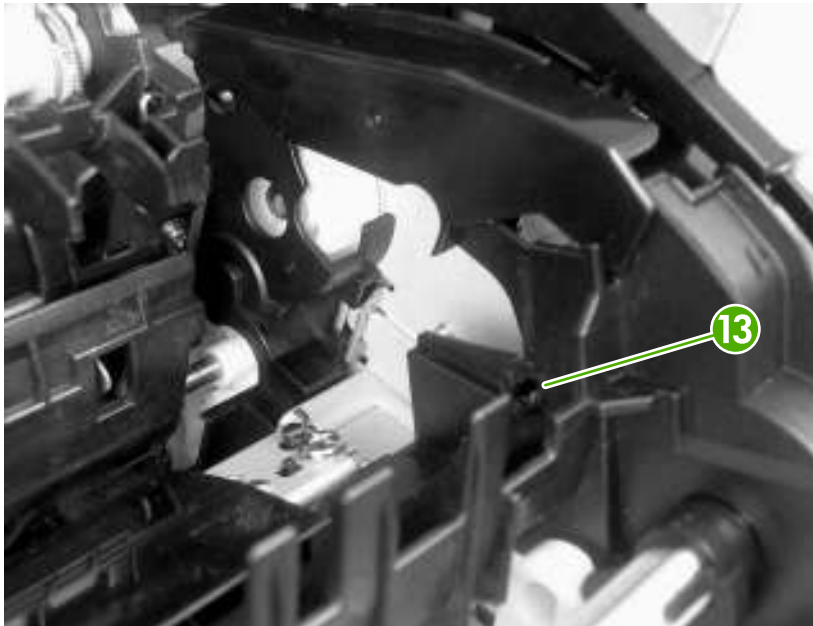
**Figure 5-69** Removing the cartridge door unit (6 of 14)



10. On the right side of the printer, use needle-nose pliers to squeeze two claws (callout 13). Push the claws toward the right side of the printer to release the gear cover.

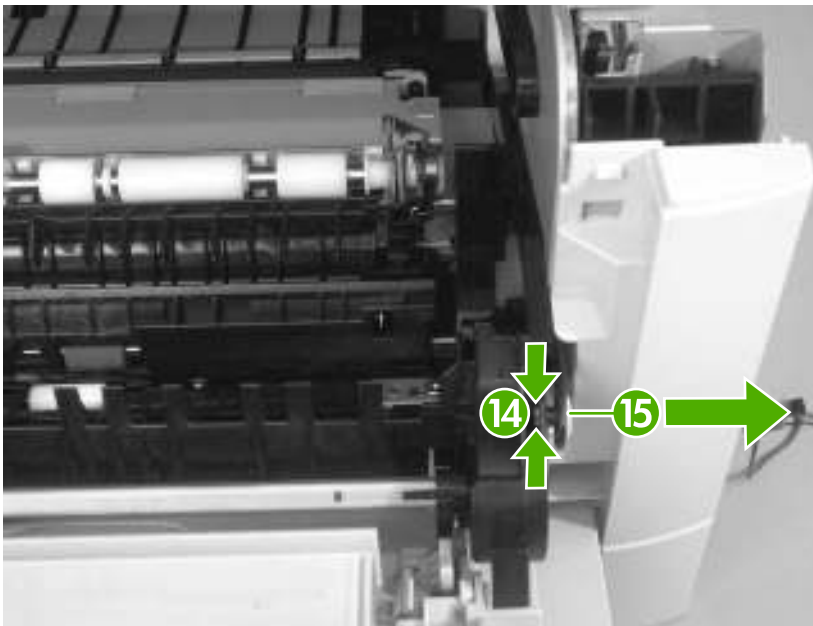


**NOTE** The gear cover is only released, not removed.



**Figure 5-70** Removing the cartridge door unit (7 of 14)

11. Use needle-nose pliers to squeeze two claws (callout 14) and remove the retainer (callout 15).



**Figure 5-71** Removing the cartridge door unit (8 of 14)



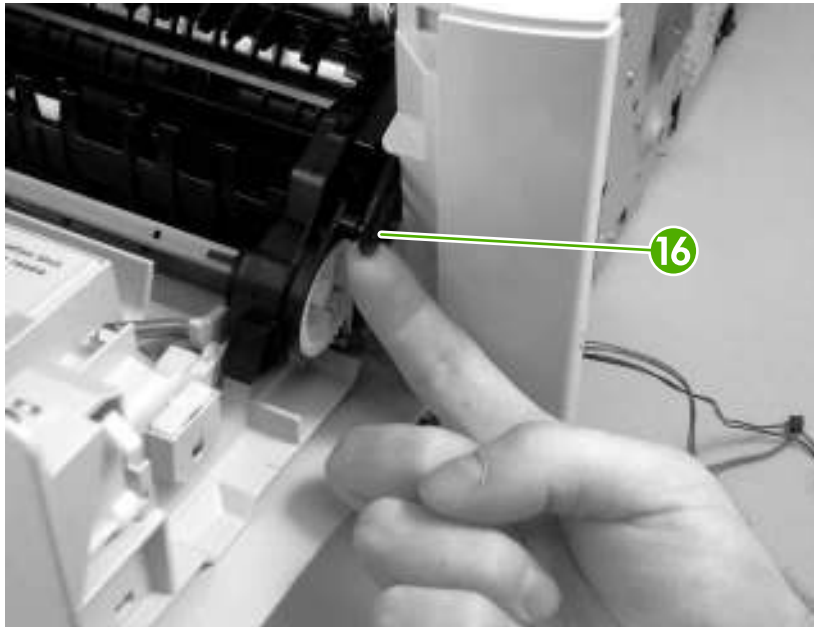
**CAUTION** The white lock is easy to break. Make sure you squeeze it before removing the retainer.



12. On the right side of the printer, release one lever (callout 16).

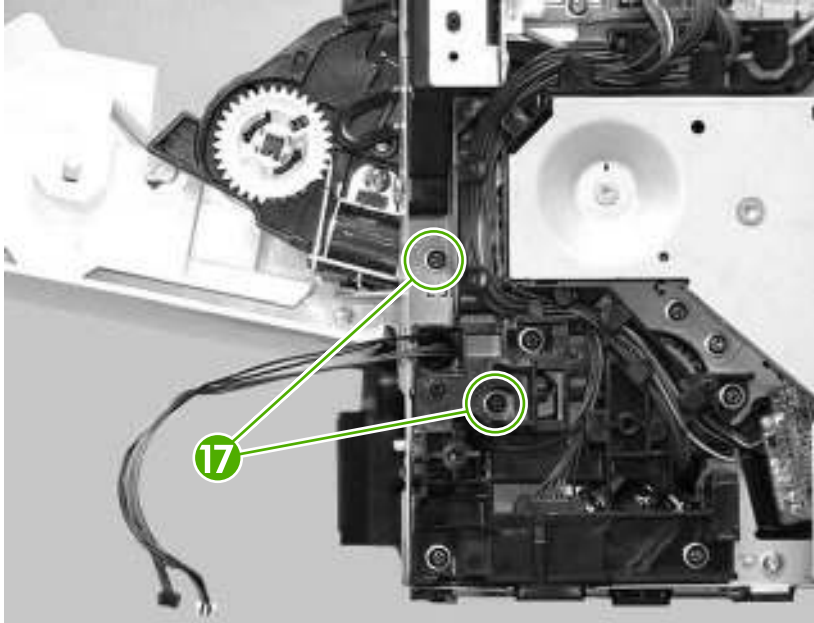


**NOTE** The lever is only released, not removed.



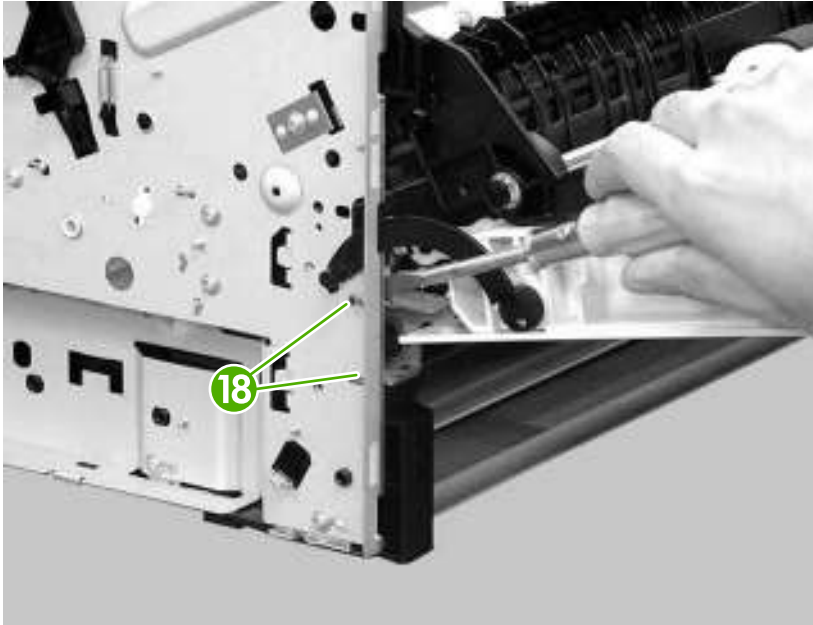
**Figure 5-72** Removing the cartridge door unit (9 of 14)

13. Remove two screws (callout 17).



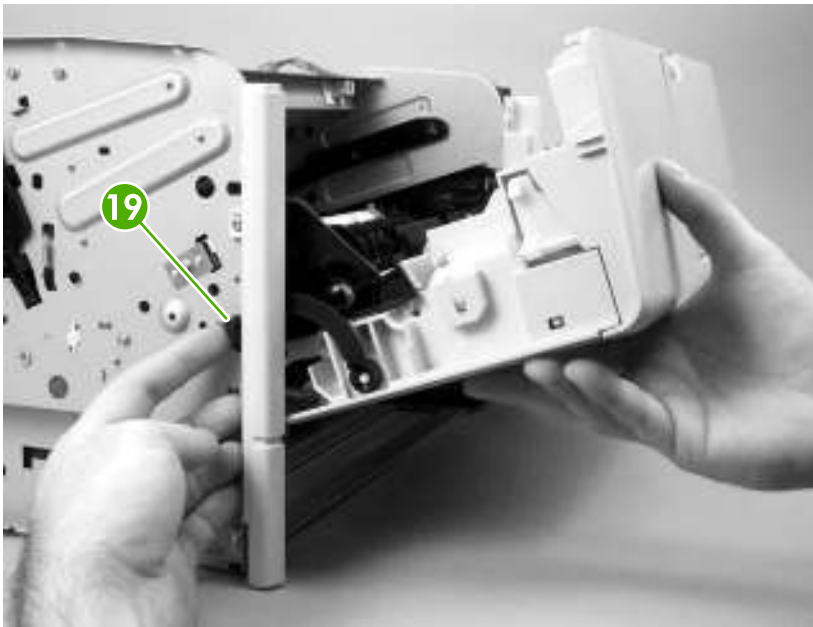
**Figure 5-73** Removing the cartridge door unit (10 of 14)

14. On the left side of the printer, use a flatblade screwdriver to release two projections (callout 18).



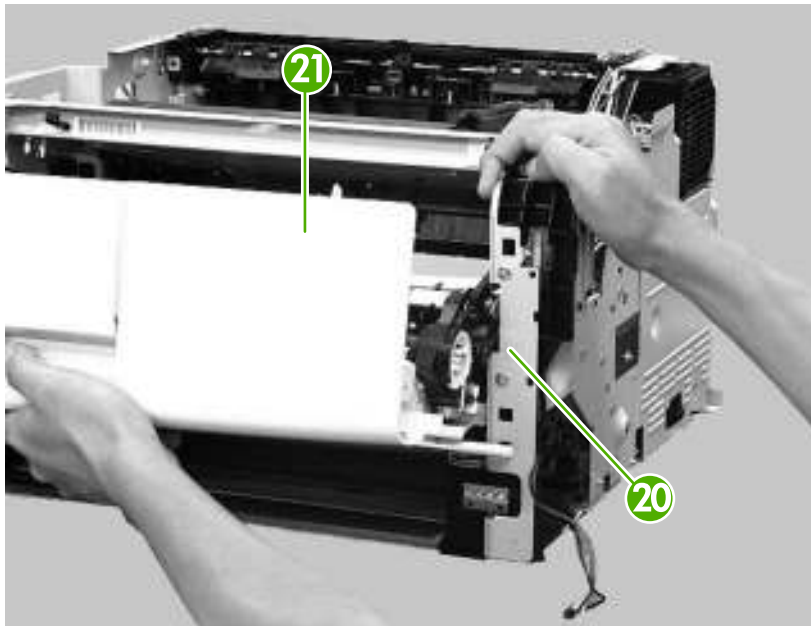
**Figure 5-74** Removing the cartridge door unit (11 of 14)

15. Pull the print-cartridge door out slightly and unhook the plastic arm (callout 19).



**Figure 5-75** Removing the cartridge door unit (12 of 14)

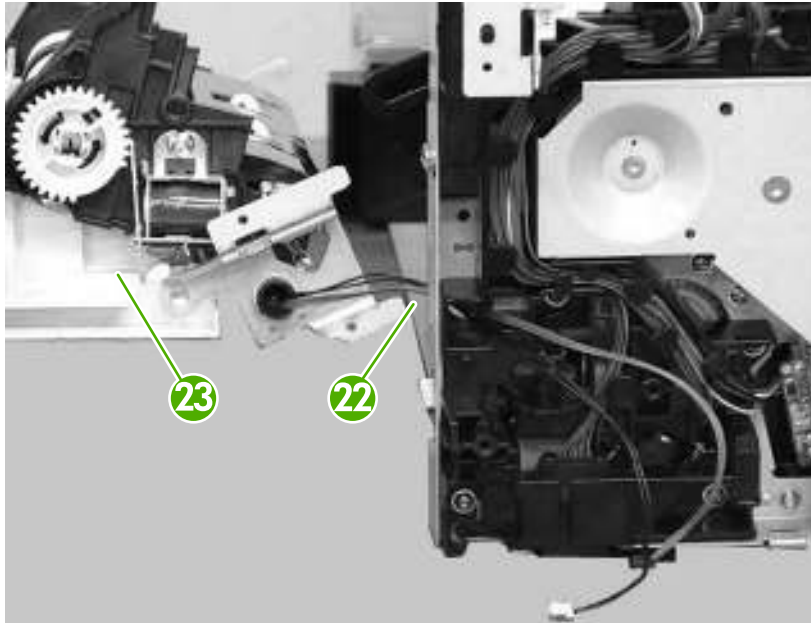
16. Slightly spread the right plate (callout 20) outward and carefully pull out the print-cartridge door assembly (callout 21).



**Figure 5-76** Removing the cartridge door unit (13 of 14)



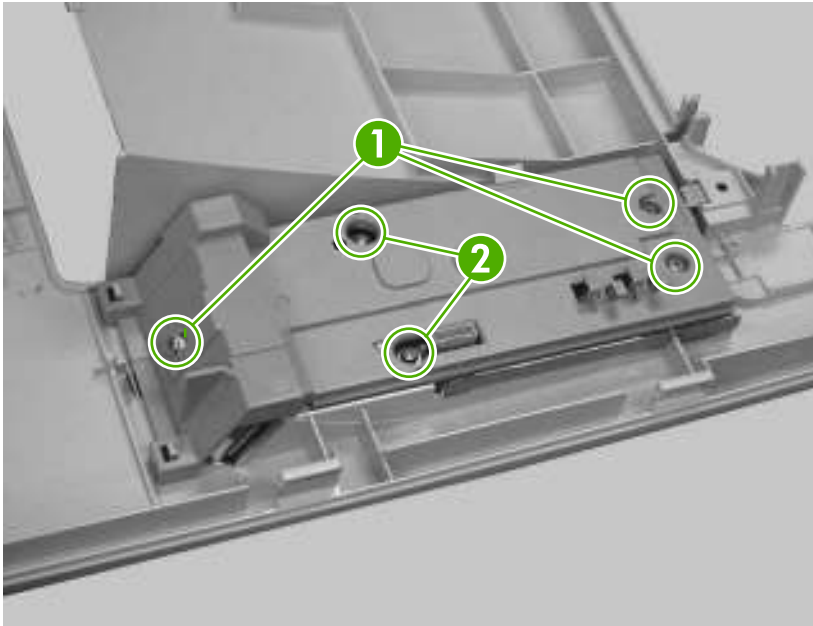
**CAUTION** Do not damage the wiring cables (callout 22) on the edge of the cable hole when removing the print-cartridge door assembly (callout 23).



**Figure 5-77** Removing the cartridge door unit (14 of 14)

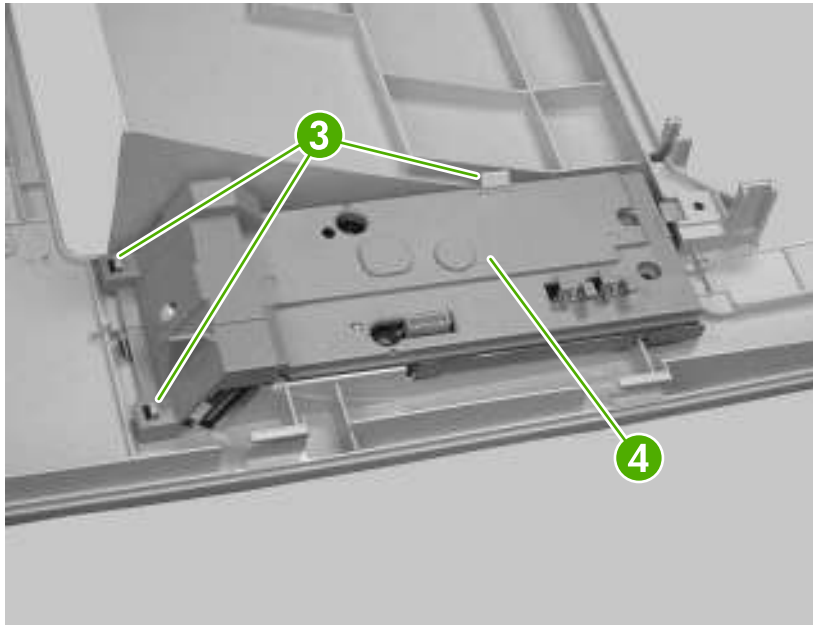
## Control panel

1. Remove the following components:
  - Right cover. See [Right cover on page 86](#).
  - Lower back cover or duplexer. See [Lower back cover on page 86](#) or [Duplexer on page 84](#).
  - Face-up bin. See [Face-up bin on page 87](#).
  - Top cover. See [Top cover on page 89](#).
2. Turn the top cover over.
3. Remove three self-tapping screws (callout 1) and two other screws (callout 2).



**Figure 5-78** Removing the control panel (1 of 2)

4. Unhook three claws (callout 3) and remove the control panel (callout 4).



**Figure 5-79** Removing the control panel (2 of 2)

# Internal assemblies

## Laser/scanner

1. Remove the following components:
  - Right cover. See [Right cover on page 86](#).
  - Lower back cover or duplexer. See [Lower back cover on page 86](#) or [Duplexer on page 84](#).
  - Face-up bin. See [Face-up bin on page 87](#).
  - Top cover. See [Top cover on page 89](#).
  - Face-down cover. See [Face-down cover on page 95](#).
2. Disconnect one flat flexible cable (callout 1).



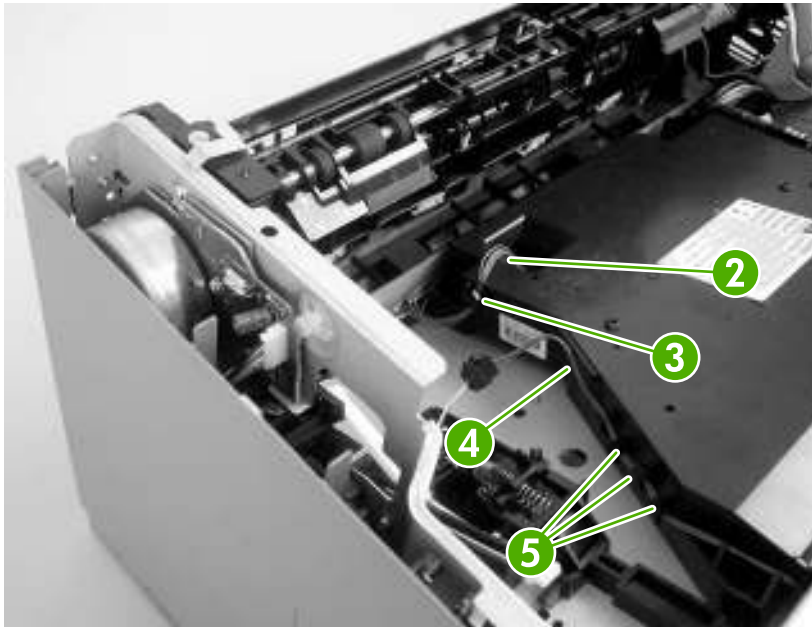
**Figure 5-80** Removing the laser/scanner (1 of 3)

3. Disconnect one connector (callout 2) and release it from the cable guide (callout 3).

4. Release the cable (callout 4) from the cable guides (callout 5).

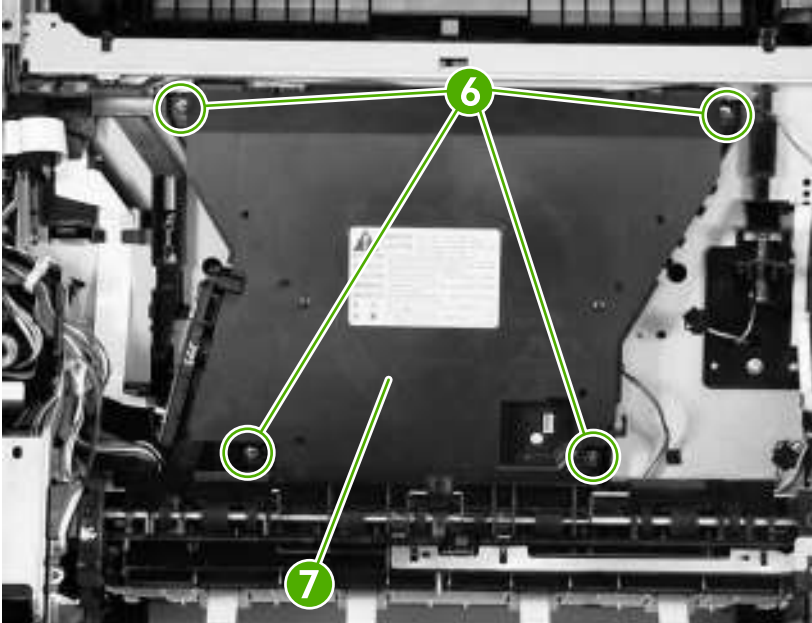


**NOTE** Do *not* disconnect the connector.



**Figure 5-81** Removing the laser/scanner (2 of 3)

5. Remove four screws (callout 6) and remove the laser/scanner (callout 7).

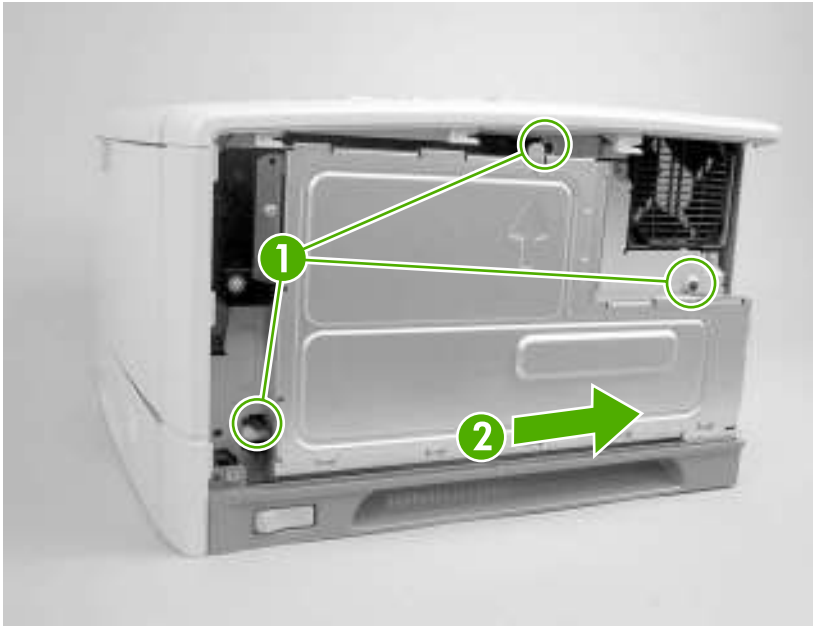


**Figure 5-82** Removing the laser/scanner (3 of 3)

## Formatter

1. Remove the right cover. See [Right cover on page 86](#).
2. Remove three screws (callout 1).

3. Slide the formatter (callout 2) toward the back of the printer and remove it.



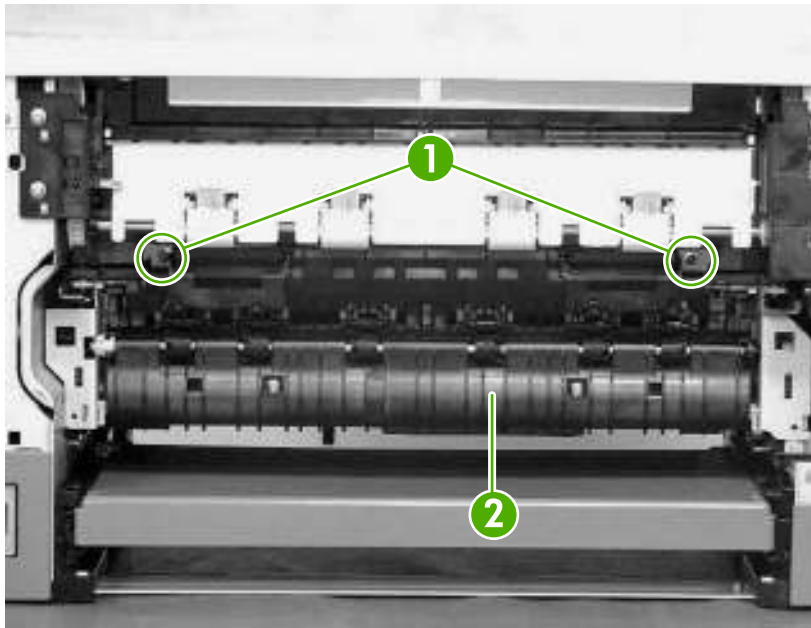
**Figure 5-83** Removing the formatter

## Fuser

1. Remove the following components:
  - Right cover. See [Right cover on page 86](#).
  - Lower back cover or duplexer. See [Lower back cover on page 86](#) or [Duplexer on page 84](#).
  - Face-up bin. See [Face-up bin on page 87](#).



2. Remove two screws (callout 1) and hold the middle of the fuser and pull it out of the printer to remove it (callout 2).

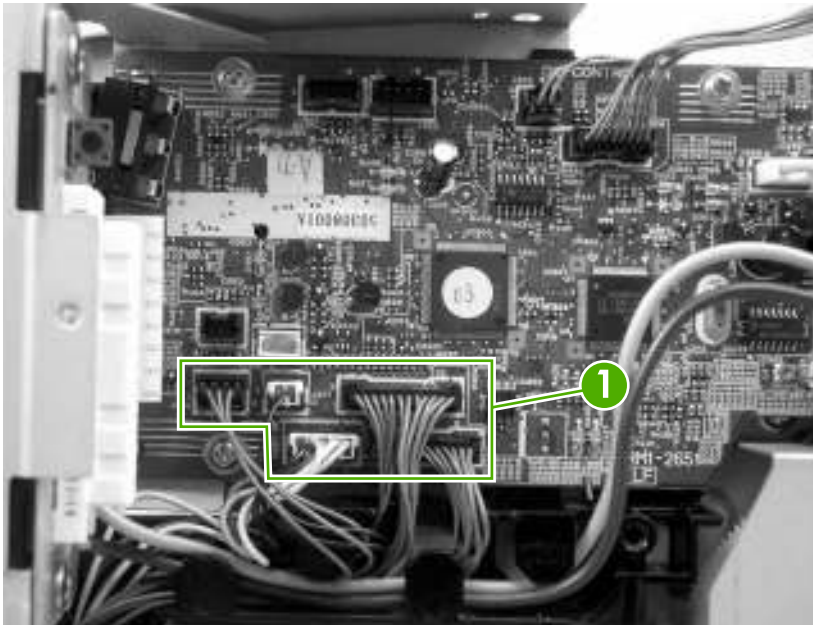


**Figure 5-84** Removing the fuser

## Cassette-paper pickup unit

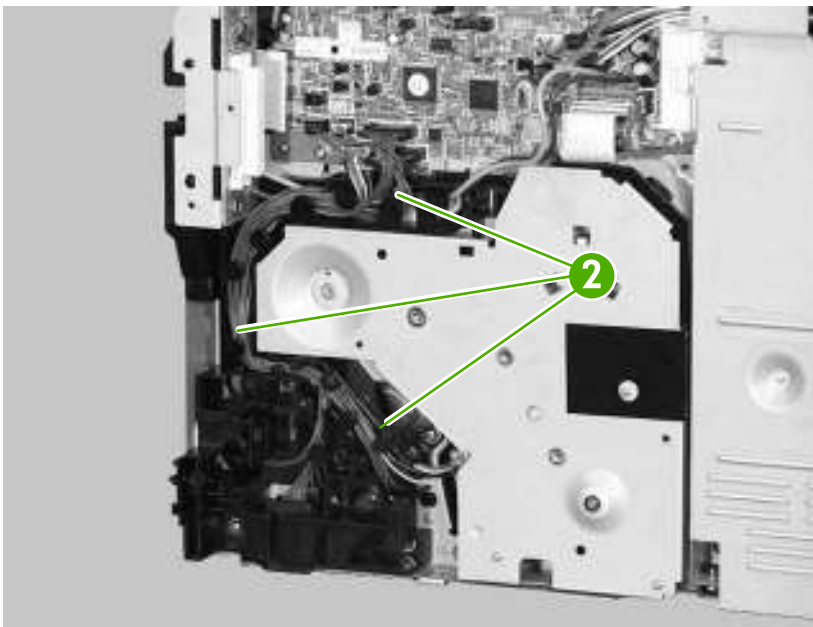
1. Remove the following components:
  - Right cover. See [Right cover on page 86](#).
  - Formatter. See [Formatter on page 76](#).
  - Lower back cover or duplexer. See [Lower back cover on page 86](#) or [Duplexer on page 84](#).
  - Face-up bin. See [Face-up bin on page 87](#).
  - Top cover. See [Top cover on page 89](#).
  - Left cover. See [Left cover on page 92](#).
  - Cartridge door unit. See [Cartridge door unit on page 100](#).
  - Right front cover. See [Right front cover on page 96](#).
  - DC controller cover. See [DC controller cover on page 100](#).
  - Optional 500-sheet feeder (if installed).

2. Disconnect the five connectors (callout 1) on the DC controller PCA.



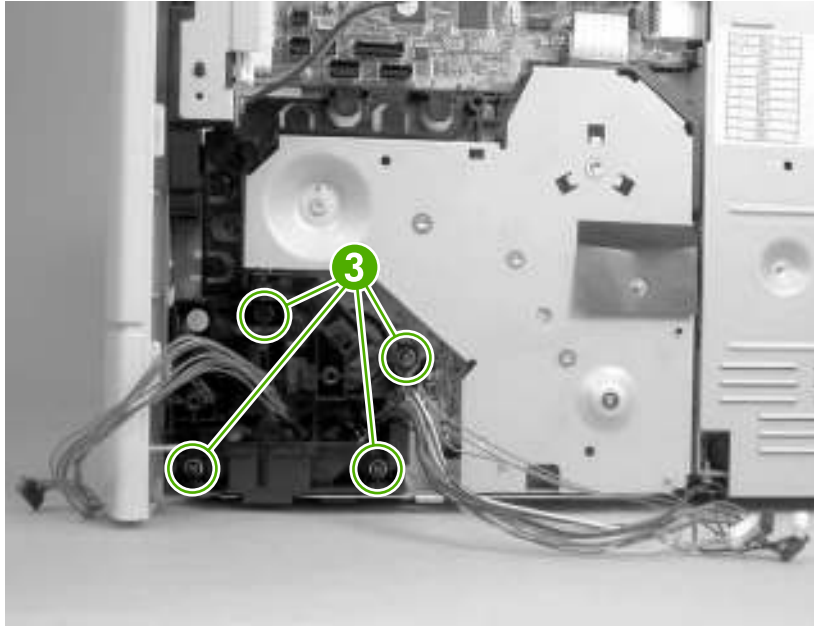
**Figure 5-85** Removing the cassette-paper pickup unit (1 of 8)

3. Release the wires from the cable guide (callout 2).



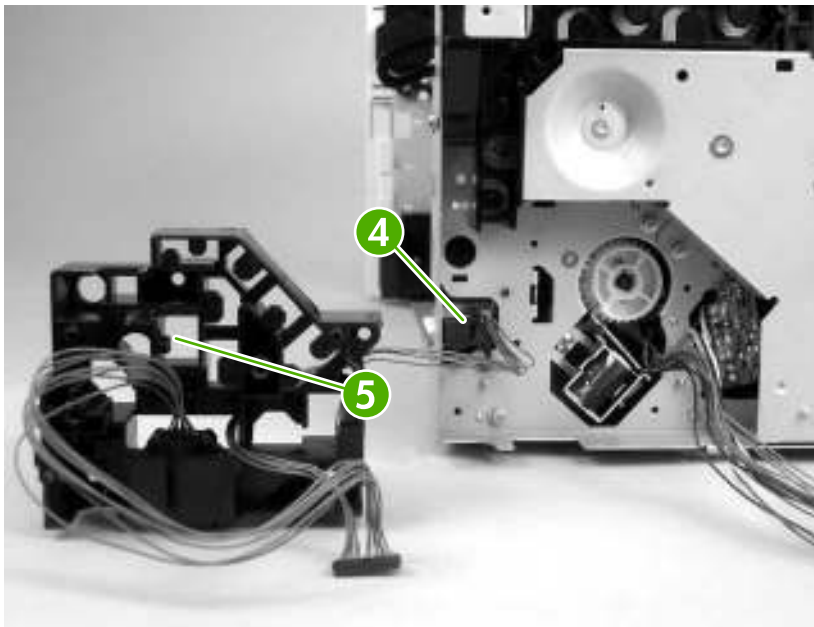
**Figure 5-86** Removing the cassette-paper pickup unit (2 of 8)

4. Remove four screws (callout 3).



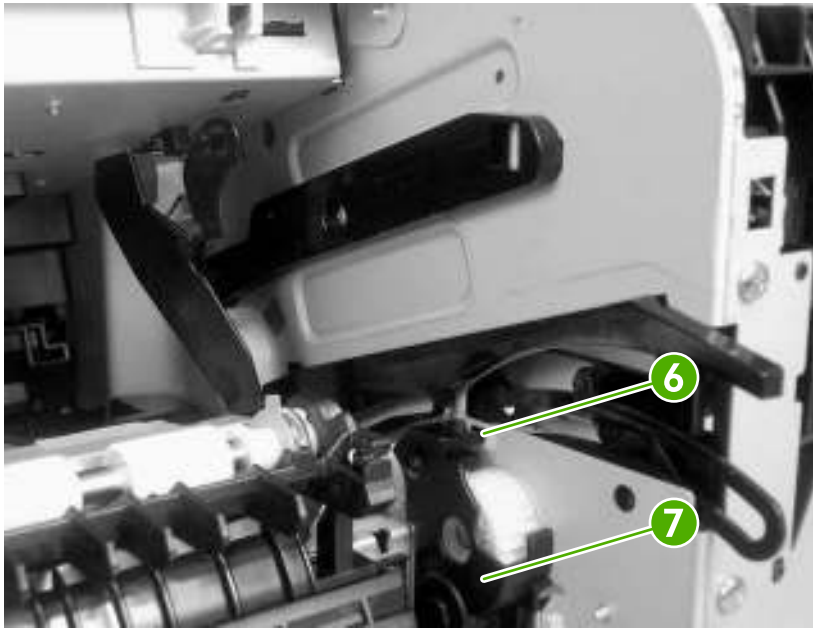
**Figure 5-87** Removing the cassette-paper pickup unit (3 of 8)

5. Make sure to note the position of the cables as you remove them.
6. Disconnect one connector (callout 4), and remove the cable-guide holder (callout 5) and the cables together.



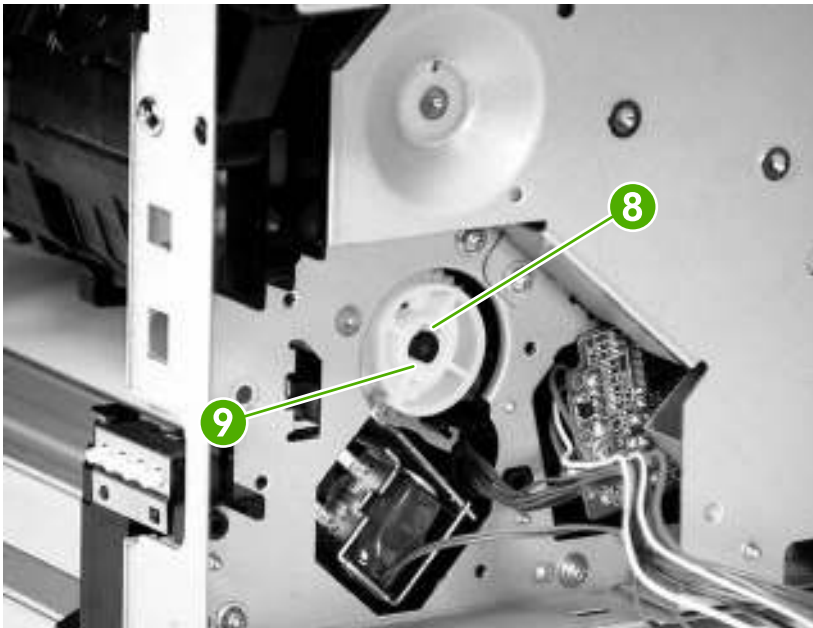
**Figure 5-88** Removing the cassette-paper pickup unit (4 of 8)

7. Unhook one claw (callout 6) and remove the gear cover (callout 7).



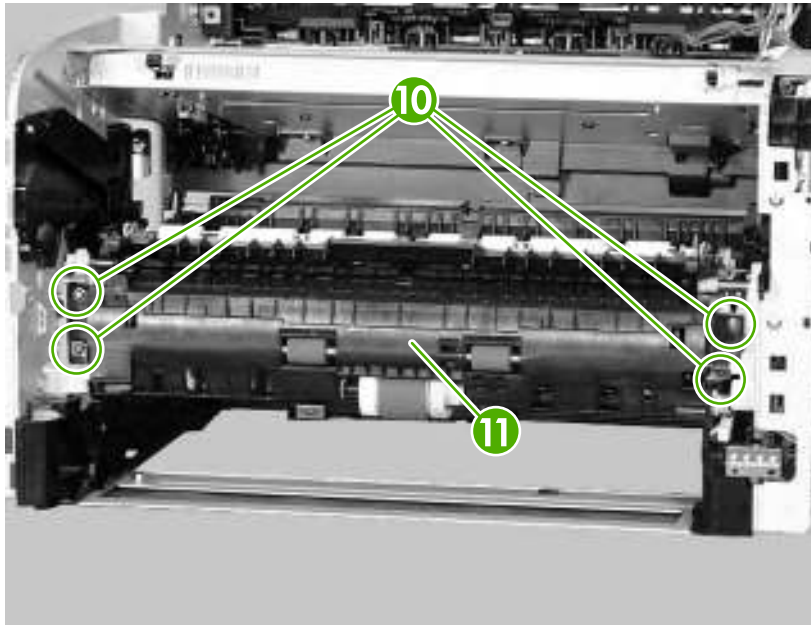
**Figure 5-89** Removing the cassette-paper pickup unit (5 of 8)

8. Use a flatblade screwdriver to unhook the snapping claw (callout 8). Push on the gear (callout 9) from inside the printer to remove it.



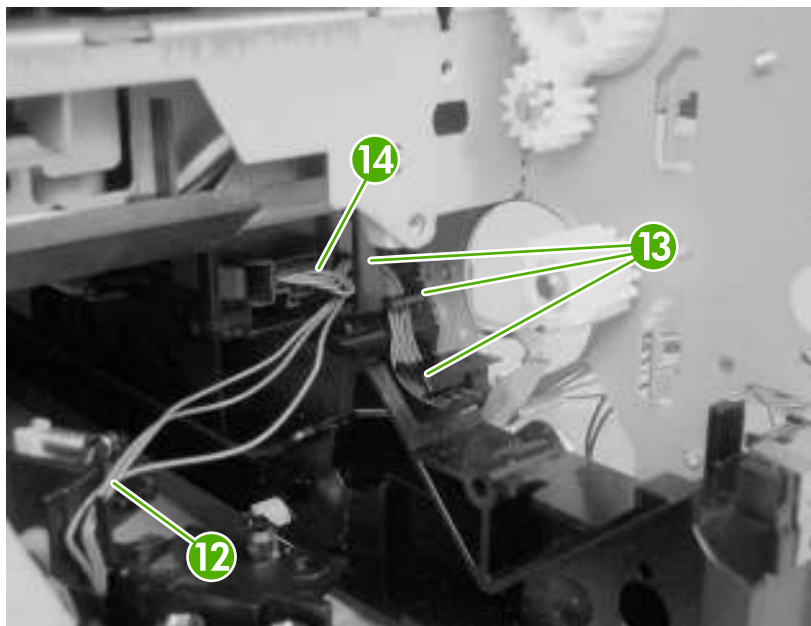
**Figure 5-90** Removing the cassette-paper pickup unit (6 of 8)

9. Remove four long screws (callout 10) and then remove the cassette paper-pickup unit (callout 11).



**Figure 5-91** Removing the cassette-paper pickup unit (7 of 8)

10. From inside the printer, release the cable (callout 12) from the guide (callout 13).



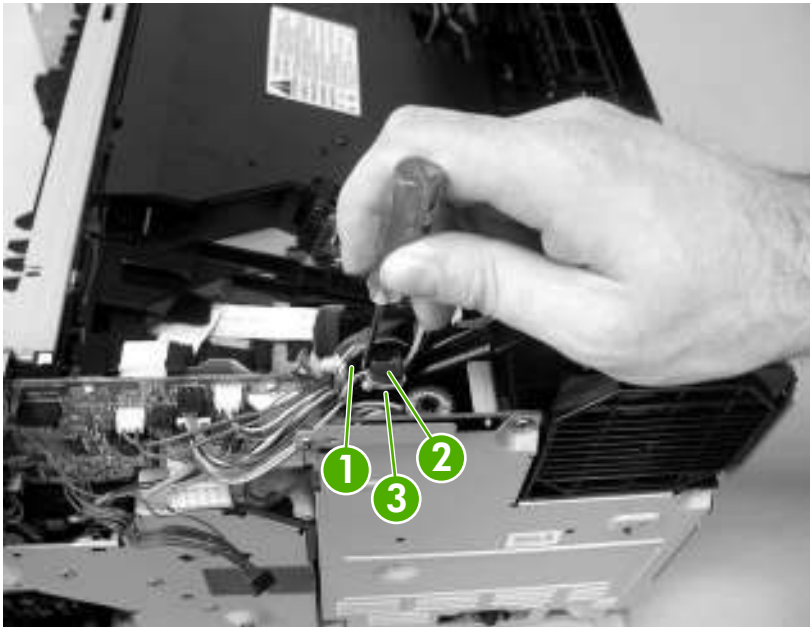
**Figure 5-92** Removing the cassette-paper pickup unit (8 of 8)



**NOTE** If it is difficult to remove the cable (callout 12), try disconnecting the connector (callout 14) when removing it.

## Face-down delivery unit

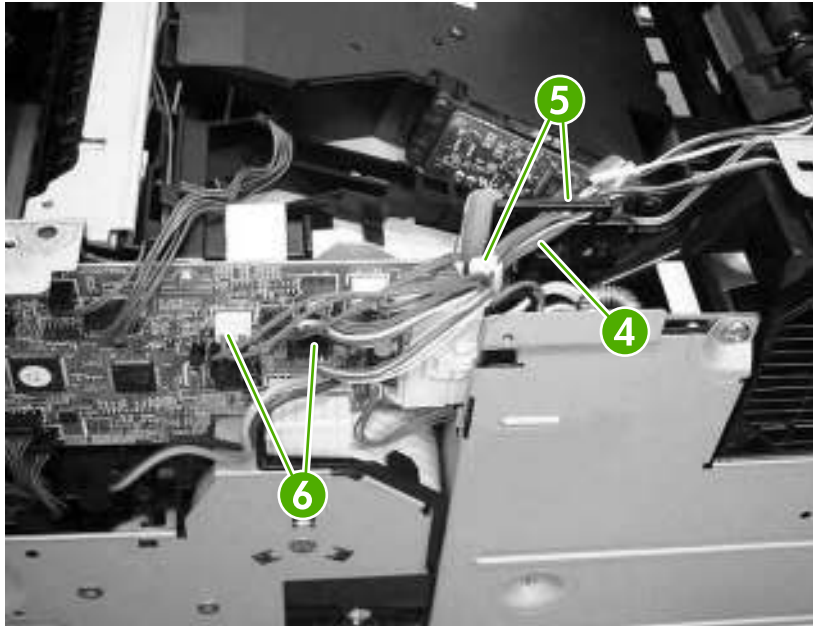
1. Remove the following components:
  - Right cover. See [Right cover on page 86](#).
  - Formatter. See [Formatter on page 76](#).
  - Lower back cover or duplexer. See [Lower back cover on page 86](#) or [Duplexer on page 84](#).
  - Face-up bin. See [Face-up bin on page 87](#).
  - Fuser. See [Fuser on page 112](#).
  - Top cover. See [Top cover on page 89](#).
  - Face-down cover. See [Face-down cover on page 95](#).
  - DC controller cover. See [DC controller cover on page 100](#).
2. Release the tab (callout 1) and release the ferrite block (callout 2) from the plastic holder (callout 3).



**Figure 5-93** Removing the face-down delivery unit (1 of 4)



3. Release the cables (callout 4) from the cable guides (callout 5) and disconnect two connectors (callout 6).

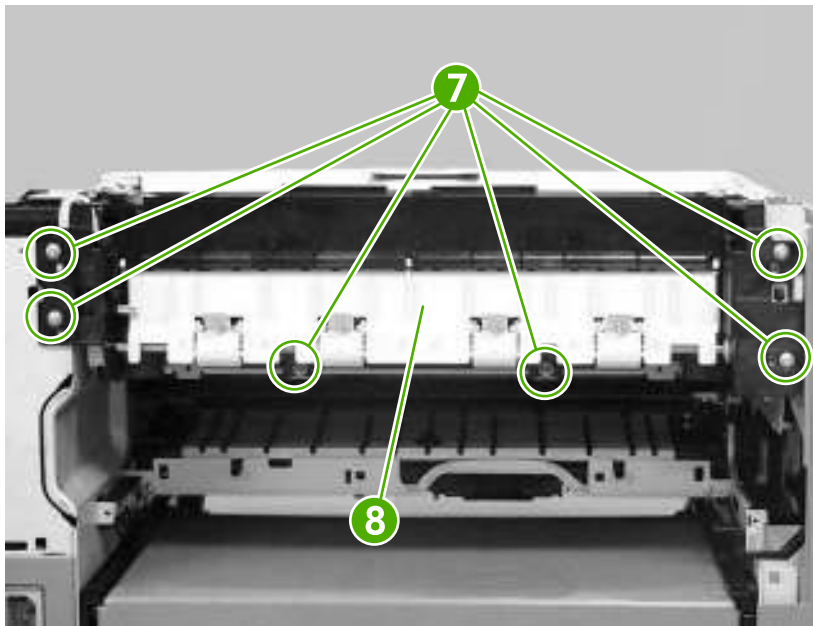


**Figure 5-94** Removing the face-down delivery unit (2 of 4)

4. Remove six screws (callout 7), and slide the face-down delivery unit (callout 8) toward you and remove it.



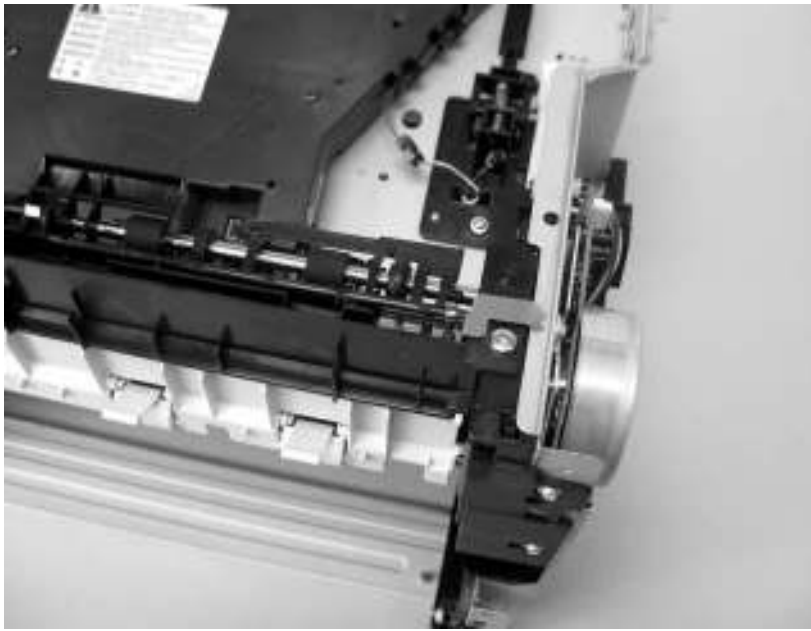
**NOTE** Be careful not to lose the flag on the right side of the face-down delivery unit. It is not secure.



**Figure 5-95** Removing the face-down delivery unit (3 of 4)



**Hint** When you reinstall the face-down delivery unit, make sure that the ground connector touches the sheet metal.



**Figure 5-96** Removing the face-down delivery unit (4 of 4)

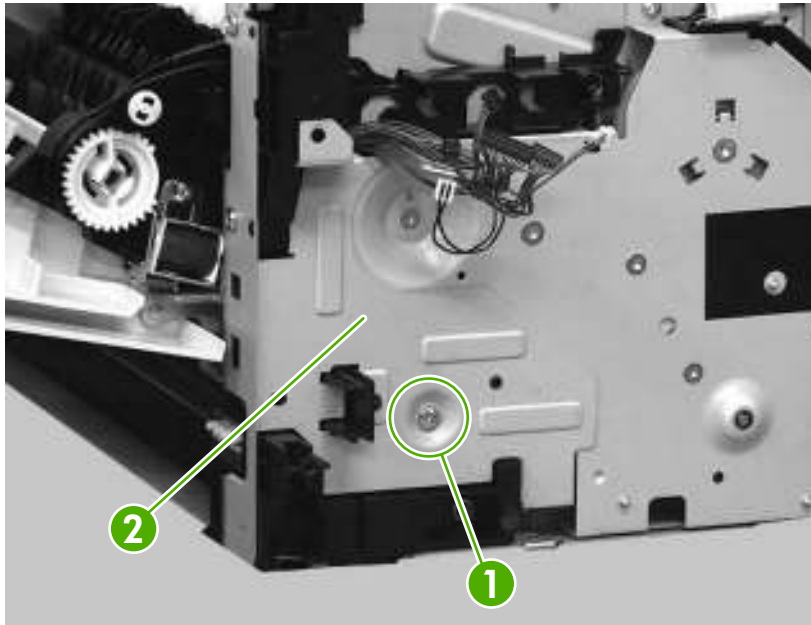
## Main motor

**1.** Remove the following components:

- Right cover. See [Right cover on page 86](#).
- Formatter. See [Formatter on page 76](#).
- Lower back cover or duplexer. See [Lower back cover on page 86](#).
- Face-up bin. See [Face-up bin on page 87](#).
- Right lower cover. See [Right lower cover on page 97](#).
- Top cover. See [Top cover on page 89](#).
- DC controller cover. See [DC controller cover on page 100](#).
- Low-voltage power supply. See [Low-voltage power supply PCA on page 151](#).
- DC controller PCA. See [DC controller on page 139](#).

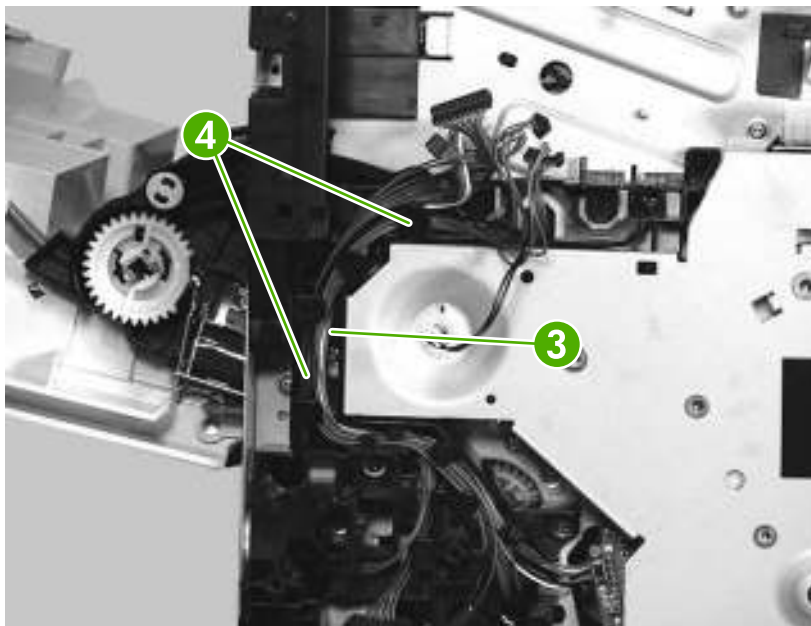


2. Remove one screw (callout 1) and one plate (callout 2).



**Figure 5-97** Removing the main motor (1 of 9)

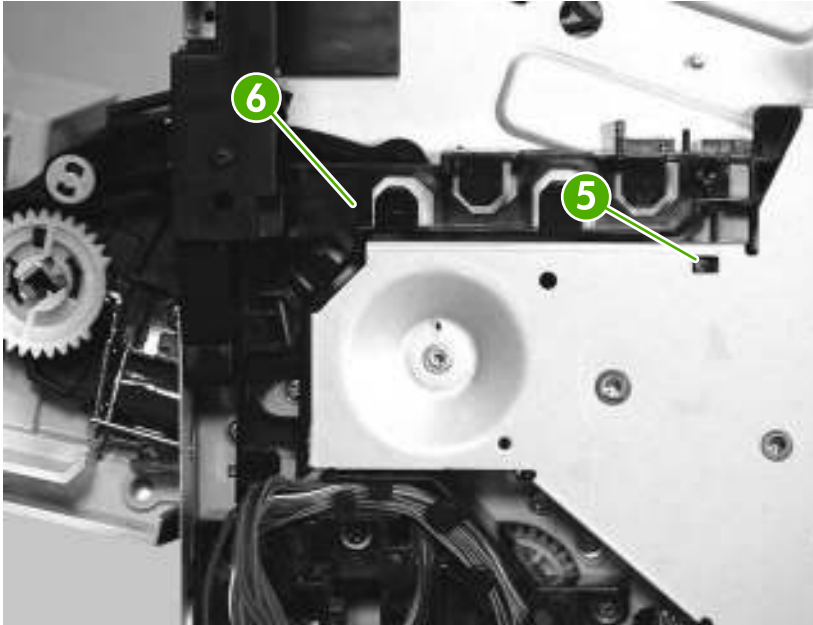
3. Release the cables (callout 3) from the cable guide (callout 4).



**Figure 5-98** Removing the main motor (2 of 9)

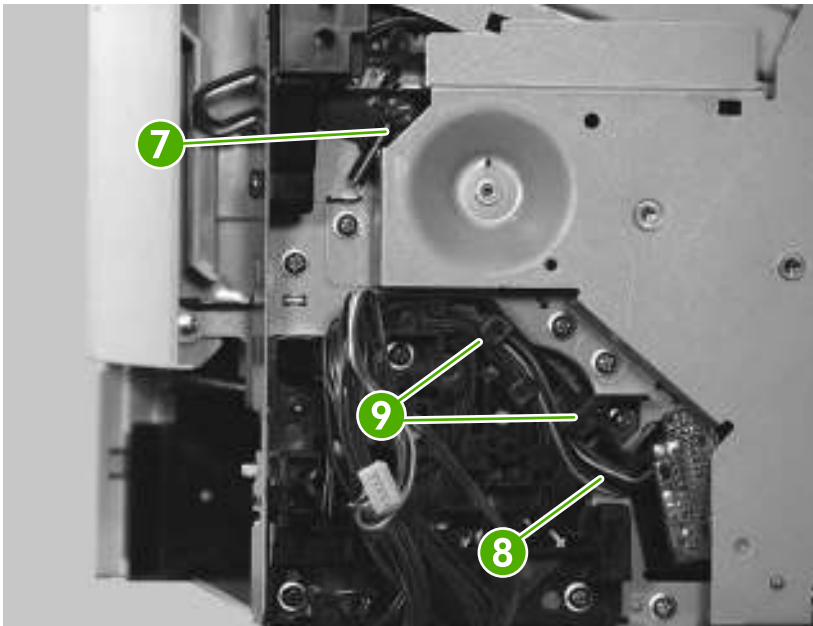
4. Unhook two claws (callout 5).

5. Use a flatblade screwdriver to remove the cable holder (callout 6).



**Figure 5-99** Removing the main motor (3 of 9)

6. Unhook the spring (callout 7) from the plastic hook, and release the cables (callout 8) from the cable guide (callout 9).

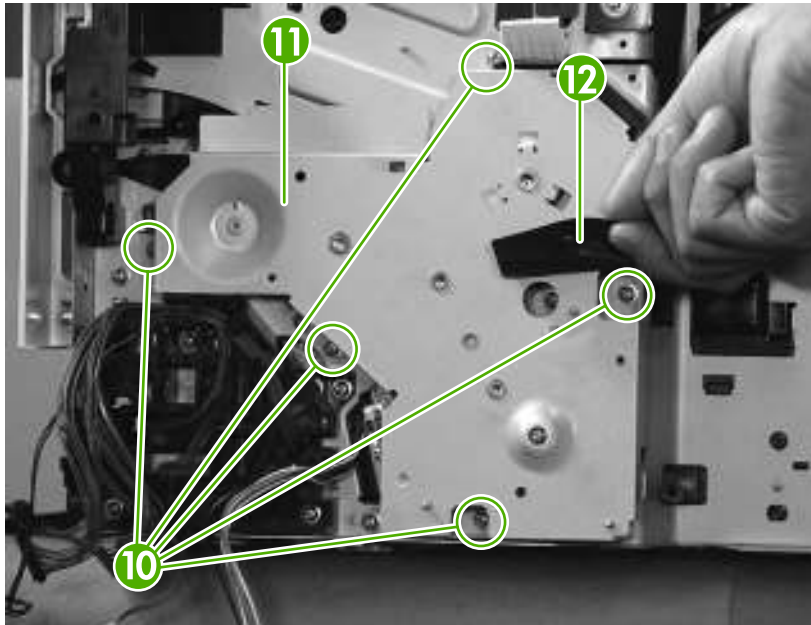


**Figure 5-100** Removing the main motor (4 of 9)

7. Remove five screws (callout 10) and the drive plate (callout 11).



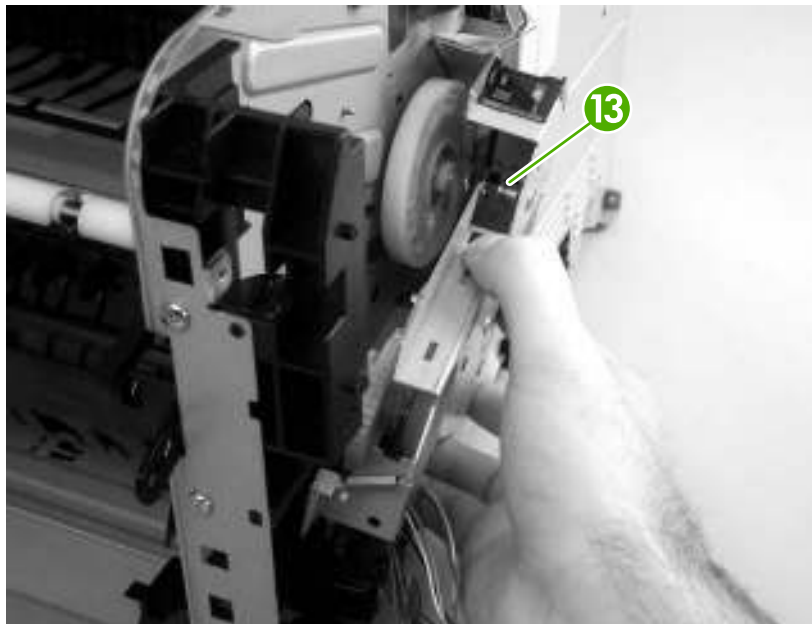
**NOTE** One screw is located under the black, plastic film (callout 12).



**Figure 5-101** Removing the main motor (5 of 9)

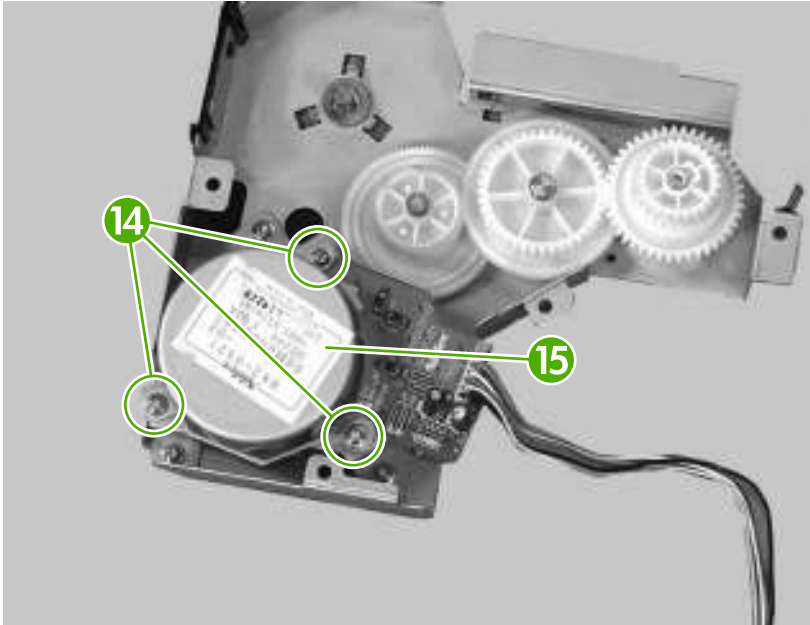


**NOTE** The spring (callout 13) might fall out when you remove the drive plate.



**Figure 5-102** Removing the main motor (6 of 9)

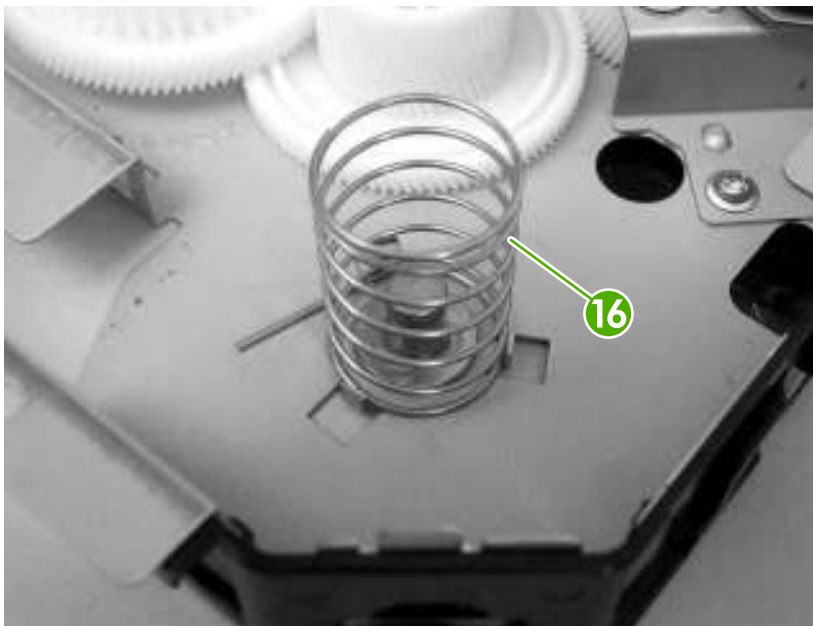
8. Remove three screws (callout 14) and the main motor (callout 15).



**Figure 5-103** Removing the main motor (7 of 9)



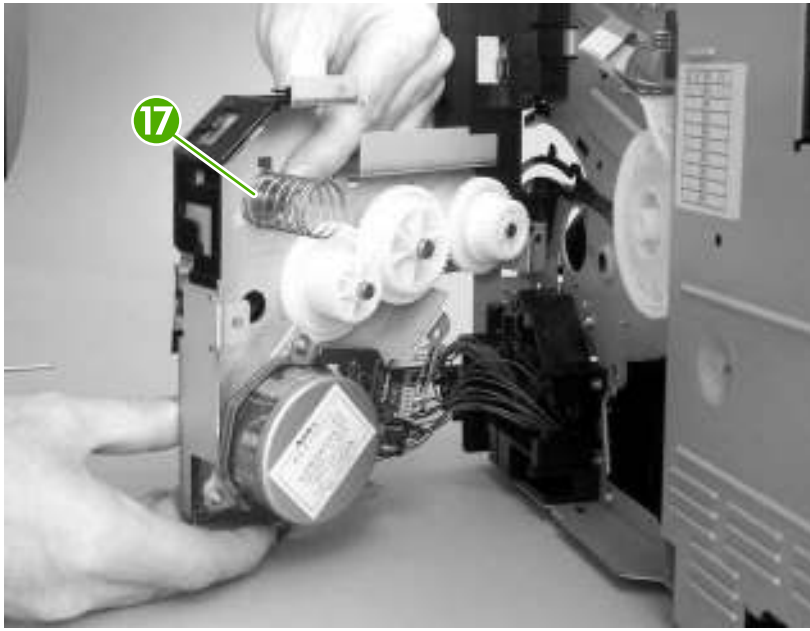
**Hint** Make sure to place the spring (callout 16) in the correct position when you reassemble the drive plate.



**Figure 5-104** Removing the main motor (8 of 9)



**Hint** When you reinstall the main motor, make sure to hold the spring (callout 17) in the correct position.

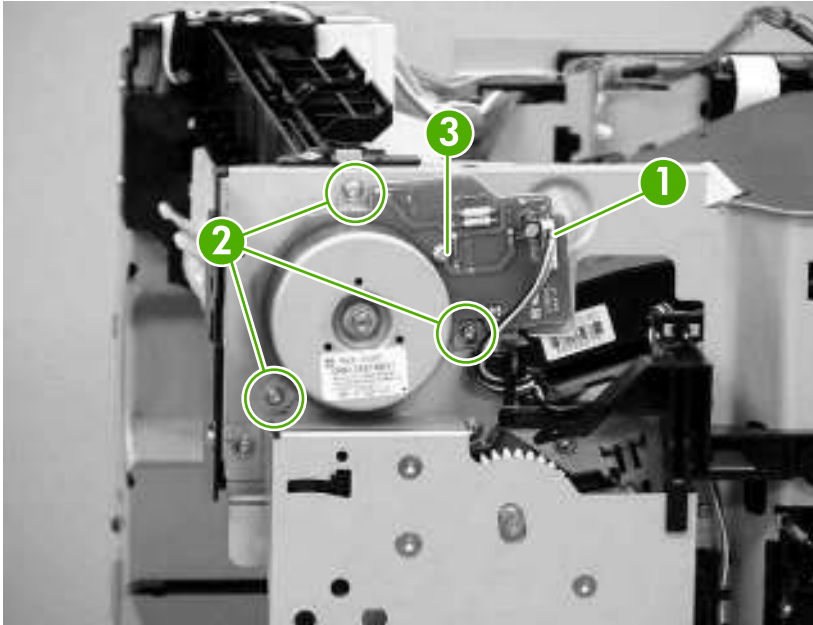


**Figure 5-105** Removing the main motor (9 of 9)

## Fuser motor

1. Remove the following components:
  - Right cover. See [Right cover on page 86](#).
  - Lower back cover or duplexer. See [Lower back cover on page 86](#) or [Duplexer on page 84](#).
  - Face-up bin. See [Face-up bin on page 87](#).
  - Top cover. See [Top cover on page 89](#).
  - Left cover. See [Left cover on page 92](#).
2. Disconnect one connector (callout 1) and remove three screws (callout 2).

3. Remove the fuser motor (callout 3).



**Figure 5-106** Removing the fuser motor

## Main fan



**NOTE** You do *not* need to remove the cartridge door unit to remove the main fan.

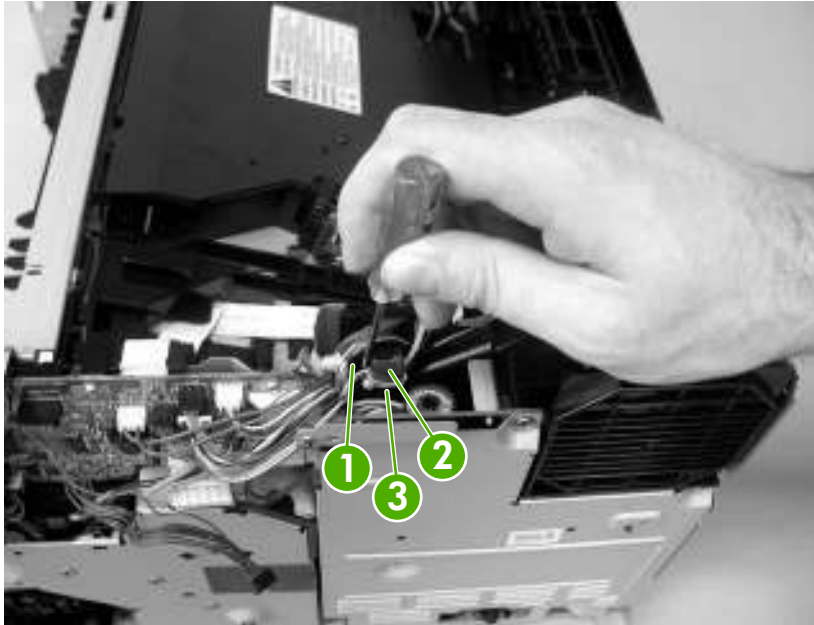
1. Remove the following components:
  - Right cover. See [Right cover on page 86](#).
  - Formatter. See [Formatter on page 76](#).
  - Lower back cover or duplexer. See [Lower back cover on page 86](#) or [Duplexer on page 84](#).
  - Face-up bin. See [Face-up bin on page 87](#).
  - Top cover. See [Top cover on page 89](#).
  - Right lower cover. See [Right lower cover on page 97](#).
  - Left cover. See [Left cover on page 92](#).
  - Transfer roller. See [Transfer roller on page 135](#).
  - Low-voltage power supply. See [Low-voltage power supply PCA on page 151](#).



2. Release the tab (callout 1) and release the ferrite block (callout 2) from the plastic holder (callout 3).

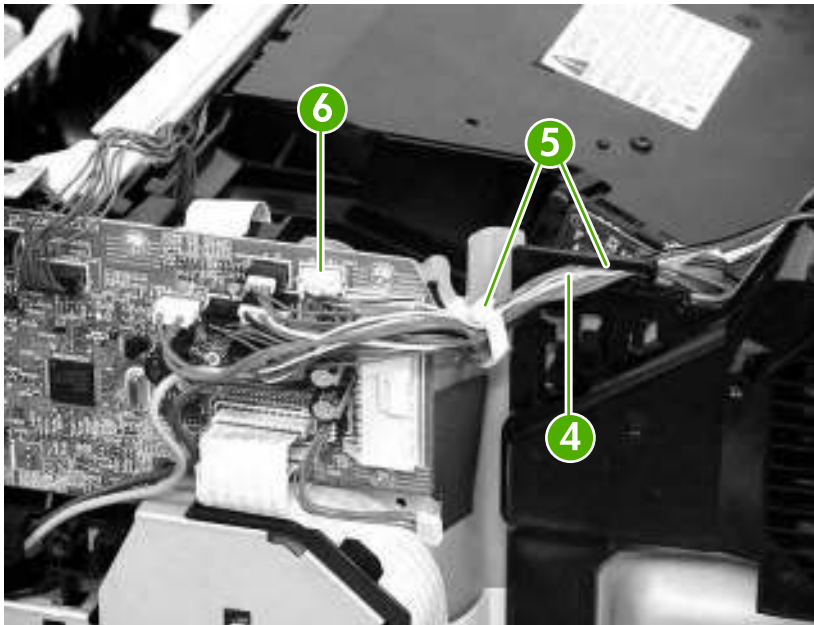


**NOTE** The low-voltage power supply *must* be removed when removing the main fan.



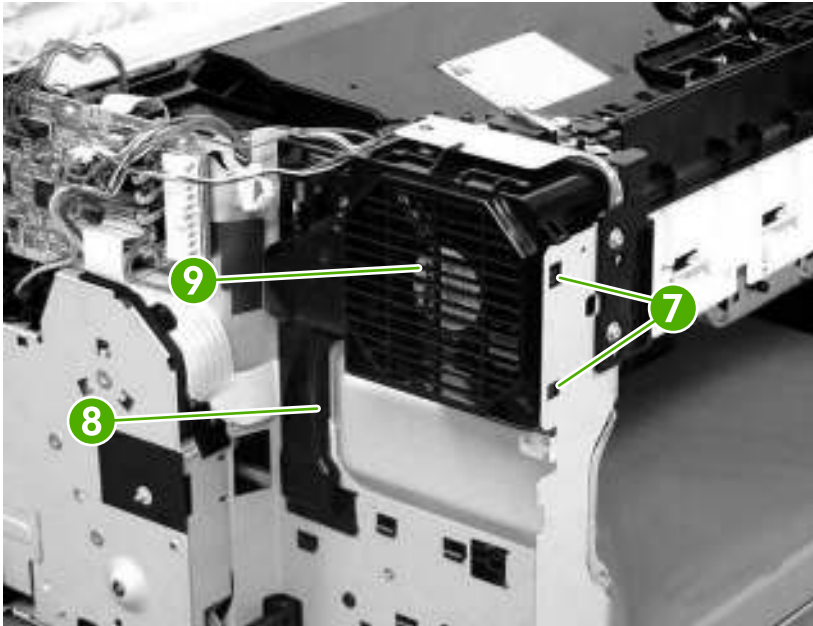
**Figure 5-107** Removing the main fan (1 of 5)

3. Release all of the cables (callout 4) from two cable guides (callout 5), and disconnect one connector (callout 6).



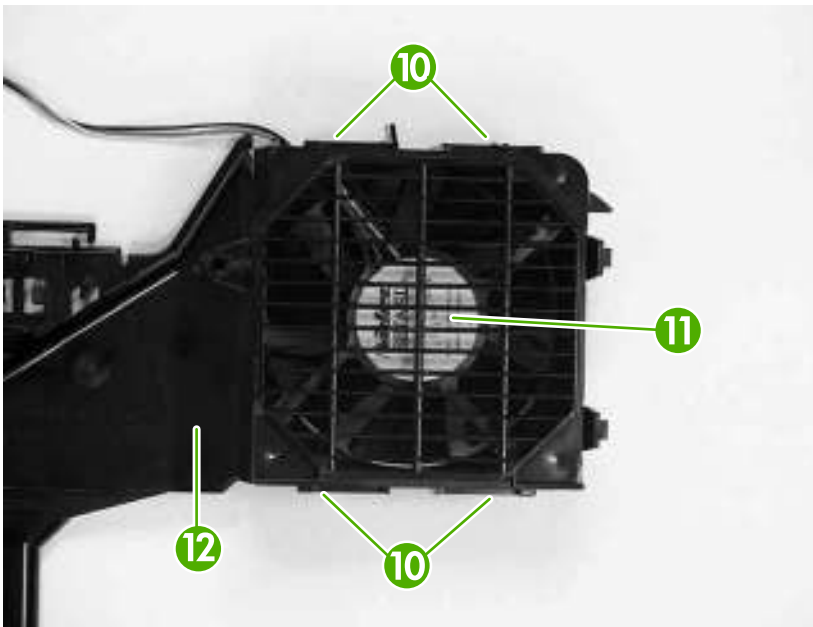
**Figure 5-108** Removing the main fan (2 of 5)

4. Using a flatblade screwdriver, unhook two claws (callout 7). Holding them together, remove the fan duct (callout 8) and the main fan (callout 9).



**Figure 5-109** Removing the main fan (3 of 5)

5. Release four bosses (callout 10) while pulling the main fan (callout 11) away from the fan duct (callout 12).



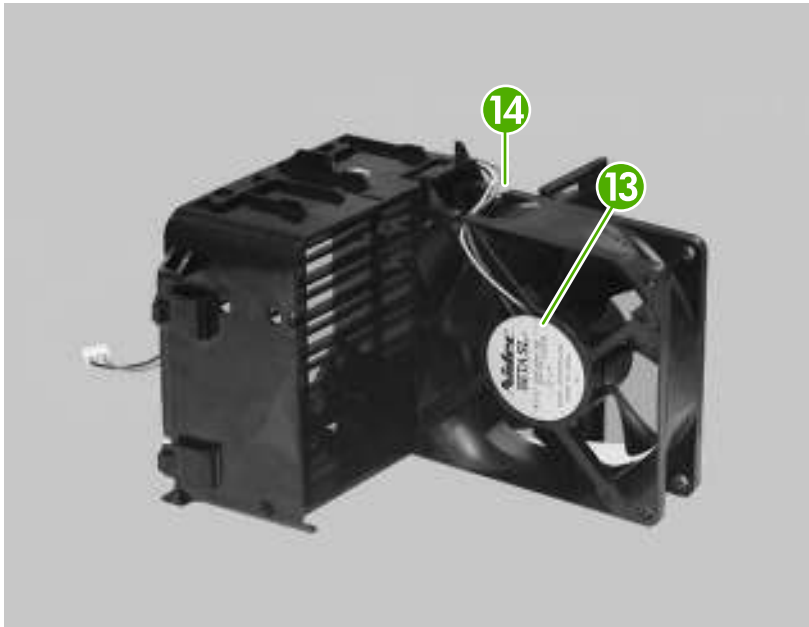
**Figure 5-110** Removing the main fan (4 of 5)

6. Remove the main fan from the fan duct.



**Hint** When you reinstall the main fan, make sure that the label (callout 13) on the main fan is facing toward the inside of the fan duct and that the two fan cables (callout 14) are routed correctly.



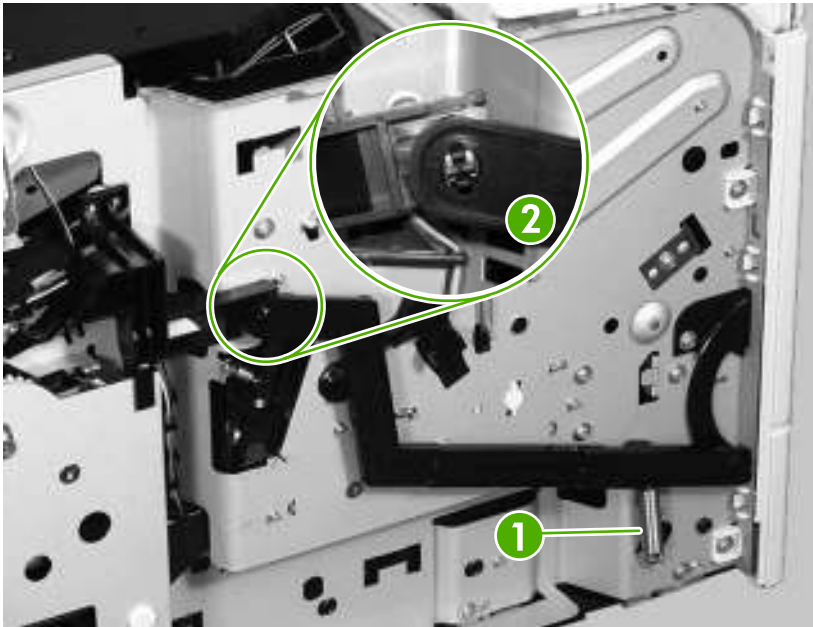


**Figure 5-111** Removing the main fan (5 of 5)

## Sub fan

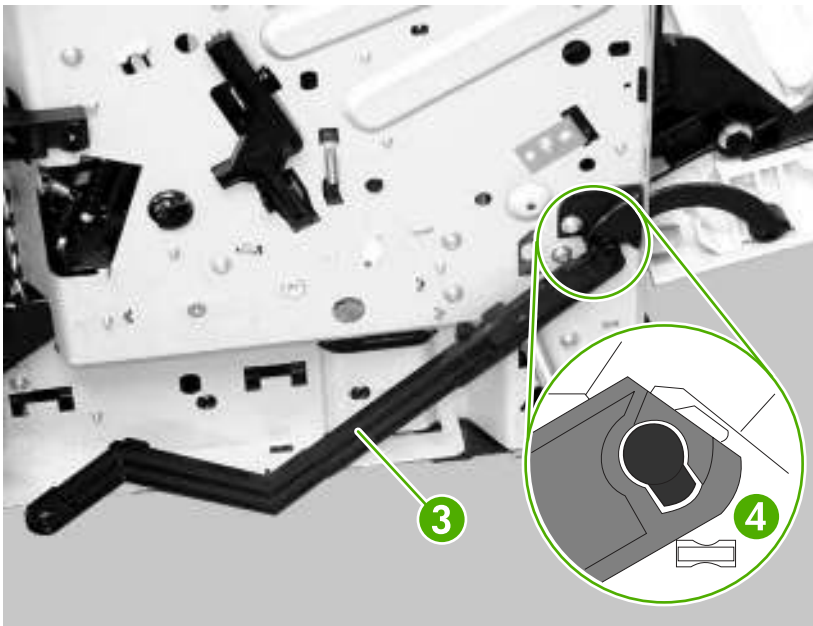
1. Remove the following components:
  - Right cover. See [Right cover on page 86](#).
  - Lower back cover or duplexer. See [Lower back cover on page 86](#) or [Duplexer on page 84](#).
  - Face-up bin. See [Face-up bin on page 87](#)
  - Top cover. See [Top cover on page 89](#).
  - Left cover. See [Left cover on page 92](#).
  - Fuser. See [Fuser on page 112](#).
2. On the left side of the printer, close the cartridge door and release one spring (callout 1).

3. Use needle-nose pliers to unhook the claw (callout 2) on the plastic arm.



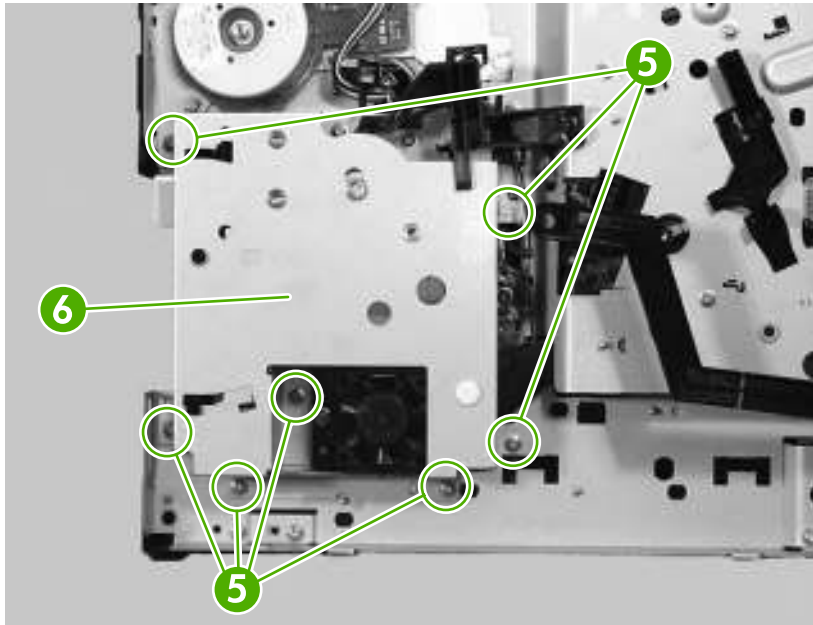
**Figure 5-112** Removing the sub fan (1 of 8)

4. Open the cartridge door.
5. Rotate the plastic arm (callout 3) down to unhook the plastic arm from the claw (callout 4).



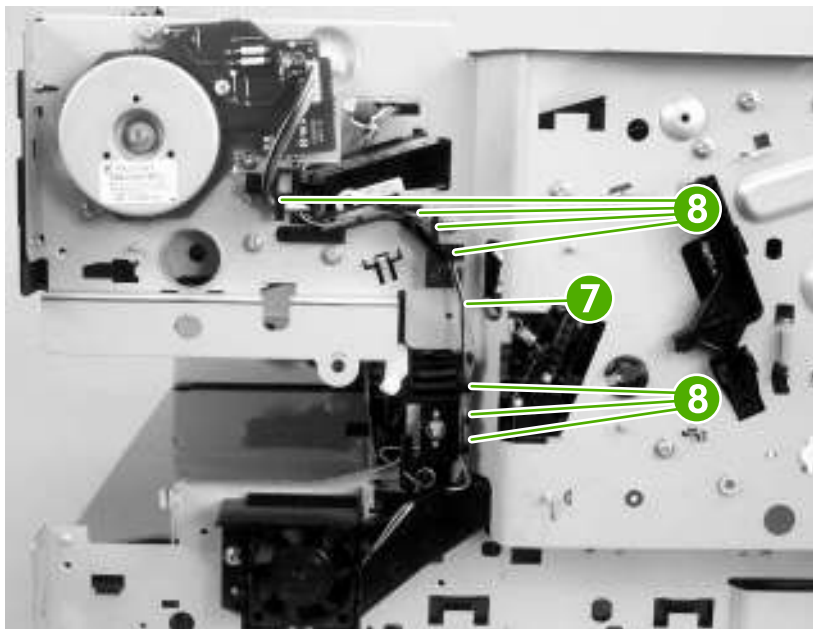
**Figure 5-113** Removing the sub fan (2 of 8)

6. Remove seven screws (callout 5) and then remove the fuser drive plate (callout 6)



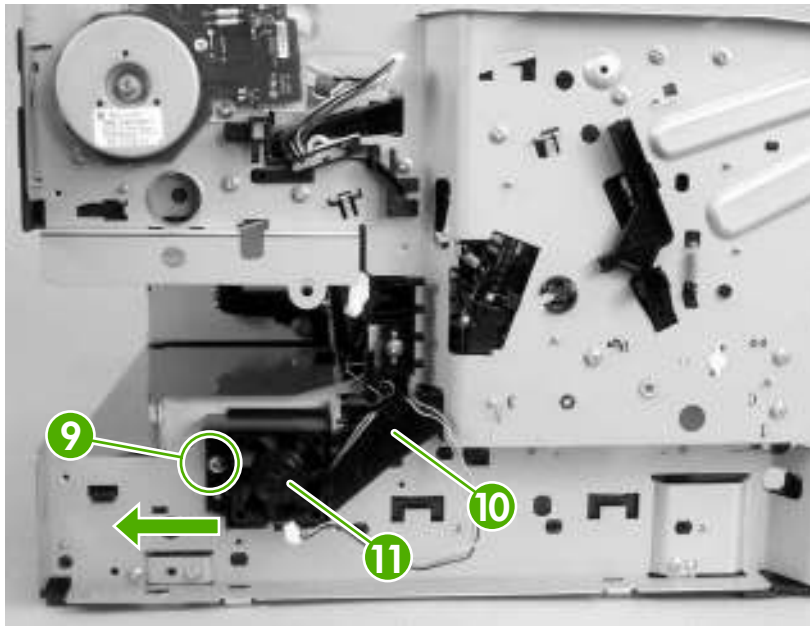
**Figure 5-114** Removing the sub fan (3 of 8)

7. Unhook one cable (callout 7) from the fan-duct guides (callout 8).



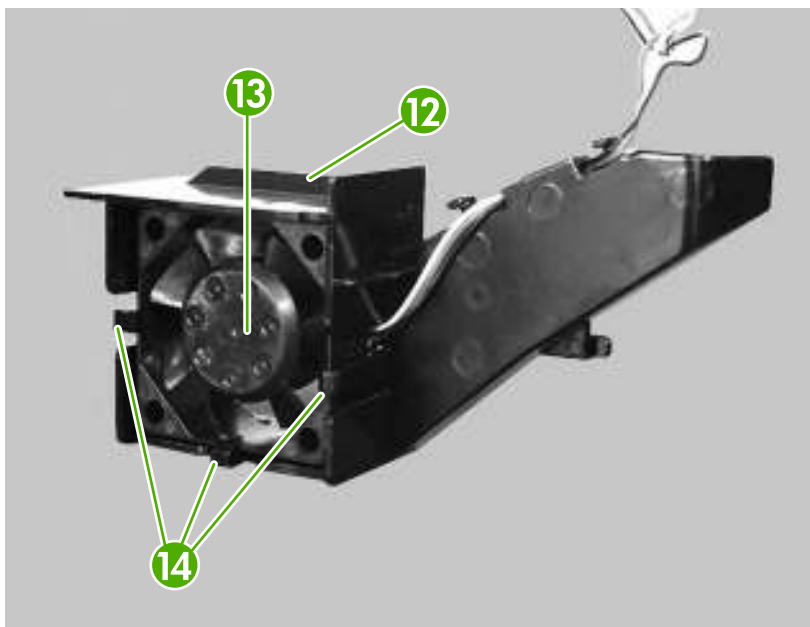
**Figure 5-115** Removing the sub fan (4 of 8)

8. Remove one screw (callout 9), and then hold the fan duct (callout 10) and the sub fan (callout 11) together as you remove them by sliding them slightly to the left.



**Figure 5-116** Removing the sub fan (5 of 8)

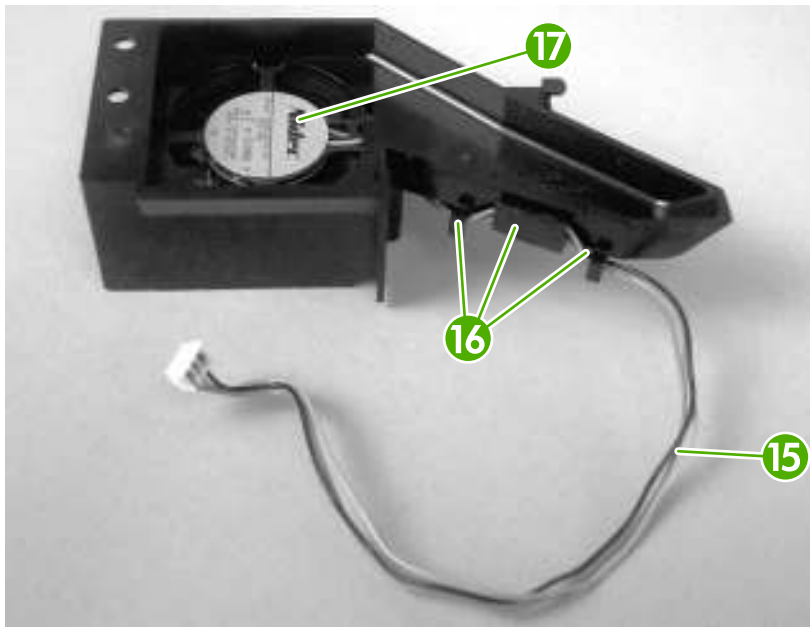
9. Push from the inside of the fan duct (callout 12) while releasing three bosses (callout 13).
10. Remove the sub fan (callout 14) from the fan duct.



**Figure 5-117** Removing the sub fan (6 of 8)



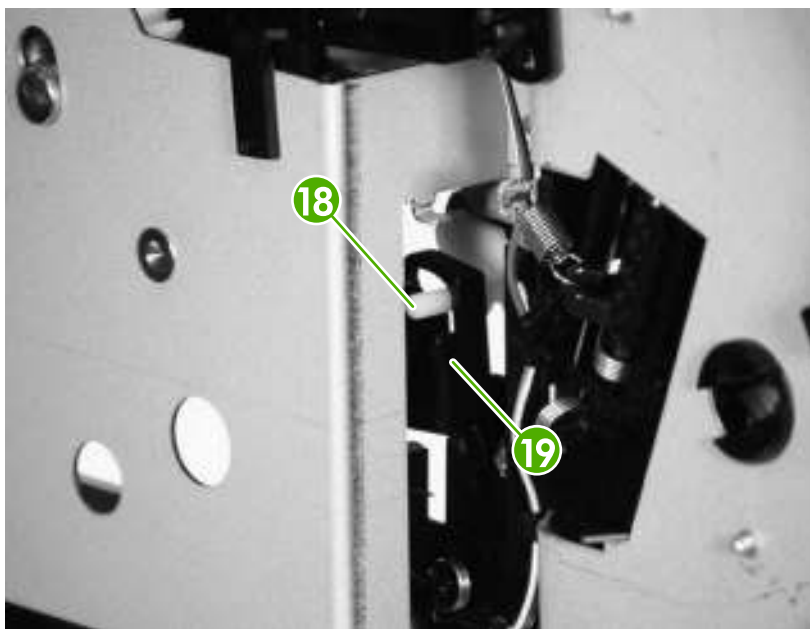
**Hint** When you reinstall the sub fan, guide the cable (callout 15) through the cable guides (callout 16) while reassembling the fan and the fan-duct guide. Make sure that the label (callout 17) on the sub fan is facing the printer.



**Figure 5-118** Removing the sub fan (7 of 8)



**Hint** When you reinstall the fuser drive plate, make sure that you insert the tab (callout 18) into the arm (callout 19).



**Figure 5-119** Removing the sub fan (8 of 8)

## Registration unit

1. Remove the following components:

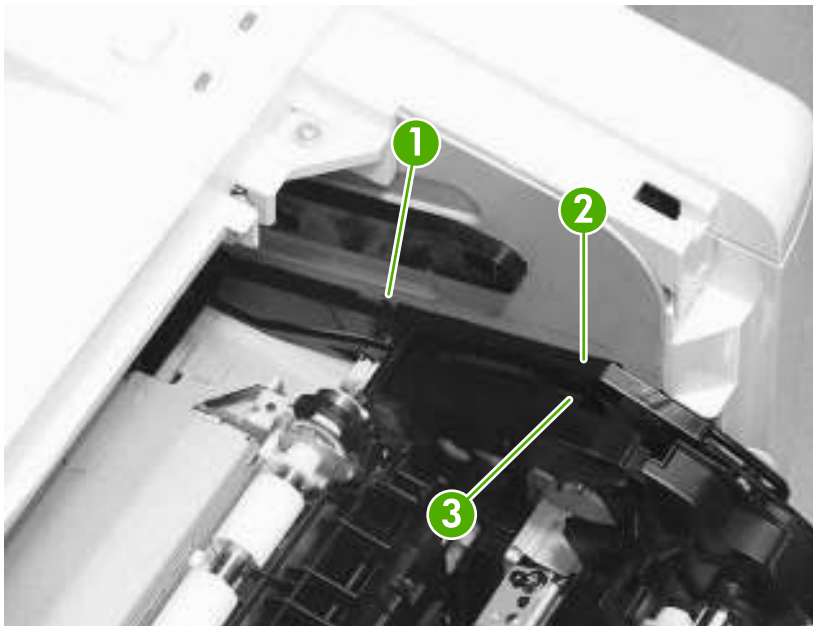
- Right cover. See [Right cover on page 86](#).
- Lower back cover or duplexer. See [Lower back cover on page 86](#) or [Duplexer on page 84](#).
- Face-up bin. See [Face-up bin on page 87](#).

2. Open the print-cartridge door.

3. Unhook one claw (callout 1), and remove the guide (callout 2) and the gear cover (callout 3).



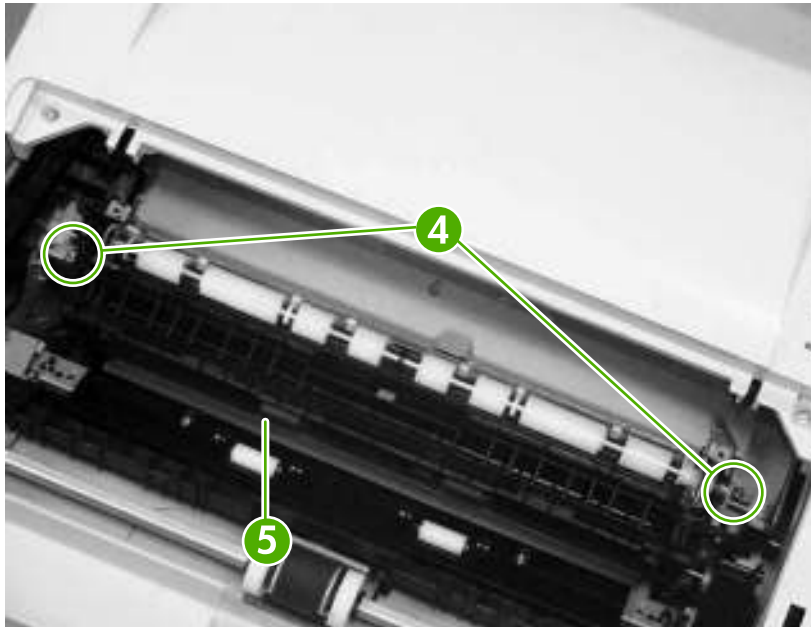
**Hint** Pop the guide and the gear cover from the top, and slide them toward you.



**Figure 5-120** Removing the registration unit (1 of 2)

4. Remove two screws (callout 4).

5. Lift up the registration unit (callout 5) and remove it.



**Figure 5-121** Removing the registration unit (2 of 2)

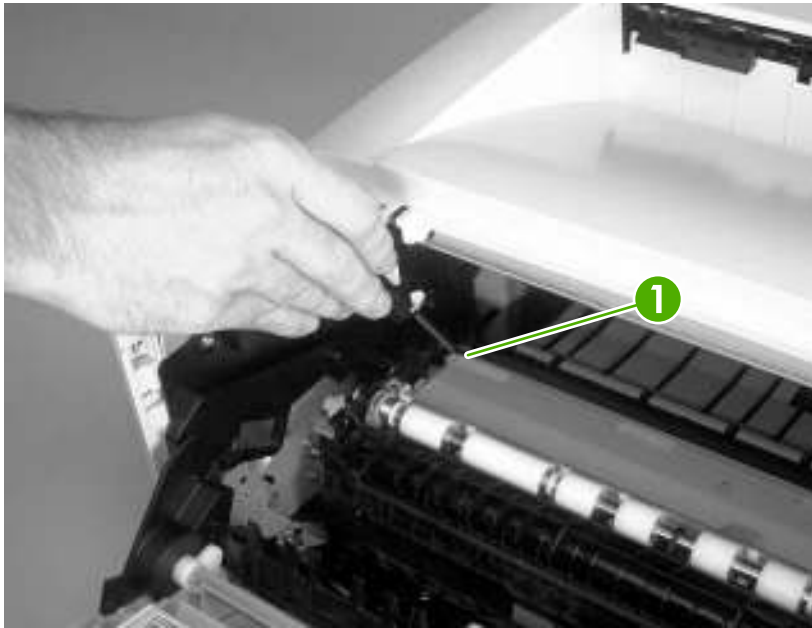


**NOTE** When you reinstall it, make sure that the metal tabs on the back, underneath side are seated correctly in the back of the registration unit.

## Transfer roller

1. Open the print-cartridge door.

2. Using a flatblade screwdriver, lift up the transfer roller (callout 1) on the left side of the printer and slide it to the left to remove it.



**Figure 5-122** Removing the transfer roller



**NOTE** Do *not* touch the rubber sponge on the transfer roller.



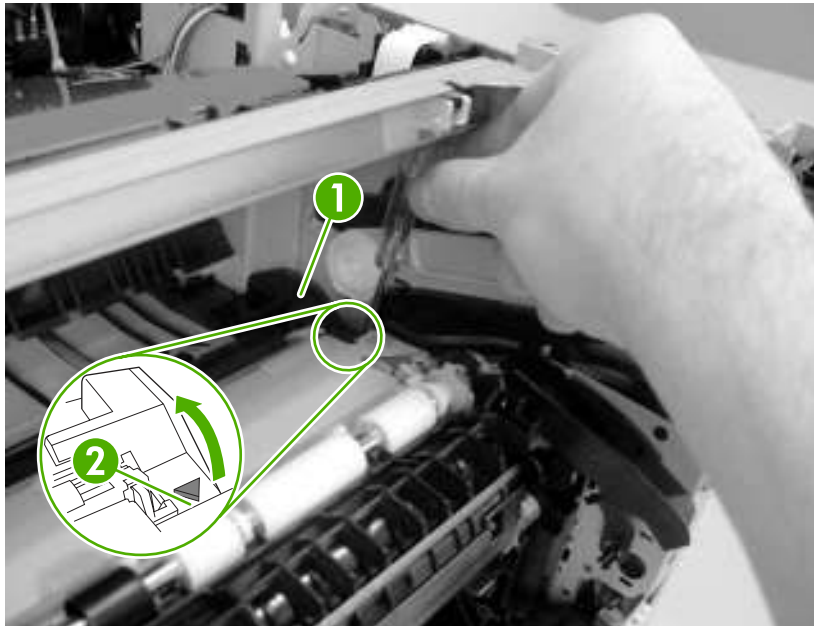
**NOTE** When you reinstall it, install the transfer roller on the right side of the printer and then snap it into the left side of the printer.

## Paper-feed unit

1. Remove the following components:
  - Right cover. See [Right cover on page 86](#).
  - Lower back cover or duplexer. See [Lower back cover on page 86](#) or [Duplexer on page 84](#).
  - Face-up bin. [Face-up bin on page 87](#).
  - Top cover. See [Top cover on page 89](#).
  - Fuser. See [Fuser on page 112](#).
  - Transfer roller. See [Transfer roller on page 135](#).

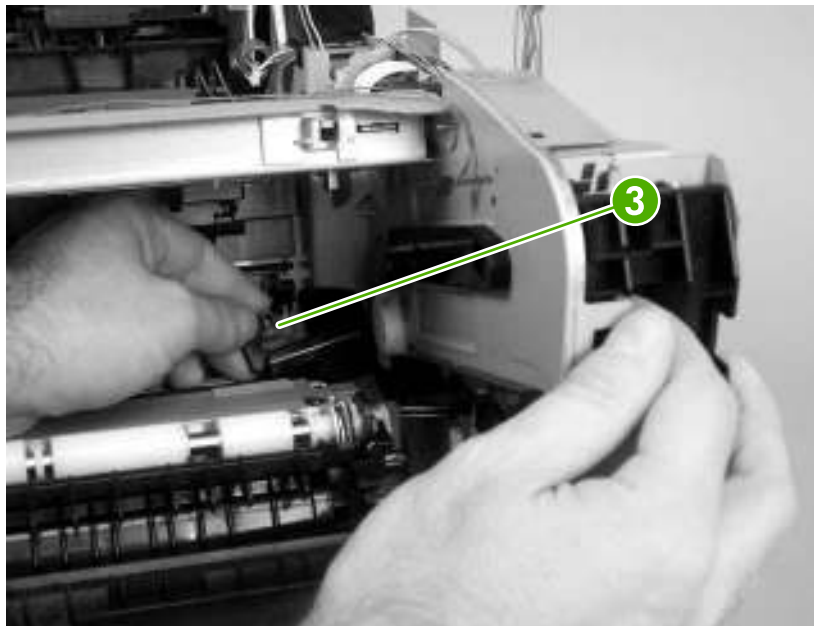


2. Use a flatblade screwdriver to release the connector cover (callout 1). Put the point of the screwdriver at the indicated location (callout 2).



**Figure 5-123** Removing the paper-feed unit (1 of 4)

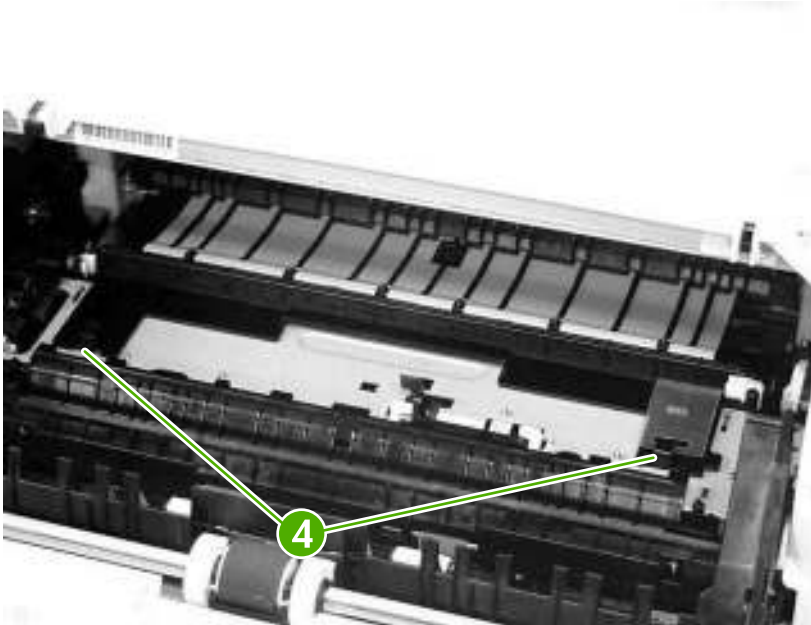
3. Remove the connector cover (callout 3).



**Figure 5-124** Removing the paper-feed unit (2 of 4)

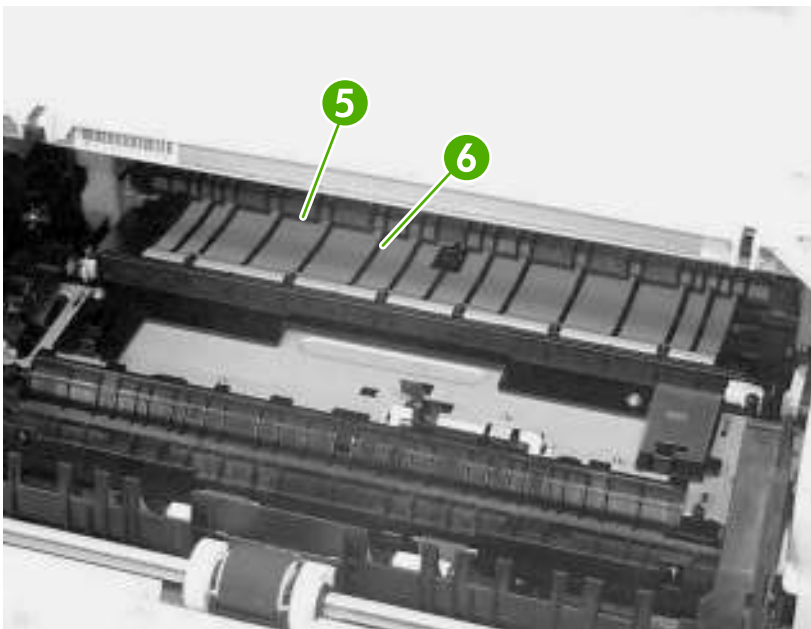
4. Remove the registration unit. See [Registration unit on page 134](#).

5. Unhook two claws (callout 4).



**Figure 5-125** Removing the paper-feed unit (3 of 4)

6. Push up and hold the fuser shutter (callout 5) while removing the paper-feed unit (callout 6).

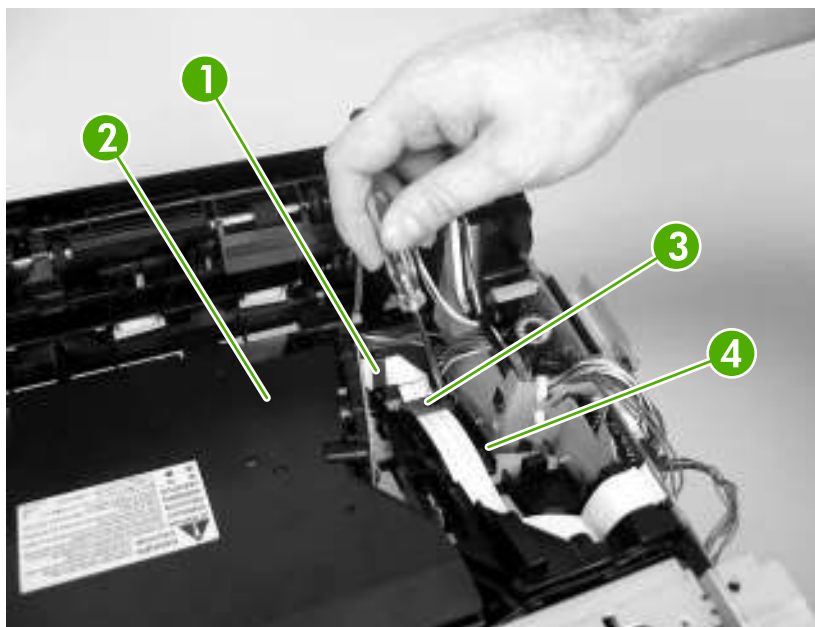


**Figure 5-126** Removing the paper-feed unit (4 of 4)

# Printed circuit assemblies (PCAs)

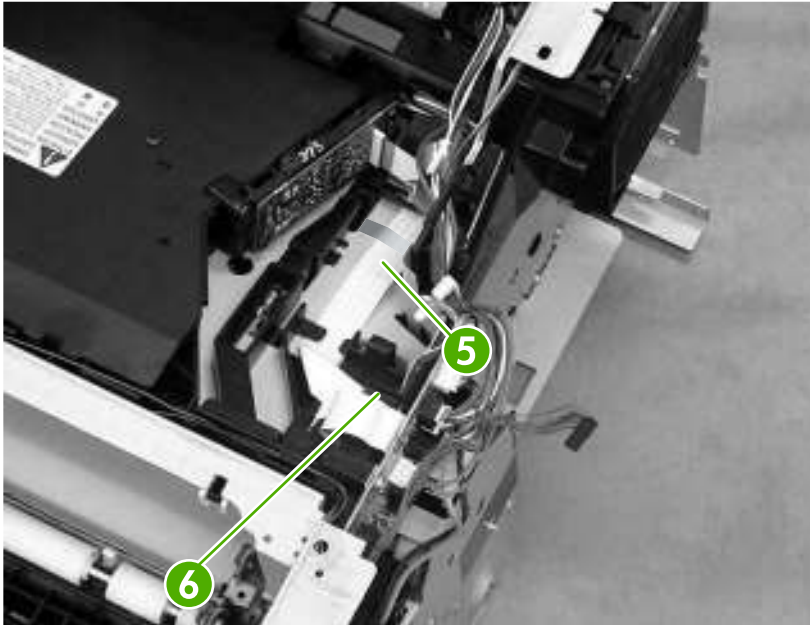
## DC controller

1. Remove the following components:
  - Right cover. See [Right cover on page 86](#).
  - Formatter. See [Formatter on page 76](#).
  - Lower back cover or duplexer. See [Lower back cover on page 86](#) or [Duplexer on page 84](#).
  - Face-up bin. See [Face-up bin on page 87](#).
  - Top cover. See [Top cover on page 89](#).
  - Right front cover. See [Right front cover on page 96](#).
  - DC controller cover. See [DC controller cover on page 100](#).
  - Low-voltage power supply. See [Low-voltage power supply PCA on page 151](#).
2. On the top of the printer, disconnect one flat flexible cable (callout 1) from the laser/scanner (callout 2).
3. Use a flatblade screwdriver to release the ferrite block (callout 3) from the plastic holder (callout 4).



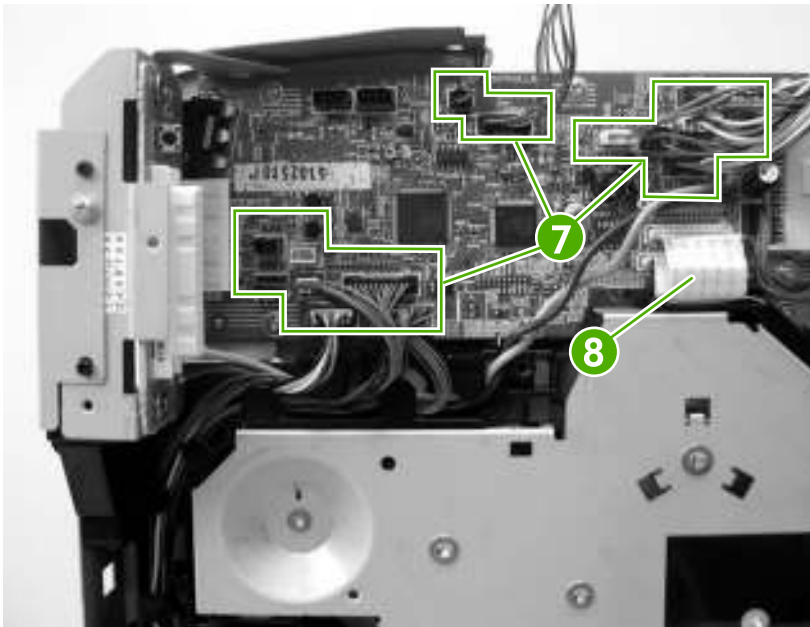
**Figure 5-127** Removing the DC controller (1 of 5)

4. Release one flat flexible cable (callout 5) from the cable guide (callout 6).



**Figure 5-128** Removing the DC controller (2 of 5)

5. Disconnect 15 connectors (callout 7) and two flat flexible cables (callout 8).

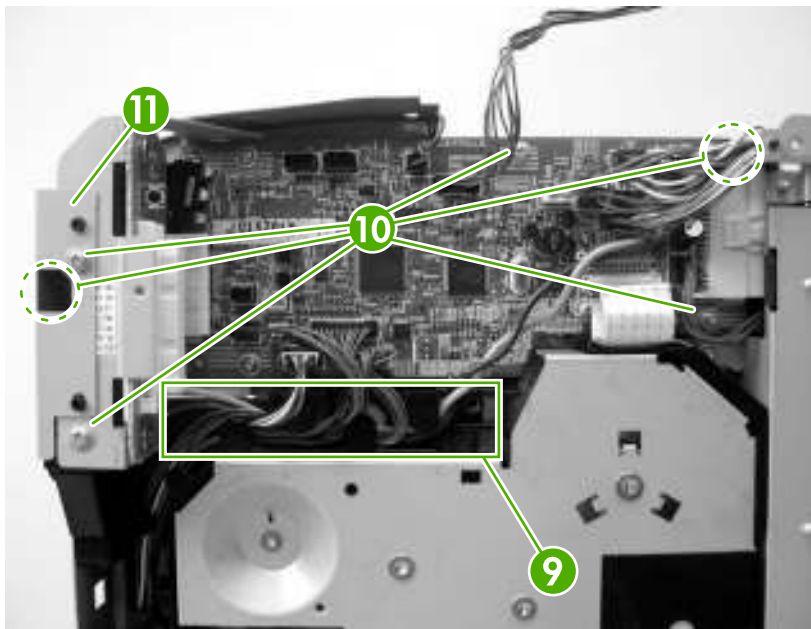


**Figure 5-129** Removing the DC controller (3 of 5)

6. Release the cables (callout 9) from the cable guide, and remove six screws (callout 10) and the plate (callout 11).

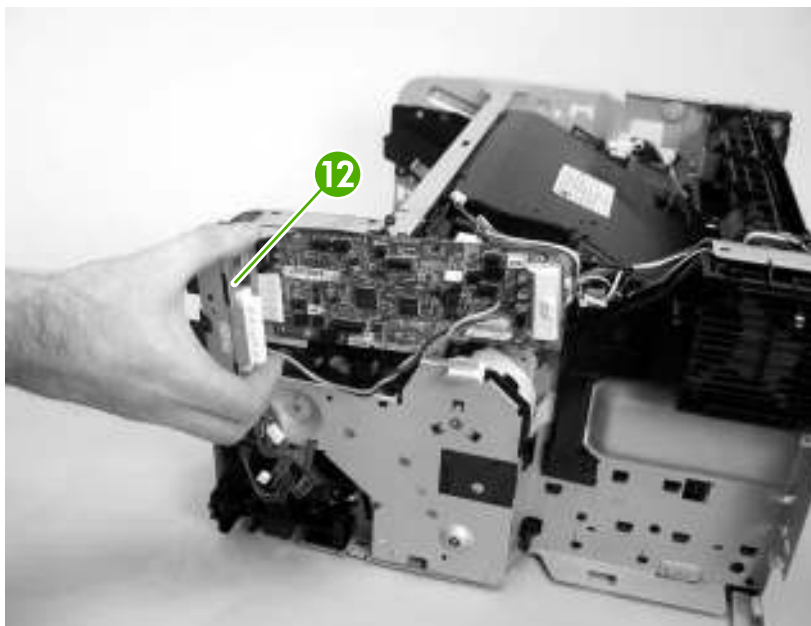


**NOTE** The screws indicated by the dotted circles are hidden.



**Figure 5-130** Removing the DC controller (4 of 5)

7. Remove the DC controller (callout 12) by pulling it toward you from the right back side and then slide it toward the back of the printer.



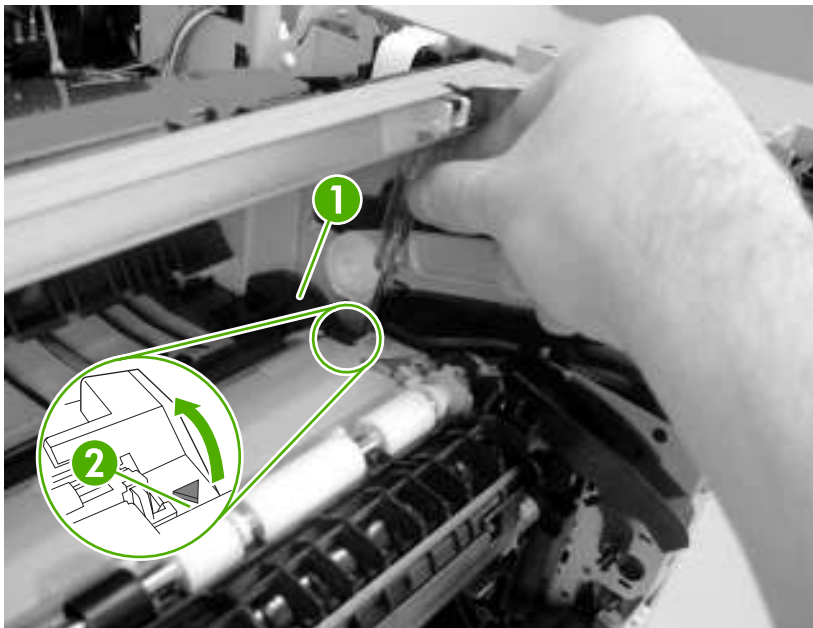
**Figure 5-131** Removing the DC controller (5 of 5)

## High-voltage power supply



**NOTE** You do *not* need to remove the cartridge door unit to remove the high-voltage power supply, but you must remove the registration unit.

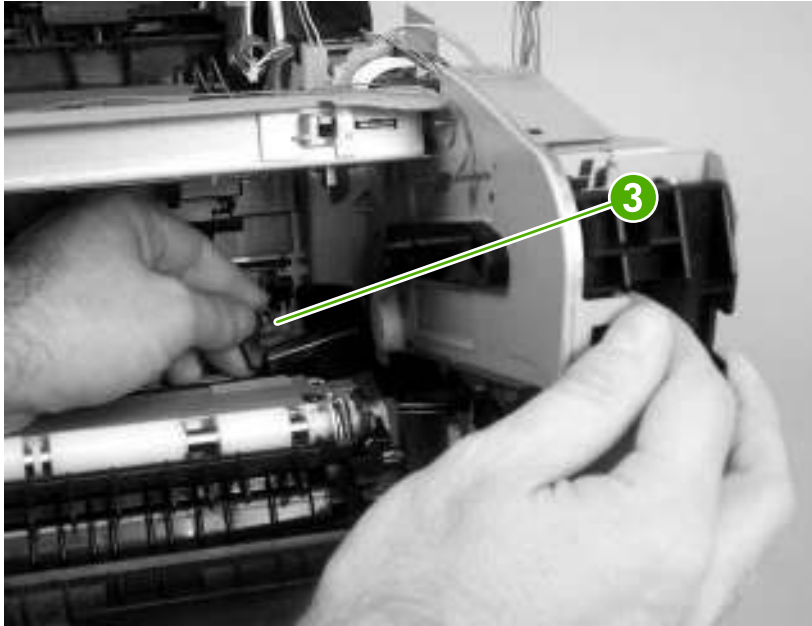
1. Remove the following components:
  - Right cover. See [Right cover on page 86](#).
  - Formatter. See [Formatter on page 76](#).
  - Lower back cover or duplexer. See [Lower back cover on page 86](#) or [Duplexer on page 84](#).
  - Face-up bin. See [Face-up bin on page 87](#).
  - Top cover. See [Top cover on page 89](#).
  - Left cover. See [Left cover on page 92](#).
  - Transfer roller. See [Transfer roller on page 135](#).
  - Fuser. See [Fuser on page 112](#).
2. Use a flatblade screwdriver to release the connector cover (callout 1). Put the point of the screwdriver at the indicated location (callout 2).



**Figure 5-132** Removing the high-voltage power supply (1 of 17)

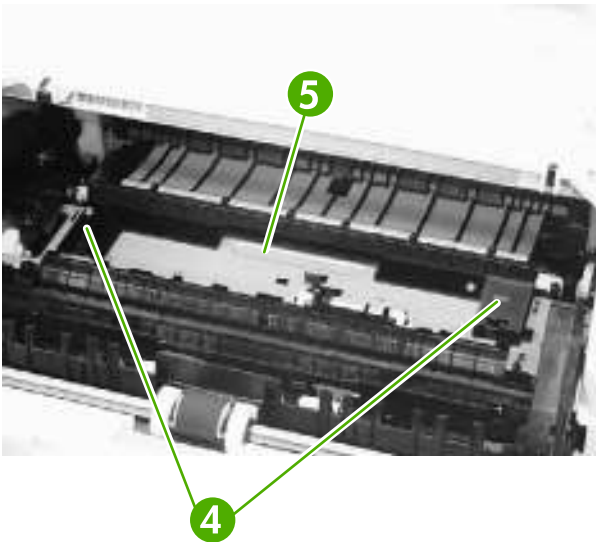


3. Remove the connector cover (callout 3).



**Figure 5-133** Removing the high-voltage power supply (2 of 17)

4. Unhook two claws (callout 4) and remove the paper feed unit (callout 5).



**Figure 5-134** Removing the high-voltage power supply (3 of 17)

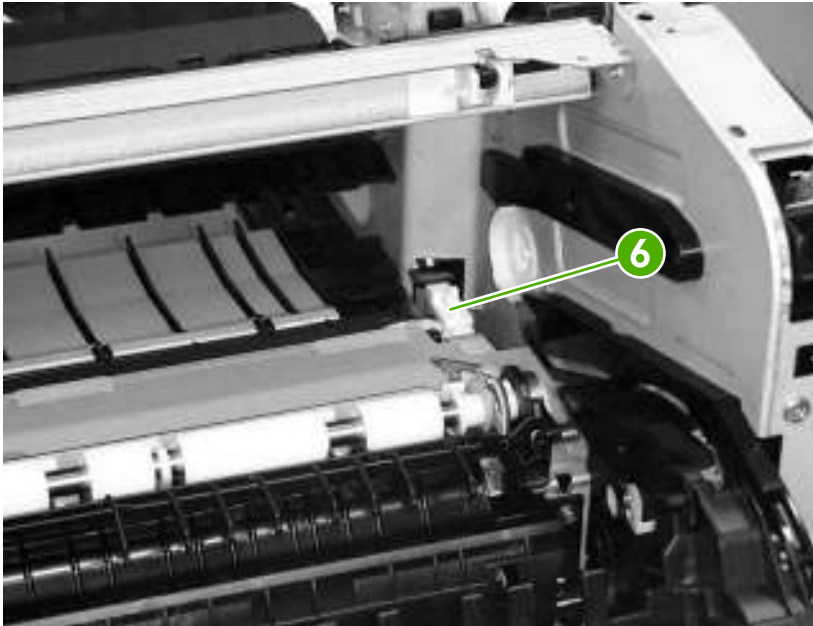
5. Use a flatblade screwdriver to disconnect one connector (callout 6).



**Hint** It is easier to disconnect the connector with the paper guide removed.

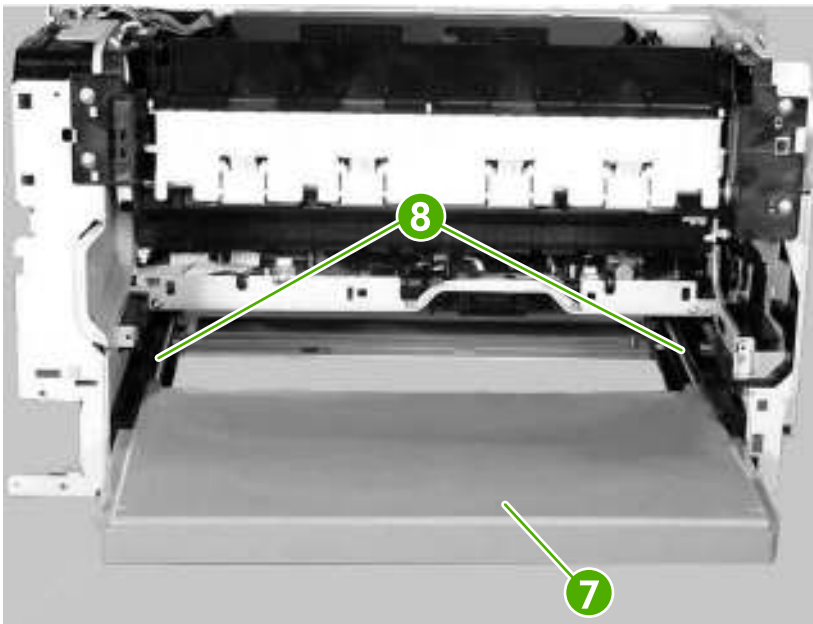


**NOTE** The connector release is on the left side of the connector. Push the connector release when disconnecting the connector.



**Figure 5-135** Removing the high-voltage power supply (4 of 17)

6. At the back of the printer, pull the plastic cover toward you (callout 7) and unhook two springs (callout 8). Flex the plastic cover by pressing the two sides inward and remove it from the back of the printer.



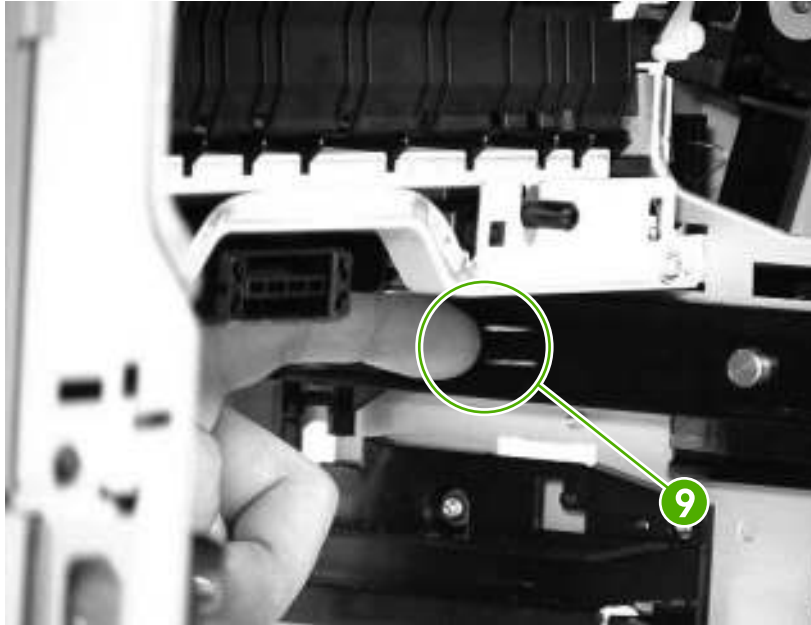
**Figure 5-136** Removing the high-voltage power supply (5 of 17)



7. Remove the registration unit. See [Registration unit on page 134](#).
8. From the back of the printer, unhook the front claw (callout 9) on the left side of the printer.



**NOTE** This claw is the one closest to you.

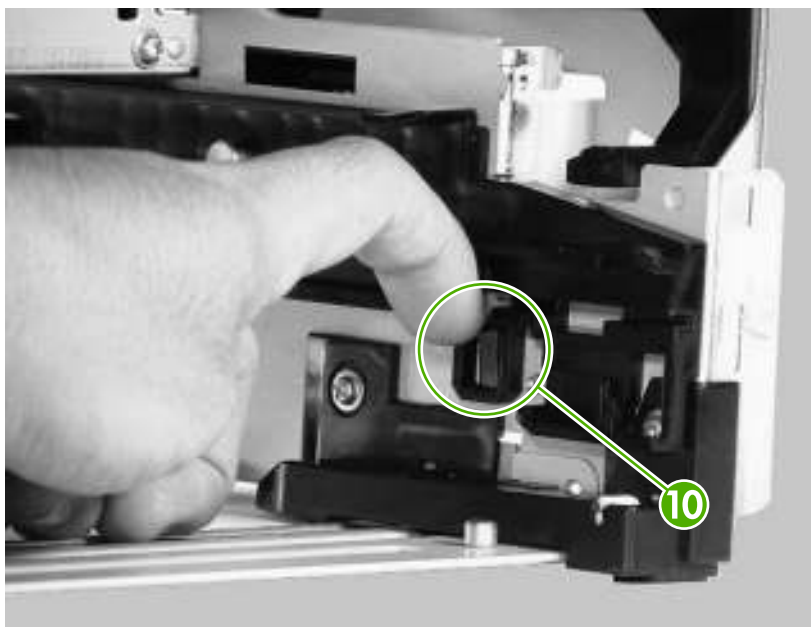


**Figure 5-137** Removing the high-voltage power supply (6 of 17)

9. Unhook the rear claw (callout 10).

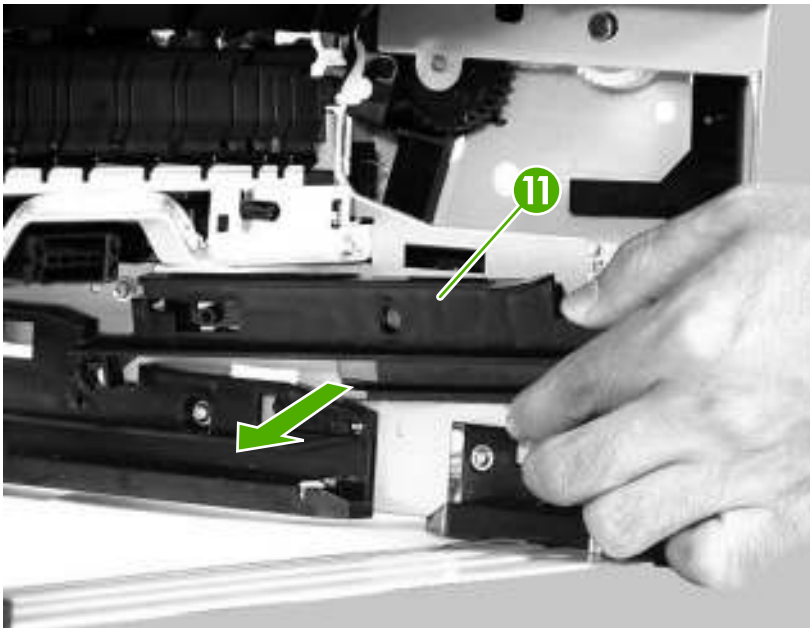


**NOTE** This claw is the one furthest to you.



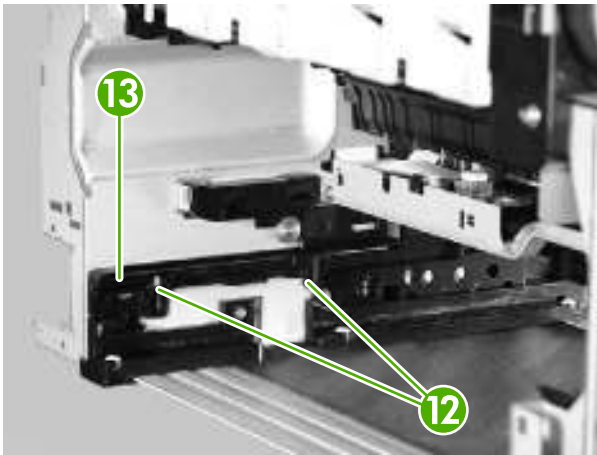
**Figure 5-138** Removing the high-voltage power supply (7 of 17)

10. From the back lower left of the printer, slightly turn the mounting guide (callout 11) upward and move it to the left to remove it.



**Figure 5-139** Removing the high-voltage power supply (8 of 17)

11. Unhook two claws (callout 12) on the right side of the printer and remove the guide (callout 13).

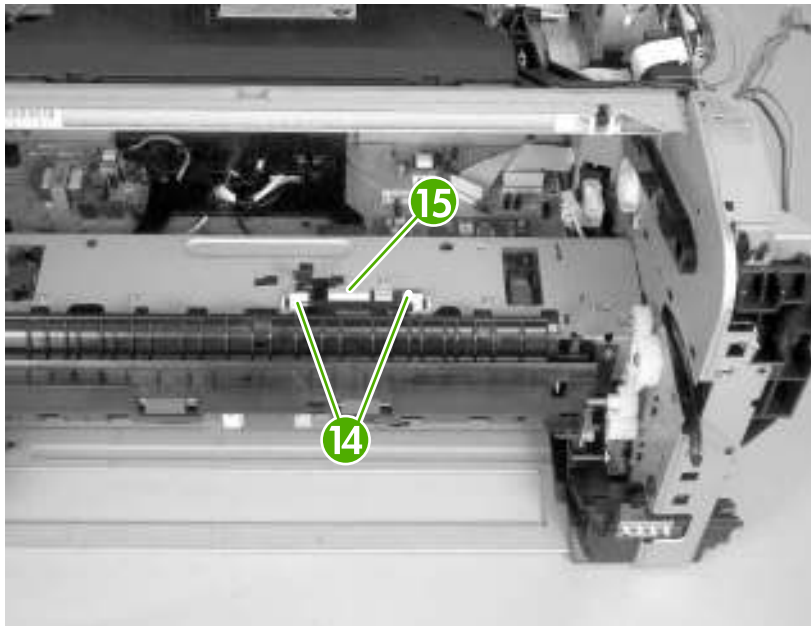


**Figure 5-140** Removing the high-voltage power supply (9 of 17)



**Hint** When you reinstall, install the rear claw and then the front claw.

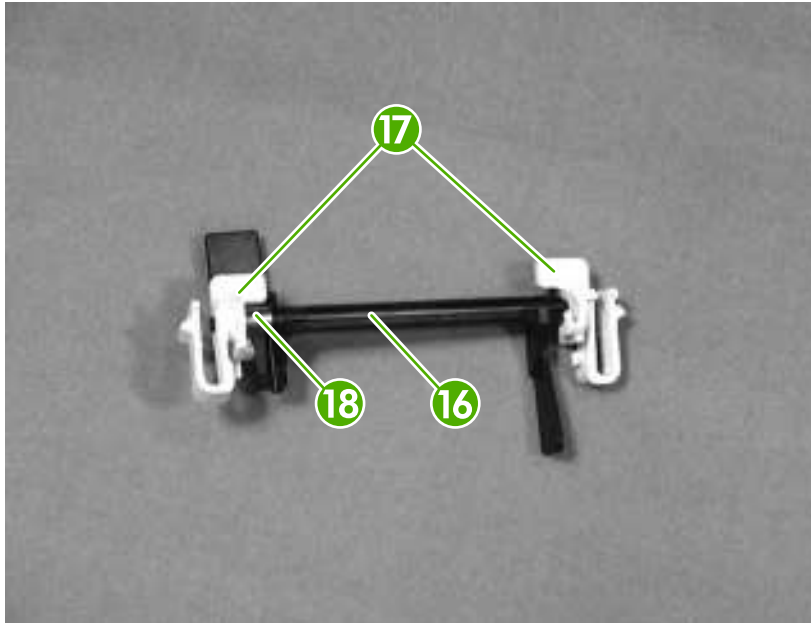
12. Unhook two claws (callout 14) at the front of the printer, and remove the sensor flag (callout 15) and two bushings.



**Figure 5-141** Removing the high-voltage power supply (10 of 17)

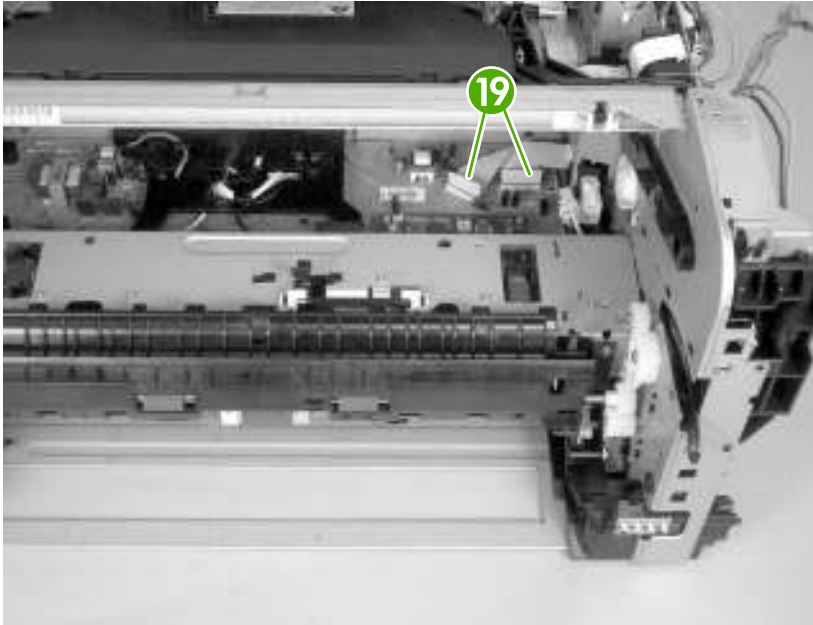


**NOTE** Before you reinstall the sensor flag, preset the sensor lever (callout 16), two bushings (callout 17), and one spring (callout 18).



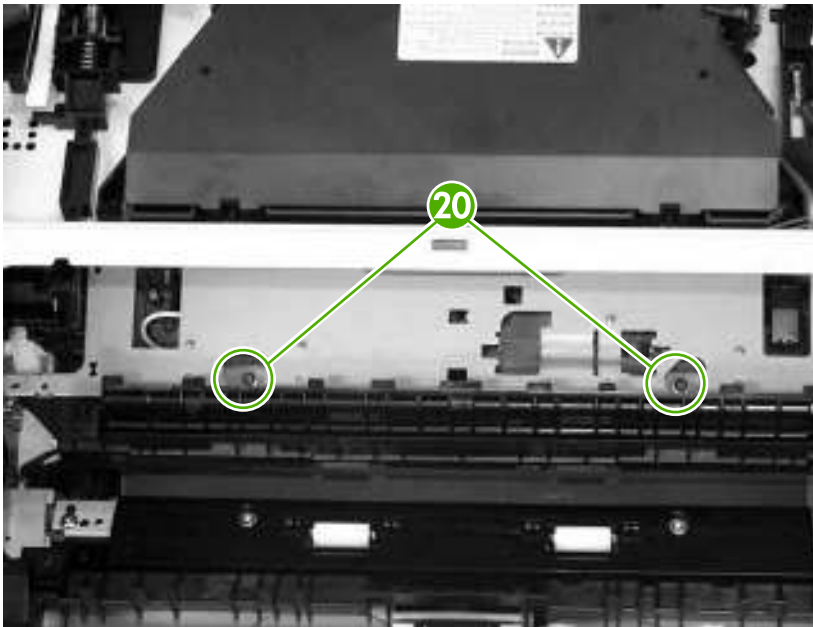
**Figure 5-142** Removing the high-voltage power supply (11 of 17)

13. Disconnect two flat flexible cables (callout 19) from the high-voltage power supply.



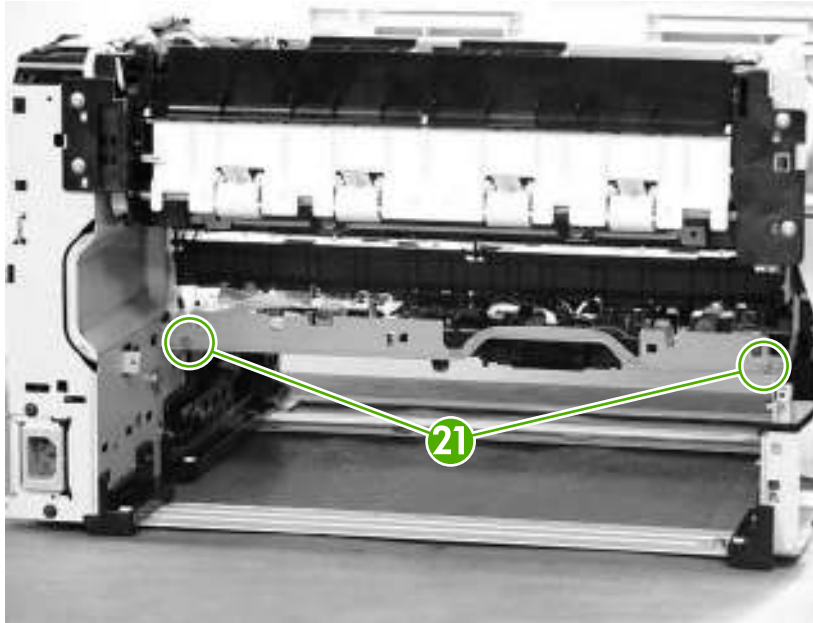
**Figure 5-143** Removing the high-voltage power supply (12 of 17)

14. Remove two screws (callout 20) at the top of the printer.



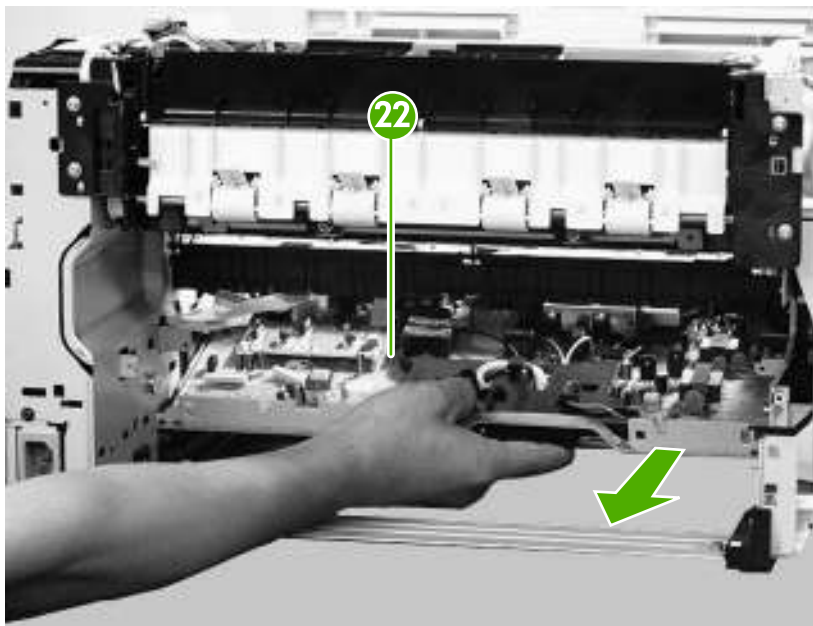
**Figure 5-144** Removing the high-voltage power supply (13 of 17)

15. Remove two screws (callout 21) at the back of the printer.



**Figure 5-145** Removing the high-voltage power supply (14 of 17)

16. Pull the high-voltage power supply (callout 22) toward you slightly and tilt it down to remove it.



**Figure 5-146** Removing the high-voltage power supply (15 of 17)

17. Remove the sensor lever (callout 23) and the spring (callout 24) from the high-voltage power supply.

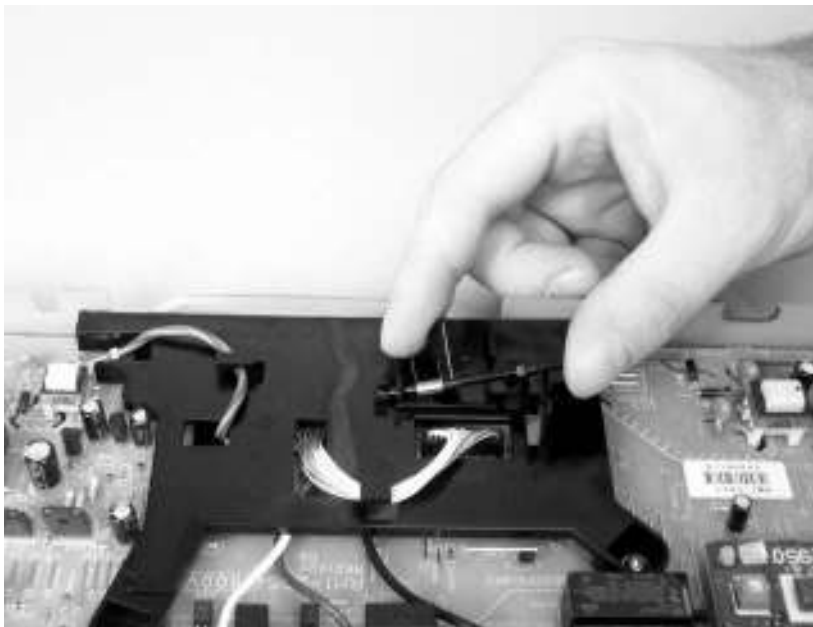


**Figure 5-147** Removing the high-voltage power supply (16 of 17)



**NOTE** When you reinstall the high-voltage power supply, make sure that the lever and the spring are seated correctly.

When you replace the high-voltage power supply, you need to remove the old sensor and install it on the replacement high-voltage power supply.

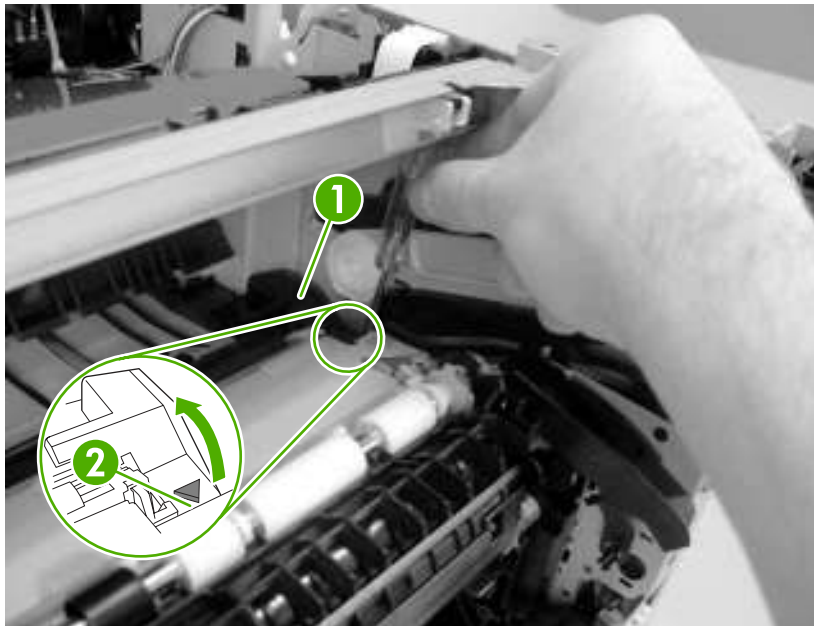


**Figure 5-148** Removing the high-voltage power supply (17 of 17)



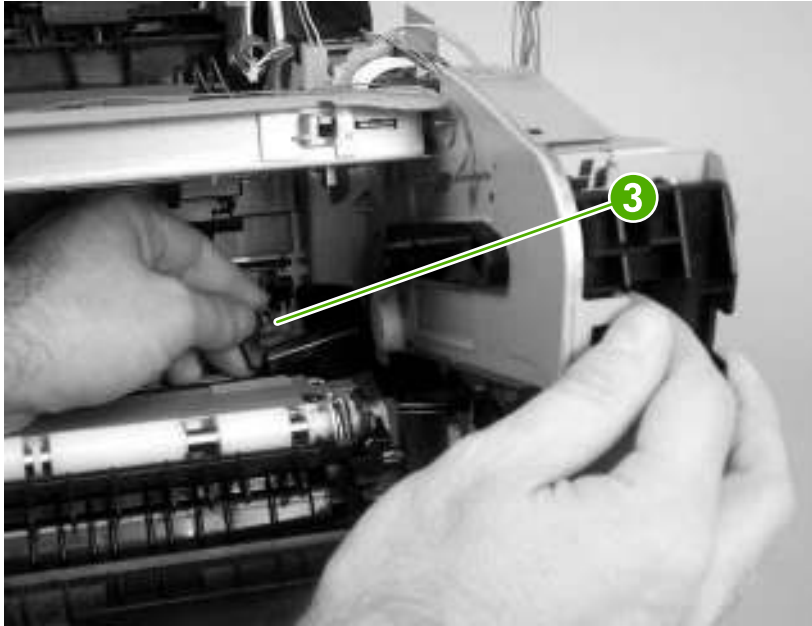
## Low-voltage power supply PCA

1. Remove the following components:
  - Right cover. See [Right cover on page 86](#).
  - Formatter. See [Formatter on page 76](#).
  - Face-up bin. See [Face-up bin on page 87](#).
  - Right lower cover. See [Right lower cover on page 97](#).
  - Top cover. See [Top cover on page 89](#).
  - DC controller cover. See [DC controller cover on page 100](#).
2. Use a flatblade screwdriver to release the connector cover (callout 1). Put the point of the screwdriver at the indicated location (callout 2).



**Figure 5-149** Removing the low-voltage power supply PCA (1 of 6)

3. Remove the connector cover (callout 3).



**Figure 5-150** Removing the low-voltage power supply PCA (2 of 6)

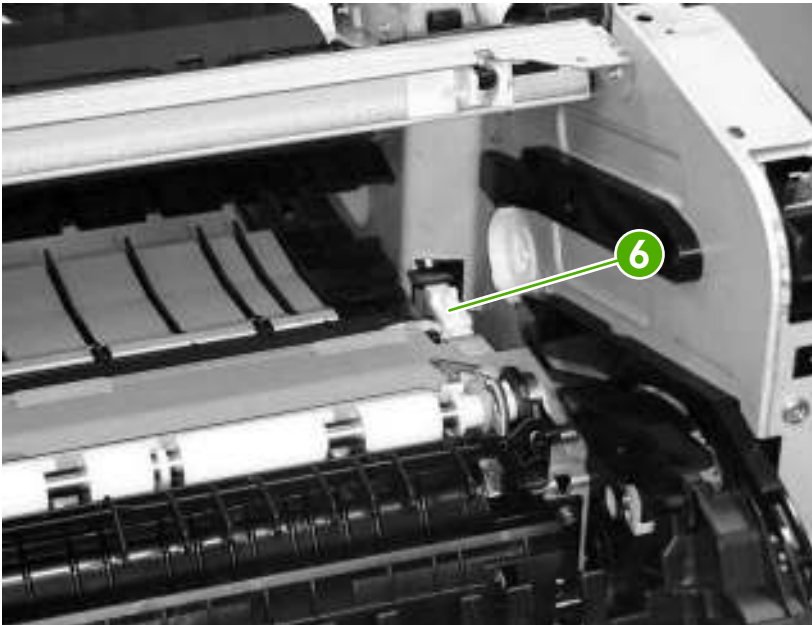
4. Use a flatblade screwdriver to disconnect one connector (callout 4).



**Hint** It is easier to disconnect the connector with the paper guide removed.



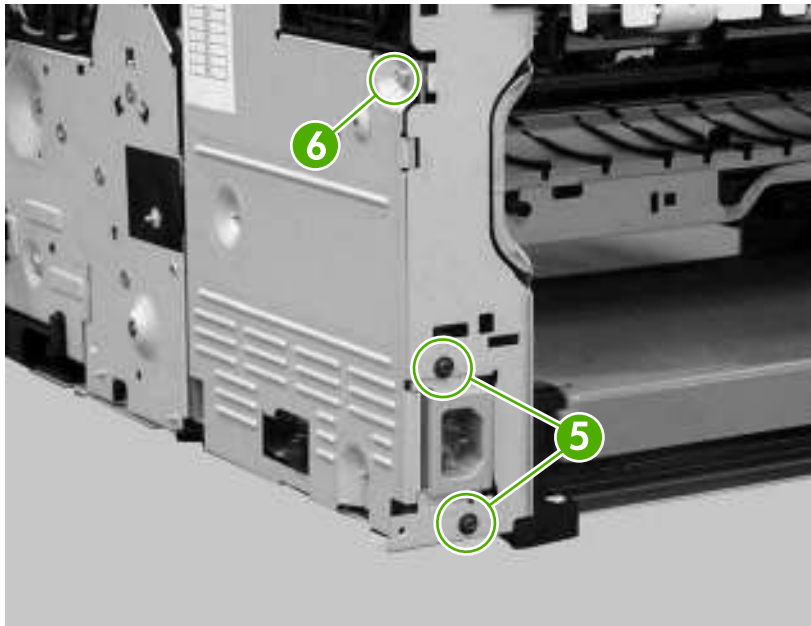
**NOTE** The connector release is on the left side of the connector. Push the connector release when disconnecting the connector.



**Figure 5-151** Removing the low-voltage power supply PCA (3 of 6)

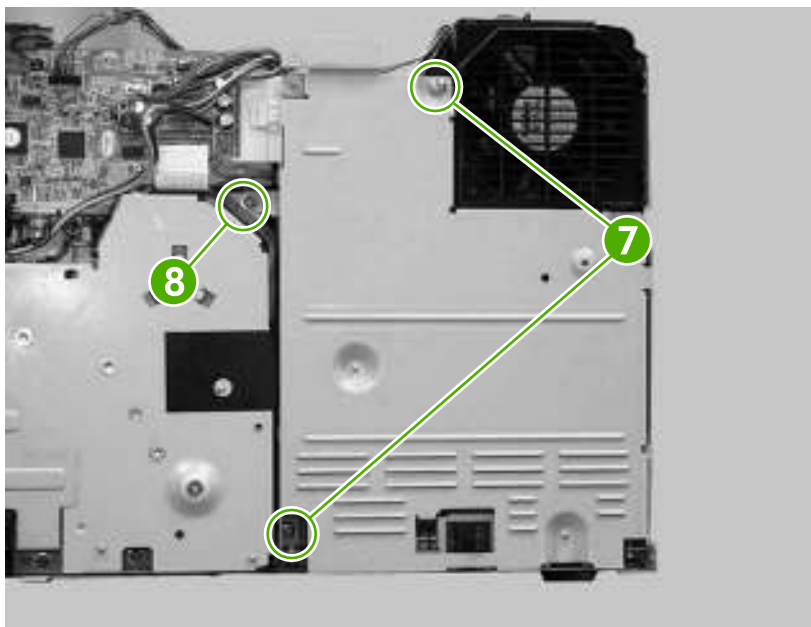


5. From the back of the printer, remove two black screws (callout 5) and remove one screw with a washer (callout 6).



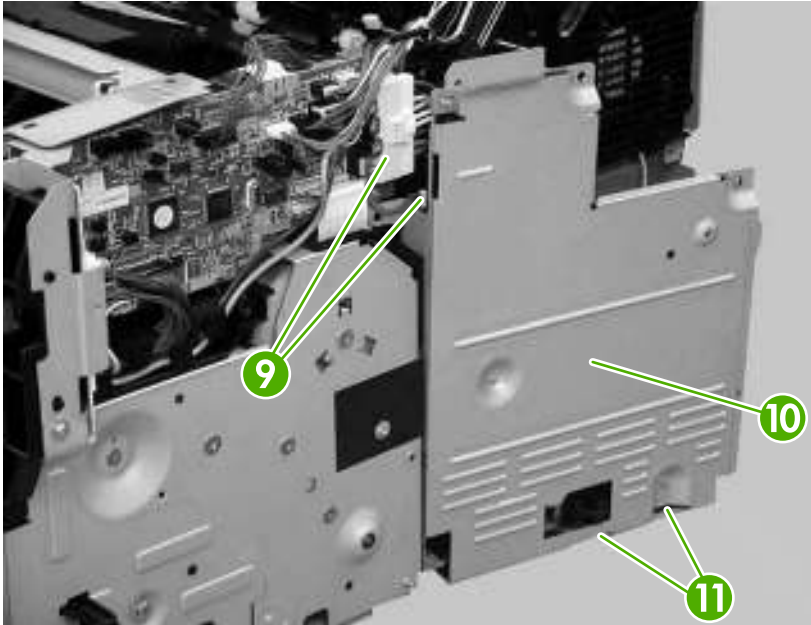
**Figure 5-152** Removing the low-voltage power supply PCA (4 of 6)

6. From the right side of the printer, remove two self-tapping screws (callout 7) and one additional screw (callout 8).



**Figure 5-153** Removing the low-voltage power supply PCA (5 of 6)

7. Disconnect two connectors (callout 9) and remove the low-voltage power supply (callout 10).



**Figure 5-154** Removing the low-voltage power supply PCA (6 of 6)



**Hint** Reinstalling might be difficult if the tabs (callout 11) on the bottom of the metal shield go below the frame.

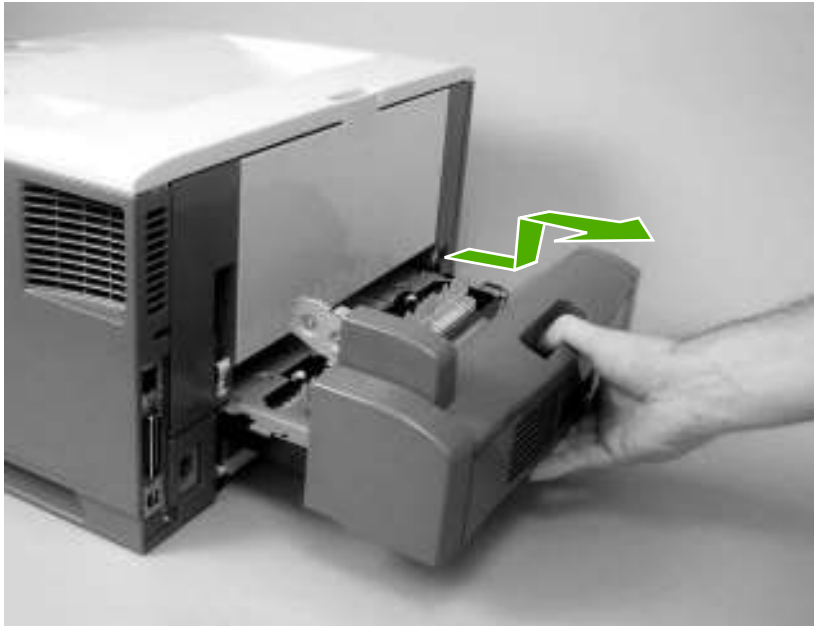
# Duplexer

## Duplexer



**NOTE** A minimum of an additional 64 MB is needed when adding a duplexer to the printer.

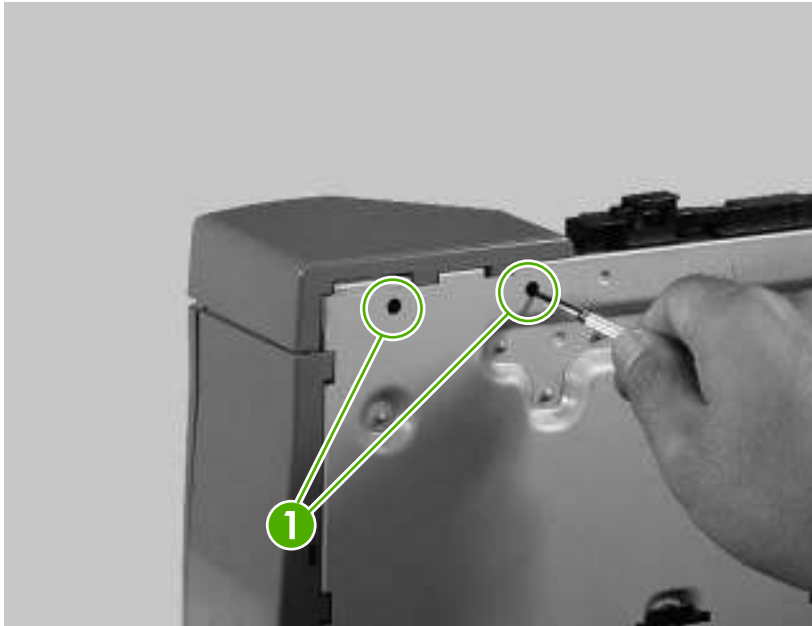
1. At the back of the printer, pull out the duplexer until it stops.
2. Lift up the duplexer and slightly pull it toward you to remove it.



**Figure 5-155** Removing the duplexer

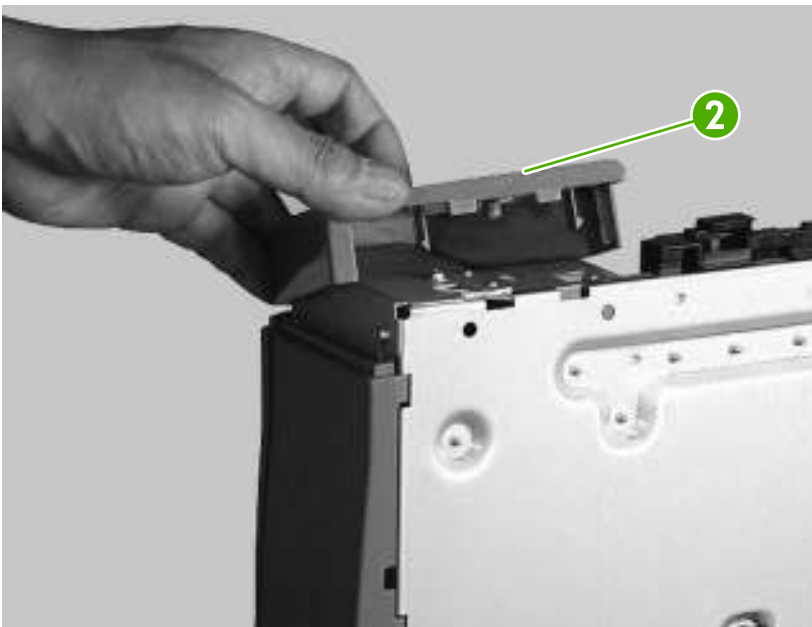
## Duplexer left cover

1. Using a flatblade screwdriver, unhook two claws (callout 1) on the bottom of the duplexer.



**Figure 5-156** Removing the duplexer left cover (1 of 2)

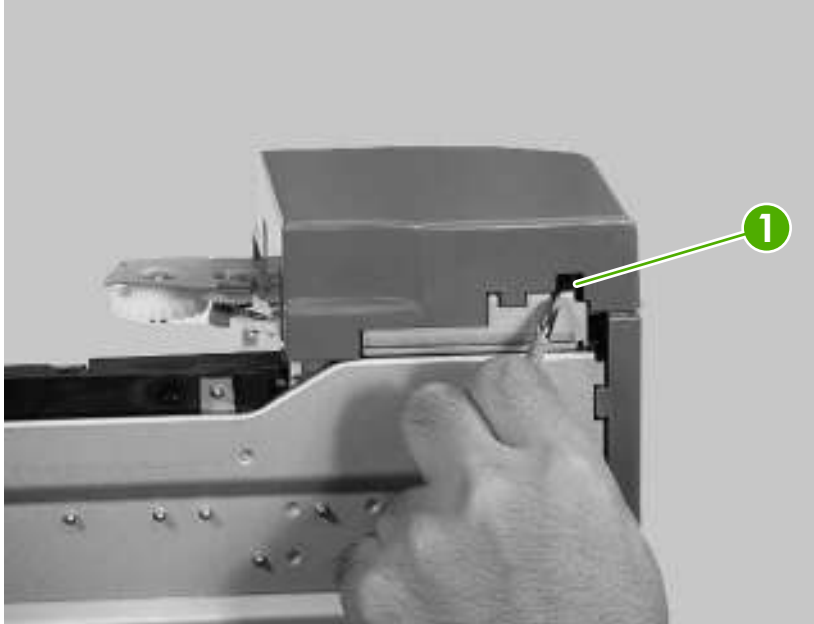
2. Remove the duplexer left cover (callout 2).



**Figure 5-157** Removing the duplexer left cover (2 of 2)

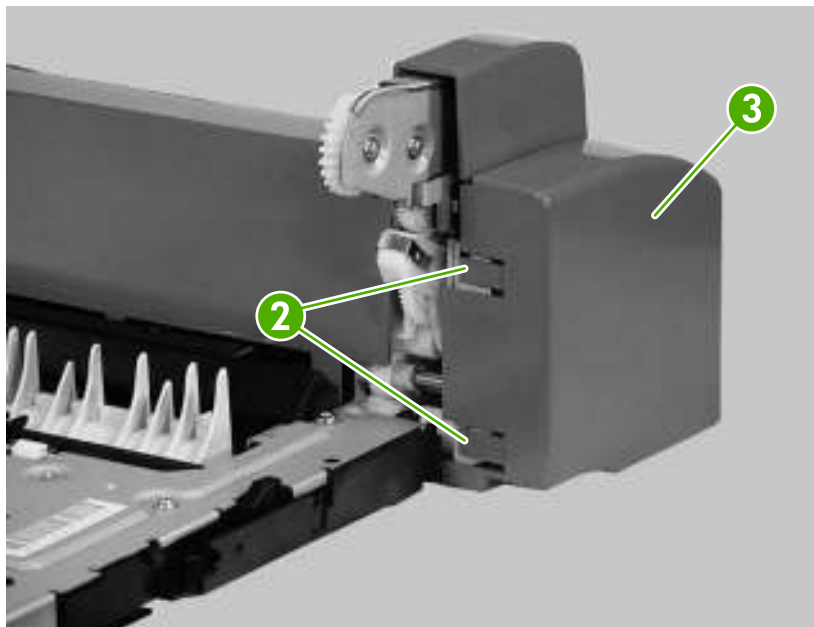
## Duplexer right cover

1. Using a flatblade screwdriver, unhook one claw (callout 1) on the bottom of the duplexer.



**Figure 5-158** Removing the duplexer right cover (1 of 2)

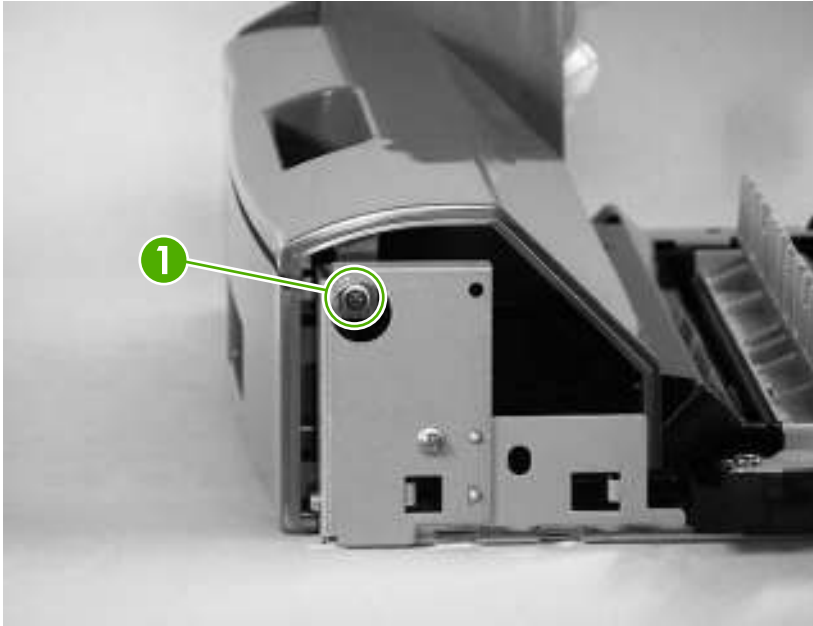
2. Unhook two claws (callout 2) and remove the duplexer right cover (callout 3).



**Figure 5-159** Removing the duplexer right cover (2 of 2)

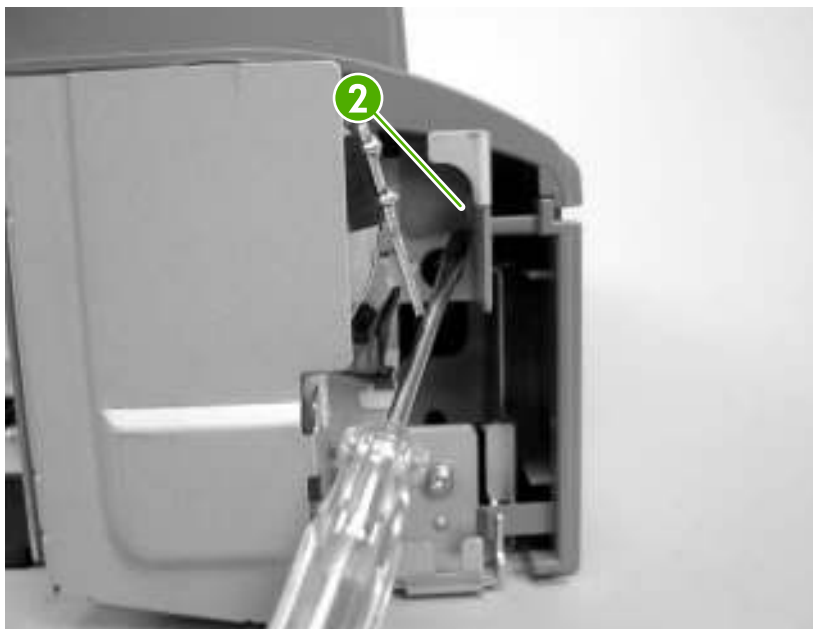
## Duplexer top cover

1. Remove the following components:
  - Duplexer left cover. See [Duplexer left cover on page 156](#).
  - Duplexer right cover. See [Duplexer right cover on page 157](#).
2. On the right side of the duplexer, remove one screw (callout 1).



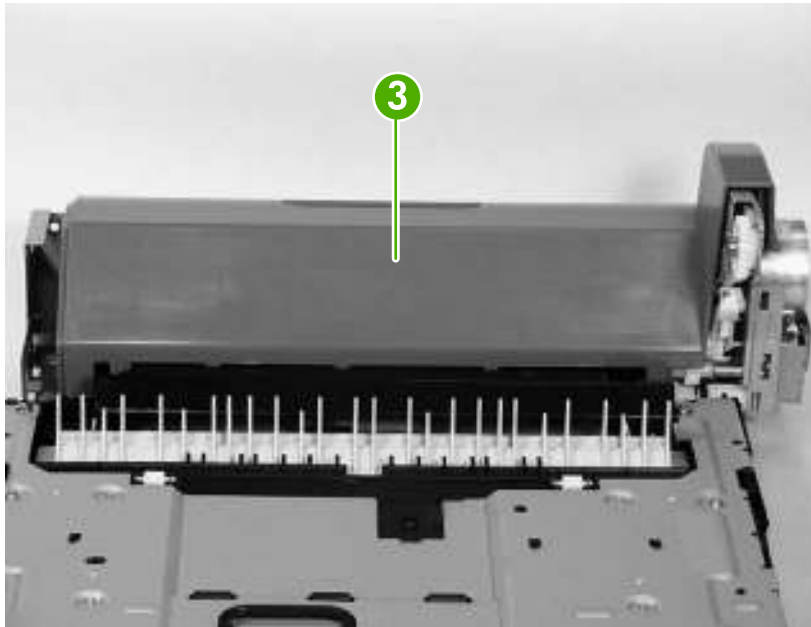
**Figure 5-160** Removing the duplexer top cover (1 of 3)

3. On the left side of the duplexer, unhook the tab (callout 2).



**Figure 5-161** Removing the duplexer top cover (2 of 3)

4. Remove the duplexer top cover (callout 3).

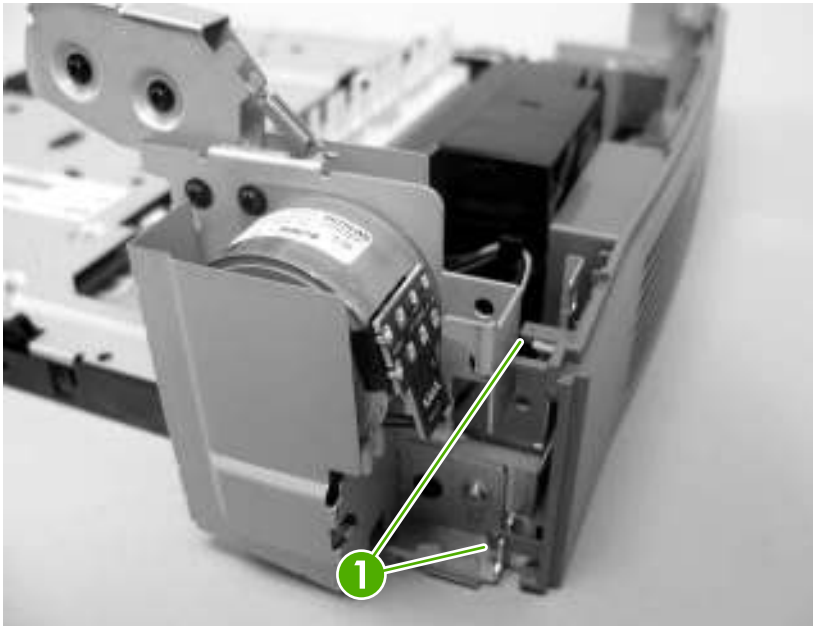


**Figure 5-162** Removing the duplexer top cover (3 of 3)

## Duplexer back cover

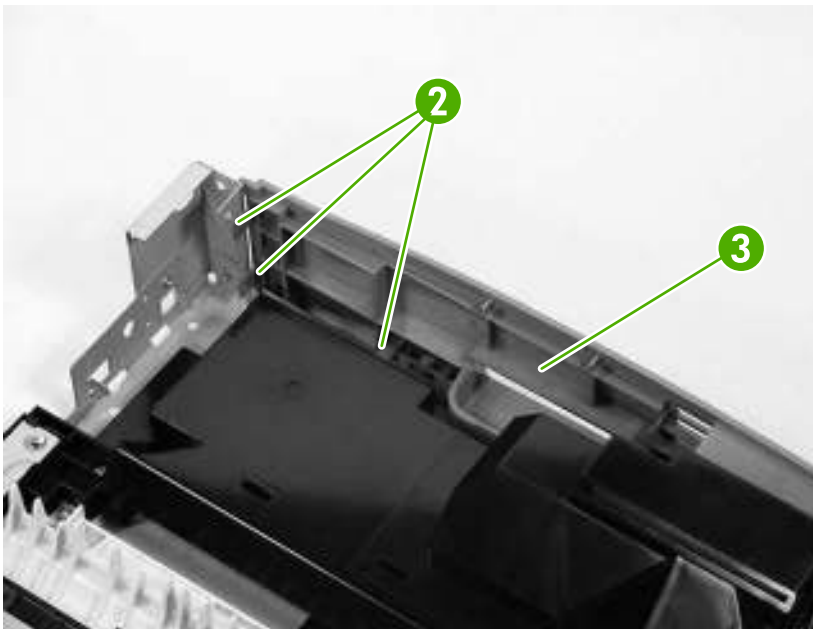
1. Remove the following components:
  - Duplexer right cover. See [Duplexer right cover on page 157](#).
  - Duplexer left cover. See [Duplexer left cover on page 156](#).
  - Duplexer top cover. See [Duplexer top cover on page 158](#).

2. Unhook two claws (callout 1) on the right side of the duplexer.



**Figure 5-163** Removing the duplexer back cover (1 of 2)

3. Unhook three claws (callout 2) on the left side of the duplexer.
4. Remove the duplexer back cover (callout 3).

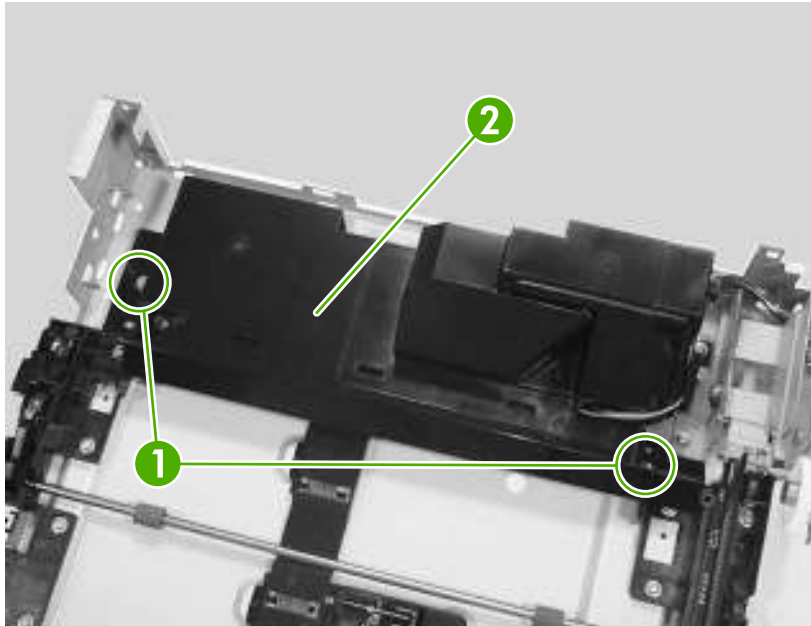


**Figure 5-164** Removing the duplexer back cover (2 of 2)



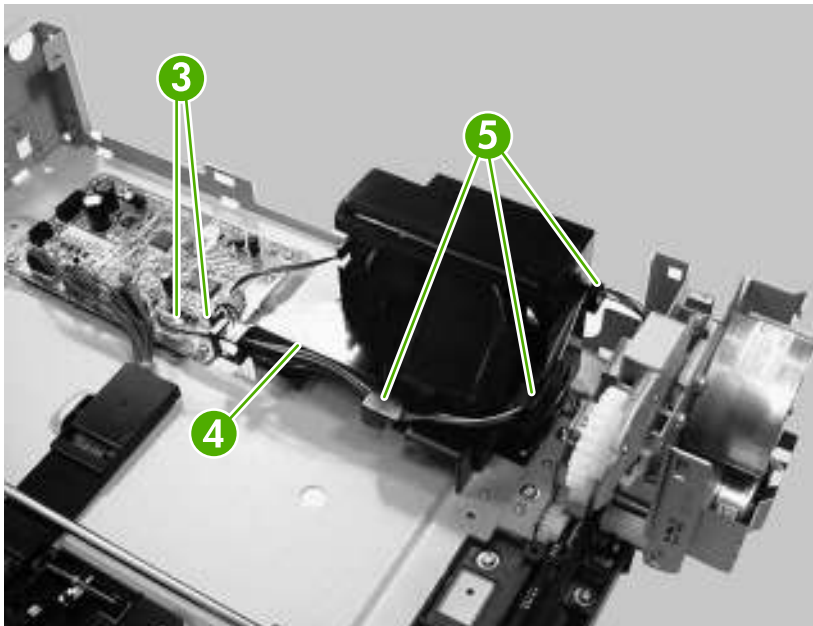
## Duplexer feed motor

1. Remove the following components:
  - Duplexer right cover. See [Duplexer right cover on page 157](#).
  - Duplexer left cover. See [Duplexer left cover on page 156](#).
  - Duplexer top cover. See [Duplexer top cover on page 158](#).
  - Duplexer back cover. See [Duplexer back cover on page 159](#).
2. Remove two screws (callout 1) and one duct (callout 2).



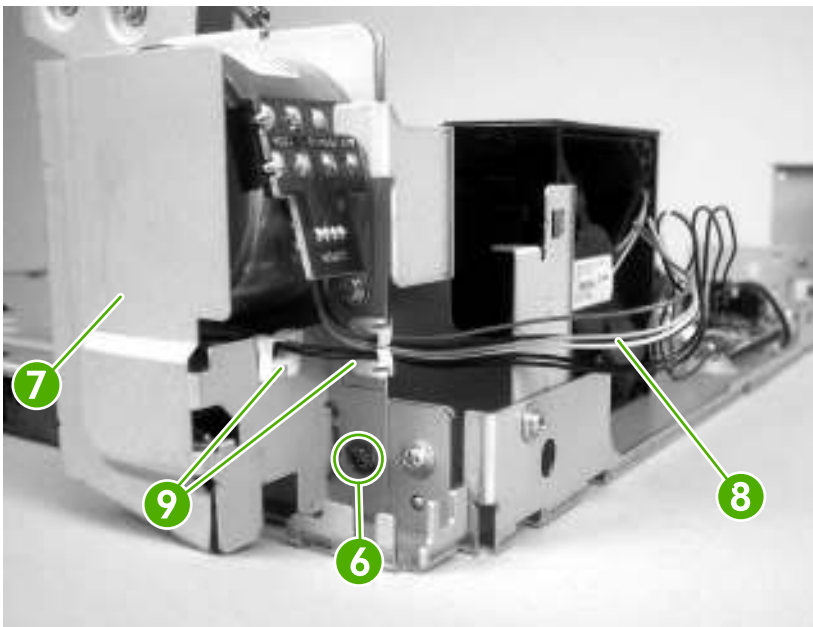
**Figure 5-165** Removing the duplexer feed motor (1 of 5)

3. Disconnect two connectors (callout 3) and release the cables (callout 4) from the cable guides (callout 5).



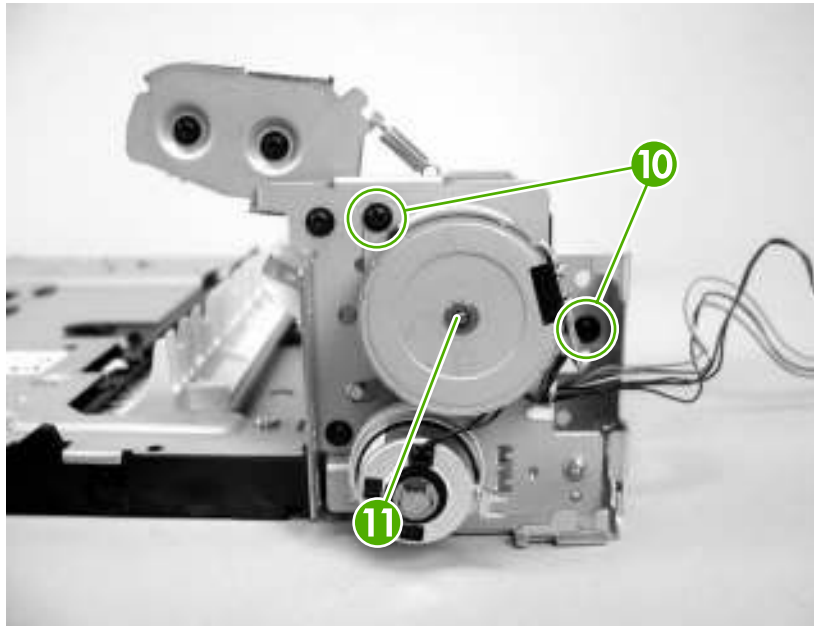
**Figure 5-166** Removing the duplexer feed motor (2 of 5)

4. Remove one screw (callout 6) and one metal plate (callout 7), and disconnect the cables (callout 8) from the two cable guides (callout 9).



**Figure 5-167** Removing the duplexer feed motor (3 of 5)

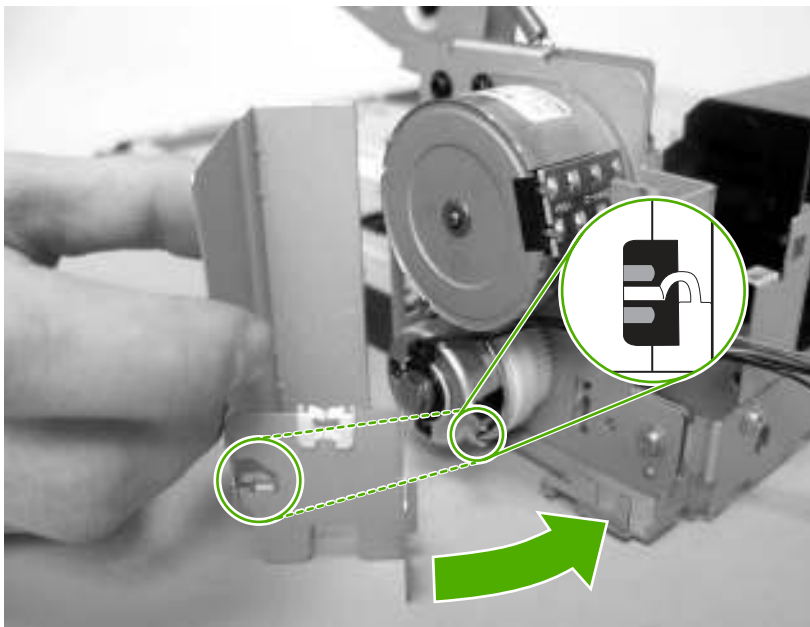
5. Remove two screws (callout 10) and then remove the duplexer feed motor (callout 11).



**Figure 5-168** Removing the duplexer feed motor (4 of 5)



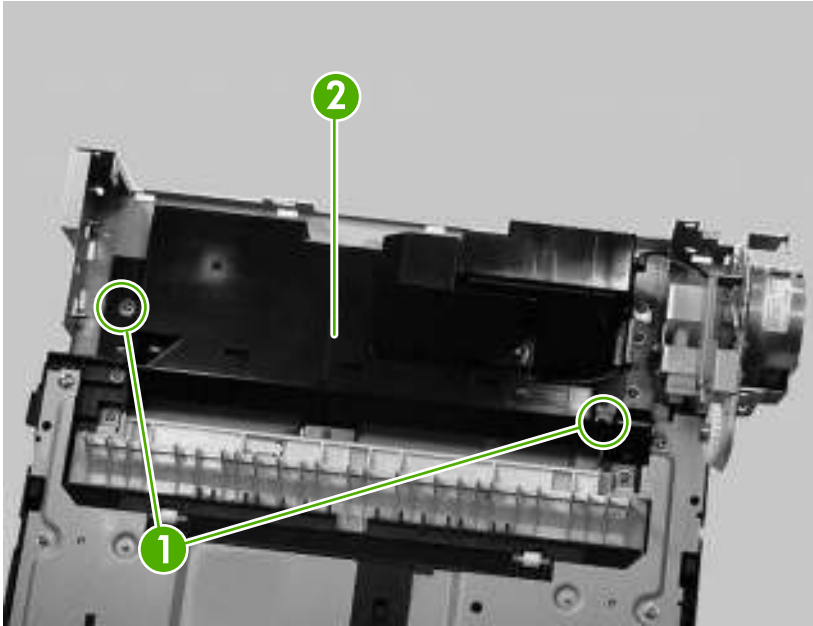
**Hint** When reinstalling the duplexer feed motor, make sure you align the bottom latch correctly.



**Figure 5-169** Removing the duplexer feed motor (5 of 5)

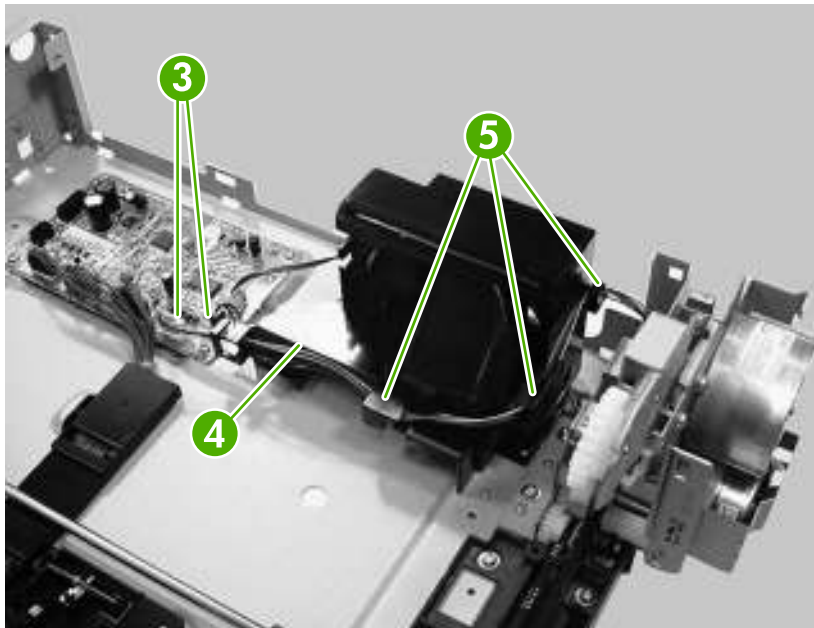
## Duplexer fan

1. Remove the following components:
  - Duplexer right cover. See [Duplexer right cover on page 157](#).
  - Duplexer left cover. See [Duplexer left cover on page 156](#).
  - Duplexer top cover. See [Duplexer top cover on page 158](#).
  - Duplexer back cover. See [Duplexer back cover on page 159](#).
2. Remove two screws (callout 1) and one duct (callout 2).



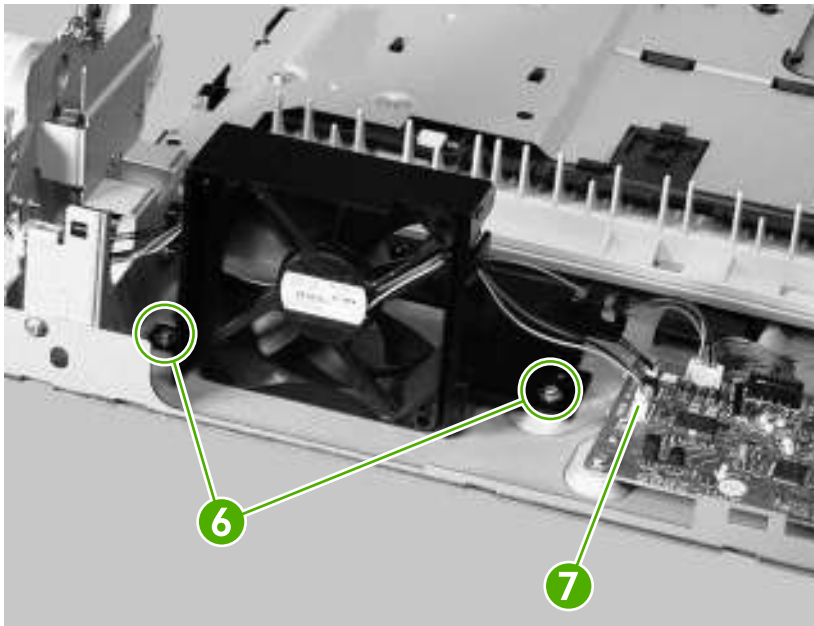
**Figure 5-170** Removing the duplexer fan (1 of 5)

3. Disconnect two connectors (callout 3) and release two cables (callout 4) from the cable guides (callout 5).



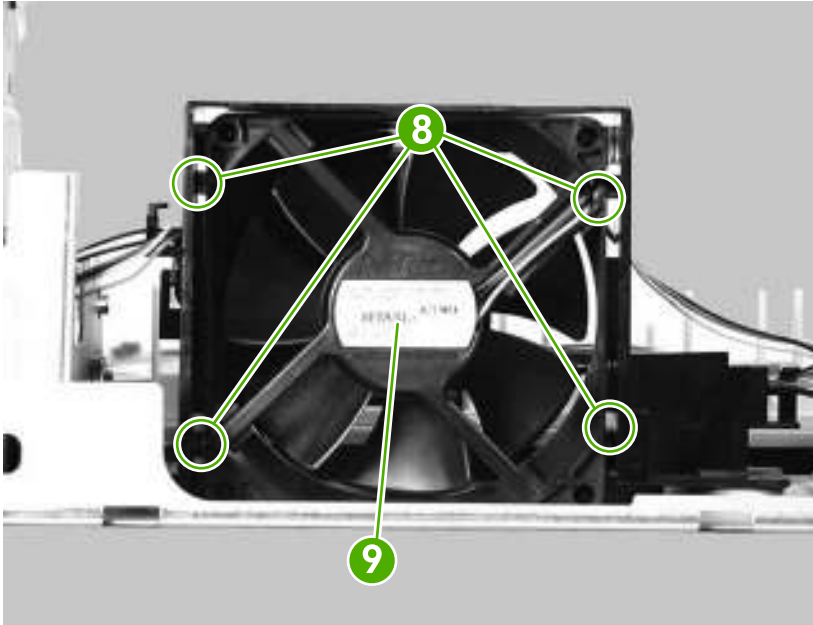
**Figure 5-171** Removing the duplexer fan (2 of 5)

4. Remove two screws (callout 6) and disconnect one connector (callout 7).



**Figure 5-172** Removing the duplexer fan (3 of 5)

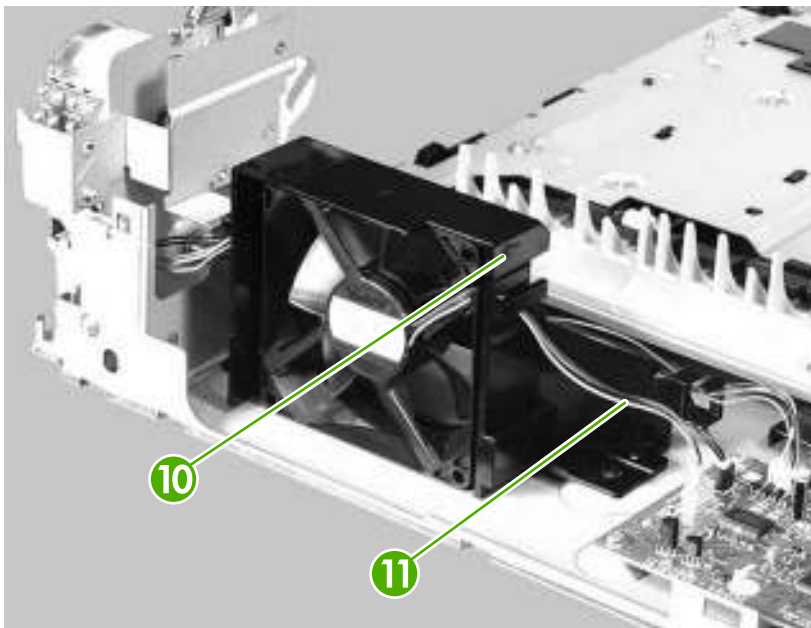
5. Unhook four claws (callout 8) and then remove the duplexer fan (callout 9).



**Figure 5-173** Removing the duplexer fan (4 of 5)



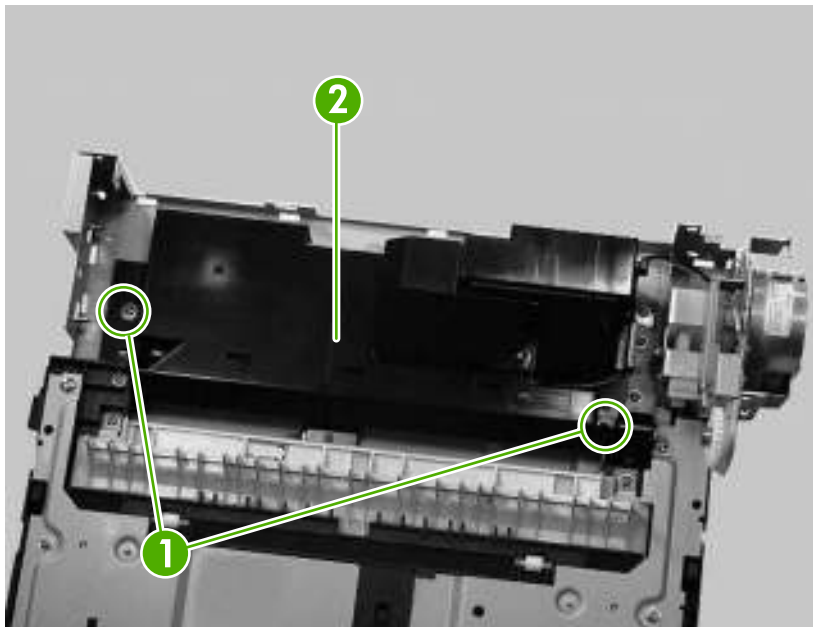
**Hint** When you reinstall the duplexer fan, make sure that the fan is installed where the air flow is in the direction of the arrow (callout 10) and the fan cables (callout 11) are positioned correctly.



**Figure 5-174** Removing the duplexer fan (5 of 5)

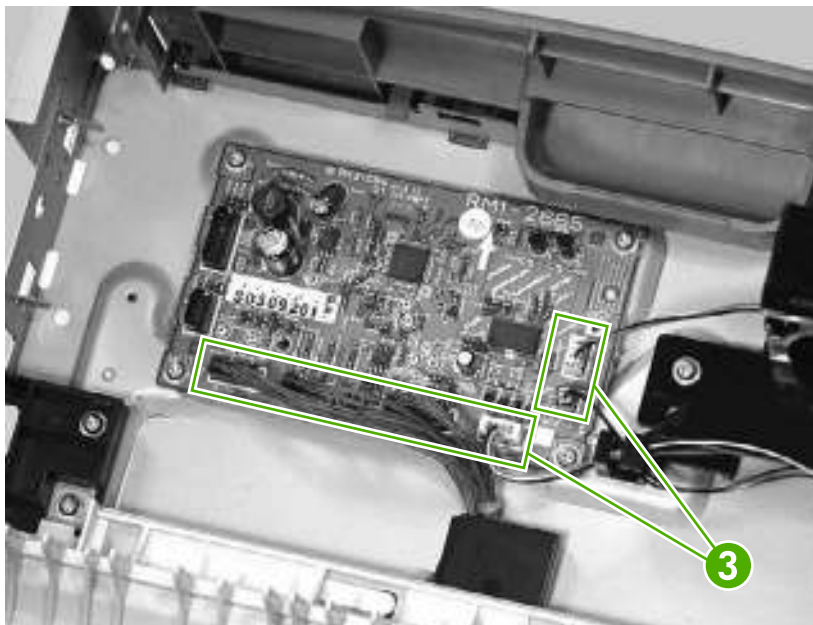
## Duplexer PCA

1. Remove the following components:
  - Duplexer right cover. See [Duplexer right cover on page 157](#).
  - Duplexer left cover. See [Duplexer left cover on page 156](#).
  - Duplexer top cover. See [Duplexer top cover on page 158](#).
2. Remove two screws (callout 1) and one duct (callout 2).



**Figure 5-175** Removing the duplexer PCA (1 of 3)

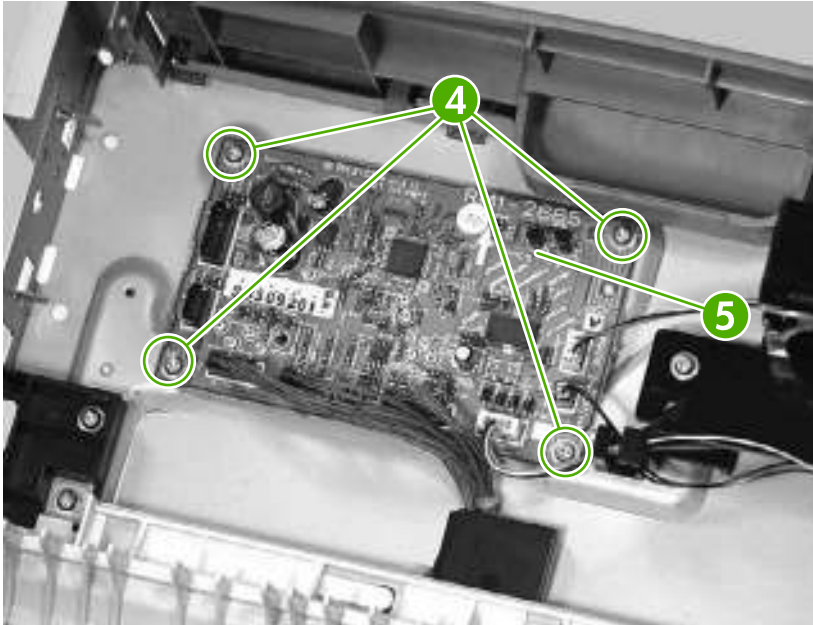
3. Disconnect six connectors (callout 3).



**Figure 5-176** Removing the duplexer PCA (2 of 3)



4. Remove four screws (callout 4) and remove the duplexer PCA (callout 5).



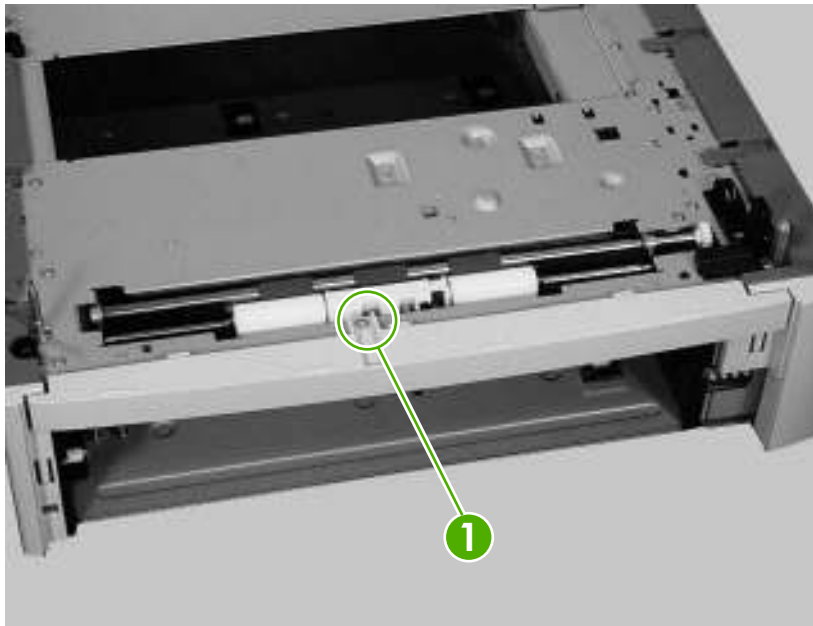
**Figure 5-177** Removing the duplexer PCA (3 of 3)



## 500-sheet feeder

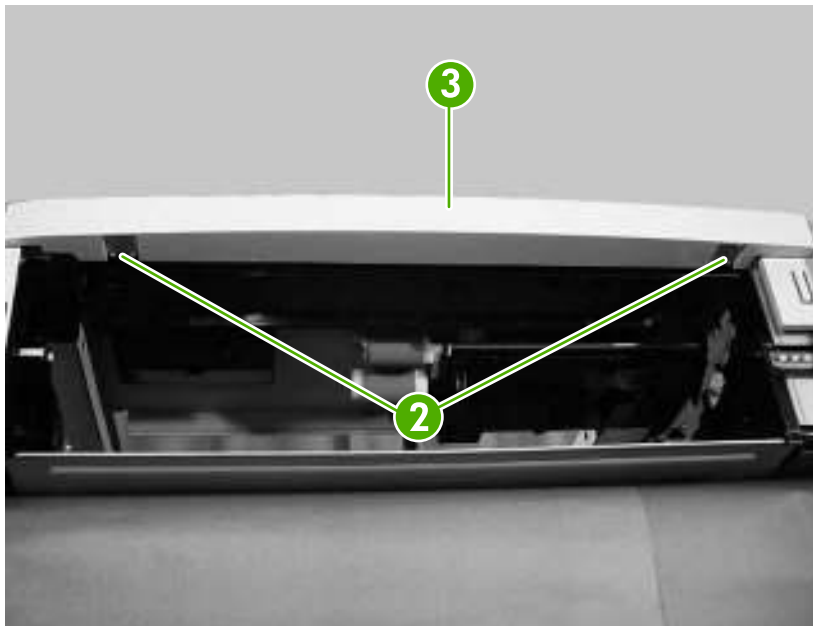
### 500-sheet feeder front cover

1. Remove the 500-sheet tray.
2. Remove one screw (callout 1).



**Figure 5-178** Removing the 500-sheet feeder front cover (1 of 2)

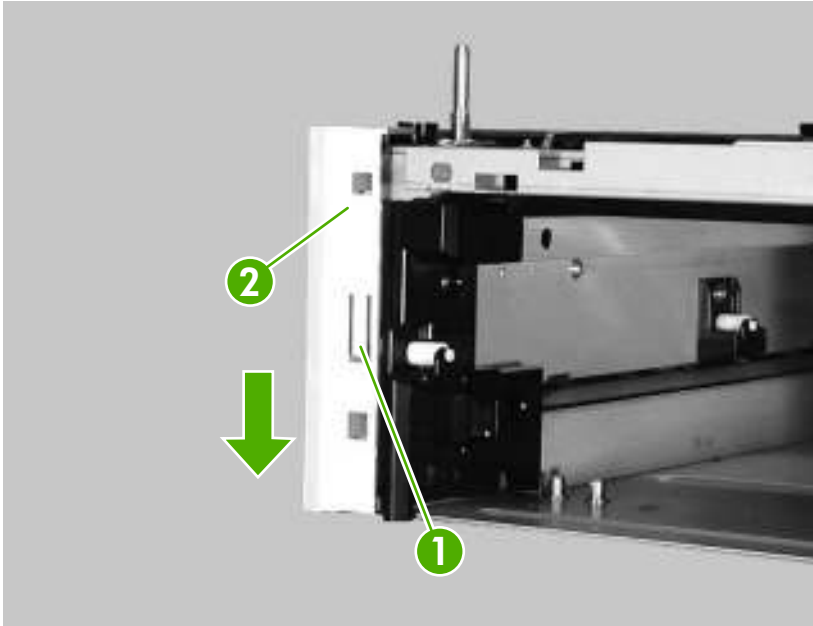
3. Unhook two claws (callout 2) and remove the 500-sheet feeder front cover (callout 3).



**Figure 5-179** Removing the 500-sheet feeder front cover (2 of 2)

## 500-sheet feeder left front cover

1. Remove the 500-sheet tray.
2. Remove the front cover. See [500-sheet feeder front cover on page 169](#).
3. Slide the 500-sheet feeder to the edge of the table and unhook one claw (callout 1).
4. Slide its left front cover (callout 2) down to remove it.

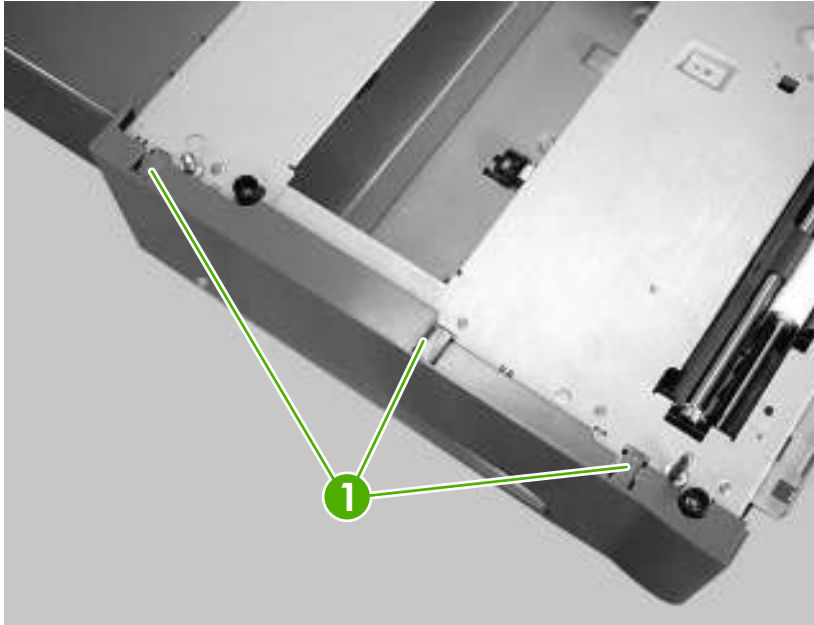


**Figure 5-180** Removing the 500-sheet feeder left front cover

## 500-sheet feeder left cover

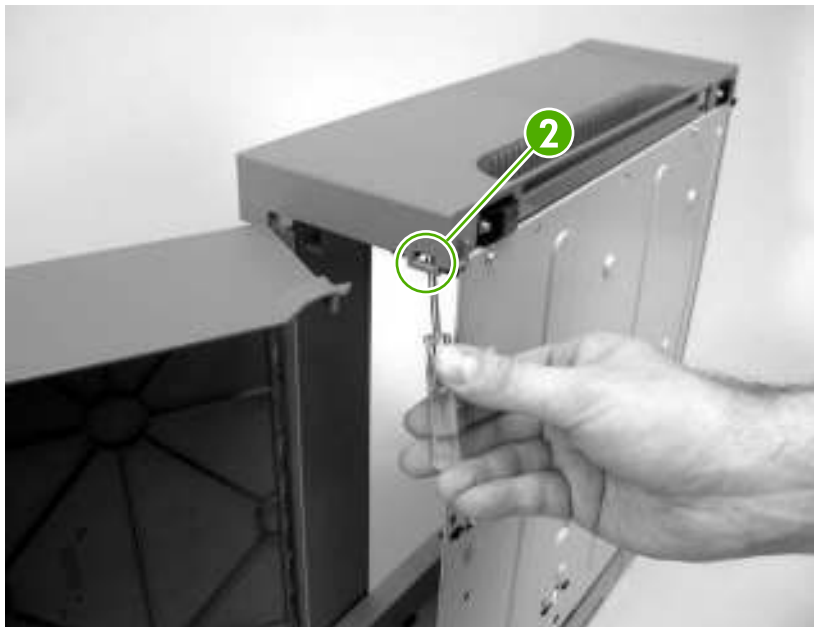
1. Remove the 500-sheet tray.
2. Remove the following components:
  - 500-sheet feeder front cover. See [500-sheet feeder front cover on page 169](#).
  - 500-sheet feeder left front cover. See [500-sheet feeder left front cover on page 170](#).

3. Unhook three claws (callout 1) on top of the 500-sheet feeder.



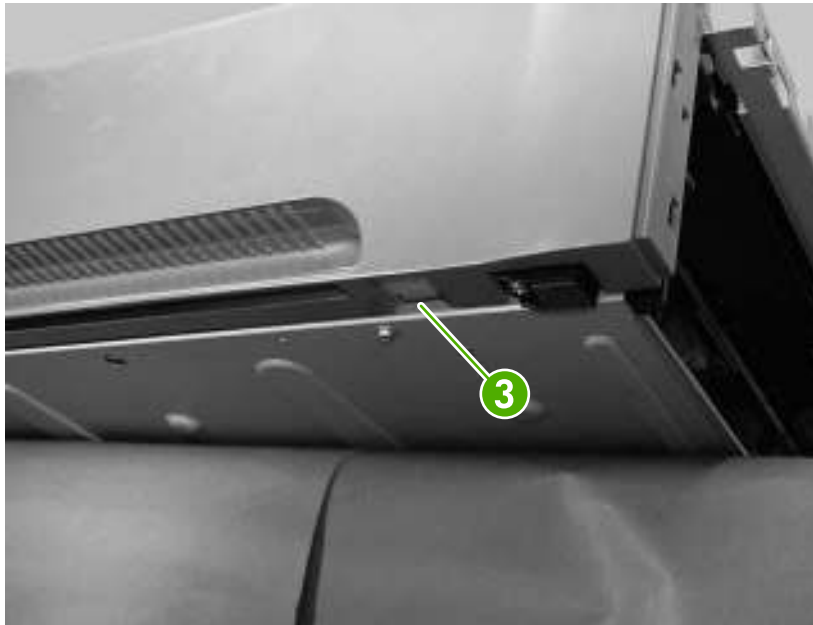
**Figure 5-181** Removing the 500-sheet feeder left cover (1 of 4)

4. Use a flatblade screwdriver to release the tab (callout 2) on the back of the cover.



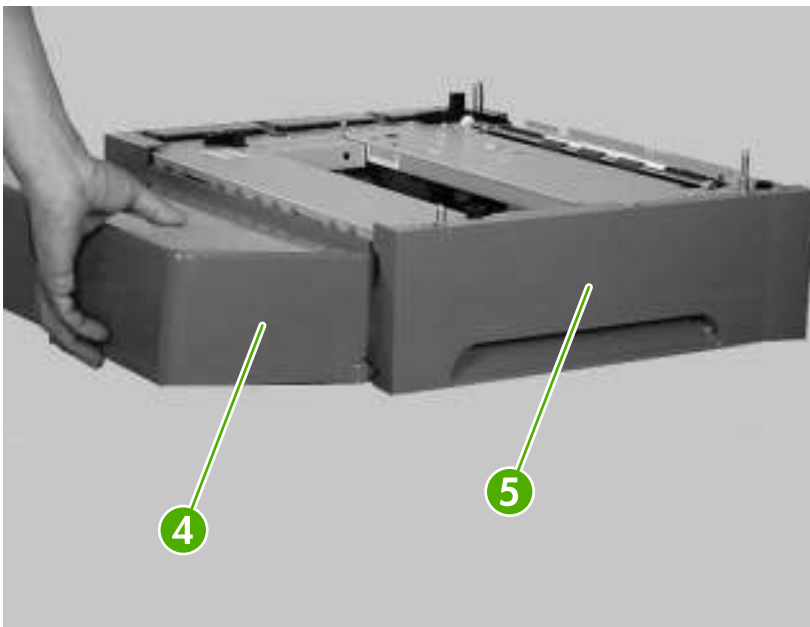
**Figure 5-182** Removing the 500-sheet feeder left cover (2 of 4)

5. Slide the 500-sheet feeder to the edge of the table and unhook one claw (callout 3) on the bottom.



**Figure 5-183** Removing the 500-sheet feeder left cover (3 of 4)

6. Lift up the rear dust cover (callout 4) and remove the 500-sheet feeder left cover (callout 5).

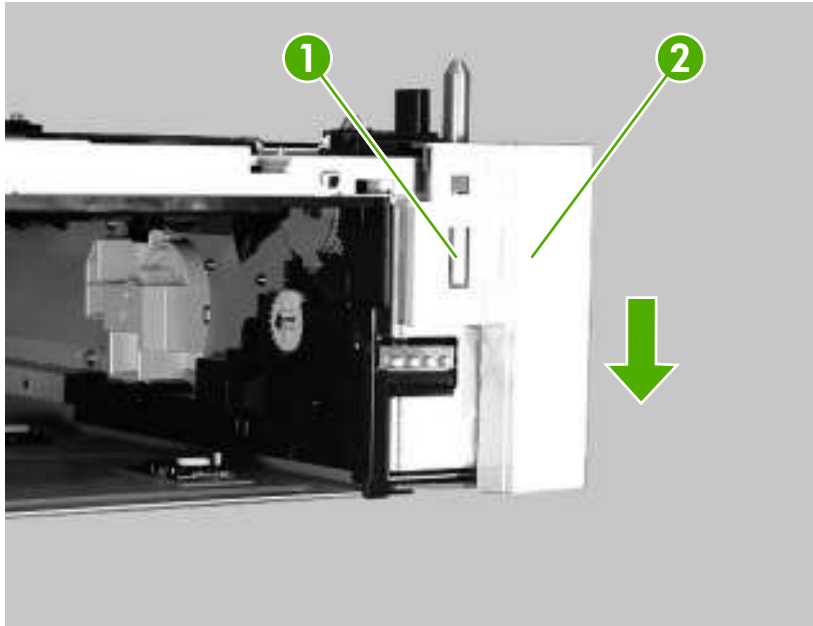


**Figure 5-184** Removing the 500-sheet feeder left cover (4 of 4)

## 500-sheet feeder right front cover

1. Remove the 500-sheet tray.
2. Remove the 500-sheet feeder front cover. See [500-sheet feeder front cover on page 169](#).
3. Slide the feeder to the edge of the table and unhook one claw (callout 1).

4. Slide its right front cover (callout 2) down and remove it.



**Figure 5-185** Removing the 500-sheet feeder right front cover

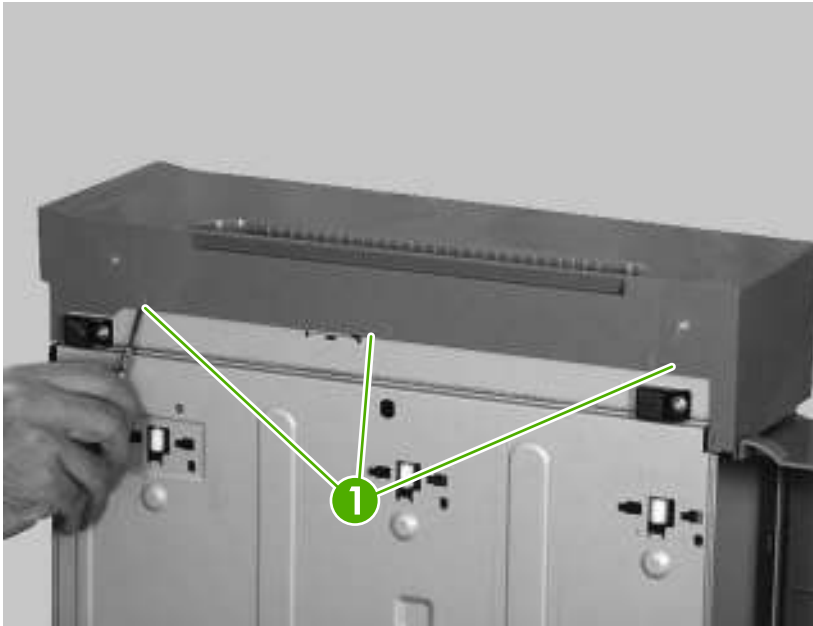
## 500-sheet feeder right cover



**NOTE** The 500-sheet feeder right cover is difficult to remove.

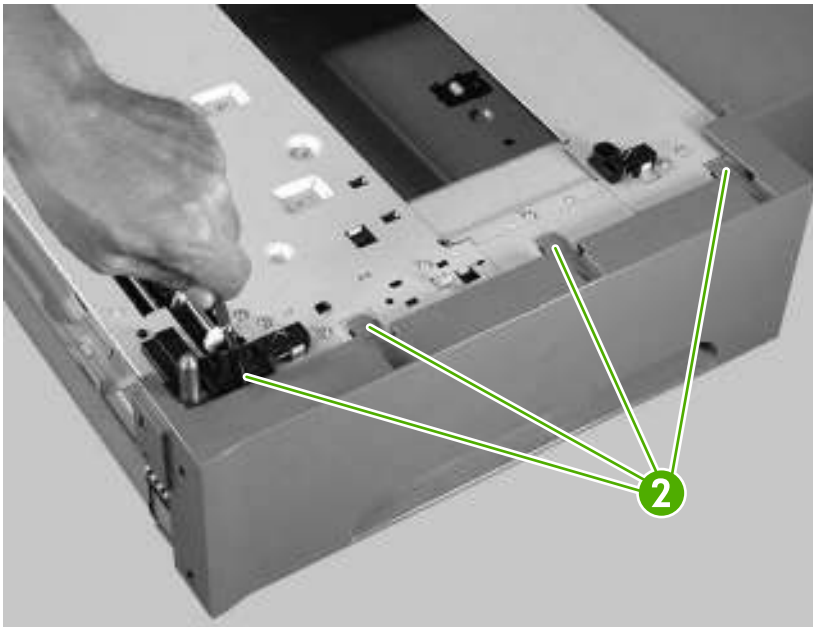
1. Remove the 500-sheet tray.
2. Remove the following components:
  - 500-sheet feeder front cover. See [500-sheet feeder front cover on page 169](#).
  - 500-sheet feeder right front cover. See [500-sheet feeder right front cover on page 172](#).

3. Unhook three claws (callout 1) on the bottom of the 500-sheet feeder.



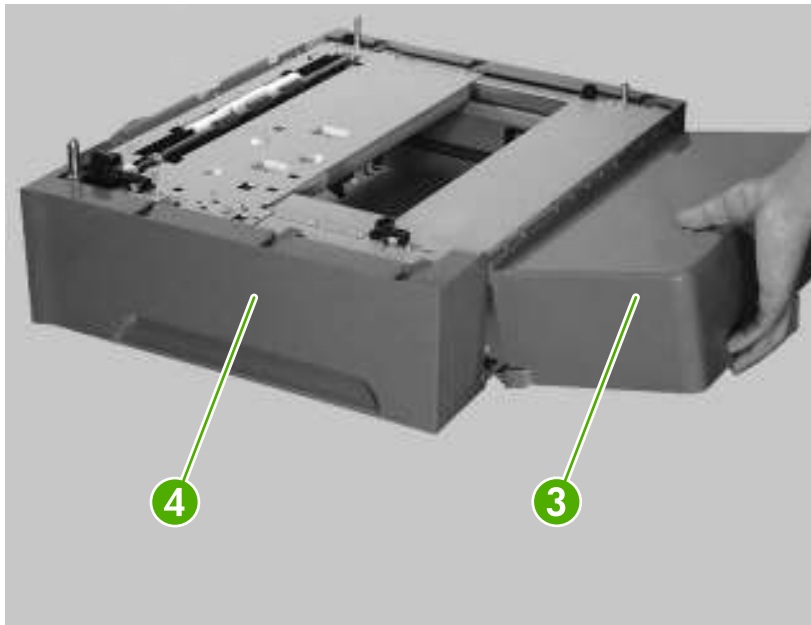
**Figure 5-186** Removing the 500-sheet feeder right cover (1 of 3)

4. Unhook four claws (callout 2).



**Figure 5-187** Removing the 500-sheet feeder right cover (2 of 3)

5. Lift up the rear dust cover (callout 3) and remove the 500-sheet right cover (callout 4).

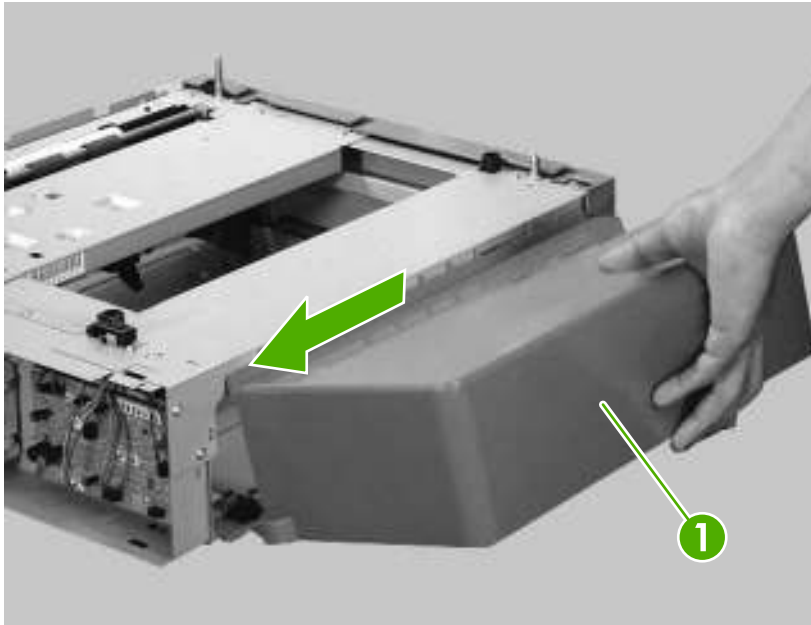


**Figure 5-188** Removing the 500-sheet feeder right cover (3 of 3)

## 500-sheet feeder rear dust cover

1. Remove the 500-sheet tray.
2. Remove the following components:
  - 500-sheet feeder front cover. See [500-sheet feeder front cover on page 169](#).
  - 500-sheet feeder right front cover. See [500-sheet feeder right front cover on page 172](#).
  - 500-sheet feeder right cover. See [500-sheet feeder right cover on page 173](#).

3. Lift up the rear dust cover (callout 1) and slide it in the direction that the arrow indicates.



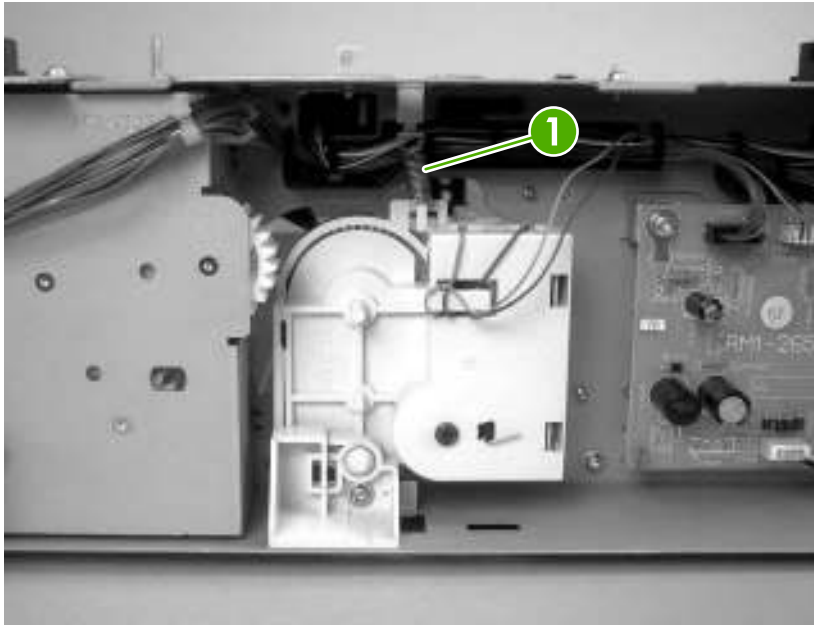
**Figure 5-189** Removing the 500-sheet feeder rear dust cover

## 500-sheet feeder paper-pickup unit

1. Remove the 500-sheet tray.
2. Remove the following components:
  - 500-sheet feeder front cover. See [500-sheet feeder front cover on page 169](#).
  - 500-sheet feeder right front cover. See [500-sheet feeder right front cover on page 172](#).
  - 500-sheet feeder right cover. See [500-sheet feeder right cover on page 173](#).
  - 500-sheet feeder left front cover. See [500-sheet feeder left front cover on page 170](#).
  - 500-sheet feeder left cover. See [500-sheet feeder left cover on page 170](#).

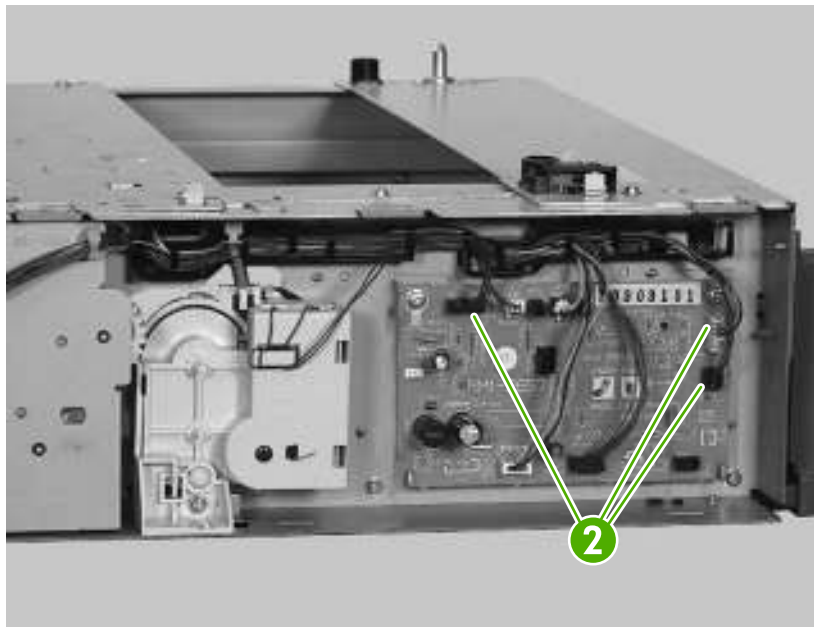


3. Unhook one spring (callout 1) from the metal hook.



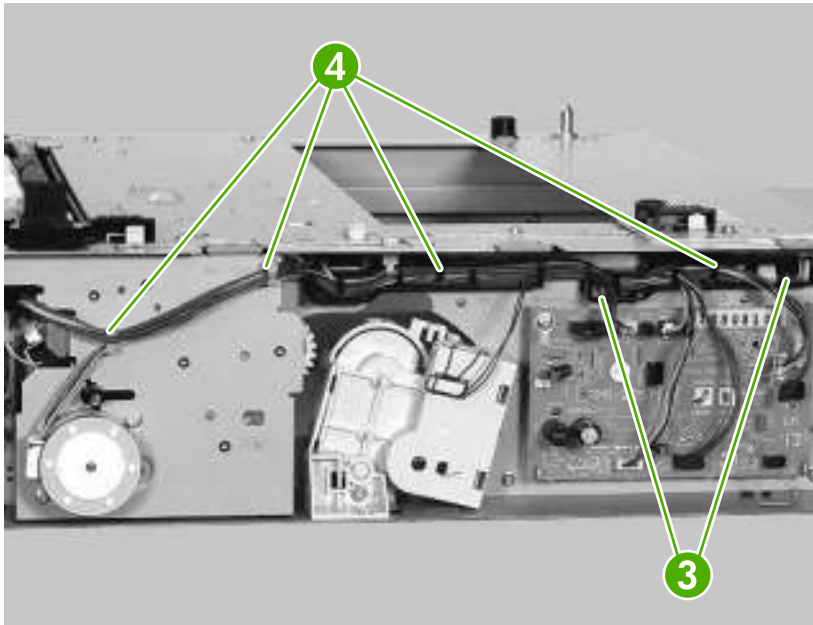
**Figure 5-190** Removing the 500-sheet feeder paper-pickup unit (1 of 6)

4. Disconnect three connectors (callout 2).



**Figure 5-191** Removing the 500-sheet feeder paper-pickup unit (2 of 6)

5. Release the cables (callout 3) from the cable guides (callout 4).

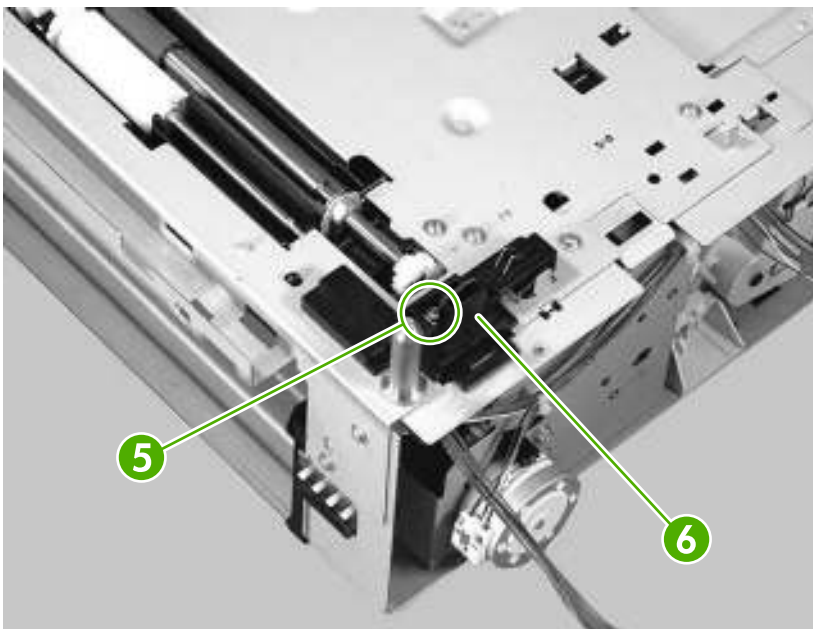


**Figure 5-192** Removing the 500-sheet feeder paper-pickup unit (3 of 6)

6. Remove one screw (callout 5) and the connector unit (callout 6).

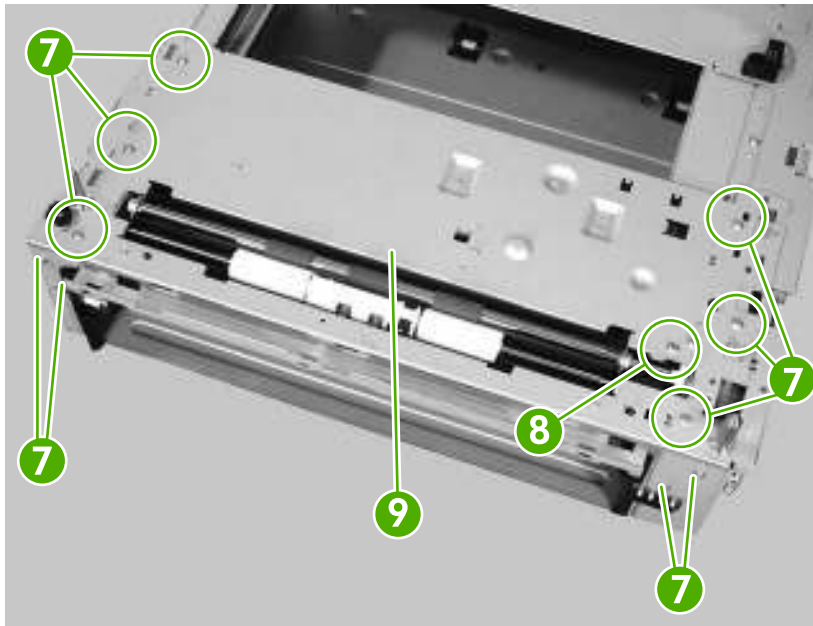


**NOTE** Make sure that you do not lose the spring when you remove the connector unit.



**Figure 5-193** Removing the 500-sheet feeder paper-pickup unit (4 of 6)

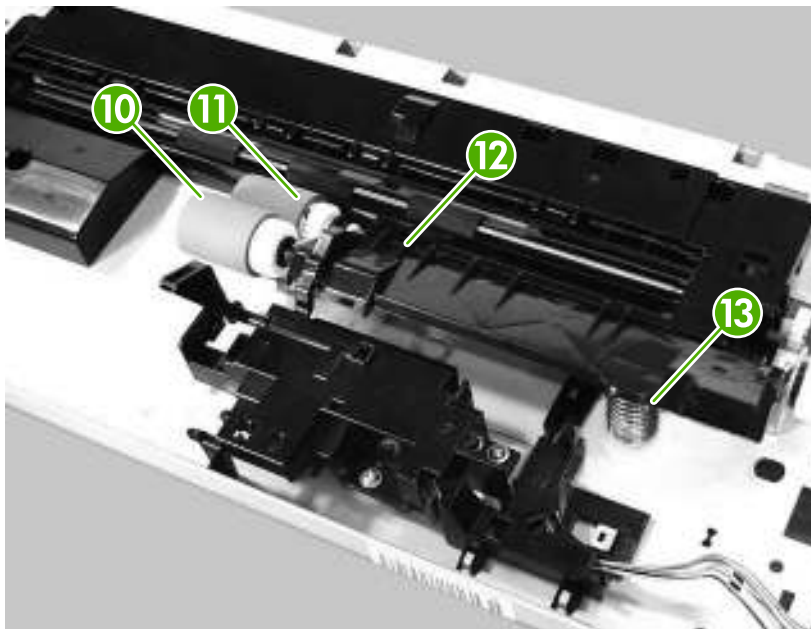
7. Remove 10 short screws (callout 7), one long screw (callout 8), and remove the 500-sheet feeder paper-pickup unit (callout 9).



**Figure 5-194** Removing the 500-sheet feeder paper-pickup unit (5 of 6)



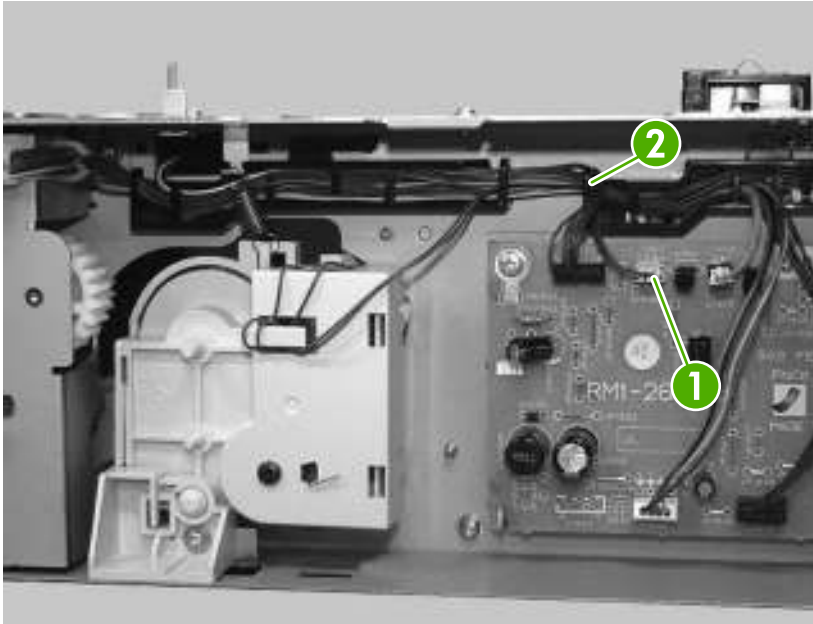
**NOTE** Do *not* touch the two pickup rollers (callout 10 and 11) when you remove the 500-sheet feeder paper-pickup unit (callout 12). Also, the spring (callout 13) can come off easily.



**Figure 5-195** Removing the 500-sheet feeder paper-pickup unit (6 of 6)

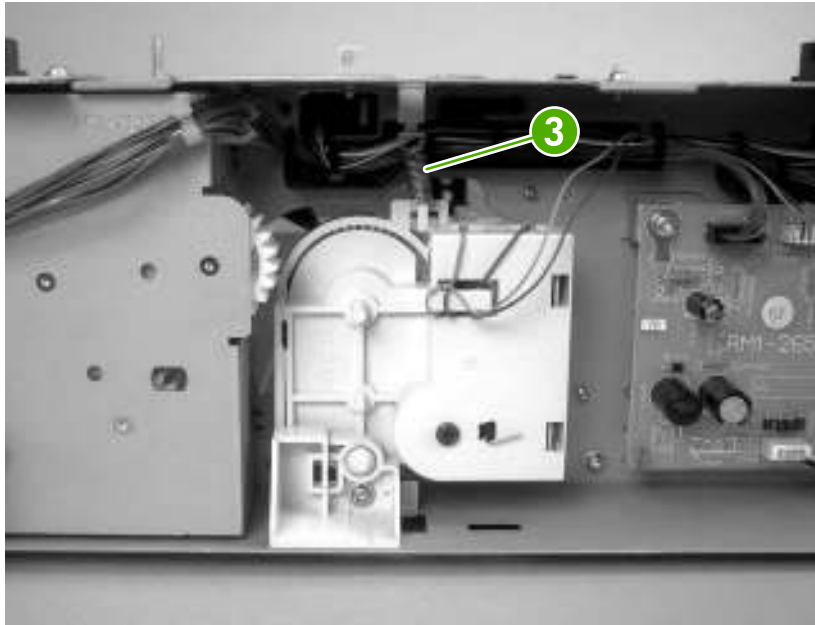
## 500-sheet feeder lifter drive unit

1. Remove the 500-sheet tray.
2. Remove the following components:
  - 500-sheet feeder front cover. See [500-sheet feeder front cover on page 169](#).
  - 500-sheet feeder right front cover. See [500-sheet feeder right front cover on page 172](#).
  - 500-sheet feeder right cover. See [500-sheet feeder right cover on page 173](#).
3. Disconnect one connector (callout 1) and remove the cable from the cable guide (callout 2).



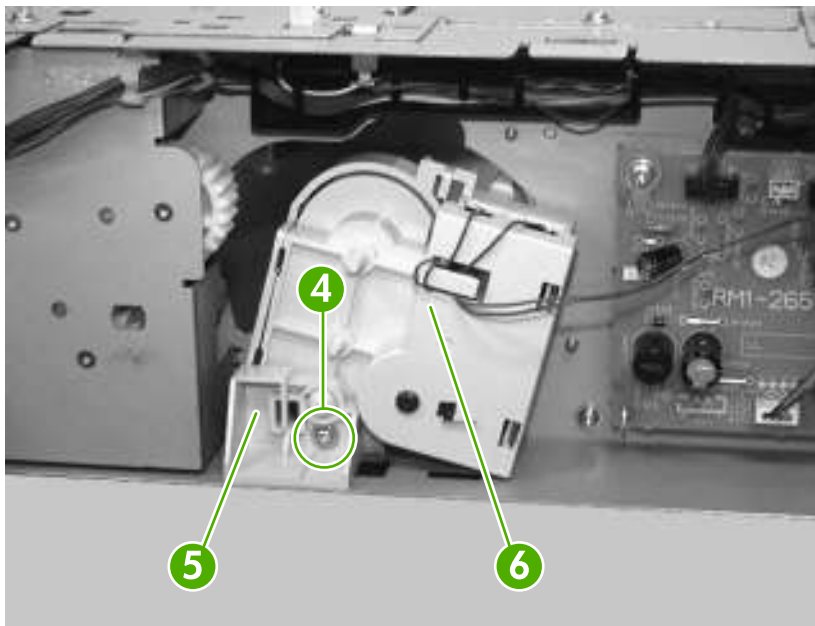
**Figure 5-196** Removing the 500-sheet feeder lifter drive unit (1 of 3)

4. Unhook one spring (callout 3) from the metal hook.



**Figure 5-197** Removing the 500-sheet feeder lifter drive unit (2 of 3)

5. Remove one screw (callout 4) and one holder (callout 5).
6. Remove the 500-sheet feeder lifter drive unit (callout 6).



**Figure 5-198** Removing the 500-sheet feeder lifter drive unit (3 of 3)



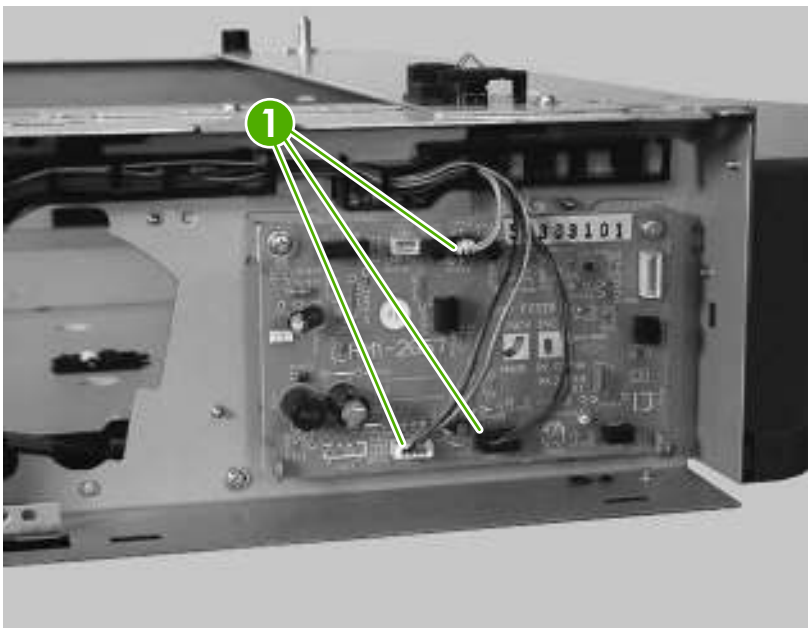
**NOTE** When you reinstall the unit, a lift motor error message (59.XX) appears on the control-panel display if you do not reinstall the unit correctly.

## 500-sheet feeder drive unit



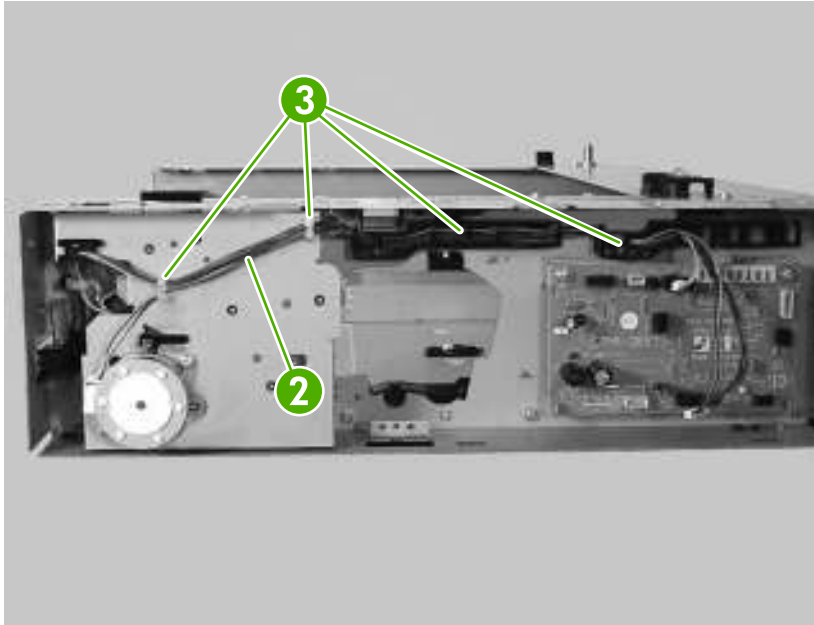
**NOTE** Be careful not to lose the solenoid. It is loose.

1. Remove the 500-sheet tray.
2. Remove the following components:
  - 500-sheet feeder front cover. See [500-sheet feeder front cover on page 169](#).
  - 500-sheet feeder right front cover. See [500-sheet feeder right front cover on page 172](#).
  - 500-sheet feeder right cover. See [500-sheet feeder right cover on page 173](#).
  - 500-sheet feeder paper pickup unit. See [500-sheet feeder paper-pickup unit on page 176](#).
  - 500-sheet feeder lifter drive unit. See [500-sheet feeder lifter drive unit on page 180](#).
3. Disconnect three connectors (callout 1).



**Figure 5-199** Removing the 500-sheet feeder drive unit (1 of 7)

4. Unhook the cables (callout 2) from the cable guides (callout 3).

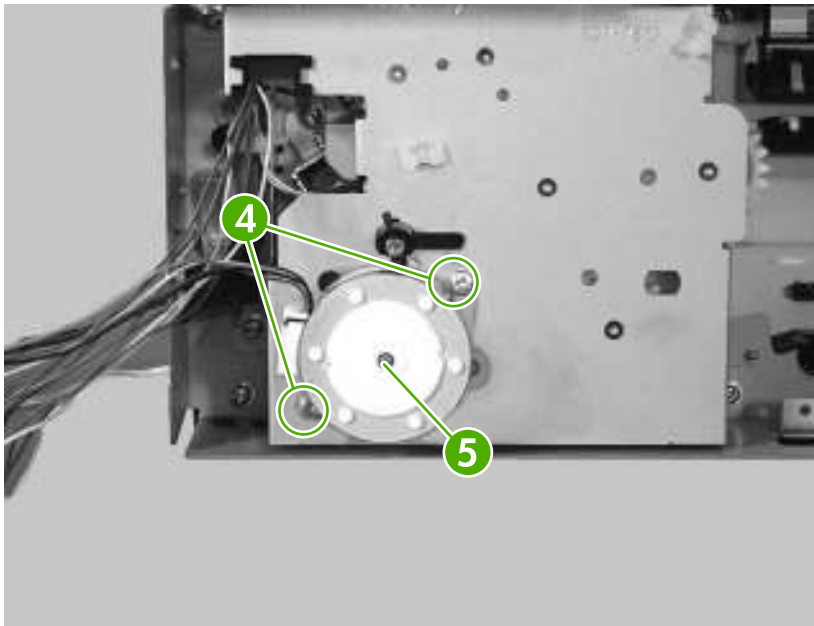


**Figure 5-200** Removing the 500-sheet feeder drive unit (2 of 7)

5. Remove two screws (callout 4) and remove the 500-sheet feeder paper-pickup motor (callout 5).



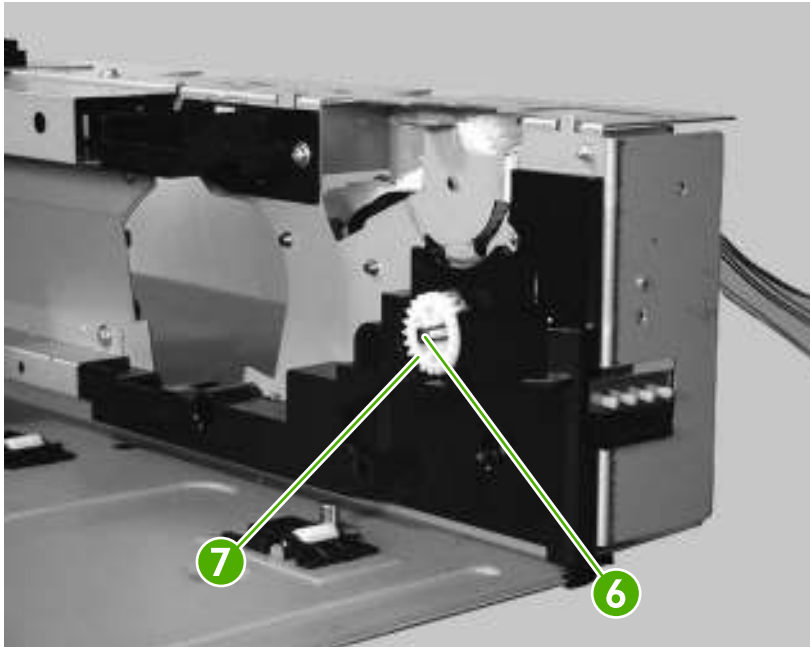
**Hint** When you reinstall the paper-pickup motor, make sure it is positioned correctly.



**Figure 5-201** Removing the 500-sheet feeder drive unit (3 of 7)

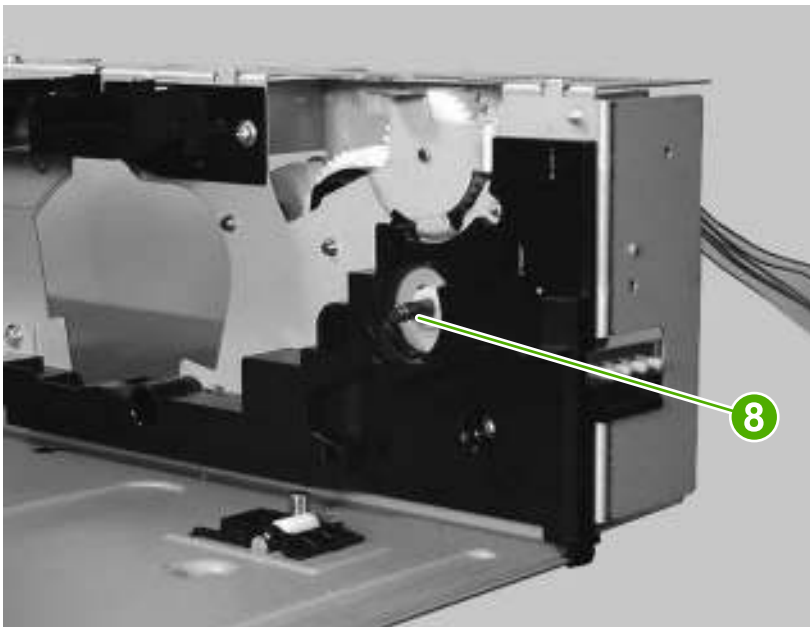


6. Unhook one claw (callout 6) and remove one gear (callout 7).



**Figure 5-202** Removing the 500-sheet feeder drive unit (4 of 7)

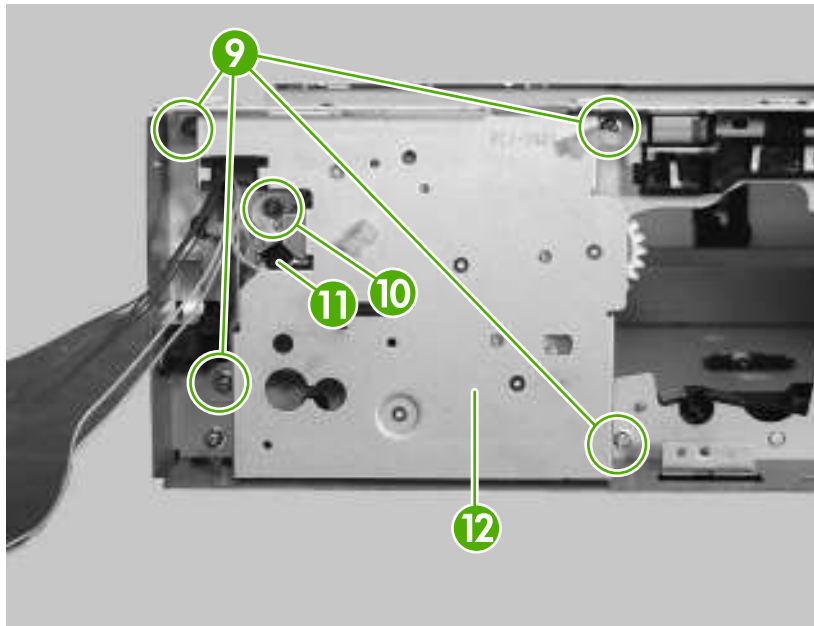
7. Remove one bushing (callout 8).



**Figure 5-203** Removing the 500-sheet feeder drive unit (5 of 7)

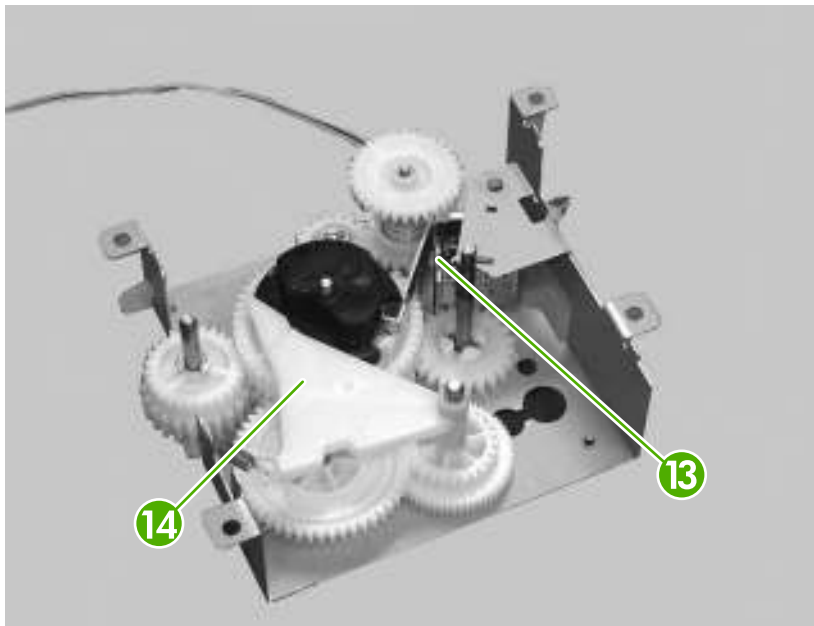


8. Remove four silver screws (callout 9), one black screw (callout 10), and then hold the 500-sheet feeder pickup solenoid (callout 11) and drive unit (callout 12) together while removing them.



**Figure 5-204** Removing the 500-sheet feeder drive unit (6 of 7)

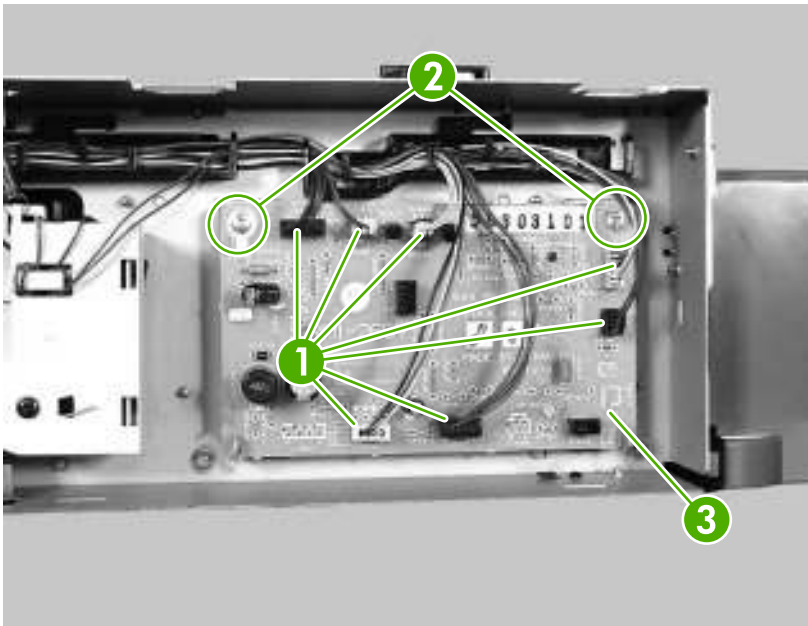
9. Remove the 500-sheet feeder pickup solenoid (callout 13) from the drive unit (callout 14).



**Figure 5-205** Removing the 500-sheet feeder drive unit (7 of 7)

## 500-sheet feeder drive PCA

1. Remove the 500-sheet tray.
2. Remove the following components:
  - 500-sheet feeder front cover. See [500-sheet feeder front cover on page 169](#).
  - 500-sheet feeder right front cover. See [500-sheet feeder right front cover on page 172](#).
  - 500-sheet feeder right cover. See [500-sheet feeder right cover on page 173](#).
3. Disconnect seven connectors (callout 1) and remove two screws (callout 2).
4. Remove the 500-sheet feeder drive PCA (callout 3).

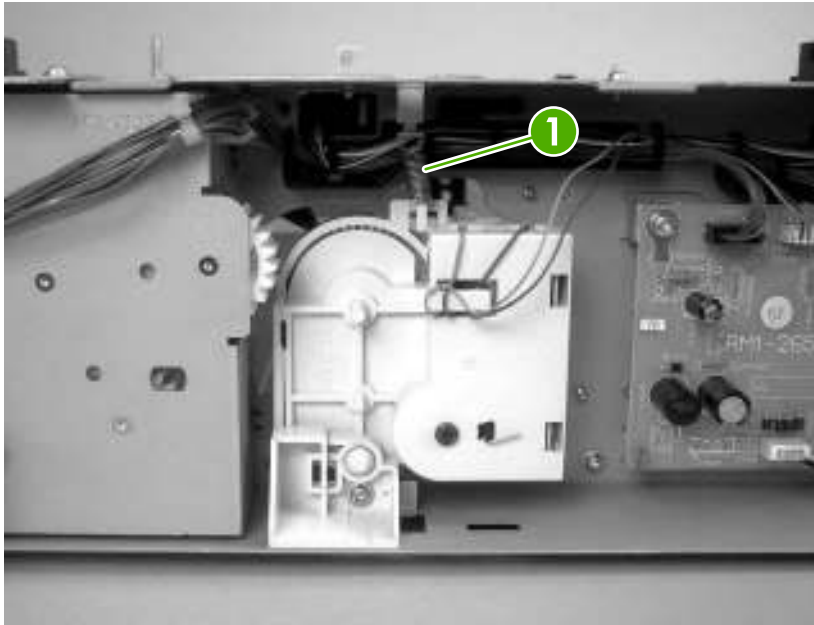


**Figure 5-206** Removing the 500-sheet feeder drive PCA

## 500-sheet feeder pickup motor

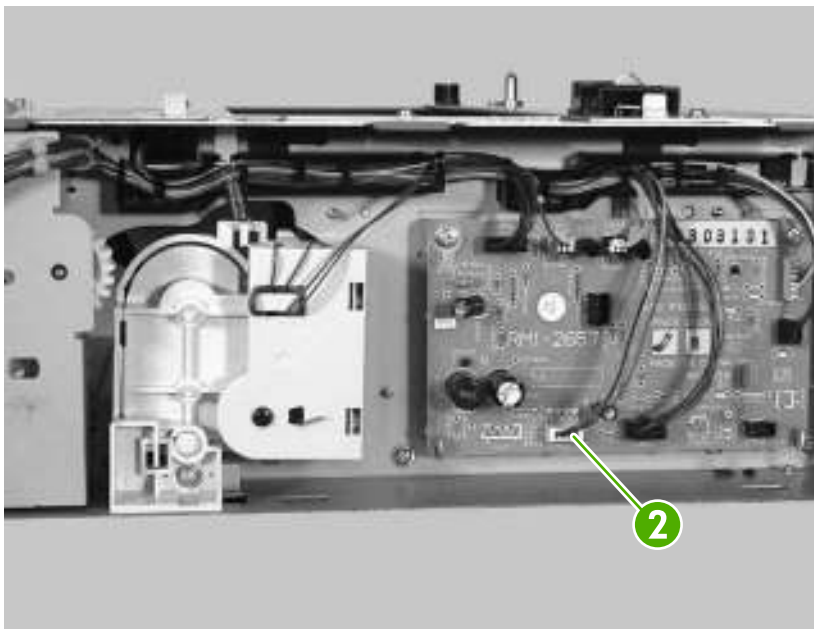
1. Remove the 500-sheet tray.
2. Remove the following components:
  - 500-sheet feeder front cover. See [500-sheet feeder front cover on page 169](#).
  - 500-sheet feeder right front cover. See [500-sheet feeder right front cover on page 172](#).
  - 500-sheet feeder right cover. See [500-sheet feeder right cover on page 173](#).

3. Unhook one spring (callout 1) from the metal hook.



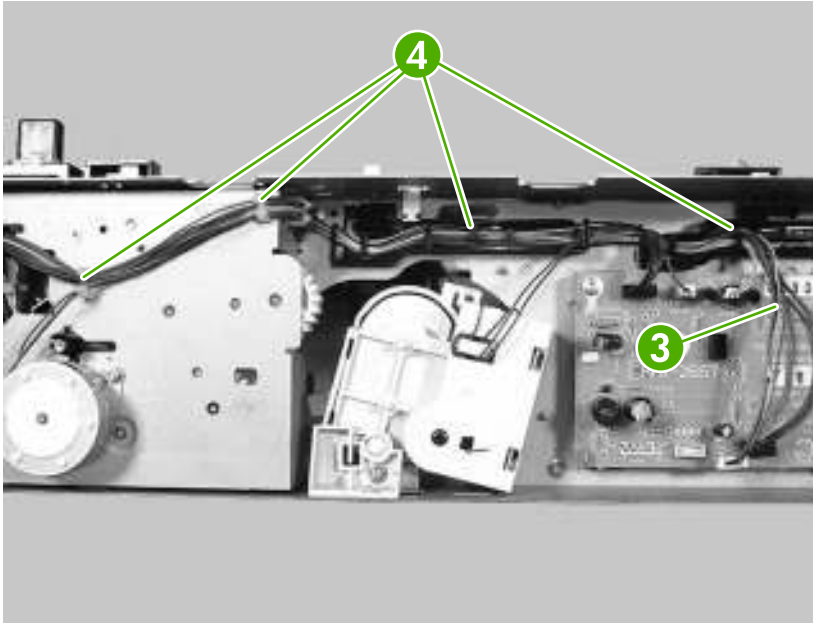
**Figure 5-207** Removing the 500-sheet feeder pickup motor (1 of 4)

4. Disconnect one connector (callout 2).



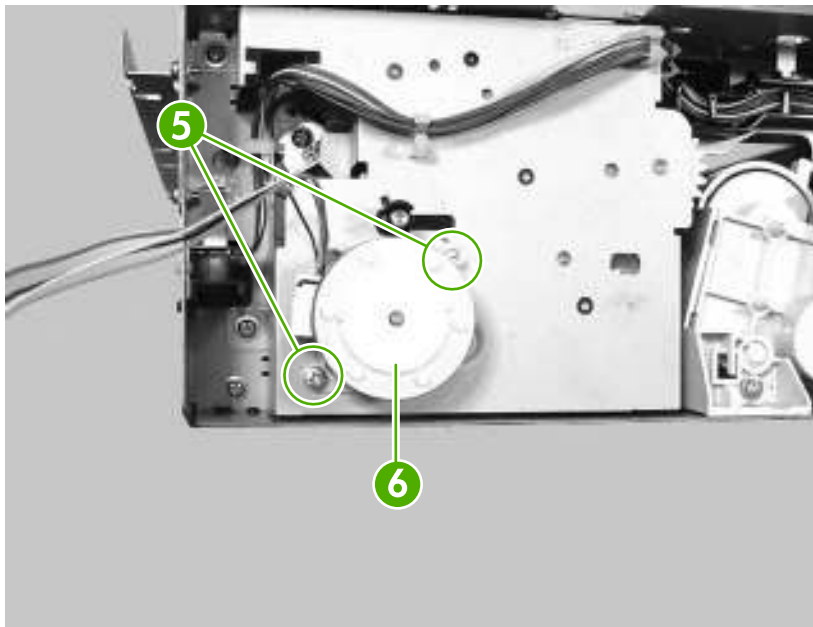
**Figure 5-208** Removing the 500-sheet feeder pickup motor (2 of 4)

5. Release the cable (callout 3) from the cable guides (callout 4).



**Figure 5-209** Removing the 500-sheet feeder pickup motor (3 of 4)

6. Remove two screws (callout 5), and then remove the feeder pickup motor (callout 6).



**Figure 5-210** Removing the 500-sheet feeder pickup motor (4 of 4)

# 6 Troubleshooting

This troubleshooting information is organized to help you resolve printing problems. Choose the general topic or type of problem from this list.

- [Introduction](#)
- [Basic troubleshooting checklist](#)
- [Troubleshooting flowchart](#)
- [Solving general printing problems](#)
- [Control-panel message types](#)
- [Control-panel messages](#)
- [Replacement-parts configuration](#)
- [Guidelines for using paper](#)
- [Printing special pages](#)
- [Data collection](#)
- [General paper-path troubleshooting](#)
- [Common causes of jams](#)
- [Jam locations](#)
- [Clearing jams](#)
- [Troubleshooting print-quality problems](#)
- [Interface troubleshooting](#)
- [Changing printer-control-panel configuration settings](#)
- [Using the control-panel menus](#)
- [Show Me How menu](#)
- [Retrieve Job menu](#)
- [Information menu](#)
- [Paper Handling menu](#)
- [Configure Device menu](#)

- [Diagnostics menu](#)
- [Service menu](#)
- [Tools for troubleshooting](#)
- [Diagnostics](#)
- [Printer resets](#)
- [Test pages](#)
- [Troubleshooting network printing problems](#)
- [Troubleshooting common Windows problems](#)
- [Troubleshooting common Macintosh problems](#)
- [Troubleshooting Linux problems](#)
- [Troubleshooting common PostScript problems](#)

# Introduction

The information in this troubleshooting chapter is presented with the assumption that the reader has a basic understanding of the laser-printing process. Explanations of each mechanical assembly, printer systems, and the basic theory of operation are provided in chapter 5. Do not perform any of these troubleshooting processes without fully understanding the function of each mechanism.

This chapter contains the following sections:

- **Troubleshooting process** includes a pre-troubleshooting checklist and a troubleshooting flowchart. These tools contain information about common printer errors that can inhibit proper operation or create print quality problems. These tools also include recommendations for solving the cause of the error.
- **Control-panel messages** explain each control panel-display message and suggest recommendations for clearing the cause of each message. When the printer message indicates a failure for which the root cause is not obvious, use the printer error troubleshooting section and the troubleshooting tools section in this chapter to solve the problem.
- **Formatter light** provides information about whether the formatter is working properly.
- **Replacement parts configuration** provides information about replacing printer parts, such as memory, compact flash, and the formatter.
- **Paper path troubleshooting** provides techniques to solve feed problems. Explanations are provided about print media checks, troubleshooting jams, and the differences between jams caused by media and those caused by the printer.
- **Paper transport troubleshooting** provides information on how to troubleshoot problems with media feeding incorrectly.
- **Image-formation troubleshooting** suggests methods for solving print quality problems.
- **Image defects** provide information on image defects and how to identify the root cause of the problem.
- **Interface troubleshooting** provides techniques for isolating communication problems to the printer hardware, printer configuration, network configuration, or software program.
- **Control panel troubleshooting** provides procedures for printing a menu map from the printer control panel. It also describes the control panel menus, the items within each menu, and the possible values for the menu items.
- **Troubleshooting tools** help isolate the cause of printer failures. This section includes explanations of the printer configuration page and the event log.
- **Diagnostics** provides instructions about how to gain access to and use the diagnostic tools that are incorporated into the printer.
- **Test pages** provides information on how to print test pages to determine if the engine and the formatter are functioning properly.
- **Engine resets** provides information on how to perform engine resets.

# Basic troubleshooting checklist

If you are experiencing problems with the printer, use the following checklist to identify the cause of the problem:

- Is the printer connected to power?
- Is the printer on?
- Is the printer in the **Ready** state?
- Are all the necessary cables connected?
- Do any messages appear on the control panel?
- Are genuine HP supplies installed?
- Was a recently replaced print cartridge installed correctly, and was the pull-tab on the cartridge removed?

For additional information about installation and setup, see the printer getting started guide.

If you cannot find solutions to printer problems in this guide, go to [www.hp.com/support/lj5200](http://www.hp.com/support/lj5200).

## Factors that affect printer performance

Several factors affect the time it takes to print a job:

- Maximum printer speed, measured in pages per minute (ppm)
- The use of special paper (such as transparencies, heavy paper, and custom-size paper)
- Printer processing and download time
- The complexity and size of graphics
- The speed of the computer that you are using
- The USB connection
- The printer I/O configuration
- The amount of printer memory that is installed
- The network operating system and configuration (if applicable)
- Printer personality (PCL or PS)



---

**NOTE** Although additional printer memory can resolve memory problems, improve how the printer handles complex graphics, and improve download times, it cannot increase maximum printer speed (ppm).

---



# Troubleshooting flowchart

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



**NOTE Macintosh users:** For more troubleshooting information, see [Troubleshooting common Macintosh problems on page 301](#).

## Step 1: Does READY appear on the control-panel display?

YES →		Go to step 2.		
NO ↓				
The display is blank, and the printer fan is off.	The display is blank, but the printer fan is on.	The display is in the wrong language.	The display shows garbled or unfamiliar characters.	A message other than READY appears on the control-panel display.
<ul style="list-style-type: none"><li>• Turn the printer off and then on.</li><li>• Check the power cord connections and the power switch.</li><li>• Plug the printer into a different outlet.</li><li>• Check that the power supplied to the printer is steady, and meets printer specifications. (See <a href="#">Electrical specifications on page 378</a>.)</li></ul>	<ul style="list-style-type: none"><li>• Press a printer control-panel button to see if the printer responds.</li><li>• Turn the printer off and then on.</li></ul>	<ul style="list-style-type: none"><li>• Turn the printer off and then on. When <b>XXX MB</b> appears on the control-panel display, press and hold down ✓ until all three lights stay on. This could take up to 10 seconds. Then, release ✓. Press ▼ to scroll through the available languages. Press ✓ to save the appropriate language as the new default.</li></ul>	<ul style="list-style-type: none"><li>• Make sure that the appropriate language is selected at the printer control panel.</li><li>• Turn the printer off and then on.</li></ul>	<ul style="list-style-type: none"><li>• Go to <a href="#">Control-panel messages on page 202</a>.</li></ul>

## Step 2: Can you print a configuration page?

(See [Configuration pages on page 283](#).)

YES →		Go to step 3.
NO ↓		

A configuration page does not print.	A blank page prints.	A message other than <b>READY</b> or <b>PRINTING CONFIGURATION</b> appears on the control-panel display.
<ul style="list-style-type: none"> <li>Check that all trays are correctly loaded, adjusted, and installed in the printer.</li> <li>Using the computer, check the print queue or print spooler to see if the printer has been paused. If there are problems with the current print job, or if the printer is paused, a configuration page will not print. (Press <b>Stop</b> and try step 2 in the troubleshooting flowchart again.)</li> </ul>	<ul style="list-style-type: none"> <li>Check that the sealing tape does not remain on the print cartridge. (See the getting started guide or the instructions that came with the print cartridge.)</li> <li>The print cartridge might be empty. Install a new print cartridge.</li> </ul>	<ul style="list-style-type: none"> <li>Go to <a href="#">Control-panel messages on page 202</a>.</li> </ul>

## Step 3: Can you print from a program?

YES→	Go to step 4.
NO↓	
The job will not print.	A PS error page or list of commands prints.
<ul style="list-style-type: none"> <li>If the job will not print, and a message appears on the printer control-panel display, see <a href="#">Control-panel messages on page 202</a>.</li> <li>Using the computer, check to see if the printer has been paused. Press <b>Stop</b> to continue.</li> <li>If the printer is on a network, check that you are printing to the correct printer. To verify that it is not a network problem, connect the computer directly to the printer with a parallel or USB cable, change the port to LPT1, and try to print.</li> <li>Check the interface cable connections or the USB port. Disconnect and reconnect the cable at the computer and the printer.</li> <li>Test the cable by trying it on another computer.</li> <li>If you are using a parallel connection, make sure that the cable is IEEE-1284 compliant.</li> <li>If the printer is on a network, print a configuration page. (See <a href="#">Configuration pages on page 283</a>.) If an HP Jetdirect print server is installed, a Jetdirect page also prints. Check the Jetdirect configuration page to verify that the network protocol status and settings are correct for the printer.</li> <li>To verify that it is not a computer problem, print from another computer (if possible).</li> <li>Make sure that the print job is being sent to the correct port (LPT1 or network printer port, for example).</li> <li>Check that you are using the correct printer driver. (See <a href="#">Printer drivers on page 10</a>.)</li> <li>Reinstall the printer driver. (See the getting started guide.)</li> <li>Check that the computer port is configured and working correctly. (Try connecting another printer to that port and printing.)</li> </ul>	<ul style="list-style-type: none"> <li>The printer might have received a nonstandard PS code. At the printer control panel use the <b>SYSTEM SETUP</b> submenu of the <b>CONFIGURE DEVICE</b> menu to set <b>PERSONALITY=PS</b> for this print job only. After the job has printed, return the setting to <b>AUTO</b>.</li> <li>Make sure that the print job is a PS job, and that you are using the PS driver.</li> <li>The printer might have received PS code although it is set to PCL. On the <b>SYSTEM SETUP</b> submenu of the <b>CONFIGURE DEVICE</b> menu set <b>PERSONALITY=AUTO</b>.</li> </ul>

- If printing with the PS driver, on the **PRINTING** submenu (on the **CONFIGURE DEVICE** menu) at the printer control panel, set **PRINT PS ERRORS=ON**, and then print the job again. If an error page prints, see the instructions in the next column.
- At the printer control panel, use the **SYSTEM SETUP** submenu of the **CONFIGURE DEVICE** menu to set **PERSONALITY=AUTO**.
- You might be missing a printer message that could help you solve the problem. At the printer control panel, temporarily turn off the **CLEARABLE WARNINGS** and **AUTO CONTINUE** settings. On the **SYSTEM SETUP** submenu of the **CONFIGURE DEVICE** menu. Then, print the job again.

## Step 4: Does the job print as expected?

YES →

Go to step 5.

NO ↓

Print is garbled, or only a portion of the page prints.	Printing stops in the middle of the job.	Print speed is slower than expected.	A printer control panel setting is not taking effect.
<ul style="list-style-type: none"> <li>• Check that you are using the correct printer driver. (See <a href="#">Printer drivers on page 10</a>.)</li> <li>• The data file sent to the printer might be corrupt. To test, try printing it on another printer (if possible), or try a different file.</li> <li>• Check the interface cable connections. Test the cable by trying it on another computer (if possible).</li> <li>• Replace the interface cable with a high-quality cable. (See <a href="#">Accessories and supplies on page 312</a>).</li> <li>• Simplify the print job, print at a lower resolution, or install more printer memory. (See <a href="#">Installing printer memory on page 30</a>.)</li> <li>• You might be missing a printer message that could help you solve the problem. At the control panel, temporarily turn off the <b>CLEARABLE WARNINGS</b> and <b>AUTO CONTINUE</b> settings on the <b>SYSTEM SETUP</b></li> </ul>	<ul style="list-style-type: none"> <li>• You might have pressed <b>Stop</b>.</li> <li>• Check that the power to the printer is steady, and that it meets printer specifications. (See <a href="#">Electrical specifications on page 378</a>.)</li> </ul>	<ul style="list-style-type: none"> <li>• Simplify the print job.</li> <li>• Add more memory to the printer. (See <a href="#">Installing printer memory on page 30</a>.)</li> <li>• Turn banner pages off.</li> <li>• Note that slower speeds should be expected if you are printing narrow paper, printing from tray 1, using the <b>HIGH 2</b> fuser mode, or have set <b>Small Paper Speed</b> to <b>SLOW</b>.</li> </ul>	<ul style="list-style-type: none"> <li>• Check settings in the printer driver or program. (The printer driver and program settings override printer control-panel settings.)</li> </ul>

submenu of the **CONFIGURE DEVICE** menu. Then print the job again.

The print job is not formatted correctly.	Paper is not fed correctly or is damaged.	There are print-quality problems.
<ul style="list-style-type: none"> <li>Check that you are using the correct printer driver. (See <a href="#">Printer drivers on page 10.</a>)</li> <li>Check the program settings. (See the program online Help.)</li> <li>Try a different font.</li> <li>Downloaded resources might have been lost. You might need to download them again.</li> </ul>	<ul style="list-style-type: none"> <li>Make sure that the paper is loaded correctly and that the guides are not too tight or too loose against the stack.</li> <li>If you are having problems printing custom-size paper, see <a href="#">Selecting print media on page 16.</a></li> <li>If pages are wrinkled or curled, or if the image is skewed on the page, see <a href="#">Troubleshooting print-quality problems on page 238.</a></li> </ul>	<ul style="list-style-type: none"> <li>Adjust the print resolution. (See <a href="#">Print Quality submenu on page 268.</a>)</li> <li>Check that REt is on. (See <a href="#">Print Quality submenu on page 268.</a>)</li> <li>Go to <a href="#">Troubleshooting print-quality problems on page 238.</a></li> </ul>

## Step 5: Does the printer select the trays?

**YES →** For other problems, check the Contents, the Index, or the printer driver online Help.

**NO ↓**

The printer pulls paper from the wrong tray.	An optional tray is not working correctly.	A message other than READY appears on the printer control panel display.
<ul style="list-style-type: none"> <li>Make sure that you have selected the correct tray. (See <a href="#">Printers at a glance on page 3.</a>)</li> <li>Make sure that trays are correctly configured for paper size and type. (See <a href="#">Selecting print media on page 16.</a>) Print a configuration page to see current tray settings. (See <a href="#">Configuration pages on page 283.</a>) Ensure that the media-size window on the front of the tray matches the size setting on the control panel.</li> <li>Make sure that the tray selection (Source) or Type in the printer driver or program is set correctly. (The printer driver and program settings override the printer control panel settings.)</li> <li>By default, paper loaded in tray 1 will be printed first. If you do not want to print from tray 1, remove</li> </ul>	<ul style="list-style-type: none"> <li>Print a configuration page to verify that the tray is installed correctly and is functional. (See <a href="#">Configuration pages on page 283.</a>)</li> <li>Configure the printer driver to recognize the installed tray. (See the printer driver online Help.)</li> <li>Turn the printer off and then on.</li> <li>Verify that you are using the correct optional tray for the printer.</li> </ul>	<ul style="list-style-type: none"> <li>Go to <a href="#">Control-panel messages on page 202.</a></li> </ul>

---

any paper loaded in the tray or  
change the **USE REQUESTED**  
**TRAY** setting. Change **TRAY 1**  
**SIZE** and **TRAY 1 TYPE** to a setting  
other than **ANY**.

---

# Solving general printing problems



**NOTE** Tray 3 is not available for the HP LaserJet 5200L.

## Printer selects media from the wrong tray

Cause	Solution
The tray selection in the software program might be incorrect.	The paper tray selection is on the <b>Page Setup</b> menu within many software programs.  Remove any media in other trays to make the printer select from the correct tray.  For Macintosh computers, use the HP Printer Utility to change the tray priority.
The configured size does not match the size of the media in the tray.	Use the control panel to change the configured size to match the size of the media in the tray. Also change the media-size window on front, upper-right of the tray.  <b>Tray 2 or tray 3:</b> Make sure that the media-size dial matches the media in the tray.

## Printer does not pull media from the tray

Cause	Solution
The tray is empty.	Load media in the tray.
The paper guides are set incorrectly.	Set the paper guides.  For tray 2 and tray 3, make sure that the leading edge of the paper stack is even.



## Paper curls when it exits the printer

Cause	Solution
The paper curls when it enters the top output bin.	Open the rear output bin to use a straight path through the printer.  Turn over the stack of paper.  Reduce the fusing temperature to reduce the curl. (See <a href="#">Print Quality submenu on page 268</a> .)

## First sheet of media jams in the print-cartridge area

Cause	Solution
A combination of high humidity and high temperature exists.	Adjust the printer for high-humidity and high-temperature conditions.

### Print job is extremely slow

Cause	Solution
The job might be very complex.  The maximum speed of the printer cannot be exceeded even when more memory is added.  Printing speeds might be automatically reduced for custom-sized media.	Reduce the complexity of the page or try adjusting the print-quality settings. If this problem occurs frequently, add memory to the printer.
 <b>NOTE</b> Expect slower speeds when printing on narrow paper from tray 1, or using the <b>HIGH 2</b> fuser mode.	
A PCL printer driver is in use for a PDF or PostScript (PS) file.	Try using the PS printer driver. You can usually do this from a software program.
In the printer driver, <b>Optimize for:</b> is set to cardstock, heavy, rough, or bond paper.	In the printer driver, set the type to plain paper.   <b>NOTE</b> If you change the setting to plain paper, the print job will print more quickly. However, if you are using heavy media, for best results leave the printer driver set to heavy.

### Print job prints on both sides of the paper (duplexing not available for the HP LaserJet 5200L)

Cause	Solution
The printer is set for duplexing.	Change the setting or see the online Help.

### Pages print, but are totally blank

Cause	Solution
The sealing tape might still be on the print cartridge.	Remove the print cartridge, pull out the sealing tape, and reinstall the cartridge.
The file might have blank pages.	The file might contain blank pages.

### The printer prints, but the text is wrong, garbled, or incomplete

Cause	Solution
The printer cable is loose or defective.	Disconnect the printer cable, reconnect it, and then try a print job that you know works. If possible, attach the cable and printer to another computer and try a print job that you know works. Finally, try a new cable.
The printer is on a network or sharing device and is not receiving a clear signal.	Disconnect the printer from the network and use a parallel or USB cable to attach it directly to a computer. Print a job that you know works.

### The printer prints, but the text is wrong, garbled, or incomplete

Cause	Solution
The wrong driver was selected in the software.	Check the software printer selection menu to make sure that an HP LaserJet 5200 printer is selected.
The software program is malfunctioning.	Try printing a job from another program.


### The printer does not respond when you select Print in the software

Cause	Solution
The printer is out of media.	Add media.
The printer might be in the manual-feed mode.	Change the printer from manual-feed mode.
The cable between the computer and the printer is not connected correctly.	Disconnect and reconnect the cable.
The printer cable is defective.	To check the cable, attach it to another computer and print a job that you know works. Try using a different cable.
The wrong printer was selected in the software.	Check the software printer selection menu to make sure that an HP LaserJet 5200 printer is selected.
The printer might have a jam.	Clear any jams, paying careful attention to the duplexer area (if applicable). See <a href="#">Clearing jams on page 230</a> .
The software for the printer is not configured for the printer port.	Check the software printer selection menu for the correct port. If the computer has more than one port, make sure that the printer is attached to the correct one.
The printer is on a network and is not receiving a signal.	Disconnect the printer from the network and use a parallel or USB cable to attach it directly to a computer. Reinstall the printing software.  Clear any stopped jobs from the print queue.
The printer is not receiving power.	If no lights are on, check the power-cord connections. Check the power switch. Check the power source.
The printer is malfunctioning.	Check the control-panel display for error messages and indicator lights. Note any message and see <a href="#">Control-panel messages on page 202</a> .





## Control-panel message types

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

Message type	Description
Status messages	Status messages reflect the current state of the printer. Messages that indicate normal printer operation require no interaction. When the printer is ready, it is not busy, and has no pending warning messages, the status message <b>Ready</b> appears if the printer is online.
Warning messages	Warning messages indicate data and print errors. These messages typically alternate with the <b>Ready</b> or status messages and remain until you press ✓. Some warning messages are clearable. If <b>CLEARABLE WARNINGS</b> is set to <b>JOB</b> on the printer <b>CONFIGURE DEVICE</b> menu, then the next print job clears these messages.
Error messages	<p>Error messages communicate that some action must be performed, such as adding paper or clearing a jam.</p> <p>Some error messages are auto-continuable. If <b>AUTO CONTINUE=ON</b> is set on the menus, then the printer will continue after the error message appears for 10 seconds.</p> <div> <b>NOTE</b> Pressing any button during the 10-second auto-continuable error message overrides the auto-continue feature. For example, pressing <b>Stop</b> pauses printing and offers the option to cancel the print job.</div>
Critical-error messages	Critical error messages indicate a device failure. Some of these messages can be cleared by turning the printer off and then on. The <b>AUTO CONTINUE</b> setting does not affect these messages. If a critical error persists, service is required.

# Control-panel messages


Control panel message	Description	Recommended action
<b>10.32.YY UNAUTHORIZED SUPPLY</b>  <b>Unauthorized supply in use</b>  alternates with  <b>For help press ?</b>	A new, non-HP supply has been installed. This message appears until you install an HP supply or press ✓.	<p>If you believe you purchased an HP supply, please go to <a href="http://www.hp.com/go/anticounterfeit">www.hp.com/go/anticounterfeit</a>.</p> <p>Service or repairs required as a result of using non-HP supplies are not covered under HP warranty.</p> <p>To continue printing, press ✓. The first pending print job will be cancelled.</p>
<b>10.XX.YY SUPPLY MEMORY ERROR</b>  <b>For help press ?</b>	The printer cannot read or write to the print-cartridge memory tag, or the memory tag is missing.	<ol style="list-style-type: none"> <li>1. Open the front door.</li> <li>2. Remove the print cartridge and reinstall it.</li> <li>3. Close the front door.</li> <li>4. Turn the printer off and then on.</li> <li>5. Replace the print cartridge.</li> <li>6. Replace the memory tag reader.</li> </ol>
<b>11.XX INTERNAL CLOCK ERROR</b>  alternates with  <b>To continue press ✓</b>	<p>The printer internal clock is not working correctly. You are prompted to set the date and time each time you turn the printer on.</p> <p>XX Description:</p> <p>01 Dead clock battery</p> <p>02 Dead real-time clock</p>	<p>If the error persists, replace the formatter.</p>
<b>13.12.00 JAM INSIDE DUPLEXER</b>  alternates with  <b>For help press ?</b>	A jam has occurred inside the duplexer.	<ol style="list-style-type: none"> <li>1. Press ▼ to see step-by-step information.</li> <li>2. Remove the duplexer.</li> <li>3. Remove any media from inside the printer duplex area and duplexer.</li> <li>4. Reinstall the duplexer.</li> <li>5. For additional help, press ?.</li> <li>6. Replace the duplexer.</li> </ol>
<div>  <b>NOTE</b> Not available for the HP LaserJet 5200L. </div>		
<b>13.XX.YY JAM IN TRAY 1</b>  alternates with  <b>Clear jam then press ✓</b>	<p>A page is jammed in the multipurpose tray.</p> <p>XX Description:</p> <p>02</p> <p>05</p> <p>YY Description:</p> <p>00</p>	<ol style="list-style-type: none"> <li>1. Press ▼ to see step-by-step information.</li> <li>2. Remove media from tray 1 and from inside the printer.</li> <li>3. Confirm that the media guides and dial are in the correct position and match the media in the tray.</li> </ol>

Control panel message	Description	Recommended action
		<ol style="list-style-type: none"> <li>Reload media in tray 1. Do not load media above the fill tabs, and confirm that the guides are in the correct position.</li> <li>To continue printing, press ✓.</li> <li>Replace the transfer pickup roller or the separation pad.</li> </ol>
<b>13.XX.YY JAM IN TRAY 2</b>	<p>A page is jammed in tray 2.</p> <p>XX Description:</p> <p>20</p> <p>21</p> <p>YY Description:</p> <p>00</p>	<ol style="list-style-type: none"> <li>Remove tray 2, clear the jam, and then reinstall tray 2.</li> <li>If the error persists, replace the pickup roller, the feed roller, or the separation pad.</li> <li>To exit, press ✓.</li> </ol>
<b>13.XX.YY JAM IN TRAY X</b> alternates with <b>Clear jam then press ✓</b>	<p>A page is jammed in the indicated tray.</p> <p>XX Description:</p> <p>20</p> <p>21</p> <p>YY Description:</p> <p>00</p>	<ol style="list-style-type: none"> <li>Press ▼ to see step-by-step information.</li> <li>Remove the indicated tray.</li> <li>Confirm that the media guides and dial are in the correct position and match the media in the tray.</li> <li>Remove all media inside the printer and reinstall the tray.</li> <li>To exit, press ✓.</li> </ol>
<div>  <b>NOTE</b> To avoid jams with heavier media, use tray 1 and the rear output bin. </div>		
<b>13.XX.YY JAM INSIDE FRONT DOOR</b> alternates with <b>For help press ?</b>	<p>A jam has occurred inside the front door.</p>	<p>Press ? for help.</p> <p>or</p> <p>See <a href="#">Clearing jams from the print-cartridge area on page 231</a>.</p>
<b>13.XX.YY JAM INSIDE REAR DOOR</b> alternates with <b>Clear jam then press ✓</b>	<p>A jam has occurred in the duplex reversing area.</p>	<ol style="list-style-type: none"> <li>Press ▼ to see step-by-step information.</li> <li>Open rear door and remove all media inside.</li> <li>Close the rear door.</li> <li>To exit, press ?.</li> </ol>
<b>13.XX.YY JAM INSIDE REAR DOOR</b> alternates with <b>For help press ?</b>	<p>A jam has occurred in the rear door area.</p>	<ol style="list-style-type: none"> <li>Press ▼ to see step-by-step information.</li> <li>Pull the duplexer halfway out of the printer.</li> </ol>

Control panel message	Description	Recommended action
		<ol style="list-style-type: none"> <li>Open the rear door and remove the duplexer.</li> <li>Release the four tabs in the center of the black paper guide inside the lower rear door.</li> <li>Open the lower rear door completely and remove all media inside.</li> <li>Close the rear door. The four tabs in the paper guide automatically reattach to the door.</li> <li>Reinstall the duplexer.</li> <li>To exit, press <b>?</b>.</li> </ol>
<b>13.XX.YY JAM INSIDE TOP COVER</b>  alternates with  <b>Remove print cartridge</b>	A jam has occurred in the registration assembly area.	<ol style="list-style-type: none"> <li>Press the  to see step-by-step information.</li> <li>Open the top cover and remove the print cartridge.</li> <li>Remove all media inside.</li> <li>Lift the metal flap and remove any remaining media.</li> <li>Verify that the media size matches the tray settings and the dial on the tray.</li> <li>Reinstall the print cartridge and close the top cover.</li> <li>To exit, press <b>?</b>.</li> </ol>
<b>20 INSUFFICIENT MEMORY</b>  alternates with  <b>For help press ?</b>  <b>To continue press </b>	The printer has received more data from the computer than fits in available memory.	<ol style="list-style-type: none"> <li>Press  to continue printing.</li> </ol> <div>  <b>NOTE</b> Data will be lost. </div> <ol style="list-style-type: none"> <li>Reduce the complexity of the print job.</li> <li>Adding memory to the printer might allow more complex printing.</li> </ol>
<b>21 PAGE TOO COMPLEX</b>  alternates with  <b>To continue press </b>	The page-compression process is too slow for the printer.	<ol style="list-style-type: none"> <li>Press  to see step-by-step information.</li> <li>To print the job with some data loss, press <b>?</b> to exit the message, and then press . If data is lost, simplify the page content to reduce its complexity.</li> <li>To exit, press <b>?</b>.</li> </ol>
<b>22 EIO X BUFFER OVERFLOW</b>  alternates with  <b>To continue press </b>	Only printers with EIO:  The printer EIO card in slot X has overflowed its I/O buffer during a busy state.	Press  to continue printing. <div>  <b>NOTE</b> Data will be lost. </div>

Control panel message	Description	Recommended action
<b>22 EMBEDDED I/O BUFFER OVERFLOW</b>  alternates with  <b>To continue press</b> ✓	The embedded HP Jetdirect print server buffer has overflowed during a busy state.	<ol style="list-style-type: none"> <li>1. Press ✓ to continue printing.</li> </ol> <div>  <b>NOTE</b> Data will be lost. </div> <ol style="list-style-type: none"> <li>2. Turn the printer off and then on.</li> <li>3. Try printing the job again.</li> <li>4. If the error persists, replace the formatter.</li> </ol>
<b>22 PARALLEL I/O BUFFER OVERFLOW</b>  alternates with  <b>To continue press</b> ✓	Too much data was sent to the parallel port.	<ol style="list-style-type: none"> <li>1. Press ✓ to continue printing.</li> </ol> <div>  <b>NOTE</b> Data will be lost. </div> <ol style="list-style-type: none"> <li>2. If the error persists, disconnect the parallel cable at both ends and then reconnect it.</li> <li>3. Make sure that a high-quality parallel cable is being used.</li> <li>4. With the parallel cable connected to the computer, connect the other end to another printer.</li> <li>5. Replace the parallel cable if necessary.</li> <li>6. Replace the formatter if necessary.</li> </ol>
<b>22 USB I/O BUFFER OVERFLOW</b>  alternates with  <b>To continue press</b> ✓	The printer USB buffer has overflowed during a busy state.	<ol style="list-style-type: none"> <li>1. Press ✓ to continue printing.</li> </ol> <div>  <b>NOTE</b> Data will be lost. </div> <ol style="list-style-type: none"> <li>2. If the error persists, disconnect the USB cable at both ends and then reconnect it.</li> <li>3. Make sure that a high-quality USB cable is being used.</li> <li>4. With the USB cable connected to the computer, connect the other end to another printer.</li> <li>5. Replace the USB cable if necessary.</li> <li>6. Replace the formatter if necessary.</li> </ol>
<b>40 EIO X BAD TRANSMISSION</b>  alternates with  <b>To continue press</b> ✓	<p>A connection with the card in the EIO slot has broken.</p> <p>This message is not valid for the HP LaserJet 5200 and 5200L.</p>	<ol style="list-style-type: none"> <li>1. Press ✓ to continue printing.</li> </ol> <div>  <b>NOTE</b> Data will be lost. </div> <ol style="list-style-type: none"> <li>2. Turn the printer off and then on.</li> <li>3. Try printing again.</li> <li>4. If the error persists, replace the EIO card in slot X.</li> </ol>

Control panel message	Description	Recommended action
<b>40 EMBEDDED I/O BAD TRANSMISSION</b>  alternates with  <b>To continue press</b> ✓	The connection with the HP Jetdirect embedded print server has broken.	<ol style="list-style-type: none"> <li>1. Press ✓ to continue printing.</li> <li>2. Turn the printer off and then on.</li> <li>3. Try printing again.</li> <li>4. If the error persists, replace the formatter.</li> </ol>
<b>41.3 UNEXPECTED SIZE IN TRAY X</b>  alternates with  <b>LOAD TRAY X &lt;TYPE&gt; &lt;SIZE&gt;</b>	The media is longer or shorter than the size configured for the tray.	<ol style="list-style-type: none"> <li>1. Press ✓ to print from a different tray.</li> <li>2. Make sure that all trays are configured and loaded correctly before printing again.</li> <li>3. If the error persists, perform a paper-path test using the diagnostics menu to make sure that all of the sensors are working correctly.</li> <li>4. If the error persists, replace the paper-feed assembly.</li> </ol>
<b>41.5 UNEXPECTED TYPE IN TRAY X</b>  alternates with  <b>LOAD TRAY X &lt;TYPE&gt; &lt;SIZE&gt;</b>	The printer senses a different media type than what is configured in the tray.	<ol style="list-style-type: none"> <li>1. Press ✓ to print from a different tray, or press ? for more information.</li> <li>2. Make sure that all trays are configured and loaded correctly before printing again.</li> <li>3. If the error persists, perform a paper-path test using the diagnostics menu to make sure that all of the sensors are working correctly.</li> <li>4. If the error persists, replace the paper-feed assembly.</li> </ol>
<b>41.X ERROR</b>  alternates with  <b>To continue press</b> ✓	A printer error has occurred.	<ol style="list-style-type: none"> <li>1. Press ✓ to continue or press ? for more information.</li> <li>2. If the error persists after exiting help, turn the printer off and then on.</li> </ol>
<b>49.XXXXX ERROR</b>  alternates with  <b>To continue turn off then on</b>	A critical firmware error has occurred that caused the processor on the formatter to abort operation. This type of error can be caused by invalid print commands, corrupt data, or invalid operations. In some cases, electrical noise in the cable can corrupt data during transmission to the printer. Other causes include poor-quality parallel cable, poor connections, or home-grown programs. On rare occasions, the formatter is at fault which typically appears as a 79 Service Error.	<ol style="list-style-type: none"> <li>1. Turn the printer off and then on.</li> <li>2. Press <b>Stop</b> to clear all print jobs from the printer memory.</li> <li>3. Turn the printer off and then on.</li> <li>4. Try printing a job using a different software program. If the job prints, try using the original software program to print a different job.</li> </ol>




**NOTE** If the error message only appears when using certain software programs, contact the software program vendor for assistance.

Control panel message	Description	Recommended action
		<ol style="list-style-type: none"> <li>If the message persists with different software programs and print jobs, disconnect all of the cables and turn the printer off.</li> <li>If the error persists, perform a firmware upgrade.</li> <li>Remove all DIMMs, EIO devices, and CompactFlash solutions.</li> <li>Remove all EIO devices.</li> <li>Turn the printer on.</li> <li>If the error does <i>not</i> persist, reinstall the DIMMs, EIO devices, and CompactFlash one at a time.</li> </ol>
		 <b>NOTE</b> You must turn the printer off and then on when reinstalling each component.
		<ol style="list-style-type: none"> <li>Replace the DIMM, EIO device, or CompactFlash if necessary.</li> <li>Reconnect all of the cables.</li> </ol>
<b>50.X FUSER ERROR</b>	A fuser error has occurred.	
For help press ?	 <b>NOTE</b> A fuser error might occur because of inadequate power supply, inadequate line voltage, or a fuser problem.	
	X Description: 1 Low fuser temperature 2 Fuser-warmup service 3 High fuser temperature 6 Open fuser 7 Fuser pressure release mechanism failure	<ol style="list-style-type: none"> <li>Turn the printer off.</li> <li>Remove and reinstall the fuser. Verify that the fuser is installed correctly and fully seated.</li> <li>Replace the connector if necessary.</li> <li>If the error persists, replace the fuser.</li> <li>Replace the low-voltage power supply if necessary.</li> <li>Replace the DC controller if necessary.</li> </ol>
<b>51.1Y</b>	A laser beam error has occurred.	
alternates with	Y Description:	
To continue turn off then on	0 Black	<ol style="list-style-type: none"> <li>Turn the printer off and then on.</li> <li>Verify the laser/scanner assembly is connected correctly to the DC controller.</li> <li>If the error persists, replace the laser/scanner assembly.</li> <li>If the error persists, replace the DC controller.</li> </ol>
<b>52.XX.Y</b>	A printer error has occurred.	
alternates with	X Description:	<ol style="list-style-type: none"> <li>Turn the printer off and then on.</li> <li>Verify the laser/scanner is connected correctly to the DC controller.</li> </ol>

Control panel message	Description	Recommended action
<b>To continue turn off then on</b>	00 Scanner motor	3. If the error persists, replace the laser scanner assembly.
	01 Scanner startup	4. If the error persists, replace the DC controller.
	02 Scanner rotation	
	Y Description:	
	0 Black	
<b>53.10.01 ERROR UNSUPPORTED RAM</b>	The memory DIMM is not a supported DIMM.	1. Press ✓ to continue. 2. If the printer does not enter the Ready state, turn the printer off. 3. Make sure that the installed memory meets requirements and is installed correctly. 4. Install a supported DIMM if necessary.
<b>54.XX ERROR</b>	A sensor error has occurred. Printing cannot continue.	1. Turn the printer off and then on.
	XX Description:	2. Check the connectors on the toner level PCB.
	02 Developer	3. Check the connectors on the DC controller.
	05 Waste toner	4. If the error persists, replace the DC controller.
	06 Overhead transparency	
	07 Rotary motor	
	Drum phase sensor out of range (black)	
	Density sensor out of range (black)	
<b>55.XX.YY DC CONTROLLER ERROR</b>	A printer command error has occurred.	55.01 and 55.02 Errors:
alternates with	XX Description:	Replace the DC controller.
<b>To continue turn off then on</b>	01 Input device	55.03 and 55.04 Errors:
	02 DC controller memory	1. Check the DC controller connectors.
	03 No engine response	2. Replace the DC controller.
	04 Communication	
<b>56.XX ERROR</b>	A printer error has occurred.	1. Turn the printer off and then on.
alternates with	XX Description:	2. Remove all input devices, and then reinstall them.
<b>To continue turn off then on</b>	01 Input device	3. Check the input device connectors.
		4. Replace any damaged connectors.
<b>57.XX PRINTER ERROR</b>	A printer fan error has occurred.	1. Check the connections to the indicated fan.
alternates with	XX Description:	2. Replace the indicated fan.
<b>To continue turn off then on</b>	03 Sub fan	
	04 Main fan	



Control panel message	Description	Recommended action
<b>58.XX ERROR</b> alternates with <b>To continue turn off then on</b>	A processor error has occurred.	Check the cable connection of the DC controller (J301) to the low-voltage power supply (J201).
<b>59.XY ERROR</b> alternates with <b>To continue turn off then on</b>	A printer motor error has occurred.	Turn the printer off and then on.   <b>NOTE</b> This message might also appear if the transfer unit is missing or incorrectly installed. Ensure that the transfer unit is correctly installed.
<b>62 NO SYSTEM</b>	No system was found.	Turn the printer off and then on.
<b>64 ERROR</b>  <b>For help press ?</b> alternates with <b>To continue turn off then on</b>	A scan buffer error has occurred.	Turn the printer off and then on.
<b>68.X PERMANENT STORAGE FULL</b> alternates with <b>To continue press ✓</b>	A non-volatile 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)	<ol style="list-style-type: none"> <li>1. Press ✓ to continue.</li> <li>2. For 68.0 errors, turn the printer off and then on.</li> <li>3. If a 68.0 error persists, contact HP Support.</li> <li>4. For 68.1 errors, use the HP Web Jetadmin software to delete files from the disk drive.</li> </ol>
<b>68.X PERMANENT STORAGE WRITE FAIL</b> alternates with <b>To continue press ✓</b>	A non-volatile 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	Press ✓ to continue.
<b>68.X STORAGE ERROR SETTINGS CHANGED</b> alternates with <b>To continue press ✓</b>	A non-volatile 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	<ol style="list-style-type: none"> <li>1. Press ▼ to see step-by-step information.</li> <li>2. To clear the error, press ? to exit the message, and then press ✓ to continue.</li> <li>3. If the problem persists, turn the printer off and then on.</li> <li>4. To exit, press ?.</li> </ol>
<b>79.XXXX ERROR</b> alternates with <b>To continue turn off then on</b>	A critical hardware error has occurred.	Turn the printer off and then on.

Control panel message	Description	Recommended action
<b>8X.YYYY EIO ERROR</b>	The EIO accessory card has encountered a critical error.	Turn the printer off and then on.
<b>8X.YYYY EMBEDDED JETDIRECT ERROR</b>	The HP Jetdirect embedded print server has encountered a critical error.	Turn the printer off and then on.
<b>&lt;BINFULL&gt; FULL</b> alternates with <b>&lt;Current status message&gt;</b>	The specified output bin is full but is not needed for the current job. The message appears after a print job is sent.	Remove the media from the output bin.
<b>Access Denied MENUS LOCKED</b>	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 a <b>Ready</b> or <b>BUSY</b> state.	Contact the printer administrator to change settings.
<b>ACTION NOT CURRENTLY AVAILABLE ON TRAY X</b> alternates with <b>Tray size cannot be ANY SIZE/ANY CUSTOM</b>	Duplex registration is not available when the tray size is configured for <b>ANY SIZE</b> or <b>ANY CUSTOM</b> .	Change the size setting for the tray.
<b>BAD DUPLEXER CONNECTION</b> alternates with <b>To continue turn off then on</b>	The duplexer is not installed correctly.	Turn the printer off and then on to continue.
<b>BAD OPTIONAL TRAY CONNECTION</b>	The optional tray is not correctly installed.	<ol style="list-style-type: none"> <li>1. Press ▼ to see step-by-step information.</li> <li>2. Turn the printer off and disconnect all of the cables.</li> <li>3. Remove the optional tray and then reinstall it.</li> <li>4. Reconnect all of the cables and turn the printer on.</li> <li>5. If the message persists, contact HP support.</li> <li>6. Press ? to exit.</li> </ol>
<b>Cancelling...</b>	The printer is in the process of canceling a job.	No action necessary.
<b>Cannot Duplex Check Rear Bin</b>	The printer has detected a non-auto duplexing size.	Make sure that the media size meets duplexing requirements.
<b>Card slot &lt;X&gt; not functional</b> alternates with <b>&lt;current status message&gt;</b>	<p>The CompactFlash card in slot &lt;X&gt; is not working correctly.</p> <p>CompactFlash is not available for the HP LaserJet 5200L.</p>	<ol style="list-style-type: none"> <li>1. Press ▼ to see step-by-step information.</li> <li>2. Turn the printer off.</li> </ol>

Control panel message	Description	Recommended action
		<ol style="list-style-type: none"> <li>Remove the CompactFlash card from the indicated slot and replace it with a new card.</li> <li>Press <b>?</b> to exit.</li> </ol>
Checking paper path	The engine is turning the rollers to check for jams.	No action necessary.
Checking printer	The engine is performing an internal test.	No action necessary.
<b>CHOSEN PERSONALITY NOT AVAILABLE</b>  alternates with  To continue press <b>✓</b>	The printer encountered a request for a personality that did not exist in the printer. The job is cancelled and no pages are printed.	<ol style="list-style-type: none"> <li>Press <b>✓</b> to continue.</li> <li>Try a different driver.</li> </ol>
Cleaning Page Error - Open Rear bin	The rear door was closed when creating a process page or cleaning page.	No action necessary.
Cleaning...	The printer is processing the cleaning page.	No action necessary.
Clearing event log	This message appears while the event log is cleared. The printer then returns to the <b>SERVICE</b> menu.	No action necessary.
Clearing paper path	The printer jammed or detected misplaced media. The printer is attempting to eject these pages.	No action necessary.
CLOSE REAR BIN	The rear door is open after creating a cleaning page.	Close the rear door.
CLOSE TOP COVER AND FRONT DOOR	The top cover and front door need to be closed.	Close the top cover and front door.
CODE CRC ERROR	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 <b>Ready</b> state after.	<ol style="list-style-type: none"> <li>Load the cleaning page into tray 1.</li> <li>Press <b>Menu</b>.</li> <li>Select <b>PRINT QUALITY</b>, and then press <b>✓</b>.</li> <li>Select <b>PROCESS CLEANING PAGE</b>, and then press <b>✓</b>.</li> </ol>
<b>DATA RECEIVED</b>  alternates with  <b>Ready</b>	The printer received data and is waiting for a form feed. The message disappears when the printer receives another file.  The printer is paused.	If the printer is waiting for a form feed, press <b>✓</b> to continue.  If the printer is paused, press <b>Stop</b> to continue.
<b>Date/Time=[YYYY]/[MMM]/[DD] [HH]:[mm]</b>  To change press <b>✓</b>  To skip, press <b>STOP</b>	The printer has an internal clock that tracks the date and time.	Press <b>✓</b> to change the date and time.  Press <b>Stop</b> to skip this step. You can set the date and time later by using the <b>SYSTEM SETUP</b> menu. Press <b>?</b> to exit.
Deleting Private Jobs	The printer is in the process of deleting a private job.	No action necessary.

Control panel message	Description	Recommended action
<b>Deleting...</b>	The printer is in the process of deleting a job.	No action necessary.
<b>Duplexer Error Remove Duplexer</b>	The duplexer has been removed.  Duplexing is not available for the HP LaserJet 5200L.	<ol style="list-style-type: none"> <li>1. Turn the printer off.</li> <li>2. Reinstall the duplexer.</li> <li>3. Turn the printer on.</li> </ol>
<b>Duplexing...Do not grab paper</b>	During duplex printing, the paper emerges for a short time before it is pulled back into the printer.  Duplexing is not available for the HP LaserJet 5200L.	No action necessary.
<b>EIO &lt;X&gt; Disk Not Functional</b>  alternates with  <current status message>	The EIO disk in slot <X> is not working correctly.	<ol style="list-style-type: none"> <li>1. Press ▼ to see step-by-step information.</li> <li>2. Turn the printer off.</li> <li>3. Remove the EIO disk from the indicated slot and replace it with a new disk.</li> <li>4. Press ? to exit.</li> </ol>
<b>EIO &lt;X&gt; Disk Spinning Up</b>  alternates with  <current status message>	The EIO disk device in slot <X> is spinning up its platter. The message appears for approximately 15 seconds after the printer exits PowerSave mode, and jobs that require disk access will be delayed.	No action necessary.
<b>Event Log Empty</b>	<b>SHOW EVENT LOG</b> was selected from the control panel, and the event log is empty.	No action necessary.
<b>External Accessory Not Supported</b>  alternates with  <current status message>	Indicates that the external duplexer or 500-sheet feeder is disabled because it does not support the external accessory.	<ol style="list-style-type: none"> <li>1. Press ▼ to see step-by-step information.</li> <li>2. Remove the duplexer or 500-sheet feeder.</li> <li>3. Press ? to exit.</li> </ol>
<b>Genuine HP supplies installed</b>	A new HP cartridge has been installed. The printer returns to the <b>Ready</b> state after approximately 10 seconds.	No action necessary.
<b>GENUINE HP SUPPLIES DESIGNED FOR &lt;PROD&gt;</b>  alternates with  Ready	This genuine HP supply was not designed for this printer and is not supported. The printer can use it, but print quality might be affected.	Replace this supply with a genuine HP supply that is designed for this printer.
<b>Incorrect</b>	The PIN number is incorrect.	Contact the network administrator.
<b>INFLATE FAILURE</b>	An error has occurred during a firmware upgrade.	Reinstall the firmware.
<b>Initializing</b>	This message appears when the printer is turned on.	No action necessary.
<b>Initializing permanent storage</b>	This message appears when the printer is turned on.	No action necessary.

Control panel message	Description	Recommended action
<b>INSERT OR CLOSE TRAY XX</b>	A tray is open and the printer is trying to print from another tray.	Close the tray indicated so that printing can continue.
<b>INSTALL BLACK CARTRIDGE</b>	The print cartridge is not installed correctly.	<ol style="list-style-type: none"> <li>1. Press ▼ to see step-by-step information.</li> <li>2. Open the top cover.</li> <li>3. Install the print cartridge.</li> <li>4. Close the top cover.</li> <li>5. Press ? to exit.</li> </ol>
<b>INSTALL FUSER</b>  For help press ?	The fuser is either not installed or not correctly installed in the printer.	Press ? for help.
<b>INSUFFICIENT MEMORY TO LOAD FONTS/DATA</b>	This message alternates with the name of the storage device that does not have enough memory to load the fonts or other data.	<p>Press ✓ to continue printing without using the data.</p> <p>To solve the problem, increase the amount of memory for the device. Press ? for more information.</p>
<b>LOAD TRAY X &lt;TYPE&gt; &lt;SIZE&gt;</b>  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.
<b>LOAD TRAY X &lt;TYPE&gt; &lt;SIZE&gt;</b>  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.	<p>Press ? for help.</p> <p>or</p> <p>Press ✓ to print from another tray.</p>
<b>LOAD TRAY XX &lt;TYPE&gt; &lt;SIZE&gt;</b>  alternates with  <b>MOVE TRAY DIAL TO CUSTOM</b>	The tray dial needs to be set to custom.	<ol style="list-style-type: none"> <li>1. Press ▼ to see step-by-step information.</li> <li>2. Load the tray with the requested media.</li> <li>3. Verify the guides are in the correct position.</li> <li>4. Adjust the tray dial and blue lever to the custom position.</li> <li>5. Press ✓ to exit.</li> </ol>
<b>LOAD TRAY XX &lt;TYPE&gt; &lt;SIZE&gt; - MOVE TRAY DIAL WHEN LOADING TRAY</b>	The tray dial needs to be set to paper size in use.	<ol style="list-style-type: none"> <li>1. Press ▼ to see step-by-step information.</li> <li>2. Load the tray with the requested media.</li> <li>3. Verify the guides are in the correct position.</li> <li>4. Adjust the tray dial and blue lever to the correct position.</li> <li>5. Press ✓ to exit.</li> </ol>

Control panel message	Description	Recommended action
<b>Loading program X</b> alternates with <b>DO NOT POWER OFF</b>	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 the sequence number of the program being loaded.	No action necessary.
<b>MANUALLY FEED &lt;TYPE&gt; &lt;SIZE&gt;</b> alternates with <b>For help press ?</b>	Tray 1 is empty and no other tray is available.	Load media into tray 1, and press ✓ to continue.  Press ? for help.
<b>MANUALLY FEED &lt;TYPE&gt; &lt;SIZE&gt;</b> alternates with <b>To continue press ✓</b>	Media is in tray 1, 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.
<b>MANUALLY FEED &lt;TYPE&gt; &lt;SIZE&gt;</b> alternates with <b>To use another tray press ✓</b>	No media is in tray 1, 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.
<b>MANUALLY FEED OUTPUT STACK</b> alternates with <b>Then press ✓ to print second sides</b>	The first side of a manual two-sided print job has been printed and the printer is paused until the output stack is reinserted.	<ol style="list-style-type: none"> <li>1. Press ▼ to see step-by-step information.</li> <li>2. To print second side of the two-sided print job, load the output stack into tray 1 with the printed-side down.</li> <li>3. Press ✓ to continue.</li> </ol>
<b>MEM TEST FAILURE REPLACE DIMM 1</b>	The memory DIMM has failed.	Install a supported memory DIMM. See <a href="#">Installing printer memory on page 30</a> .
<b>No job to cancel</b>	The Stop button was pressed but there is no job or buffered data to cancel. The message appears for approximately two seconds.	No action necessary.
<b>No stored jobs</b>	There are no jobs to retrieve in the <b>RETRIEVE JOB</b> menu.	No action necessary.
<b>NON HP SUPPLY IN USE</b> alternates with <b>Ready</b>	A non-HP supply is currently installed but ✓ was pressed to override the message.	If you believe you purchased an HP supply, go to <a href="http://www.hp.com/go/anticounterfeit">www.hp.com/go/anticounterfeit</a> .  Service or repairs that are required as a result of using non-HP supplies are not covered under HP warranty.
<b>NON HP SUPPLY INSTALLED</b> alternates with <b>For help press ?</b>	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 <a href="http://www.hp.com/go/anticounterfeit">www.hp.com/go/anticounterfeit</a> .  Service or repairs that are required as a result of using non-HP supplies are not covered under HP warranty.  To continue printing, press ✓.

Control panel message	Description	Recommended action
<b>ORDER CARTRIDGE LESS THAN XXXX PAGES</b> alternates with <current status message>	The <b>CARTRIDGE LOW</b> setting in the <b>SYSTEM SETUP</b> submenu is set to <b>CONTINUE</b> and low toner exits. When the estimated pages reaches zero, the message is replaced with <b>REPLACE CARTRIDGE</b> .	<ol style="list-style-type: none"> <li>1. Press ▼ to see step-by-step information.</li> <li>2. Order HP part Q7516-67901.</li> <li>3. Press ? to exit.</li> </ol>
<b>PAPER PATH JAM FRONT DOOR</b> alternates with For help press ?	A page is jammed in the paper path.	Open the front door and remove any jammed media.
<b>PAPER WRAPPED AROUND FUSER</b>	The paper has wrapped around the fuser. This jam does not have a jam code.	<ol style="list-style-type: none"> <li>1. Press ▼ to see step-by-step information.</li> <li>2. Turn off the printer.</li> <li>3. If the printer has a duplexer, go to step 4. If the printer does not have a duplexer, go to step 6.</li> <li>4. Slide the duplexer out halfway.</li> <li>5. Open the rear door and remove the duplexer.</li> <li>6. Release the fuser NIP by slightly pushing the rear door up and holding the black plastic inside the rear door.</li> <li>7. Slightly lift up the black plastic until it releases from the rear door, and then push the rear door toward the top of the table.</li> <li>8. Open the print-cartridge door and remove the print cartridge.</li> <li>9. Remove any jammed media.</li> <li>10. Reinstall the print cartridge and then close the cartridge door.</li> <li>11. Reinstall the duplexer and close the rear door.</li> <li>12. Turn on the printer.</li> <li>13. Press ? to exit.</li> </ol>
<b>Paused</b> alternates with To return to Ready press the STOP key	The printer has paused.	Press <b>Stop</b> to resume printing.
<b>Performing upgrade</b>	A firmware upgrade is in process.	No action necessary. (Do not turn off the printer.)
<b>Performing... PAPER PATH TEST</b>	The printer is performing a paper-path test.	No action necessary.
<b>Please Wait</b>	The printer is offline.	No action necessary.

Control panel message	Description	Recommended action
<b>PRINTING STOPPED</b>  To continue press ✓	This message appears when a Print/Stop test runs and the time expires.	Press ✓ to continue printing.
<b>Printing... CONFIGURATION</b>	The printer is generating the configuration page. The printer will return to the <b>Ready</b> state after.	No action necessary.
<b>Printing... ENGINE TEST</b>	The engine-test page is printing.	No action necessary.
<b>Printing... EVENT LOG</b>	The printer is generating the event log page. The printer will return to the <b>Ready</b> state after.	No action necessary.
<b>Printing... FILE DIRECTORY</b>	The printer is generating the mass storage directory page. The printer will return to the <b>Ready</b> state after.	No action necessary.
<b>Printing... FONT LIST</b>	The printer is generating either the PCL or PS personality typeface list. The printer will return to the <b>Ready</b> state after.	No action necessary.
<b>Printing... MENU MAP</b>	The printer is generating the printer menu map. The printer will return to the <b>Ready</b> state after.	No action necessary.
<b>Printing... REGISTRATION PAGE</b>	The printer is generating the registration page. The printer will return to the <b>SET REGISTRATION</b> menu after.	Follow the instructions on the printed pages.
<b>Printing... SHOW ME HOW</b>	A print job is processing from the <b>SHOW ME HOW</b> menu.	No action necessary.
<b>Printing... SUPPLIES STATUS</b>	The printer is generating the supplies status page. The printer will return to the <b>Ready</b> state after.	No action necessary.
<b>Printing... USAGE PAGE</b>	The printer is generating the usage page. The printer will return to the online <b>Ready</b> state after.	No action necessary.
<b>Processing... from tray&lt;X&gt;</b>	The printer is actively processing a job from the designated tray.	No action necessary.
<b>Processing...&lt;alternates with&gt; copy &lt;X&gt; of &lt;Y&gt;</b>	The printer is currently processing or printing collated copies. The message indicates that X of Y total copies is currently processing.	No action necessary.
<b>Processing...&lt;jobname&gt;</b>	The printer is currently processing a job but is not yet picking pages. When that begins, a message appears that indicates which tray the job is being printed from.	No action necessary.
<b>Processing...SLOW MODE</b>	The printer is slowing down because of excessive use. The printer fuser needs to cool down for approximately 90 seconds.	Press ▼ to see step-by-step information. Press ? to exit.
<b>RAM DISK DEVICE FAILURE</b>  alternates with <b>Ready</b>  To clear press ✓	The RAM disk has failed.	1. Printing can continue for jobs that do not require the RAM disk. 2. To delete this message, press ✓.



Control panel message	Description	Recommended action
<b>RAM DISK FILE OPERATION FAILED</b> alternates with <b>Ready</b> To clear press ✓	The printer received a PJL file system command that attempted to perform an illogical operation (for example, to download a file to a non-existent directory).	<ol style="list-style-type: none"> <li>1. Printing can continue.</li> <li>2. To delete this message, press ✓.</li> <li>3. If the message reappears, a problem with the software program might exist.</li> </ol>
<b>RAM DISK FILE SYSTEM IS FULL</b> alternates with <b>Ready</b> To clear press ✓	The printer received a PJL file system command to store something on the file system, but the file system is full.	<ol style="list-style-type: none"> <li>1. Use HP Web Jetadmin software to delete files from the RAM disk memory and try again.</li> <li>2. To delete this message, press ✓.</li> </ol> See <a href="#">HP Web Jetadmin on page 14</a> for more information.
<b>RAM DISK IS WRITE PROTECTED</b> alternates with <b>Ready</b> To clear press ✓	The file system is protected and no new files can be written to it.	<ol style="list-style-type: none"> <li>1. To enable writing to the RAM disk memory, use HP Web Jetadmin to turn off write protection.</li> <li>2. To delete this message, press ✓.</li> </ol> See <a href="#">HP Web Jetadmin on page 14</a> for more information.
<b>RAM DISK X Initializing</b> alternates with <b>DO NOT POWER OFF</b>	The new RAM disk installed in slot X is initializing.	No action necessary.
<b>Ready &lt;IP Address&gt;</b>	The printer is online and ready for data, and no status or device attendance messages are pending.	To disable the feature: <ol style="list-style-type: none"> <li>1. Press <b>Menu</b>.</li> <li>2. Use ▼ to scroll to <b>CONFIGURE DEVICE</b>.</li> <li>3. Use ▼ to scroll to <b>SYSTEM SETUP</b>.</li> <li>4. Use ▼ to scroll to <b>SHOW ADDRESS</b>.</li> <li>5. Use ▼ to scroll to <b>OFF</b>.</li> <li>6. Press ✓ to select and save the option.</li> </ol>
<b>Receiving upgrade</b>	A firmware upgrade is in progress.	Do not turn the printer off until the printer returns to <b>Ready</b> .
<b>REINSERT DUPLEXER</b>	The duplexer is not installed or is not installed correctly.	<ol style="list-style-type: none"> <li>1. Turn the printer off.</li> <li>2. Remove the duplexer and then reinstall it.</li> <li>3. Turn the printer on.</li> </ol>
<b>REPLACE BLACK CARTRIDGE</b> alternates with <current status message>	The print cartridge is nearing the end of its useful life and the <b>CARTRIDGE OUT</b> setting is set to <b>CONTINUE</b> . If <b>CARTRIDGE OUT</b> is set to <b>STOP</b> , the message becomes an error and printing will not continue until <b>CARTRIDGE OUT</b> is set to <b>CONTINUE</b> .	<ol style="list-style-type: none"> <li>1. Press ▼ to see step-by-step information.</li> <li>2. Order HP part number Q7516-67901.</li> </ol>

Control panel message	Description	Recommended action
		<ol style="list-style-type: none"> <li>Open the print-cartridge door, remove the print cartridge, and install a new print cartridge. Close the print-cartridge door.</li> <li>Press <b>?</b> to exit.</li> </ol>
<b>Request accepted please wait</b>	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.
<b>Resend upgrade</b>	The firmware upgrade was not successful.	Attempt the upgrade again.
<b>Restoring factory settings</b>	The printer is restoring factory settings.	No action necessary.
<b>Restoring...</b>	The printer is restoring settings.	No action necessary.
<b>RFU LOAD ERROR</b>	An error has occurred during a firmware upgrade.	Reinstall the firmware.
<b>Setting saved</b>	A menu selection has been saved.	No action necessary.
<b>SIZE MISMATCH IN TRAY XX</b> alternates with <b>Ready</b>	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.	<ol style="list-style-type: none"> <li>Make sure that the media guides are adjusted correctly.</li> <li>In the <b>PAPER HANDLING</b> menu, configure the tray for the correct size.</li> </ol>
<b>Sleep mode on</b>	The printer is in the sleep mode. Any button press or the receipt of data clears the sleep mode.	No action necessary. The printer automatically exits sleep mode.
<b>STANDARD TOP BIN FULL</b> alternates with <b>Remove all paper from bin</b>	The output bin is full. Printing cannot continue.	Empty the output bin. Printing resumes automatically.
<b>To return to ready press STOP</b>	The printer is paused and no error messages are pending.	No action necessary.
<b>TRAY &lt;X&gt; OVERFILLED REMOVE EXCESS PAPER</b>	The tray is loaded with too much media.	<ol style="list-style-type: none"> <li>Press <b>▼</b> to see step-by-step information.</li> <li>Remove excess media.</li> <li>Press <b>✓</b> to exit.</li> </ol>
<b>Tray X &lt;TYPE&gt; &lt;SIZE&gt;</b> alternates with <b>To change size or type press ✓</b>	The printer is reporting the current configuration of tray X.	No action necessary. Press <b>↵</b> to clear the message. Press <b>✓</b> to change the type or size.
<b>TRAY XX EMPTY &lt;TYPE&gt; &lt;SIZE&gt;</b> alternates with <b>&lt;current status message&gt;</b>	The tray 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 the tray.
<b>TRAY XX OPEN</b> <b>For help press ?</b> alternates with	The tray is open, but printing can continue.	Close the tray.

Control panel message	Description	Recommended action
<current status message>		
<b>TYPE MISMATCH IN TRAY XX</b>  alternates with  <b>Ready</b>	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.	In the <b>PAPER HANDLING</b> menu, configure the tray to match the type.
<b>Unauthorized supply in use</b>  alternates with  <b>Ready</b>	The printer has detected that a non-HP supply is currently installed and ✓ was pressed.	If you believe you purchased an HP supply, go to <a href="http://www.hp.com/go/anticounterfeit">www.hp.com/go/anticounterfeit</a> .  Service or repairs required as a result of using non-HP supplies are not covered under HP warranty.
<b>WAIT FOR PRINTER TO REINITIALIZE</b>	The printer is reinitializing.	No action necessary.

# Replacement-parts configuration

Perform the procedures in this section when these parts are replaced:

- Formatter and DC controller
- Formatter (new)
- DC controller (new or previously installed in another printer)



**NOTE** The HP LaserJet 5200 Series printers store printer configuration information in Nandflash. Always print a configuration page before and at least five minutes after installing these parts and turning the printer on to verify that the printer configuration information is restored from Nandflash memory to the NVRAM.

## Formatter and DC controller



**WARNING!** Do *not* replace the formatter and the DC controller at the same time. If the formatter and the DC controller must both be replaced, install a replacement formatter first.

If the formatter and the DC controller need to be replaced, install a replacement formatter first. After replacing the formatter, turn the printer on. When **READY** appears on the control-panel display, wait at least five minutes before using the printer so that the printer configuration information can be restored from DCC memory to the NVRAM or formatter.

Turn the printer off, replace the DC controller, and then turn on the printer. When **READY** appears on the control-panel display, wait at least five minutes before using the printer so that the printer configuration information can be restored from the formatter NVRAM to the DCC NVRAM.

## Formatter (new)

The HP LaserJet 5200 Series printers store printer configuration information in the NVRAM memory. After replacing the formatter, turn on the printer. When **READY** appears on the control-panel display, wait at least five minutes before using the printer so that the printer configuration information can be restored from the DCC NVRAM to the formatter NVRAM.

## DC controller (new or previously installed in another printer)

After replacing the DC controller, turn on the printer. When **READY** appears on the control-panel display, wait at least five minutes before using the printer so that the printer configuration information (such as pages counts and the serial number) can be restored from the formatter NVRAM to the DCC NVRAM.

## Formatter

The HP LaserJet 5200 Series printers store printer configuration information in the NVRAM memory. After replacing the formatter, turn on the printer. When **READY** appears on the control-panel display, wait at least five minutes before using the printer so that the printer configuration information can be restored from the formatter NVRAM memory to the CompactFlash.

If the CompactFlash also needs to be replaced, remove the formatter. After replacing the formatter, turn on the printer. When **Ready** appears on the control-panel display, wait at least five minutes before using the printer so that the printer configuration information can be restored from the formatter memory.

## Guidelines for using paper

For best results, make sure the paper is of good quality, and free of cuts, nicks, tears, spots, loose particles, dust, wrinkles, voids, and curled or bent edges.

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

For a complete list of supported media, see [Selecting print media on page 16](#).

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

Symptom	Problem with paper	Solution
Poor print quality or toner adhesion	The paper is too moist, too rough, too heavy, too smooth, or it is embossed or from a faulty paper lot.	Try another kind of paper, between 100 and 250 Sheffield, and with 4% to 6% moisture content.
Dropouts, jamming, curl	The paper has been stored incorrectly. The paper varies from side to side.	Store paper flat in its moisture-proof wrapping. Turn the paper over.
Excessive curl	The paper is too moist, has the wrong grain direction, or is of short-grain construction. The paper varies from side to side.	Open the rear output bin, or use long-grain paper. Turn the paper over.
Jamming, damage to printer	The paper has cutouts or perforations.	Use paper that is free of cutouts or perforations.
Problems with feeding	The paper has ragged edges, or it is from a faulty paper lot. The paper varies from side to side. The paper is too moist, too rough, too heavy, or too smooth. It has the wrong grain direction, is of short-grain construction, or it is embossed.	Use high-quality paper that is made for laser printers. Turn the paper over. Try another kind of paper, between 100 and 250 Sheffield, and with 4 to 6% moisture content. Open the rear output bin, or use long-grain paper.



**NOTE** Do not use letterhead paper that is printed with low-temperature inks, such as those used in some types of thermography. Do not use raised or embossed letterhead. The printer uses heat and pressure to fuse toner to the paper. Make sure that any colored paper or preprinted forms use inks that are compatible with this fusing temperature (200°C, or 392°F, for 0.1 second).



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

# Printing special pages

Special pages within the memory of the printer can help you to diagnose and learn about problems with your printer.

- **Configuration page**

The configuration page lists many of the current settings and properties of the printer. For information about how to print the configuration page, see [Configuration pages on page 283](#). If you have an HP Jetdirect print server installed, a second page prints that lists all of the HP Jetdirect information.

- **Font list**

You can print a font list using the control panel (see [Print the PCL font list page on page 289](#) or [Print the PS font list page on page 290](#)) or, for Macintosh computers, the HP Printer Utility.

- **Supplies status page**

Use the supplies status page to obtain information about the print cartridge that is installed in the printer, the amount of life that remains in the print cartridge, and the number of pages and jobs that have been processed (see [Print the supplies status page on page 285](#)).

- **Show Me How pages**

Use the **SHOW ME HOW** control-panel menu to print pages that contain self-help information about jams, loading trays, supported media types and sizes, and more help. See [Show Me How menu on page 262](#).

## Data collection

To troubleshoot jams, gather the following information:

- The jam error code on the control-panel display
- The location of the leading edge of media in the paper path
- Was the media in the paper path or the tray when the jam occurred?
- Did the jam occur when the printer was turned on or when media was processing?
- Is the media damaged?
- Where did the damage to the media occur and where in the paper path did the media stop?
- Did the jam occur when using a certain tray?
- Did the jam occur when duplexing?
- Is a particular type of media jamming?
- Are non-HP supplies in use?
- Is media stored correctly, trays overloaded, edges damaged when loading media, or media being reused?

# General paper-path troubleshooting

Use the following suggestions to isolate the cause of a problem. After identifying the cause, use the tables for a recommended solution.



**NOTE** Use the paper-path test in the **DIAGNOSTICS** menu to print pages when troubleshooting.

- View or print the event log to determine if a particular jam error occurs more often than others. Try to identify a pattern.
- Use the event log to determine the frequency of a particular jam. If a jam occurs repeatedly at approximately the same page count, consider it a single jam that the customer tried to clear.
- Try printing to all available trays to determine if the problem is isolated to one tray.
- Print the job in simplex and duplex modes to determine if the problem occurs in a particular mode.
- Try printing on media from an unopened ream that has been stored correctly. If a jam does not occur, the customer's media might be causing the problem.
- If the jam occurs after the printer is turned on, check the paper path for small, torn pieces of media. Also, check for broken sensors and flags, and check for loose or defective connections.
- If the media is torn, folded, or wrinkled, check the paper path for items that could be causing the damage.
- Replace any non-HP supplies with genuine HP supplies.
- If necessary, tell the customer about proper media storage, correct loading technique, and printer operation. Make sure that the customer knows not to grab media in the output bin during duplex printing.

## Paper-path checklist

- Make sure that the media is loaded correctly, and that all of the length and width guides are set correctly.
- Clean the printer. Toner and media dust in the paper path can inhibit the free movement of media through the printer and can block the sensors.
- Use the paper-path test in the **DIAGNOSTICS** menu to vary the input selections of the printer to determine if the problem is associated with a particular area of the printer.
- Check the condition of the pickup rollers and separation pads. Worn rollers or separation pads can cause multifeeds. Bent separation tabs (on the front corners of the input trays) can cause misfeeds and multifeeds. Replace the tray if necessary.
- Defective paper-tray switches can cause jams by communicating the wrong paper size to the formatter.
- Check that the paper path is clear when cleaning the printer and clearing jams. Scraps of media in the paper path can cause intermittent jams. Also, remove the fuser and carefully check it for debris from jams.



## Jams in tray 1

The following table describes the causes of and solutions for jams in tray 1.

**Table 6-1** Causes for jams in tray 1

Cause	Solution
The pickup roller is dirty, worn, or damaged	Clean the pickup roller. If it is still dirty after cleaning, or if it is worn or damaged, replace the pickup roller.
The separation pad is defective	Clean the separation pad. If it is still dirty after cleaning, or if it is worn or damaged, replace the separation pad.

## Jams in tray 2 or the optional 500-sheet feeder


The following table describes the causes of and solutions for jams in tray 2 and the optional 500-sheet feeder.

**Table 6-2** Causes for jams in tray 2 or the optional 500-sheet feeder

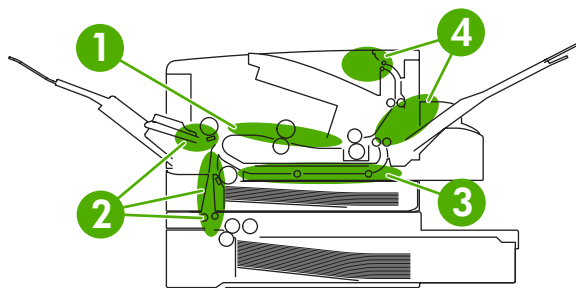
Cause	Solution
The pickup roller is dirty, worn, or damaged	Clean the pickup roller. If it is still dirty after cleaning, or if it is worn or damaged, replace the pickup roller.
The separation roller is worn or damaged	Clean the separation roller. If it is still dirty after cleaning, or if it is worn or damaged, replace the separation roller.

# Common causes of jams

The printer is jammed.

Cause	Solution
The media does not meet specifications.	Use only media that meets HP specifications. See <a href="#">Selecting print media on page 16</a> .
You are using media that has already passed through a printer or copier.	Do not use media that has been previously printed on or copied.
An input tray is loaded incorrectly.	Remove any excess media from the input tray. Make sure that the stack is below the maximum stack height mark in the tray.
The media is skewed.	The input-tray guides are not adjusted correctly. Adjust them so they hold the stack firmly in place without bending it.
The media is binding or sticking together.	Remove the media, flex it, rotate it 180°, or flip it over. Reload the media into the input tray.
	 <b>NOTE</b> Do not fan paper, which creates static electricity and 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.
The media is in poor condition.	Replace the media.
The internal rollers from tray 2 or tray 3 are not picking up the media.	Remove the top sheet of media. If the media is heavier than 163 g/m <sup>2</sup> (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.	Perforated or embossed media does not separate easily. Feed single sheets from tray 1.
The media was not stored correctly.	Replace the media in the trays. Media should be stored in the original packaging in a controlled environment.

# Jam locations

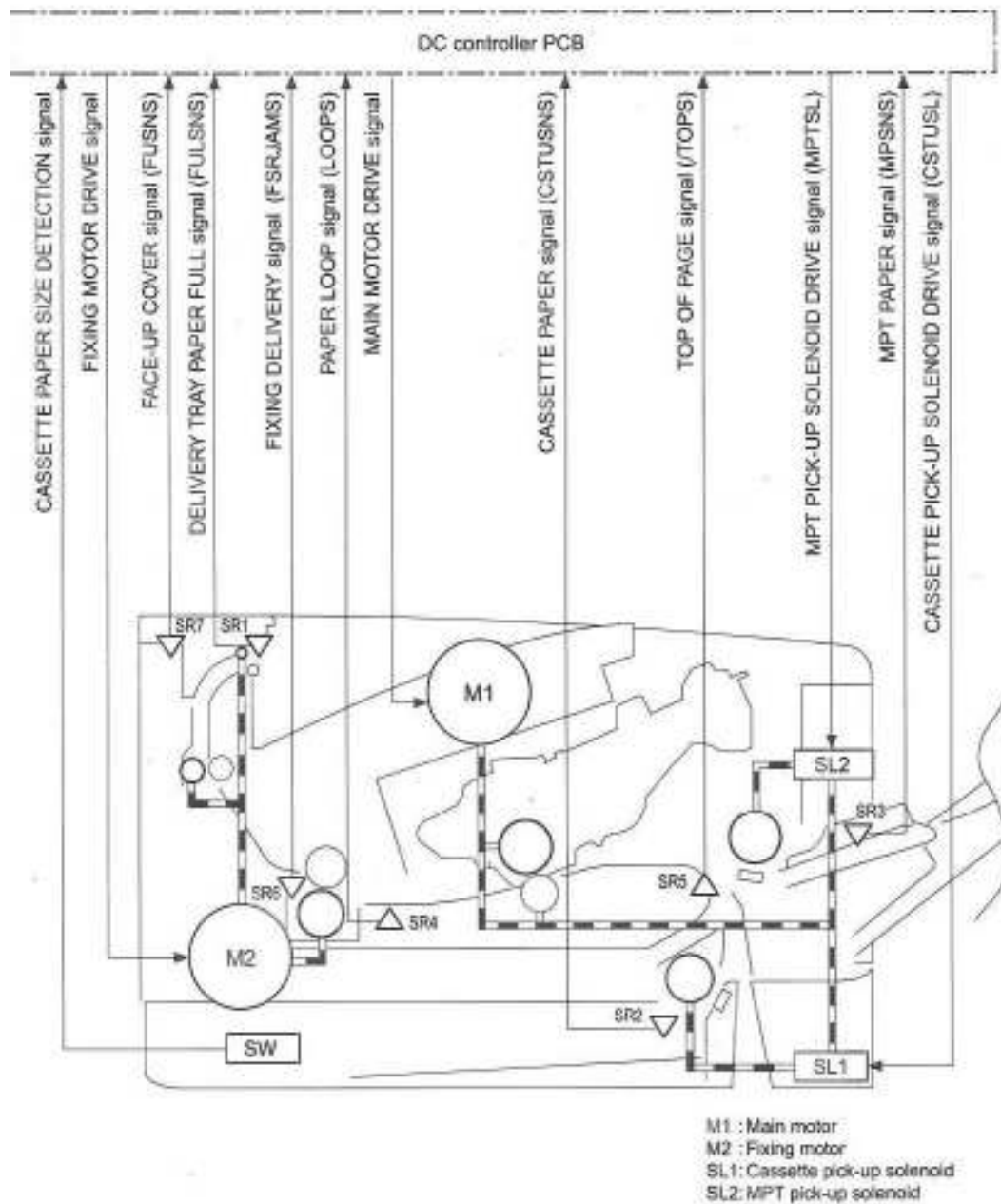


**Figure 6-1** Jam locations (1 of 2)

1	Print cartridge
2	Input trays
3	Duplex path (for printers that include duplexers)
4	Output bins



**NOTE** Automatic duplexing is not available for the HP LaserJet 5200L.



**Figure 6-2** Jam locations (2 of 2)

<b>M1</b>	Main motor
<b>M2</b>	Fuser motor
<b>SR1</b>	Delivery tray paper-full sensor
<b>SR2</b>	Cassette paper sensor
<b>SR3</b>	Multipurpose tray paper sensor
<b>SR4</b>	Paper loop sensor
<b>SR5</b>	Top-of-page sensor
<b>SR6</b>	Fuser delivery sensor

<b>SR7</b>	Face-up cover sensor
<b>SL1</b>	Cassette pickup solenoid
<b>SL2</b>	Multipurpose pickup solenoid
<b>SW1</b>	Cassette paper-size detection switch

## Jam recovery

Use this option to configure the printer response to jams, including how the printer handles the pages involved. **AUTO** is the default value.

- **AUTO**: The printer automatically turns jam recovery on when sufficient memory is available.
- **ON**: The printer reprints any page that is involved in a jam. Additional memory is allocated to store the last few pages that were printed, and this might cause overall printer performance to suffer.
- **OFF**: The printer does not reprint any page that was involved in a jam. Because no memory is used to store the most recent pages, overall printer performance might be optimized.

### To set the jam-recovery response

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 ▲ or ▼ to select the appropriate setting, and then press ✓.
6. Press **Menu** to exit the menu.

## Clearing jams

When clearing jams, be very careful not to tear the media. Small pieces of media that remain in the printer can cause additional jams.

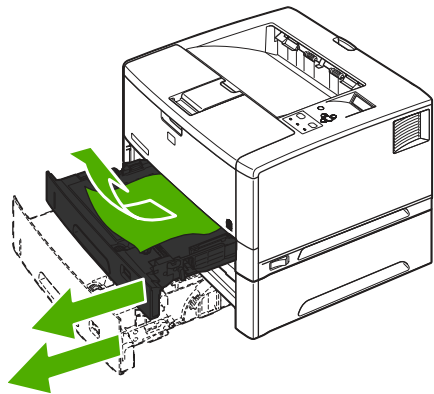
The **SHOW ME HOW** control-panel menu includes a page that shows how to clear jams. See [Show Me How menu on page 262](#).

### Clearing jams from the input-tray areas



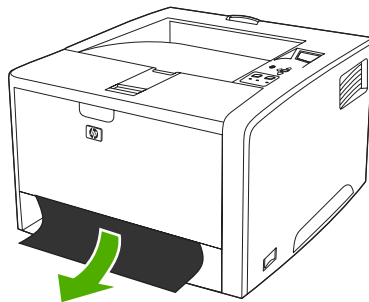
**NOTE** To remove media from the tray 1 area, slowly pull the media out of the printer. For all other trays, complete the following procedure.

1. Slide the tray out and remove any damaged paper from it.



**Figure 6-3** Clearing jams from the input-tray areas (1 of 3)

2. If the edge of the paper is visible in the feed area, slowly pull it down and out. If the paper is not visible, look in the top-cover area.

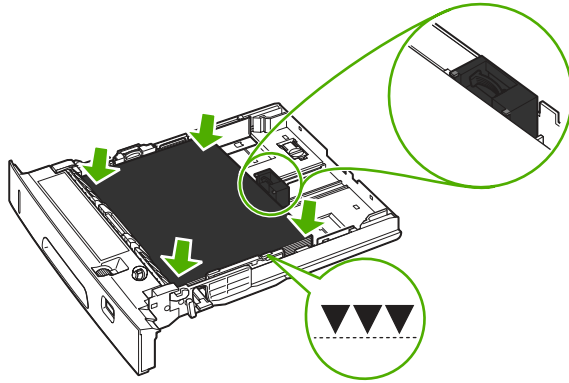


**Figure 6-4** Clearing jams from the input-tray areas (2 of 3)



**NOTE** Do not force the paper. If it is stuck in a tray, try removing it through the tray above (if applicable) or through the top-cover area.

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



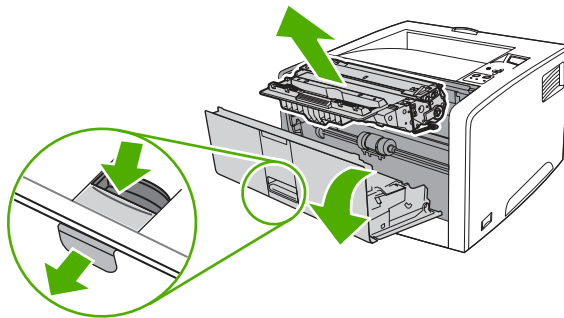
**Figure 6-5** Clearing jams from the input-tray areas (3 of 3)

4. Open and close the top cover to clear the jam message.

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

## Clearing jams from the print-cartridge area

1. Open the top cover and remove the print cartridge.



**Figure 6-6** Clearing jams from the print-cartridge area (1 of 3)

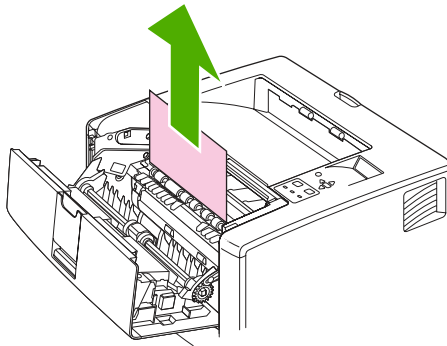


**CAUTION** To prevent damage to the print cartridge, do not expose it to light for more than a few minutes.

2. Slowly pull the media out of the printer. Be careful to not tear it.



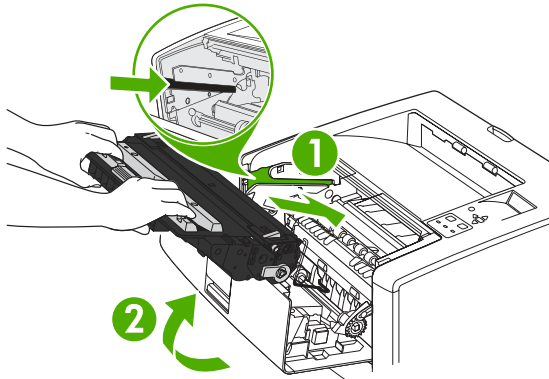
**NOTE** You must flip up the metal flap before pulling the media out of the printer.



**Figure 6-7** Clearing jams from the print-cartridge area (2 of 3)

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

3. Replace the print cartridge and close the top cover.



**Figure 6-8** Clearing jams from the print-cartridge area (3 of 3)

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

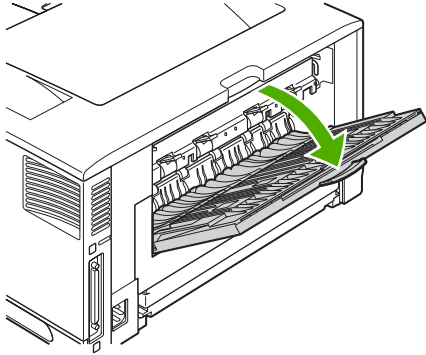


## Clearing jams from the output-bin areas



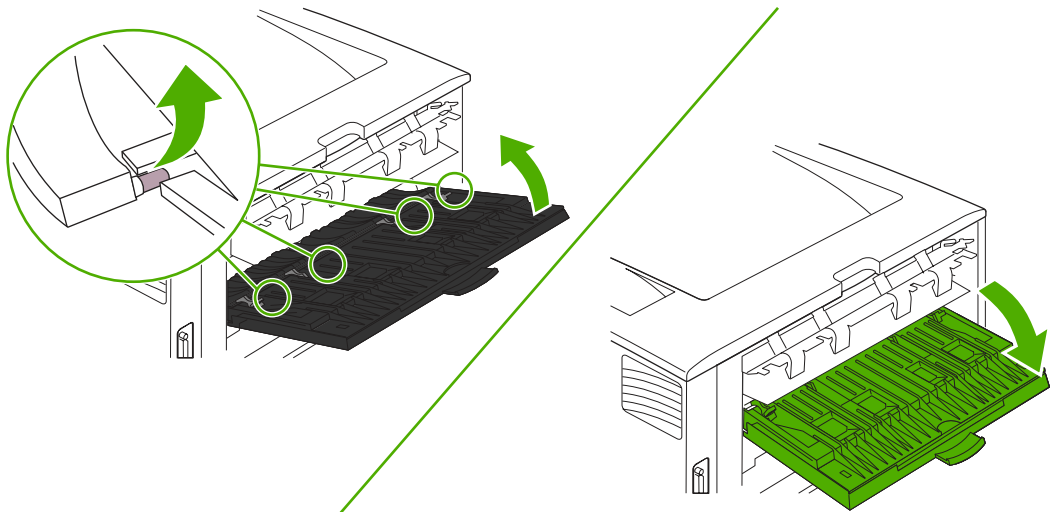
**NOTE** If most of the media is still inside the printer, remove it through the rear door.

1. Open the rear door.



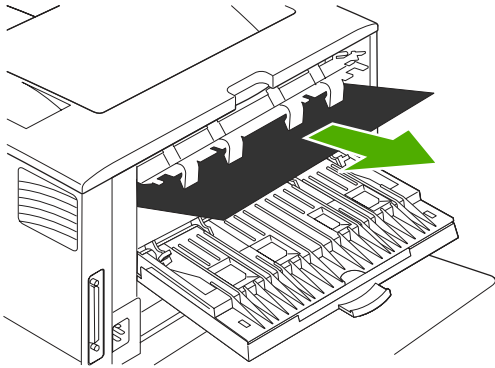
**Figure 6-9** Clearing jams from the output-bin areas (1 of 4)

2. Slightly lift up the rear door, and then lift up on the middle portion of the black assembly on the inside of the door to release the clips. Let the rear door drop open.



**Figure 6-10** Clearing jams from the output-bin areas (2 of 4)

3. Grasp both sides of the media, and slowly pull the media out. Be careful not to spill loose toner on yourself or into the printer.

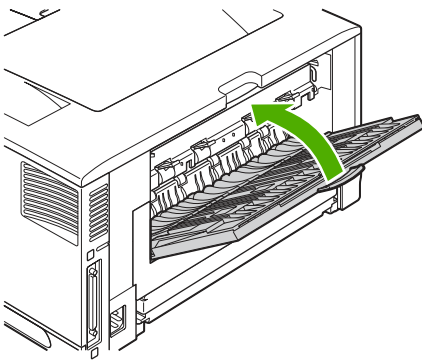


**Figure 6-11** Clearing jams from the output-bin areas (3 of 4)



**NOTE** If media is difficult to remove, open top cover and removing the print cartridge to release pressure on the media.

4. Close the rear door. The clips automatically return to their original positions.



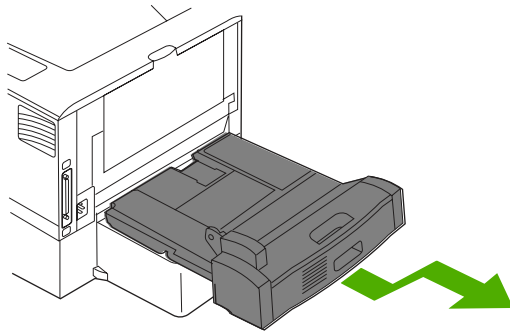
**Figure 6-12** Clearing jams from the output-bin areas (4 of 4)

5. Open and close the top cover to clear the jam message.

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

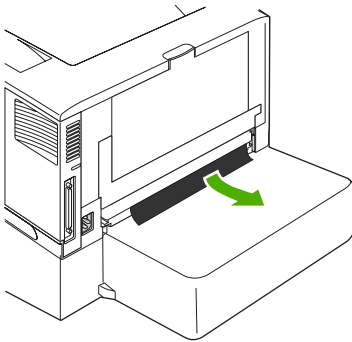
## Clearing jams from the optional duplexer

1. Remove the duplexer from the rear of the printer.



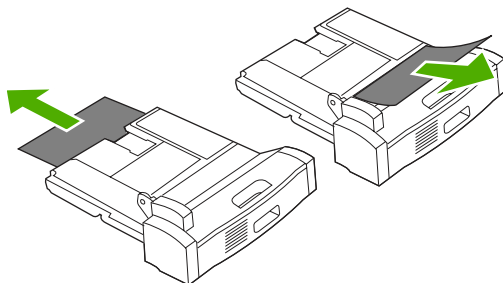
**Figure 6-13** Clearing jams from the optional duplexer (1 of 4)

2. Look inside the printer duplex area and remove any media.



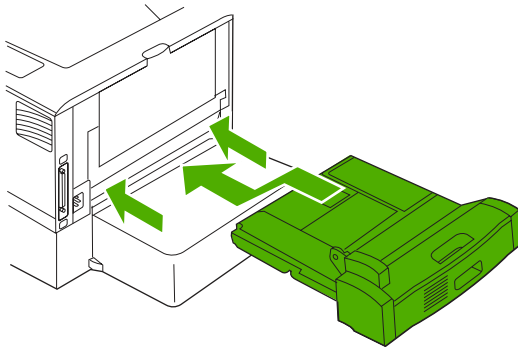
**Figure 6-14** Clearing jams from the optional duplexer (2 of 4)

3. Remove any media from the duplexer.



**Figure 6-15** Clearing jams from the optional duplexer (3 of 4)

4. Reinstall the duplexer.



**Figure 6-16** Clearing jams from the optional duplexer (4 of 4)



**NOTE** To prevent jams, make sure that all tray covers are in place.

## Solving repeated jams

If jams occur frequently, try the following actions:

- Check all the jam locations. A piece of media might be stuck somewhere in the printer.
- Check that media is correctly loaded in the trays, that the trays are correctly adjusted for the loaded media size, and that the trays are not overfilled.
- Check that all trays and paper-handling accessories are completely inserted into the printer and closed. If a tray is open during a print job, a jam might occur.
- Check that all covers and doors are closed. If a cover or door is open during a print job, a jam might occur.
- Try printing to a different output bin.
- The sheets might be sticking together. Try bending the stack to separate each sheet. Do not fan the stack.
- If you are printing from tray 1, try feeding fewer sheets of media at a time.
- If you are printing small sizes such as index cards, make sure that the media is oriented correctly in the tray.
- Turn over the media stack in the tray. Also, try rotating the stack 180°.
- Try rotating media to feed through the printer from a different orientation.
- Check the media quality. Do *not* use damaged or irregular media.
- Use only media that meets HP specifications. See [Selecting print media on page 16](#).
- Do not use media that has already been used in a printer or copier. Do not print on both sides of envelopes, transparencies, vellum, or labels.
- Do not use media with staples or media that has had the staple removed. Staples can damage the printer and can void warranty.

- Make sure that the power supplied to the printer is steady and meets printer specifications. See [Electrical specifications on page 378](#).
- Clean the printer. See [Cleaning the printer on page 48](#).
- Perform routine printer maintenance. See the support flyer that was included with the printer, or see [Maintenance on page 41](#).

# Troubleshooting print-quality problems

This section helps you define print-quality problems and what to do to correct them. To prevent problems, make sure that the printer is correctly maintained, use print media that meets HP specifications, or run a cleaning page.

## Print-quality problems associated with media

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

- Use media that meets HP specifications. See [Selecting print media on page 16](#).
- The surface of the media is too smooth. Use media that meets HP specifications. See [Selecting print media on page 16](#).
- The moisture content is uneven, too high, or too low. Use media from a different source or from an unopened ream.
- Some areas of the media reject toner. Use media from a different source or from an unopened ream.
- Avoid letterhead printed on rough media. Use a smoother, xerographic media.
- If the media is excessively rough, use a smoother, xerographic media.
- If the driver setting is incorrect, change the media type setting.
- If the media that you are using is too heavy for the media type setting, then the toner might not fuse to the media.

## Print-quality problems associated with the environment

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

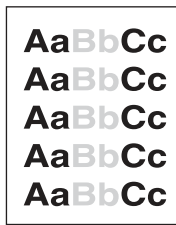
## Print-quality problems associated with jams

Make sure that all sheets are cleared from the paper path.

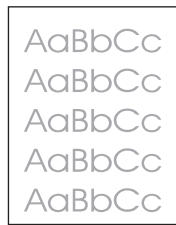
- If the printer recently jammed, print two to three pages to clean the printer.
- If the sheets do not pass through the fuser and cause image defects on subsequent documents, print three pages to clean the printer. If the problem persists, print and process a cleaning page.

## Image-defect examples

Use the examples in the following table to define print-quality problem, and then see the corresponding reference pages to troubleshoot. These examples identify the most common print-quality problems.



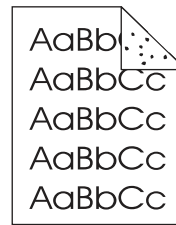
See [Light print \(partial page\) on page 240.](#)



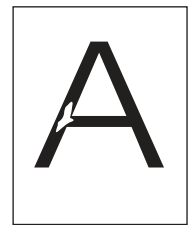
See [Light print \(entire page\) on page 240.](#)



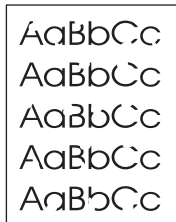
See [Specks on page 241.](#)



See [Specks on page 241.](#)



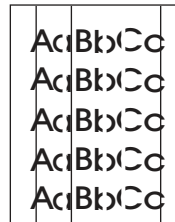
See [Dropouts on page 241.](#)



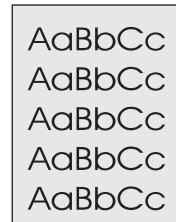
See [Dropouts on page 241.](#)



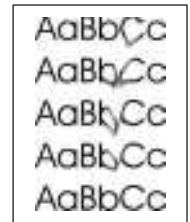
See [Dropouts on page 241.](#)



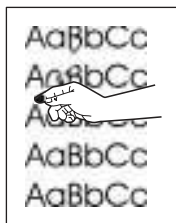
See [Lines on page 242.](#)



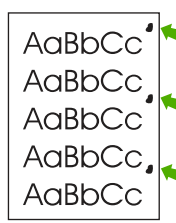
See [Gray background on page 242.](#)



See [Toner smear on page 243.](#)



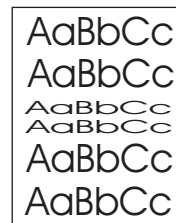
See [Loose toner on page 243.](#)



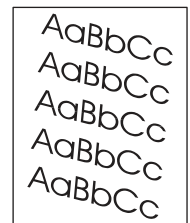
See [Repeating defects on page 244.](#)



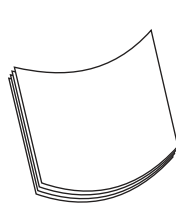
See [Repeating image on page 244.](#)



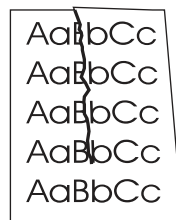
See [Misformed characters on page 244.](#)



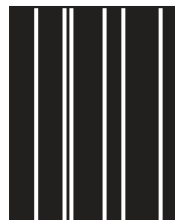
See [Page skew on page 245.](#)



See [Curl or wave on page 245.](#)



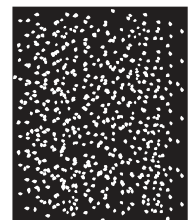
See [Wrinkles or creases on page 246.](#)



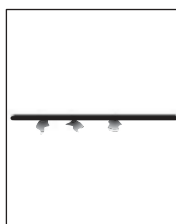
See [Vertical white lines on page 246.](#)



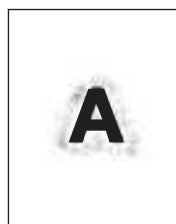
See [Tire tracks on page 247.](#)



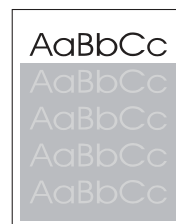
See [White spots on black on page 247.](#)



See [Scattered lines on page 247.](#)



See [Blurred print on page 248.](#)



---

See [Random image repetition on page 248](#) (dark).

---

See [Random image repetition on page 248](#) (light).

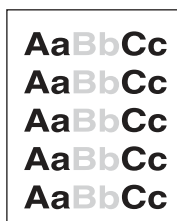
---



**NOTE** These examples depict letter-size media that has passed through the printer short-edge-first.

---

## Light print (partial page)



1. Make sure that the print cartridge is fully installed.
2. The toner level in the print cartridge might be low. Replace the print cartridge.
3. The media might not meet HP specifications (for example, the media is too moist or too rough). See [Selecting print media on page 16](#).

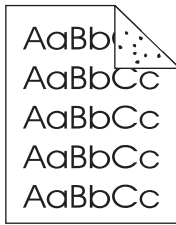
## Light print (entire page)



1. Make sure that the print cartridge is fully installed.
2. Make sure that the **ECONOMODE** setting is turned off at the control panel and in the printer driver.
3. Open the **CONFIGURE DEVICE** menu at the printer control panel. Open the **PRINT QUALITY** submenu and increase the **TONER DENSITY** setting. See [Print Quality submenu on page 268](#).
4. Try using a different type of media.
5. The print cartridge might be almost empty. Replace the print cartridge.



## Specks



Specks might appear on a page after a jam has been cleared.

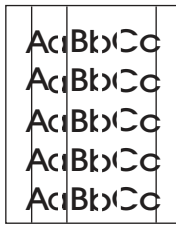
1. Print a few more pages to see if the problem corrects itself.
2. Clean the inside of the printer and run a cleaning page to clean the fuser. (See [Cleaning the paper path using the printer control panel on page 49.](#))
3. Try using a different type of media.
4. Check the print cartridge for leaks. If the print cartridge is leaking, replace it.

## Dropouts



1. Make sure that the environmental specifications for the printer are being met. (See [Operating-environment specifications on page 381.](#))
2. If the media is rough, and the toner easily rubs off, open the **CONFIGURE DEVICE** menu at the printer control panel. Open the **PRINT QUALITY** submenu, select **FUSER MODES**, and then select the media type you are using. Change the setting to **HIGH1** or **HIGH2**, which helps the toner fuse more completely onto the media. (See [Print Quality submenu on page 268.](#))
3. Try using a smoother media.

## Lines



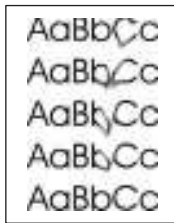
1. Print a few more pages to see if the problem corrects itself.
2. Clean the inside of the printer and run a cleaning page to clean the fuser. (See [Cleaning the paper path using the printer control panel on page 49.](#))
3. Replace the print cartridge.

## Gray background



1. Do not use media that has already been run through the printer.
2. Try using a different type of media.
3. Print a few more pages to see if the problem corrects itself.
4. Turn over the stack in the tray. Also, try rotating the stack 180°.
5. Open the **CONFIGURE DEVICE** menu at the printer control panel. On the **PRINT QUALITY** submenu, increase the **TONER DENSITY** setting. See [Print Quality submenu on page 268.](#)
6. Make sure that the environmental specifications for the printer are being met. (See [Operating-environment specifications on page 381.](#))
7. Replace the print cartridge.

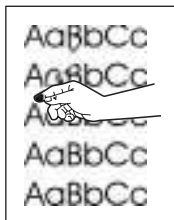
## Toner smear



1. Print a few more pages to see if the problem corrects itself.
2. Try using a different type of media.
3. Make sure that the environmental specifications for the printer are being met. (See [Operating-environment specifications on page 381.](#))
4. Clean the inside of the printer and run a cleaning page to clean the fuser. (See [Cleaning the paper path using the printer control panel on page 49.](#))
5. Replace the print cartridge.

Also see [Loose toner on page 243.](#)

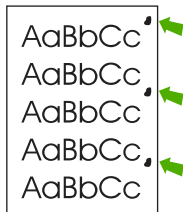
## Loose toner



Loose toner, in this context, is defined as toner that can be rubbed off the page.

1. If media is heavy or rough, open the **CONFIGURE DEVICE** menu at the printer control panel. On the **PRINT QUALITY** submenu, select **FUSER MODES**, and then select the media type you are using. Change the setting to **HIGH1** or **HIGH2**, which helps the toner fuse more completely onto the media. (See [Print Quality submenu on page 268.](#)) Set the type of media for the tray you are using. (See [Selecting print media on page 16.](#))
2. If you have observed a rougher texture on one side of the media, try printing on the smoother side.
3. Make sure that the environmental specifications for the printer are being met. (See [Operating-environment specifications on page 381.](#))
4. Make sure that type and quality of the media meet HP specifications. (See [Selecting print media on page 16.](#))

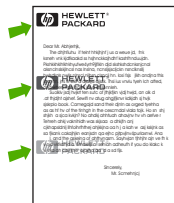
## Repeating defects



1. Print a few more pages to see if the problem corrects itself.
2. If the distance between defects is 44 mm (1.7 in), 58 mm (2.3 in), or 94 mm (3.7 in), the print cartridge might need to be replaced.
3. Clean the inside of the printer and run a cleaning page to clean the fuser. (See [Cleaning the paper path using the printer control panel on page 49.](#))

Also see [Repeating image on page 244.](#)

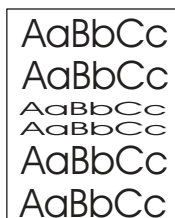
## Repeating image



This type of defect might occur when using preprinted forms or a large quantity of narrow media.

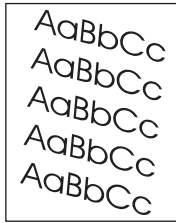
1. Print a few more pages to see if the problem corrects itself.
2. Make sure that type and quality of the media meet HP specifications. (See [Selecting print media on page 16.](#))
3. If the distance between defects is 44 mm (1.7 in), 58 mm (2.3 in), or 94 mm (3.7 in), the print cartridge might need to be replaced.

## Misformed characters



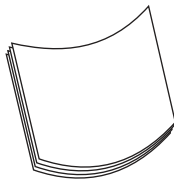
1. Print a few more pages to see if the problem corrects itself.
2. Make sure that the environmental specifications for the printer are being met. (See [Operating-environment specifications on page 381.](#))

## Page skew



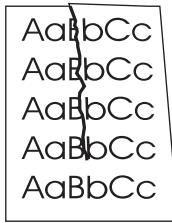
1. Print a few more pages to see if the problem corrects itself.
2. Verify that no torn pieces of media are inside the printer.
3. Make sure that media is loaded correctly and that all adjustments have been made.
4. Make sure that the guides in the tray are not too tight or too loose against the media.
5. Turn over the stack in the tray. Also, try rotating the stack 180°.
6. Make sure that the type and quality of the media meet HP specifications. (See [Selecting print media on page 16.](#))
7. Make sure that the environmental specifications for the printer are being met. (See [Operating-environment specifications on page 381.](#))

## Curl or wave



1. Turn over the stack in the tray. Also, try rotating the stack 180°.
2. Make sure that the type and quality of the media meet HP specifications. (See [Selecting print media on page 16.](#))
3. Make sure that the environmental specifications for the printer are being met. (See [Operating-environment specifications on page 381.](#))
4. Try printing to a different output bin.
5. If media is lightweight and smooth, open the **CONFIGURE DEVICE** menu at the printer control panel. On the **PRINT QUALITY** submenu, select **FUSER MODES**, and then select the media type you are using. Change the setting to **LOW**, which helps reduce the heat in the fusing process. (See [Print Quality submenu on page 268.](#)) Set the type of media for the tray you are using.

## Wrinkles or creases

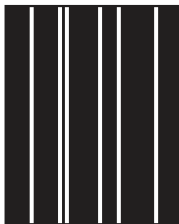


1. Print a few more pages to see if the problem corrects itself.
2. Make sure that the environmental specifications for the printer are being met. (See [Operating-environment specifications on page 381.](#))
3. Turn over the stack in the tray. Also, try rotating the stack 180°.
4. Make sure that media is loaded correctly and all adjustments have been made.
5. Make sure that the type and quality of the media meet HP specifications. (See [Selecting print media on page 16.](#))
6. If envelopes are creasing, try storing envelopes so that they lie flat.

If these actions do not improve wrinkles or creases, change the fuser mode from **NORMAL** to **LOW1**:

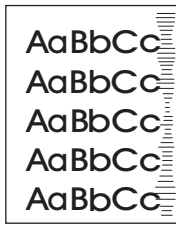
1. Press **Menu**.
2. Use ▼ to highlight **CONFIGURE DEVICE**, and then press ✓.
3. Use ▼ to highlight **PRINT QUALITY**, and then press ✓.
4. Use ▼ to highlight **FUSER MODES**, and then press ✓.
5. Use ▼ to highlight **LOW1**, and then press ✓.

## Vertical white lines



1. Print a few more pages to see if the problem corrects itself.
2. Make sure that the type and quality of the media meet HP specifications. (See [Selecting print media on page 16.](#))
3. Replace the print cartridge.

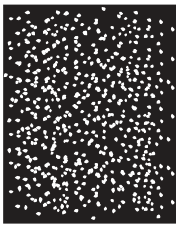
## Tire tracks



This defect typically occurs when the print cartridge has far exceeded its rated life. This can happen if you print a very large quantity of pages that have little toner coverage.

1. Replace the print cartridge.
2. Reduce the number of pages that print with very low toner coverage.

## White spots on black



1. Print a few more pages to see if the problem corrects itself.
2. Make sure that the type and quality of the media meet HP specifications. (See [Selecting print media on page 16.](#))
3. Make sure that the environmental specifications for the printer are being met. (See [Operating-environment specifications on page 381.](#))
4. Replace the print cartridge.

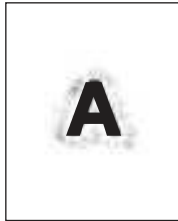
## Scattered lines



1. Make sure that the type and quality of the media meet HP specifications. (See [Selecting print media on page 16.](#))
2. Make sure that the environmental specifications for the printer are being met. (See [Operating-environment specifications on page 381.](#))
3. Turn over the stack in the tray. Also, try rotating the stack 180°.

4. Open the **CONFIGURE DEVICE** menu at the printer control panel. Open the **PRINT QUALITY** submenu and change the **TONER DENSITY** setting. (See [Print Quality submenu on page 268.](#))
5. Open the **CONFIGURE DEVICE** menu at the printer control panel. On the **PRINT QUALITY** submenu, open **OPTIMIZE** and set **LINE DETAIL=ON**.

## Blurred print



1. Make sure that the type and quality of the media you are using meet HP specifications. (See [Selecting print media on page 16.](#))
2. Make sure that the environmental specifications for the printer are being met. (See [Operating-environment specifications on page 381.](#))
3. Turn over the stack in the tray. Also, try rotating the stack 180°.
4. Do not use media that already has been run through the printer.
5. Decrease the toner density. Open the **CONFIGURE DEVICE** menu at the printer control panel. Open the **PRINT QUALITY** submenu and change the **TONER DENSITY** setting. (See [Print Quality submenu on page 268.](#))
6. Open the **CONFIGURE DEVICE** menu at the printer control panel. On the **PRINT QUALITY** submenu, open **OPTIMIZE** and set **HIGH TRANSFER=ON**. (See [Print Quality submenu on page 268.](#))

## Random image repetition





If an image that appears at the top of the page (in solid black) repeats farther down the page (in a gray field), the toner might not have been completely erased from the last job.

- Change the tone (darkness) of the field that the repeated image appears in.
- Change the order in which the images are printed. For example, have the lighter image at the top of the page, and the darker image farther down the page.
- From your software program, rotate the whole page 180° to print the lighter image first.
- If the defect occurs later in a print job, turn the printer off for 10 minutes, and then turn it on to restart the print job.


# 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 Company 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, see the following table.

Check	Action
Is your computer configured to the parameters that are described in the configuration instructions?	These parameters are required in order to communicate with the printer. Verify that the configuration of the computer's communications port matches these parameters.
	 <b>NOTE</b> If these parameters are not set correctly, an error message might appear on the control panel.

## AUTOEXEC.BAT standard configurations

### Parallel MS-DOS commands

Ensure that the AUTOEXEC.BAT file contains the following statements for parallel interface communications:

MODE LPT1: „P

For MS-DOS version 4.0 and above:

MODE LPT1: „B



**NOTE** This example assumes that you are using parallel printer port LPT1. If you are using LPT2 or LPT3, replace LPT1 in the example with the appropriate printer port.

## Printer Job Language (PJL) commands

See the HP Printer Job Language Technical Reference Manual for a complete description of PJL commands. This manual is available with the HP PCL/PJL reference set on CD-ROM (part number 5021-0337).

### @PJL [Enter]

This command enables the specified printer language. If the printer does not receive this command, it enables the default language. This ensures the correct operation for programs that do not support PJL. The command syntax is:

@PJL [Enter] LANGUAGE = {PCL/PostScript} [<CR>] <LF>

## UEL

This command (also referred to as the universal exit language command) terminates the current printer language and returns control to PjL. It performs the following actions:

- Prints all data that was received before this command.
- Performs a reset: <esc>E in PCL, <cntrl>D in PostScript.
- Turns control over to PjL.

This command is also a valid HP-GL/2 terminator.

The UEL command must be immediately followed by the "@PjL" command prefix. Characters or control codes other than @PjL (such as <CR> or <LF>) enable the default language and process the print job in that language. All jobs must begin and end with the UEL command. In addition to starting PjL, the UEL command creates the same effect as the <esc>E command. However, the <esc>E command should always be included to ensure backward compatibility.

## @PjL COMMENT

This command designates the current line as a comment, which is ignored. The command syntax is:

@PjL COMMENT <words>[<CR>] <LF>

## @PjL INFO CONFIG

This command solicits a response to describe the installed options and allows the printer to configure the installed options automatically to meet the program requirements.

## @PjL INFO ID

This command identifies the printer type to the host for reference when selecting printer drivers for automatic installation. The command syntax is:

@PjL INFO ID <CR><LF>

## @PjL INFO USTATUS

This command queries the state of unsolicited JOB status. PAGE and TIMED status are not supported. The command syntax is:

@PjL INFO USTATUS <CR><CF>

## @PjL INFO PAGECOUNT

This command returns the number of pages that have been printed by the engine.

## @PjL JOB

This command informs the printer of the start of a PjL job and synchronizes the job-status information. The printer counts print jobs, including nested jobs, incrementing the job counter for the @PjL JOB command and decrementing it for @PjL EOJ.

The printer accepts the NAME= parameter and returns the name string in the unsolicited JOB start status message (if the unsolicited job status is enabled). The printer transmits the unsolicited JOB status message to every I/O channel that has enabled this function. The following is the message format:

**@PJL USTATUS JOB <CR><LF>START<CR><LF>[NAME=<job name><CR><LF>]<FF>**

The printer resets the nested job counter whenever it switches the source to a different I/O channel. This prevents a corrupt job on one channel from disrupting the activities on another channel.

## **@PJL EOJ**

This command identifies the end of a print job and is a hint for the I/O switching algorithm. The printer counts nested jobs and recognizes job boundaries when the counter decrements to zero. The printer ignores isolated EOJ commands. Each EOJ must be preceded by a JOB command.

## **@PJL ECHO**

This printer supports the ECHO command, which transmits its parameters over the I/O channel to the host that issued the command.

## **@PJL USTATUS JOB=ON/OFF**

This command enables or disables the JOB status for the I/O channel that delivers the command.

## **@PJL USTATUSOFF**

This command disables the unsolicited JOB status for the I/O channel that delivered the command. For this printer, it duplicates the function of @PJL USTATUS JOB=OFF, AND @PJL USTATUS DEVICE=OFF.



---

**NOTE** All commands that this printer's PjL command set does not support are returned with the message @PJL xxxx<CR><LF>?<CR><LF>.

---

# Changing printer-control-panel configuration settings

By using the printer control panel, you can make changes to general printer-configuration default settings such as tray size and type, sleep delay, printer personality (language), and jam recovery.

The printer-control-panel settings can also be changed from a computer by using the setting page of the embedded Web server (not available for the HP LaserJet 5200L). The computer shows the same information that the control panel shows. For more information, see [Using the embedded Web server on page 280](#).



**CAUTION** Configuration settings seldom need to be changed. Hewlett-Packard Company recommends that only the system administrator change configuration settings.

## Changing control-panel settings

For a complete list of menu items and possible values, see [Control-panel messages on page 202](#). Certain menu options appear only if the associated tray or accessory is installed. For example, the **EIO** menu appears only if an EIO card is installed.

### To change a control-panel setting

1. Press **Menu**.
2. Use ▲ or ▼ to scroll to the menu that you want, and then press ✓.
3. Some menus might have several submenus. Use ▲ or ▼ to scroll to the submenu item that you want, and then press ✓.
4. Use ▲ or ▼ to scroll to the setting, and then press ✓.
5. Use ▲ or ▼ to change the setting. Some settings change rapidly if ▲ or ▼ is held down.
6. Press ✓ to save the setting. An asterisk (\*) appears next to the selection on the display, indicating that it is now the default.
7. Press **Menu** to exit the menu.



**NOTE** Printer-driver settings override control-panel settings. Software program settings override both printer-driver settings and control-panel settings. If you cannot gain access to a menu or item, it is either not an option for the printer or you have not turned on the associated higher-level option. See your network administrator if a function has been locked (**Access denied menus locked** appears on the printer control-panel display).

## Show address

This item determines whether the printer IP address appears on the display with the **Ready** message.

### To show the IP address

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 **SHOW ADDRESS**, and then press ✓.

5. Press ▲ or ▼ to select the desired option, and then press ✓.
6. Press **Menu** to exit the menu.

## Tray-behavior options

Four user-defined options are available for tray behavior:

- **USE REQUESTED TRAY.** Selecting **EXCLUSIVELY** ensures that the printer does not automatically select another tray when you indicate that a specific tray should be used. Selecting **FIRST** allows the printer to pull from a second tray if the specified tray is empty. **EXCLUSIVELY** is the default setting.
- **MANUALLY FEED PROMPT.** If you select **ALWAYS** (the default value), the system always shows a prompt before pulling from the multipurpose tray. If you select **UNLESS LOADED**, the system displays the prompt only if the multipurpose tray is empty.
- **PS DEFER MEDIA.** This setting affects how non-HP PostScript drivers behave with the printer. You do not need to change this setting if you use the drivers that HP supplies. If set to **ENABLED**, non-HP PostScript drivers use the same HP tray selection method as the HP drivers. If set to **DISABLED**, some non-HP PostScript drivers use the PostScript tray selection method instead of the HP method.
- **SIZE/TYPE PROMPT.** Use this item to control whether the tray configuration message and its corresponding prompts are shown whenever a tray is opened and closed. These prompts instruct you to change the type or size if the tray is configured for a different type or size than is loaded in the tray.

### To set Use Requested Tray

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 **TRAY BEHAVIOR**, and then press ✓.
5. Press ✓ to select **USE REQUESTED TRAY**.
6. Press ▲ or ▼ to select **EXCLUSIVELY** or **FIRST**, and then press ✓.
7. Press **Menu** to exit the menu.

### To set Manually Feed Prompt

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 **TRAY BEHAVIOR**, and then press ✓.
5. Press ▼ to highlight **MANUALLY FEED PROMPT**, and then press ✓.
6. Press ▲ or ▼ to select **ALWAYS** or **UNLESS LOADED**, and then press ✓.
7. Press **Menu** to exit the menu.

### To set the printer default for PS Defer Media

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 **TRAY BEHAVIOR**, and then press **✓**.
5. Press **✓** to select **PS DEFER MEDIA**.
6. Press **▲** or **▼** to select **ENABLED** or **DISABLED**, and then press **✓**.
7. Press **Menu** to exit the menu.

### To set size/type prompt

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 **TRAY BEHAVIOR**, and then press **✓**.
5. Press **✓** to select **SIZE/TYPE PROMPT**.
6. Press **▲** or **▼** to select **DISPLAY** or **DO NOT DISPLAY**, and then press **✓**.
7. Press **Menu** to exit the menu.

## Sleep Delay

The adjustable Sleep Delay feature reduces power consumption when the printer has been inactive for an extended period. Use this menu item to set the length of time before the printer goes into Sleep mode. The default setting is **60 MINUTES**.



**NOTE** The printer control-panel display dims when the printer is in Sleep mode. Sleep mode does not affect printer warm-up time unless the printer was in Sleep mode for more than 8 hours.

### To set the Sleep Delay

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 **SLEEP DELAY**, and then press **✓**.
5. Press **▲** or **▼** to select the appropriate time period, and then press **✓**.
6. Press **Menu** to exit the menu.

### To turn the Sleep mode on or off

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

3. Press ▼ to highlight **RESETS**, and then press ✓.
4. Press ▼ to highlight **SLEEP MODE**, and then press ✓.
5. Press ▲ or ▼ to select **ON** or **OFF**, and then press ✓.
6. Press **Menu** to exit the menu.

## Personality

This printer features automatic personality (printer-language) switching.

- **AUTO**: Configures the printer to automatically detect the type of print job and configure its personality to accommodate that job.
- **PCL**: Configures the printer to use Printer Control Language.
- **PS**: Configures the printer to use PostScript emulation.

### To set the personality

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 **PERSONALITY**, and then press ✓.
5. Press ▲ or ▼ to select the appropriate personality, and then press ✓.
6. Press **Menu** to exit the menu.

## Clearable warnings

Use this feature to determine the display time of control-panel clearable warnings by selecting **ON** or **JOB**. The default value is **JOB**.

- **ON**: Clearable warnings appear until you press ✓.
- **JOB**: Clearable warnings appear until the end of the job for which they were generated.

### To set the clearable warnings

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 **CLEARABLE WARNINGS**, and then press ✓.
5. Press ▲ or ▼ to select the appropriate setting, and then press ✓.
6. Press **Menu** to exit the menu.



## Auto continue

You can determine printer behavior when the system generates an auto-continuable error. **ON** is the default setting.

- Select **ON** if you want an error message to appear for 10 seconds before the printer automatically continues to print.
- Select **OFF** to pause printing any time an error message appears and until you press ✓.

### To set auto continue

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 **AUTO CONTINUE**, and then press ✓.
5. Press ▲ or ▼ to select the appropriate setting, and then press ✓.
6. Press **Menu** to exit the menu.

## Cartridge low

The printer has two options for reporting that print-cartridge life is low: **CONTINUE** is the default value.

- Select **CONTINUE** to allow the printer to continue printing while a warning appears and until the print cartridge is replaced.
- Select **STOP** if you want the printer to pause printing until you replace the used print cartridge or press ✓, which allows the printer to print while the warning appears.

### To set supplies-low reporting

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 **CARTRIDGE LOW**, and then press ✓.
5. Press ▲ or ▼ to select the appropriate setting, and then press ✓.
6. Press **Menu** to exit the menu.

## Cartridge-out response

The printer has two options for this menu item.

- Select **CONTINUE** to allow the printer to continue printing. A **REPLACE CARTRIDGE** warning message appears until the print cartridge is replaced. Printing in this mode can continue only for a specific number of pages. After that, the printer stops printing until you replace the empty print cartridge. This is the default setting.
- Select **STOP** if you want the printer to stop printing until the empty print cartridge is replaced.

### To set the cartridge-out response

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 **CARTRIDGE OUT**, and then press ✓.
5. Press ▲ or ▼ to select the appropriate setting, and then press ✓.
6. Press **Menu** to exit the menu.

## Jam recovery

Use this option to configure the printer response to jams, including how the printer handles the pages involved. **AUTO** is the default value.

- **AUTO**: The printer automatically turns jam recovery on when sufficient memory is available.
- **ON**: The printer reprints any page that is involved in a jam. Additional memory is allocated to store the last few pages that were printed, and this might cause overall printer performance to suffer.
- **OFF**: The printer does not reprint any page that was involved in a jam. Because no memory is used to store the most recent pages, overall printer performance might be optimized.

### To set the jam-recovery response

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 ▲ or ▼ to select the appropriate setting, and then press ✓.
6. Press **Menu** to exit the menu.

## RAM disk

This option determines how the RAM disk feature is configured. This option is available only if the printer has at least 8 MB of free memory. The default is **AUTO**.

- **AUTO**: The printer determines the optimal RAM disk size based on the amount of available memory.
- **OFF**: The RAM disk is disabled, but a minimal RAM disk is still active (sufficient to scan one page).

### To set the RAM disk

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 **RAM DISK**, and then press ✓.

5. Press ▲ or ▼ to select the appropriate setting, and then press ✓.
6. Press **Menu** to exit the menu.

## Language

If **LANGUAGE** appears in English on the control panel, use the following procedure. Otherwise, turn the printer off and then on again. When the memory starts counting, press and hold ✓. When all three control panel lights are lit, release ✓ and use the following procedure to set the language.

### Selecting the language during initial installation

When **LANGUAGE** appears on the control-panel display in the default language, press ▼ to highlight the preferred language, and then press ✓.

### Changing the language after the initial configuration

After the initial installation, you can change the control-panel display language from the control panel.

1. Press **Menu**.
2. Use ▼ to highlight **CONFIGURE DEVICE**, and then press ✓.
3. Use ▼ to highlight **SYSTEM SETUP**, and then press ✓.
4. Use ▼ to highlight **LANGUAGE**, and then press ✓.
5. Use ▼ or ▲ to highlight the appropriate language, and then press ✓.
6. Press **Menu** to exit the menu.

## Fuser modes

Customers usually use the fuser mode mapped by default to the **TYPE** that they choose, but a **TYPE** can be remapped to a different fuser mode.

All of the fuser modes can improve performance, but they can also decrease print speed and produce scatter print-quality and transfer print-quality defects.



**NOTE** The required fuser mode is dictated more by media surface than media weight. As the fuser temperature increases, more heat is generated and produces improved fusing.

**Table 6-3** Fuser modes

Fuser modes	Media
HIGH2	Heaviest/Roughest (rough)
HIGH1	Heavy/Rough (smooth)
NORMAL	Normal
LOW1	Light
LOW2	Light
LOW3	Transparency

**Table 6-4** Optimize modes

Mode	Description
High Transfer (ON)	Reduces the halo print-quality defect on electrically resistive media.
Line Detail (OFF)	No reason to turn it OFF.  ON reduces toner scatter (toner explosions).
More Separation 1 (ON)	Reduces potential for media to jam in the print cartridge during simplex jobs.
More Separation 2 (ON)	Reduces potential for media to jam in the print cartridge during duplex jobs.
Fuser Temp (REDUCED)	Reduces wrinkles by allowing the pressure roller to cool and shrink between pages.

## Using the control-panel menus

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

### To use the menus

1. Press **Menu** to open the menus.
2. Press **▲** or **▼** to navigate the listings.
3. Press **✓** to select the appropriate option.
4. Press **↶** to return to the previous level.
5. Press **Menu** to exit the menu.
6. Press **?** to see additional information about a menu.

The following are the main menus.

---

Main menus	<b>SHOW ME HOW</b>
	<b>RETRIEVE JOB</b>
	<b>INFORMATION</b>
	<b>PAPER HANDLING</b>
	<b>CONFIGURE DEVICE</b>
	<b>DIAGNOSTICS</b>
	<b>SERVICE</b>

---

## Show Me How menu

Each choice in the **SHOW ME HOW** menu prints a page that provides more information.

Item	Explanation
<b>CLEAR JAMS</b>	Prints a page that shows how to clear media jams.
<b>LOAD TRAYS</b>	Prints a page that shows how to load the printer input trays.
<b>LOAD SPECIAL MEDIA</b>	Prints a page that shows how to load special media, such as envelopes and transparencies.
<b>PRINT BOTH SIDES</b>	Prints a page that shows how to use the two-sided (duplex) printing function.
<b>SUPPORTED PAPER</b>	Prints a page that shows supported media sizes for the printer.
<b>MORE HELP</b>	Prints a page that shows links to additional help on the Web.

## Retrieve Job menu

This menu provides a list of the stored jobs in the printer and access to all the job storage features. You can print or delete these jobs at the printer control panel.



**NOTE** If you turn the printer power off, all stored jobs are deleted.

Item	Values	Explanation
USER [X]	[JOBNAME]	USER [X]: The name of the person who sent the job.
	ALL PRIVATE JOBS	[JOBNAME]: The name of the job stored in the printer. Select one of your jobs or all of your private jobs that were assigned a personal identification number (PIN) in the printer driver.
	NO STORED JOBS	<ul style="list-style-type: none"><li>• <b>PRINT</b>: Prints the selected job. <b>PIN REQUIRED TO PRINT</b>: A prompt that appears for jobs that were assigned a PIN in the printer driver. You must enter the PIN to print the job. <b>COPIES</b>: You can select the number of copies that you want to print (<b>1 to 32000</b>).</li><li>• <b>DELETE</b>: Deletes the selected job from the printer. <b>PIN REQUIRED TO DELETE</b>: A prompt that appears for jobs that were assigned a PIN in the printer driver. You must enter the PIN to delete the job.</li></ul> <p><b>ALL PRIVATE JOBS</b>: Appears if two or more private jobs are stored in the printer. Selecting this item prints all of the private jobs that are stored in the printer for that user, after the correct PIN is entered.</p> <p><b>NO STORED JOBS</b>: Indicates that no stored jobs are available to print or delete.</p>

## Information menu

The **INFORMATION** menu contains printer information pages that give details about the printer and its configuration. Scroll to the information page that you want, and then press ✓.

For more information about any of the printer information pages, see [Tools for troubleshooting on page 279](#).

Item	Explanation
<b>PRINT MENU MAP</b>	Prints the control panel menu map that shows the layout and current settings for the printer control-panel menu items.
<b>PRINT CONFIGURATION</b>	Prints the current printer configuration. If an HP Jetdirect print server is installed, an HP Jetdirect configuration page will print out as well.
<b>PRINT SUPPLIES STATUS PAGE</b>	Prints a supplies status page that shows the supplies levels for the printer, an approximate number of pages remaining, cartridge-usage information, the serial number, a page count, and ordering information. This page is available only if you are using genuine HP supplies.
<b>PRINT USAGE PAGE</b>	Prints a page that shows a count of all paper sizes that have passed through the printer, lists whether they were one-sided or two-sided, and shows a page count.
<b>PRINT FILE DIRECTORY</b>	Prints a file directory that shows information for all installed mass-storage devices. This item appears only if a mass-storage device that contains a recognized file system is installed in the printer, such as an optional CompactFlash card (not available for the HP LaserJet 5200L).
<b>PRINT PCL FONT LIST</b>	Prints a PCL font list that shows all the PCL fonts that are currently available to the printer.
<b>PRINT PS FONT LIST</b>	Prints a PS font list that shows all the PS fonts that are currently available to the printer.



# Paper Handling menu

If paper-handling settings are correctly configured at the printer control panel, you can print by selecting the type and size of media in the program or the printer driver. For more information about supported media types and sizes, see [Selecting print media on page 16](#).

Some items on this menu (such as duplex and manual feed) are available in the program or the printer driver (if the appropriate driver is installed). Program and printer-driver settings override control-panel settings. For more information, see [Printer drivers on page 10](#).


Item	Values	Explanation
<b>TRAY 1 SIZE</b>	List of available media sizes for tray 1	<p>Use this item to set the value to correspond with the media size that is currently loaded in tray 1. See <a href="#">Selecting print media on page 16</a> for a list of available sizes. The default setting is <b>ANY SIZE</b>.</p> <p><b>ANY SIZE:</b> If both the type and size for tray 1 are set to <b>ANY</b>, the printer will pull media from tray 1 first if media is loaded in the tray.</p> <p>A size other than <b>ANY SIZE:</b> The printer does not pull from this tray unless the type or size of the print job matches the type and size that is loaded in this tray.</p>
<b>TRAY 1 TYPE</b>	List of available media types for tray 1	<p>Use this item to set the value to correspond with the type of media that is currently loaded in tray 1. See <a href="#">Selecting print media on page 16</a> for a list of available types. The default setting is <b>ANY TYPE</b>.</p> <p><b>ANY TYPE:</b> If both the type and size for tray 1 are set to <b>ANY</b>, the printer will pull media from tray 1 first if the media is loaded in the tray.</p> <p>A type other than <b>ANY TYPE:</b> The printer does not pull from this tray.</p>
<b>TRAY [N] SIZE</b>	List of available media sizes for tray 2 or optional tray 3	The tray detects the media size based on the media-size wheel setting in the tray. The default setting is either <b>LTR</b> (letter) for 110 V engines or <b>A4</b> for 220 V engines.
<b>TRAY [N] TYPE</b>	List of available media types for tray 2 or optional tray 3	Sets the value to correspond with the media type that is currently loaded in tray 2 or optional tray 3. The default setting is <b>ANY TYPE</b> .
<b>TRAY [N] CUSTOM</b>	<b>UNIT OF MEASURE</b>  <b>X DIMENSION</b>  <b>Y DIMENSION</b>	<p>This item appears only if a tray is set to a custom size.</p> <p><b>UNIT OF MEASURE:</b> Use this option to select the unit of measure (<b>INCHES</b> or <b>MILLIMETERS</b>) to use when you set custom paper sizes for the specified tray.</p> <p><b>X DIMENSION:</b> Use this item to set the measurement of the width of the paper (measurement from side to side in the tray). The options are <b>3.0 to 12.28 INCHES</b> or <b>76 to 312 MM</b>.</p> <p><b>Y DIMENSION:</b> Use this item to set the measurement of the length of the paper (measurement from front to back in the tray). The options are <b>5.0 to 18.5 INCHES</b> or <b>127 to 470 MM</b>.</p> <p>After the <b>Y DIMENSION</b> value is selected, a summary screen appears. This screen contains feedback that summarizes all of the information that was specified on the previous three screens, such as <b>TRAY 1 SIZE= 8 x 16 INCHES, Setting saved</b>.</p>


# Configure Device menu

This menu contains administrative functions. The **CONFIGURE DEVICE** menu allows the user to change the default printing settings, adjust the print quality, and change the system configuration and I/O options.

## Printing submenu

Some items on this menu are available in the program or printer driver (if the appropriate driver is installed). Program and printer-driver settings override control-panel settings. In general, it is better to change these settings in the printer driver, if applicable.

Item	Values	Explanation
<b>COPIES</b>	<b>1 to 32000</b>	<p>Sets the default number of copies by selecting any number from 1 to 32,000. Use ▲ or ▼ to select the number of copies. This setting applies only to print jobs that do not have the number of copies specified in the program or printer driver, such as a UNIX or Linux program.</p> <p>The default setting is <b>1</b>.</p> <div> <b>NOTE</b> It is best to set the number of copies in the program or printer driver. (Program and printer-driver settings override control-panel settings.)</div>
<b>DEFAULT PAPER SIZE</b>	Displays a list of available media sizes.	Sets the default image size for paper and envelopes. This setting applies to the print jobs that do not have a paper size specified in the program or printer driver. The default setting is <b>LETTER</b> .
<b>DEFAULT CUSTOM PAPER SIZE</b>	<b>UNIT OF MEASURE</b> <b>X DIMENSION</b> <b>Y DIMENSION</b>	<p>Sets the default custom paper size for tray 1. This menu appears only if the media-size switch in the selected tray is set to <b>CUSTOM</b>.</p> <p><b>UNIT OF MEASURE:</b> Use this option to select the unit of measure (<b>INCHES</b> or <b>MILLIMETERS</b>) to use when you set customer paper sizes for the tray 1.</p> <p><b>X DIMENSION:</b> Use this item to set the measurement of the width of the paper (measurement from side to side in the tray). The options are <b>3.0 to 12.28 INCHES</b> or <b>76 to 312 MM</b>.</p> <p><b>Y DIMENSION:</b> Use this item to set the measurement of the length of the paper (measurement from front to back in the tray). The options are <b>5.0 to 18.50 INCHES</b> or <b>127 to 470 MM</b>.</p>
<b>DUPLEX</b>	<b>OFF</b> <b>ON</b>	<p>Appears only for printers that include a built-in duplexer. Set the value to <b>ON</b> to print on both sides (duplex) or <b>OFF</b> to print on one side of a sheet of paper.</p> <p>The default setting is <b>OFF</b>.</p>
<b>DUPLEX BINDING</b>	<b>LONG EDGE</b> <b>SHORT EDGE</b>	<p>Changes the binding edge for duplex printing. The menu item appears only if the printer includes a built-in duplexer and <b>DUPLEX=ON</b>.</p> <p>The default setting is <b>LONG EDGE</b>.</p>
<b>OVERRIDE A4/LETTER</b>	<b>NO</b> <b>YES</b>	<p>Allows the printer to print an A4-size job on letter-size paper if A4-size paper is not loaded in the printer (or vice versa).</p> <p>The default setting is <b>YES</b>.</p>


Item	Values	Explanation
<b>MANUAL FEED</b>	<b>OFF</b>	<p>Feeds the paper manually from tray 1, rather than automatically from a tray. If <b>MANUAL FEED=ON</b> and tray 1 is empty, the printer goes offline when it receives a print job. <b>MANUALLY FEED [PAPER SIZE]</b> appears on the printer control-panel display.</p> <p>The default setting is <b>OFF</b>.</p>
	<b>ON</b>	
<b>COURIER FONT</b>	<b>REGULAR</b>	<p>Selects the version of Courier font to use:</p> <p><b>REGULAR:</b> The internal Courier font that is available on the HP LaserJet 4 series printers.</p> <p><b>DARK:</b> The internal Courier font that is available on the HP LaserJet III series printers.</p> <p>The default setting is <b>REGULAR</b>.</p>
	<b>DARK</b>	
<b>WIDE A4</b>	<b>NO</b>	<p>Changes the number of characters that can be printed on a single line of A4-size paper.</p> <p><b>NO:</b> Up to 78 10-pitch characters can be printed on one line.</p> <p><b>YES:</b> Up to 80 10-pitch characters can be printed on one line.</p> <p>The default setting is <b>NO</b>.</p>
	<b>YES</b>	
<b>PRINT PS ERRORS</b>	<b>OFF</b>	<p>Determines whether a PS error page prints or not.</p> <p><b>OFF:</b> PS error page never prints.</p> <p><b>ON:</b> PS error page prints when PS errors occur.</p> <p>The default setting is <b>OFF</b>.</p>
	<b>ON</b>	
<b>PRINT PDF ERRORS</b>	<b>OFF</b>	<p>Determines whether a PDF error page prints or not.</p> <p><b>OFF:</b> PDF error page never prints.</p> <p><b>ON:</b> PDF error page prints when PDF errors occur.</p> <p>The default setting is <b>OFF</b>.</p>
	<b>ON</b>	
<b>PCL SUBMENU</b>	<b>FORM LENGTH</b>	<p><b>FORM LENGTH:</b> Sets vertical spacing from 5 to 128 lines for default paper size.</p>
	<b>ORIENTATION</b>	
	<b>FONT SOURCE</b>	<p><b>ORIENTATION:</b> Allows you to select default page orientation as <b>LANDSCAPE</b> or <b>PORTRAIT</b>.</p>
	<b>FONT NUMBER</b>	
	<b>FONT PITCH</b>	<p> <b>NOTE</b> It is best to set the page orientation in the program or printer driver. (Program and printer-driver settings override control-panel settings.)</p>
	<b>SYMBOL SET</b>	
	<b>APPEND CR TO LF</b>	<p><b>FONT SOURCE:</b> Allows you to select the font source as <b>INTERNAL</b>, <b>CARD SLOT 1 or 2</b>, or <b>EIO DISK</b>.</p>
	<b>SUPPRESS BLANK PAGES</b>	
	<b>MEDIA SOURCE MAPPING</b>	<p><b>FONT NUMBER:</b> The printer assigns a number to each font and lists the numbers on the PCL Font List. The font number appears in the Font # column of the printout. The range is 0 to 999.</p>
		<p><b>FONT PITCH:</b> Selects the font pitch. This item might not appear, depending on the font selected. The range is 0.44 to 99.99.</p> <p><b>SYMBOL SET:</b> Selects any one of several available symbol sets at the printer control panel. A symbol set is a unique grouping of</p>





Item	Values	Explanation
		all the characters in a font. PC-8 or PC-850 is recommended for line-draw characters.
		<b>APPEND CR TO LF:</b> Select <b>YES</b> to append a carriage return to each line feed that the printer encountered in backward-compatible PCL jobs (pure text, no job control). Some environments, such as UNIX, indicate a new line using only the line feed control code. Use this option to append the required carriage return to each line feed.
		<b>SUPPRESS BLANK PAGES:</b> When generating your own PCL, extra form feeds are included that would cause one or more blank pages to be printed. Select <b>YES</b> for form feeds to be ignored if the page is blank.
		<b>MEDIA SOURCE MAPPING:</b> Allows you to select and maintain trays by number when you are not using the printer driver or when the software program has no option for tray selection. <b>CLASSIC:</b> Tray numbering is based on LaserJet 4 and older models. <b>STANDARD:</b> Tray numbering is based on newer LaserJet models.

## Print Quality submenu

Some items on this menu are available in the program or printer driver (if the appropriate driver is installed). Program and printer-driver settings override control-panel settings. For more information, see [Printer drivers on page 10](#). In general, it is best to change these settings in the printer driver, if applicable.

Item	Values	Explanation
<b>SET REGISTRATION</b>	<b>PRINT TEST PAGE</b>	<b>ADJUST TRAY X:</b> Shifts the margin alignment to center the image on the page from top to bottom, and left to right. You can also align the image that is printed on the front with the image that is printed on the back. Allows for one-sided and two-sided printing alignment.
	<b>SOURCE</b>	<b>PRINT TEST PAGE:</b> Prints a test page that shows the current registration settings.
	<b>ADJUST TRAY X</b>	<b>SOURCE:</b> Selects the tray for which you want to print the test page.
		The default setting for <b>SOURCE</b> is <b>TRAY 2</b> . The default setting for <b>ADJUST TRAY 1</b> and <b>ADJUST TRAY 2</b> is <b>0</b> .
		<b>ADJUST TRAY [N]:</b> Sets the registration for the specified tray, where [N] is the number of the tray. A selection appears for

Item	Values	Explanation
		<p>each tray that is installed, and registration must be set for each tray.</p> <ul style="list-style-type: none"> <li>• <b>X1 SHIFT:</b> Registration of the image on the paper from side to side, as the paper lies in the tray. For duplexing, this side is the second side (back) of the paper.</li> <li>• <b>X2 SHIFT:</b> Registration of the image on the paper from side to side, as the paper lies in the tray, for the first side (front) of a duplexed page. This item appears only if the printer includes a built-in duplexer and <b>DUPLEX</b> is <b>ON</b>. Set the <b>X1 SHIFT</b> first.</li> <li>• <b>Y SHIFT:</b> Registration of the image on the paper from top to bottom as the paper lies in the tray.</li> </ul>
<b>FUSER MODES</b>	List of available fuser modes	<p>Configures the fuser mode associated with each media type.</p> <p>Change the fuser mode only if you are experiencing problems printing on certain media types. After you select a type of media, you can select a fuser mode that is available for that type. The printer supports the following modes:</p> <p><b>NORMAL:</b> Used for most types of paper.</p> <p><b>HIGH2:</b> Used for paper that has a special or rough finish.</p> <p><b>HIGH1:</b> Used for rough paper.</p> <p><b>LOW3:</b> Used for transparencies.</p> <p><b>LOW2:</b> Used for lightweight media. Use this mode if you are having problems with curled paper.</p> <p><b>LOW1:</b> Use this mode if you are experiencing wrinkled media.</p> <p>The default fuser mode is <b>NORMAL</b> for all print media types except transparencies (<b>LOW3</b>) and rough paper (<b>HIGH1</b>).</p> <div>  <p><b>CAUTION</b> Do not change the fuser mode for transparencies. Failure to use the <b>LOW3</b> setting while printing transparencies can result in permanent damage to the printer and fuser. Always select <b>Transparencies</b> as the type in the printer driver and set the tray type at the printer control panel to <b>TRANSPARENCY</b>.</p> </div> <p>When selected, <b>RESTORE MODES</b> resets the fuser mode for each media type back to its default setting.</p>
<b>OPTIMIZE MODES</b>	List of parameters	<p>Optimizes certain parameters for all jobs rather than (or in addition to) optimizing by paper type. The printer supports the following modes:</p> <p><b>High Transfer (ON):</b> Reduces the halo print-quality defect on electrically resistive media.</p> <p><b>Line Detail (OFF):</b> No reason to turn it OFF. ON reduces toner scatter (toner explosions).</p> <p><b>More Separation 1 (ON):</b> Reduces potential for media to jam in the print cartridge during simplex jobs.</p>

Item	Values	Explanation
		<p><b>More Separation 2 (ON):</b> Reduces the potential for media to jam in the print cartridge during duplex jobs.</p> <p><b>Fuser Temp (REDUCED):</b> Reduces wrinkles by allowing the pressure roller to cool and shrink between pages.</p>
RESOLUTION	300	Selects the resolution. All values print at the same speed.
	600	<b>300:</b> Produces draft print quality and can be used for compatibility with the HP LaserJet III family of printers.
	FASTRES 1200	<b>600:</b> Produces high print quality for text and can be used for compatibility with the HP LaserJet 4 family of printers.
	PRORES 1200	<b>FASTRES 1200:</b> Produces 1200-dpi print quality for fast, high-quality printing of business text and graphics.
		<p><b>PRORES 1200:</b> Produces 1200-dpi print quality for fast, high-quality printing of line art and graphic images.</p> <hr/> <p> <b>NOTE</b> It is best to change the resolution in the program or printer driver. (Program and printer-driver settings override control-panel settings.)</p> <hr/> <p>The default setting is <b>1200</b>.</p>
RET	OFF	Use the Resolution Enhancement technology (REt) setting to produce print with smooth angles, curves, and edges.
	LIGHT	RET does not affect print quality if the print resolution is set to FastRes 1200 or ProRes 1200. All other print resolutions benefit from REt.
	MEDIUM	
	DARK	
		<p> <b>NOTE</b> It is best to change the REt setting in the program or printer driver. (Program and printer-driver settings override control-panel settings.)</p> <hr/> <p>The default setting is <b>MEDIUM</b>.</p>
ECONOMODE	ON	Use EconoMode to use less toner per page. Selecting <b>ON</b> extends the life of the toner supply and reduces the cost per page. However, it also reduces print quality. The printed image is lighter, but it is adequate for printing drafts or proofs.
	OFF	
		<p> <b>NOTE</b> It is best to turn EconoMode on or off in the program or printer driver. (Program and printer-driver settings override control-panel settings.)</p> <hr/> <p>The default setting is <b>OFF</b>.</p> <hr/> <p> <b>CAUTION</b> HP does not recommend full-time use of EconoMode. If EconoMode is used full-time, the toner supply might outlast the mechanical parts in the print cartridge.</p> <hr/>
TONER DENSITY	1 to 5	Lighten or darken the print on the page by setting the toner density. Select a setting ranging from <b>1</b> (light) to <b>5</b> (dark). The default setting of <b>3</b> usually produces the best results.

Item	Values	Explanation
<b>CREATE CLEANING PAGE</b>	There is no value to select.	Press ✓ to print a cleaning page (for cleaning toner from the fuser). Follow the instructions on the cleaning page. For more information, see <a href="#">Cleaning the printer on page 48</a> .
<b>PROCESS CLEANING PAGE</b>	There is no value to select.	This item is available only after a cleaning page has been created. Follow the instructions that are printed on the cleaning page. The cleaning process might take up to 2.5 minutes.

## System Setup submenu


Items on this menu affect printer behavior. Configure the printer according to the customer's needs.

Item	Values	Explanation
<b>DATE/TIME</b>	<b>DATE</b>	Sets the date and time settings.
	<b>DATE FORMAT</b>	
	<b>TIME</b>	
	<b>TIME FORMAT</b>	
<b>JOB STORAGE LIMIT</b>	<b>1 to 100</b>	Specifies the number of quick copy jobs that can be stored on the printer.
		The default setting is <b>32</b> .
<b>JOB HELD TIMEOUT</b>	<b>OFF</b>	Sets the amount of time that held jobs are kept before being automatically deleted from the queue.  The default setting is <b>OFF</b> .
	<b>1 HOUR</b>	
	<b>4 HOURS</b>	
	<b>1 DAY</b>	
	<b>1 WEEK</b>	
<b>SHOW ADDRESS</b>	<b>AUTO</b>	Defines whether or not the printer address will be shown on the display if the device is connected to a network. If <b>AUTO</b> is selected the IP Address of the device appears with the <b>Ready</b> message.
	<b>OFF</b>	
		The default setting is <b>AUTO</b> .
<b>TRAY BEHAVIOR</b>	<b>USE REQUESTED TRAY</b>	<b>USE REQUESTED TRAY:</b> Determines whether the printer tries to pull media from a different tray than the one that you selected in the printer driver.
	<b>MANUALLY FEED PROMPT</b>	
	<b>PS DEFER MEDIA</b>	
	<b>SIZE/TYPE PROMPT</b>	
		<ul style="list-style-type: none"> <li>● <b>EXCLUSIVELY:</b> Sets the printer to pull from the tray that you selected and not pull from another tray, even if the tray that you selected is empty.</li> <li>● <b>FIRST:</b> Sets the printer to pull from the tray that you selected first, but allows the printer to pull from another tray automatically if the tray that you selected is empty.</li> </ul>

Item	Values	Explanation
		<p><b>MANUALLY FEED PROMPT:</b> Determines when the printer shows a prompt regarding pulling from tray 1 if your print job does not match the type or size that is loaded in any other tray.</p> <ul style="list-style-type: none"> <li>● <b>ALWAYS:</b> Select this option if you always want to be prompted before the printer pulls from tray 1.</li> <li>● <b>UNLESS LOADED:</b> Prompts you only if tray 1 is empty.</li> </ul> <p><b>PS DEFER MEDIA:</b> Controls whether the PostScript (PS) or HP paper-handling model is used to print jobs. <b>ENABLED</b> causes PS to defer to the HP paper-handling model. <b>DISABLED</b> uses the PS paper-handling model.</p> <p><b>SIZE/TYPE PROMPT:</b> Use this menu item to control whether the tray configuration message and its prompts are shown whenever a tray is opened and closed. These prompts instruct you to set the type or size if the tray is configured for a type or size other than the type or size that is loaded in the tray.</p>
<b>SLEEP DELAY</b>	<b>1 MINUTE</b>	Sets how long the printer remains idle before it enters Sleep mode.
	<b>15 MINUTES</b>	
	<b>30 MINUTES</b>	Sleep mode does the following:
	<b>45 MINUTES</b>	
	<b>60 MINUTES</b>	
	<b>90 MINUTES</b>	
	<b>2 HOURS</b>	The printer automatically comes out of Sleep mode when you send a print job, press a printer control-panel button, open a tray, or open the top cover.
	<b>4 HOURS</b>	
		The default setting is <b>60 MINUTES</b> .
<b>WAKE TIME</b>	<b>MONDAY</b>	Sets a “wake-up” time for the printer to warm up and calibrate each day. The default for each day is <b>OFF</b> . If you set a wake time, HP recommends setting an extended sleep delay time period, so that the printer will not return to sleep mode soon after waking.
	<b>TUESDAY</b>	
	<b>WEDNESDAY</b>	
	<b>THURSDAY</b>	
	<b>FRIDAY</b>	
	<b>SATURDAY</b>	
	<b>SUNDAY</b>	
<b>PERSONALITY</b>	<b>AUTO</b>	Selects the default printer language (personality). The possible values are determined by which valid languages are installed in the printer.
	<b>PDF</b>	
	<b>PS</b>	Normally, you should not change the printer language. If you change it to a specific printer language, the printer will not switch automatically from one language to another unless specific software commands are sent to the printer.
	<b>PCL</b>	
		The default setting is <b>AUTO</b> .
<b>CLEARABLE WARNINGS</b>	<b>JOB</b>	Sets the amount of time that a clearable warning appears on the printer control-panel display.



Item	Values	Explanation
	<b>ON</b>	<p><b>JOB:</b> The clearable warning message appears until the end of the job that generated the message.</p> <p><b>ON:</b> The clearable warning message appears until you press ✓.</p> <p>The default setting is <b>JOB</b>.</p>
<b>AUTO CONTINUE</b>	<b>OFF</b>  <b>ON</b>	<p>Determines how the printer reacts to errors. If the printer is on a network, you probably want to turn <b>AUTO CONTINUE</b> to <b>ON</b>.</p> <p><b>ON:</b> If an error occurs that prevents printing, the message appears on the printer control-panel display, and the printer goes offline for 10 seconds before returning online.</p> <p><b>OFF:</b> If an error occurs that prevents printing, the message remains on the printer control-panel display, and the printer remains offline until you press ✓.</p> <p>The default setting is <b>ON</b>.</p>
<b>CARTRIDGE LOW</b>	<b>STOP</b>  <b>CONTINUE</b>	<p>Determines how the printer behaves if the print cartridge is low. Print quality is not guaranteed if you print after receiving this message.</p> <p><b>STOP:</b> The printer pauses printing until you replace the print cartridge or press ✓ each time you turn the printer on. The message appears until you replace the print cartridge.</p> <p><b>CONTINUE:</b> The printer continues to print, and the message appears until you replace the print cartridge.</p> <p>The default setting is <b>CONTINUE</b>.</p>
<b>CARTRIDGE OUT</b>	<b>STOP</b>  <b>CONTINUE</b>	<p>Determines how the printer reacts if the print cartridge is empty.</p> <p><b>STOP:</b> The printer stops printing until you replace the print cartridge.</p> <p><b>CONTINUE:</b> The printer continues to print, and the <b>REPLACE CARTRIDGE</b> message appears until you replace the print cartridge. HP does not guarantee print quality if you select <b>CONTINUE</b> after a <b>REPLACE CARTRIDGE</b> condition. Replace the print cartridge as soon as possible to ensure good print quality.</p> <p>If the end of drum life is reached, the printer stops, regardless of the <b>CARTRIDGE OUT</b> setting.</p> <p>The default setting is <b>CONTINUE</b>.</p>
<b>JAM RECOVERY</b>	<b>AUTO</b>  <b>OFF</b>  <b>ON</b>	<p>Determines how the printer behaves if a jam occurs.</p> <p><b>AUTO:</b> The printer automatically selects the best mode for printer jam recovery (usually <b>ON</b>).</p> <p><b>OFF:</b> The printer does not reprint pages following a jam. Printing performance might be increased with this setting.</p> <p><b>ON:</b> The printer automatically reprints pages after a jam is cleared.</p> <p>The default setting is <b>AUTO</b>.</p>

Item	Values	Explanation
RAM DISK	AUTO	Determines how the RAM disk is configured.
	OFF	<p><b>AUTO:</b> Allows the printer to determine the optimal RAM-disk size based on the amount of available memory.</p> <p><b>OFF:</b> The RAM is disabled.</p> <hr/> <div>  <p><b>NOTE</b> If you change the setting from <b>OFF</b> to <b>AUTO</b>, the printer automatically reinitializes when it becomes idle.</p> </div> <hr/> <p>The default setting is <b>AUTO</b>.</p>
LANGUAGE	ENGLISH	Selects the language for the messages that appear on the printer control-panel display.
	Several	The default setting is <b>ENGLISH</b> .


## I/O submenu

Items on the I/O (input/output) menu affect the communication between the printer and the computer. If the printer contains an HP Jetdirect print server, you can configure basic networking parameters by using the submenu. These and other parameters can also be configured through HP Web Jetadmin (see [HP Web Jetadmin on page 14](#)) or other network configuration tools, such as the embedded Web server (see [Using the embedded Web server on page 280](#)).

Item	Values	Explanation
I/O TIMEOUT	5 to 300	Select the I/O timeout period in seconds.
		Use this setting to adjust timeout for the best performance. If data from other ports appears in the middle of your print job, increase the timeout value.  The default setting is <b>15</b> .
PARALLEL INPUT	HIGH SPEED	<b>HIGH SPEED:</b> Select <b>YES</b> to enable the printer to accept the faster parallel communications that are used for connections with newer computers.
	ADVANCED FUNCTIONS	<b>ADVANCED FUNCTIONS:</b> Turn the bidirectional parallel communication on or off. The default is set for a bidirectional parallel port (IEEE-1284).  The printer uses this setting to send status messages to the computer. Turning the parallel advanced functions on might slow language switching.
EMBEDDED JETDIRECT	TCP/IP	<b>TCP/IP:</b> Select whether the TCP/IP protocol stack is enabled or disabled. You can set several TCP/IP parameters.
	IPX/SPX	Select the TCP/IP <b>CONFIGURE METHOD</b> to configure the EIO card. For the <b>MANUAL</b> option, set the values for <b>IP ADDRESS</b> , <b>SUBNET MASK</b> , <b>LOCAL GATEWAY</b> , and <b>DEFAULT GATEWAY</b> .
	APPLETALK	<b>IPX/SPX:</b> Select whether the IPX/SPX protocol stack (in Novell NetWare networks, for example) is enabled or disabled.
	DLC/LLC	<b>APPLETALK:</b> Enable or disable an AppleTalk network.
	SECURE WEB	<b>DLC/LLC:</b> Select whether the DLC/LLC protocol stack is enabled or disabled.
	DIAGNOSTICS	<b>SECURE WEB:</b> Specify whether the embedded Web server accepts communications by using only secure HTTP (HTTPS) or by using both HTTP and HTTPS.
	RESET SECURITY	<b>DIAGNOSTICS:</b> Use tests to help diagnose network hardware or TCP/IP network connection problems.
	LINK SPEED	<b>RESET SECURITY:</b> Specify whether the current security settings on the print server are saved or reset to factory defaults.  <b>LINK SPEED:</b> Select the network link speed and communications mode for the 10/100T print server. To ensure proper communication, the Jetdirect settings must match those of the network.






# Resets submenu

Items on the Resets submenu relate to returning settings to the defaults and changing settings such as Sleep mode.

Item	Values	Explanation
<b>RESTORE FACTORY SETTINGS</b>	There is no value to select.	<p>Performs a simple reset and restores most of the factory (default) settings. This item also clears the input buffer for the active I/O.</p> <div> <b>CAUTION</b> Restoring memory during a print job cancels the print job.</div>
<b>SLEEP MODE</b>	<b>ON</b> <b>OFF</b>	<p>Turns Sleep mode on or off. Using Sleep mode offers the following advantages:</p> <ul style="list-style-type: none"><li>• Minimizes the amount of power that the printer consumes when it is idle</li><li>• Reduces wear on electronic components in the printer (turns off the display backlight, but the display is still readable)</li></ul> <p>The printer automatically comes out of Sleep mode when you send a print job, press a printer control panel button, open a tray, or open the top cover.</p> <p>You can set how long the printer remains idle before it enters Sleep mode.</p> <p>The default setting is <b>ON</b>.</p>

## Diagnostics menu

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

Item	Values	Explanation
<b>PRINT EVENT LOG</b>	There is no value to select.	Press  to generate a list of the 50 most recent entries in the event log. The printed event log shows error number, page count, error code, and description or personality.
<b>SHOW EVENT LOG</b>	There is no value to select.	Press  to scroll through the contents of the event log at the printer control panel, which lists up to the 50 most recent events. Use  or  to scroll through the event log contents.
<b>PAPER PATH TEST</b>	<b>PRINT TEST PAGE</b> <b>SOURCE</b> <b>DUPLEX</b> <b>COPIES</b>	<p>Generates a test page that is useful for testing the paper-handling features of the printer.</p> <p><b>PRINT TEST PAGE:</b> Press  to start the paper-path test using the source (tray), destination (output bin), duplex, and number of copies settings that you set in the other items on the Paper Path Test menu. Set the other items before selecting <b>PRINT TEST PAGE</b>.</p> <p><b>SOURCE:</b> Select the tray that uses the paper path that you want to test. You can select any tray that is installed. Select <b>ALL TRAYS</b> to test all paper paths. (Paper must be loaded in the selected trays.)</p> <p><b>DUPLEX:</b> Determine whether the paper goes through the duplexer during the paper-path test. The menu item appears only if the printer includes a built-in duplexer.</p> <p><b>COPIES:</b> Set how many sheets of paper are used from each tray during the paper-path test.</p>

## Service menu

The **SERVICE** menu is locked and requires a PIN for access. This menu is intended for use by authorized service personnel. See [Service menu \(service PIN codes\) on page 296](#) for additional information about accessing and using this menu.

Item	Options	Values
SERVICE	CLEAR EVENT LOG	
	TOTAL PAGE COUNT	0 - 999999
	REFURBISH PAGE COUNT	0 - 999999
	SERIAL NUMBER	<serial number>
	SERVICE ID	<service idr>
	COLD RESET PAPER	LETTER A4

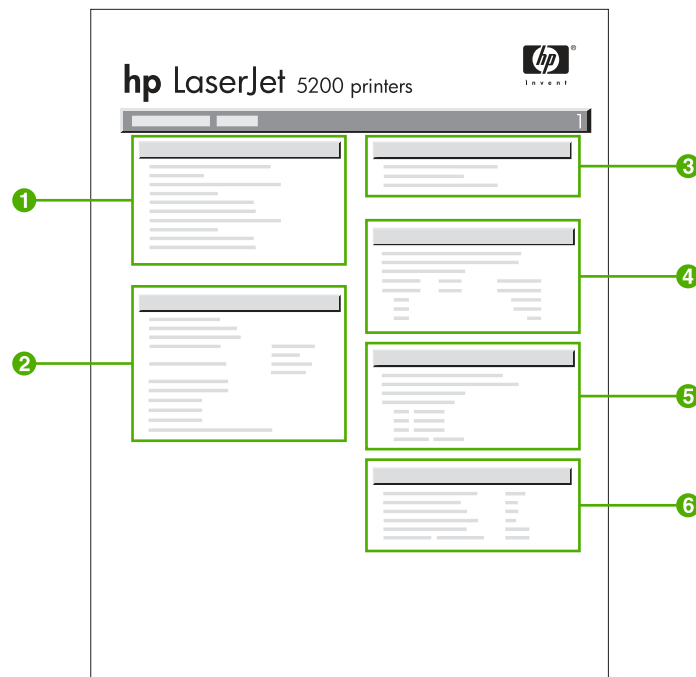
# Tools for troubleshooting

## Using the configuration page

The message **Printing... CONFIGURATION** appears on the control panel until the printer finishes printing the configuration page. The printer returns to the **Ready** state after printing the configuration page.

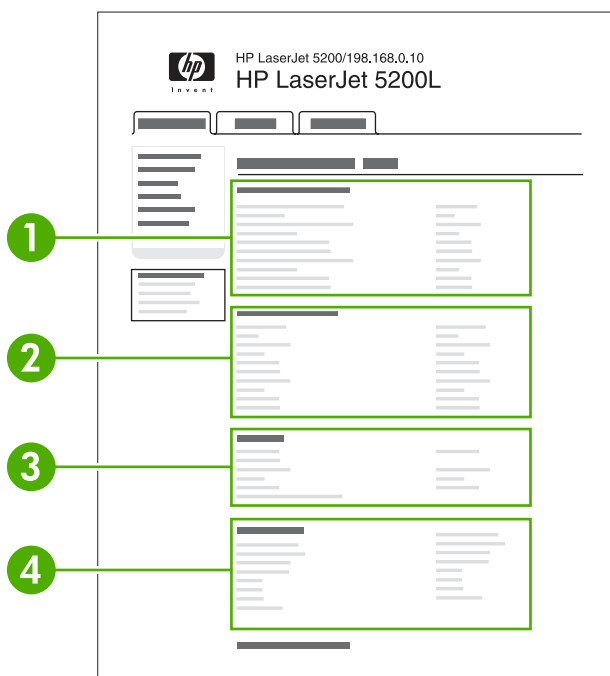


**NOTE** If the printer is configured with EIO cards (for example, an HP Jetdirect Internal Print Server) or an optional hard-disk drive, an additional configuration page will print that provides information about those devices.



**Figure 6-17** Configuration page

1	Printer information
2	Installed personalities and options
3	Memory
4	Event log
5	Security
6	Paper trays and options



**Figure 6-18** Embedded Web Server page

1	Printer information
2	Installed personalities and options
3	Memory
4	Security

## Using the embedded Web server

When the printer is directly connected to a computer, the embedded Web server is supported for Windows 98 and later. When the printer is connected to the network, the embedded Web server is automatically available. You can access the embedded Web server from Windows 98 and later, or through the Apple Safari browser.

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. Below are examples of what you can do using the embedded Web server:

- View printer control status information.
- Set the type of paper loaded in each tray.
- Determine the remaining life on all supplies and order new ones.
- View and change tray configurations.
- View and change the printer control panel menu configuration.
- View and print internal pages.



- Receive notification of printer and supplies events.
- View and change network configuration.

To use the embedded Web server, you must have Microsoft Internet Explorer 6.0 or later, or Netscape Navigator 6.2 or 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 printer connections. You do not have to have Internet access to open and use the embedded Web server. For more information about the HP embedded Web server, see the *HP Embedded Web Server User Guide*. You can find this guide on the CD-ROM included with the printer.

## Accessing the embedded Web server

In a supported Web browser on your computer, type the IP address for the printer. (To find the IP address, print a configuration page. For more information about printing a configuration page, see [Configuration pages on page 283](#).)



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

1. 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.
2. See the following sections for more information about each tab.

### Information tab

The Information pages group consists of the following pages.

- **Device Status.** This page displays the printer status and shows the life remaining of HP supplies, with 0% representing 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.** This page shows the information found on the printer configuration page.
- **Supplies Status.** This page shows the life remaining of HP supplies, with 0% representing that a supply is empty. This page also provides supplies part numbers. To order new supplies, click **Order Supplies** in the **Other Links** area on the left side of the window. To visit any Web site, you must have Internet access.
- **Event log.** This page shows a list of all printer events and errors.
- **Usage page.** This page shows a summary of the number of pages the printer has printed, grouped by size and type.
- **Device Information.** This page also shows the printer network name, address, and model information. To change these entries, click **Device Information** on the **Settings** tab.
- **Control panel.** This page shows an image of the text currently displaying on the printer's control-panel display.

### Settings tab

This tab allows you to configure the printer from your computer. The **Settings** tab can be password protected. If this printer is networked, always consult with the printer administrator before changing settings on this tab.

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

- **Configure Device.** Configure all printer settings from this page. This page contains the traditional menus found on printers using a control panel display. These menus include **Information**, **Paper Handling**, and **Configure Device**.
- **Alerts.** Network only. Set up to receive e-mail alerts for various printer and supplies events. Alerts may also be sent to a URL.
- **E-mail.** Network only. Used in conjunction with the Alerts page to set up incoming and outgoing e-mail, as well as to set e-mail alerts.
- **Security.** Set a password that must be entered to gain access to the **Settings** and **Networking** tabs. Enable and disable certain features of the embedded Web server.
- **Other Links.** Add or customize a link to another Web site. This link is displayed in the Other Links area on all embedded Web server pages. These permanent links always display in the **Other Links** area: **HP Instant Support™**, **Order Supplies**, and **Product Support**.
- **Device Information.** Name the printer and assign an asset number to it. Enter the name and e-mail address for the primary contact who will receive information about the printer.
- **Language.** Determine the language in which to display the embedded Web server information.
- **Time Services.** Configure the printer's time settings.

## Setting the real-time clock

Use the real-time clock feature to set the date and time settings. The date and time information is attached to stored print jobs, so that you can identify the most recent versions of stored print jobs.

When setting the clock, you can set the date format, date, time format, and time.

## Networking tabs

This tab allows the network administrator to control network-related settings for the printer when it is connected to an IP-based network. This tab will *not* display 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.

Click Help on the Networking tab pages for more information on network settings.

## Other links

This section contains links that connect you to the Internet to order supplies or obtain product support. You must have Internet access to use any of these links. If you use a dial-up connection and did not connect when you first opened the 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.

- **HP Instant Support™.** Connects you to the HP Web site to help you find solutions. This service analyzes your printer error log and configuration information to provide diagnostic and support information specific to your printer.
- **Order Supplies.** Click this link to connect to the HP Web site and order genuine HP supplies, such as print cartridges and paper.
- **Product Support.** Connects to the support site for the HP LaserJet 5200 printer. Then, you can search for help regarding general topics.

# Configuration pages

Depending on the model, up to two pages print when you select **PRINT CONFIGURATION**. In addition to the main configuration page, an embedded Jetdirect configuration page prints.

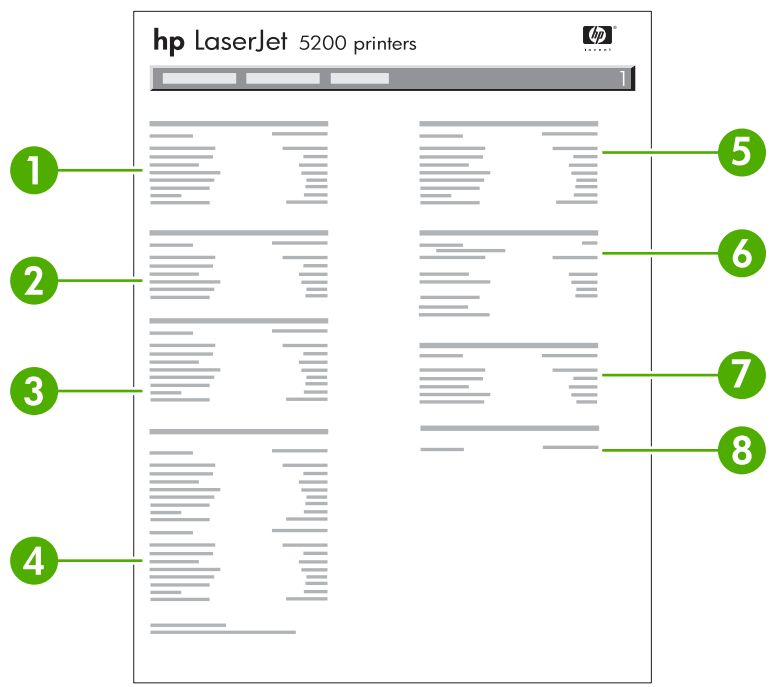
## Configuration page

Use the configuration page to view current printer settings, to help troubleshoot printer problems, or to verify installation of optional accessories, such as memory (DIMMs), paper trays, and printer languages.

- 1. Press ✓ to open the menus.
- 2. Press ▼ to highlight **INFORMATION**, and then press ✓.
- 3. Press ▼ to highlight **PRINT CONFIGURATION**, and then press ✓.

## HP embedded Jetdirect page

The HP embedded Jetdirect page contains the following information:



**Figure 6-19** Jetdirect page

1	<b>HP Jetdirect Configuration</b> indicates the printer status, model number, hardware firmware version, port select, port configuration, auto negotiation, manufacturing identification, and manufactured date.
2	<b>Security Settings</b> information.
3	<b>Network Statistics</b> indicates the total packets received, unicast packets received, bad packets received, framing errors received, total packets transmitted, unsendable packets, transmit collisions, and transmit late collisions.
4	<b>TCP/IP</b> information, including the IP address.
5	<b>IPX/SPX</b> information.
6	<b>Novell/NetWare</b> information.

7	<b>AppleTalk</b> information.
8	<b>DLC/LLC</b> information.

Always make sure the status line under the HP Jetdirect configuration lines indicates "I/O Card Ready".

**Paper-handling configuration page**

The paper handling configuration page contains information on the bins and trays.



**Figure 6-20** Paper-handling configuration page

**Finding important information on the configuration page**

Certain information, such as the firmware date codes, the IP address, and the e-mail gateways, is especially helpful while servicing the printer. This information is on the various configuration pages.

**Table 6-5** Important information on the configuration pages

Type of information	Specific information	Configuration page
<b>Firmware datecodes</b>  When you use the remote firmware upgrade procedure, all of these firmware components are upgraded	DC controller	Look on the main configuration page, under "Device Information."
	Firmware datecode	Look on the main configuration page, under "Device Information."
	Embedded Jetdirect firmware version	Look on the embedded Jetdirect page, under "HP Jetdirect Configuration."






**Table 6-5** Important information on the configuration pages (continued)

Type of information	Specific information	Configuration page
<b>Accessories and internal storage</b>  All optional devices that are installed on the printer should be listed on the main configuration page.	Embedded HP Jetdirect	Look on the main configuration page, under "Installed Personalities and Options." Shows model and ID.
	Total RAM	Look on the main configuration page, under "Memory."
	Duplex unit	Look on the main configuration page, under "Paper Trays and Options."
<b>Additional 500-sheet feeder</b>	Additional 500-sheet feeder	Look on the main configuration page, under "Paper Trays and Options."
<b>Event-log information</b>	Event-log information	Look on the main configuration page, under "Event log."

## Print the supplies status page

The supplies status page illustrates the remaining life for the print cartridge.

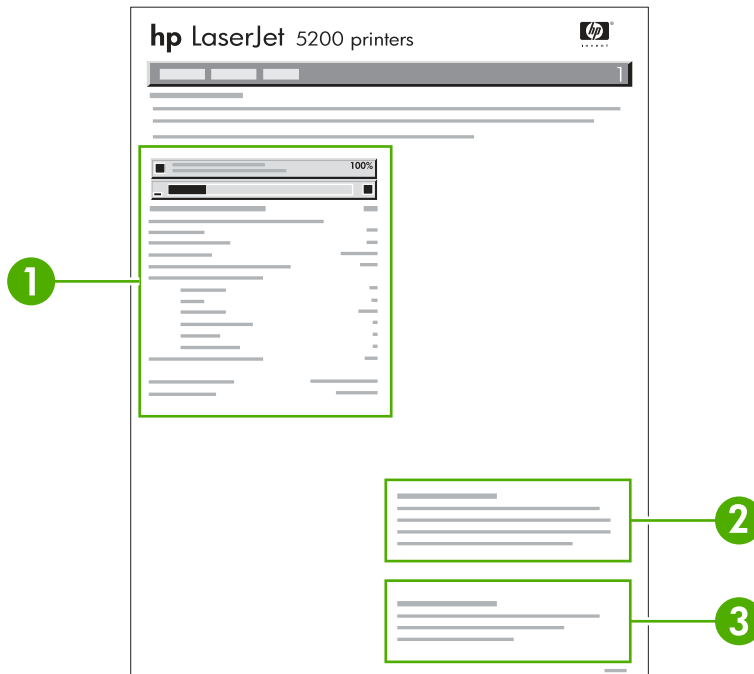
To print the supplies status page:

1. Press  to open the menus.
2. Press  to highlight **INFORMATION**, and then press .
3. Press  to highlight **PRINT SUPPLIES STATUS PAGE**, and then press .

The message **Printing... SUPPLIES STATUS** displays on the control panel until the printer finishes printing the supplies status page. The printer returns to the **Ready** state after printing the supplies status page.



**NOTE** If you are using non-HP supplies, the supplies status page will not show the remaining life for the supplies.



**Figure 6-21** Supplies status page

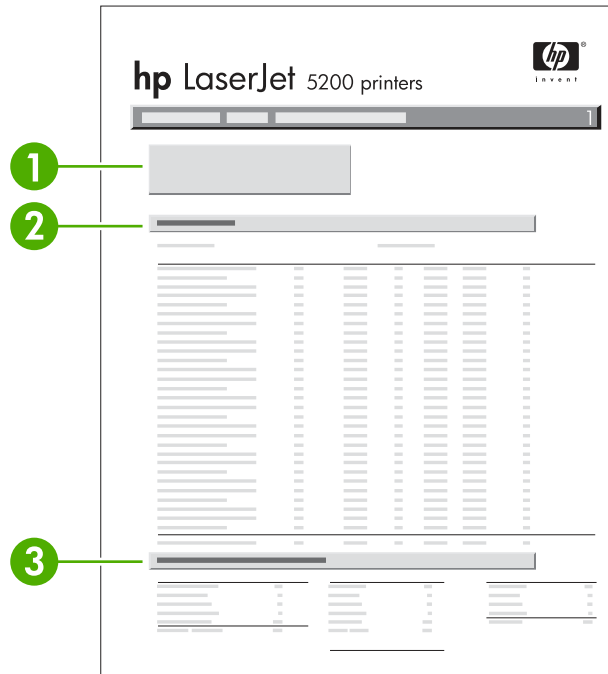
1	<b>Black Cartridge</b> indicates the part number, amount of toner remaining in the print cartridge, estimated pages remaining, total number of pages and jobs processed, print cartridge serial number, and date installed and last used.
2	<b>Ordering information</b> provides information on ordering new HP printer supplies.
3	<b>Return &amp; Recycling</b> provides information on recycling HP printer supplies.

## Print the usage page

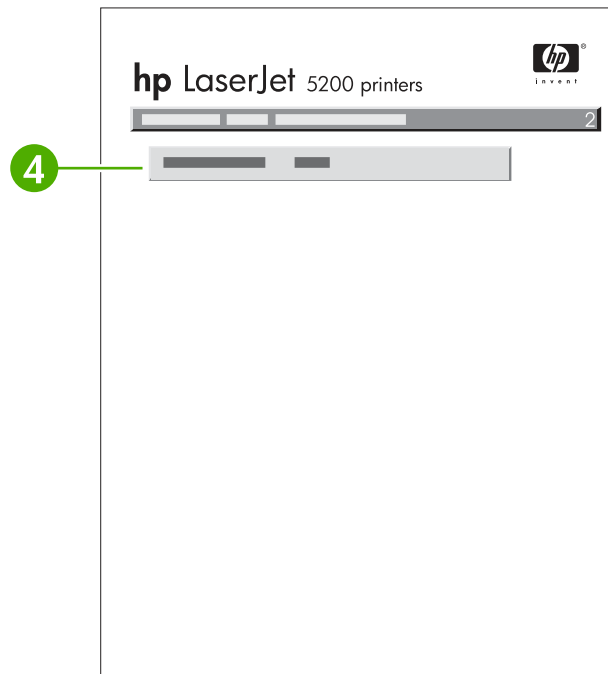
The usage page lists a page count for each size of media that has passed through the printer. This page count includes the number of pages that were printed on one side, the number that were printed on two sides (duplexed), and totals of the two printing methods for each media size. It also lists the average percentage of page coverage.

1. Press **✓** to open the menus.
2. Press **▼** to highlight **INFORMATION**, and then press **✓**.
3. Press **▼** to highlight **PRINT USAGE PAGE**, and then press **✓**.

The message **Printing... USAGE PAGE** displays on the control panel until the printer finishes printing the usage page. The printer returns to the **Ready** state after printing the usage page.



**Figure 6-22** Usage page (1 of 2)



**Figure 6-23** Usage page (2 of 2)

- |   |   |
|---|---|
| 1 | <b>Device Information</b> indicates the device name and serial number.  |
| 2 | <b>Usage Totals (equivalent)</b> indicates types of pages that have been printed; the number of single-sided and duplexed pages that have been printed. |

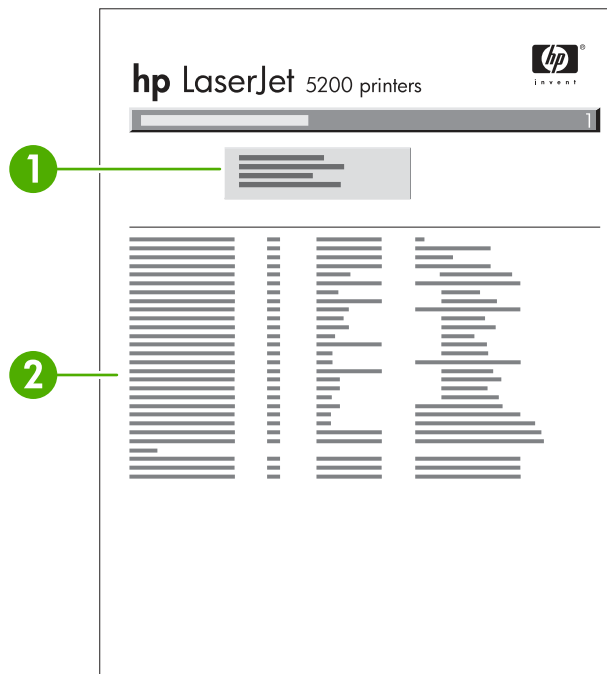
	<ul style="list-style-type: none"> <li>Units: equivalent number of letter or A4 pages</li> <li>Total is calculated by multiplying the mono units and units from simplex, multiplying the mono units and units from duplex, and adding the results together. These totals are added to the totals of the other page sizes to provide the total printer usage.</li> </ul>
3	<b>Print Modes and Paper Path Usage (actual)</b> shows the number of pages that have been printed with each printer mode and the number of pages that have been printed from each input tray and to each output bin.
4	<b>Coverage information</b>

## Print the file directory page

The file directory page contains information for all files stored in memory.

1. Press **✓** to open the menus.
2. Press **▼** to highlight **INFORMATION**, and then press **✓**.
3. Press **▼** to highlight **PRINT FILE DIRECTORY**, and then press **✓**.

The message **Printing... FILE DIRECTORY** displays on the control panel until the printer finishes printing the file directory page. The printer returns to the **Ready** state after printing the file directory page.



**Figure 6-24** File directory page

1	Memory capacity
2	List of files

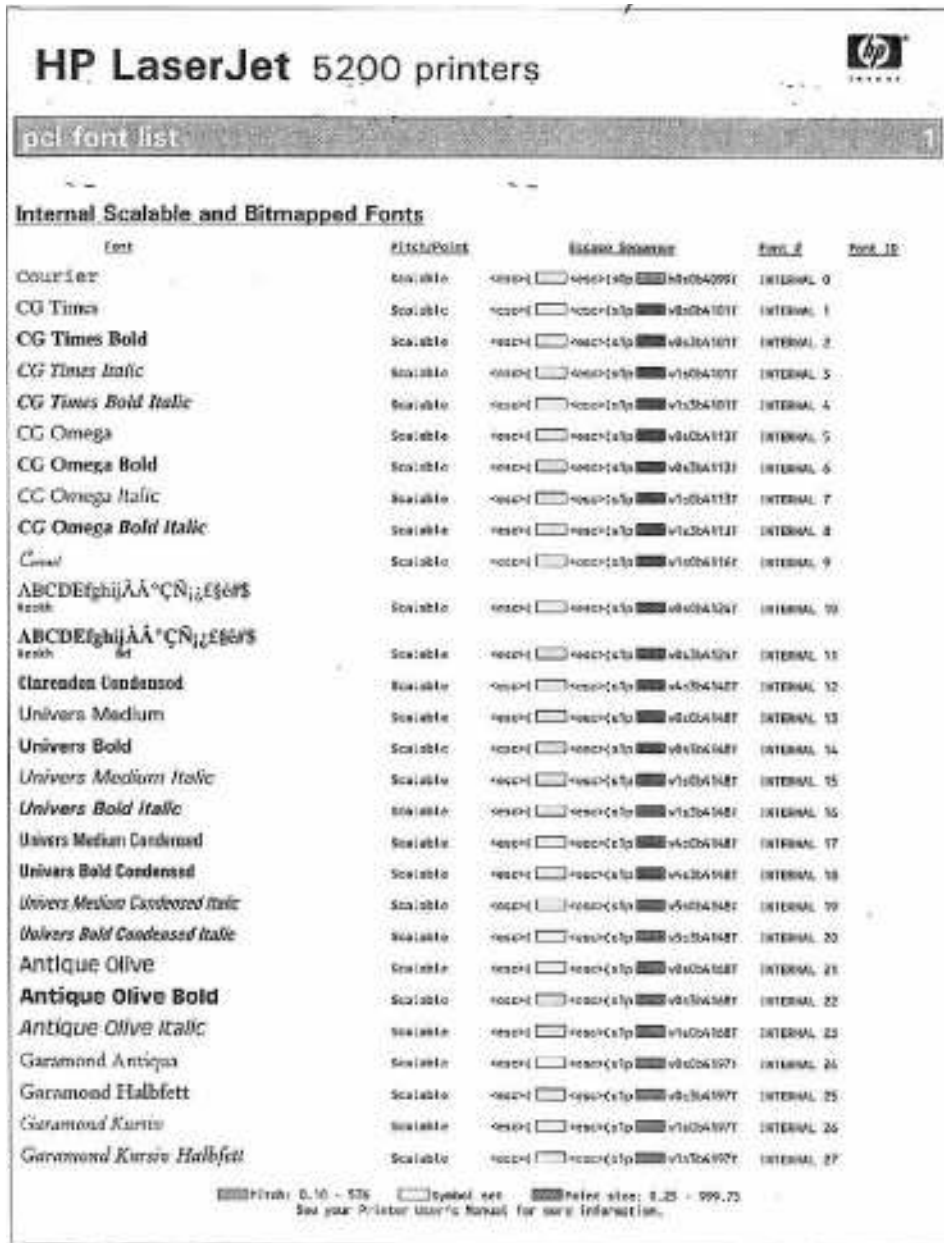


## Print the PCL font list page

The PCL font list page lists the PCL fonts that are available on the printer.

1. Press **✓** to open the menus.
2. Press **▼** to highlight **INFORMATION**, and then press **✓**.
3. Press **▼** to highlight **PRINT PCL FONT LIST**, and then press **✓**.

The message **Printing... FONT LIST** displays on the control panel until the printer finishes printing the font list page. The printer returns to the **Ready** state after printing the font list page.



The image shows a printed page titled "HP LaserJet 5200 printers" with the HP logo. Below the title is a header "pcl font list". The main content is a table titled "Internal Scalable and Bitmapped Fonts". The table has five columns: Font, Pitch/Point, Encoding, Font #, and Font ID. It lists various fonts including Courier, CG Times, CG Times Bold, CG Times Italic, CG Times Bold Italic, CG Omega, CG Omega Bold, CG Omega Italic, CG Omega Bold Italic, Courier, Clarendon Condensed, Univers Medium, Univers Bold, Univers Medium Italic, Univers Bold Italic, Univers Medium Condensed, Univers Bold Condensed, Univers Medium Condensed Italic, Univers Bold Condensed Italic, Antique Olive, Antique Olive Bold, Antique Olive Italic, Garamond Antiqua, Garamond Halbfett, Garamond Kursiv, and Garamond Kursiv Halbfett. Each font entry includes a sample of the font's appearance and its corresponding internal font number and ID.

Font	Pitch/Point	Encoding	Font #	Font ID
Courier	Scalable	<0000> [symbol set] <0000> 00000000	INTERNAL 0	
CG Times	Scalable	<0000> [symbol set] <0000> 00000000	INTERNAL 1	
CG Times Bold	Scalable	<0000> [symbol set] <0000> 00000000	INTERNAL 2	
CG Times Italic	Scalable	<0000> [symbol set] <0000> 00000000	INTERNAL 3	
CG Times Bold Italic	Scalable	<0000> [symbol set] <0000> 00000000	INTERNAL 4	
CG Omega	Scalable	<0000> [symbol set] <0000> 00000000	INTERNAL 5	
CG Omega Bold	Scalable	<0000> [symbol set] <0000> 00000000	INTERNAL 6	
CG Omega Italic	Scalable	<0000> [symbol set] <0000> 00000000	INTERNAL 7	
CG Omega Bold Italic	Scalable	<0000> [symbol set] <0000> 00000000	INTERNAL 8	
Courier	Scalable	<0000> [symbol set] <0000> 00000000	INTERNAL 9	
ABCDEFghijAA°ÇÑ;E&#8203;	Scalable	<0000> [symbol set] <0000> 00000000	INTERNAL 10	
ABCDEFghijAA°ÇÑ;E&#8203;	Scalable	<0000> [symbol set] <0000> 00000000	INTERNAL 11	
Clarendon Condensed	Scalable	<0000> [symbol set] <0000> 00000000	INTERNAL 12	
Univers Medium	Scalable	<0000> [symbol set] <0000> 00000000	INTERNAL 13	
Univers Bold	Scalable	<0000> [symbol set] <0000> 00000000	INTERNAL 14	
Univers Medium Italic	Scalable	<0000> [symbol set] <0000> 00000000	INTERNAL 15	
Univers Bold Italic	Scalable	<0000> [symbol set] <0000> 00000000	INTERNAL 16	
Univers Medium Condensed	Scalable	<0000> [symbol set] <0000> 00000000	INTERNAL 17	
Univers Bold Condensed	Scalable	<0000> [symbol set] <0000> 00000000	INTERNAL 18	
Univers Medium Condensed Italic	Scalable	<0000> [symbol set] <0000> 00000000	INTERNAL 19	
Univers Bold Condensed Italic	Scalable	<0000> [symbol set] <0000> 00000000	INTERNAL 20	
Antique Olive	Scalable	<0000> [symbol set] <0000> 00000000	INTERNAL 21	
Antique Olive Bold	Scalable	<0000> [symbol set] <0000> 00000000	INTERNAL 22	
Antique Olive Italic	Scalable	<0000> [symbol set] <0000> 00000000	INTERNAL 23	
Garamond Antiqua	Scalable	<0000> [symbol set] <0000> 00000000	INTERNAL 24	
Garamond Halbfett	Scalable	<0000> [symbol set] <0000> 00000000	INTERNAL 25	
Garamond Kursiv	Scalable	<0000> [symbol set] <0000> 00000000	INTERNAL 26	
Garamond Kursiv Halbfett	Scalable	<0000> [symbol set] <0000> 00000000	INTERNAL 27	

Font # 0: 0 - 511    [symbol set]    [font size: 0.25 - 999.75]  
See your Printer User's Manual for more information.


Figure 6-25 PCL font list page

## Print the PS font list page

The PS font list page lists the PS fonts (emulated PostScript) that are available on the printer.

1. Press **✓** to open the menus.
2. Press **▼** to highlight **INFORMATION**, and then press **✓**.
3. Press **▼** to highlight **PRINT PS FONT LIST**, and then press **✓**.

The message **Printing... FONT LIST** displays on the control panel until the printer finishes printing the font list page. The printer returns to the **Ready** state after printing the font list page.

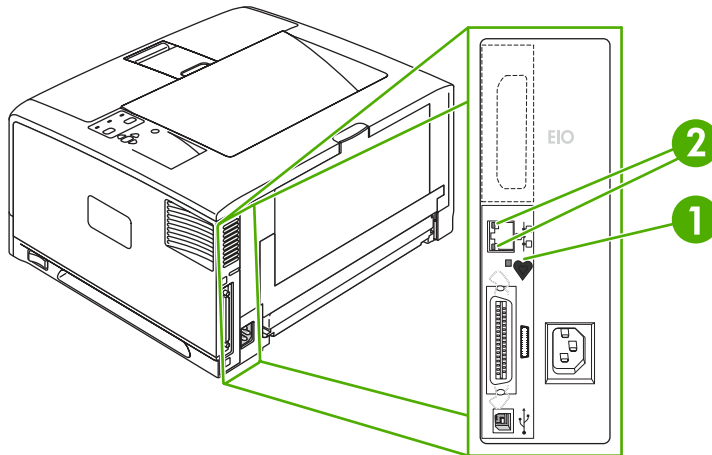


HP LaserJet 5200 printers		
ps font list		
Albertus Extra Bold	Albertus-ExtraBold	Internal 1
Albertus Medium	Albertus-Medium	Internal 2
Antique Olive	AntiqueOlive	Internal 3
Antique Olive Bold	AntiqueOlive-Bold	Internal 4
Antique Olive Italic	AntiqueOlive-Italic	Internal 5
Arial	Arial	Internal 6
Arial Bold	Arial-Bold	Internal 7
Arial Bold Italic	Arial-BoldItalic	Internal 8
Arial Italic	Arial-Italic	Internal 9
ITC Avant Garde Gothic Book	AvantGarde-Book	Internal 10
ITC Avant Garde Gothic Book Oblique	AvantGarde-BookOblique	Internal 11
ITC Avant Garde Gothic Demi	AvantGarde-Demi	Internal 12
ITC Avant Garde Gothic Demi Oblique	AvantGarde-DemiOblique	Internal 13
ITC Bookman Demi	Bookman-Demi	Internal 14
ITC Bookman Demi Italic	Bookman-DemiItalic	Internal 15
ITC Bookman Light	Bookman-Light	Internal 16
ITC Bookman Light Italic	Bookman-LightItalic	Internal 17
CG Omega	CGOmega	Internal 18
CG Omega Bold	CGOmega-Bold	Internal 19
CG Omega Bold Italic	CGOmega-BoldItalic	Internal 20
CG Omega Italic	CGOmega-Italic	Internal 21
CG Times	CGTimes	Internal 22
CG Times Bold	CGTimes-Bold	Internal 23
CG Times Bold Italic	CGTimes-BoldItalic	Internal 24
CG Times Italic	CGTimes-Italic	Internal 25
Harvard Condensed Bold	Condenser-Condensed-Bold	Internal 26
Courier	Courier	Internal 27
CourierPS	Courier	Internal 28
CourierPS Bold	Courier-Bold	Internal 29
CourierPS Bold Oblique	Courier-BoldOblique	Internal 30
CourierPS Oblique	Courier-Oblique	Internal 31
Courier	CourierHP	Internal 32
Courier Bold	CourierHP-Bold	Internal 33
Courier Bold Italic	CourierHP-BoldItalic	Internal 34
Courier Italic	CourierHP-Italic	Internal 35
Doris	Doris	Internal 36
Doris Bold	Doris-Bold	Internal 37
Garamond Antiqua	Garamond-Antiqua	Internal 38
Garamond Halbfett	Garamond-Halbfett	Internal 39

Figure 6-26 PS font list page

# Diagnostics

Two LEDs on the formatter indicate that the printer is functioning correctly.



**Figure 6-27** Formatter lights

1	Heartbeat LED
2	HP Jetdirect LEDs (only available on the N, TN, and DTN bundles)



**NOTE** An EIO slot is not available for the HP LaserJet 5200L.

## Embedded HP Jetdirect LEDs



**NOTE** Embedded HP Jetdirect LEDs are not available for the 5200 or 5200L models.

The embedded HP Jetdirect print server has two LEDs. The yellow LED indicates network activity, and the green LED indicates the link status. A blinking yellow LED indicates network traffic. If the green LED is off, a link has failed.

For link failures, check all of the network cable connections. In addition, you can try to manually configure the link settings on the embedded print server by using the printer control panel menus.

1. Press **Menu** to enter the menus.
2. Press **▼** to highlight **CONFIGURE DEVICE**, and then press **✓**.
3. Press **▼** to highlight **I/O**, and then press **✓**.
4. Press **▼** to highlight **EMBEDDED JETDIRECT MENU**, and then press **✓**.
5. Press **▼** to highlight **LINK SPEED**, and then press **✓**.
6. Select the appropriate link speed.

## Heartbeat LED

The heartbeat LED indicates that the formatter is functioning correctly. While the printer is initializing after you turn it on, the LED blinks rapidly, and then turns off. When the printer has finished the initialization sequence, the heartbeat LED pulses on and off.

# Printer resets

The following sections describe the type of printer resets and power-on models.

## Cold reset

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








**NOTE** Before performing a cold reset, print a menu map and a configuration page. Use the information on the configuration page to reset any customer-set printer configuration values that the cold reset procedure changes.



**WARNING!** Performing a cold reset erases all of the EIO card and Jetdirect Inside.

## To perform a cold reset

1. Turn the printer off.
2. Turn the printer on. When the printer begins its memory count, press and hold down  until all three printer control-panel lights flash once and then remain on. This might take up to 10 seconds.
3. Release .
4. After **SELECT LANGUAGE** appears on the control-panel display, press  or  until **COLD RESET** is highlighted.
5. Press . The printer performs a cold reset and then continues its power-on sequence.
6. Check all I/O settings and reset any customer-set printer configuration values.

## NVRAM initialization



**CAUTION** Initializing the NVRAM resets the event log, the page counts, the EIO card, and Jetdirect Inside. Initializing the NVRAM also resets the service menu values to factory defaults. Use the **SERVICE** menu to restore the page count. Also, reconfigure any computers that print to this printer so that the computers can recognize the printer. Initialize the NVRAM only when absolutely necessary. In most situations, use a cold reset rather than a NVRAM initialization to reset printer settings, because the values in the **SERVICE** menu are retained after a cold reset.

**CAUTION** Never perform a full NVRAM initialization because a significant amount of data will be lost on the formatter. Lost information will include the serial number, model number (cannot be restored), firmware code (cannot be restored), page count, and EIO and Jetdirect inside configuration information.



**NOTE** Before performing a NVRAM initialization, print a menu map and a configuration page (see [Configuration pages on page 283](#)). Use the information on the configuration page to reset any customer-set printer configuration values that the NVRAM initialization procedure changes. Take special note of the total page count and the serial number.

## To initialize NVRAM

1. Remove any installed accessories (such as the EIO card).
2. Turn the printer off.
3. Turn the printer on. When the printer begins its memory count, press and hold down ▼ until all three printer control-panel lights flash once and then remain on. This might take up to 10 seconds.
4. Press ▼.
5. Press ✓. The control-panel display should show **NVRAM INIT**.
6. Press ✓. The printer initializes NVRAM and then continues its power-on sequence.

## Perform the self test

1. Turn the printer off.
2. Turn the printer on. When the printer begins its memory count, press and hold ✓ until all three printer control-panel lights flash once and then remain on. This might take up to 10 seconds.
3. Press ▲ or ▼ until **SELF TEST** is highlighted.
4. Press ✓. The printer continues the power-on sequence and begins to continuously print configuration pages.
5. Press the **Stop** button to exit the self test.

## Save + Restore

When you exchange the formatter and the DC controller, it is important that they are *not* replaced at the same time. The HP LaserJet 5200 Series printer has a Save and Restore feature which saves the printer settings in NVRAM on the formatter and DC controller. These printer settings include not only printer identity (for example, model, printer name, serial number, and Jetdirect Inside), but also custom printer settings that the user has established. When the printer is turned on after either a new formatter or a new DC controller is installed, it recognizes that the new formatter or DC controller does not have the saved NVRAM settings. The printer then writes to the NVRAM on the new formatter or DC controller. Avoid these two repair mistakes when servicing the formatter or the DC controller on any HP LaserJet 5200 Series printer:

- Do *not* replace the formatter and DC controller at the same time. If the formatter and the DC controller are replaced at the same time (the old parts removed and the new parts immediately installed), the NVRAM is blank. You then have to call HP and escalate to HP Advanced Technical Services (ATS) in order to reset the printer. In some cases, such as Jetdirect Inside, the information is not recoverable.
- If a previously used DC controller is installed (one that was previously installed in another printer, even if only for one power cycle), the printer compares the NVRAM on the DC controller (which contains other printer settings) to the NVRAM on the formatter (which contains the current printer settings), but the Save + Restore feature will not work as intended. In some cases, such as for changes to Jetdirect Inside, the information is not recoverable.

To prevent a printer downgrade situation:

- Do *not* reuse a DC controller that has been installed in another printer even if that DC controller was only used for one power cycle. If a DC controller has been installed in a printer and the printer was turned on, the DC controller is considered used.
- Do *not* replace the formatter and the DC controller at the same time.

## Replacing the formatter and the DC controller

---

**CAUTION** Follow the steps exactly in the order they are presented when you replace the formatter and the DC controller on the same printer. Failure to follow these steps correctly might result in additional service or printer replacement.

---

1. Print a configuration page. See [Configuration pages on page 283](#).
2. Turn the printer off.
3. Remove the formatter and install the new formatter.
4. Turn the printer on and wait five minutes after reaching the **Ready** state.



---

**NOTE** A five-minute wait time is required at certain points in the parts replacement process to allow the NVRAM settings to be written.

---

5. Turn the printer off.
6. Remove the DC controller and install the new DC controller.
7. Turn the printer on and wait five minutes after reaching the **Ready** state.



---

**NOTE** A five-minute wait time is required at certain points in the parts replacement process to allow the NVRAM settings to be written.

---

8. Print a configuration page and, if possible, verify the settings against the original settings on a recent configuration page. See [Configuration pages on page 283](#). Specifically, verify the printer series and bundle (such as 5200n, 5200dtn) and the printer serial number. If the printer configuration settings differ from the settings that existed before the parts were replaced, the printer settings need to be reset. This can be done with help from HP ATS.

## Replacing the formatter only

1. Print a configuration page. [Configuration pages on page 283](#).
2. Turn the printer off.
3. Remove the formatter and install the new formatter.



---

**NOTE** A five-minute wait time is required at certain points in the parts replacement process to allow the NVRAM settings to be written.

---

4. Print a configuration page and, if possible, verify the settings against the original settings on a recent configuration page. See [Configuration pages on page 283](#). Specifically, verify the printer series and bundle (such as 5200n, 5200dtn) and the printer serial number. If the printer configuration settings differ from the settings that existed before the parts were replaced, the printer settings will need to be reset. This can be done with help from HP ATS.

## Replacing the DC controller only

1. Print a configuration page. See [Configuration pages on page 283](#).
2. Turn the printer off.
3. Remove the DC controller and install the new DC controller.



**NOTE** A five-minute wait time is required at certain points in the parts replacement process to allow the NVRAM settings to be written.

4. Print a configuration page and, if possible, verify the settings against the original settings on a recent configuration page. See [Configuration pages on page 283](#). Specifically, verify the printer series and bundle (such as 5200n, 5200dtn) and the printer serial number. If the printer configuration settings differ from the settings that existed before the parts were replaced, the printer settings will need to be reset. This can be done with help from HP ATS.

## Service menu (service PIN codes)

Authorized HP service technicians can use this menu to gain access to printer settings that are reserved for service personnel. The service menu is protected by use of a personal identification number (PIN). When you select **SERVICE** from the list of menus, you are prompted to type an 8-digit PIN code.



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

Use the PIN code associated with the HP LaserJet 5200 Series model:

- HP LaserJet 5200L: 05520006 (25 ppm)
  - HP LaserJet 5200, 5200n, 5200tn, and 5200dtn: 05520006 (35 ppm)
1. Press **✓** to open the menus. Use **▲** or **▼** to scroll to **SERVICE**, and then press **✓**.
  2. Press **▲** or **▼** until the first digit of the PIN code appears. Press **✓** to save the digit. Repeat this selection procedure until you have typed the entire 8-digit PIN code. You can use **↶** to return to a PIN digit. When the last digit is saved, the service submenu appears on the control-panel display.
  3. Use **▲** or **▼** to scroll to the service menu item that you want, and then press **✓**.
- **Clear event log.** Select this item to clear (reset to zero) the internal event log.
  - **Total page count.** Select this item to set the total number of pages that have been printed to-date. (Typically this is only required when a new formatter is installed.)
  - **Refurbish page count.** Select this item only if the printer has recently been refurbished (equivalent in performance to new condition).
  - **Serial number.** Select this item to update the serial number if you replace the formatter.
  - **Service ID.** Use this item to determine if the printer is still under warranty.
  - **Cold reset paper.** Select this item to reset the default paper size when you replace the formatter or restore factory settings. When you replace a formatter or restore factory settings in a country/region that uses A4 as the standard paper size, use this item to reset the default paper size to A4. (Letter and A4 are the only cold-reset values available.)



## Service ID

This information appears on the configuration page and eliminates the need for customers to keep paper receipts for proof of warranty. The Service ID contains a born-on-date, which is set when the printer is first used by the customer through either the on-board clock (set to GMT at the factory) or through a time server on the customer's network (if available).

### Restoring the Service ID

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

1. To calculate YY, subtract 1990 from the calendar year. For instance, if the printer was first used in 2002, calculate YY as follows:  $2002 - 1990 = 12$  (YY = 12).
2. Subtract 1 from 10 (October is the tenth month of the year):  $10 - 1 = 9$ .

-or-

Multiply 9 by 30:  $9 \times 30 = 270$

-or-

Add 17 to 270:  $270 + 17 = 287$  (DDD = 287)

### Converting the Service ID to an actual date

You can use the printer Service ID number to determine if 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 add 1 to the remainder. The total is the month.
3. The remainder from the calculation in step 2 is the day of the month.

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

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



---

**NOTE** A 6-day grace period is built into the date system.

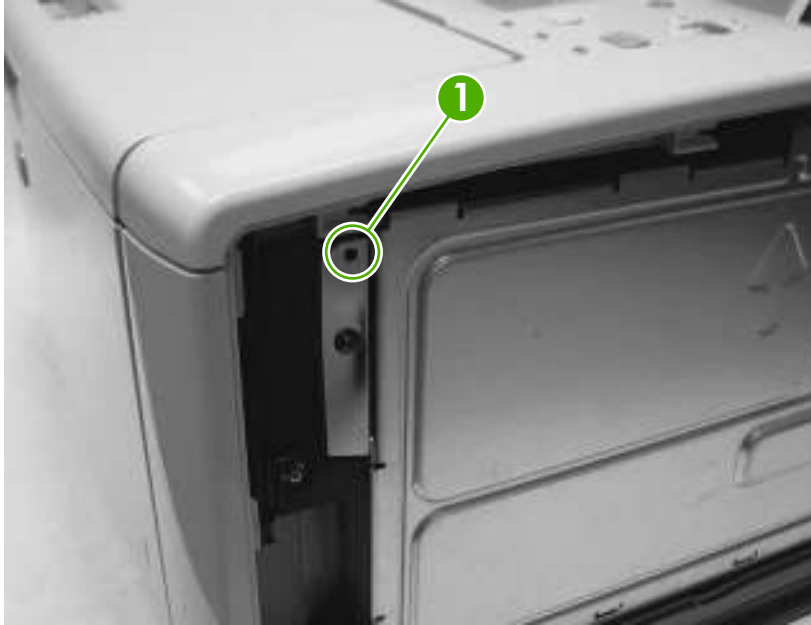
---

## Test pages

Printing test pages helps determine if the printer engine and formatter are functioning.

### Engine-test page

Print an engine test page to make sure that the printer is functioning. Remove the right cover and then use a small, pointed, non-metallic object to depress the test-page switch on the right side of the printer.



**Figure 6-28** Engine-test page switch

The engine-test page should have a series of vertical lines. The test page prints from the last tray that you used to print unless the printer has been turned off and then turned on again since the most recent print job. If the printer has been turned off and then on again since the most recent print job, the page prints from tray 2. The printer continuously prints test pages as long as the test-page switch is depressed. The printer will not print a test page if the printer is in **Sleep** mode.



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

### Formatter-test page

Print a configuration page to make sure that the formatter is functioning.

1. Press **✓** to open the menus.
2. Press **▼** to highlight **INFORMATION**, and then press **✓**.
3. Press **▼** to highlight **PRINT CONFIGURATION**, and then press **✓**.

# Troubleshooting network printing problems



**NOTE** HP recommends that you use the printer CD to install and set up the printer on a network.

- Print a configuration page (see [Configuration pages on page 283](#)). If an HP Jetdirect print server is installed, printing a configuration page also prints a second page that shows the network settings and status.
- See the *HP Jetdirect Embedded Print Server Administrator's Guide* on the printer CD for help and for more information about the Jetdirect configuration page. To open the guide, run the CD, click **Printer Documentation**, click **HP Jetdirect Guide**, and then click **Troubleshooting the HP Jetdirect Print Server**.
- Try printing the job from another computer.
- To verify that a printer works with a computer, use a parallel or USB cable to connect it directly to a computer. You will have to reinstall the printing software. Print a document from a program that has printed correctly in the past. If this works, a problem with the network might exist.
- Contact the network administrator for assistance.

# Troubleshooting common Windows problems

Error message:

"Error Writing to LPTx" in Windows 9x.

Cause	Solution
Media is not loaded.	Make sure that paper or other print media is loaded in the trays.
The cable is defective or loose.	Make sure that the cables are connected correctly, the printer is on, and the Ready light is on.
The printer is plugged into a power strip and is not receiving enough power.	Unplug the power cord from the power strip and plug it into another electrical outlet.
The input/output setting is incorrect.	Click <b>Start</b> , click <b>Settings</b> , and then click <b>Printers</b> . Right-click the HP LaserJet 5200 printer driver and select <b>Properties</b> . Click <b>Details</b> and then click <b>Port Settings</b> . Click to clear the check mark from the <b>Check Port State before Printing</b> box. Click <b>OK</b> . Click <b>Spool Setting</b> and then click <b>Print Directly to Printer</b> . Click <b>OK</b> .

Error message:

"General Protection FaultException OE"

"Spool32"

"Illegal Operation"

Cause	Solution
	Close all software programs, restart Windows, and try again.
	Select a different printer driver. If the HP LaserJet 5200 PCL 6 driver is selected, switch to a PCL 5e or PS printer driver. You can usually do this from a software program.
	Delete all temp files from the Temp subdirectory. Find the name of the directory by editing the AUTOEXEC.BAT file and looking for the statement "Set Temp =". The name after this statement is the temp directory. It is usually C:\TEMP.
	See the Microsoft Windows documentation that came with the computer for more information about Windows error messages.

# Troubleshooting common Macintosh problems

In addition to the problems that are listed in [Solving general printing problems on page 198](#), this section lists problems that can occur when using a Mac computer.



**NOTE** Setup for USB and IP printing is performed through the Desktop Printer Utility. The printer will *not* appear in the Chooser.

## The printer driver is not listed in Print Center.

Cause	Solution
The printer software might not have been installed or was installed incorrectly.	Make sure that the HP LaserJet 5200 PPD is in the following hard drive folder: <code>Library/Printers/PPDs/Contents/Resources/&lt;lang&gt;.lproj</code> , where "<lang>" represents the two-letter language code for the language in use. If necessary, reinstall the software. See the getting started guide for instructions.
The Postscript Printer Description (PPD) file is corrupt.	Delete the PPD file from the following hard drive folder: <code>Library/Printers/PPDs/Contents/Resources/&lt;lang&gt;.lproj</code> , where "<lang>" represents the two-letter language code for the language in use. Reinstall the software. See the getting started guide for instructions.

## The printer name, IP address, or Rendezvous host name does not appear in the printer list box in the print center.

Cause	Solution
The printer might not be ready.	Make sure that the cables are connected correctly, the printer is on, and the Ready light is on. If you are connecting through a USB or Ethernet hub, try connecting directly to the computer or use a different port.
The wrong connection type might be selected.	Make sure that USB, IP Printing, or Rendezvous is selected, depending on the type of connection that exists between the printer and the computer.
The wrong printer name, IP address, or Rendezvous host name is being used.	Check the printer name, IP address, or Rendezvous host name by printing a configuration page. See <a href="#">Configuration pages on page 283</a> . Verify that the name, IP address, or Rendezvous host name on the configuration page matches the printer name, IP address, or Rendezvous host name in the Print Center.
The interface cable might be defective or of poor quality.	Replace the interface cable. Make sure to use a high-quality cable.

## The printer driver does not automatically set up your selected printer in Print Center.

Cause	Solution
The printer might not be ready.	Make sure that the cables are connected correctly, the printer is on, and the ready light is on. If you are connecting through a USB or Ethernet hub, try connecting directly to the computer or use a different port.

#### The printer driver does not automatically set up your selected printer in Print Center.

Cause	Solution
The printer software might not have been installed or was installed incorrectly.	Make sure that the HP LaserJet 5200 PPD is in the following hard drive folder: <code>Library/Printers/PPDs/Contents/Resources/&lt;lang&gt;.lproj</code> , where “<lang>” represents the two-letter language code for the language in use. If necessary, reinstall the software. See the getting started guide for instructions.
The Postscript Printer Description (PPD) file is corrupt.	Delete the PPD file from the following hard drive folder: <code>Library/Printers/PPDs/Contents/Resources/&lt;lang&gt;.lproj</code> , where “<lang>” represents the two-letter language code for the language in use. Reinstall the software. See the getting started guide for instructions.
The printer might not be ready.	Make sure that the cables are connected correctly, the printer is on, and the ready light is on. If you are connecting through a USB or Ethernet hub, try connecting directly to the computer or use a different port.
The interface cable might be defective or of poor quality.	Replace the interface cable. Make sure to use a high-quality cable.

#### A print job was not sent to the printer that you wanted.

Cause	Solution
The print queue might be stopped.	Restart the print queue. Open <b>print monitor</b> and select <b>Start Jobs</b> .
The wrong printer name or IP address is being used. Another printer with the same or similar name, IP address, or Rendezvous host name might have received your print job.	Check the printer name, IP address, or Rendezvous host name by printing a configuration page. See <a href="#">Configuration pages on page 283</a> . Verify that the name, IP address, or Rendezvous host name on the configuration page matches the printer name, IP address, or Rendezvous host name in the Print Center.


#### An encapsulated PostScript (EPS) file does not print with the correct fonts.

Cause	Solution
This problem occurs with some programs.	<ul style="list-style-type: none"><li>Try downloading the fonts that are contained in the EPS file to the printer before printing.</li><li>Send the file in ASCII format instead of binary encoding.</li></ul>

#### You are unable to print from a third-party USB card.

Cause	Solution
This error occurs when the software for USB printers is not installed.	When adding a third-party USB card, you might need the Apple USB Adapter Card Support software. The most current version of this software is available from the Apple Web site.

**When connected with a USB cable, the printer does not appear in the Macintosh Print Center after the driver is selected.**

Cause	Solution
This problem is caused by either a software or a hardware component.	<p><b>Software troubleshooting</b></p> <ul style="list-style-type: none"><li>• Check that your Macintosh supports USB.</li><li>• Verify that your Macintosh operating system is Mac OS X V10.1 or later.</li><li>• Ensure that your Macintosh has the appropriate USB software from Apple.</li></ul> <p><b>Hardware troubleshooting</b></p> <ul style="list-style-type: none"><li>• Check that the printer is turned on.</li><li>• Verify that the USB cable is connected correctly.</li><li>• Check that you are using the appropriate high-speed USB cable.</li><li>• Ensure that you do not have too many USB devices drawing power from the chain. Disconnect all of the devices from the chain, and connect the cable directly to the USB port on the host computer.</li><li>• Check to see if more than two nonpowered USB hubs are connected in a row on the chain. Disconnect all of the devices from the chain and connect the cable directly to the USB port on the host computer.</li></ul> <div> <b>NOTE</b> The iMac keyboard is a nonpowered USB hub.</div>

## Troubleshooting Linux problems

For information about Linux problem solving, go to the HP Linux support Web site:  
[hp.sourceforge.net/](http://hp.sourceforge.net/).

# Troubleshooting common PostScript problems

The following situations are specific to the PostScript (PS) language and might occur when several printer languages are being used. Check the control-panel display for messages that might help resolve problems.



**NOTE** To receive a printed or screen message when PS errors occur, open the **Print Options** dialog box and click the selection next to the PS Errors section that you want.

## General problems

**The job prints in Courier (the printer default typeface) instead of the typeface that you requested.**

Cause	Solution
The requested typeface is not downloaded.	Download the font that you want and send the print job again. Verify the type and location of the font. Download the font to the printer if applicable. Check the software documentation for more information.

**A legal page prints with clipped margins.**

Cause	Solution
The print job was too complex.	You might need to print your job at 600 dpi, reduce the complexity of the page, or install more memory.

**A PS error page prints.**

Cause	Solution
The print job might not be PS.	Make sure that the print job is a PS job. Check to see whether the software program expected a setup or PS header file to be sent to the printer.



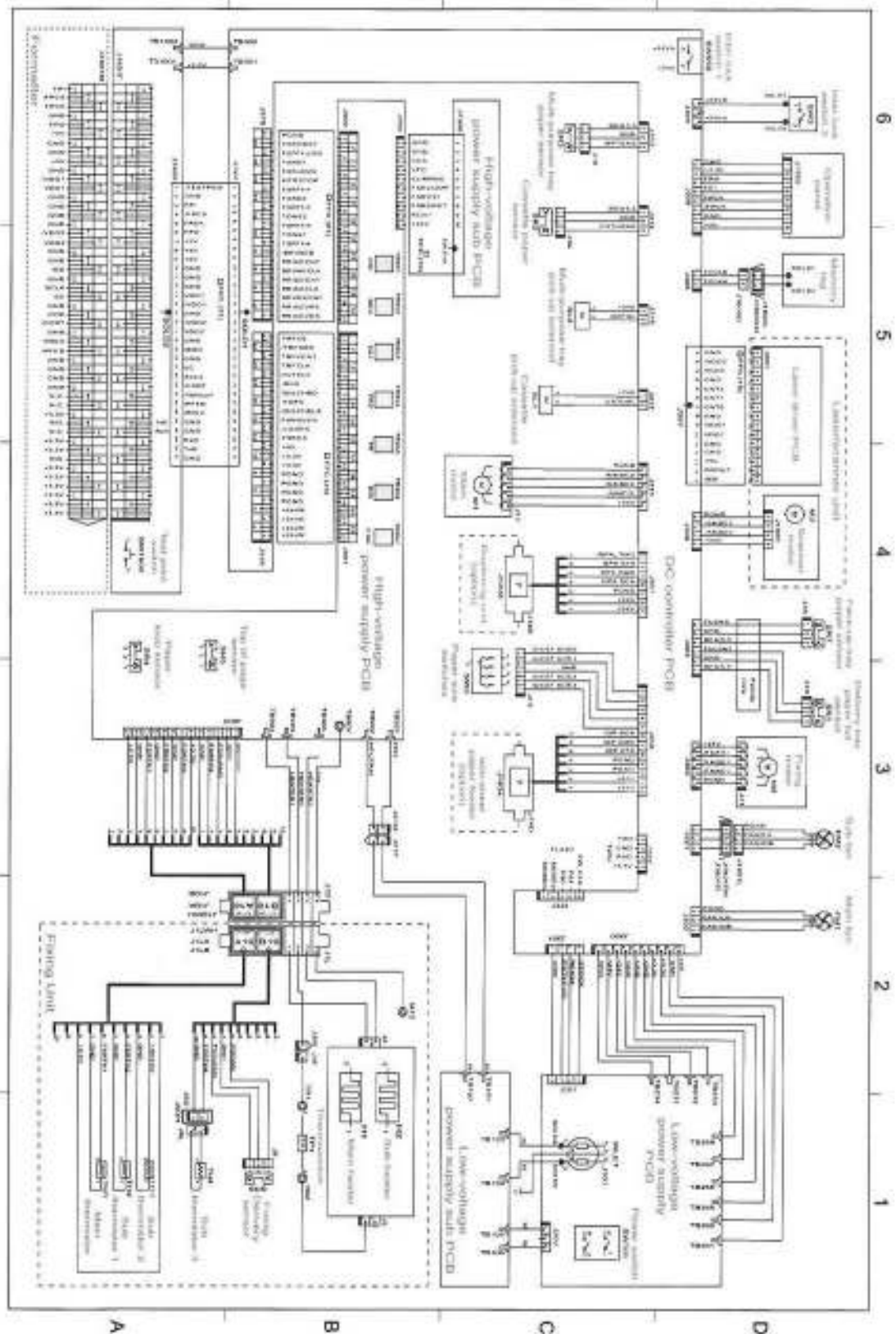
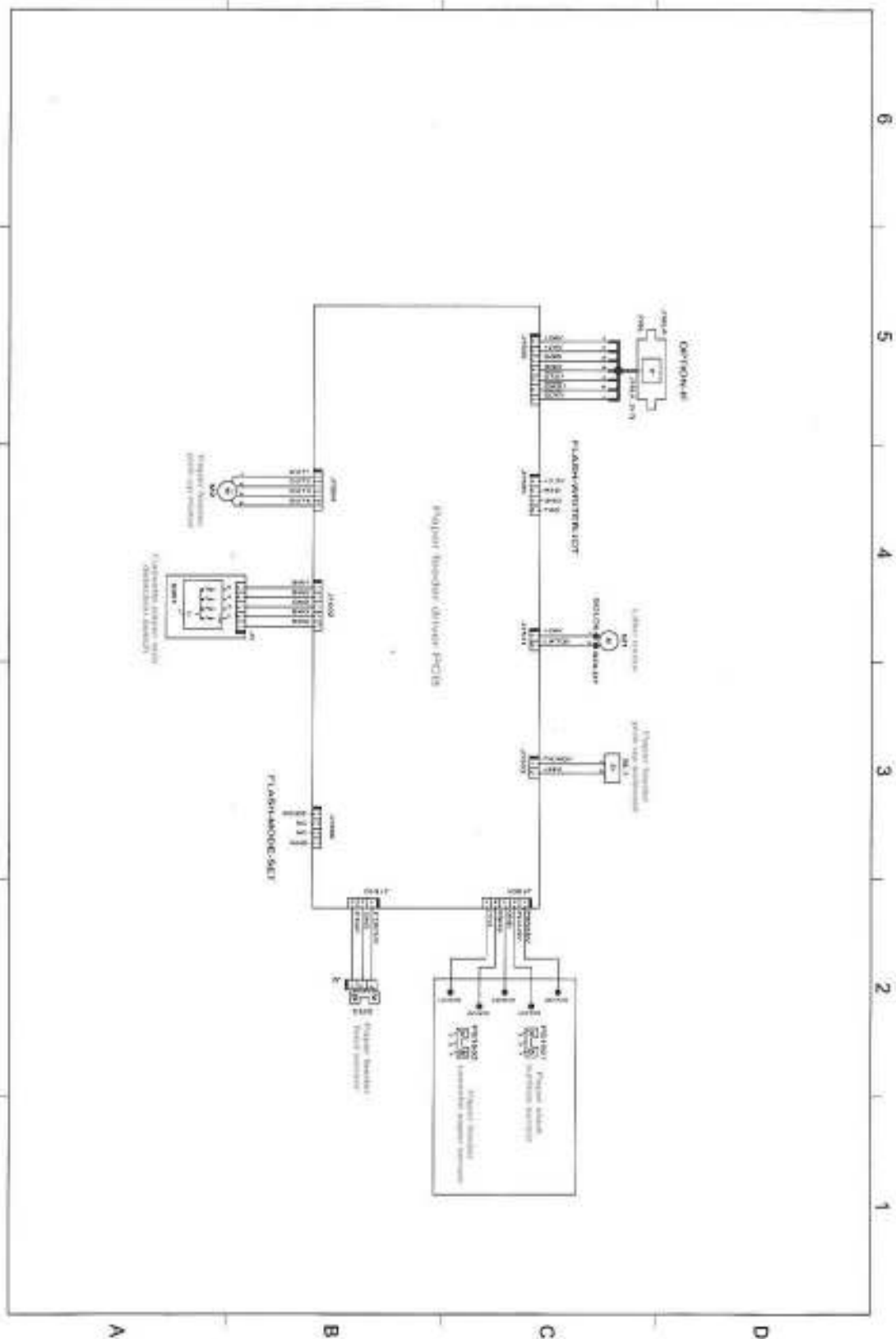


Figure 6-29 Circuit diagram (1 of 3)



**Figure 6-30** Circuit diagram (2 of 3)





## 7 Parts and diagrams

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:

- [www.hp.com/ssg/parts/direct\\_order.html](http://www.hp.com/ssg/parts/direct_order.html)
- HP Parts Store: [www.hp.com/buy/parts](http://www.hp.com/buy/parts)
- Partsurfer: [www.partsurfer.hp.com](http://www.partsurfer.hp.com)
- HP Parts Portal: [www.hp.com/go/HPparts](http://www.hp.com/go/HPparts)

## How to use the parts lists and diagrams


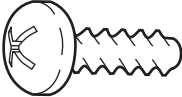
The figures in this chapter show the major subassemblies in the printer and their component parts. A parts list table follows each exploded-view assembly diagram. Each table lists the item number, the associated part number, and the description of each part. If a part is not listed in the table, then 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	M3X6	XA9-1503-000CN	
	Screw	M3X8	XA9-1686-000CN	
	Screw	P-M3X8	XB4-5300-807CN	
	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

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

## Accessories and supplies

**Table 7-2** Accessories and supplies

Item	Part number	Service/exchange number	Description
Internal (EIO) connectivity	J7934A		HP Jetdirect 620n print server (10/100-TX Ethernet)
500-sheet feeder (tray 3)	Q7548A		Optional accessory
Duplexer	Q7549A		Optional accessory
Memory (DIMMs)	 <b>NOTE</b> A minimum of an additional 64 MB is needed when adding a duplexer to the printer.		
	Q7713-67951		Synchronous 32 MB DDR SDRAM DIMM
	Q7714-67951		Synchronous 48 MB DDR SDRAM DIMM
	Q7715-67951		Synchronous 64 MB DDR SDRAM DIMM
	Q7718-67951		Synchronous 128 MB DDR SDRAM DIMM
	Q7719-67951		Synchronous 256 MB DDR SDRAM DIMM
	Q7719-67951		Synchronous 512 MB DDR SDRAM DIMM
Printer supplies	Q7516-67901		Black print cartridge
Cable	C6518A		USB 2.0 printer cable (2-meter [6.5-feet] standard)
	C6520A		USB 2.0 printer cable (3-meter [9.8-feet] standard)
	C2946A		IEEE-1284 parallel (3-meter [9.8-feet] standard)
	92215S		Mac DIN-8 printer cable



**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		200 sheets HP LaserJet High Gloss paper (letter)
	C4179A		200 sheets HP LaserJet Soft Gloss paper (letter)
	C4179B		200 sheets HP LaserJet Soft Gloss paper (A4)
	Q6547A		200 sheets HP LaserJet High Gloss paper (A4)
	Q6548A		200 sheets HP LaserJet Soft Gloss paper (A3)
	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		<i>HP LaserJet Printer Family Print Media Specification Guide</i>
	5021-0378		<i>PCL/PLJ Technical Reference Package</i>  For downloadable versions, go to <a href="http://www.hp.com/support/lj5200">www.hp.com/support/ lj5200</a> . When connected, select <b>Manuals</b> .
Assembly, service, and training CD	Q7543-60112		CD based service and training information (English)

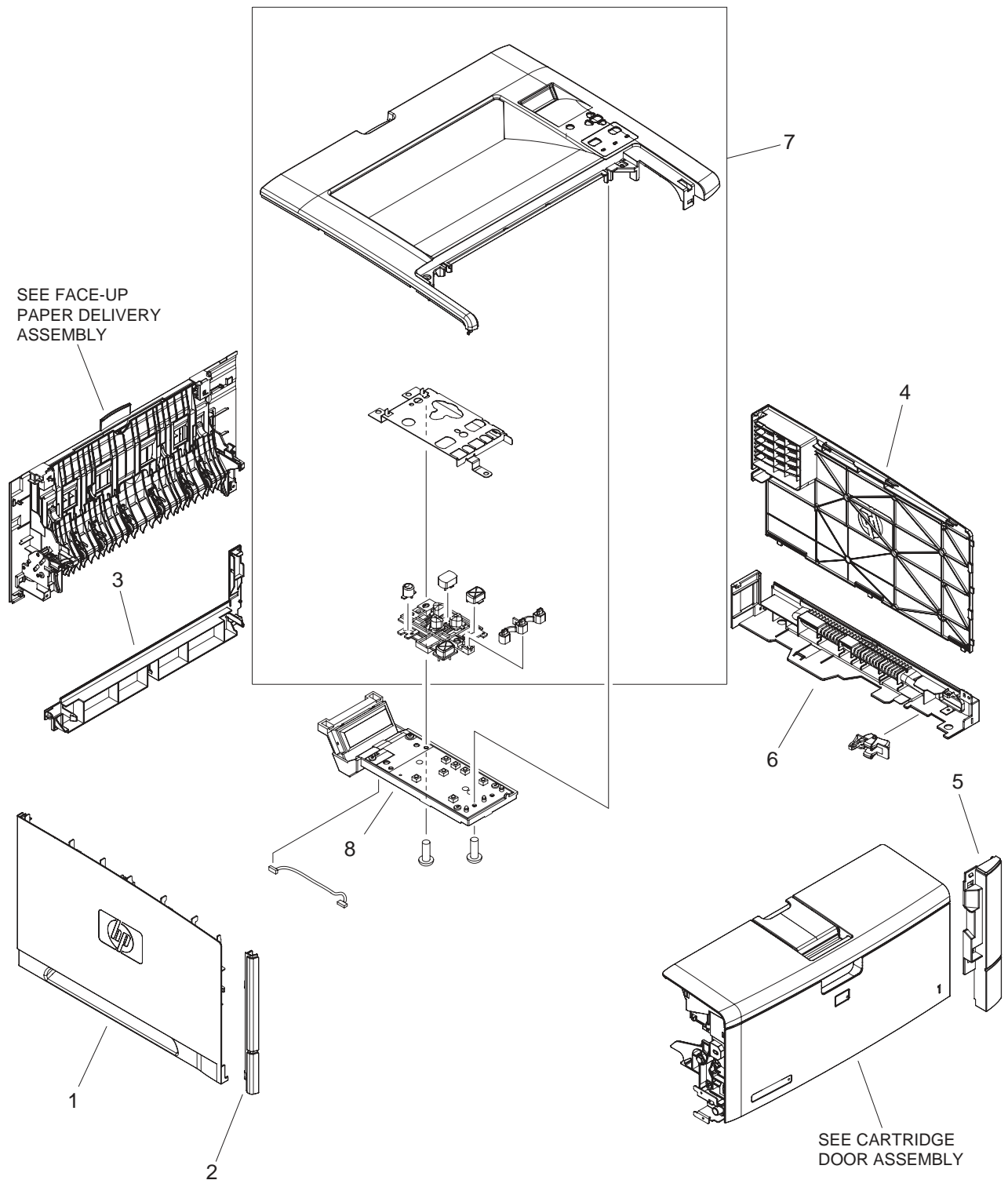
**Table 7-2** Accessories and supplies (continued)

Item	Part number	Service/exchange number	Description
Service manual (this manual)	Q7543-90934		Printed copy of this manual
Control-panel overlays	Q7543-60107		Italian, Spanish, Portuguese
	Q7543-00030		Finnish
	Q7543-00031		French
	Q7543-00032		German
	Q7543-00033		English
	Q7543-00034		Hebrew
	Q7543-00035		Hungarian
	Q7543-00036		Italian
	Q7543-00037		Korean
	Q7543-00038		Norwegian
	Q7543-00039		Polish
	Q7543-60108		German, French, Netherlands
	Q7543-00040		Portuguese
	Q7543-00041		Russian
	Q7543-00042		Simplified Chinese
	Q7543-00043		Spanish
	Q7543-00044		Swedish
	Q7543-00045		Traditional Chinese
	Q7543-00046		Thai
	Q7543-00047		Turkish
	Q7543-00050		Japanese
	Q7543-60109		Norwegian, Swedish, Finnish
	Q7543-60110		Czech, Hungarian, Polish
	Q7543-00026		Arabic
	Q7543-00027		Czech
	Q7543-00028		Danish
	Q7543-00029		Netherlands
	Q7543-60114		German, French, Italian

**Table 7-2** Accessories and supplies (continued)

Item	Part number	Service/exchange number	Description
Formatter	Q6497-67901 (new)		48 MB (base model)
	Q6497-69001 (exchange)		
	Q6498-67901 (new)		64 MB (5200n and 5200tn)
	Q6498-69001 (exchange)		128 MB (5200dtn)
	Q6499-67901 (new)		36 MB (5200L)
	Q6499-69001 (exchange)		

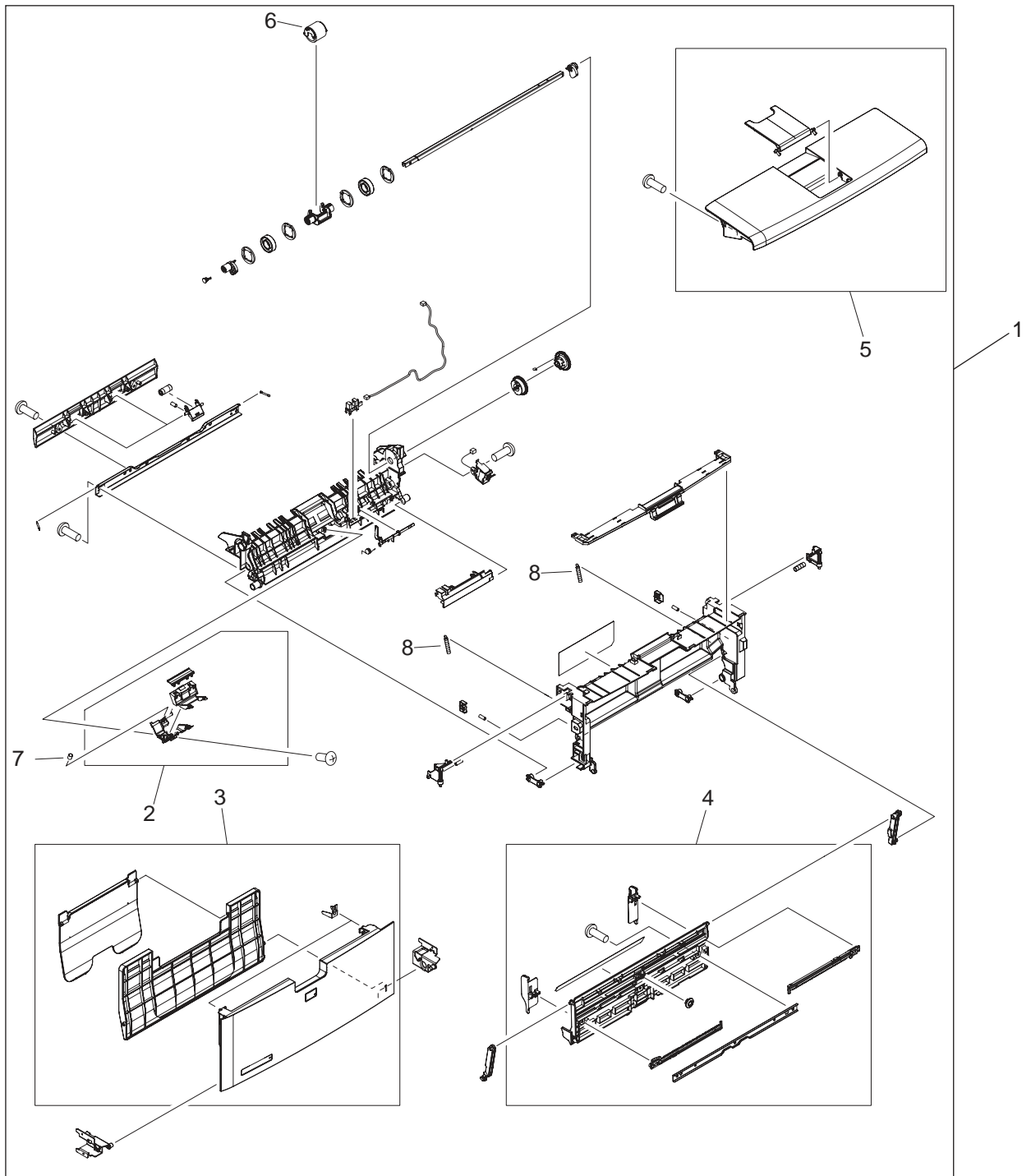
## External panels and covers



**Figure 7-1** External panel and covers

**Table 7-3** External panels and covers

Ref	Description	Part number	Qty
1	Cover, left	RC1-7051-000CN	1
2	Cover, left front	RC1-7052-000CN	1
3	Cover, rear lower	RC1-7174-000CN	1
4	Cover, right	RC1-7211-000CN	1
5	Cover, right front	RC1-7212-000CN	1
6	Cover, right lower	RC1-7210-000CN	1
7	Top cover assembly	RM1-2471-000CN	1
8	PCB, operation panel	RK2-1097-000CN	1

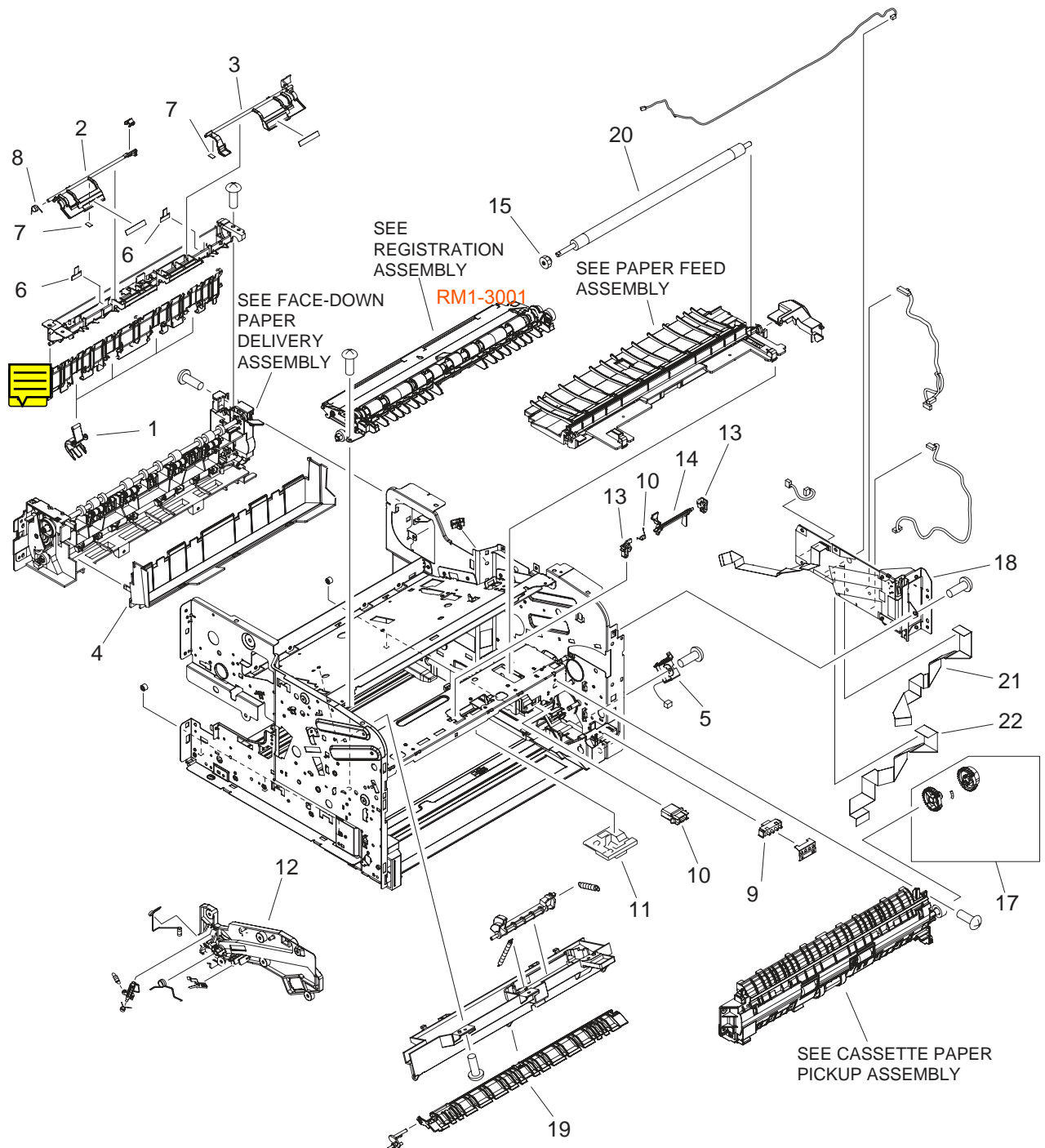


**Figure 7-2** Cartridge door unit

**Table 7-4** External panels and covers

Ref	Description	Part number	Qty
1	Cartridge door unit	RM1-2458-000CN	1
2	Multipurpose pad assembly	RM1-2462-000CN	1
3	Multipurpose cover assembly	RM1-2463-000CN	1
4	Multipurpose tray assembly	RM1-2465-000CN	1
5	Cartridge cover assembly	RM1-2470-000CN	1
6	Roller, multipurpose paper pickup	RL1-0915-000CN	1
7	Spring, compression	RU5-2553-000CN	1
8	Spring, tension	RU5-2548-000CN	1

## Internal components

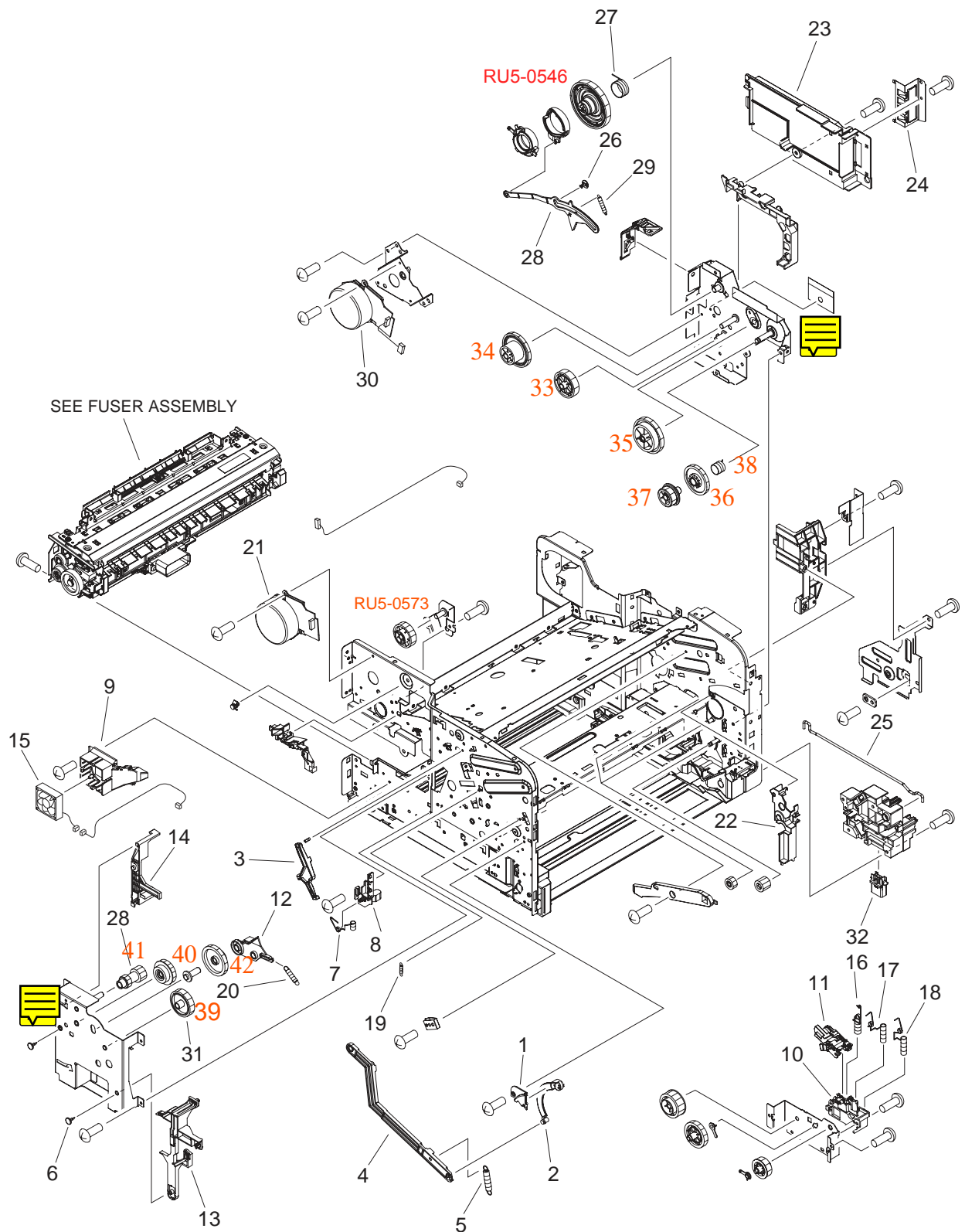


**Figure 7-3** Internal components (1 of 3)



**Table 7-5** Internal components (1 of 3)

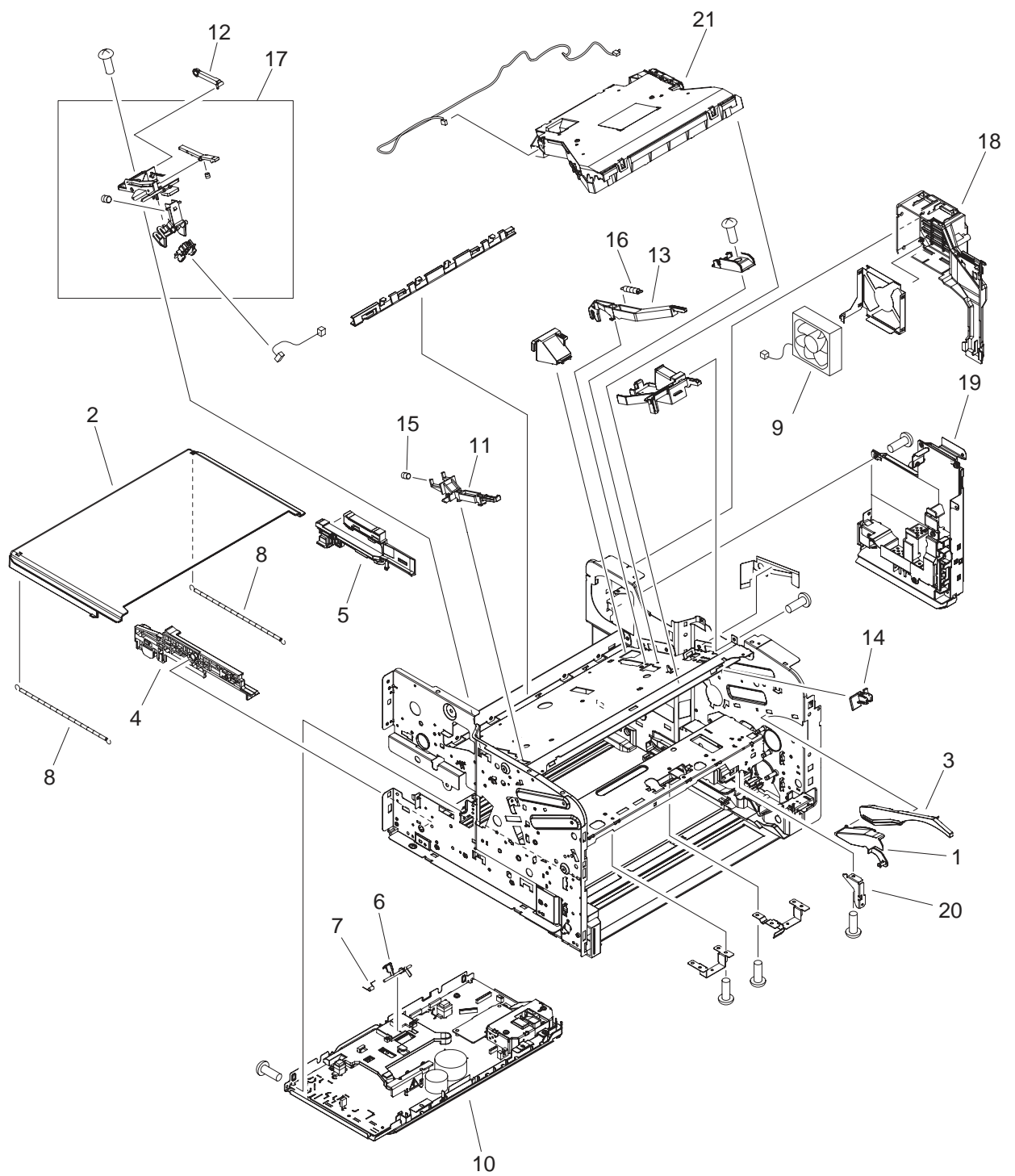
Ref	Description	Part number	Qty
1	Cover, paper-delivery roller	RC1-7047-000CN	4
2	Flag, face-down	RC1-7460-000CN	1
3	Flag, paper-full detect	RC1-7459-000CN	1
4	Cover, face-down	RC1-7192-000CN	1
5	Solenoid	RK2-1096-000CN	1
6	Sheet, flag	RC1-7461-000CN	2
7	Sheet, face-down	RC1-7462-000CN	2
8	Spring, torsion	RU5-2584-000CN	1
9	Switch, cassette-size detect	RK2-1103-000CN	1
10	Connector, drawer	VS1-7258-007CN	1
11	Holder, top sensor	RC1-7268-000CN	1
12	Guide, cartridge, left	RC1-7121-000CN	1
13	Bushing	RC1-7249-000CN	2
14	Flag, top sensor	RC1-7261-000CN	1
15	Gear, 13T	RU5-0536-000CN	1
16	Spring, torsion	RU5-2596-000CN	1
17	Paper-pickup roller-gear assembly	RM1-2474-000CN	1
18	DC controller assembly	RM1-4098-000CN	1
19	Shutter, fusing	RC1-7163-000CN	1
20	Roller, transfer	RM1-2485-000CN	1
21	Cable, flexible flat, 21P	RK2-1053-000CN	1
22	Cable, flexible flat, 23P	RK2-1055-000CN	1



**Figure 7-4** Internal components (2 of 3)

**Table 7-6** Internal components (2 of 3)

Ref	Description	Part number	Qty
1	Guide, cartridge door stopper	RC1-7022-000CN	1
2	Stopper, cartridge door	RC1-7023-000CN	1
3	Arm, lock	RC1-7244-000CN	1
4	Lever, fuser release	RC1-7405-000CN	1
5	Spring, tension	RU5-2550-000CN	1
6	Stopper, bushing arm	RC1-3090-000CN	2
7	Spring, compression	RC1-7127-000CN	1
8	Holder, fusing bias contact	RC1-7128-000CN	1
9	Holder, fan	RC1-7169-000CN	1
10	Holder, contact	RC1-7241-000CN	1
11	Cover	RC1-7265-000CN	1
12	Plate, fuser swing	RC1-7403-000CN	1
13	Lever, fuser release	RC1-7406-000CN	2
14	Lever, paper-delivery release	RC1-7408-000CN	1
15	Fan, sub	RK2-1091-000CN	1
16	Spring, compression	RU5-2587-000CN	1
17	Spring, compression	RU5-2588-000CN	1
18	Spring, compression	RU5-2589-000CN	1
19	Spring, tension	RU5-2591-000CN	1
20	Spring, tension	RU5-2644-000CN	1
21	Fuser motor assembly	RM1-2538-000CN	1
22	Cover, gear, lower right	RC1-7020-000CN	1
23	Cover, DC controller	RC1-7217-000CN	1
24	Plate, connector grounding	RC1-7220-000CN	1
25	Rod, power-supply switch	RC1-7226-000CN	1
26	Stopper, link	RC1-7288-000CN	1
27	Spring, compression	RU5-2630-000CN	1
28	Lever, coupling	RC1-7285-000CN	1
29	Spring, tension	RU5-2632-000CN	1
30	Main motor assembly	RM1-2516-000CN	1
31	Connector, drawer	VS1-7258-007CN	1

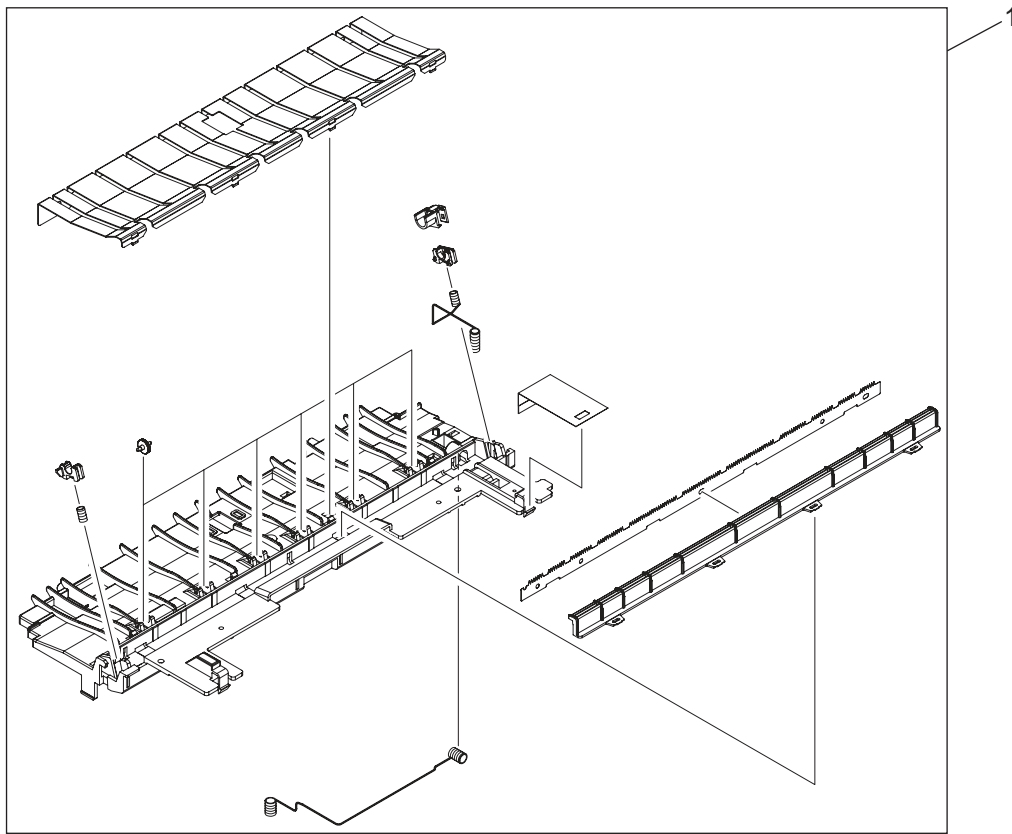


**Figure 7-5** Internal components (3 of 3)

**Table 7-7** Internal components (3 of 3)

Ref	Description	Part number	Qty
1	Cover, gear, upper right	RC1-7209-000CN	1
2	Cover, dust	RC1-7118-000CN	1
3	Guide, cartridge, lower right	RC1-7286-000CN	1
4	Guide, duplexer, left	RC1-7379-000CN	1
5	Guide, duplexer, right	RC1-7380-000CN	1
6	Flag, loop sensor	RC1-7144-000CN	1
7	Spring, torsion	RC1-7145-000CN	1
8	Spring, tension	RU5-2563-000CN	2
9	Fan	RK2-1089-000CN	1
10	High-voltage power supply (110V-127V)	RM1-2957-000CN	1
10	High-voltage power supply (220V-240V)	RM1-2958-000CN	1
11	Link, tag	RC1-7289-000CN	1
12	Link, tag lock	RC1-7294-000CN	2
13	Lever, shutter	RC1-7451-000CN	1
14	Cover, shutter lever	RC1-7452-000CN	1
15	Spring, compression	RU5-2633-000CN	1
16	Spring, tension	RU5-2651-000CN	1
17	Tag holder assembly	RM1-2514-000CN	1
18	Holder, fan	RC1-7434-000CN	1
19	Low-voltage power supply (110V-127V)	RM1-2926-000CN	1
19	Low-voltage power supply (220V-240V)	RM1-2951-000CN	1
20	Plate, cross member auxiliary	RC1-7264-000CN	1
21	Laser/scanner assembly	RM1-2555-000CN	1

## Paper-feed assembly

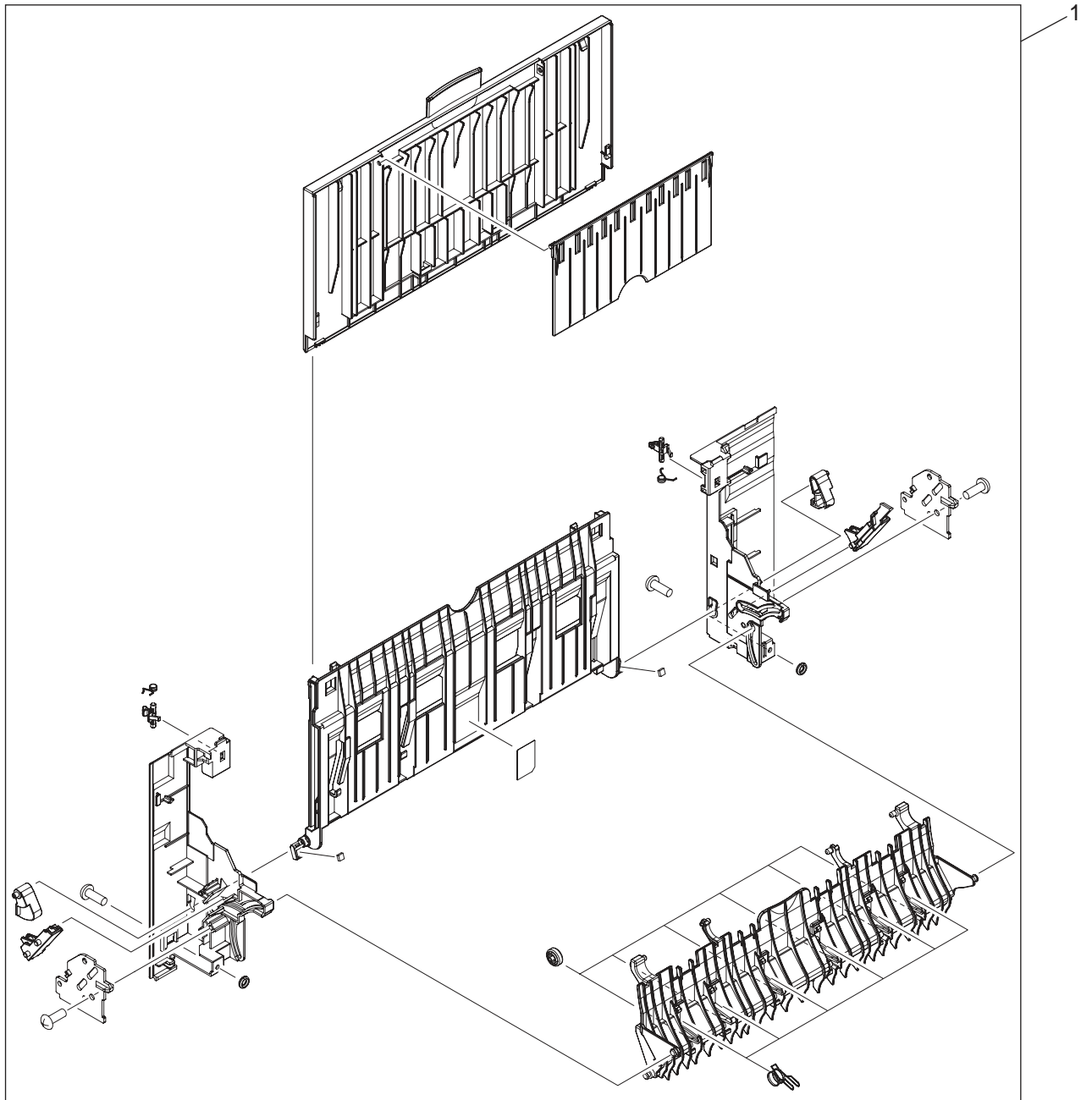


**Figure 7-6** Paper-feed assembly

**Table 7-8** Paper-feed assembly

Ref	Description	Part number	Qty
1	Paper-feed assembly	RM1-2482-000CN	1

## Face-up delivery assembly



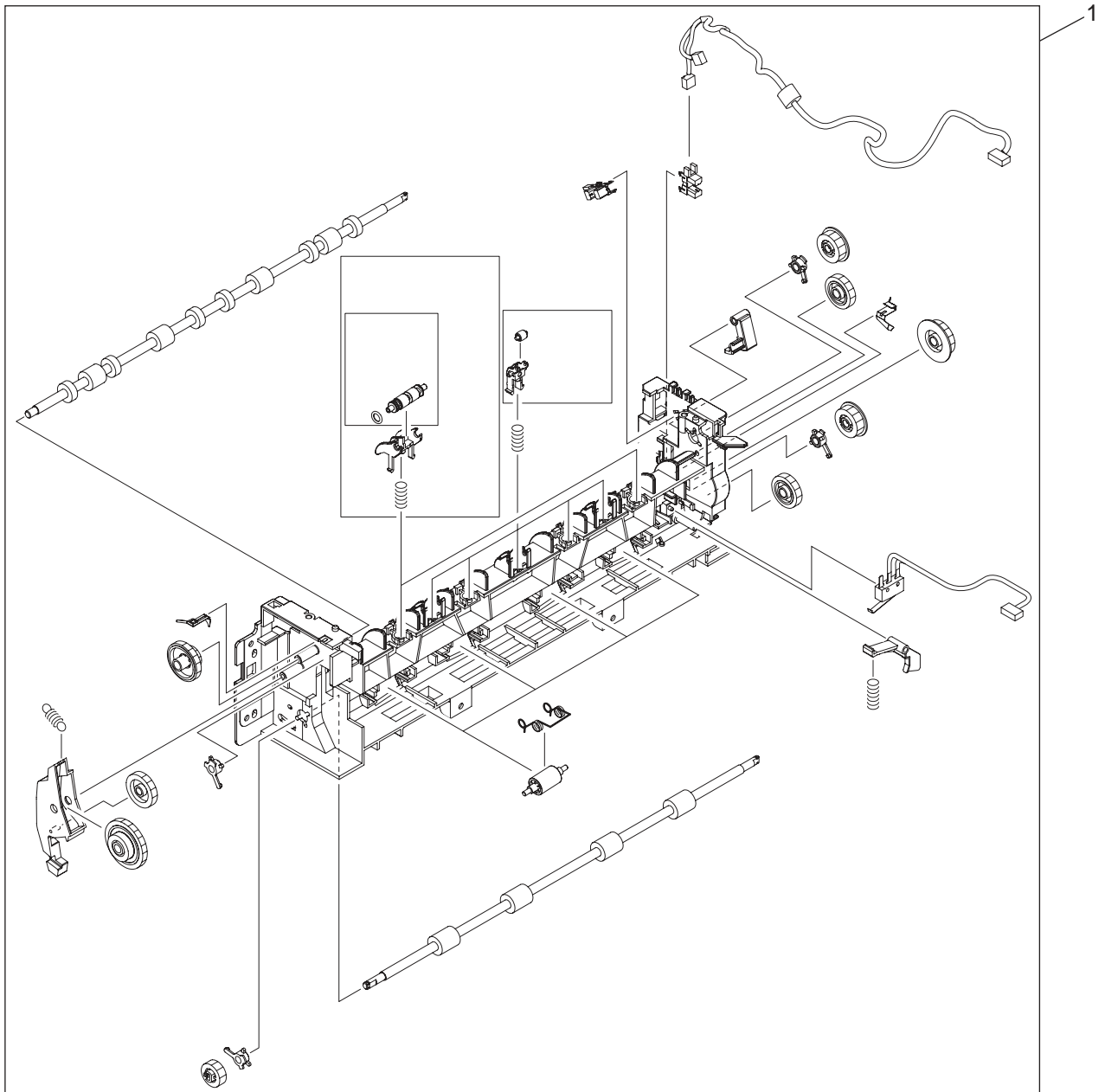
**Figure 7-7** Face-up delivery assembly



**Table 7-9** Face-up delivery assembly

Ref	Description	Part number	Qty
1	Face-up delivery assembly	RM1-2492-000CN	1

## Face-down delivery assembly

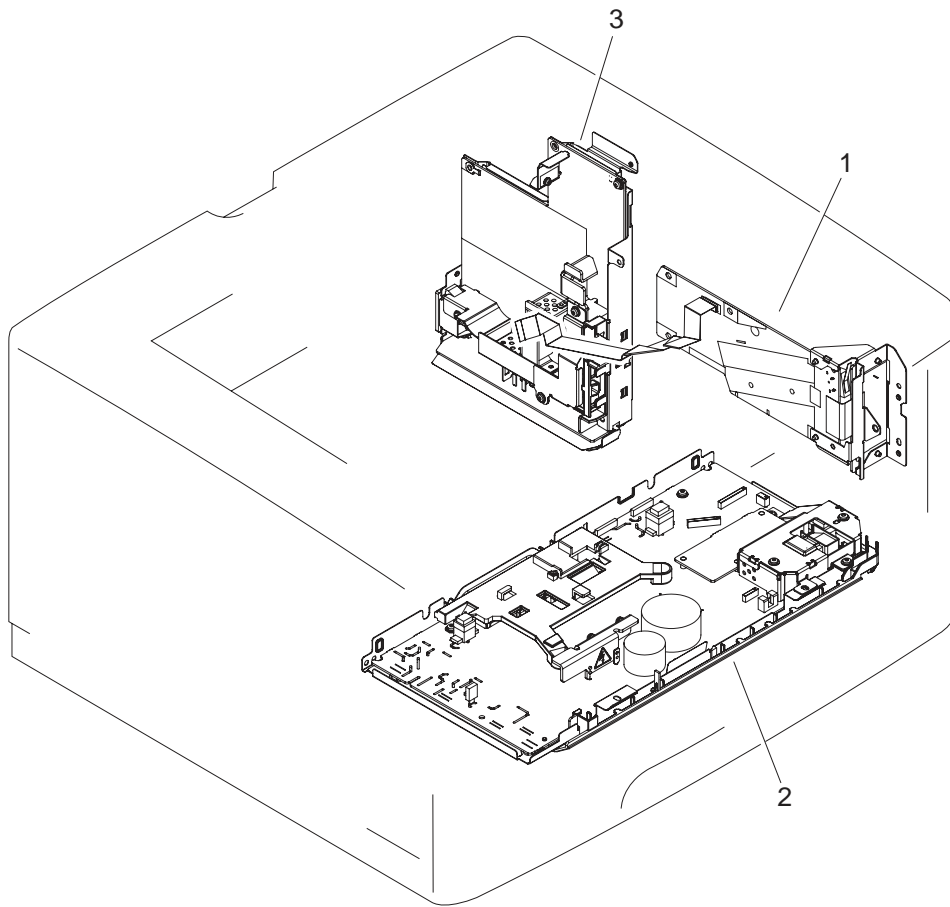


**Figure 7-8** Face-down delivery assembly

**Table 7-10** Face-down delivery assembly

Ref	Description	Part number	Qty
1	Face-down delivery assembly	RM1-2490-000CN	1

## PCAs

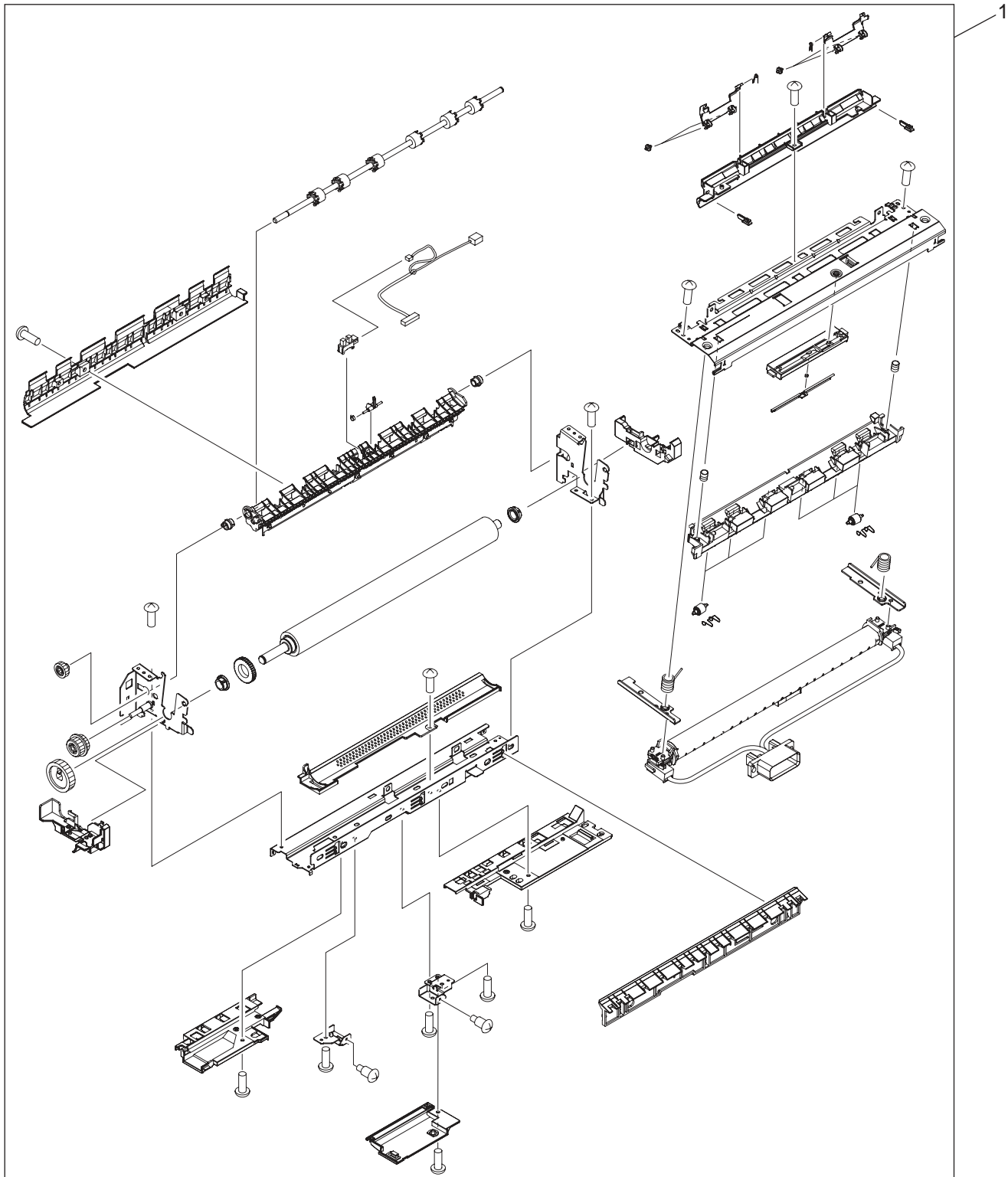


**Figure 7-9** PCA assembly

**Table 7-11** PCA assembly

Ref	Description	Part number	Qty
1	DC controller PCA assembly	RM1-4098-000CN	1
2	High-voltage PCA assembly (110V-127V)	RM1-2957-000CN	1
2	High-voltage PCA assembly (220V-240V)	RM1-2958-000CN	1
3	Low-voltage PCA assembly (110V-127V)	RM1-2926-000CN	1
3	Low-voltage PCA assembly (220V-240V)	RM1-2951-000CN	1

# Fuser

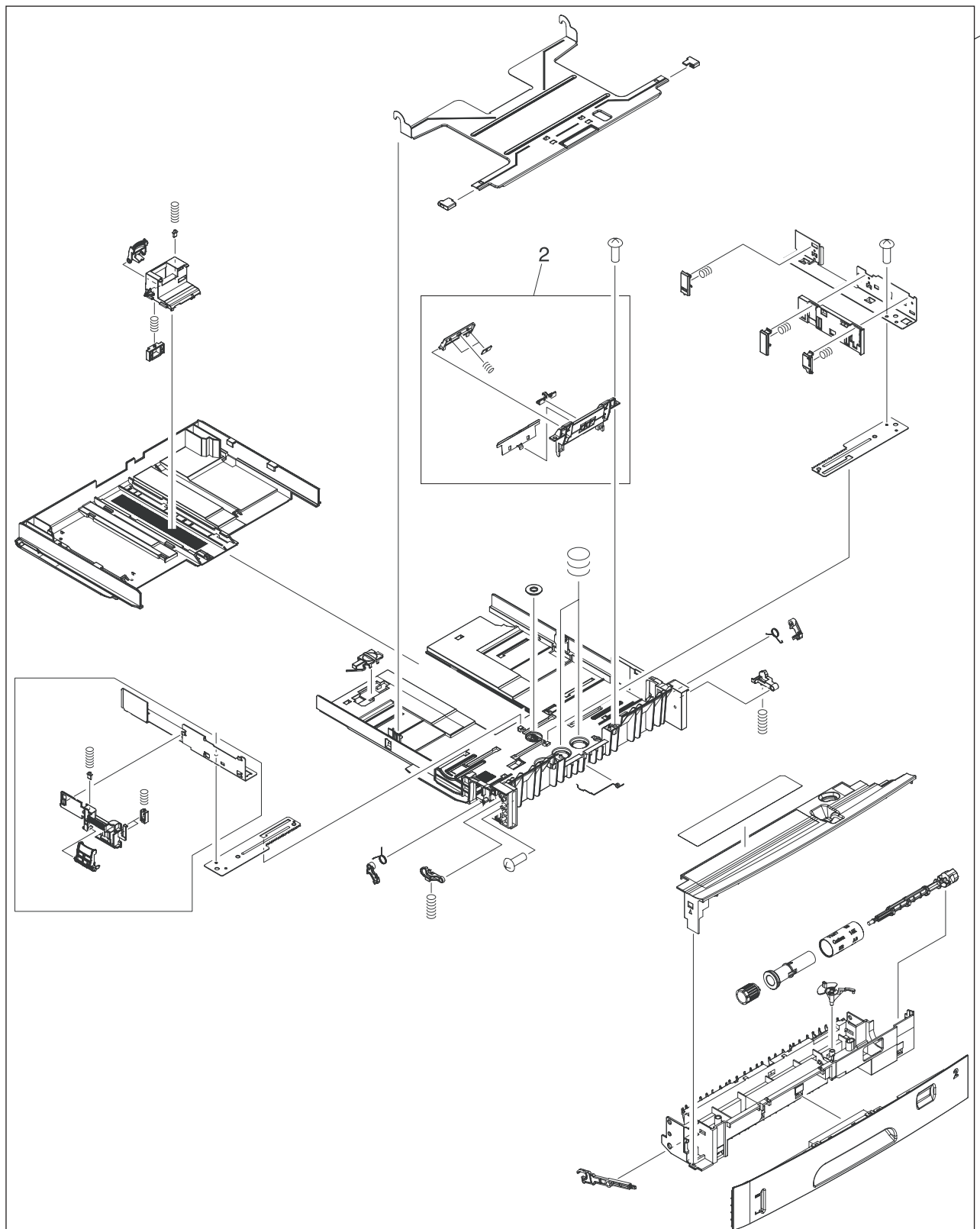


**Figure 7-10** Fuser

**Table 7-12** Fuser

Ref	Description	Part number	Qty
1	Fuser assembly (110V-127V)	RM1-2522-000CN	1
1	Fuser assembly (220V-240V)	RM1-2524-000CN	1

## Cassette (tray 2)



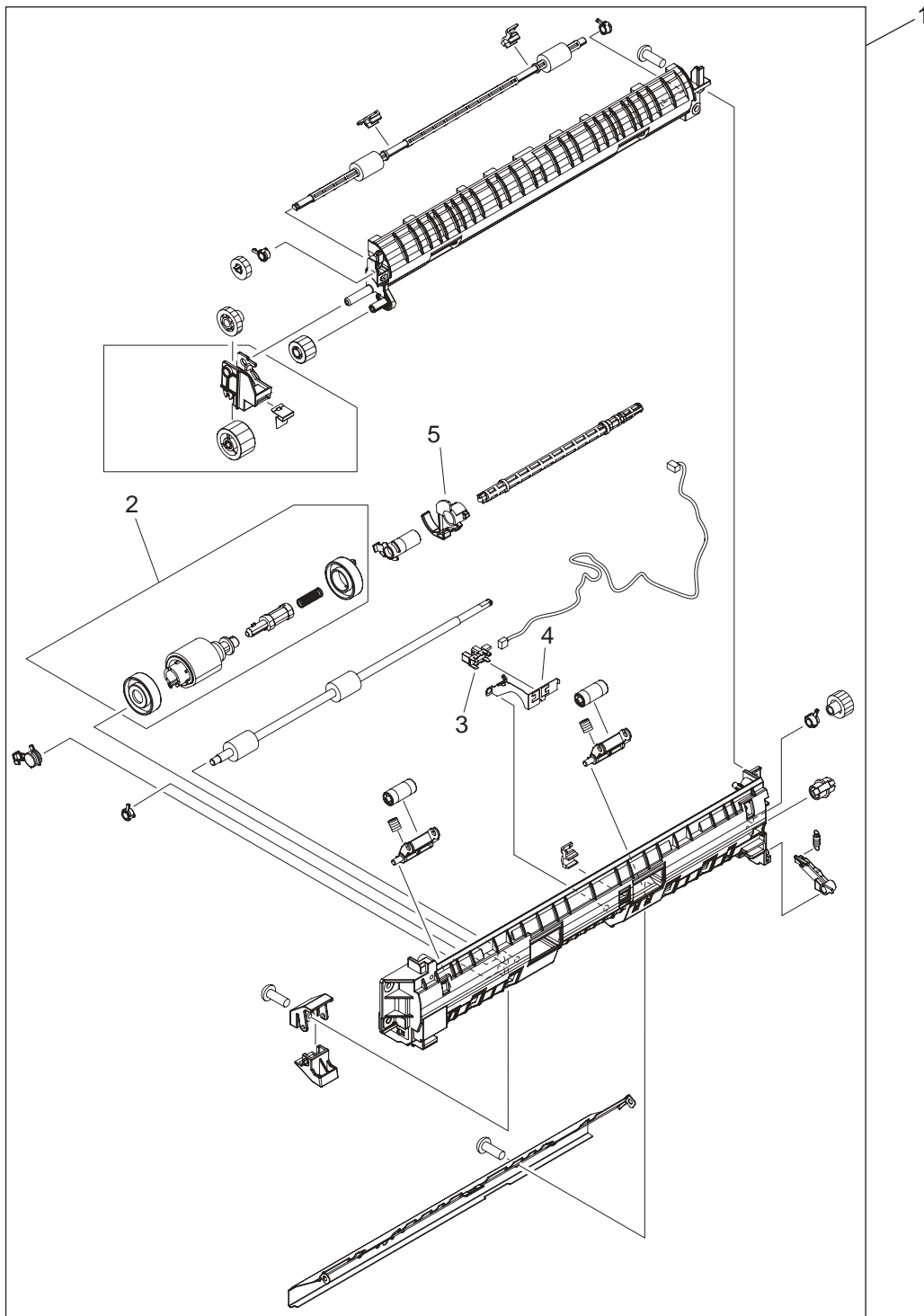
**Figure 7-11** Cassette (tray 2)



**Table 7-13** Cassette (tray 2)

Ref	Description	Part number	Qty
1	Cassette, 250-sheet	RM1-2479-000CN	1
2	Separation-holder assembly	RM1-2546-000CN	1

## Cassette (tray 2) paper-pickup assembly

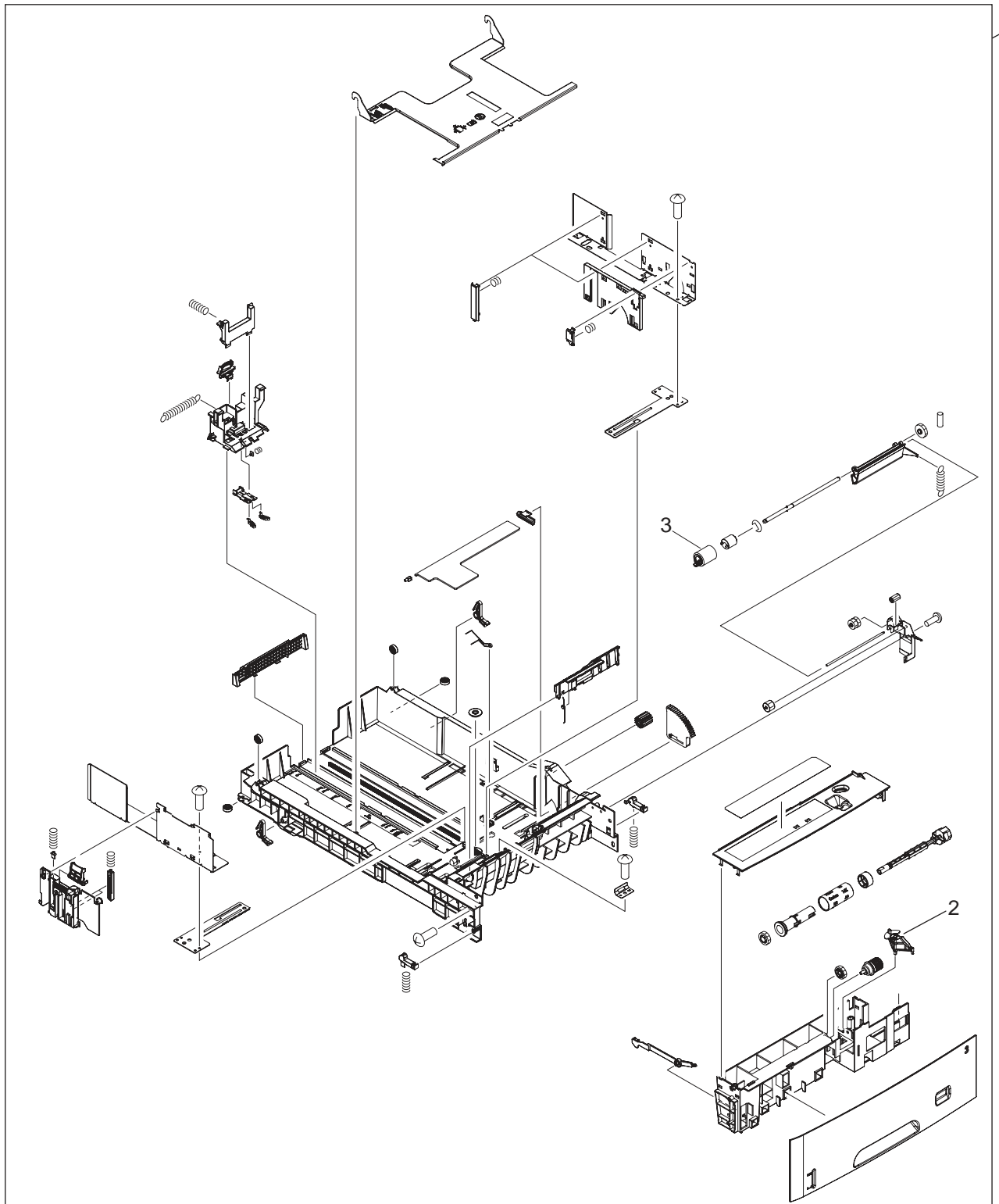


**Figure 7-12** Cassette (tray 2) paper-pickup assembly

**Table 7-14** Cassette (tray 2) paper-pickup assembly

Ref	Description	Part number	Qty
1	Paper-pickup assembly, cassette	RM1-2530-000CN	1
2	Paper-pickup-roller assembly, cassette	RM1-0731-030CN	1
3	Photointerruptor	WG8-5696-000CN	1
4	Cover, sensor, 250-sheet cassette	RC1-7080-000CN	1
5	Lever, paper sensor, 250-sheet cassette	RC1-7410-000CN	1

## 500-sheet feeder cassette (tray 3)

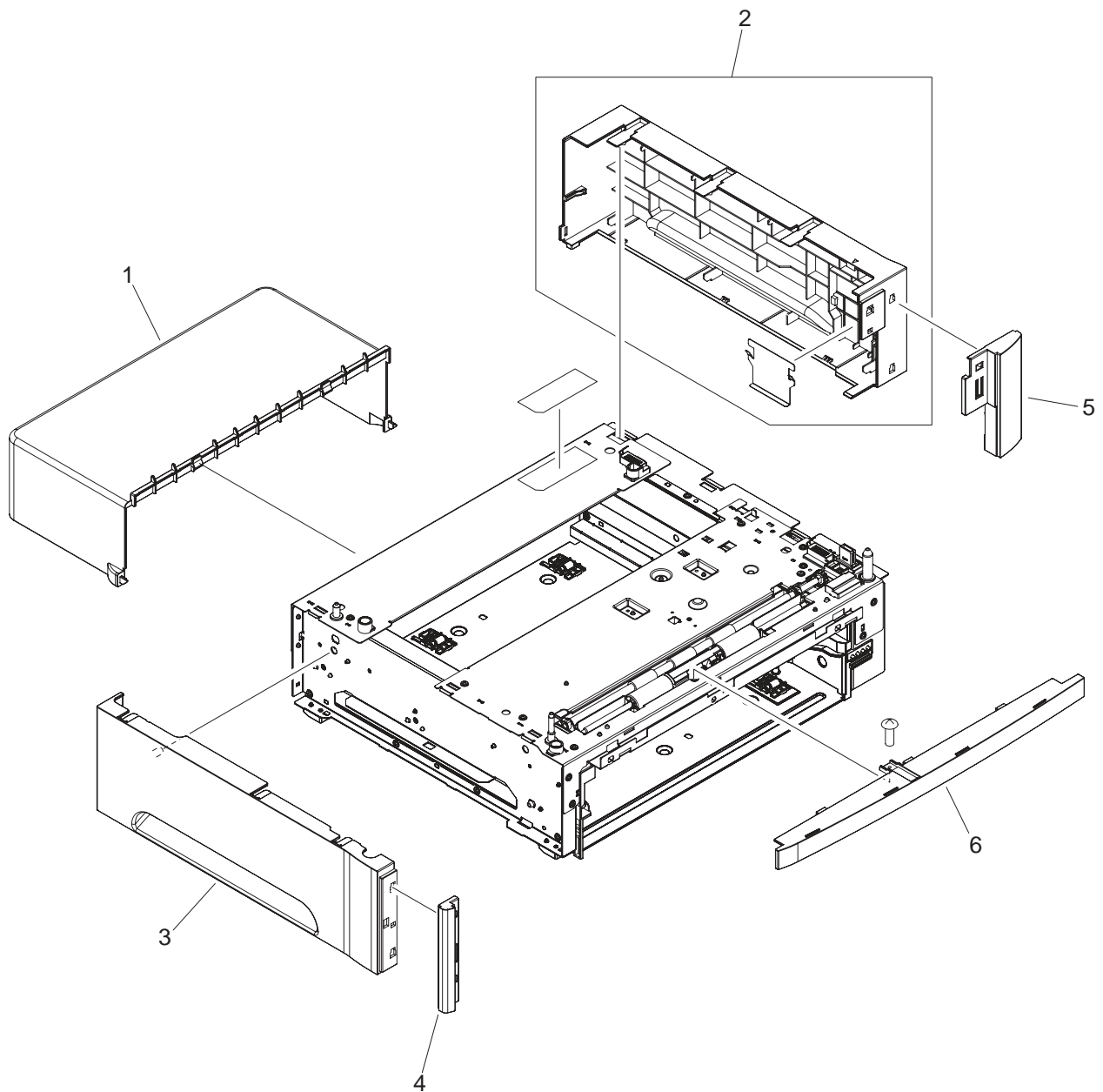


**Figure 7-13** 500-sheet feeder cassette (tray 3)

**Table 7-15** 500-sheet feeder cassette (tray 3)

Ref	Description	Part number	Qty
1	500-sheet cassette (only), tray 3	RM1-2900-000CN	1
2	Flag, size sensing	RC1-7877-000CN	1
3	Paper-feed roller assembly	RM1-0037-020CN	1

## 500-sheet feeder, cassette, external panels and covers

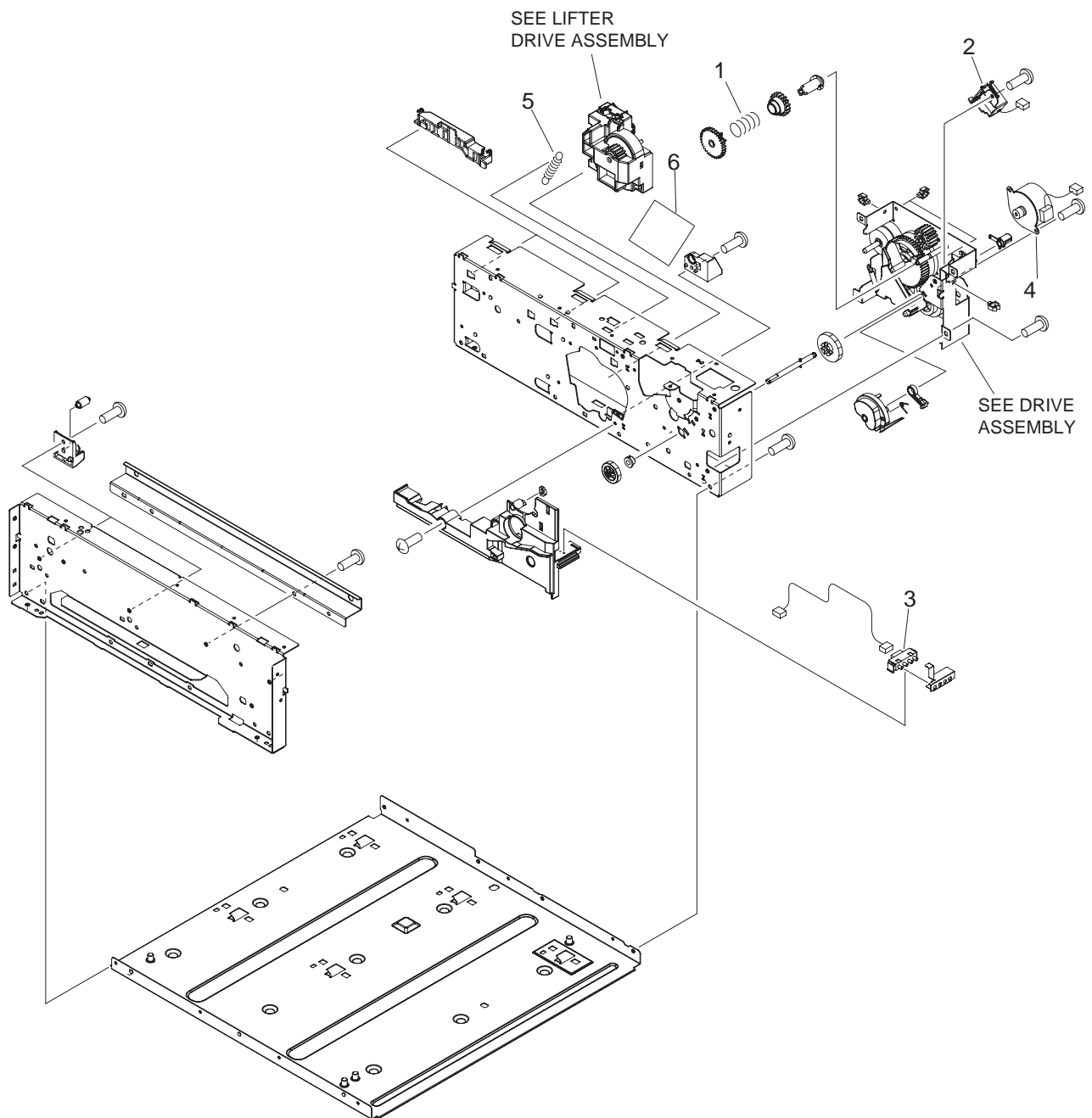


**Figure 7-14** 500-sheet feeder cassette external panels and covers

**Table 7-16** 500-sheet feeder cassette external panels and covers

Ref	Description	Part number	Qty
1	Cover, rear, 500-sheet cassette	RC1-7808-000CN	1
2	Cover, right, 500-sheet cassette	RM1-2899-000CN	1
3	Cover, left, 500-sheet cassette	RC1-7803-000CN	1
4	Cover, left front, 500-sheet cassette	RK2-1062-000CN	1
5	Cover, right front, 500-sheet cassette	RC1-7806-000CN	1
6	Cover, front lower, 500-sheet cassette	RC1-7807-000CN	1

## 500-sheet feeder internal components



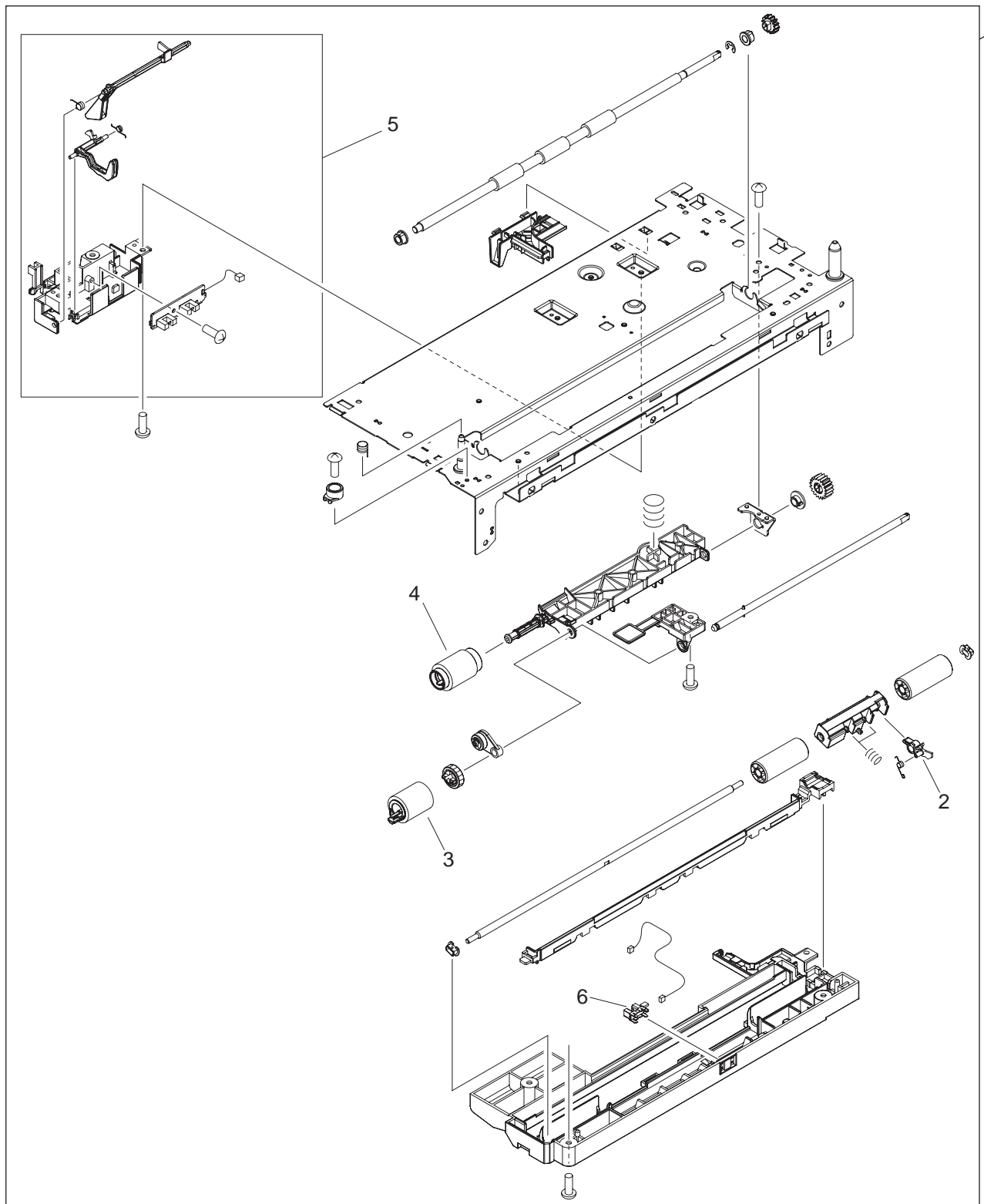
**Figure 7-15** 500-sheet feeder internal components



**Table 7-17** 500-sheet feeder internal components

Ref	Description	Part number	Qty
1	Spring, compression	RU5-2061-000CN	1
2	Solenoid	RK2-0269-000CN	1
3	Switch, cassette-size detect	RK2-1103-000CN	1
4	Motor, stepping, DC	RC1-7804-000CN	1
5	Spring, tension	RC1-0198-000CN	1
6	Paper-feeder driver PCA assembly	RM1-4292-000CN	1

## 500-sheet feeder paper-pickup assembly

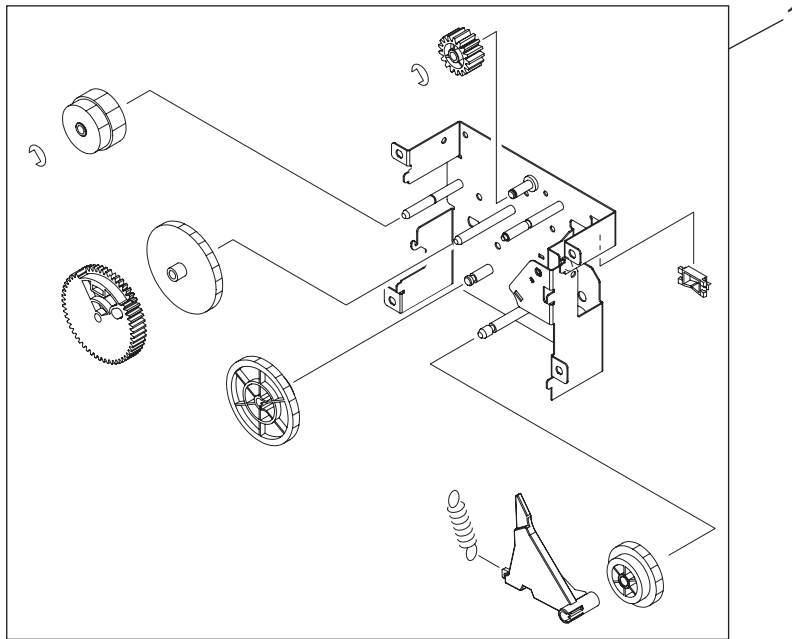


**Figure 7-16** 500-sheet feeder paper-pickup assembly

**Table 7-18** 500-sheet feeder paper-pickup assembly

Ref	Description	Part number	Qty
1	500-sheet feeder paper-pickup assembly	RM1-2896-000CN	1
2	Flag, sensor, top	RC1-7836-000CN	1
3	Paper-pickup-roller assembly (500-sheet feeder)	RM1-0036-020CN	1
4	Paper-feed-roller assembly (500-sheet feeder)	RM1-0037-000CN	1
5	Sensor assembly	RM1-2897-000CN	1
6	Photo interrupter, TLP1243	WG8-5696-000CN	1

## 500-sheet feeder drive assembly

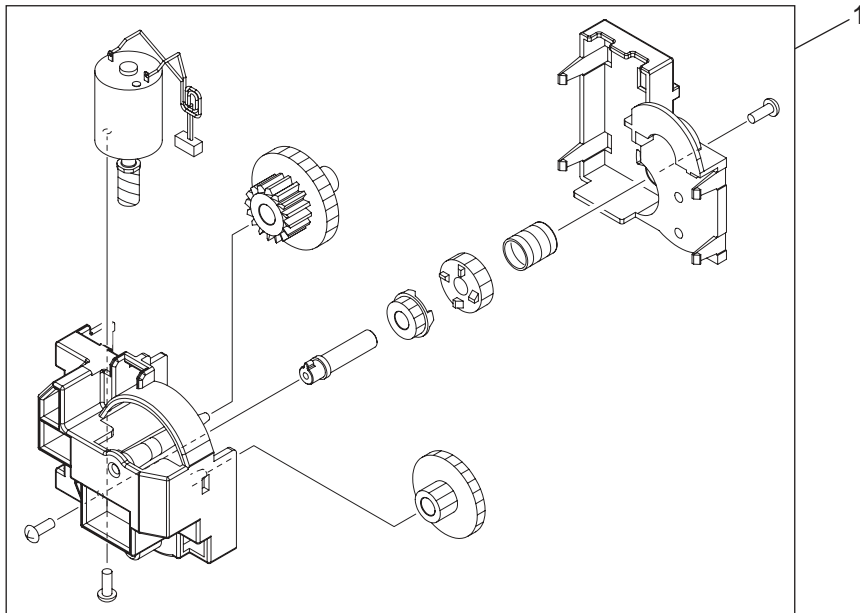


**Figure 7-17** 500-sheet feeder drive assembly

**Table 7-19** 500-sheet feeder drive assembly

Ref	Description	Part number	Qty
1	500-sheet feeder drive assembly	RM1-2909-000CN	1

## 500-sheet feeder lifter-drive assembly

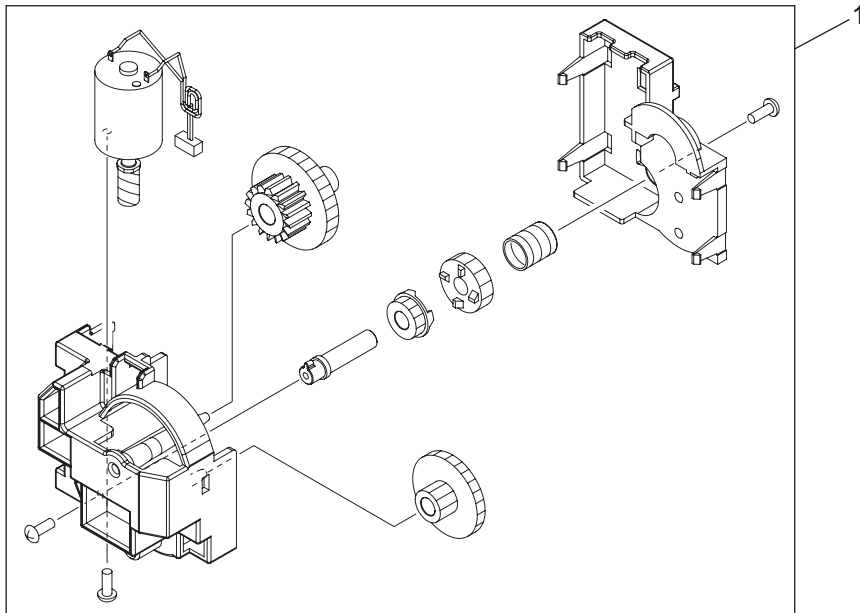


**Figure 7-18** 500-sheet feeder lifter-drive assembly

**Table 7-20** 500-sheet feeder lifter-drive assembly

Ref	Description	Part number	Qty
1	500-sheet feeder lifter-drive assembly	RM1-2912-000CN	1

## 500-sheet feeder PCA



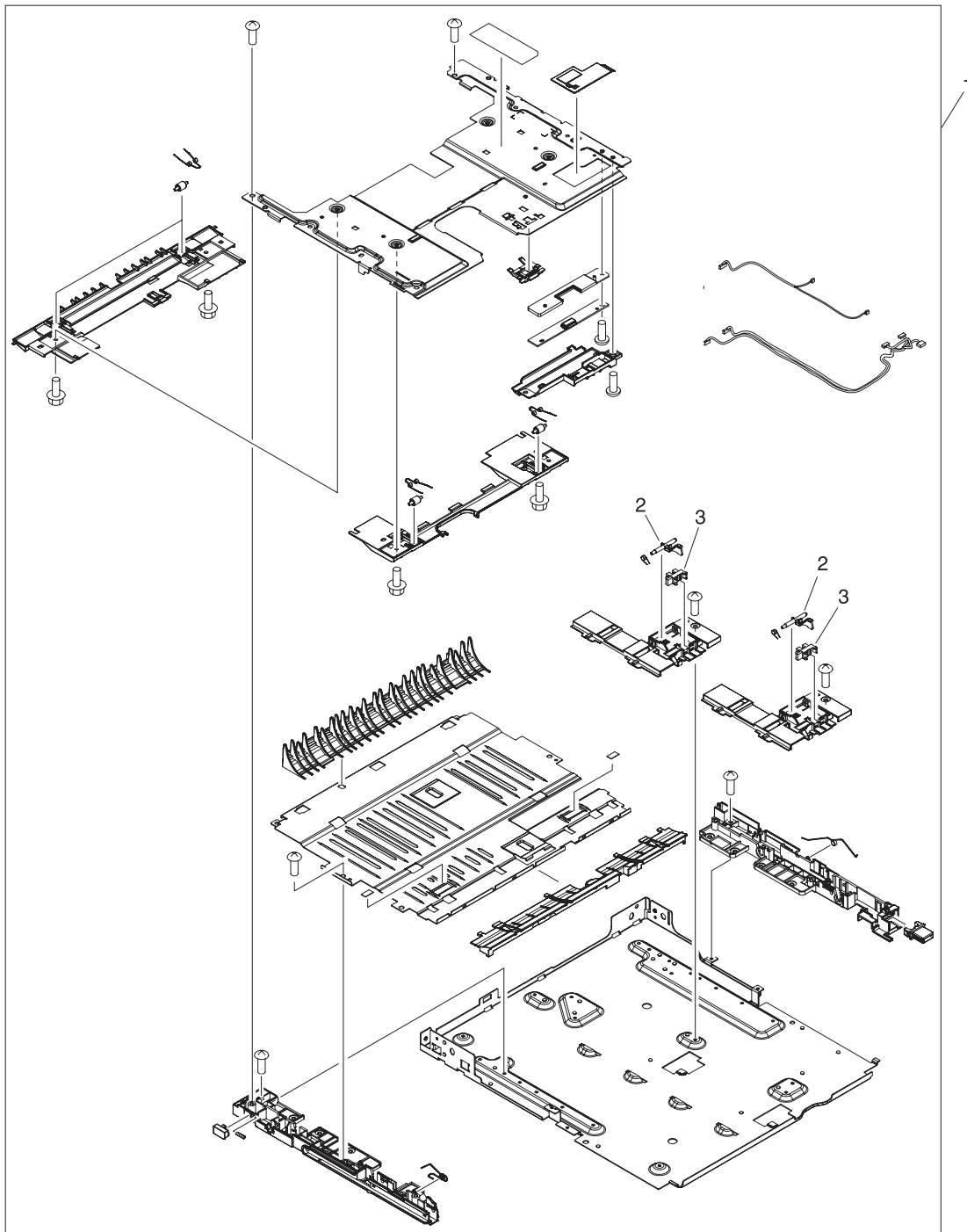
**Figure 7-19** 500-sheet feeder PCA



**Table 7-21** 500-sheet feeder PCA

Ref	Description	Part number	Qty
1	500-sheet feeder PCA	RM1-4292-000CN	1

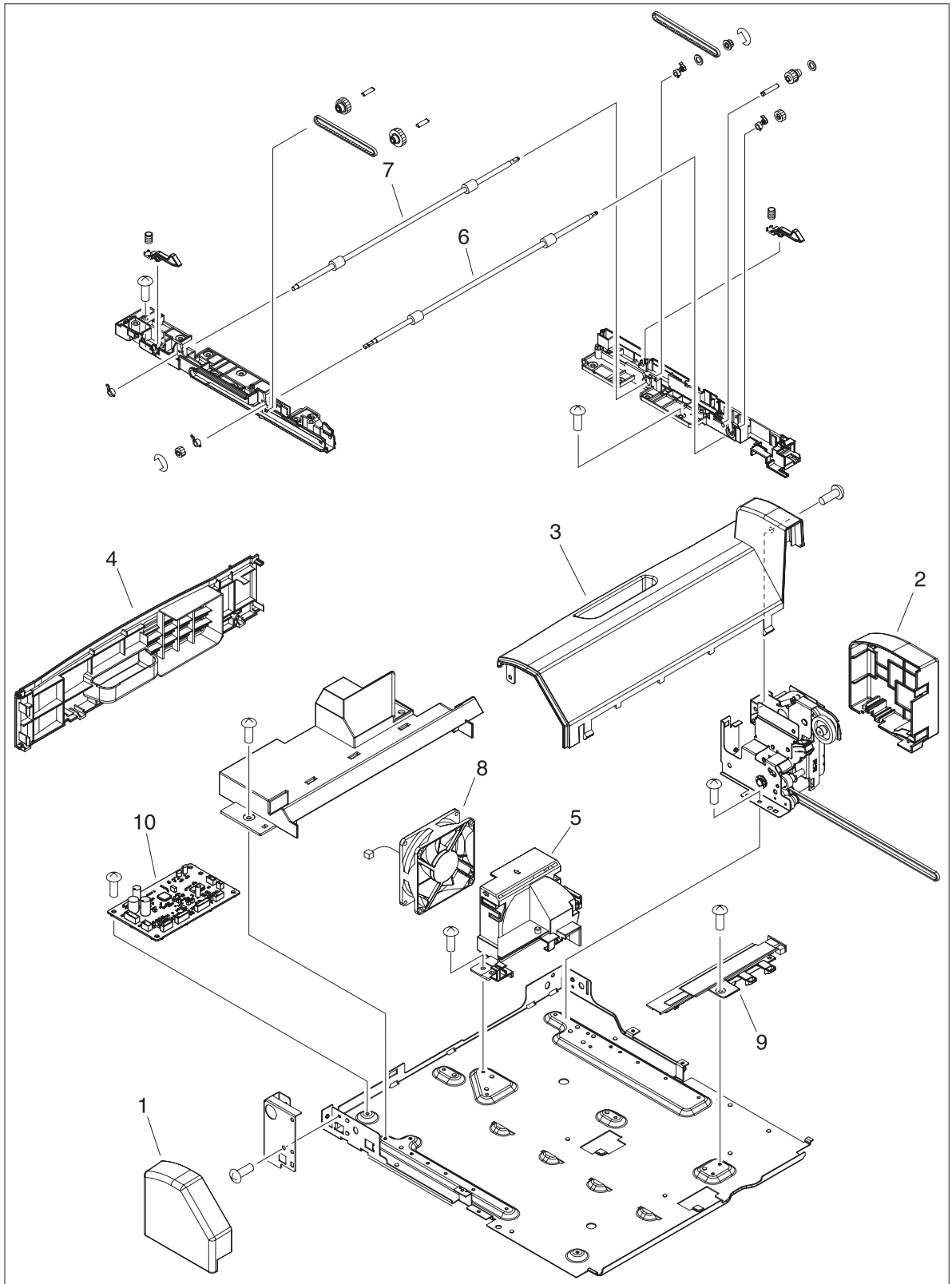
# Duplexer



**Figure 7-20** Duplexer (1 of 2)

**Table 7-22** Duplexer

Ref	Description	Part number	Qty
1	Duplexer	Q7549-67901	1
2	Flag, duplexing jam detect	RC1-7770-000CN	2
3	IC, photo interrupter	WG8-5624-000CN	2

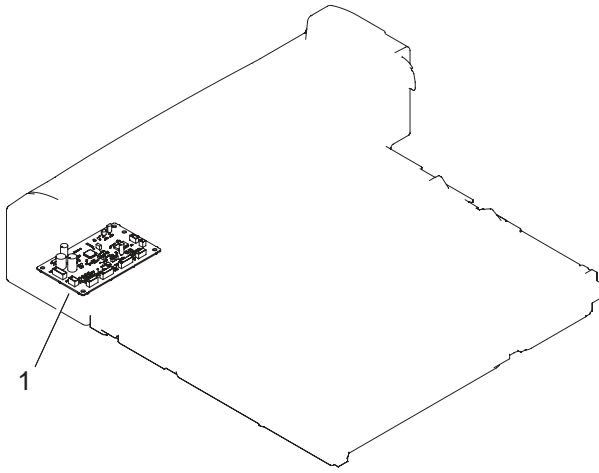


**Figure 7-21** Duplexer (2 of 2)

**Table 7-23** Duplexer

Ref	Description	Part number	Qty
1	Cover, left	RC1-7754-000CN	1
2	Cover, right	RC1-7755-000CN	1
3	Cover, top	RC1-7756-000CN	1
4	Cover, rear	RC1-7757-000CN	1
5	Holder, fan	RC1-7760-000CN	1
6	Roller, paper feed	RC1-7783-000CN	1
7	Roller, paper feed, rear	RC1-7790-000CN	1
8	Fan	RK2-1067-000CN	1
9	Module, light guide	RK2-1069-000CN	1
10	Duplexing controller PCB assembly	RM1-4291-000CN	1

## Duplexing PCA assembly

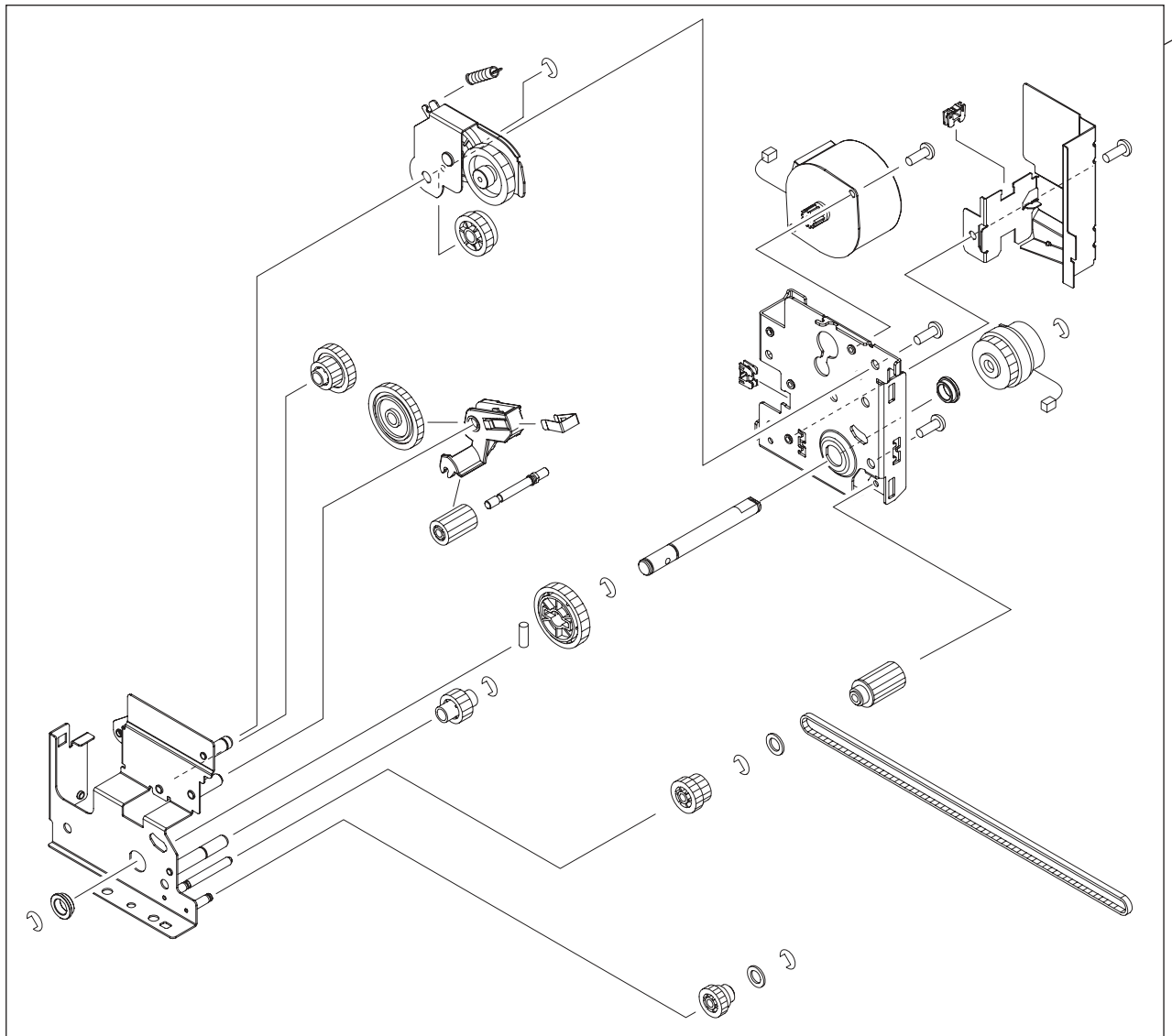


**Figure 7-22** Duplexing PCA assembly

**Table 7-24** Duplexing PCA assembly

Ref	Description	Part number	Qty
1	Duplexing PCA assembly	RM1-4291-000CN	1

## Duplexing-feed drive assembly



**Figure 7-23** Duplexing-feed drive assembly



**Table 7-25** Duplexing-feed drive assembly

Ref	Description	Part number	Qty
1	Duplexing-feed drive assembly	RM1-2891-000CN	1

# Alphabetical parts list

**Table 7-26** Alphabetical parts list

Description	Part number	Table and page
500-sheet cassette (only), tray 3	RM1-2900-000CN	<a href="#">500-sheet feeder cassette (tray 3) on page 341</a>
500-sheet feeder drive assembly	RM1-2909-000CN	<a href="#">500-sheet feeder drive assembly on page 349</a>
500-sheet feeder lifter-drive assembly	RM1-2912-000CN	<a href="#">500-sheet feeder lifter-drive assembly on page 351</a>
500-sheet feeder paper-pickup assembly	RM1-2896-000CN	<a href="#">500-sheet feeder paper-pickup assembly on page 347</a>
500-sheet feeder PCA	RM1-4292-000CN	<a href="#">500-sheet feeder PCA on page 353</a>
Arm, lock	RC1-7244-000CN	<a href="#">Internal components (2 of 3) on page 323</a>
Bushing	RC1-7249-000CN	<a href="#">Internal components (1 of 3) on page 321</a>
Cable, flexible flat, 21P	RK2-1053-000CN	<a href="#">Internal components (1 of 3) on page 321</a>
Cable, flexible flat, 23P	RK2-1055-000CN	<a href="#">Internal components (1 of 3) on page 321</a>
Cartridge cover assembly	RM1-2470-000CN	<a href="#">External panels and covers on page 319</a>
Cartridge door unit	RM1-2458-000CN	<a href="#">External panels and covers on page 319</a>
Cassette, 250-sheet	RM1-2479-000CN	<a href="#">Cassette (tray 2) on page 337</a>
Connector, drawer	VS1-7258-007CN	<a href="#">Internal components (1 of 3) on page 321</a>
Connector, drawer	VS1-7258-007CN	<a href="#">Internal components (2 of 3) on page 323</a>
Cover	RC1-7265-000CN	<a href="#">Internal components (2 of 3) on page 323</a>
Cover, DC controller	RC1-7217-000CN	<a href="#">Internal components (2 of 3) on page 323</a>
Cover, dust	RC1-7118-000CN	<a href="#">Internal components (3 of 3) on page 325</a>
Cover, face-down	RC1-7192-000CN	<a href="#">Internal components (1 of 3) on page 321</a>
Cover, front lower, 500-sheet cassette	RC1-7807-000CN	<a href="#">500-sheet feeder cassette external panels and covers on page 343</a>
Cover, gear, lower right	RC1-7020-000CN	<a href="#">Internal components (2 of 3) on page 323</a>

**Table 7-26** Alphabetical parts list (continued)

Description	Part number	Table and page
Cover, gear, upper right	RC1-7209-000CN	<a href="#">Internal components (3 of 3) on page 325</a>
Cover, left	RC1-7051-000CN	<a href="#">External panels and covers on page 317</a>
Cover, left	RC1-7754-000CN	<a href="#">Duplexer on page 357</a>
Cover, left front	RC1-7052-000CN	<a href="#">External panels and covers on page 317</a>
Cover, left front, 500-sheet cassette	RK2-1062-000CN	<a href="#">500-sheet feeder cassette external panels and covers on page 343</a>
Cover, left, 500-sheet cassette	RC1-7803-000CN	<a href="#">500-sheet feeder cassette external panels and covers on page 343</a>
Cover, paper-delivery roller	RC1-7047-000CN	<a href="#">Internal components (1 of 3) on page 321</a>
Cover, rear	RC1-7757-000CN	<a href="#">Duplexer on page 357</a>
Cover, rear lower	RC1-7174-000CN	<a href="#">External panels and covers on page 317</a>
Cover, rear, 500-sheet cassette	RC1-7808-000CN	<a href="#">500-sheet feeder cassette external panels and covers on page 343</a>
Cover, right	RC1-7211-000CN	<a href="#">External panels and covers on page 317</a>
Cover, right	RC1-7755-000CN	<a href="#">Duplexer on page 357</a>
Cover, right front	RC1-7212-000CN	<a href="#">External panels and covers on page 317</a>
Cover, right front, 500-sheet cassette	RC1-7806-000CN	<a href="#">500-sheet feeder cassette external panels and covers on page 343</a>
Cover, right lower	RC1-7210-000CN	<a href="#">External panels and covers on page 317</a>
Cover, right, 500-sheet cassette	RM1-2899-000CN	<a href="#">500-sheet feeder cassette external panels and covers on page 343</a>
Cover, sensor, 250-sheet cassette	RC1-7080-000CN	<a href="#">Cassette (tray 2) paper-pickup assembly on page 339</a>
Cover, shutter lever	RC1-7452-000CN	<a href="#">Internal components (3 of 3) on page 325</a>
Cover, top	RC1-7756-000CN	<a href="#">Duplexer on page 357</a>
DC controller assembly	RM1-4098-000CN	<a href="#">Internal components (1 of 3) on page 321</a>
DC controller PCA assembly	RM1-4098-000CN	<a href="#">PCA assembly on page 333</a>
Duplexer	Q7549-67901	<a href="#">Duplexer on page 355</a>
Duplexing controller PCB assembly	RM1-4291-000CN	<a href="#">Duplexer on page 357</a>

**Table 7-26** Alphabetical parts list (continued)

Description	Part number	Table and page
Duplexing PCA assembly	RM1-4291-000CN	<a href="#">Duplexing PCA assembly on page 359</a>
Duplexing-feed drive assembly	RM1-2891-000CN	<a href="#">Duplexing-feed drive assembly on page 361</a>
Face-down delivery assembly	RM1-2490-000CN	<a href="#">Face-down delivery assembly on page 331</a>
Face-up delivery assembly	RM1-2492-000CN	<a href="#">Face-up delivery assembly on page 329</a>
Fan	RK2-1089-000CN	<a href="#">Internal components (3 of 3) on page 325</a>
Fan	RK2-1067-000CN	<a href="#">Duplexer on page 357</a>
Fan, sub	RK2-1091-000CN	<a href="#">Internal components (2 of 3) on page 323</a>
Flag, duplexing jam detect	RC1-7770-000CN	<a href="#">Duplexer on page 355</a>
Flag, face-down	RC1-7460-000CN	<a href="#">Internal components (1 of 3) on page 321</a>
Flag, loop sensor	RC1-7144-000CN	<a href="#">Internal components (3 of 3) on page 325</a>
Flag, paper-full detect	RC1-7459-000CN	<a href="#">Internal components (1 of 3) on page 321</a>
Flag, sensor, top	RC1-7836-000CN	<a href="#">500-sheet feeder paper-pickup assembly on page 347</a>
Flag, size sensing	RC1-7877-000CN	<a href="#">500-sheet feeder cassette (tray 3) on page 341</a>
Flag, top sensor	RC1-7261-000CN	<a href="#">Internal components (1 of 3) on page 321</a>
Fuser assembly (110V-127V)	RM1-2522-000CN	<a href="#">Fuser on page 335</a>
Fuser assembly (220V-240V)	RM1-2524-000CN	<a href="#">Fuser on page 335</a>
Fuser motor assembly	RM1-2538-000CN	<a href="#">Internal components (2 of 3) on page 323</a>
Gear, 13T	RU5-0536-000CN	<a href="#">Internal components (1 of 3) on page 321</a>
Guide, cartridge door stopper	RC1-7022-000CN	<a href="#">Internal components (2 of 3) on page 323</a>
Guide, cartridge, left	RC1-7121-000CN	<a href="#">Internal components (1 of 3) on page 321</a>
Guide, cartridge, lower right	RC1-7286-000CN	<a href="#">Internal components (3 of 3) on page 325</a>
Guide, duplexer, left	RC1-7379-000CN	<a href="#">Internal components (3 of 3) on page 325</a>
Guide, duplexer, right	RC1-7380-000CN	<a href="#">Internal components (3 of 3) on page 325</a>
High-voltage PCA assembly (110V-127V)	RM1-2957-000CN	<a href="#">PCA assembly on page 333</a>

**Table 7-26** Alphabetical parts list (continued)

Description	Part number	Table and page
High-voltage PCA assembly (220V-240V)	RM1-2958-000CN	<a href="#">PCA assembly on page 333</a>
High-voltage power supply (110V-127V)	RM1-2957-000CN	<a href="#">Internal components (3 of 3) on page 325</a>
High-voltage power supply (220V-240V)	RM1-2958-000CN	<a href="#">Internal components (3 of 3) on page 325</a>
Holder, contact	RC1-7241-000CN	<a href="#">Internal components (2 of 3) on page 323</a>
Holder, fan	RC1-7169-000CN	<a href="#">Internal components (2 of 3) on page 323</a>
Holder, fan	RC1-7434-000CN	<a href="#">Internal components (3 of 3) on page 325</a>
Holder, fan	RC1-7760-000CN	<a href="#">Duplexer on page 357</a>
Holder, fusing bias contact	RC1-7128-000CN	<a href="#">Internal components (2 of 3) on page 323</a>
Holder, top sensor	RC1-7268-000CN	<a href="#">Internal components (1 of 3) on page 321</a>
IC, photo interrupter	WG8-5624-000CN	<a href="#">Duplexer on page 355</a>
Laser/scanner assembly	RM1-2555-000CN	<a href="#">Internal components (3 of 3) on page 325</a>
Lever, coupling	RC1-7285-000CN	<a href="#">Internal components (2 of 3) on page 323</a>
Lever, fuser release	RC1-7405-000CN	<a href="#">Internal components (2 of 3) on page 323</a>
Lever, fuser release	RC1-7406-000CN	<a href="#">Internal components (2 of 3) on page 323</a>
Lever, paper sensor, 250-sheet cassette	RC1-7410-000CN	<a href="#">Cassette (tray 2) paper-pickup assembly on page 339</a>
Lever, paper-delivery release	RC1-7408-000CN	<a href="#">Internal components (2 of 3) on page 323</a>
Lever, shutter	RC1-7451-000CN	<a href="#">Internal components (3 of 3) on page 325</a>
Link, tag	RC1-7289-000CN	<a href="#">Internal components (3 of 3) on page 325</a>
Link, tag lock	RC1-7294-000CN	<a href="#">Internal components (3 of 3) on page 325</a>
Low-voltage PCA assembly (110V-127V)	RM1-2926-000CN	<a href="#">PCA assembly on page 333</a>
Low-voltage PCA assembly (220V-240V)	RM1-2951-000CN	<a href="#">PCA assembly on page 333</a>
Low-voltage power supply (110V-127V)	RM1-2926-000CN	<a href="#">Internal components (3 of 3) on page 325</a>
Low-voltage power supply (220V-240V)	RM1-2951-000CN	<a href="#">Internal components (3 of 3) on page 325</a>
Main motor assembly	RM1-2516-000CN	<a href="#">Internal components (2 of 3) on page 323</a>

**Table 7-26** Alphabetical parts list (continued)

Description	Part number	Table and page
Module, light guide	RK2-1069-000CN	<a href="#">Duplexer on page 357</a>
Motor, stepping, DC	RC1-7804-000CN	<a href="#">500-sheet feeder internal components on page 345</a>
Multipurpose cover assembly	RM1-2463-000CN	<a href="#">External panels and covers on page 319</a>
Multipurpose pad assembly	RM1-2462-000CN	<a href="#">External panels and covers on page 319</a>
Multipurpose tray assembly	RM1-2465-000CN	<a href="#">External panels and covers on page 319</a>
Paper-feed assembly	RM1-2482-000CN	<a href="#">Paper-feed assembly on page 327</a>
Paper-feed roller assembly	RM1-0037-020CN	<a href="#">500-sheet feeder cassette (tray 3) on page 341</a>
Paper-feed-roller assembly (500-sheet feeder)	RM1-0037-000CN	<a href="#">500-sheet feeder paper-pickup assembly on page 347</a>
Paper-feeder driver PCA assembly	RM1-4292-000CN	<a href="#">500-sheet feeder internal components on page 345</a>
Paper-pickup assembly, cassette	RM1-2530-000CN	<a href="#">Cassette (tray 2) paper-pickup assembly on page 339</a>
Paper-pickup roller-gear assembly	RM1-2474-000CN	<a href="#">Internal components (1 of 3) on page 321</a>
Paper-pickup-roller assembly (500-sheet feeder)	RM1-0036-020CN	<a href="#">500-sheet feeder paper-pickup assembly on page 347</a>
Paper-pickup-roller assembly, cassette	RM1-0731-030CN	<a href="#">Cassette (tray 2) paper-pickup assembly on page 339</a>
PCB, operation panel	RK2-1097-000CN	<a href="#">External panels and covers on page 317</a>
Photo interrupter, TLP1243	WG8-5696-000CN	<a href="#">500-sheet feeder paper-pickup assembly on page 347</a>
Photointerruptor	WG8-5696-000CN	<a href="#">Cassette (tray 2) paper-pickup assembly on page 339</a>
Plate, connector grounding	RC1-7220-000CN	<a href="#">Internal components (2 of 3) on page 323</a>
Plate, cross member auxiliary	RC1-7264-000CN	<a href="#">Internal components (3 of 3) on page 325</a>
Plate, fuser swing	RC1-7403-000CN	<a href="#">Internal components (2 of 3) on page 323</a>
Rod, power-supply switch	RC1-7226-000CN	<a href="#">Internal components (2 of 3) on page 323</a>
Roller, multipurpose paper pickup	RL1-0915-000CN	<a href="#">External panels and covers on page 319</a>
Roller, paper feed	RC1-7783-000CN	<a href="#">Duplexer on page 357</a>
Roller, paper feed, rear	RC1-7790-000CN	<a href="#">Duplexer on page 357</a>

**Table 7-26** Alphabetical parts list (continued)

Description	Part number	Table and page
Roller, transfer	RM1-2485-000CN	<a href="#">Internal components (1 of 3) on page 321</a>
Sensor assembly	RM1-2897-000CN	<a href="#">500-sheet feeder paper-pickup assembly on page 347</a>
Separation-holder assembly	RM1-2546-000CN	<a href="#">Cassette (tray 2) on page 337</a>
Sheet, face-down	RC1-7462-000CN	<a href="#">Internal components (1 of 3) on page 321</a>
Sheet, flag	RC1-7461-000CN	<a href="#">Internal components (1 of 3) on page 321</a>
Shutter, fusing	RC1-7163-000CN	<a href="#">Internal components (1 of 3) on page 321</a>
Solenoid	RK2-1096-000CN	<a href="#">Internal components (1 of 3) on page 321</a>
Solenoid	RK2-0269-000CN	<a href="#">500-sheet feeder internal components on page 345</a>
Spring, compression	RU5-2553-000CN	<a href="#">External panels and covers on page 319</a>
Spring, compression	RC1-7127-000CN	<a href="#">Internal components (2 of 3) on page 323</a>
Spring, compression	RU5-2587-000CN	<a href="#">Internal components (2 of 3) on page 323</a>
Spring, compression	RU5-2588-000CN	<a href="#">Internal components (2 of 3) on page 323</a>
Spring, compression	RU5-2589-000CN	<a href="#">Internal components (2 of 3) on page 323</a>
Spring, compression	RU5-2630-000CN	<a href="#">Internal components (2 of 3) on page 323</a>
Spring, compression	RU5-2633-000CN	<a href="#">Internal components (3 of 3) on page 325</a>
Spring, compression	RU5-2061-000CN	<a href="#">500-sheet feeder internal components on page 345</a>
Spring, tension	RU5-2548-000CN	<a href="#">External panels and covers on page 319</a>
Spring, tension	RU5-2550-000CN	<a href="#">Internal components (2 of 3) on page 323</a>
Spring, tension	RU5-2591-000CN	<a href="#">Internal components (2 of 3) on page 323</a>
Spring, tension	RU5-2644-000CN	<a href="#">Internal components (2 of 3) on page 323</a>
Spring, tension	RU5-2632-000CN	<a href="#">Internal components (2 of 3) on page 323</a>
Spring, tension	RU5-2563-000CN	<a href="#">Internal components (3 of 3) on page 325</a>

**Table 7-26** Alphabetical parts list (continued)

Description	Part number	Table and page
Spring, tension	RU5-2651-000CN	<a href="#">Internal components (3 of 3) on page 325</a>
Spring, tension	RC1-0198-000CN	<a href="#">500-sheet feeder internal components on page 345</a>
Spring, torsion	RU5-2584-000CN	<a href="#">Internal components (1 of 3) on page 321</a>
Spring, torsion	RU5-2596-000CN	<a href="#">Internal components (1 of 3) on page 321</a>
Spring, torsion	RC1-7145-000CN	<a href="#">Internal components (3 of 3) on page 325</a>
Stopper, bushing arm	RC1-3090-000CN	<a href="#">Internal components (2 of 3) on page 323</a>
Stopper, cartridge door	RC1-7023-000CN	<a href="#">Internal components (2 of 3) on page 323</a>
Stopper, link	RC1-7288-000CN	<a href="#">Internal components (2 of 3) on page 323</a>
Switch, cassette-size detect	RK2-1103-000CN	<a href="#">Internal components (1 of 3) on page 321</a>
Switch, cassette-size detect	RK2-1103-000CN	<a href="#">500-sheet feeder internal components on page 345</a>
Tag holder assembly	RM1-2514-000CN	<a href="#">Internal components (3 of 3) on page 325</a>
Top cover assembly	RM1-2471-000CN	<a href="#">External panels and covers on page 317</a>



# Numerical parts list

**Table 7-27** Numerical parts list

Part number	Description	Table and page
Q7549-67901	Duplexer	<a href="#">Duplexer on page 355</a>
RC1-0198-000CN	Spring, tension	<a href="#">500-sheet feeder internal components on page 345</a>
RC1-3090-000CN	Stopper, bushing arm	<a href="#">Internal components (2 of 3) on page 323</a>
RC1-7020-000CN	Cover, gear, lower right	<a href="#">Internal components (2 of 3) on page 323</a>
RC1-7022-000CN	Guide, cartridge door stopper	<a href="#">Internal components (2 of 3) on page 323</a>
RC1-7023-000CN	Stopper, cartridge door	<a href="#">Internal components (2 of 3) on page 323</a>
RC1-7047-000CN	Cover, paper-delivery roller	<a href="#">Internal components (1 of 3) on page 321</a>
RC1-7051-000CN	Cover, left	<a href="#">External panels and covers on page 317</a>
RC1-7052-000CN	Cover, left front	<a href="#">External panels and covers on page 317</a>
RC1-7080-000CN	Cover, sensor, 250-sheet cassette	<a href="#">Cassette (tray 2) paper-pickup assembly on page 339</a>
RC1-7118-000CN	Cover, dust	<a href="#">Internal components (3 of 3) on page 325</a>
RC1-7121-000CN	Guide, cartridge, left	<a href="#">Internal components (1 of 3) on page 321</a>
RC1-7127-000CN	Spring, compression	<a href="#">Internal components (2 of 3) on page 323</a>
RC1-7128-000CN	Holder, fusing bias contact	<a href="#">Internal components (2 of 3) on page 323</a>
RC1-7144-000CN	Flag, loop sensor	<a href="#">Internal components (3 of 3) on page 325</a>
RC1-7145-000CN	Spring, torsion	<a href="#">Internal components (3 of 3) on page 325</a>
RC1-7163-000CN	Shutter, fusing	<a href="#">Internal components (1 of 3) on page 321</a>
RC1-7169-000CN	Holder, fan	<a href="#">Internal components (2 of 3) on page 323</a>
RC1-7174-000CN	Cover, rear lower	<a href="#">External panels and covers on page 317</a>
RC1-7192-000CN	Cover, face-down	<a href="#">Internal components (1 of 3) on page 321</a>
RC1-7209-000CN	Cover, gear, upper right	<a href="#">Internal components (3 of 3) on page 325</a>

**Table 7-27** Numerical parts list (continued)

Part number	Description	Table and page
RC1-7210-000CN	Cover, right lower	<a href="#">External panels and covers on page 317</a>
RC1-7211-000CN	Cover, right	<a href="#">External panels and covers on page 317</a>
RC1-7212-000CN	Cover, right front	<a href="#">External panels and covers on page 317</a>
RC1-7217-000CN	Cover, DC controller	<a href="#">Internal components (2 of 3) on page 323</a>
RC1-7220-000CN	Plate, connector grounding	<a href="#">Internal components (2 of 3) on page 323</a>
RC1-7226-000CN	Rod, power-supply switch	<a href="#">Internal components (2 of 3) on page 323</a>
RC1-7241-000CN	Holder, contact	<a href="#">Internal components (2 of 3) on page 323</a>
RC1-7244-000CN	Arm, lock	<a href="#">Internal components (2 of 3) on page 323</a>
RC1-7249-000CN	Bushing	<a href="#">Internal components (1 of 3) on page 321</a>
RC1-7261-000CN	Flag, top sensor	<a href="#">Internal components (1 of 3) on page 321</a>
RC1-7264-000CN	Plate, cross member auxiliary	<a href="#">Internal components (3 of 3) on page 325</a>
RC1-7265-000CN	Cover	<a href="#">Internal components (2 of 3) on page 323</a>
RC1-7268-000CN	Holder, top sensor	<a href="#">Internal components (1 of 3) on page 321</a>
RC1-7285-000CN	Lever, coupling	<a href="#">Internal components (2 of 3) on page 323</a>
RC1-7286-000CN	Guide, cartridge, lower right	<a href="#">Internal components (3 of 3) on page 325</a>
RC1-7288-000CN	Stopper, link	<a href="#">Internal components (2 of 3) on page 323</a>
RC1-7289-000CN	Link, tag	<a href="#">Internal components (3 of 3) on page 325</a>
RC1-7294-000CN	Link, tag lock	<a href="#">Internal components (3 of 3) on page 325</a>
RC1-7379-000CN	Guide, duplexer, left	<a href="#">Internal components (3 of 3) on page 325</a>
RC1-7380-000CN	Guide, duplexer, right	<a href="#">Internal components (3 of 3) on page 325</a>
RC1-7403-000CN	Plate, fuser swing	<a href="#">Internal components (2 of 3) on page 323</a>
RC1-7405-000CN	Lever, fuser release	<a href="#">Internal components (2 of 3) on page 323</a>

**Table 7-27** Numerical parts list (continued)

Part number	Description	Table and page
RC1-7406-000CN	Lever, fuser release	<a href="#">Internal components (2 of 3) on page 323</a>
RC1-7408-000CN	Lever, paper-delivery release	<a href="#">Internal components (2 of 3) on page 323</a>
RC1-7410-000CN	Lever, paper sensor, 250-sheet cassette	<a href="#">Cassette (tray 2) paper-pickup assembly on page 339</a>
RC1-7434-000CN	Holder, fan	<a href="#">Internal components (3 of 3) on page 325</a>
RC1-7451-000CN	Lever, shutter	<a href="#">Internal components (3 of 3) on page 325</a>
RC1-7452-000CN	Cover, shutter lever	<a href="#">Internal components (3 of 3) on page 325</a>
RC1-7459-000CN	Flag, paper-full detect	<a href="#">Internal components (1 of 3) on page 321</a>
RC1-7460-000CN	Flag, face-down	<a href="#">Internal components (1 of 3) on page 321</a>
RC1-7461-000CN	Sheet, flag	<a href="#">Internal components (1 of 3) on page 321</a>
RC1-7462-000CN	Sheet, face-down	<a href="#">Internal components (1 of 3) on page 321</a>
RC1-7754-000CN	Cover, left	<a href="#">Duplexer on page 357</a>
RC1-7755-000CN	Cover, right	<a href="#">Duplexer on page 357</a>
RC1-7756-000CN	Cover, top	<a href="#">Duplexer on page 357</a>
RC1-7757-000CN	Cover, rear	<a href="#">Duplexer on page 357</a>
RC1-7760-000CN	Holder, fan	<a href="#">Duplexer on page 357</a>
RC1-7770-000CN	Flag, duplexing jam detect	<a href="#">Duplexer on page 355</a>
RC1-7783-000CN	Roller, paper feed	<a href="#">Duplexer on page 357</a>
RC1-7790-000CN	Roller, paper feed, rear	<a href="#">Duplexer on page 357</a>
RC1-7803-000CN	Cover, left, 500-sheet cassette	<a href="#">500-sheet feeder cassette external panels and covers on page 343</a>
RC1-7804-000CN	Motor, stepping, DC	<a href="#">500-sheet feeder internal components on page 345</a>
RC1-7806-000CN	Cover, right front, 500-sheet cassette	<a href="#">500-sheet feeder cassette external panels and covers on page 343</a>
RC1-7807-000CN	Cover, front lower, 500-sheet cassette	<a href="#">500-sheet feeder cassette external panels and covers on page 343</a>
RC1-7808-000CN	Cover, rear, 500-sheet cassette	<a href="#">500-sheet feeder cassette external panels and covers on page 343</a>

**Table 7-27** Numerical parts list (continued)

Part number	Description	Table and page
RC1-7836-000CN	Flag, sensor, top	<a href="#">500-sheet feeder paper-pickup assembly on page 347</a>
RC1-7877-000CN	Flag, size sensing	<a href="#">500-sheet feeder cassette (tray 3) on page 341</a>
RK2-0269-000CN	Solenoid	<a href="#">500-sheet feeder internal components on page 345</a>
RK2-1053-000CN	Cable, flexible flat, 21P	<a href="#">Internal components (1 of 3) on page 321</a>
RK2-1055-000CN	Cable, flexible flat, 23P	<a href="#">Internal components (1 of 3) on page 321</a>
RK2-1062-000CN	Cover, left front, 500-sheet cassette	<a href="#">500-sheet feeder cassette external panels and covers on page 343</a>
RK2-1067-000CN	Fan	<a href="#">Duplexer on page 357</a>
RK2-1069-000CN	Module, light guide	<a href="#">Duplexer on page 357</a>
RK2-1089-000CN	Fan	<a href="#">Internal components (3 of 3) on page 325</a>
RK2-1091-000CN	Fan, sub	<a href="#">Internal components (2 of 3) on page 323</a>
RK2-1096-000CN	Solenoid	<a href="#">Internal components (1 of 3) on page 321</a>
RK2-1097-000CN	PCB, operation panel	<a href="#">External panels and covers on page 317</a>
RK2-1103-000CN	Switch, cassette-size detect	<a href="#">Internal components (1 of 3) on page 321</a>
RK2-1103-000CN	Switch, cassette-size detect	<a href="#">500-sheet feeder internal components on page 345</a>
RL1-0915-000CN	Roller, multipurpose paper pickup	<a href="#">External panels and covers on page 319</a>
RM1-0036-020CN	Paper-pickup-roller assembly (500-sheet feeder)	<a href="#">500-sheet feeder paper-pickup assembly on page 347</a>
RM1-0037-000CN	Paper-feed-roller assembly (500-sheet feeder)	<a href="#">500-sheet feeder paper-pickup assembly on page 347</a>
RM1-0037-020CN	Paper-feed roller assembly	<a href="#">500-sheet feeder cassette (tray 3) on page 341</a>
RM1-0731-030CN	Paper-pickup-roller assembly, cassette	<a href="#">Cassette (tray 2) paper-pickup assembly on page 339</a>
RM1-2458-000CN	Cartridge door unit	<a href="#">External panels and covers on page 319</a>
RM1-2462-000CN	Multipurpose pad assembly	<a href="#">External panels and covers on page 319</a>
RM1-2463-000CN	Multipurpose cover assembly	<a href="#">External panels and covers on page 319</a>

**Table 7-27** Numerical parts list (continued)

Part number	Description	Table and page
RM1-2465-000CN	Multipurpose tray assembly	<a href="#">External panels and covers on page 319</a>
RM1-2470-000CN	Cartridge cover assembly	<a href="#">External panels and covers on page 319</a>
RM1-2471-000CN	Top cover assembly	<a href="#">External panels and covers on page 317</a>
RM1-2474-000CN	Paper-pickup roller-gear assembly	<a href="#">Internal components (1 of 3) on page 321</a>
RM1-2479-000CN	Cassette, 250-sheet	<a href="#">Cassette (tray 2) on page 337</a>
RM1-2482-000CN	Paper-feed assembly	<a href="#">Paper-feed assembly on page 327</a>
RM1-2485-000CN	Roller, transfer	<a href="#">Internal components (1 of 3) on page 321</a>
RM1-2490-000CN	Face-down delivery assembly	<a href="#">Face-down delivery assembly on page 331</a>
RM1-2492-000CN	Face-up delivery assembly	<a href="#">Face-up delivery assembly on page 329</a>
RM1-2514-000CN	Tag holder assembly	<a href="#">Internal components (3 of 3) on page 325</a>
RM1-2516-000CN	Main motor assembly	<a href="#">Internal components (2 of 3) on page 323</a>
RM1-2522-000CN	Fuser assembly (110V-127V)	<a href="#">Fuser on page 335</a>
RM1-2524-000CN	Fuser assembly (220V-240V)	<a href="#">Fuser on page 335</a>
RM1-2530-000CN	Paper-pickup assembly, cassette	<a href="#">Cassette (tray 2) paper-pickup assembly on page 339</a>
RM1-2538-000CN	Fuser motor assembly	<a href="#">Internal components (2 of 3) on page 323</a>
RM1-2546-000CN	Separation-holder assembly	<a href="#">Cassette (tray 2) on page 337</a>
RM1-2555-000CN	Laser/scanner assembly	<a href="#">Internal components (3 of 3) on page 325</a>
RM1-2891-000CN	Duplexing-feed drive assembly	<a href="#">Duplexing-feed drive assembly on page 361</a>
RM1-2896-000CN	500-sheet feeder paper-pickup assembly	<a href="#">500-sheet feeder paper-pickup assembly on page 347</a>
RM1-2897-000CN	Sensor assembly	<a href="#">500-sheet feeder paper-pickup assembly on page 347</a>
RM1-2899-000CN	Cover, right, 500-sheet cassette	<a href="#">500-sheet feeder cassette external panels and covers on page 343</a>
RM1-2900-000CN	500-sheet cassette (only), tray 3	<a href="#">500-sheet feeder cassette (tray 3) on page 341</a>
RM1-2909-000CN	500-sheet feeder drive assembly	<a href="#">500-sheet feeder drive assembly on page 349</a>

**Table 7-27** Numerical parts list (continued)

Part number	Description	Table and page
RM1-2912-000CN	500-sheet feeder lifter-drive assembly	<a href="#">500-sheet feeder lifter-drive assembly on page 351</a>
RM1-2926-000CN	Low-voltage power supply (110V-127V)	<a href="#">Internal components (3 of 3) on page 325</a>
RM1-2926-000CN	Low-voltage PCA assembly (110V-127V)	<a href="#">PCA assembly on page 333</a>
RM1-2951-000CN	Low-voltage power supply (220V-240V)	<a href="#">Internal components (3 of 3) on page 325</a>
RM1-2951-000CN	Low-voltage PCA assembly (220V-240V)	<a href="#">PCA assembly on page 333</a>
RM1-2957-000CN	High-voltage power supply (110V-127V)	<a href="#">Internal components (3 of 3) on page 325</a>
RM1-2957-000CN	High-voltage PCA assembly (110V-127V)	<a href="#">PCA assembly on page 333</a>
RM1-2958-000CN	High-voltage power supply (220V-240V)	<a href="#">Internal components (3 of 3) on page 325</a>
RM1-2958-000CN	High-voltage PCA assembly (220V-240V)	<a href="#">PCA assembly on page 333</a>
RM1-4098-000CN	DC controller assembly	<a href="#">Internal components (1 of 3) on page 321</a>
RM1-4098-000CN	DC controller PCA assembly	<a href="#">PCA assembly on page 333</a>
RM1-4291-000CN	Duplexing controller PCB assembly	<a href="#">Duplexer on page 357</a>
RM1-4291-000CN	Duplexing PCA assembly	<a href="#">Duplexing PCA assembly on page 359</a>
RM1-4292-000CN	Paper-feeder driver PCA assembly	<a href="#">500-sheet feeder internal components on page 345</a>
RM1-4292-000CN	500-sheet feeder PCA	<a href="#">500-sheet feeder PCA on page 353</a>
RU5-0536-000CN	Gear, 13T	<a href="#">Internal components (1 of 3) on page 321</a>
RU5-2061-000CN	Spring, compression	<a href="#">500-sheet feeder internal components on page 345</a>
RU5-2548-000CN	Spring, tension	<a href="#">External panels and covers on page 319</a>
RU5-2550-000CN	Spring, tension	<a href="#">Internal components (2 of 3) on page 323</a>
RU5-2553-000CN	Spring, compression	<a href="#">External panels and covers on page 319</a>
RU5-2563-000CN	Spring, tension	<a href="#">Internal components (3 of 3) on page 325</a>
RU5-2584-000CN	Spring, torsion	<a href="#">Internal components (1 of 3) on page 321</a>
RU5-2587-000CN	Spring, compression	<a href="#">Internal components (2 of 3) on page 323</a>
RU5-2588-000CN	Spring, compression	<a href="#">Internal components (2 of 3) on page 323</a>

**Table 7-27** Numerical parts list (continued)

Part number	Description	Table and page
RU5-2589-000CN	Spring, compression	<a href="#">Internal components (2 of 3) on page 323</a>
RU5-2591-000CN	Spring, tension	<a href="#">Internal components (2 of 3) on page 323</a>
RU5-2596-000CN	Spring, torsion	<a href="#">Internal components (1 of 3) on page 321</a>
RU5-2630-000CN	Spring, compression	<a href="#">Internal components (2 of 3) on page 323</a>
RU5-2632-000CN	Spring, tension	<a href="#">Internal components (2 of 3) on page 323</a>
RU5-2633-000CN	Spring, compression	<a href="#">Internal components (3 of 3) on page 325</a>
RU5-2644-000CN	Spring, tension	<a href="#">Internal components (2 of 3) on page 323</a>
RU5-2651-000CN	Spring, tension	<a href="#">Internal components (3 of 3) on page 325</a>
VS1-7258-007CN	Connector, drawer	<a href="#">Internal components (1 of 3) on page 321</a>
VS1-7258-007CN	Connector, drawer	<a href="#">Internal components (2 of 3) on page 323</a>
WG8-5624-000CN	IC, photo interrupter	<a href="#">Duplexer on page 355</a>
WG8-5696-000CN	Photointerruptor	<a href="#">Cassette (tray 2) paper-pickup assembly on page 339</a>
WG8-5696-000CN	Photo interrupter, TLP1243	<a href="#">500-sheet feeder paper-pickup assembly on page 347</a>





# A Printer specifications

- [Electrical specifications](#)
- [Power-consumption specifications](#)
- [Acoustic specifications](#)
- [Operating-environment 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 LaserJet 5200 Series printer

Item	110-volt models	230-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)
Related short-term current	7.5 A	4.5 A

## Power-consumption specifications

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

Product Model	Printing <sup>2</sup>	Ready <sup>3</sup>	Sleep <sup>4</sup>	Off	Heat output-Ready (BTU/hour) <sup>5</sup>
HP LaserJet 5200	550 W	27.0 W	7.0 W	0.5 W	
HP LaserJet 5200L	450 W	27.0 W	7.0 W	0.5 W	
HP LaserJet 5200n	600 W	27.0 W	7.5 W	0.5 W	
HP LaserJet 5200tn	600 W	27.0 W	7.5 W	0.5 W	
HP LaserJet 5200dtn	600 W	27.0 W	7.5 W	0.5 W	

<sup>1</sup> Values subject to change. See [www.hp.com/support/lj5200](http://www.hp.com/support/lj5200) for current information.

<sup>2</sup> Power numbers are the highest values measured using all standard voltages.

<sup>3</sup> Default time from Ready mode to Sleep = 60 minutes (30 minutes for the HP LaserJet 5200L).

<sup>4</sup> Recovery time from Sleep to start of printing = 18 seconds.

<sup>5</sup> Maximum heat dissipation for all models in Ready Mode = 93 BTU per hour.

## Acoustic specifications

**Table A-3** Sound power and pressure level<sup>1</sup>

Sound power level	Declared per ISO 9296
Printing <sup>2</sup>	$L_{WAd} = 6.84$ Bels (A) [68.4 dB (A)]
Ready	Essentially inaudible
Sound pressure level	Declared per ISO 9296
Printing <sup>2</sup>	$L_{pAm} = 54$ dB (A)
Ready	$L_{pAm} = 31$ dB (A)

<sup>1</sup> Values subject to change. See [www.hp.com/support/lj5200](http://www.hp.com/support/lj5200) for current information.

<sup>2</sup> Print speed is 35 ppm.

# Operating-environment specifications

Table A-4 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

- [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 5200 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](#)
- [Declaration of conformity](#)
- [Safety statements](#)

## FCC regulations

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

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



---

**NOTE** Any changes or modifications to the printer that are not expressly approved by HP could void the 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

## 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 LaserJet 5200 series  
**Regulatory Model:<sup>3)</sup>** BOISB-0502-00

**Product Options:** Including: Q7548A Optional 500-Sheet Input Tray and Q7549A Optional Duplexing  
Accessory  
ALL  
Print Cartridge: Q7516A

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

### Supplementary Information:

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

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

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

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

Boise, Idaho, 83713, USA

**August 16, 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, 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（V C C I）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 LaserJet 5200, 5200n, 5200dn, 5200dtn, laserkirjoitin on käyttäjän kannalta turvallinen luokan 1 laserlaite. Normaalisissa käyttöolosuhteissa kirjoittimen suojakotelo ei estä laserin psyyllistä vaikutusta ulkopuolelle. Laitteen turvallisuusluokka on määritetty standardin EN 60825-1 (1994) mukaisesti.

## VAROITUS !

Laitteen käyttäminen muulla kuin käyttöohjeessa mainitulla tavalla saattaa altistaa käyttäjän turvallisuusluokan 1 ylittävälle näkyvälle lasersteilylle.

## VARNING !

Om apparaten används på annat sätt än i bruksanvisning specificerats, kan användaren utsättas för osynlig laserstrålning, som överstiger gränsen för laserklass 1.

## HUOLTO

HP LaserJet 5200, 5200n, 5200dn, 5200dtn -kirjoittimen sisällä ei ole käyttäjän huollettavissa olevia osia. Laitteen saa avata ja huoltaa ainoastaan sen huoltamiseen koulutettu henkilö. Tilaisiksi huoltotoimenpiteiksi ei katsota väriainekasetin vaihtamista, paperiradan puhdistusta tai muita käyttäjän käsikirjassa lueteltuja, käyttäjän tehtäviksi tarkoitettuja ylläpitotoimia, jotka voidaan suorittaa ilman erikoistykälä.

## VARO !

Mikäli kirjoittimen suojakotelo avataan, olet alttiina näkyvälle lasersteilylle laitteen ollessa toiminnassa. Katso eteen.

## VARNING !

Om laserprinterns skyddshölje öppnas vid apparaten är i funktion, utsätts användaren för osynlig laserstrålning. Beträkta ej strålen. Tiedot laitteesta käytettävien laserdiodin ominaisuuksista: Aallonpituus 775-795 nm Teho 5 mW Luokan 3B laser.





# Index

## Symbols/Numerics

150-sheet tray. *See* tray 1  
250-sheet tray. *See* tray 2  
500-sheet feeder  
    covers, part numbers 342  
    drive assembly, part number 348  
    drive assembly, removing and replacing 182  
    front cover, removing 169  
    internal components, part numbers 344  
    jams, causes of 225  
    left cover, removing 170  
    left front cover, removing 170  
    lifter-drive assembly, part number 350  
    lifter-drive assembly, removing and replacing 180  
    paper-pickup assembly, part numbers 346  
    paper-pickup assembly, removing and replacing 176  
    part number 312  
    PCA, part number 352  
    PCA, removing and replacing 186  
    pickup motor, removing and replacing 186  
    rear dust cover, removing 175  
    right cover, removing 173  
    right front cover, removing 172  
500-sheet tray. *See* tray 3

## A

A4 paper settings 266, 267  
access denied message 210  
accessibility features 5  
accessories

available 4  
CompactFlash cards, installing 35  
documentation 2  
driver autoconfiguration 10  
error messages 212  
HP Jetdirect EIO print servers 27  
memory, installing 30  
part numbers 312  
acoustic specifications 380  
activation, print-cartridge 63  
after-service checklist 68  
Apple Macintosh. *See* Macintosh  
AppleTalk, disabling 26  
Attention light 8  
auto continue settings 257, 273  
autoconfiguration, drivers 10  
AUTOEXEC.BAT 250

## B

before-service checklist 68  
bins, output  
    capacity 3  
    curled paper, troubleshooting 198  
    face-up, removing 87  
    full message 210, 218  
    jams, clearing 233  
    locating 6, 7  
    paper-handling configuration page 284  
blank pages, troubleshooting 199  
blurred print, troubleshooting 248  
box contents 20  
buffer overflow errors  
    EIO 204  
    parallel 205  
    scan 209  
    USB 205

buttons, control panel 8

## C

cables, part numbers 312  
Canadian DOC regulations 390  
cartridge door unit, removing 100  
cartridge-area jams, clearing 231  
cartridges  
    activation 63  
    detection operations 52  
    EconoMode 270  
    HP 212  
    image-formation operations 59  
    install message 213  
    low, settings for 257, 273  
    memory errors 202  
    non-HP, control panel messages 202, 214, 219  
    non-HP, policy on 42  
    operations 63  
    order message 215  
    ordering 42  
    out, settings for 257, 273  
    part numbers 312  
    recycling 47  
    replace message 217  
    replacement intervals 42  
    replacing 44  
    status page 285  
    status, checking 43  
    storing 42  
cassette. *See* tray 2  
cassette-paper pickup unit, removing and replacing 113  
characters, misformed 244  
class schedules 312  
cleaning  
    manual 49  
    paper path 49

- rollers 48
- spilled toner 50
- cleaning stage, image-formation operations 62
- clearable warnings settings 256, 272
- clock errors 202, 211
- clock, setting 282
- clothing, removing toner from 49
- cold reset 293
- colored paper specifications 221
- communication, troubleshooting 250
- CompactFlash cards
  - errors 210
  - fonts 4
  - installing 35
  - removing 77
  - slots included 3
  - verifying installation 39
- configuration page
  - not printing, troubleshooting 193
- configurations, features 3
- Configure Device menu 266
- connecting
  - networks 27
  - parallel port 23
  - USB port 23
- control panel
  - access denied message 210
  - buttons 8
  - cold reset 293
  - Configure Device menu 266
  - Diagnostics menu 277
  - I/O submenu 275
  - Information menu 264
  - language, settings 259, 274
  - lights 8
  - locating 6
  - menus, using 261
  - message types 201
  - messages, numerical list 202
  - messages, settings for 256, 272
  - Paper Handling menu 265
  - Print Quality submenu 268
  - Printing submenu 266
  - removing 108
  - Resets submenu 276

- Retrieve Job menu 263
- Service menu 278, 296
- settings, changing 253
- Show Me How menu 262
- supplies status, checking 43
- System Setup submenu 271
- troubleshooting 193
- control-panel overlay
  - part numbers 314
  - replacing 84
- copies, default number of 266
- Courier font settings 267
- covers
  - 500-sheet feeder front, removing 169
  - 500-sheet feeder left front, removing 170
  - 500-sheet feeder left, removing 170
  - 500-sheet feeder part numbers 342
  - 500-sheet feeder rear dust, removing 175
  - 500-sheet feeder right front, removing 172
  - 500-sheet feeder right, removing 173
- cartridge door unit, removing 100
- cleaning 49
- DC controller, removing 100
- diagrams and part numbers, printer 316
- duplexer back, removing 159
- duplexer left, removing 156
- duplexer right, removing 157
- duplexer top, removing 158
- face-down, removing 95
- front latch, locating 6
- left front, removing 94
- left, removing 92
- lower back, removing 86
- right front, removing 96
- right lower, removing 97
- right, removing 86
- right-side, locating 6
- top, removing 89
- CRC errors 211
- critical-error messages 201

- curled paper, troubleshooting 198, 221, 245
- customer support 312
- D**
- Data light 8
- date, converting service ID 297
- date/time, setting 211, 271, 282
- DC controller
  - cover, removing 100
  - engine control system operations 52
  - errors 208
  - image-formation operations 59
  - laser/scanner operations 55
  - PCA, part number 332
  - pickup-and-feed system operations 56
  - print-cartridge activation 63
  - removing and replacing 139
  - replacing 220, 295
  - Save + Restore 294
  - tray 1 pickup operations 58
  - tray 2 pickup operations 57
- declaration of conformity 389
- default gateway, setting 25
- default settings, restoring
  - cold reset 293
  - NVRAM initialization 293
  - Resets submenu 276
- density
  - light print, troubleshooting 240
  - settings 270
- developing stage 61
- diagnostic lights 291
- Diagnostics menu 277
- DIMMs
  - driver autoconfiguration 10
  - enabling 40
  - errors 208, 214
  - installing 30
  - part numbers 312
  - removing 80
  - slots included 3
  - verifying installation 34
- directory page 288
- disabling network protocols 26
- disk errors 209, 216
- DLC/LLC, disabling 27

- documentation 2, 313
- dots, troubleshooting 241
- downloading drivers 10
- draft mode 270
- drivers
  - autoconfiguration 10
  - choosing 10
  - installing Macintosh for direct connections 13
  - Linux 11
  - online help 2
  - operating systems supported 10
  - preconfiguration 11
  - settings 12
  - UNIX 11
  - Update Now 11
  - Web sites 10
- dropouts, troubleshooting 241
- drum
  - image-formation operations 59, 60, 61, 62
  - laser/scanner operations 55
  - print cartridge components 63
  - sequence of operations 52
- duplexer
  - back cover, removing 159
  - bad connection message 210
  - bin errors 210
  - cleaning rollers 48
  - default settings 266
  - driver autoconfiguration 10
  - fan, removing and replacing 164
  - feed drive assembly, part numbers 360
  - feed motor, removing and replacing 161
  - jams, clearing 235
  - left cover, removing 156
  - media sizes supported 16
  - media types supported 18
  - models including 3
  - part number 312
  - part numbers 354
  - PCA assembly, part number 358
  - PCA, removing and replacing 167
  - reinsert message 217

- removed error 212
- removing 84
- removing and replacing 155
- right cover, removing 157
- Show Me How menu 262
- top cover, removing 158

## E

- Easy Printer Care Software 15
- EconoMode 270
- EIO accessory errors 210
- EIO bad transmission error 205
- EIO buffer overflow 204
- EIO cards, part numbers 312
- EIO configuration 27
- EIO disk errors 212
- EIO slot, locating 7
- electrical specifications 378
- electrostatic discharge (ESD) 66
- embedded Web server
  - about 15, 280
  - accessing 281
  - Information tab 281
  - network configuration 24
  - Networking tab 282
  - Other links 282
  - Setting the real-time clock 282
  - Settingstab 281
  - supplies status 43
- EMI statement (Korea) 390
- engine control system operations 52
- environmental specifications 381
- error messages, control panel
  - numerical list 202
  - settings 256, 272
  - types of 201
- error pages 267
- ESD (electrostatic discharge (ESD)) 66
- event log 277

## F

- face-down bin
  - curled paper, troubleshooting 198
  - full message 210, 218
  - locating 6
- face-down cover, removing 95

- face-down delivery unit
  - part number 330
  - removing and replacing 118
- face-up bin
  - curled paper, troubleshooting 198
  - full message 210
  - locating 7
  - removing 87
- face-up delivery assembly, part number 328
- factory default settings, restoring
  - cold reset 293
  - NVRAM initialization 293
  - Resets submenu 276
- faded print, troubleshooting 240
- fans
  - duplexer, removing and replacing 164
  - errors 208
  - locating 53
  - main, removing and replacing 126
  - sub, removing and replacing 129
- FCC regulations 388
- features 3, 4
- feed roller, replacing tray 3 75
- field-replaceable units (FRUs)
  - part numbers 311
  - replacing 66
- file directory page 288
- Finnish laser statement 391
- firmware errors 206, 211, 212, 218
- fixing unit, image-formation operations 59, 62
- fonts
  - Courier settings 267
  - included 4
  - PCL list, printing 289
  - PS list, printing 290
- formatter
  - 55
  - errors 206
  - image-formation operations 59
  - LEDs 291
  - part number 315
  - print-cartridge activation 63

- removing and replacing 111
- replacing 76, 220, 295
- Save + Restore 294
- sequence of operations 52
- testing 298
- tray 1 pickup operations 58
- tray 2 pickup operations 57
- fraud hotline 43
- front cover latch, locating 6
- FRUs (field-replaceable units)
  - part numbers 311
  - replacing 66
- fuser
  - errors 207
  - install message 213
  - modes 259, 269
  - part number 334
  - removing and replacing 112
  - temperature 221
  - wrapping jams 215
- fuser motor
  - locating 53, 228
  - pickup-and-feed system operations 56
  - removing and replacing 125
  - sequence of operations 52
- fusing operations 62
- G**
  - garbled text, troubleshooting 195
  - gateway, setting default 25
  - genuine HP supplies
    - benefits of 42
    - control panel messages 212
  - Getting started guide 2
  - gray background, troubleshooting 242
  - guides, documentation 2
- H**
  - hard disk errors 209
  - heartbeat LED 292
  - Help button, control panel 8
  - help, drivers 2
  - high-voltage power supply
    - engine control system operations 52
    - image-formation operations 59
    - part numbers 332
  - removing and replacing 142
  - HP Customer Care Online 312
  - HP Driver Preconfiguration 11
  - HP Easy Printer Care Software 15
  - HP fraud hotline 43
  - HP Jetdirect EIO print servers 27
  - HP Jetdirect embedded print server
    - bad transmission errors 206
    - buffer overflow errors 205
    - configuration page 283
    - connecting to a network 27
    - critical errors 210
    - documentation 2
    - HP Web Jetadmin 14
    - LEDs 291
    - models including 3
    - settings 275
    - troubleshooting 299
  - HP Jetdirect print server part numbers 312
  - HP Printer Utility, Macintosh 13
  - HP supplies
    - benefits of 42
    - control panel messages 212
  - HP Technical Training 312
  - HP Toner Cleaning Cloth 49
  - HP Web Jetadmin
    - downloading 14
    - network configuration 24
    - supplies status 43
- I**
  - I/O submenu 275
  - image formation
    - laser/scanner operations 55
    - sequence of operations 52
    - system operations 59
  - image transfer stage 61
  - inflate failure 212
  - Information menu 264
  - information pages
    - configuration 279, 283
    - file directory 288
    - HP Jetdirect 283
    - paper-handling configuration 284
    - PCL font list 289
    - PS font list 290
  - supplies status 285
  - usage 286
- Information tab, embedded Web server 281
- initializing NVRAM 293
- input trays. *See* trays
- install black cartridge message 213
- installation
  - box contents 20
  - CompactFlash cards 35
  - enabling memory 40
  - guides 44
  - Macintosh direct connection 29
  - Macintosh direct connections 13
  - Macintosh network software 13
  - memory 30
  - network connections 27
  - parallel port, connecting 23
  - print cartridge 44
  - screws 66
  - site requirements 22
  - USB port, connecting 23
  - verifying for CompactFlash cards 39
  - verifying for DIMMs 34
  - Windows direct connection 28
  - See also* replacing parts
- insufficient memory errors 204, 213
- interface troubleshooting 250
- internal clock errors 202, 211
- internal components, part numbers
  - 500-sheet feeder 344
  - printer 320
- INTR (initial rotation) period 52
- IP address
  - setting 24
  - showing 217, 253
- IPX/SPX, disabling 26
- J**
  - jams
    - causes of 225, 226
    - control panel messages 202
    - detection operations 56, 58
    - duplexer, clearing 235

- first-sheet, troubleshooting 198
- frequent 236
- locations 227
- media selection 221
- output-bin, clearing 233
- print-cartridge area, clearing 231
- print-quality problems 238
- recovery settings 229, 258, 273
- Show Me How menu 262
- trays, clearing 230
- troubleshooting 223
- wrapped fuser 215
- Jetadmin, HP Web
  - downloading 14
  - network configuration 24
  - supplies status 43
- Jetdirect EIO print servers 27
- Jetdirect embedded print server
  - bad transmission errors 206
  - buffer overflow errors 205
  - configuration page 283
  - connecting to a network 27
  - critical errors 210
  - documentation 2
  - HP Web Jetadmin 14
  - LEDs 291
  - models including 3
  - settings 275
  - troubleshooting 299
- Jetdirect print server part numbers 312
- job storage settings 263, 271
- L**
- language, control panel
  - settings 274
- language, printer
  - settings 272
- languages, control panel
  - overlays, part numbers 314
  - replacing overlay 84
  - settings 259
- languages, printer
  - error messages 211
  - PostScript, troubleshooting 304
  - settings 256
- laser safety statement 390
- laser statement (Finland) 391
- laser-beam exposure stage, image formation operations 61
- laser/scanner
  - cautions for servicing 66
  - errors 207
  - image-formation operations 59
  - operations 55
  - removing and replacing 110
- latent-image formation 60
- leading edge detection 58
- LEDs, diagnostic 291
- left cover, removing 92
- left front cover, removing 94
- lenses, laser/scanner operations 55
- letterhead specifications 221
- life expectancies
  - print cartridges 42, 44
- lifter motor, locating 53
- light print, troubleshooting 240
- lights, control panel 8
- lights, diagnostic 291
- lines, troubleshooting
  - black 242
  - scattered 247
  - white 246
- links, embedded Web server 282
- Linux
  - downloading software 15
  - drivers 11
  - troubleshooting 303
- load tray message 213
- locked menus 210
- long media extension, locating 6
- loose toner, troubleshooting 243
- low cartridge settings 257, 273
- low-voltage power supply
  - engine control system operations 52
  - part numbers 332
  - removing and replacing 151
- lower back cover, removing 86
- LSTR (last rotation) period 52
- M**
- Macintosh
  - AppleTalk, disabling 26
- direct connection setup 29
- drivers supported 10
- HP Printer Utility 13
- installing software for direct connections 13
- installing software for networks 13
- removing software 14
- settings, changing 12
- software for 12
- troubleshooting printing 301
- main fan
  - locating 53
  - removing and replacing 126
- main motor
  - locating 53, 228
  - pickup-and-feed system operations 56
  - removing and replacing 120
- maintenance agreements 386
- manual feed 214, 254, 267
- manuals 2
- margins, settings 268
- media
  - curled, troubleshooting 198, 221, 245
  - default settings 266
  - extension, locating 6
  - fuser modes 259, 269
  - Paper Handling menu 265
  - paper-handling configuration page 284
  - part numbers 313
  - pickup-and-feed system operations 56
  - selecting 16
  - Show Me How menu 262
  - size mismatch message 218
  - sizes supported 16
  - skewed, troubleshooting 245
  - trailing edge detection 52
  - tray 1 pickup operations 58
  - tray 2 pickup operations 57
  - tray configuration 218, 254, 271
  - tray selection 196, 198
  - troubleshooting 221, 238
  - types supported 18
  - unexpected size error messages 206

- unexpected type error messages 206
- wrinkled, troubleshooting 246
- media jams
  - causes of 225, 226
  - control panel messages 202
  - detection operations 56, 58
  - duplexer, clearing 235
  - first-sheet 198
  - frequent 236
  - locations 227
  - output-bin, clearing 233
  - print-cartridge area, clearing 231
  - print-quality problems 238
  - recovery settings 229, 258, 273
  - selecting media 221
  - trays, clearing 230
  - troubleshooting 223
  - wrapped fuser 215
- memory
  - DIMM errors 208, 214
  - driver autoconfiguration 10
  - enabling 40
  - included 3
  - installing 30
  - insufficient, errors 204, 213
  - NVRAM initialization 293
  - part numbers 312
  - print cartridge errors 202
  - print-cartridge activation 63
  - removing DIMMs 80
  - replacing formatter 220
  - verifying installation 34
- Menu button, control panel 8
- menus, control panel
  - access denied message 210
  - cold reset 293
  - Configure Device 266
  - Diagnostics 277
  - I/O 275
  - Information 264
  - Paper Handling 265
  - Print Quality 268
  - Printing 266
  - Resets 276
  - Retrieve Job 263
  - Service 278, 296
  - Show Me How 262
- System Setup 271
  - using 261
- messages, control panel
  - numerical list 202
  - settings 256, 272
  - types of 201
- Microsoft Windows. *See* Windows
- mirrors, laser/scanner operations 55
- misformed characters 244
- model number 21
- models, features 3
- motors
  - 500-sheet feeder pickup, removing and replacing 186
  - duplexer feed, removing and replacing 161
  - errors 209
  - fuser, removing and replacing 125
  - locating 53, 228
  - main, removing and replacing 120
  - pickup-and-feed system operations 56
  - sequence of operations 52
  - tray 1 pickup operations 58
  - tray 2 pickup operations 57
- MS-DOS commands 250
- multi-feeds
  - tray 1 pickup operations 58
  - tray 2 pickup operations 57
- multipurpose tray. *See* tray 1
- N**
- Nandflash memory 220
- network connection, locating 7
- Networking tab, embedded Web server 282
- networks
  - administrators guide 2
  - AppleTalk, disabling 26
  - bad transmission errors 206
  - buffer overflow errors 205
  - communication troubleshooting 250
  - configuration page 283
  - configuring 24
  - connecting to 27
  - critical errors 210
- default gateway, setting 25
- disabling protocols 26
- DLC/LLC, disabling 27
- EIO configuration 27
- embedded Web server 15
- HP Jetdirect EIO print servers 27
- HP Jetdirect embedded print server, models including 3
- HP Jetdirect print server part numbers 312
- HP Web Jetadmin 14
- IP address, setting 24
- IPX/SPX, disabling 26
- LEDs 291
- Macintosh, installing software 13
- settings 275
- subnet mask, setting 25
- TCP/IP parameters 24
- troubleshooting 299
- UNIX 14
- Next-Day Onsite Service 386
- no system error 209
- noise specifications 380
- non-HP supplies
  - control panel messages 202, 214
  - policy on 42
- number of copies, default 266
- NVRAM
  - errors 209
  - formatter, replacing 220
  - initialization 293, 294
  - Save + Restore 294
- O**
- on/off switch, locating 7
- online help, drivers 2
- operating environment
  - specifications 381
- operating systems supported 10
- operations
  - engine control system 52
  - image-formation system 59
  - laser/scanner system 55
  - pickup-and-feed system 56
  - power-on 53
- order cartridge message 215
- ordering



- parts 310
- supplies 42
- out, cartridge settings 257, 273
- output bins
  - capacity 3
  - curled paper, troubleshooting 198
  - face-up, removing 87
  - full message 210, 218
  - jams, clearing 233
  - locating 6, 7
  - paper-handling configuration page 284
- overlays, control panel
  - part numbers 314
  - replacing 84

**P**

- pages per minute
  - specifications 3
  - troubleshooting 192, 195, 199
- paper
  - curled, troubleshooting 198, 221, 245
  - default settings 266
  - extension, locating 6
  - fuser modes 259, 269
  - part numbers 313
  - pickup-and-feed system
    - operations 56
  - selecting 16
  - Show Me How menu 262
  - size mismatch message 218
  - sizes supported 16
  - skewed, troubleshooting 245
  - trailing edge detection 52
  - tray 1 pickup operations 58
  - tray 2 pickup operations 57
  - tray configuration 218, 254, 271
  - tray selection 196, 198
  - troubleshooting 221, 238
  - types supported 18
  - unexpected size error messages 206
  - unexpected type error messages 206
  - wrinkled, troubleshooting 246
- Paper Handling menu 265
- paper input trays. *See* trays

- paper jams
  - causes of 225, 226
  - control panel messages 202
  - detection operations 56, 58
  - duplexer, clearing 235
  - first-sheet 198
  - frequent 236
  - locations 227
  - output-bin, clearing 233
  - print-cartridge area, clearing 231
  - print-quality problems 238
  - recovery settings 229, 258, 273
  - selecting media 221
  - trays, clearing 230
  - troubleshooting 223
  - wrapped fuser 215
- paper output bins. *See* output bins
- paper path
  - cleaning 49
  - test 277
  - troubleshooting 224
- paper pickup rollers
  - cleaning 49
  - jams, causes of 225
  - replacement intervals 44
- paper-feed assembly, part number 326
- paper-feed unit, removing and replacing 136
- paper-handling configuration page 284
- parallel port
  - buffer overflow errors 205
  - connecting 23
  - locating 7
  - MS-DOS commands 250
  - settings 275
  - specifications 3
- part numbers
  - 500-sheet feeder covers 342
  - 500-sheet feeder drive assembly 348
  - 500-sheet feeder internal components 344
  - 500-sheet feeder lifter-drive assembly 350
  - 500-sheet feeder paper-pickup assembly 346

- 500-sheet feeder PCA 352
- about 311
- accessories 312
- covers, printer 316
- duplexer 354
- duplexing feed drive assembly 360
- duplexing PCA assembly 358
- face-down delivery assembly 330
- face-up delivery assembly 328
- fuser 334
- internal components, printer 320
- paper-feed assembly 326
- PCAs 332
- supplies 312
- tray 2 336, 338
- tray 3 340
- partial pages, troubleshooting 195
- parts, ordering 310
- PCAs, part numbers 332
- PCL drivers 10
- PCL font list page 289
- PCL submenu 267
- PDF error pages 267
- permanent storage errors 209
- personalities
  - error messages 211
  - PostScript, troubleshooting 304
  - settings 256
- personality
  - settings 272
- photosensitive drum
  - image-formation operations 59, 60, 61, 62
  - laser/scanner operations 55
  - print cartridge components 63
  - sequence of operations 52
- physical specifications 22
- pickup motor, locating 53
- pickup rollers
  - cleaning 49
  - jams, causes of 225
  - replacement intervals 44
  - tray 1, replacing 70
  - tray 2, replacing 72

- tray 3, replacing 75
- pickup solenoid, locating 53
- pickup-and-feed system
  - sensors 56
- PIN, Service menu 296
- PJL commands 250
- ports
  - connecting 23
  - included 3
  - locating 7
- PostScript Printer Description (PPD) files, Macintosh
  - included 13
  - installing 13
  - removing 14
- PostScript, troubleshooting 304
- power
  - sequence of operations 52, 53
  - specifications 378
- power cord statement (Japan) 390
- power supplies
  - engine control system
    - operations 52
  - high-voltage, removing and replacing 142
  - image-formation operations 59
  - low-voltage, removing and replacing 151
  - part numbers 332
- power switch, locating 7
- power-plug connection, locating 7
- PPDs, Macintosh
  - included 13
  - installing 13
  - removing 14
- preprinted paper specifications 221
- primary charging operations 60
- print cartridges
  - activation 63
  - detection operations 52
  - door unit, removing 100
  - EconoMode 270
  - HP 212
  - image-formation operations 59

- install message 213
- low, settings for 257, 273
- memory errors 202
- non-HP, control panel
  - messages 202, 214, 219
- non-HP, policy on 42
- operations 63
- order message 215
- ordering 42
- out, settings for 257, 273
- part numbers 312
- recycling 47
- replace message 217
- replacement intervals 42
- replacing 44
- status page 285
- status, checking 43
- storing 42
- PRINT period 52
- print quality
  - blurred 248
  - curled paper 245
  - defect examples 238
  - dropouts 241
  - garbled text 195
  - gray background 242
  - light print 240
  - lines 242
  - loose toner 243
  - media, troubleshooting 238
  - misformed characters 244
  - random image repetition 248
  - repeating defects 244
  - resolution settings 4, 270
  - scattered lines 247
  - skewed pages 245
  - specks 241
  - tire tracks 247
  - toner smear 243
  - white lines 246
  - white spots 247
  - wrinkled paper 246
- Print Quality submenu 268
- print-cartridge area jams, clearing 231
- printer drivers
  - autoconfiguration 10
  - choosing 10
  - installing Macintosh for direct connections 13

- Linux 11
- online help 2
- operating systems supported 10
- preconfiguration 11
- settings 12
- UNIX 11
- Update Now 11
- Web sites 10
- Printer Job Language (PJL)
  - commands 250
- Printing submenu 266
- processing messages 216
- processor 4
- protocols, disabling 26
- PS Defer Media 255
- PS emulation driver 10
- PS error pages 267
- PS font list page 290

## Q

- quality
  - blurred 248
  - curled paper 245
  - defect examples 238
  - dropouts 241
  - garbled text 195
  - gray background 242
  - light print 240
  - lines 242
  - loose toner 243
  - media, troubleshooting 238
  - misformed characters 244
  - random image repetition 248
  - repeating defects 244
  - resolution settings 4, 270
  - scattered lines 247
  - settings 268
  - skewed pages 245
  - specks 241
  - tire tracks 247
  - toner smear 243
  - white lines 246
  - white spots 247
  - wrinkled paper 246

## R

- RAM disk
  - errors 216



- settings 258, 274
- random image repetition, troubleshooting 248
- Ready light 8
- rear output bin. *See* face-up bin
- recycling print cartridges 47
- registration roller, cleaning 48
- registration unit, removing and replacing 134
- registration, setting 268
- regulatory statements 387
- removing parts
  - 500-sheet feeder drive PCA 186
  - 500-sheet feeder drive unit 182
  - 500-sheet feeder front cover 169
  - 500-sheet feeder left cover 170
  - 500-sheet feeder left front cover 170
  - 500-sheet feeder lifter drive unit 180
  - 500-sheet feeder paper-pickup unit 176
  - 500-sheet feeder pickup motor 186
  - 500-sheet feeder rear dust cover 175
  - 500-sheet feeder right cover 173
  - 500-sheet feeder right front cover 172
  - about 66
  - after-service checklist 68
  - before-service checklist 68
  - cartridge door unit 100
  - cassette-paper pickup unit 113
  - CompactFlash cards 77
  - control panel 108
  - DC controller 139
  - DC controller cover 100
  - DIMMs 80
  - duplexer back cover 159
  - duplexer fan 164
  - duplexer feed motor 161
  - duplexer left cover 156
  - duplexer PCA 167
  - duplexer rightcover 157
  - duplexer top cover 158
  - duplexer unit 84, 155
  - face-down cover 95
  - face-down delivery unit 118
  - face-up bin 87
  - formatter 76, 111
  - fuser 112
  - fuser motor 125
  - high-voltage power supply 142
  - laser/scanner 110
  - left cover 92
  - left front cover 94
  - low-voltage power supply 151
  - lower back cover 86
  - main fan 126
  - main motor 120
  - paper-feed unit 136
  - registration unit 134
  - right cover 86
  - right front cover 96
  - right lower cover 97
  - service approach 67
  - sub fan 129
  - tools, required 66
  - top cover 89
  - transfer roller 135
  - tray 1 pickup roller 70
  - tray 2 96
  - tray 2 pickup roller 72
  - tray 2 separation pad 73
  - tray 3 pickup and feed rollers 75
  - tray 3 retard roller 74
- repair approach 67
- repeating defects, troubleshooting 244, 248
- replacement intervals
  - print cartridges 42, 44
- replacing parts
  - 500-sheet feeder drive PCA 186
  - 500-sheet feeder drive unit 182
  - 500-sheet feeder lifter driveunit 180
  - 500-sheet feeder paper-pickup unit 176
  - 500-sheet feeder pickup motor 186
  - about 66
  - after-service checklist 68
  - before-service checklist 68
  - cassette-paper pickup unit 113
  - configuration 220
  - control-panel overlay 84
  - DC controller 139, 220, 294, 295
  - DIMMs 80
  - duplexer fan 164
  - duplexer feed motor 161
  - duplexer PCA 167
  - duplexer unit 84
  - face-down delivery unit 118
  - formatter 76, 111, 220, 294, 295
  - fuser 112
  - fuser motor 125
  - high-voltage power supply 142
  - laser/scanner 110
  - life expectancies 44
  - low-voltage power supply 151
  - main fan 126
  - main motor 120
  - ordering 310
  - paper-feed unit 136
  - print cartridges 44
  - registration unit 134
  - screws 66
  - service approach 67
  - sub fan 129
  - tools, required 66
  - transfer roller 135
  - tray 1 pickup roller 70
  - tray 2 pickup roller 72
  - tray 2 separation pad 73
  - tray 3 pickup and feed rollers 75
  - tray 3 retard roller 74
- reports
  - configuration page 279, 283
  - file directory page 288
  - HP Jetdirect page 283
  - paper-handling configuration page 284
  - PCL font list page 289

- PS font list page 290
- supplies status page 285
- usage page 286
- reset, cold 293
- Resets submenu 276
- resolution settings 4, 270
- REt 270
- retard roller, replacing tray 3 74
- Retrieve Job menu 263
- right cover, removing 86
- right front cover, removing 96
- right lower cover, removing 97
- right-side cover, locating 6
- rollers
  - cleaning 49
  - image-formation operations 59, 60
  - jams, causes of 225
  - print cartridge 63
  - replacement intervals 44
  - transfer, removing and replacing 135
  - tray 1 pickup operations 58
  - tray 1 pickup, replacing 70
  - tray 2 pickup operations 57
  - tray 2 pickup, replacing 72
  - tray 3 pickup and feed, replacing 75
  - tray 3 retard, replacing 74
- S**
- Save + Restore 294
- scan buffer errors 209
- scattered lines, troubleshooting 247
- screwdrivers, required 66
- screws
  - installing 66
  - types of 67, 311
- self test 294
- sensors
  - errors 208
  - jam detection operations 58
  - locating 228
  - pickup-and-feed system
    - operations 56
  - sequence of operations 52
  - tray 1 pickup operations 58
  - tray 2 pickup operations 57
- separation pads
  - cleaning 48
  - jams, causes of 225
  - replacement intervals 44
  - tray 1 pickup operations 58
  - tray 2 pickup operations 57
  - tray 2, replacing 73
- separation stage 62
- sequence of operations 52
- serial number 21
- service agreements 386
- service approach 67
- Service ID 297
- Service menu 278, 296
- settings
  - access denied message 210
  - auto continue 257, 273
  - cartridge low 257, 273
  - cartridge out 257, 273
  - clearable warnings 256, 272
  - cold reset 293
  - Configure Device menu 266
  - control panel 253
  - drivers 12
  - I/O submenu 275
  - jam recovery 229, 258, 273
  - language, control panel 259, 274
  - network 24
  - NVRAM initialization 293
  - Paper Handling menu 265
  - personality 256, 272
  - Print Quality submenu 268
  - Printing submenu 266
  - Resets submenu 276
  - Retrieve Job menu 263
  - sleep delay 255, 272
  - System Setup submenu 271
  - trays 254
- Settings tab, embedded Web server 281
- setup
  - box contents 20
  - Macintosh direct connection 29
  - Macintosh direct connections 13
  - Macintosh networks 13
  - network connections 27
  - parallel port, connecting 23
  - site requirements 22
  - USB port, connecting 23
  - Windows direct connection 28
- shipping box contents 20
- Show Me How menu 262
- site requirements 22
- skewed pages, troubleshooting 245
- sleep mode
  - delay settings 255, 272
  - exiting 218
  - on/off settings 276
  - wake time, setting 272
- smeared toner, troubleshooting 243
- software
  - drivers, choosing 10
  - embedded Web server 15
  - HP Driver Preconfiguration 11
  - HP Easy Printer Care Software 15
  - HP Web Jetadmin 14
  - installer, Windows 15
  - installing Macintosh for networks 13
  - installing software for direct connections 13
  - Linux 11, 15
  - Macintosh 12
  - online help 2
  - operating systems supported 10
  - removing Macintosh 14
  - settings 12
  - UNIX 11, 14
  - Update Now 11
  - Web sites 10
- solenoids
  - locating 53, 229
  - pickup-and-feed system
    - operations 56
  - sequence of operations 52
- space requirements 22
- specifications
  - acoustic 380
  - electrical 378
  - features 3
  - fuser temperature 221
  - operating environment 381
  - physical 22

- specks, troubleshooting 241
- speed
  - processor 4
  - specifications 3
  - troubleshooting 192, 195, 199
- static, precautions for 66
- status
  - control panel messages 201
  - HP Easy Printer Care Software 15
  - low cartridge settings 257, 273
  - out, cartridge settings 257, 273
  - supplies, checking 43
  - supplies, printing page 285
- STBY (standby) period 52
- Stop button 8
- stopped printing, troubleshooting 195, 216
- storage errors 209
- stored job settings 271
- stored jobs settings 263
- storing print cartridges 42
- sub fan
  - locating 53
  - removing and replacing 129
- subnet mask, setting 25
- supplies
  - documentation 2
  - HP, control panel messages 212
  - install black cartridge message 213
  - installation guides 44
  - low cartridge settings 257, 273
  - memory errors 202
  - non-HP, control panel messages 202, 214, 219
  - non-HP, policy on 42
  - order cartridge message 215
  - ordering 42
  - out, cartridge settings 257, 273
  - part numbers 312
  - recycling 47
  - replace message 217
  - replacement intervals 42, 44
  - replacing print cartridge 44
- status page 285
- status, checking 43
- status, HP Easy Printer Care Software 15
- support, technical 312
- System Setup submenu 271
- T**
- TCP/IP parameters 24, 275
- technical support 312
- temperature specifications
  - fuser 221, 269
  - operating environment 381
- tests
  - engine 298
  - formatter 298
  - paper path 277
  - self 294
- theory of operations
  - engine control system 52
  - image-formation system 59
  - laser/scanner system 55
  - pickup-and-feed system 56
  - power-on 53
- time, setting 211, 271, 282
- tire tracks, troubleshooting 247
- toner
  - adhesion, troubleshooting 221
  - cleaning manually 49
  - cleaning spilled 50
  - density settings 270
  - EconoMode 270
  - image-formation operations 59, 61, 62
  - loose, troubleshooting 243
  - print-cartridge operations 63
  - smeared, troubleshooting 243
  - specks 241
  - tire tracks 247
- toner cartridges. *See* print cartridges
- tools, required 66
- top cover, removing 89
- top output bin. *See* face-down bin
- trailing edge detection 52
- training schedules 312
- transfer roller
  - cleaning 48
  - image-formation operations 59, 61
- removing and replacing 135
- replacement intervals 44
- sequence of operations 52
- transfer stage 61
- tray 1
  - cleaning parts 48
  - jams, causes of 225
  - locating 6
  - media sizes supported 16
  - media types supported 18
  - models including 3
  - pickup operations 58
  - pickup roller, replacing 70
  - pickup-and-feed system operations 56
  - roller replacement intervals 44
  - sensors, locating 228
  - solenoids, locating 229
- tray 2
  - cassette-paper pickup unit, removing and replacing 113
  - cleaning parts 48
  - jams, causes of 225
  - locating 6
  - media sizes supported 16
  - media types supported 18
  - models including 3
  - part numbers 336, 338
  - pickup operations 57
  - pickup roller, replacing 72
  - pickup-and-feed system operations 56
  - removing 96
  - roller replacement intervals 44
  - sensors, locating 228
  - separation pad, replacing 73
  - solenoids, locating 229
- tray 3
  - driver autoconfiguration 10
  - jams, causes of 225
  - media sizes supported 16
  - media types supported 18
  - models including 3
  - part number 312
  - part numbers 340
  - pickup and feed rollers, replacing 75
  - retard roller, replacing 74
  - roller replacement intervals 44
  - See also* 500-sheet feeder

## trays

- action not currently available message 210
  - bad connection message 210
  - cleaning parts 48
  - configuration 218, 254, 265, 271
  - driver autoconfiguration 10
  - empty 218
  - included 3
  - insert or close message 213
  - jams, causes of 225
  - jams, clearing 230
  - load message 213
  - locating 6
  - manual feed messages 214
  - manual feed settings 267
  - media sizes supported 16
  - media types supported 18
  - open message 218
  - overfilled message 218
  - paper-handling configuration page 284
  - pickup-and-feed system operations 56
  - registration 268
  - roller replacement intervals 44
  - selection, troubleshooting 196, 198
  - sensors, locating 228
  - Show Me How menu 262
  - size mismatch message 218
  - solenoids, locating 229
  - type mismatch message 219
  - unexpected size errors 206
  - unexpected type errors 206
- ## troubleshooting
- blank pages 199
  - blurred print 248
  - checklist 192
  - cold reset 293
  - communication 250
  - configuration page 279, 283
  - configuration page not printing 193
  - control panel 193
  - control panel messages 201
  - curled paper 198, 245
  - Diagnostics menu 277
  - dropouts 241
  - engine test 298
  - file directory page 288
  - flowchart 193
  - formatter test 298
  - garbled text 195
  - gray background 242
  - HP embedded Jetdirect page 283
  - jams 223
  - jams, first-sheet 198
  - LEDs 291
  - light print 240
  - lines 242
  - Linux problems 303
  - loose toner 243
  - Macintosh problems 301
  - media 221, 238
  - misformed characters 244
  - networks 299
  - NVRAM initialization 293
  - paper path 224
  - paper-handling configuration page 284
  - partial pages 195
  - PCL font list page 289
  - PostScript 304
  - print quality 238
  - printing from a program 194, 200
  - PS font list page 290
  - random image repetition 248
  - repeating defects 244
  - scattered lines 247
  - self test 294
  - service approach 67
  - Service menu 296
  - skewed pages 245
  - specks 241
  - speed 192, 195, 199
  - stopped printing 195
  - supplies status page 285
  - tire tracks 247
  - toner smear 243
  - tray selection 196, 198
  - usage page 286
  - white lines 246
  - white spots 247
  - Windows problems 300
  - wrinkled paper 246

## U

- unauthorized supply 202, 219
- unexpected size error messages 206
- unexpected type error messages 206
- UNIX software 11, 14
- Update Now 11
- usage page 286
- USB cable, part number 312
- USB port
  - buffer overflow errors 205
  - connecting 23
  - locating 7
  - Macintosh setup 13, 29
  - specifications 3
  - Windows setup 28
- user guide 2
- user-replaceable parts 70

## V

- vacuuming toner 50
- VCCI statement (Japan) 390
- verifying installation
  - CompactFlash cards 39
  - DIMMs 34
- vertical white lines, troubleshooting 246

## W

- WAIT period 52
- wake time, setting 272
- warning messages 201
- warranty
  - non-HP supplies 42
  - Service ID 297
  - statement 383
- Web Jetadmin
  - downloading 14
  - network configuration 24
  - supplies status 43
- Web sites
  - documentation 2
  - embedded Web server links 282
  - fraud hotline 43
  - Linux 15, 303
  - ordering parts 310
  - ordering supplies 42
  - printer drivers 10

- recycling supplies 47
- technical support 312
- training schedules 312
- UNIX software 14
- white lines, troubleshooting 246
- white spots, troubleshooting
  - 247
- Windows
  - direct connection setup 28
  - driver autoconfiguration 10
  - drivers supported 10
  - HP Driver Preconfiguration 11
  - installer 15
  - settings, changing 12
  - troubleshooting printing 300
  - Update Now 11
- wrapped fuser jams 215
- wrinkled paper, troubleshooting
  - 246





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

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



Q7543-90934