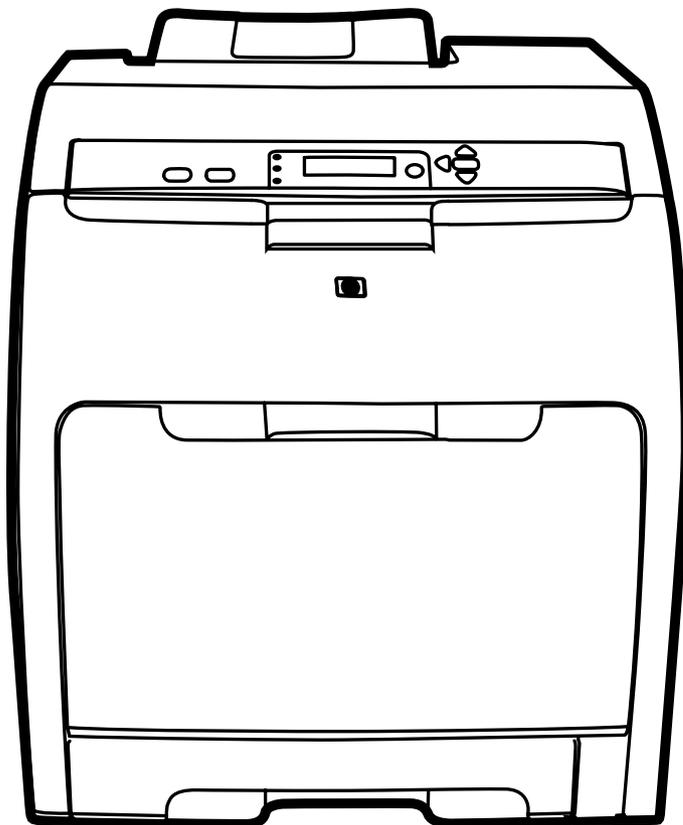


HP Color LaserJet 3000/3600/3800 Series Printers Service Repair Workshop Manual

Product: 2005 HP Color LaserJet 3000/3600/3800 Series Printers Service Repair Workshop Manual

Full Download: <https://www.irepairmanual.com/downloads/2005-hp-color-laserjet-300036003800-series-printers-service-repair-workshop-manual/>

et-300036003800-series-printers-service-repair-workshop-manual



Sample of manual. Download All 372 pages at:

<https://www.irepairmanual.com/downloads/2005-hp-color-laserjet-300036003800-series-printers-service-repair-workshop-manual/>



Product: 2005 HP Color LaserJet 3000/3600/3800 Series Printers Service Repair Workshop Manual
Full Download: <https://www.arepairmanual.com/downloads/2005-hp-color-laserjet-300036003800-series-printers-service-repair-workshop-manual/>

Sample of manual. Download All 372 pages at:
<https://www.arepairmanual.com/downloads/2005-hp-color-laserjet-300036003800-series-printers-service-repair-workshop-manual/>

HP Color LaserJet 3000/3600/3800 Series printers

Service Manual



Copyright and license

© 2005 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, 11/2005

Part number Q5982-90932

Trademark credits

Microsoft® and Windows® 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 Color LaserJet 3000 Series printer.....	3
HP Color LaserJet 3600 Series printer.....	4
HP Color LaserJet 3800 Series printer.....	4
Features at a glance.....	5
Walkaround.....	7
Control-panel overview.....	9
Control-panel indicator lights.....	10
Display.....	10
Printer software.....	12
HP Color LaserJet 3000 Series printer and HP Color LaserJet 3800 Series printer drivers.....	12
HP Color LaserJet 3600 Series printer drivers.....	12
Additional drivers.....	13
Software for networks.....	13
HP Web Jetadmin.....	13
UNIX.....	14
Linux.....	14
Utilities.....	14
HP Easy Printer Care Software.....	14
Embedded Web server.....	14
Other components and utilities.....	14
Print-media specifications.....	16
Supported media types.....	16
Supported media sizes.....	16

2 Installation and configuration

What is in the box.....	20
Site requirements.....	21
Physical specifications.....	21
Connecting to a network or a computer.....	22
Printer memory.....	24
Installing memory DIMMs.....	24
To install memory and font DIMMs.....	24
Enabling memory.....	27
To enable memory for Windows.....	27
Checking DIMM installation.....	27

To check DIMM installation.....	27
---------------------------------	----

3 Maintenance

Understanding approximate supplies-replacement intervals.....	30
Replacing supplies.....	31
Locating supplies.....	31
Supply replacement guidelines.....	31
Replacing the fuser.....	32
Managing the print cartridge.....	33
HP print cartridges.....	33
Non-HP print cartridges.....	33
Print-cartridge authentication.....	33
Print-cartridge storage.....	33
Print-cartridge life expectancy.....	33
Checking the supply level.....	34
Using the control panel.....	34
Using the embedded Web server.....	34
Using HP Web Jetadmin.....	34
Replacing print cartridges.....	34
To replace the print cartridge.....	35
Cleaning the printer.....	37
Cleaning spilled toner.....	37
Vacuum specifications.....	37
Calibrating the printer.....	38
Tools for troubleshooting.....	39
Using printer information pages.....	39
Configuring e-mail alerts.....	40
Using the embedded Web server.....	40
To open the embedded Web server by using a network connection.....	41
Embedded Web server sections.....	42
Using the HP Easy Printer Care Software.....	43
Supported operating systems.....	43
To use the HP Easy Printer Care Software.....	44
HP Easy Printer Care Software sections.....	44
Using the HP Printer Utility for Macintosh.....	45
To open the HP Printer Utility in Mac OS X V10.2.....	45
To open the HP Printer Utility in Mac OS X V10.3.....	45
HP Printer Utility features.....	45

4 Theory of operation

Engine control system.....	48
Power-on sequence.....	49
Motors, fans, and solenoids.....	50
Laser/scanner system.....	52
Pickup-and-feed-system.....	53
Sensors in the pickup-and-feed system trays (cassettes).....	54
Cassette pickup mechanism.....	55
Multipurpose-tray pickup mechanism.....	56
Feed-speed control.....	56
Sensor jam detection.....	58

Image-formation system.....	61
Image-formation process.....	62
Latent-image formation stage.....	63
Step 1: pre-exposure.....	63
Step 2: primary charging.....	64
Step 3: laser-beam exposure.....	64
Developing stage.....	64
Step 4: developing.....	64
Transfer stage.....	64
Step 5: media feed.....	65
Step 6: image transfer.....	65
Step 7: separation from the drum.....	65
Step 8: separation from the ETB.....	66
Fusing stage.....	66
Step 9: fusing.....	66
Cleaning stage.....	66
Step 10: drum cleaning.....	67
Print cartridge.....	67
Print-cartridge activation.....	68

5 Removal and replacement

Removal and replacement strategy.....	70
Introduction.....	70
Required tools	71
Types of screws.....	72
Service approach.....	73
Before performing service.....	73
After performing service.....	73
Print cartridges.....	74
External doors, covers, and panels.....	75
Front cover.....	75
Upper cover (fuser door).....	80
Rear lower cover.....	83
Left cover.....	84
Right cover.....	87
Rear upper cover.....	91
Internal assemblies.....	92
Formatter cage.....	92
Electrostatic transfer belt (ETB).....	94
Fuser.....	95
Duplex fan.....	96
Print-cartridge drive motors.....	99
Duplex-reverse-drive assembly.....	100
Duplex-feed-drive assembly.....	103
Fuser drive assembly.....	105
Developing separation-drive assembly.....	108
Pickup-and-feed assembly.....	111
Pickup-drive assembly.....	116
Laser/scanner assembly.....	125
Main fan.....	129

Printed circuit assemblies (PCAs).....	131
Low-voltage power-supply PCA.....	131
DC controller PCA.....	135
High-voltage power supply.....	137
Memory-controller PCA.....	139
Driver PCA.....	141
Control panel.....	143
Pickup-and-feed driver PCA.....	145
Duplex-driver PCA.....	147
Sensors.....	149
Cassette media sensor (HP LaserJet 3600/3800).....	149
Temperature sensor.....	151
Paper and registration sensor covers.....	152
Cartridge-sensor PCA.....	153
500-sheet feeder.....	156
500-sheet feeder right cover.....	156
500-sheet feeder left cover.....	158
500-sheet feeder rear cover.....	161
500-sheet feeder driver PCA.....	163
Media sensor (500-sheet feeder).....	165

6 Troubleshooting

Troubleshooting process.....	170
Pre-troubleshooting checklist	170
Troubleshooting flowchart.....	172
Power-on checks.....	173
Control-panel messages.....	174
Jams.....	193
Jam recovery.....	193
Avoiding jams.....	194
Clearing jams.....	195
Image-formation troubleshooting.....	205
Print-quality problems associated with media.....	205
Defects on overhead transparencies.....	206
Print-quality problems that are related to the environment.....	206
Print-quality problems that are related to jams.....	207
Print-quality problems from toner buildup.....	207
Print-quality troubleshooting pages.....	207
Image defects.....	208
Light image.....	209
Light color.....	209
Dark image.....	210
Dark color.....	211
Completely blank image.....	211
All black or solid color.....	211
Dots in vertical lines.....	211
Dirt on back of paper.....	212
Dirt on front of paper.....	212
Vertical lines	213
White vertical lines.....	213

Horizontal line.....	213
White horizontal line.....	213
Color missing	214
Blank spots.....	214
Poor fusing.....	215
Image distortion.....	215
Color misregistration.....	215
Smearing.....	216
Misplaced image.....	216
Reversed color.....	216
Snail tracks.....	217
Repetitive-defects troubleshooting.....	218
Interface troubleshooting.....	220
Communication checks.....	220
EIO troubleshooting.....	220
Service menu.....	221
Using the Service menu.....	221
Clear event log.....	221
Total page count.....	221
Transfer kit count.....	221
Fuser kit count.....	221
Serial number.....	221
Diagnostics menu.....	222
Diagnostics.....	223
LED diagnostics.....	223
Diagnostics mode.....	223
Diagnostics that put the engine into the special diagnostics mode.....	224
Diagnostic tests.....	224
Individual diagnostic tests.....	225
Print the event log page.....	225
View the event log on the control-panel display.....	225
Print the print-quality (PQ) troubleshooting pages.....	226
Disable cartridge check (special mode test).....	226
Paper-path sensor test.....	226
Paper-path test.....	226
Manual sensor test (special mode test).....	227
Component test (special mode test).....	228
Print/Stop test.....	230
Test pages.....	231
Engine test page.....	231
Formatter test.....	231
Half-self test.....	231
Drum-rotation test.....	232
Engine resets.....	233
Engine resets.....	233
Cold reset.....	233
NVRAM initialization.....	233
Hard-disk initialization.....	234
Service ID.....	235
Converting the Service ID to an actual date.....	235

Restoring the Service ID.....	235
Troubleshooting diagrams.....	236
Connector locations.....	236
Major assemblies.....	238
DC controller connectors.....	243
Timing diagram.....	244
Circuit diagrams.....	246

7 Parts and diagrams

Ordering parts and supplies.....	250
Parts.....	250
How to use the parts lists and diagrams.....	250
Types of screws.....	250
Related documentation and software.....	251
Accessories and supplies.....	251
External panels and covers.....	256
Internal components.....	264
Paper-pickup drive assembly.....	274
Duplexing-feed drive assembly (duplex models).....	276
Duplexing reverse-drive assembly (duplex models).....	278
Developing separation-drive assembly.....	280
Fuser drive assembly.....	282
Cassette (tray 2).....	284
Paper-pickup assembly (HP CLJ 3600/3800).....	286
Paper-pickup assembly (HP CLJ 3000).....	288
Electronic transfer belt (simplex models).....	290
Electronic transfer belt (duplex models).....	292
Multipurpose tray assembly (tray 1).....	294
Duplex-paper feed assembly (duplex models).....	296
Fuser.....	298
PCAs	300
500-sheet feeder cassette (tray 3).....	302
500-sheet feeder paper-pickup assembly.....	304
500-sheet feeder PCA.....	306
Alphabetical parts list.....	308
Numerical parts list.....	317

Appendix A Printer specifications

Electrical specifications.....	328
Power-consumption specifications.....	329
Acoustic specifications.....	330
Operating-environment specifications.....	331

Appendix B Product warranty statements

Hewlett-Packard Limited Warranty Statement.....	334
Availability of support and service.....	335
HP maintenance agreements.....	335
Next-Day Onsite Service.....	335

Appendix C Regulatory statements

FCC regulations.....	338
Declaration of conformity (HP Color LaserJet 3000 Series printer).....	339
Declaration of conformity (HP Color LaserJet 3600 Series and HP Color LaserJet 3800 Series printer).....	340
Safety statements.....	341
Laser safety.....	341
Canadian DOC regulations.....	341
EMI statement (Korea).....	341
VCCI statement (Japan).....	341
Power cord statement (Japan).....	341
Laser statement for Finland.....	342
Index.....	343

List of tables

Table 1-1	Printer guides.....	2
Table 1-2	HP Color LaserJet 3000 Series printer configurations.....	3
Table 1-3	HP Color LaserJet 3600 Series printer configurations.....	4
Table 1-4	HP Color LaserJet 3800 Series printer configurations.....	4
Table 1-5	Features.....	5
Table 1-6	Printer drivers for the HP Color LaserJet 3000 and 3800 Series printers.....	12
Table 1-7	Tray 1 (multipurpose tray) media types.....	16
Table 1-8	Tray 2 and tray 3 media types.....	16
Table 1-9	Supported media sizes.....	16
Table 1-10	Automatic 2-sided printing	17
Table 2-1	Physical dimensions for the HP Color LaserJet 3000/3600/3800 Series printers.....	21
Table 4-1	Sequence of operation.....	48
Table 6-1	Troubleshooting flowchart.....	172
Table 6-2	Common causes of jams.....	194
Table 6-3	Image defects.....	208
Table 6-4	Causes for light images.....	209
Table 6-5	Causes for one color printing light.....	209
Table 6-6	Causes for dark images.....	210
Table 6-7	Causes for one color printing darker than others.....	211
Table 6-8	Causes for a completely blank image.....	211
Table 6-9	Causes for an all black or solid colored image.....	211
Table 6-10	Causes for vertical lines of white dots.....	211
Table 6-11	Causes for dirt on the back of the paper.....	212
Table 6-12	Causes for dirt on the front of the paper.....	212
Table 6-13	Causes for vertical lines.....	213
Table 6-14	Causes for white vertical lines.....	213
Table 6-15	Causes for horizontal line.....	213
Table 6-16	Causes for white horizontal lines.....	214
Table 6-17	Causes for a missing color.....	214
Table 6-18	Causes for blank spots.....	214
Table 6-19	Causes for poor fusing.....	215
Table 6-20	Causes for distortion or blurring.....	215
Table 6-21	Causes for color misregistration.....	215
Table 6-22	Causes for smearing.....	216
Table 6-23	Causes for a misplaced image.....	216
Table 6-24	Causes for reversed color.....	216
Table 6-25	Causes for snail tracks.....	217
Table 6-26	Causes of repetitive defects.....	218
Table 6-27	Communication check.....	220
Table 6-28	Manual sensor test.....	228

Table 7-1	Technical support Web sites.....	251
Table 7-2	Accessories and supplies.....	251
Table 7-3	External panels and covers (1 of 2).....	257
Table 7-4	External panels, and covers (2 of 2).....	259
Table 7-5	Front-cover assembly (simplex model).....	261
Table 7-6	Front-cover assembly (duplex model).....	263
Table 7-7	Internal components (1 of 5).....	265
Table 7-8	Internal components (2 of 5).....	267
Table 7-9	Internal components (3 of 5).....	269
Table 7-10	Internal components (4 of 5).....	271
Table 7-11	Internal components (5 of 5).....	273
Table 7-12	Paper-pickup drive assembly.....	275
Table 7-13	Duplexing-feed drive assembly (duplex models).....	277
Table 7-14	Duplexing reverse-drive assembly (duplex models).....	279
Table 7-15	Developing separation-drive assembly.....	281
Table 7-16	Fuser drive assembly.....	283
Table 7-17	Cassette (tray 2).....	285
Table 7-18	Paper-pickup assembly (HP CLJ 3600/3800).....	287
Table 7-19	Paper-pickup assembly (HP CLJ 3000).....	289
Table 7-20	Electronic transfer belt (simplex models).....	291
Table 7-21	Electronic transfer belt (duplex models).....	293
Table 7-22	Multipurpose tray assembly (tray 1).....	295
Table 7-23	Duplex-paper feed assembly (duplex models).....	297
Table 7-24	Fuser.....	299
Table 7-25	PCAs.....	301
Table 7-26	500-sheet feeder cassette (tray 3).....	303
Table 7-27	500-sheet feeder paper-pickup assembly.....	305
Table 7-28	500-sheet feeder PCA.....	307
Table 7-29	Alphabetical parts list.....	308
Table 7-30	Numerical parts list.....	317
Table A-1	Electrical specifications for the HP Color LaserJet 3000 Series printers.....	328
Table A-2	Electrical specifications for the HP Color LaserJet 3600 Series printer.....	328
Table A-3	Electrical specifications for the HP Color LaserJet 3800 Series printer.....	328
Table A-4	Power consumption (average, in watts).....	329
Table A-5	Acoustic emissions for the HP Color LaserJet 3000 Series printers.....	330
Table A-6	Acoustic emissions for the HP Color LaserJet 3600 Series printer.....	330
Table A-7	Acoustic emissions for the HP Color LaserJet 3800 Series printers.....	330
Table A-8	Operating environment specifications.....	331

List of figures

Figure 1-1	Front view (shown with optional 500-sheet paper feeder).....	7
Figure 1-2	Back and side view.....	8
Figure 1-3	Control panel buttons and lights.....	9
Figure 1-4	Printer display.....	10
Figure 2-1	What is in the shipping box.....	20
Figure 3-1	Supply-item locations.....	31
Figure 4-1	Engine control system components.....	48
Figure 4-2	Power-on sequence.....	49
Figure 4-3	Motors, fans, and solenoids.....	50
Figure 4-4	Laser/scanner system.....	52
Figure 4-5	Pickup-and-feed system.....	53
Figure 4-6	Pickup-and-feed system sensors.....	54
Figure 4-7	Cassette pickup mechanism.....	55
Figure 4-8	Multipurpose-tray pickup mechanism.....	56
Figure 4-9	Image formation system.....	61
Figure 4-10	Image-formation steps.....	63
Figure 4-11	Pre-exposure.....	64
Figure 4-12	Laser-beam exposure.....	64
Figure 4-13	Media feed.....	65
Figure 4-14	Image transfer.....	65
Figure 4-15	Separation from the drum.....	66
Figure 4-16	Fusing.....	66
Figure 4-17	Print cartridge.....	67
Figure 4-18	Print-cartridge activation.....	68
Figure 5-1	Phillips and pozidrive screwdriver comparison.....	71
Figure 5-2	Remove the print cartridges (1 of 2).....	74
Figure 5-3	Remove the print cartridges (2 of 2).....	74
Figure 5-4	Remove the front cover (1 of 7).....	75
Figure 5-5	Remove the front cover (2 of 7).....	76
Figure 5-6	Remove the front cover (3 of 7).....	76
Figure 5-7	Remove the front cover (4 of 7).....	77
Figure 5-8	Remove the front cover (5 of 7).....	77
Figure 5-9	Remove the front cover (6 of 7).....	78
Figure 5-10	Remove the front cover (7 of 7).....	79
Figure 5-11	Remove the upper cover (1 of 5).....	80
Figure 5-12	Remove the upper cover (2 of 5).....	80
Figure 5-13	Remove the upper cover (3 of 5).....	81
Figure 5-14	Remove the upper cover (4 of 5).....	81
Figure 5-15	Remove the upper cover (5 of 5).....	82
Figure 5-16	Remove the rear lower cover (1 of 2).....	83

Figure 5-17	Remove the rear lower cover (2 of 2).....	83
Figure 5-18	Remove the left cover (1 of 5).....	84
Figure 5-19	Remove the left cover (2 of 5).....	84
Figure 5-20	Remove the left cover (3 of 5).....	85
Figure 5-21	Remove the left cover (4 of 5).....	85
Figure 5-22	Remove the left cover (5 of 5).....	86
Figure 5-23	Remove the right cover (1 of 4).....	87
Figure 5-24	Remove the right cover (2 of 4).....	88
Figure 5-25	Remove the right cover (3 of 4).....	89
Figure 5-26	Remove the right cover (4 of 4).....	90
Figure 5-27	Remove the rear upper cover.....	91
Figure 5-28	Remove the formatter cage.....	93
Figure 5-29	Remove the front ETB.....	94
Figure 5-30	Remove the fuser.....	95
Figure 5-31	Remove the duplex fan (1 of 3).....	96
Figure 5-32	Remove the duplex fan (2 of 3).....	97
Figure 5-33	Remove the duplex fan (3 of 3).....	98
Figure 5-34	Remove the print-cartridge motor.....	99
Figure 5-35	Remove the duplex-reverse-drive assembly (1 of 5).....	100
Figure 5-36	Remove the duplex-reverse-drive assembly (2 of 5).....	101
Figure 5-37	Remove the duplex-reverse-drive assembly (3 of 5).....	101
Figure 5-38	Remove the duplex-reverse-drive assembly (4 of 5).....	102
Figure 5-39	Remove the duplex-reverse-drive assembly (5 of 5).....	102
Figure 5-40	Remove the duplex-feed-drive assembly (1 of 2).....	103
Figure 5-41	Remove the duplex-feed-drive assembly (2 of 2).....	104
Figure 5-42	Remove the fuser drive assembly (1 of 4).....	105
Figure 5-43	Remove the fuser drive assembly (2 of 4).....	106
Figure 5-44	Remove the fuser drive assembly (3 of 4).....	106
Figure 5-45	Remove the fuser drive assembly (4 of 4).....	107
Figure 5-46	Remove the developing separation-drive assembly (1 of 4).....	108
Figure 5-47	Remove the developing separation-drive assembly (2 of 4).....	109
Figure 5-48	Remove the developing separation-drive assembly (3 of 4).....	109
Figure 5-49	Remove the developing separation-drive assembly (4 of 4).....	110
Figure 5-50	Remove the pickup-and-feed assembly (1 of 8).....	111
Figure 5-51	Remove the pickup-and-feed assembly (2 of 8).....	112
Figure 5-52	Remove the pickup-and-feed assembly (3 of 8).....	112
Figure 5-53	Remove the pickup-and-feed assembly (4 of 8).....	113
Figure 5-54	Remove the pickup-and-feed assembly (5 of 8).....	113
Figure 5-55	Remove the pickup-and-feed assembly (6 of 8).....	114
Figure 5-56	Remove the pickup-and-feed assembly (7 of 8).....	114
Figure 5-57	Remove the pickup-and-feed assembly (8 of 8).....	115
Figure 5-58	Remove the pickup-drive assembly (1 of 13).....	117
Figure 5-59	Remove the pickup-drive assembly (2 of 13).....	118
Figure 5-60	Remove the pickup-drive assembly (3 of 13).....	118
Figure 5-61	Remove the pickup-drive assembly (4 of 13).....	119
Figure 5-62	Remove the pickup-drive assembly (5 of 13).....	119
Figure 5-63	Remove the pickup-drive assembly (6 of 13).....	120
Figure 5-64	Remove the pickup-drive assembly (7 of 13).....	121
Figure 5-65	Remove the pickup-drive assembly (8 of 13).....	121
Figure 5-66	Remove the pickup-drive assembly (9 of 13).....	122

Figure 5-67	Remove the pickup-drive assembly (10 of 13).....	122
Figure 5-68	Remove the pickup-drive assembly (11 of 13).....	123
Figure 5-69	Remove the pickup-drive assembly (12 of 13).....	123
Figure 5-70	Remove the pickup-drive assembly (13 of 13).....	124
Figure 5-71	Remove the laser/scanner assembly (1 of 6).....	125
Figure 5-72	Remove the laser/scanner assembly (2 of 6).....	126
Figure 5-73	Remove the laser/scanner assembly (3 of 6).....	126
Figure 5-74	Remove the laser/scanner assembly (4 of 6).....	127
Figure 5-75	Remove the laser/scanner assembly (5 of 6).....	127
Figure 5-76	Remove the laser/scanner assembly (6 of 6).....	128
Figure 5-77	Remove the main fan (1 of 2).....	129
Figure 5-78	Remove the main fan (2 of 2).....	130
Figure 5-79	Remove the low-voltage power-supply PCA (1 of 6).....	132
Figure 5-80	Remove the low-voltage power-supply PCA (2 of 6).....	132
Figure 5-81	Remove the low-voltage power-supply PCA (3 of 6).....	133
Figure 5-82	Remove the low-voltage power-supply PCA (4 of 6).....	133
Figure 5-83	Remove the low-voltage power-supply PCA (5 of 6).....	134
Figure 5-84	Remove the low-voltage power-supply PCA (6 of 6).....	134
Figure 5-85	Remove the DC controller PCA (1 of 3).....	135
Figure 5-86	Remove the DC controller PCA (2 of 3).....	136
Figure 5-87	Remove the DC controller PCA (3 of 3).....	136
Figure 5-88	Remove the high-voltage power supply (1 of 3).....	137
Figure 5-89	Remove the high-voltage power supply (2 of 3).....	138
Figure 5-90	Remove the high-voltage power supply (3 of 3).....	138
Figure 5-91	Remove the memory-controller PCA (1 of 2).....	139
Figure 5-92	Remove the memory-controller PCA (2 of 2).....	140
Figure 5-93	Remove the driver PCA (1 of 2).....	141
Figure 5-94	Remove the driver PCA (2 of 2).....	142
Figure 5-95	Remove the control panel (1 of 2).....	143
Figure 5-96	Remove the control panel (2 of 2).....	144
Figure 5-97	Remove the pickup-and-feed driver PCA (1 of 3).....	145
Figure 5-98	Remove the pickup-and-feed driver PCA (2 of 3).....	146
Figure 5-99	Remove the pickup-and-feed driver PCA (3 of 3).....	146
Figure 5-100	Remove the duplex-driver PCA (1 of 3).....	147
Figure 5-101	Remove the duplex-driver PCA (2 of 3).....	148
Figure 5-102	Remove the duplex-driver PCA (3 of 3).....	148
Figure 5-103	Remove the cassette media sensor (1 of 2).....	149
Figure 5-104	Remove the cassette media sensor (2 of 2).....	150
Figure 5-105	Remove the temperature sensor.....	151
Figure 5-106	Remove the paper and registration sensor covers.....	152
Figure 5-107	Remove the cartridge-sensor PCA (1 of 4).....	153
Figure 5-108	Remove the cartridge-sensor PCA (2 of 4).....	154
Figure 5-109	Remove the cartridge-sensor PCA (3 of 4).....	154
Figure 5-110	Remove the cartridge-sensor PCA (4 of 4).....	155
Figure 5-111	Remove the 500-sheet feeder right cover (1 of 3).....	156
Figure 5-112	Remove the 500-sheet feeder right cover (2 of 3).....	157
Figure 5-113	Remove the 500-sheet feeder right cover (3 of 3).....	157
Figure 5-114	Remove the 500-sheet feeder left cover (1 of 5).....	158
Figure 5-115	Remove the 500-sheet feeder left cover (2 of 5).....	159
Figure 5-116	Remove the 500-sheet feeder left cover (3 of 5).....	159

Figure 5-117	Remove the 500-sheet feeder left cover (4 of 5).....	160
Figure 5-118	Remove the 500-sheet feeder left cover (5 of 5).....	160
Figure 5-119	Remove the 500-sheet feeder rear cover (1 of 3).....	161
Figure 5-120	Remove the 500-sheet feeder rear cover (2 of 3).....	162
Figure 5-121	Remove the 500-sheet feeder rear cover (3 of 3).....	162
Figure 5-122	Remove the 500-sheet-feeder driver PCA (1 of 2).....	163
Figure 5-123	Remove the 500-sheet-feeder driver PCA (2 of 2).....	164
Figure 5-124	Remove the media sensor (500-sheet feeder) (1 of 4).....	165
Figure 5-125	Remove the media sensor (500-sheet feeder) (2 of 4).....	166
Figure 5-126	Remove the media sensor (500-sheet feeder) (3 of 4).....	166
Figure 5-127	Remove the media sensor (500-sheet feeder) (4 of 4).....	167
Figure 6-1	Jam locations (printer shown without optional tray 3).....	193
Figure 6-2	Repetitive defect ruler.....	219
Figure 6-3	Door switch and fuser interlock.....	225
Figure 6-4	Engine test page.....	231
Figure 6-5	Printer connector locations.....	236
Figure 6-6	500-sheet tray connector locations.....	237
Figure 6-7	Major assemblies (1 of 5).....	238
Figure 6-8	Major assemblies (2 of 5).....	239
Figure 6-9	Major assemblies (3 of 5).....	240
Figure 6-10	Major assemblies (4 of 5).....	241
Figure 6-11	Major assemblies (5 of 5).....	242
Figure 6-12	DC controller connectors.....	243
Figure 6-13	Timing diagram (HP LaserJet 3000/3800).....	244
Figure 6-14	Timing diagram (HP LaserJet 3600).....	245
Figure 6-15	General circuit diagram (1 of 2).....	247
Figure 6-16	General circuit diagram (2 of 2).....	248
Figure 7-1	External panels and covers (1 of 2).....	256
Figure 7-2	External panels and covers (2 of 2).....	258
Figure 7-3	Front-cover assembly (simplex model).....	260
Figure 7-4	Front-cover assembly (duplex model).....	262
Figure 7-5	Internal components (1 of 5).....	264
Figure 7-6	Internal components (2 of 5).....	266
Figure 7-7	Internal components (3 of 5).....	268
Figure 7-8	Internal components (4 of 5).....	270
Figure 7-9	Internal components (5 of 5).....	272
Figure 7-10	Paper-pickup drive assembly.....	274
Figure 7-11	Duplexing-feed drive assembly (duplex models).....	276
Figure 7-12	Duplexing reverse-drive assembly (duplex models).....	278
Figure 7-13	Developing separation-drive assembly.....	280
Figure 7-14	Fuser drive assembly.....	282
Figure 7-15	Cassette (tray 2).....	284
Figure 7-16	Paper-pickup assembly (HP CLJ 3600/3800).....	286
Figure 7-17	Paper-pickup assembly (HP CLJ 3000).....	288
Figure 7-18	Electronic transfer belt (simplex models).....	290
Figure 7-19	Electronic transfer belt (duplex models).....	292
Figure 7-20	Multipurpose tray assembly (tray 1).....	294
Figure 7-21	Duplex-paper feed assembly (duplex models).....	296
Figure 7-22	Fuser.....	298
Figure 7-23	PCAs.....	300

Figure 7-24	500-sheet feeder cassette (tray 3).....	302
Figure 7-25	500-sheet feeder paper-pickup assembly.....	304
Figure 7-26	500-sheet feeder PCA.....	306

1 Product information

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

Quick access to printer information

Several references are available for use with this printer.

- **HP Color LaserJet 3000 Series printer:** www.hp.com/support/clj3000.
- **HP Color LaserJet 3600 Series printer:** www.hp.com/support/clj3600.
- **HP Color LaserJet 3800 Series printer:** www.hp.com/support/clj3800.

Table 1-1 Printer guides

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

Printers at a glance

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

HP Color LaserJet 3000 Series printer

Table 1-2 HP Color LaserJet 3000 Series printer configurations

HP Color LaserJet 3000 printer	HP Color LaserJet 3000n printer	HP Color LaserJet 3000dn printer	HP Color LaserJet 3000dtn printer
			
<ul style="list-style-type: none"> • Prints up to 30 pages per minute (ppm) on letter-size media or 29 ppm on A4-size media in monochrome (black and white) and 15 ppm in color • 100-sheet multipurpose tray (tray 1) and 250-sheet input tray (tray 2) • Hi-Speed universal serial bus (USB) 2.0 port and enhanced input/output (EIO) slot • 64 MB RAM 	<p>The features of the HP Color LaserJet 3000 printer, plus:</p> <ul style="list-style-type: none"> • 64 MB RAM (128 total) • HP Jetdirect full-featured embedded print server to connect to 10Base-T/100 Base-TX networks 	<p>The features of the HP Color LaserJet 3000 printer, plus:</p> <ul style="list-style-type: none"> • 192 MB RAM (256 total) • HP Jetdirect full-featured embedded print server to connect to 10Base-T/100 Base-TX networks • Automatic 2-sided (duplex) printing 	<p>The features of the HP Color LaserJet 3000 printer, plus:</p> <ul style="list-style-type: none"> • 192 MB RAM (256 total) • HP Jetdirect full-featured embedded print server to connect to 10Base-T/100 Base-TX networks • Automatic 2-sided (duplex) printing • 500-sheet input tray (tray 3)

HP Color LaserJet 3600 Series printer

Table 1-3 HP Color LaserJet 3600 Series printer configurations

HP Color LaserJet 3600 printer	HP Color LaserJet 3600n printer	HP Color LaserJet 3600dn printer
		
<ul style="list-style-type: none"> • 17 ppm print speed • 100-sheet multipurpose tray (tray 1) and 250-sheet input tray (tray 2) • Hi-Speed USB 2.0 port • 64 MB RAM 	<p>The features of the HP Color LaserJet 3600 printer, plus:</p> <ul style="list-style-type: none"> • HP Jetdirect value-featured embedded print server to connect to 10Base-T/100Base-TX networks • 64 MB RAM 	<p>The features of the HP Color LaserJet 3600 printer, plus:</p> <ul style="list-style-type: none"> • 64 MB RAM (128 total) • Automatic 2-sided (duplex) printing • HP Jetdirect value-featured embedded print server to connect to 10Base-T/100Base-TX networks

HP Color LaserJet 3800 Series printer

Table 1-4 HP Color LaserJet 3800 Series printer configurations

HP Color LaserJet 3800 printer	HP Color LaserJet 3800n printer	HP Color LaserJet 3800dn printer	HP Color LaserJet 3800dtn printer
			
<ul style="list-style-type: none"> • 22 ppm (letter-size) or 21 ppm (A4) print speed • 100-sheet multipurpose tray (tray 1) and 250-sheet input tray (tray 2) • Hi-Speed USB 2.0 port and EIO slot • 96 MB RAM 	<p>The features of the HP Color LaserJet 3800 printer, plus:</p> <ul style="list-style-type: none"> • 64 MB RAM (160 total) • HP Jetdirect full-featured embedded print server to connect to 10Base-T/100Base-TX networks 	<p>The features of the HP Color LaserJet 3800 printer, plus:</p> <ul style="list-style-type: none"> • 192 MB RAM (288 total) • Automatic 2-sided (duplex) printing • HP Jetdirect full-featured embedded print server to connect to 10Base-T/100Base-TX networks 	<p>The features of the HP Color LaserJet 3800 printer, plus:</p> <ul style="list-style-type: none"> • 192 MB RAM (288 total) • Automatic 2-sided (duplex) printing • HP Jetdirect full-featured embedded print server to connect to 10Base-T/100Base-TX networks • 500-sheet input tray (tray 3)

Features at a glance

Table 1-5 Features

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

Table 1-5 Features (continued)

Feature	HP Color LaserJet 3000 Series printer	HP Color LaserJet 3600 Series printer	HP Color LaserJet 3800 Series printer
Connectivity	<ul style="list-style-type: none"> ● Hi-Speed USB 2.0 cable interface ● HP Jetdirect full-featured embedded print server (standard on the HP Color LaserJet 3000n, 3000dn, and 3000dtn printers) ● HP Web Jetadmin software (standard on the HP Color LaserJet 3000n, 3000dn, and 3000dtn printers) ● Enhanced input/output (EIO) slot 	<ul style="list-style-type: none"> ● Hi-Speed USB 2.0 cable interface ● HP Jetdirect value-featured embedded print server (standard on the HP Color LaserJet 3600n and 3600dn printers) ● HP Web Jetadmin software (standard on the HP Color LaserJet 3600n and 3600dn printers) 	<ul style="list-style-type: none"> ● Hi-Speed USB 2.0 cable interface ● HP Jetdirect full-featured embedded print server (standard on the HP Color LaserJet 3800n, 3800dn, and 3800dtn printers) ● HP Web Jetadmin software (standard on the HP Color LaserJet 3800n, 3800dn, and 3800dtn printers) ● Enhanced input/output (EIO) slot
Environmental features	<ul style="list-style-type: none"> ● Sleep-mode setting ● High content of recyclable components and materials ● ENERGY STAR® qualified 		
Supplies	<ul style="list-style-type: none"> ● Supplies status page contains information about toner level, page count, and estimated pages remaining ● No-shake cartridge design ● Printer checks for authentic HP print cartridges at cartridge installation ● Internet-enabled supply-ordering capabilities (using HP Easy Printer Care Software) 		
Accessibility	<ul style="list-style-type: none"> ● The online user guide is compatible with text screen-readers. ● Print cartridges can be installed and removed by using one hand. ● All doors and covers can be opened by using one hand. ● Media can be loaded in tray 1 by using one hand. 		

Walkaround

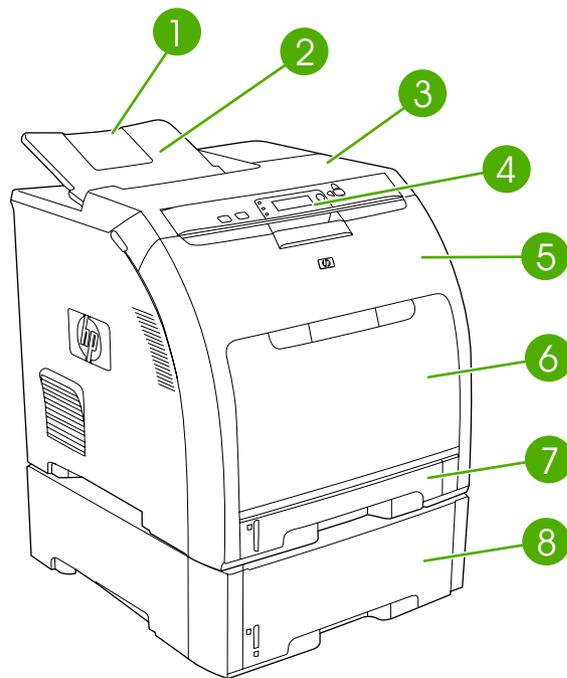


Figure 1-1 Front view (shown with optional 500-sheet paper feeder)

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

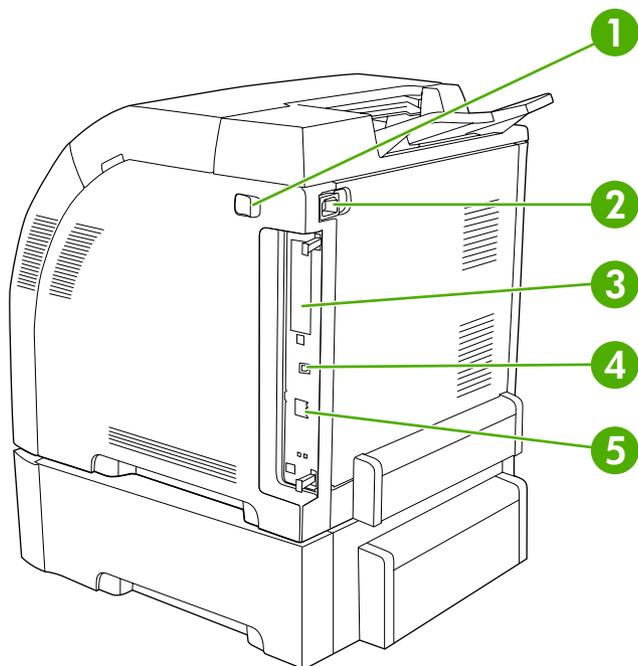


Figure 1-2 Back and side view

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

Control-panel overview

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

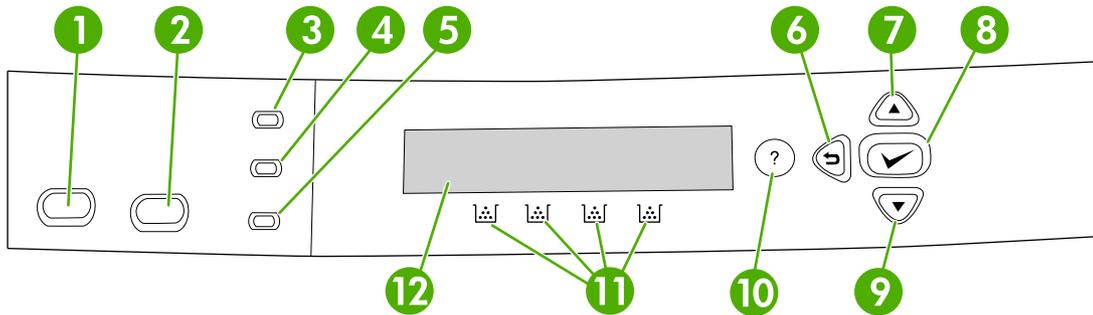


Figure 1-3 Control panel buttons and lights

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

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

You can perform most routine printing tasks from the computer through the printer driver or any software program. Use the control panel to access printer features that the printer driver or software program do not support. Any changes that you make from the computer override the printer control-panel settings. For information about using the printer driver, see [Printer software on page 12](#).

Control-panel indicator lights

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

Display

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

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

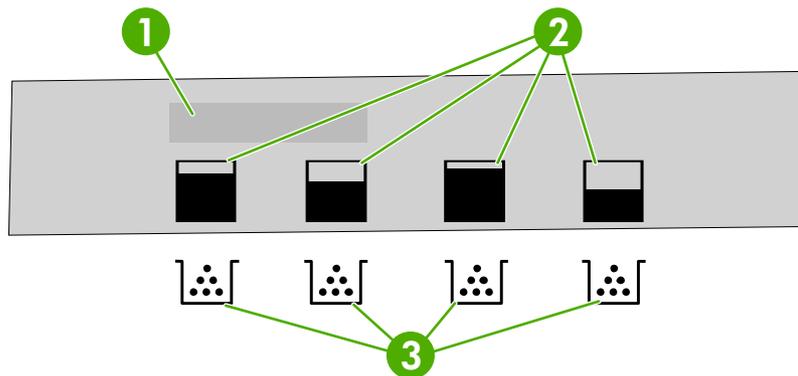


Figure 1-4 Printer display

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

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