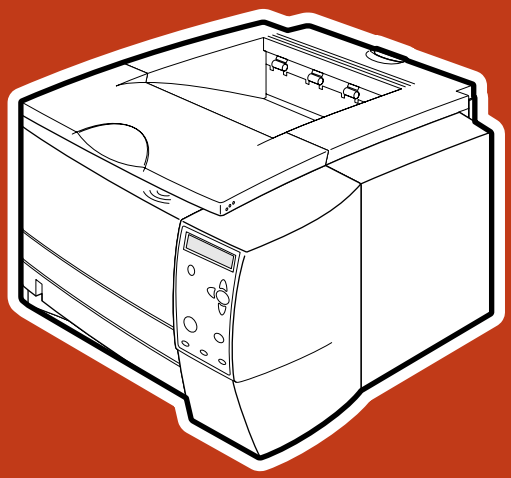
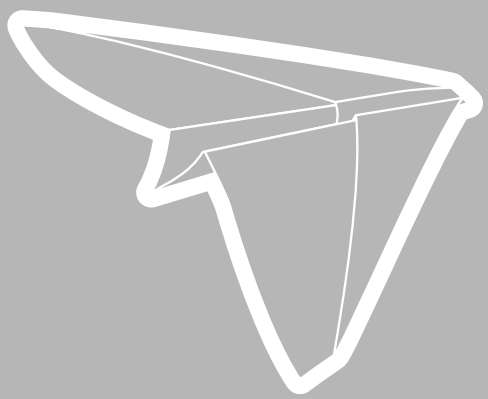
Product: 2003 HP LaserJet 2300 Series Printer Service Repair Workshop Manual
Full Download: https://www.arepairmanual.com/downloads/2003-hp-laserjet-2300-series-printer-service-repair-workshop-manual/



hp LaserJet 2300 series printer

invent

service



Sample of manual. Download All 296 pages at:
https://www.arepairmanual.com/downloads/2003-hp-laserjet-2300-series-printer-service-repair-workshop-manual/

Product: 2003 HP LaserJet 2300 Series Printer Service Repair Workshop Manual
Full Download: https://www.arepairmanual.com/downloads/2003-hp-laserjet-2300-series-printer-service-repair-workshop-manual/

Sample of manual. Download All 296 pages at:
https://www.arepairmanual.com/downloads/2003-hp-laserjet-2300-series-printer-service-repair-workshop-manual/

hp LaserJet 2300 series printer

service manual

© Copyright Hewlett-Packard Company, 2003

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

Part number: Q2472-90908

Edition 1, April 2003

Warranty

The information contained in this document is subject to change without notice.

Hewlett-Packard makes no warranty of any kind with respect to this information. HEWLETT-PACKARD SPECIFICALLY DISCLAIMS THE IMPLIED WARRANTY OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

Hewlett-Packard shall not be liable for any direct, indirect, incidental, consequential, or other damage alleged in connection with the furnishing or use of this information.

Trademark credits

Adobe® and PostScript® are trademarks of Adobe Systems Incorporated which may be registered in certain jurisdictions.

UNIX® is a registered trademark of the Open Group.

ENERGY STAR® is a U.S. registered service mark of the United States Environmental Protection Agency.

Hewlett-Packard Company
11311 Chinden Boulevard
Boise, Idaho 83714 U.S.A.

Contents

1 Product description

Printer configurations 16
Printer features 17
Identification 19
Specifications 20
  Physical specifications 20
  Electrical specifications 20
  Power consumption 20
  Acoustic emissions 21
  Operating environment 21
Product overview 22
Safety information 23
  Print-cartridge and toner safety 23
  Laser safety 24
  Regulatory information 24
  FCC regulations 24
  Declaration of conformity 24
Environmental product stewardship program 25
  Protecting the environment 25
  Material safety data sheet 26
  HP Printing Supplies Environmental Program information 26
Service approach 27
  Bench-repair warranty 27
  HP Express Exchange 27
  Information about ordering 27
  World Wide Web 28
  HP service parts-information compact disc 28
  HP support-assistant compact disc 28
  Reseller sales and service support 28

2 Installation

Site requirements 30
  Operating environment 30
  Printer space requirements 31
Interface ports 33

Media specifications 34
General media specifications 34
Media input options 35
Tray 1 media sizes 35
Optional 250-sheet tray (tray 2 or tray 3) paper sizes 36
Optional 500-sheet tray (tray 3) paper sizes 37
Paper sizes for automatic duplexing 37
Guidelines for selecting paper 38
Envelope specifications 39
Label specifications 41
Transparency specifications 42
Storing print media 43
Shipping print media 43
Paper fillers 43
Testing media specifications 44
Tools and suppliers 49

3 Operation

Control panel 52
Control-panel layout 52
Changing control-panel settings 54
Printing control-panel menus 54
Control-panel menus—user 55
Retrieve job menu 55
Information menu 56
Paper-handling menu 57
Configure device menu 59
Diagnostics menu 71
Control-panel menus—service 72
Entering service mode 72

4 Printer maintenance

Periodic inspection of parts 74
Cleaning the printer 75
Cleaning the fuser 76
Cleaning the outside of the printer 76
Managing the print cartridge 77
HP print cartridges 77
Non-HP print cartridges 77
Print-cartridge authentication 77
Print-cartridge storage 78
Print-cartridge life expectancy 78
Checking the supply level 79
Cartridge-low and cartridge-out conditions 80
Supplies status page 81

5 Theory of operation

Introduction 84
Basic sequence of operation 84
Power-on sequence 85
Engine control system 86
Laser/scanner system 87
Image-formation system 88
Image-formation process 89
Electrostatic latent-image-formation block 90
Developing block 91
Transfer block 92
Fusing block 93
Drum-cleaning block 94
Pickup/feed system 95
Single-sided printing 95
Duplex printing 95
Delivery 97
Automatic duplexer 98
Formatter system 99
Formatter hardware 100
Formatter subsystem 101
Sheet feeders 103
Media detection 105
Media-size detection 105
Jam detection 106
Pickup sensors 106
Delivery sensors 107
Reversing sensors 107
Automatic duplexer sensors 108
Paper-feed sensor 108

6 Removal and replacement

Removal and replacement strategies . . . 111
Required tools . . . 111
Before you begin . . . 112
Covers . . . 113
I/O cover . . . 113
Print server . . . 114
DIMM cover . . . 115
Rear cover . . . 116
Front cover . . . 119
Control panel . . . 120
Top-cover assembly . . . 121
Left-side cover . . . 124
Power switch . . . 125
Tray 1 assembly . . . 126
Internal assemblies . . . 130
Tray 1 pickup roller . . . 130
Pickup sensor flag . . . 132
Tray 1 separation pad . . . 133
Tray 2 pickup roller . . . 136
Tray 2 and 250-sheet feeder separation pad . . . 139
Fan . . . 140
Fuser . . . 141
Laser/scanner . . . 143
Laser/scanner plate . . . 144
E-label reader . . . 145
Formatter . . . 147
Drive assembly . . . 148
Main motor . . . 151
Flat, flexible cable . . . 152
Engine controller PCA . . . 153
Solenoid . . . 158
Access plate . . . 159
Power supply . . . 162
Top-output-bin delivery assembly . . . 169
Registration-roller assembly . . . 172
Transfer roller . . . 174
Feed belts . . . 175
Trays . . . 176
250-sheet feeder and 500-sheet feeder pickup roller . . . 176
500-sheet feeder separation pad . . . 178

7 Troubleshooting

Troubleshooting process 180
Preliminary operating checks 180
Basic fault isolation 180
Troubleshooting process flow 182
Power-on 183
Troubleshooting with control-panel messages 184
Using the printer online Help system 184
Resolving persistent messages 184
Troubleshooting the control-panel display 185
Interpreting control-panel messages 186
Media-handling problems 199
Printing a configuration page 199
Printing a Jetdirect configuration page 200
Printing a usage page 201
Printing a supplies status page 201
Printing an engine test 202
Jam troubleshooting 204
Jam causes 205
Typical jam locations 205
Image-formation troubleshooting 210
Check the print cartridge 211
EconoMode 211
Image defects unique to the HP LaserJet 2300 series printers 211
Image-defect tables 212
Media troubleshooting 218
Determine the problem source: print media or printer 218
Isolate a paper path 218
Isolate a media brand 219
Isolate a media type 220
Evaluate media use practices 224
Evaluate environmental conditions 224
Communication troubleshooting 226
Communications check 226
Test message 226
EIO troubleshooting 226
Troubleshooting tools 227
Repetitive defect ruler 227
Half-self-test functional check 228
Performing a self test 229
Performing a paper path test 229
Drum-rotation functional check 229
Resetting the printer 230
Setting the language 230
Reference diagrams 231

8 Parts and diagrams

Ordering parts and supplies and getting support 242
Parts 242
Support 242
Consumables, accessories, and supplies 243
Common fasteners 244
Illustrations and parts lists 245
Assembly locations 245
Covers 246
Covers and panels 246
Top cover assembly 248
Internal components 250
Internal components (1 of 4) 250
Internal components (2 of 4) 252
Internal components (3 of 4) 254
Internal components (4 of 4) 256
Power-supply assembly 258
Pickup assembly 260
Engine controller 262
PCA locations 263
Trays 264
250-sheet feeder 264
500-sheet feeder 266
Alphabetical parts list 268
Numerical parts list 273

Figures

Figure 1. Locations of identification labels 19
Figure 2. Sample identification label 19
Figure 3. Front and right side 22
Figure 4. Back and left side 22
Figure 5. Top view 31
Figure 6. Side view. 31
Figure 7. Side view (with an optional 250-sheet tray) 32
Figure 8. Side view (with an optional 500-sheet tray 32
Figure 9. Interface ports 33
Figure 10. Correct double side seam 40
Figure 11. Incorrect double side seam 40
Figure 12. Wet test for long, short, and diagonal grain curl 47
Figure 13. Measuring curl 47
Figure 14. Control-panel layout 52
Figure 15. Supplies status page. 81
Figure 16. Engine control system. 86
Figure 17. Laser/scanner system. 87
Figure 18. Image-formation system 88
Figure 19. Image-formation system 89
Figure 20. Step 1: primary charging. 90
Figure 21. Step 2: laser-beam exposure 90
Figure 22. Developing block. 91
Figure 23. Step 3: developing 91
Figure 24. Step 4: transfer 92
Figure 25. Step 5: separation. 92
Figure 26. Step 6: fusing 93
Figure 27. Step 7: drum cleaning 94
Figure 28. Step 8: transfer charging roller cleaning 94
Figure 29. Pickup/feed system 96
Figure 30. Delivery 97
Figure 31. Automatic duplexer path 98
Figure 32. Automatic duplexer feed and delivery. 98
Figure 33. Pickup-feed paper path 103
Figure 34. Sheet-feeder pickup and feed. 104
Figure 35. Media-detection sensors. 105
Figure 36. Removing the print cartridge. 112
Figure 37. Removing tray 2 112
Figure 38. Removing the I/O cover 113
Figure 39. Removing the print server. 114
Figure 40. Removing the DIMM cover 115
Figure 41. Removing the rear cover (1 of 3) 116
Figure 42. Removing the rear cover (2 of 3) 117
Figure 43. Removing the rear cover (3 of 3) 118
Figure 44. Removing the front cover 119
Figure 45. Removing the control panel 120
Figure 46. Removing the top-cover assembly (1 of 3) 121
Figure 47. Removing the top-cover assembly (2 of 3) 122
Figure 48. Removing the top-cover assembly (3 of 3) 123
Figure 49. Removing the left-side cover 124
Figure 50. Removing the power switch 125
Figure 51. Removing the tray 1 assembly (1 of 4) 126
Figure 52. Removing the tray 1 assembly (2 of 4) 127

Figure 53. Removing the tray 1 assembly (3 of 4) 128
Figure 54. Removing the tray 1 assembly (4 of 4) 129
Figure 55. Removing the tray 1 pickup roller (1 of 2) 130
Figure 56. Removing the tray 1 pickup roller (2 of 2) 131
Figure 57. Removing the pickup sensor flag 132
Figure 58. Removing the tray 1 separation pad (1 of 3) 133
Figure 59. Removing the tray 1 separation pad (2 of 3) 134
Figure 60. Removing the tray 1 separation pad (3 of 3) 135
Figure 61. Removing the tray 2 pickup roller (1 of 3) 136
Figure 62. Removing the tray 2 pickup roller (2 of 3) 137
Figure 63. Removing the tray 2 pickup roller (3 of 3) 138
Figure 64. Removing the tray 2 and 250-sheet feeder separation pad 139
Figure 65. Removing the fan 140
Figure 66. Removing the fuser (1 of 2) 141
Figure 67. Removing the fuser (2 of 2) 142
Figure 68. Removing the laser/scanner 143
Figure 69. Removing the e-label reader (1 of 3) 144
Figure 70. Removing the e-label reader (2 of 3) 145
Figure 71. Removing the e-label reader (3 of 3) 146
Figure 72. Removing the formatter 147
Figure 73. Removing the drive assembly (1 of 3) 148
Figure 74. Removing the drive assembly (2 of 3) 149
Figure 75. Removing the drive assembly (3 of 3) 150
Figure 76. Removing the main motor 151
Figure 77. Removing the flat, flexible cable 152
Figure 78. Removing the engine controller PCA (1 of 5) 153
Figure 79. Removing the engine controller PCA (2 of 5) 154
Figure 80. Removing the engine controller PCA (3 of 5) 155
Figure 81. Removing the engine controller PCA (4 of 5) 156
Figure 82. Removing the engine controller PCA (5 of 5) 157
Figure 83. Removing the solenoid 158
Figure 84. Removing the access plate (1 of 3) 159
Figure 85. Removing the access plate (2 of 3) 160
Figure 86. Removing the access plate (3 of 3) 161
Figure 87. Removing the power supply (1 of 6) 162
Figure 88. Removing the power supply (2 of 6) 163
Figure 89. Removing the power supply (3 of 6) 164
Figure 90. Removing the power supply (4 of 6) 165
Figure 91. Removing the power supply (5 of 6) 166
Figure 92. Removing the power supply (6 of 6) 167
Figure 93. Power-supply PCA spring-contacts 168
Figure 94. Removing the top-output-bin-delivery assembly (1 of 3) 169
Figure 95. Removing the top-output-bin delivery assembly (2 of 3) 170
Figure 96. Removing the top-output-bin delivery assembly (3 of 3) 171
Figure 97. Removing the registration-roller assembly (1 of 2) 172
Figure 98. Removing the registration-roller assembly (2 of 2) 173
Figure 99. Removing the transfer roller 174
Figure 100. Removing the feed belts 175
Figure 101. Removing the pickup roller from a 250-sheet or 500-sheet feeder (1 of 2) 176
Figure 102. Removing the pickup roller from a 250-sheet or 500-sheet feeder (2 of 2) 177
Figure 103. Removing the 500-sheet feeder separation pad 178
Figure 104. Troubleshooting process flow 182
Figure 105. Control panel contrast label 185
Figure 106. Configuration page 199
Figure 107. Jetdirect configuration page 200
Figure 108. Engine test button 202
Figure 109. Engine test page 203
Figure 110. Image defects examples 212
Figure 111. Repetitive defect ruler 227

Figure 112. General printer-component locations 231
Figure 113. Locations of switches 232
Figure 114. Locations of sensors 233
Figure 115. Locations of solenoid 234
Figure 116. Location of motors and fans 235
Figure 117. Engine controller PCB 236
Figure 118. Power supply PCB 237
Figure 119. General circuit diagram (1 of 2) 238
Figure 120. General circuit diagram (2 of 2) 239
Figure 121. General timing chart 240
Figure 122. Assembly locations 245
Figure 123. Covers and panels 246
Figure 124. Top cover assembly 248
Figure 125. Internal components (1 of 4) 250
Figure 126. Internal components (2 of 4) 252
Figure 127. Internal components (3 of 4) 254
Figure 128. Internal components (4 of 4) 256
Figure 129. Power-supply assembly 258
Figure 130. Pickup assembly 260
Figure 131. Engine controller 262
Figure 132. PCA locations 263
Figure 133. 250-sheet feeder 264
Figure 134. 500-sheet feeder 266

Tables

Table 1. Features for each configuration 18
Table 2. Physical specifications 20
Table 3. Electrical specifications 20
Table 4. Power specifications1 20
Table 5. Acoustic emissions specifications1 21
Table 6. Operating environment specifications 21
Table 7. Solutions for problem media 38
Table 8. Envelope specifications 39
Table 9. Retrieve job menu 55
Table 10. Information menu 56
Table 11. Paper-handling menu 57
Table 12. Configure device menu—printing submenu 59
Table 13. Configure device menu—print-quality submenu 61
Table 14. Configure device menu—system-setup submenu 64
Table 15. Configure device menu—I/O submenu 67
Table 16. Configure device menu—resets submenu 70
Table 17. Diagnostics menu 71
Table 18. Service menu 72
Table 19. Basic sequence of operation 84
Table 20. Output area jams recommended actions 206
Table 21. Paper access area jams—recommended actions 207
Table 22. Input-area jams 208
Table 23. Possible causes of frequent jams in the cartridge area 209
Table 24. Image defects 213
Table 25. Adhesive label construction 221
Table 26. Envelope construction 222
Table 27. Technical support websites 242
Table 28. Consumables, accessories, and supplies 243
Table 29. Common fasteners 244
Table 30. Covers and panels 247
Table 31. Top cover assembly 249
Table 32. Internal components (1 of 4) 251
Table 33. Internal components (2 of 4) 253
Table 34. Internal components (3 of 4) 255
Table 35. Internal components (4 of 4) 257
Table 36. Power-supply assembly 259
Table 37. Pickup assembly 261
Table 38. Engine controller 262
Table 39. PCA locations 263
Table 40. 250-sheet feeder 265
Table 41. 500-sheet feeder 267
Table 42. Alphabetical parts list 268
Table 43. Numerical parts list 273

1 Product description

Chapter contents

Printer configurations 16
Printer features 17
Identification 19
Specifications 20
- Physical specifications 20
- Electrical specifications. 20
- Power consumption 20
- Acoustic emissions 21
- Operating environment 21

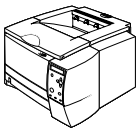
Product overview. 22
Safety information 23
- Print-cartridge and toner safety 23
- Laser safety 24
- Regulatory information 24
- FCC regulations 24
- Declaration of conformity 24

Environmental product stewardship program 25
- Protecting the environment. 25
- Material safety data sheet. 26
- HP Printing Supplies Environmental Program information 26
- Bench-repair warranty 27
- HP Express Exchange 27
- Information about ordering 27
- World Wide Web. 28
- HP service parts-information compact disc 28
- HP support-assistant compact disc 28
- Reseller sales and service support. 28

Printer configurations

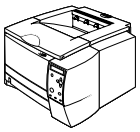
The HP LaserJet 2300 series printer is available in six configurations.

Note The illustrations in this guide are based on the HP LaserJet 2300 printer model unless otherwise stated. To find out which HP LaserJet 2300 configuration you have, look at the label on the front of the printer.



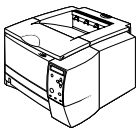
HP LaserJet 2300L

The HP LaserJet 2300L printer prints letter-size paper at speeds up to 20 pages per minute (ppm) or A4-size paper at up to 19 ppm. It comes with a built-in 250-sheet tray, a parallel and a universal serial bus (USB) port, and 32 MB RAM. The printer is expandable, and has one available enhanced input/output (EIO) slot and two dual inline memory module (DIMM) slots for adding a network print server card, fonts, and memory.



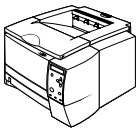
HP LaserJet 2300

The HP LaserJet 2300 printer is the same as the HP LaserJet 2300L printer, except that it prints at speeds up to 25 ppm for letter-size paper and 24 ppm for A4-size paper.



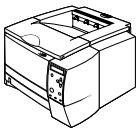
HP LaserJet 2300d

The HP LaserJet 2300d printer is the same as the HP LaserJet 2300 printer, except that the printer comes with 48 MB RAM and automatically duplexes (prints on both sides of paper).



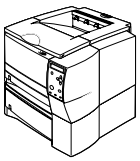
HP LaserJet 2300n

The HP LaserJet 2300n printer is the same as the HP LaserJet 2300 printer, except that it is designed for network users. It comes with a full-featured HP Jetdirect EIO print server card (for connecting to a 10/100Base-TX network) and 48 MB RAM.



HP LaserJet 2300dn

The HP LaserJet 2300dn printer is the same as the HP LaserJet 2300n printer, except that the printer also automatically duplexes (prints on both sides of paper).



HP LaserJet 2300dtn

The HP LaserJet 2300dtn printer is the same as the HP LaserJet 2300dn printer, except that it has an additional 500-sheet tray.

Printer features

The following table describes the features of the HP LaserJet 2300 series printers.

Fast print speed	• The HP LaserJet 2300L prints on letter-size paper at speeds up to 20 pages per minute (ppm) or A4-size paper at up to 19 ppm. • All other models print on letter-size paper at speeds up to 25 ppm or A4-size paper at up to 24 ppm.
Built-in duplexing	• Automatic two-sided (duplex) printing is a standard feature of the HP LaserJet 2300d, HP LaserJet 2300dn, and HP LaserJet 2300dtn printers.
Print cartridge and status features	• The 6,000-page HP Smart Print Cartridge detects and reports toner status. • The no-shake design maximizes toner use. • The supplies status page provides a toner gauge, page count, and information about paper sizes that have been used.
Excellent print quality	• FastRes 1200 produces 1200-dpi print quality for fast, high-quality printing of business text and graphics. • ProRes 1200 produces 1200-dpi printing for the best quality in line art and graphic images. • Adjustable settings optimize print quality. • The HP Smart Print Cartridge produces crisp, sharp output.
Flexible paper handling	• Use tray 1 (the multipurpose tray) for letterhead, envelopes, labels, transparencies, custom-sized media, postcards, and heavy paper. • Use the adjustable 250-sheet tray (tray 2 or tray 3) for standard sizes of paper. • Use the 500-sheet tray (tray 3) for letter and A4-size paper. • Two output bins are available: select either the top output bin or the rear output bin for the most appropriate output location, depending on media type. • A straight-through paper path is available from tray 1 to the rear output bin. • Built-in automatic two-sided (duplex) printing is available for the HP LaserJet 2300d, HP LaserJet 2300dn, and HP LaserJet 2300dtn printers.
Expandability	• A 250-sheet or 500-sheet tray is available, so that you do not have to add paper as often. • One EIO card slot is available for interface. • Three DIMM slots are available, two for adding memory and fonts.
Printer languages and fonts	• Fast printing performance, advanced font and graphics technologies, and advanced imaging capabilities are benefits of the PCL 6 printer language. The PCL 6 technology also includes 45 scalable TrueType™ fonts and one bitmapped line printer font. • The other available languages and fonts are HP PCL5e and PostScript® (PS) 3 emulation, which includes 35 built-in PS language fonts. • The printer automatically determines and switches to the appropriate language for the print job.

Interface connections and networking	• The printer includes a bidirectional ECP type-B parallel port (IEEE-1284 compliant) and a USB port (compatible with 1.1 and 2.0 low- and full-speed certified devices) • The printer has an EIO slot for HP Jetdirect EIO print servers so that you can connect quickly and easily.
Enhanced memory and memory expansion	• The HP LaserJet 2300 series printers come with either 32 MB or 48 MB of memory and can be expanded to 288 or 304 MB, respectively, with the available memory (DIMM) slots. Most documents can be printed by using the standard amount of printer memory.
Energy savings	• The printer automatically conserves electricity by reducing power consumption when it is not printing. • When the PowerSave feature is activated, the printer conserves energy when it is not in use. • As an ENERGY STAR® partner, Hewlett-Packard Company has determined that this product meets ENERGY STAR® guidelines for energy efficiency.
Economical printing	• N-up printing saves paper by printing multiple pages on one sheet of media. • Automatic two-sided printing with the built-in duplexer saves paper (the built-in duplexer is included only with the HP LaserJet 2300d, HP LaserJet 2300dn, and HP LaserJet 2300dtn printers). • Printing in EconoMode saves toner.

The table below gives a quick summary of the features for each model.

Table 1. Features for each configuration

Features	HP LaserJet 2300L	HP LaserJet 2300	HP LaserJet 2300n	HP LaserJet 2300d	HP LaserJet 2300dn	HP LaserJet 2300dtn
Standard memory Maximum memory	32 MB 288 MB	32 MB 288 MB	48 MB 304 MB	48 MB 304 MB	48 MB 304 MB	48 MB 304 MB
PostScript 3 emulation	Standard	Standard	Standard	Standard	Standard	Standard
Automatic duplex printing	N/A	N/A	N/A	Standard	Standard	Standard
250-sheet feeder	Standard	Standard	Standard	Standard	Standard	Standard
500-sheet feeder	Optional	Optional	Optional	Optional	Optional	Standard

Identification

The model number and printer serial number are listed on identification labels located inside the top cover (callout 1) and on the rear output bin (callout 2).

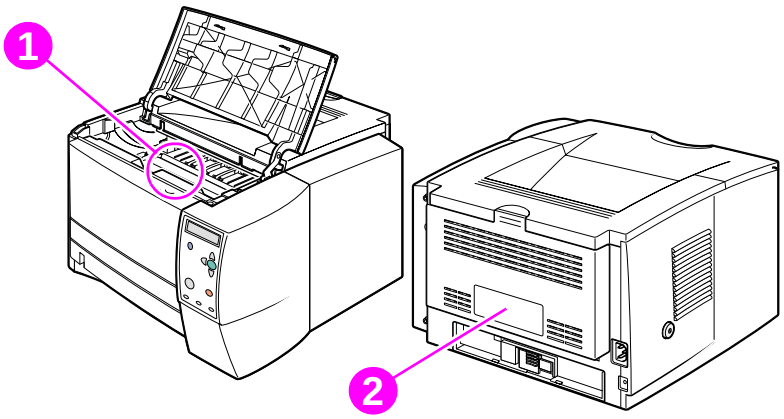


Figure 1. **Locations of identification labels**

The model number is alphanumeric. The serial number contains information about the country of origin, as well as the revision level and the production code of the printer. An example of a serial number is USBB123456.

The identification label on the back of the printer also contains power rating and regulatory information. See figure 2.

Note The power rating and regulatory information vary by country/region.

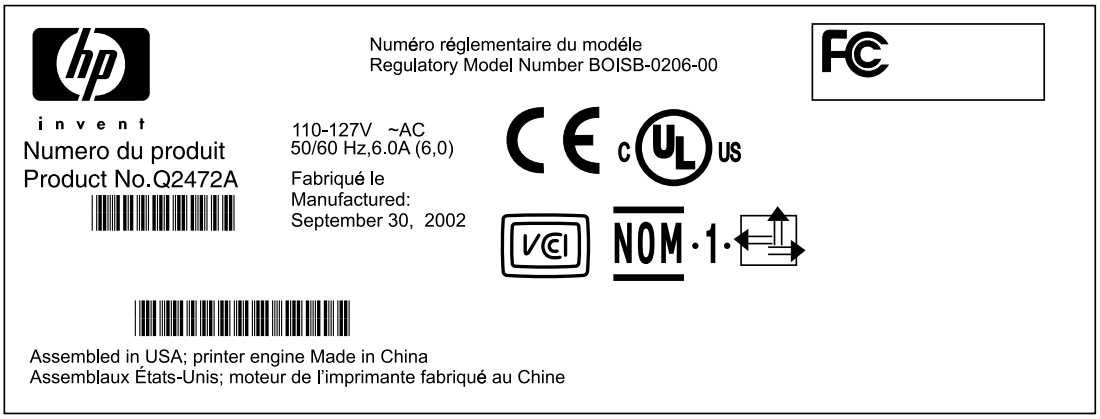


Figure 2. **Sample identification label**

Specifications

Physical specifications

Table 2. Physical specifications

	HP LaserJet 2300L, 2300, 2300n, 2300d, 2300dn	HP LaserJet 2300dtn (with 500-sheet tray)
Height	259.7 mm (10.2 inches)	397.2 mm (15.6 inches)
Width	412.8 mm (16.2 inches)	412.8 mm (16.2 inches)
Depth (body)	450 mm (17.7 inches)	450 mm (17.7 inches)
Weight (with print cartridge)	14.3 kg (31.6 lb)	18.9 kg (41.6 lb)

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 3. Electrical specifications

Electrical specifications	110-volt models	220-volt models
Power requirements	110 to 127 V (+/- 10%) 50/60 Hz (+/- 3 Hz)	220 to 240 V (+/- 10%) 50/60 Hz (+/- 3 Hz)
Minimum recommended circuit capacity	5.0 amps	2.5 amps

Power consumption

Table 4. Power specifications[1]

	Average power consumption (in watts)				
Product model	Printing (20 ppm)	Printing (25 ppm)	Standby	PowerSave[2]	Off
HP LaserJet 2300L	394 W	—	8.8 W	8.6 W	0 W
HP LaserJet 2300	—	426 W	8.8 W	8.4 W	0 W
HP LaserJet 2300n	—	426 W	9.6 W	9.3 W	0 W
HP LaserJet 2300d	—	426 W	8.8 W	8.4 W	0 W
HP LaserJet 2300dn	—	426 W	9.6 W	9.3 W	0 W
HP LaserJet 2300dtn	—	426 W	9.6 W	9.3 W	0 W

1 Values are subject to change. See http://www.hp.com/support/lj2300 for current information.
2 The PowerSave default activation time is 15 minutes.

Acoustic emissions

Table 5. Acoustic emissions specifications[1]

Sound power level	Declared per ISO 9296
Printing (HP LaserJet 2300L at 20 ppm)	L_{WAd} = 6.6 bels(A)
Printing (all other models at 25 ppm)	L_{WAd} = 6.7 bels(A)
PowerSave/standby[2] (all models)	Inaudible
Sound pressure level, bystander position	**Declared per ISO 9296**
Printing (HP LaserJet 2300L at 20 ppm)	Inaudible
Printing (all other models at 25 ppm)	L_{pAm} = 52 dB(A)
PowerSave/standby[2] (all models)	Inaudible
Sound pressure level, operator position	**Declared per ISO 9296**
Printing (HP LaserJet 2300L at 20 ppm)	Inaudible
Printing (all other models at 25 ppm)	L_{pAm} = 59 dB(A)
PowerSave/standby[2] (all models)	Inaudible

1 Values are subject to change. See http://www.hp.com/support/lj2300 for current information.
2 In standby, no mechanical parts are moving and therefore no sounds are made.

Operating environment

Table 6. Operating environment specifications

Environmental condition	Printing	Storage/standby
Temperature (printer and print cartridge)	15 to 32.5 degrees C (59 to 90.5 degrees F)	-20 to 40 degrees C (-4 to 104 degrees F)
Relative humidity	10 to 80 percent	10 to 90 percent

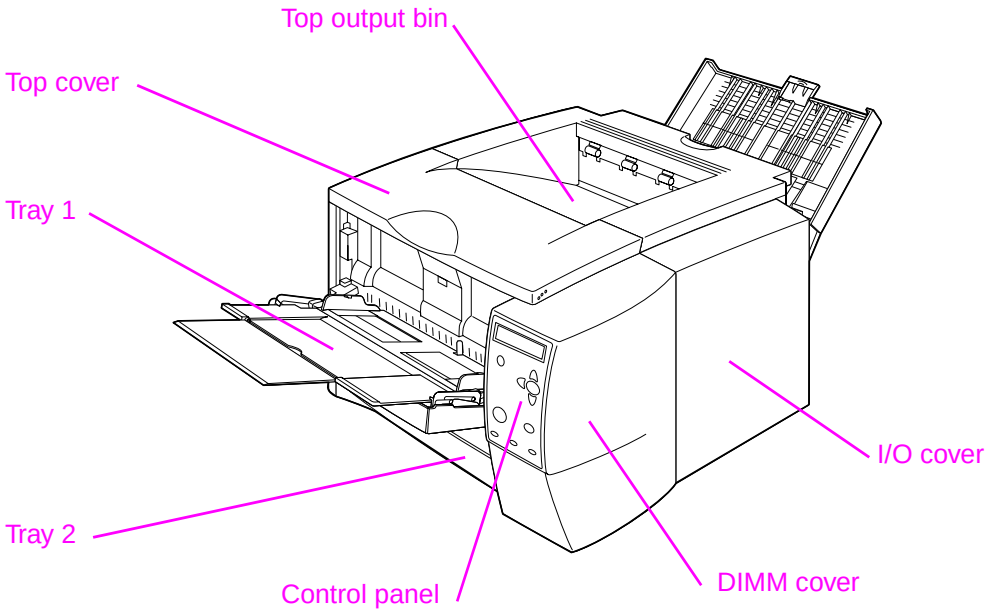


Figure 3. **Front and right side**

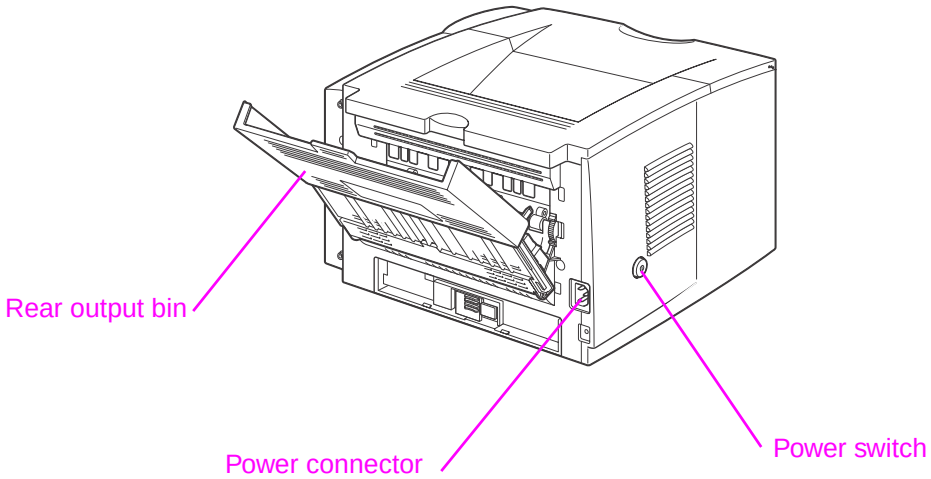


Figure 4. **Back and left side**

Safety information

Print-cartridge and toner safety

For information about print-cartridge and toner safety, see the Toner Cartridge Material Safety Data Sheet (MSDS), which can be obtained at http://www.hp.com/go/msds.

Handling and storage

WARNING! Keep print cartridges and toner particles away from excessive heat, sparks, and open flames.

If toner is spilled, avoid breathing in toner particles. Inhalation of toner particles causes respiratory-tract irritation. Vacuum or sweep the material into a bag or other sealed container. A vacuum specifically designed for cleaning toner can be used if it is capable of filtering fine particles (5 microns in diameter).

WARNING! Do not vacuum toner using a conventional vacuum. Toner particles used in this product might be too fine for effective vacuuming and could result in damage to a conventional vacuum.

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

First aid measures

- **Ingestion**. If you ingest toner, rinse your mouth out thoroughly with water and drink several glasses of water. Get medical attention if symptoms occur.
- **Inhalation**. If you inhale toner particles, move to fresh air immediately. If symptoms occur, consult a physician.
- **Eye contact**. If toner comes in contact with your eyes, immediately flush the eyes with plenty of water for at least 15 minutes. If irritation persists, consult a physician.
- **Skin contact**. If toner spills on your skin, remove as much toner as possible with a dry tissue, and then wash with cold water.

Clothing contact

Note Toner can stain clothing. Hot water or heat (such as heat from a clothes dryer) can cause toner to melt and permanently fuse to clothing.

Clothing is best cleaned by removing as much toner as possible with a dry tissue, and then washing with cold water. Air-dry the clothing.

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 that are 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.

Because 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.

CAUTION Using controls, making adjustments, bypassing safety switches, or performing procedures other than those specified in this service manual can result in exposure to hazardous radiation.

Regulatory information

For regulatory information and requirements, please see the user guide.

FCC regulations

For FCC regulations, please see the user guide.

Declaration of conformity

For the declaration of conformity, please see the user guide.

Environmental product stewardship program

Protecting the environment

Hewlett-Packard Company is committed to providing quality products in an environmentally sound manner. This product has been designed with several attributes that minimize impacts on our environment.

Ozone production

This product generates no appreciable ozone gas (O3).

Energy consumption

Energy usage drops significantly while the printer is in PowerSave mode, which saves natural resources and saves money without affecting the performance of the printer. This product qualifies for ENERGY STAR ®, a voluntary program established to encourage the development of energy-efficient office products.

ENERGY STAR ® is a U.S. registered service mark of the United States Environmental Protection Agency. As an ENERGY STAR ® partner, Hewlett-Packard Company has determined that this product meets the ENERGY STAR ® guidelines for energy efficiency. For more information, see http://www.epa.gov/energystar/ .

Toner consumption

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

Paper use

This product's automatic two-sided (duplex) printing feature and n-up printing capability (multiple pages printed on one sheet of paper) can reduce paper usage and the resulting demands on natural resources.

Plastics

Plastic parts more than 25 grams in weight are marked according to international standards that enhance the ability to identify plastics for recycling purposes at the end of the product's life.

HP LaserJet printing supplies

In many countries/regions, this product's printing supplies (for example, the print cartridge, drum, and fuser) can be returned to HP through the HP Printing Supplies Returns and Recycling Program. An easy-to-use takeback program is available in more than 48 countries/regions. Multilingual program information and instruction are included in every new HP LaserJet print cartridge and consumables package.

Paper

This printer is suited for the use of recycled papers when the paper meets the guidelines outlined in the *HP LaserJet Printer Family Print Media Guide*. Also, this printer is suitable for the use of recycled paper according to DIN 19309.

Material safety data sheet

Material safety data sheets (MSDS) can be obtained by contacting the HP LaserJet Supplies website at http://www.hp.com/go/msds .

HP Printing Supplies Environmental Program information

Since 1990, the HP Printing Supplies Returns and Recycling Program has collected millions of used LaserJet print cartridges that otherwise might have been discarded in the world's landfills. The HP LaserJet print cartridges and consumables are collected and bulk-shipped to our resource and recovery partners, who disassemble the cartridges for recycling. After a thorough quality inspection, selected parts are reclaimed for use in new cartridges. Remaining materials are separated and converted into raw materials for use by other industries to make a variety of useful products.

U.S. returns

For a more environmentally-responsible return of used cartridges and consumables, HP encourages the use of bulk returns. Simply bundle two or more cartridges together and use the single, pre-paid, pre-addressed UPS label that is supplied in the package. For more information, call (1) (800) 340-2445 or visit the HP LaserJet Supplies website at http://www.hp.com/recycle .

Non-U.S. returns

Customers should call their local HP sales and service office or visit http://www.hp.com/recycle for information regarding availability of the HP Supplies Returns and Recycling Program.

Service approach

Bench-repair warranty

The warranty for this product is “return to bench” for a period of one year from the date of purchase. This means that customers who need warranty repair must return their printer to an HP repair center or an Authorized Service Provider (ASP). See “Reseller sales and service support” on page 28.

HP Express Exchange

Through Customer Care Centers in the United States and Canada, customers have an option to initiate Express Exchange. Under this option, customers can have a factory-refurbished printer sent to them within 24 hours.

1. The customer contacts the local HP Customer Care Center listed in the product documentation. A technician troubleshoots the situation and determines whether the printer has actually failed. If so, the technician refers the customer to the HP Service Center.
2. A representative from the service center requests product and customer information. In some regions, collateral might also be requested.
3. Hewlett-Packard Company ships a refurbished replacement unit to arrive the next day. (Geographic distance might prevent next-day shipping.)
4. The customer sends the defective printer to Hewlett-Packard at HP's expense.

Customers with onsite support service provided by HP should work directly with the local Customer Care Center instead of following the steps outlined here.

Exchanged units carry the remainder of the original unit’s warranty or a 90-day warranty, whichever is greater. The faster turnaround from HP Express Exchange minimizes downtime over traditional service programs that require the user to ship the failed unit to the manufacturer and then wait for it to be repaired and returned. Because HP pays the shipping charges, the user incurs no hidden costs for the service.

Note For warranty information and requirements, please see the user guide.

Information about ordering

"Ordering parts" in chapter 8 of this manual contains factory-replacable unit (FRU) and accessory part numbers. Replacement parts can be ordered from the HP Customer Services and Support Organization.

Use only accessories that are specifically designed for this printer. Order accessories from an authorized service or support provider.

Product: 2003 HP LaserJet 2300 Series Printer Service Repair Workshop Manual
Full Download: https://www.arepairmanual.com/downloads/2003-hp-laserjet-2300-series-printer-service-repair-workshop-manual/

World Wide Web

Printer drivers, updated HP printer software, and product and support information can be obtained from the following URL:
in the U.S., http://www.hp.com/support/lj2300

Printer drivers can be obtained from the following sites:

- China, ftp://www.hp.com.cn/support/lj2300
- Japan, ftp://www.jpn.hp.com/support/lj2300
- Korea, http://www.hp.co.kr/support/lj2300
- Taiwan, http://www.hp.com.tw/support/lj2300
  or the local driver website, http://www.dds.com.tw

HP service parts-information compact disc

This powerful, CD-ROM-based parts-information tool is designed to give users fast, easy access to parts information, such as pricing and recommended stocking lists, for a wide range of HP products. To subscribe to this quarterly service in the U.S. or Canada, call (1) (800) 336-5987. In Asia Pacific countries/regions, call (65) 740-4484. Parts identification and pricing information can also be found on the World Wide Web at http://www.hp.com/go/partsinfo .

HP support-assistant compact disc

This support tool offers a comprehensive online information system that is designed to provide technical and product information about Hewlett-Packard products. To subscribe to this quarterly service in the U.S. or Canada, call (1) (800) 457-1762. In Hong Kong SAR, Indonesia, Malaysia, or Singapore, call Mentor Media at (65) 740-4477.

Reseller sales and service support

The HP Customer Care Center is available to assist resellers and service technicians. You can reach this support center in the U.S. or Canada by calling (1) (800) 544-9976.

HP authorized resellers and support

To locate authorized HP resellers and support, call (1) (800) 243-9816 in the U.S. or (1) (800) 387-3867 in Canada.

HP service agreements

Call (1) (800) 743-8305 in the U.S. or (1) (800) 268-1221 in Canada.

Other areas

Outside of North America and Europe, contact your local HP sales office for assistance in obtaining technical support for resellers and service technicians.

Sample of manual. Download All 296 pages at:
https://www.arepairmanual.com/downloads/2003-hp-laserjet-2300-series-printer-service-repair-workshop-manual/