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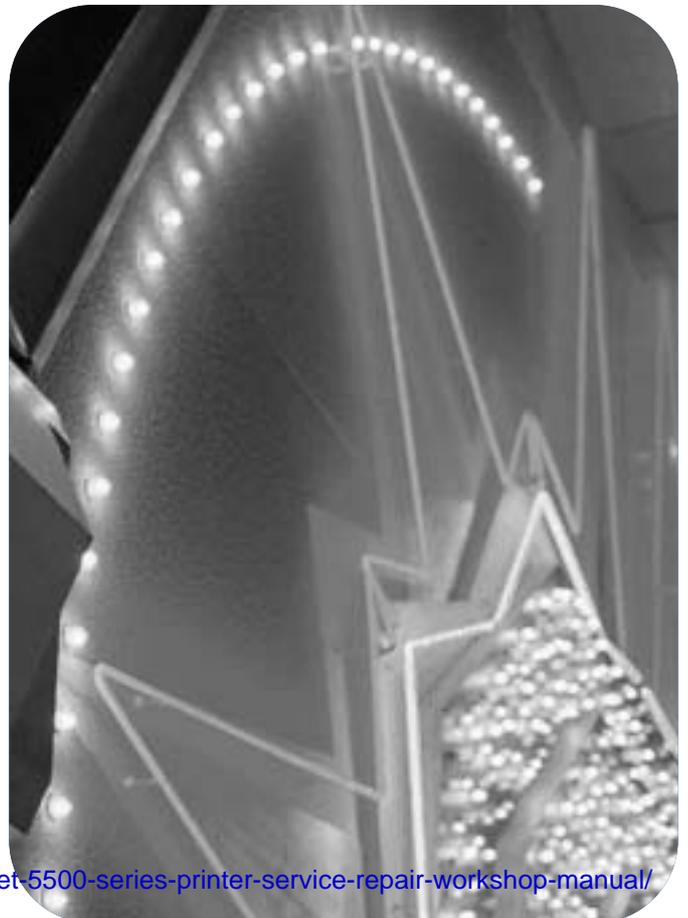
**hp** color LaserJet 5500  
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i n v e n t

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hp color LaserJet 5500 series printer

**service manual** \_\_\_\_\_

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## Conventions

This manual uses the following conventions:

- **COLOR** is used to emphasize items that are important to the material under discussion.
- **Bold** is used for menu items to click and for emphasis, particularly in situations where *italic* type would be confusing.
- *Italic* type is used to indicate related documents or emphasis.
- `DISPLAY` type indicates text as seen on the printer control panel display.
- Commands you use on a computer keyboard or on the printer control panel are shown in **KEYCAP**. Two examples are **PAUSE/RESUME** and **CANCEL JOB**.
- `COURIER` type indicates text that you type on a computer keyboard exactly as shown.

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### Note

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Notes contain important information set off from the text.

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### CAUTION

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Caution messages alert you to the possibility of damage to equipment or loss of data.

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### WARNING!

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Warning messages alert you to the possibility of personal injury.



# Contents

## 1 Printer description

|  |    |
|--|----|
| Printer features . . . . .                                   | 12 |
| Identification . . . . .                                     | 15 |
| Model and serial numbers . . . . .                           | 15 |
| Power and regulatory information . . . . .                   | 16 |
| Site requirements . . . . .                                  | 17 |
| Space requirements . . . . .                                 | 18 |
| Electrical specifications . . . . .                          | 19 |
| Environmental specifications . . . . .                       | 19 |
| Supply storage requirements . . . . .                        | 20 |
| Printer specifications . . . . .                             | 20 |
| Printer assemblies . . . . .                                 | 21 |
| Media requirements . . . . .                                 | 23 |
| Selecting print media . . . . .                              | 23 |
| Media specifications . . . . .                               | 23 |
| Paper orientation . . . . .                                  | 23 |
| Supported media weights and sizes . . . . .                  | 24 |
| Media specifications for 2-sided (duplex) printing . . . . . | 26 |
| Media to avoid . . . . .                                     | 27 |
| Media that may cause damage to the printer . . . . .         | 27 |
| Printing on special media . . . . .                          | 27 |
| Weight equivalence table . . . . .                           | 31 |
| Environmental product stewardship program . . . . .          | 32 |
| Protecting the environment . . . . .                         | 32 |
| Regulatory statements . . . . .                              | 34 |
| FCC Regulations . . . . .                                    | 34 |
| Safety information . . . . .                                 | 35 |
| Laser safety statement . . . . .                             | 35 |
| Material Safety Data Sheet . . . . .                         | 35 |
| Toner safety . . . . .                                       | 35 |
| Canadian DOC regulations . . . . .                           | 35 |
| EMI statement (Korea) . . . . .                              | 35 |
| VCCI statement (Japan) . . . . .                             | 36 |
| Laser statement for Finland . . . . .                        | 37 |
| Declaration of Conformity . . . . .                          | 38 |

## 2 Service approach

|   |    |
|---|----|
| Service approach . . . . .  | 40 |
| Parts and supplies . . . . .                                      | 41 |
| Ordering parts . . . . .  | 41 |
| Ordering supplies . . . . .                                       | 41 |
| Exchange program . . . . .  | 42 |
| Supplies . . . . .  | 42 |
| World Wide Web . . . . .  | 42 |
| HP service parts information compact disc . . . . .               | 42 |
| HP support assistant compact disc . . . . .                       | 42 |
| Customer care reseller sales and service support center . . . . . | 42 |
| Ordering related documentation and software . . . . .             | 43 |
| Warranty statement . . . . .                                      | 44 |
| Hewlett-Packard warranty statement . . . . .                      | 44 |
| Limited warranty for print cartridge life . . . . .               | 45 |
| Transfer unit and fuser warranty . . . . .                        | 45 |
| HP maintenance agreements . . . . .                               | 46 |
| On-site service agreements . . . . .                              | 46 |

## 3 Installation and configuration

|  |    |
|--|----|
| Unpack the printer . . . . .   | 48 |
| Unpacking the printer . . . . .                                      | 49 |
| Installation . . . . .   | 56 |
| Installing the paper trays . . . . .                                 | 56 |
| Connecting power . . . . .   | 57 |
| Installing the print cartridges . . . . .                            | 58 |
| Installing a new overlay (optional) . . . . .                        | 61 |
| Testing the printer operation . . . . .                              | 61 |
| Using PowerSave . . . . .  | 62 |
| Connecting to a computer . . . . .                                   | 63 |
| Parallel connections . . . . .                                       | 63 |
| Network connections . . . . .  | 64 |
| Enhanced I/O (EIO) configuration . . . . .                           | 66 |
| HP Jetdirect print servers . . . . .                                 | 66 |
| Available enhanced I/O interfaces . . . . .                          | 66 |
| NetWare networks . . . . .   | 66 |
| Windows and Windows NT networks . . . . .                            | 67 |
| AppleTalk networks . . . . .   | 67 |
| UNIX/Linux networks . . . . .  | 67 |
| Printer drivers . . . . .  | 68 |
| Available drivers . . . . .  | 68 |
| Additional drivers . . . . .   | 69 |
| Network configuration . . . . .                                      | 70 |
| Configuring the printer for the network . . . . .                    | 70 |
| Configuring Novell NetWare frame type parameters . . . . .           | 70 |
| Setting network security on the printer . . . . .                    | 71 |
| Locking the control panel . . . . .                                  | 71 |
| Using an ASCII PJI escape sequence to set network security . . . . . | 72 |

## 4 Printer maintenance

|  |    |
|--|----|
| Cleaning the printer and accessories . . . . .               | 74 |
| Cleaning spilled toner . . . . .                             | 74 |
| Periodic cleaning . . . . .                                  | 75 |
| Cleaning the static discharge comb . . . . .                 | 75 |
| Cleaning the OHT sensor . . . . .                            | 76 |
| Approximate replacement intervals for supply items . . . . . | 78 |
| ETB life under different circumstances . . . . .             | 79 |
| Locating supplies . . . . .                                  | 80 |
| Replacing supply items . . . . .                             | 81 |
| Changing print cartridges . . . . .                          | 81 |
| Replacing the transfer unit (ETB) . . . . .                  | 84 |
| Replacing the fuser . . . . .                                | 87 |
| Printer memory . . . . .                                     | 89 |
| Installing memory and font DIMMs . . . . .                   | 90 |
| Installing an HP Jetdirect print server card . . . . .       | 93 |

## 5 Theory of operation

|  |     |
|--|-----|
| Basic operation . . . . .                                  | 96  |
| Operation sequence . . . . .                               | 97  |
| Engine control system . . . . .                            | 98  |
| DC controller circuit . . . . .                            | 99  |
| Motors and fans . . . . .                                  | 100 |
| Fuser power supply circuit . . . . .                       | 102 |
| Heater temperature control . . . . .                       | 103 |
| High-voltage power supply . . . . .                        | 104 |
| Low-voltage power supply . . . . .                         | 105 |
| Formatter system . . . . .                                 | 106 |
| PowerSave . . . . .  | 107 |
| Input/Output . . . . .                                     | 107 |
| Printer memory . . . . .                                   | 108 |
| DIMM slots . . . . .                                       | 108 |
| PJM overview . . . . .                                     | 108 |
| PML . . . . .  | 109 |
| Control panel . . . . .                                    | 109 |
| Laser/scanner system . . . . .                             | 110 |
| Scanner motor control . . . . .                            | 111 |
| Image formation system . . . . .                           | 112 |
| Image formation process . . . . .                          | 113 |
| Print cartridges . . . . .                                 | 114 |
| Toner level detection . . . . .                            | 116 |
| Electrostatic transfer/transport belt (ETB) unit . . . . . | 119 |
| Electrostatic latent image formation block . . . . .       | 120 |
| Development block . . . . .                                | 122 |
| Transfer block . . . . .                                   | 123 |
| Fusing block . . . . .                                     | 125 |
| Cleaning block . . . . .                                   | 125 |
| Calibration and cleaning . . . . .                         | 126 |
| Color plane registration calibration . . . . .             | 129 |
| Drum phase calibration . . . . .                           | 129 |
| Image stabilization control . . . . .                      | 130 |
| Pickup/feed system . . . . .                               | 132 |
| Pickup/feed unit . . . . .                                 | 135 |
| Fuser/delivery unit . . . . .                              | 142 |
| Duplex feed unit . . . . .                                 | 143 |
| 500-sheet paper feeder . . . . .                           | 144 |
| Pickup and feed operations . . . . .                       | 145 |

## 6 Removal and replacement

|  |     |
|--|-----|
| Introduction . . . . .                                     | 149 |
| Removal and replacement strategy . . . . .                 | 149 |
| Repair notices . . . . .                                   | 149 |
| Caution regarding electrostatic discharge (ESD) . . . . .  | 149 |
| Required tools . . . . .                                   | 150 |
| Types of screws . . . . .                                  | 151 |
| Supplies . . . . .   | 152 |
| Print cartridges and ETB . . . . .                         | 153 |
| Covers and external components . . . . .                   | 154 |
| Rear cover . . . . .                                       | 154 |
| Top cover . . . . .  | 155 |
| Rear top cover . . . . .                                   | 156 |
| Left cover . . . . .                                       | 157 |
| Right cover . . . . .                                      | 158 |
| Multi-purpose tray (Tray 1) . . . . .                      | 159 |
| Front cover . . . . .                                      | 160 |
| Control panel . . . . .                                    | 161 |
| Cassette cover . . . . .                                   | 163 |
| Internal components (front) . . . . .                      | 164 |
| Paper pickup unit . . . . .                                | 164 |
| Cassette sensor PCB . . . . .                              | 165 |
| Multi-purpose tray sensor PCB . . . . .                    | 166 |
| Paper pickup drive unit . . . . .                          | 167 |
| Lifter drive unit . . . . .                                | 168 |
| Cassette (Tray 2) paper pickup and feed rollers . . . . .  | 170 |
| Solenoid and clutch . . . . .                              | 171 |
| Cassette separation roller . . . . .                       | 172 |
| Multi-purpose tray pickup roller . . . . .                 | 173 |
| Multi-purpose tray separation pad . . . . .                | 174 |
| Color registration detection unit . . . . .                | 175 |
| Internal components (left side) . . . . .                  | 176 |
| DC controller shield . . . . .                             | 176 |
| Memory tag antenna PCBs . . . . .                          | 177 |
| Developing disengaging drive unit . . . . .                | 178 |
| Drum drive units . . . . .                                 | 179 |
| E-label memory controller PCB . . . . .                    | 184 |
| DC controller PCB . . . . .                                | 185 |
| Cassette paper size detection switches . . . . .           | 186 |
| Power supply fan . . . . .                                 | 187 |
| Internal components (rear) . . . . .                       | 188 |
| Formatter . . . . .  | 188 |
| Low-voltage power supply . . . . .                         | 189 |
| Formatter case . . . . .                                   | 192 |
| Laser/scanner units . . . . .                              | 194 |
| Internal components (right side) . . . . .                 | 199 |
| High-voltage power supply PCB . . . . .                    | 199 |
| Toner level detection PCB . . . . .                        | 201 |
| High-voltage contact blocks . . . . .                      | 202 |
| Door switch . . . . .                                      | 203 |
| Internal components (top) . . . . .                        | 204 |
| Discharging PCB . . . . .                                  | 204 |
| Fuser power supply PCB . . . . .                           | 205 |
| Fuser drive unit . . . . .                                 | 207 |
| Fuser inlet paper sensor . . . . .                         | 210 |
| Fuser delivery sensor and output bin full sensor . . . . . | 211 |
| Static discharge comb . . . . .                            | 213 |
| Formatter fan . . . . .                                    | 214 |

|  |     |
|--|-----|
| Cartridge fan . . . . .                                    | 215 |
| Optional 500-sheet paper feeder . . . . .                  | 216 |
| Paper feeder left cover . . . . .                          | 216 |
| Paper feeder right cover . . . . .                         | 217 |
| Paper feeder pickup and feed rollers . . . . .             | 218 |
| Paper feeder separation roller . . . . .                   | 218 |
| Paper feeder pickup unit . . . . .                         | 219 |
| Paper feeder lifter drive unit . . . . .                   | 221 |
| Paper feeder length and width detection switches . . . . . | 222 |
| Paper feeder pickup clutch . . . . .                       | 223 |
| Paper feeder PCB . . . . .                                 | 224 |

## 7 Troubleshooting

|  |     |
|--|-----|
| Chapter contents . . . . .                                       | 225 |
| Introduction . . . . .   | 227 |
| Troubleshooting process . . . . .                                | 228 |
| Pre-troubleshooting checklist . . . . .                          | 229 |
| Troubleshooting flowchart . . . . .                              | 230 |
| Troubleshooting power-on . . . . .                               | 232 |
| Printer error troubleshooting . . . . .                          | 233 |
| Status messages . . . . .  | 233 |
| Warning messages . . . . .                                       | 233 |
| Error messages . . . . .   | 233 |
| Critical error messages . . . . .                                | 233 |
| Alphabetical printer messages . . . . .                          | 234 |
| Numerical printer messages . . . . .                             | 245 |
| Paper path troubleshooting . . . . .                             | 256 |
| Jams . . . . .   | 256 |
| Jam locations . . . . .  | 256 |
| Jam locations by error message . . . . .                         | 257 |
| Paper jam recovery . . . . .                                     | 258 |
| Avoiding paper jams . . . . .                                    | 259 |
| Persistent jams . . . . .  | 260 |
| Paper transport troubleshooting . . . . .                        | 266 |
| Multiple pages are fed . . . . .                                 | 266 |
| Paper is wrinkled or folded . . . . .                            | 266 |
| Paper is skewed . . . . .  | 267 |
| Image formation troubleshooting . . . . .                        | 268 |
| Print quality problems associated with media . . . . .           | 268 |
| Overhead transparency defects . . . . .                          | 269 |
| Print quality problems associated with the environment . . . . . | 269 |
| Print quality problems associated with jams . . . . .            | 269 |
| Print quality troubleshooting pages . . . . .                    | 269 |
| Understanding color variations . . . . .                         | 270 |
| Color selection process . . . . .                                | 270 |
| Matching colors . . . . .  | 271 |
| Using color . . . . .  | 271 |
| Color options . . . . .  | 272 |
| Adjusting color balance . . . . .                                | 274 |
| Image defects . . . . .  | 275 |
| Repetitive defects troubleshooting . . . . .                     | 282 |
| Interface troubleshooting . . . . .                              | 285 |
| Communications checks . . . . .                                  | 285 |
| EIO troubleshooting . . . . .                                    | 285 |
| AUTOEXEC.BAT standard configurations . . . . .                   | 286 |
| Printer Job Language (PJM) commands . . . . .                    | 286 |
| Control panel troubleshooting . . . . .                          | 289 |
| Printing a menu map . . . . .                                    | 289 |

|  |     |
|--|-----|
| Information menu . . . . .                       | 290 |
| Paper handling menu . . . . .                    | 290 |
| Configure device menu . . . . .                  | 291 |
| Diagnostics menu . . . . .                       | 295 |
| Service menu . . . . .                           | 296 |
| Tools for troubleshooting . . . . .              | 297 |
| Embedded Web server . . . . .                    | 297 |
| To access the embedded Web server . . . . .      | 297 |
| Printer Status and Alerts software . . . . .     | 300 |
| Printer configuration page . . . . .             | 301 |
| Supplies status page . . . . .                   | 302 |
| Usage page . . . . .                             | 303 |
| Event log . . . . .                              | 304 |
| Diagnostics . . . . .                            | 305 |
| Diagnostics flowchart . . . . .                  | 305 |
| Engine diagnostics . . . . .                     | 307 |
| Individual diagnostic tests . . . . .            | 309 |
| Test pages . . . . .                             | 315 |
| Engine test page . . . . .                       | 315 |
| Formatter test page . . . . .                    | 315 |
| Engine resets . . . . .                          | 316 |
| Cold reset . . . . .                             | 316 |
| NVRAM initialization . . . . .                   | 316 |
| Hard disk initialization . . . . .               | 317 |
| Calibration bypass . . . . .                     | 317 |
| Calibrate Now . . . . .                          | 317 |
| Service menu . . . . .                           | 318 |
| Accessing the Service menu . . . . .             | 318 |
| Diagrams . . . . .                               | 320 |
| Main parts . . . . .                             | 320 |
| Switches . . . . .                               | 321 |
| Sensors . . . . .                                | 322 |
| Solenoid and clutch . . . . .                    | 324 |
| Motors and fans . . . . .                        | 325 |
| PCBs . . . . .                                   | 326 |
| DC controller PCB . . . . .                      | 327 |
| Connectors . . . . .                             | 328 |
| 500-sheet paper feeder connectors . . . . .      | 331 |
| General circuit diagram . . . . .                | 332 |
| 500-sheet paper feeder circuit diagram . . . . . | 333 |

## 8 Parts and diagrams

|  |     |
|--|-----|
| Chapter contents . . . . .                                       | 335 |
| Introduction . . . . .   | 336 |
| Ordering parts . . . . .   | 336 |
| Supplies and accessories . . . . .                               | 336 |
| Common fasteners . . . . .                                       | 339 |
| Illustrations and parts lists (printer) . . . . .                | 340 |
| Illustrations and parts lists (500-sheet paper feeder) . . . . . | 375 |
| Alphabetical parts list . . . . .                                | 382 |
| Numerical parts list . . . . .                                   | 388 |

# List of figures

|             |  |     |
|-------------|--|-----|
| Figure 1-1  | HP Color LaserJet 5500 series printers                     | 12  |
| Figure 1-2  | Model and serial number information                        | 15  |
| Figure 1-3  | Sample label   | 16  |
| Figure 1-4  | Space requirements (printer only)                          | 18  |
| Figure 1-5  | Front view, HP Color LaserJet 5500 series                  | 21  |
| Figure 1-6  | Rear view, HP Color LaserJet 5500 series                   | 22  |
| Figure 1-7  | EMI statement for Korea                                    | 35  |
| Figure 1-8  | VCCI statement for Japan                                   | 36  |
| Figure 3-1  | Package contents   | 48  |
| Figure 3-2  | Optional package contents                                  | 48  |
| Figure 3-3  | Parallel port connection                                   | 63  |
| Figure 3-4  | Direct to network connection                               | 64  |
| Figure 3-5  | Network print server connection                            | 64  |
| Figure 3-6  | Peer to peer connection (direct to network)                | 65  |
| Figure 3-7  | Peer to peer connection (parallel)                         | 65  |
| Figure 4-1  | ETB total page count according to average job length       | 79  |
| Figure 4-2  | Location of supplies                                       | 80  |
| Figure 5-1  | Basic system operation                                     | 96  |
| Figure 5-2  | Engine control system                                      | 98  |
| Figure 5-3  | DC controller circuit                                      | 99  |
| Figure 5-4  | Motors and fans  | 100 |
| Figure 5-5  | Fuser power supply circuit                                 | 102 |
| Figure 5-6  | Heater temperature control circuit                         | 103 |
| Figure 5-7  | High-voltage power supply circuit                          | 104 |
| Figure 5-8  | Low-voltage power supply circuit                           | 105 |
| Figure 5-9  | Formatter system   | 106 |
| Figure 5-10 | Laser/scanner system                                       | 110 |
| Figure 5-11 | Scanner motor control circuit                              | 111 |
| Figure 5-12 | Image formation system                                     | 112 |
| Figure 5-13 | Image formation process                                    | 113 |
| Figure 5-14 | Print cartridge  | 114 |
| Figure 5-15 | Memory tag   | 115 |
| Figure 5-16 | Toner level detection                                      | 117 |
| Figure 5-17 | Developing cylinder disengaging                            | 118 |
| Figure 5-18 | ETB unit   | 119 |
| Figure 5-19 | Primary exposure   | 120 |
| Figure 5-20 | Primary charging   | 120 |
| Figure 5-21 | Laser beam exposure  | 121 |
| Figure 5-22 | Development block  | 122 |
| Figure 5-23 | Attaching the paper to the ETB                             | 123 |
| Figure 5-24 | Toner transfer   | 124 |
| Figure 5-25 | Separation   | 124 |
| Figure 5-26 | Fusing   | 125 |
| Figure 5-27 | ETB cleaning   | 127 |
| Figure 5-28 | Drum cleaning  | 128 |
| Figure 5-29 | Primary charging roller and toner charging roller cleaning | 128 |
| Figure 5-30 | Color registration calibration                             | 129 |
| Figure 5-31 | Image density detection                                    | 131 |
| Figure 5-32 | Custom/Standard paper size switch in cassette              | 132 |

|             |  |     |
|-------------|--|-----|
| Figure 5-33 | Pickup/feed system . . . . .   | 133 |
| Figure 5-34 | Pickup/feed system . . . . .   | 134 |
| Figure 5-35 | Cassette pickup operation . . . . .  | 135 |
| Figure 5-36 | Paper size detection switches . . . . .  | 136 |
| Figure 5-37 | Paper lifting operation . . . . .  | 137 |
| Figure 5-38 | Multiple-feed prevention . . . . .   | 138 |
| Figure 5-39 | Overhead transparency detection . . . . .                                      | 139 |
| Figure 5-40 | Horizontal registration adjustment . . . . .                                   | 140 |
| Figure 5-41 | Duplex switch back . . . . .   | 143 |
| Figure 5-42 | Additional 500-sheet paper feeder . . . . .                                    | 144 |
| Figure 5-43 | 500-sheet paper feeder pickup and feed operation . . . . .                     | 145 |
| Figure 6-1  | Phillips and Posidriv screwdriver comparison . . . . .                         | 150 |
| Figure 6-2  | ETB supports and pressure gears . . . . .                                      | 153 |
| Figure 6-3  | Removing and replacing the rear cover . . . . .                                | 154 |
| Figure 6-4  | Removing and replacing the top cover . . . . .                                 | 155 |
| Figure 6-5  | Removing and replacing the rear top cover . . . . .                            | 156 |
| Figure 6-6  | Removing and replacing the left cover (1 of 2) . . . . .                       | 157 |
| Figure 6-7  | Removing and replacing the left cover (2 of 2) . . . . .                       | 157 |
| Figure 6-8  | Removing and replacing the right cover . . . . .                               | 158 |
| Figure 6-9  | Removing and replacing the multi-purpose tray . . . . .                        | 159 |
| Figure 6-10 | Removing and replacing the front cover . . . . .                               | 160 |
| Figure 6-11 | Removing and replacing the control panel (1 of 2) . . . . .                    | 161 |
| Figure 6-12 | Removing and replacing the control panel (2 of 2) . . . . .                    | 161 |
| Figure 6-13 | Installing a new control panel overlay . . . . .                               | 162 |
| Figure 6-14 | Removing and replacing the cassette cover . . . . .                            | 163 |
| Figure 6-15 | Removing and replacing the paper pickup unit (1 of 2) . . . . .                | 164 |
| Figure 6-16 | Removing and replacing the paper pickup unit (2 of 2) . . . . .                | 164 |
| Figure 6-17 | Removing and replacing the paper pickup sensor PCB . . . . .                   | 165 |
| Figure 6-18 | Removing and replacing the multi-purpose tray sensor PCB . . . . .             | 166 |
| Figure 6-19 | Removing and replacing the paper pickup drive unit (1 of 2) . . . . .          | 167 |
| Figure 6-20 | Removing and replacing the paper pickup drive unit (2 of 2) . . . . .          | 167 |
| Figure 6-21 | Removing and replacing the lifter drive unit (1 of 3) . . . . .                | 168 |
| Figure 6-22 | Removing and replacing the lifter drive unit (2 of 3) . . . . .                | 169 |
| Figure 6-23 | Removing and replacing the lifter drive unit (3 of 3) . . . . .                | 169 |
| Figure 6-24 | Removing the cassette pickup and feed rollers . . . . .                        | 170 |
| Figure 6-25 | Removing and replacing the solenoid and clutch . . . . .                       | 171 |
| Figure 6-26 | Removing and replacing the cassette separation roller . . . . .                | 172 |
| Figure 6-27 | Removing and replacing the multi-purpose tray pickup roller (1 of 2) . . . . . | 173 |
| Figure 6-28 | Removing and replacing the multi-purpose tray pickup roller (2 of 2) . . . . . | 173 |
| Figure 6-29 | Removing and replacing the multi-purpose tray separation pad . . . . .         | 174 |
| Figure 6-30 | Removing and replacing the color registration detection unit . . . . .         | 175 |
| Figure 6-31 | Removing and replacing the DC controller shield . . . . .                      | 176 |
| Figure 6-32 | Removing and replacing the memory tag antenna PCBs (1 of 2) . . . . .          | 177 |
| Figure 6-33 | Removing and replacing the memory tag antenna PCBs (2 of 2) . . . . .          | 177 |
| Figure 6-34 | Removing and replacing the developing disengaging drive unit . . . . .         | 178 |
| Figure 6-35 | Removing and replacing the drum drive gears (1 of 2) . . . . .                 | 179 |
| Figure 6-36 | Removing and replacing the drum drive gears (2 of 2) . . . . .                 | 180 |
| Figure 6-37 | Removing and replacing the drum drive assemblies (1 of 4) . . . . .            | 181 |
| Figure 6-38 | Removing and replacing the drum drive assemblies (2 of 4) . . . . .            | 181 |
| Figure 6-39 | Removing and replacing the drum drive assemblies (3 of 4) . . . . .            | 182 |
| Figure 6-40 | Removing and replacing the drum drive assemblies (4 of 4) . . . . .            | 182 |
| Figure 6-41 | Reinstalling the developing disengaging rod (1 of 2) . . . . .                 | 183 |
| Figure 6-42 | Reinstalling the developing disengaging rod (2 of 2) . . . . .                 | 183 |
| Figure 6-43 | Removing and replacing the e-label memory controller PCB . . . . .             | 184 |
| Figure 6-44 | Removing and replacing the DC controller PCB . . . . .                         | 185 |
| Figure 6-45 | Removing and replacing the cassette paper size detection switch . . . . .      | 186 |
| Figure 6-46 | Removing and replacing the power supply fan (1 of 2) . . . . .                 | 187 |
| Figure 6-47 | Removing and replacing the power supply fan (2 of 2) . . . . .                 | 187 |
| Figure 6-48 | Removing and replacing the formatter . . . . .                                 | 188 |

|             |  |     |
|-------------|--|-----|
| Figure 6-49 | Removing and replacing the low-voltage power supply, left side of printer (1 of 4)   | 189 |
| Figure 6-50 | Removing and replacing the low-voltage power supply, rear of printer (2 of 4)        | 190 |
| Figure 6-51 | Removing and replacing the low-voltage power supply, right side of printer (3 of 4)  | 190 |
| Figure 6-52 | Removing and replacing the low-voltage power supply (4 of 4)                         | 191 |
| Figure 6-53 | Removing and replacing the formatter case (1 of 2)                                   | 192 |
| Figure 6-54 | Removing and replacing the formatter case (2 of 2)                                   | 193 |
| Figure 6-55 | Removing and replacing the laser/scanner units (1 of 8)                              | 194 |
| Figure 6-56 | Removing and replacing the laser/scanner units (2 of 8)                              | 195 |
| Figure 6-57 | Removing and replacing the laser/scanner units (3 of 8)                              | 195 |
| Figure 6-58 | Removing and replacing the laser/scanner units (4 of 8)                              | 196 |
| Figure 6-59 | Removing and replacing the laser/scanner units (5 of 8)                              | 196 |
| Figure 6-60 | Removing and replacing the laser/scanner units (6 of 8)                              | 197 |
| Figure 6-61 | Removing and replacing the laser/scanner units (7 of 8)                              | 197 |
| Figure 6-62 | Removing and replacing the laser/scanner units (8 of 8)                              | 198 |
| Figure 6-63 | Removing and replacing the high-voltage power supply PCB                             | 199 |
| Figure 6-64 | Aligning the high-voltage power supply PCB   | 200 |
| Figure 6-65 | Removing and replacing the toner level detection PCB                                 | 201 |
| Figure 6-66 | Removing and replacing the high-voltage contact blocks (cyan indicated)              | 202 |
| Figure 6-67 | Removing and replacing the door switch   | 203 |
| Figure 6-68 | Removing and replacing the discharging PCB   | 204 |
| Figure 6-69 | Removing and replacing the fuser power supply PCB (1 of 2)                           | 205 |
| Figure 6-70 | Removing and replacing the fuser power supply PCB (2 of 2)                           | 206 |
| Figure 6-71 | Removing and replacing the fuser drive unit (1 of 4)                                 | 207 |
| Figure 6-72 | Removing and replacing the fuser drive unit (2 of 3)                                 | 208 |
| Figure 6-73 | Removing and replacing the fuser drive unit (3 of 4)                                 | 209 |
| Figure 6-74 | Removing and replacing the fuser drive unit (4 of 4)                                 | 209 |
| Figure 6-75 | Removing and replacing the fuser paper sensor  | 210 |
| Figure 6-76 | Removing and replacing the fuser delivery sensor and output bin full sensor (1 of 2) | 211 |
| Figure 6-77 | Removing and replacing the static discharge comb                                     | 213 |
| Figure 6-78 | Removing and replacing the formatter fan   | 214 |
| Figure 6-79 | Removing and replacing the cartridge fan   | 215 |
| Figure 6-80 | Removing and replacing the 500-sheet paper feeder left cover (1 of 2)                | 216 |
| Figure 6-81 | Removing and replacing the 500-sheet paper feeder left cover (2 of 2)                | 216 |
| Figure 6-82 | Removing and replacing the 500-sheet paper feeder right cover (1 of 2)               | 217 |
| Figure 6-83 | Removing and replacing the 500-sheet paper feeder right cover (2 of 2)               | 217 |
| Figure 6-84 | Removing and replacing the paper feeder pickup unit (1 of 3)                         | 219 |
| Figure 6-85 | Removing and replacing the paper feeder pickup unit (2 of 3)                         | 219 |
| Figure 6-86 | Removing and replacing the paper feeder pickup unit (3 of 3)                         | 220 |
| Figure 6-87 | Removing and replacing the paper feeder lifter drive unit                            | 221 |
| Figure 6-88 | Removing and replacing the paper feeder length and width detection switches          | 222 |
| Figure 6-89 | Removing and replacing the paper feeder pickup clutch                                | 223 |
| Figure 6-90 | Removing and replacing the 500-sheet paper feeder PCB                                | 224 |
| Figure 7-1  | Troubleshooting flowchart  | 230 |
| Figure 7-2  | Jam locations  | 256 |
| Figure 7-3  | Repetitive defects ruler (1 of 2)  | 283 |
| Figure 7-4  | Repetitive defects ruler (2 of 2)  | 284 |
| Figure 7-5  | HP color LaserJet 5500 series printer configuration page                             | 285 |
| Figure 7-6  | HP color LaserJet 5500 series printer menu map                                       | 289 |
| Figure 7-7  | Printer configuration page   | 301 |
| Figure 7-8  | Supplies status page   | 302 |
| Figure 7-9  | Usage page   | 303 |
| Figure 7-10 | Event log  | 304 |
| Figure 7-11 | Diagnostics flowchart  | 305 |
| Figure 7-12 | Formatter LED  | 306 |
| Figure 7-13 | Door switch and ETB connector  | 308 |
| Figure 7-14 | Tray 2 paper size switch arrangement   | 310 |
| Figure 7-15 | Test page switch   | 315 |
| Figure 7-16 | Location of main parts   | 320 |
| Figure 7-17 | Location of switches   | 321 |

|             |   |     |
|-------------|---|-----|
| Figure 7-18 | Door switch   | 321 |
| Figure 7-19 | Location of sensors                                 | 322 |
| Figure 7-20 | Fuser sensors and output bin full sensor            | 323 |
| Figure 7-21 | Location of solenoid and clutch                     | 324 |
| Figure 7-22 | Solenoid and clutch on the paper pickup unit        | 324 |
| Figure 7-23 | Location of motors and fans                         | 325 |
| Figure 7-24 | PCB locations                                       | 326 |
| Figure 7-25 | Location of DC controller PCB components            | 327 |
| Figure 7-26 | Location of connectors (1 of 3)                     | 328 |
| Figure 7-27 | Location of connectors (2 of 3)                     | 329 |
| Figure 7-28 | Location of connectors (3 of 3)                     | 330 |
| Figure 7-29 | 500-sheet paper feeder connectors                   | 331 |
| Figure 7-30 | General circuit diagram                             | 332 |
| Figure 7-31 | 500-sheet paper feeder circuit diagram              | 333 |
| Figure 8-1  | Assembly location diagram                           | 340 |
| Figure 8-2  | PCB locations                                       | 341 |
| Figure 8-3  | External covers and panels (1 of 2)                 | 342 |
| Figure 8-4  | External covers and panels (2 of 2)                 | 343 |
| Figure 8-5  | Internal components (1 of 9)                        | 344 |
| Figure 8-6  | Internal components (2 of 9)                        | 346 |
| Figure 8-7  | Internal components (3 of 9)                        | 348 |
| Figure 8-8  | Internal components (4 of 9)                        | 350 |
| Figure 8-9  | Internal components (5 of 9)                        | 352 |
| Figure 8-10 | Internal components (6 of 9)                        | 354 |
| Figure 8-11 | Internal components (7 of 9)                        | 356 |
| Figure 8-12 | Internal components (8 of 9)                        | 358 |
| Figure 8-13 | Internal components (9 of 9)                        | 360 |
| Figure 8-14 | Paper pickup drive assembly                         | 362 |
| Figure 8-15 | Drum drive assembly                                 | 363 |
| Figure 8-16 | Disengaging drive assembly                          | 364 |
| Figure 8-17 | Fuser drive assembly                                | 365 |
| Figure 8-18 | Cassette (1 of 2)                                   | 366 |
| Figure 8-19 | Cassette (2 of 2)                                   | 367 |
| Figure 8-20 | Paper pickup assembly (1 of 2)                      | 368 |
| Figure 8-21 | Paper pickup assembly (2 of 2)                      | 369 |
| Figure 8-22 | ETB assembly (1 of 2)                               | 370 |
| Figure 8-23 | ETB assembly (2 of 2)                               | 371 |
| Figure 8-24 | Fuser assembly (1 of 2)                             | 372 |
| Figure 8-25 | Fuser assembly (2 of 2)                             | 373 |
| Figure 8-26 | 500-sheet paper feeder assembly location diagram    | 375 |
| Figure 8-27 | 500-sheet paper feeder internal components (1 of 2) | 376 |
| Figure 8-28 | 500-sheet paper feeder internal components (2 of 2) | 377 |
| Figure 8-29 | 500-sheet paper feeder cassette (1 of 2)            | 378 |
| Figure 8-30 | 500-sheet paper feeder cassette (2 of 2)            | 379 |
| Figure 8-31 | 500-sheet paper feeder lifter drive assembly        | 380 |
| Figure 8-32 | 500-sheet paper feeder paper pickup assembly        | 381 |

# List of tables

|            |  |     |
|------------|--|-----|
| Table 1-1  | Printer features . . . . .   | 13  |
| Table 1-2  | Model names and numbers . . . . .  | 15  |
| Table 1-3  | Electrical specifications . . . . .  | 19  |
| Table 1-4  | Environmental specifications . . . . .   | 19  |
| Table 1-5  | Supply storage requirements . . . . .  | 20  |
| Table 1-6  | Printer dimensions . . . . .   | 20  |
| Table 1-7  | Acoustic emissions . . . . .   | 20  |
| Table 1-8  | Tray 1 (multi-purpose tray) supported media specifications . . . . .             | 24  |
| Table 1-9  | Tray 2, Tray 3, and Tray 4 supported media specifications <sup>1</sup> . . . . . | 25  |
| Table 1-10 | Printing on transparencies . . . . .   | 28  |
| Table 1-11 | Weight equivalence table . . . . .   | 31  |
| Table 2-1  | Related documentation and software . . . . .                                     | 43  |
| Table 3-1  | Printer drivers . . . . .  | 68  |
| Table 3-2  | Printer security levels . . . . .  | 71  |
| Table 4-1  | Cleaning the printer . . . . .   | 74  |
| Table 4-2  | Approximate replacement intervals for supply items . . . . .                     | 78  |
| Table 5-1  | Basic operation sequence . . . . .   | 97  |
| Table 5-2  | Function of motors and fans . . . . .  | 101 |
| Table 5-3  | Fuser temperatures . . . . .   | 102 |
| Table 5-4  | Calibration timing and duration . . . . .  | 126 |
| Table 5-5  | Cleaning timing and duration . . . . .   | 126 |
| Table 5-6  | Cassette paper size detection/cassette detection . . . . .                       | 136 |
| Table 5-7  | Feed speed according to media . . . . .  | 141 |
| Table 6-1  | Types of screws . . . . .  | 151 |
| Table 6-2  | Approximate replacement intervals for supply items . . . . .                     | 152 |
| Table 7-1  | Pre-troubleshooting checklist . . . . .  | 229 |
| Table 7-2  | Alphabetical printer messages . . . . .  | 234 |
| Table 7-3  | Numerical printer messages . . . . .   | 245 |
| Table 7-4  | Error messages and associated jam locations . . . . .                            | 257 |
| Table 7-5  | Common causes of paper jams . . . . .  | 259 |
| Table 7-6  | Causes for jams in Tray 1 . . . . .  | 262 |
| Table 7-7  | Causes for jams in Tray 2 . . . . .  | 262 |
| Table 7-8  | Causes for jams in Tray 3 or Tray 4 . . . . .                                    | 263 |
| Table 7-9  | Causes for jams in the paper path . . . . .                                      | 264 |
| Table 7-10 | Causes for jams in the top cover . . . . .                                       | 265 |
| Table 7-11 | Causes for jams in the duplex path . . . . .                                     | 265 |
| Table 7-12 | Causes for multiple pages feeding . . . . .                                      | 266 |
| Table 7-13 | Causes for wrinkled or folded paper (part one, paper path entrance) . . . . .    | 266 |
| Table 7-14 | Causes for wrinkled or folded paper (part two, paper path exit) . . . . .        | 266 |
| Table 7-15 | Causes for skewed paper . . . . .  | 267 |
| Table 7-16 | Image defects . . . . .  | 275 |
| Table 7-17 | Causes for light images . . . . .  | 276 |
| Table 7-18 | Causes for one color printing light . . . . .                                    | 276 |
| Table 7-19 | Causes for dark images . . . . .   | 276 |
| Table 7-20 | Causes for one color printing dark . . . . .                                     | 277 |
| Table 7-21 | Causes for a completely blank image . . . . .                                    | 277 |
| Table 7-22 | Causes for an all black or solid colored image . . . . .                         | 277 |
| Table 7-23 | Causes for vertical lines of white dots . . . . .                                | 277 |
| Table 7-24 | Causes for dirt on the back of the paper . . . . .                               | 278 |

|            |  |     |
|------------|--|-----|
| Table 7-25 | Causes for dirt on the front of the paper    | 278 |
| Table 7-26 | Causes for vertical lines                    | 278 |
| Table 7-27 | Causes for white vertical lines              | 279 |
| Table 7-28 | Causes for horizontal lines                  | 279 |
| Table 7-29 | Causes for white horizontal lines            | 279 |
| Table 7-30 | Causes for a missing color                   | 279 |
| Table 7-31 | Causes for blank spots                       | 280 |
| Table 7-32 | Causes for poor fusing                       | 280 |
| Table 7-33 | Causes for distortion or blurring            | 280 |
| Table 7-34 | Causes for smearing                          | 281 |
| Table 7-35 | Causes for a misplaced image                 | 281 |
| Table 7-36 | Repetitive defect spacing                    | 282 |
| Table 7-37 | Communications check                         | 285 |
| Table 7-38 | Information menu                             | 290 |
| Table 7-39 | Paper handling menu                          | 290 |
| Table 7-40 | Printing submenu                             | 291 |
| Table 7-41 | Print quality submenu                        | 292 |
| Table 7-42 | System setup submenu                         | 293 |
| Table 7-43 | I/O submenu                                  | 294 |
| Table 7-44 | Resets submenu                               | 294 |
| Table 7-45 | Diagnostics menu                             | 295 |
| Table 7-46 | Service menu                                 | 296 |
| Table 7-47 | Sensor test letter codes                     | 310 |
| Table 7-48 | Tray 2 paper size codes                      | 311 |
| Table 7-49 | Sensors                                      | 323 |
| Table 7-50 | Motors and fans                              | 325 |
| Table 8-1  | Supplies and accessories                     | 337 |
| Table 8-2  | Common fasteners                             | 339 |
| Table 8-3  | PCB locations                                | 341 |
| Table 8-4  | External covers and panels (1 of 2)          | 342 |
| Table 8-5  | External covers and panels (2 of 2)          | 343 |
| Table 8-6  | Internal components (1 of 9)                 | 345 |
| Table 8-7  | Internal components (2 of 9)                 | 347 |
| Table 8-8  | Internal components (3 of 9)                 | 349 |
| Table 8-9  | Internal components (4 of 9)                 | 351 |
| Table 8-10 | Internal components (5 of 9)                 | 353 |
| Table 8-11 | Internal components (6 of 9)                 | 355 |
| Table 8-12 |  | 357 |
| Table 8-13 | Internal components (8 of 9)                 | 359 |
| Table 8-14 | Internal components (9 of 9)                 | 361 |
| Table 8-15 | Paper pickup drive assembly                  | 362 |
| Table 8-16 | Drum drive assembly                          | 363 |
| Table 8-17 | Disengaging drive assembly                   | 364 |
| Table 8-18 | Fuser drive assembly                         | 365 |
| Table 8-19 | Cassette                                     | 366 |
| Table 8-20 | Paper pickup assembly (1 of 2)               | 368 |
| Table 8-21 | ETB assembly                                 | 370 |
| Table 8-22 | Fuser assembly                               | 372 |
| Table 8-23 | 500-sheet paper feeder assemblies            | 375 |
| Table 8-24 | 500-sheet paper feeder internal components   | 376 |
| Table 8-25 | 500-sheet paper feeder cassette              | 378 |
| Table 8-26 | 500-sheet paper feeder lifter drive assembly | 380 |
| Table 8-27 | 500-sheet paper feeder paper pickup assembly | 381 |
| Table 8-28 | Alphabetical parts list                      | 382 |
| Table 8-29 | Numerical parts list                         | 388 |

# 1

# Printer description

## Chapter contents

|   |    |
|---|----|
| Printer features . . . . .                                  | 12 |
| Identification . . . . .                                    | 15 |
| Model and serial numbers. . . . .                           | 15 |
| Power and regulatory information. . . . .                   | 16 |
| Site requirements . . . . .                                 | 17 |
| Space requirements . . . . .                                | 18 |
| Electrical specifications. . . . .                          | 19 |
| Environmental specifications . . . . .                      | 19 |
| Supply storage requirements . . . . .                       | 20 |
| Printer specifications . . . . .                            | 20 |
| Printer assemblies. . . . .                                 | 21 |
| Media requirements. . . . .                                 | 23 |
| Selecting print media . . . . .                             | 23 |
| Media specifications . . . . .                              | 23 |
| Paper orientation. . . . .                                  | 23 |
| Supported media weights and sizes . . . . .                 | 24 |
| Media specifications for 2-sided (duplex) printing. . . . . | 26 |
| Media to avoid. . . . .                                     | 27 |
| Media that may cause damage to the printer . . . . .        | 27 |
| Printing on special media . . . . .                         | 27 |
| Weight equivalence table . . . . .                          | 31 |
| Environmental product stewardship program . . . . .         | 32 |
| Protecting the environment. . . . .                         | 32 |
| Regulatory statements . . . . .                             | 34 |
| FCC Regulations. . . . .                                    | 34 |
| Safety information . . . . .                                | 35 |
| Laser safety statement . . . . .                            | 35 |
| Material Safety Data Sheet . . . . .                        | 35 |
| Toner safety . . . . .                                      | 35 |
| Canadian DOC regulations. . . . .                           | 35 |
| EMI statement (Korea) . . . . .                             | 35 |
| VCCI statement (Japan) . . . . .                            | 36 |
| Laser statement for Finland . . . . .                       | 37 |
| Declaration of Conformity . . . . .                         | 38 |

# Printer features

The HP Color LaserJet 5500 series printer pictured in Figure 1-1 has five models.

- The HP Color LaserJet 5500 printer is the base model; it contains 96 MB of SDRAM.
- The HP Color LaserJet 5500n printer is the base model with an HP Jetdirect 615N print server (network card). This model is available only in Europe.
- The HP Color LaserJet 5500dn printer is the base model with an HP Jetdirect 615N print server (network card) and automatic 2-sided printing.
- The HP Color LaserJet 5500dtn printer is the base model with an HP Jetdirect 615N print server (network card), automatic 2-sided printing, additional 500-sheet paper feeder, a stand, and 160 MB of SDRAM.
- The HP Color LaserJet 5500hdn printer is the base model with an HP Jetdirect 615N print server (network card), automatic 2-sided printing, two additional 500-sheet paper feeders, a hard disk, a stand, and 160 MB of SDRAM.



**Figure 1-1** HP Color LaserJet 5500 series printers

- 1 HP Color LaserJet 5500, 5500n, and 5500dn printers
- 2 HP Color LaserJet 5500dtn printer
- 3 HP Color LaserJet 5500hdn printer

This printer series combines the quality and reliability of Hewlett-Packard printers with the features listed in Table 1-1.

**Table 1-1 Printer features**

| Feature                         | Description  |
|---------------------------------|--|
| Performance                     | <ul style="list-style-type: none"> <li>● 21 pages per minute (ppm) on letter-sized paper, 22 ppm on A4-sized paper.</li> <li>● Prints on transparencies and glossy paper.</li> </ul>   |
| Memory                          | <ul style="list-style-type: none"> <li>● 96 megabytes (MB) of synchronous dynamic random access memory (SDRAM) (160 MB in the HP Color LaserJet 5500dtn and 5500hdn printers).</li> <li>● Can be expanded to 416 MB.</li> <li>● Optional hard disk drive (included with the HP Color LaserJet 5500hdn printer).</li> </ul> |
| User interface                  | <ul style="list-style-type: none"> <li>● Graphic display on control panel.</li> <li>● Enhanced Help with animated graphics.</li> <li>● Embedded Web server to access support and order supplies (network-connected printers).</li> </ul>   |
| Supported printer personalities | <ul style="list-style-type: none"> <li>● HP PCL 6.</li> <li>● HP PCL 5c.</li> <li>● PostScript 3 emulation.</li> <li>● Automatic language switching.</li> </ul>  |
| Storage features                | <ul style="list-style-type: none"> <li>● Job retention (for printers with hard disks).</li> <li>● Fonts and forms.</li> <li>● Personal identification number (PIN) printing (for printers with hard disks).</li> </ul>   |
| Environmental features          | <ul style="list-style-type: none"> <li>● PowerSave setting.</li> <li>● High content of recyclable components and materials.</li> <li>● Energy Star compliant.</li> </ul>   |
| Fonts                           | <ul style="list-style-type: none"> <li>● 80 internal fonts available for both PCL and PostScript emulation.</li> <li>● 80 printer-matching screen fonts in TrueType™ format available with the software solution.</li> <li>● Supports forms and fonts on the disk using HP Web Jetadmin.</li> </ul>                        |

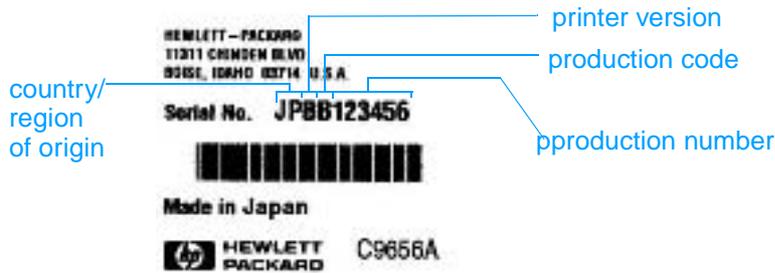
**Table 1-1 Printer features**

| Feature        | Description   |
|----------------|---|
| Paper handling | <ul style="list-style-type: none"><li>● Prints on media from 76 by 127 mm (3 by 5 inches) up to 312 mm by 470 mm (12.3 by 18.5 inches).</li><li>● Prints on media with weights from 60 g/m<sup>2</sup> to 200 g/m<sup>2</sup> (16 lb bond to 53 lb bond).</li><li>● Prints on a wide range of media types including glossy, labels, overhead transparencies, and envelopes.</li><li>● Multiple gloss levels.</li><li>● A 500-sheet input tray (Tray 2) that supports paper sizes from 148 by 210 mm (5.8 by 8.3 inches) up to 297 by 432 mm (11.6 by 17 inches).</li><li>● Optional 500-sheet paper feeder that supports paper sizes from 148 by 210 mm (5.8 by 8.3 inches) up to 297 by 432 mm (11.6 by 17 inches); standard on HP Color LaserJet 5500dtn and 5500hdn printers (the 5500hdn has two paper feeders).</li><li>● Automatic 2-sided printing on HP Color LaserJet 5500dn, 5500dtn, and 5500hdn printers.</li><li>● 250-sheet face-down output bin.</li></ul> |
| Accessories    | <ul style="list-style-type: none"><li>● Printer hard disk, which provides storage for fonts and macros as well as job storage; standard on HP Color LaserJet 5500hdn.</li><li>● Dual inline memory modules (DIMM).</li><li>● Printer stand (recommended for additional optional trays).</li><li>● Optional 500-sheet paper feeder that supports paper sizes from 148 by 210 mm (5.8 by 8.3 inches) up to 297 by 432 mm (11.6 by 17 inches); standard on HP Color LaserJet 5500dtn and 5500hdn printers (the 5500hdn has two paper feeders).</li><li>● Flash DIMM.</li><li>● Fast InfraRed (FIR) pod.</li></ul>  |
| Connectivity   | <ul style="list-style-type: none"><li>● Optional enhanced input/output (EIO) network card; standard on HP Color LaserJet 5500n, 5500dn, 5500dtn, and 5500hdn printers.</li><li>● FIR connection.</li><li>● HP Web Jetadmin software.</li><li>● Standard bidirectional parallel cable interface (IEEE-1284 compliant).</li></ul>   |
| Supplies       | <ul style="list-style-type: none"><li>● Supplies status page contains information on toner level, page count, and estimated pages remaining.</li><li>● No-shake cartridge design.</li><li>● Printer checks for authentic HP print cartridges at cartridge installation.</li><li>● Internet-enabled supply-ordering capabilities (using embedded Web server or printer Status and Alerts).</li></ul>   |

# Identification

## Model and serial numbers

The model number and serial numbers are listed on identification labels located on the rear of the printer. The model number is alphanumeric, such as C9656A for the HP Color LaserJet 5500. The serial number contains information about the country/region of origin, the printer version, production code, and the production number of the printer (see Figure 1-2).



**Figure 1-2** Model and serial number information

**Table 1-2** Model names and numbers

| Model name                | Model number |
|---------------------------|--------------|
| HP Color LaserJet 5500    | C9656A       |
| HP Color LaserJet 5500n   | C7131A       |
| HP Color LaserJet 5500dn  | C9657A       |
| HP Color LaserJet 5500dtn | C9658A       |
| HP Color LaserJet 5500hdn | C9659A       |

## Power and regulatory information

The identification labels on the rear of the printer also contain power rating and regulatory information as shown in Figure 1-3.

### CAUTION

Converting the voltage on the printer can damage the printer. Do not use any voltage other than the operating voltage. Any attempt to convert operating voltages will void the product warranty (for example, attempting to change a 110V printer to a 220V printer).



Figure 1-3 Sample label

## Site requirements

The printer must be kept in a proper location to maintain the performance level that has been set at the factory. In particular, be sure that the environment adheres to the specifications listed in this chapter.

Below are recommendations for the printer location and placement.

Make sure the printer has the following:

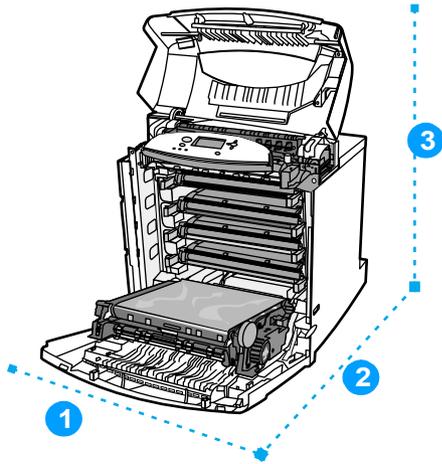
- a well-ventilated, dust-free area
- a hard, level surface (not more than a 2° angle):
  - for the HP Color LaserJet 5500, 5500n, and 5500dn, the surface must support 75 kg (163 lb)
  - for the HP Color LaserJet 5500dtn, the surface must support 116 kg (256 lb)
  - for the HP Color LaserJet 5500hdn, the surface must support 131 kg (289 lb)
- a level surface that supports all four corners of the 500-sheet paper feeder
- a constant temperature and humidity. (Do not install near water sources, humidifiers, air conditioners, refrigerators, or other major appliances)

Make sure to keep the printer away from the following:

- direct sunlight, dust, open flames, or water
- the direct flow of exhaust from air ventilation systems
- magnets and devices that emit a magnetic field
- areas subject to vibration
- walls or other objects. There must be enough space around the printer for proper access and ventilation. See Figure 1-4 on page 18.

## Space requirements

The printer must have the following amounts of space above and around it.



**Figure 1-4** Space requirements (printer only)

- 1 628 mm (25 inches)
- 2 1090 mm (43 inches)
- 3 940 mm (37 inches)

### 500-sheet paper feeder dimensions

For each additional 500-sheet paper feeder installed, add the height from the list below to the height of the printer.

- width = 578 mm (22.8 inches)
- depth = 662 mm (26.2 inches)
- height = 132 mm (5.2 inches)

### Printer stand dimensions

If the printer is on a stand, add the height from the list below to the total height. Also note that the stand increases the overall width space requirement.

- width = 630 mm (24.8 inches)
- depth = 670 mm (26.5 inches)
- height = 202 mm (8.0 inches)

## Electrical specifications

Table 1-3 lists the electrical specifications required to run the printer safely.

**Table 1-3 Electrical specifications**

| Item   | 110-volt models                           | 220-volt models                           |
|--|---|---|
| Power requirements   | 100-127 V (+/-10%)<br>50/60 Hz (+/- 2 Hz) | 220-240 V (+/-10%)<br>50/60 Hz (+/- 2 Hz) |
| Power consumption<br>(LaserJet 5500)                           |   |   |
| During printing  | 592 W                                     | 562 W                                     |
| During standby *   | 54 W                                      | 51 W                                      |
| During PowerSave   | 48 W                                      | 44 W                                      |
| Off  | 0 W                                       | 0 W                                       |
| Minimum recommended<br>circuit capacity for typical<br>product | 6 A                                       | 3 A                                       |

\* When the printer is in standby mode, it continues to consume a minimal amount of energy.

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### Note

This information is preliminary and might not be current. Please see <http://www.hp.com/support/lj5500> for current information.

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## Environmental specifications

Keep the printer within the environmental conditions shown in Table 1-4 for optimum performance.

**Table 1-4 Environmental specifications**

| Item        | Operating                     |
|-------------|-------------------------------|
| Temperature |                               |
| Recommended | 17° to 25° C (63° to 77° F)   |
| Allowed     | 10° to 30° C (50° to 86° F)   |
| Humidity    |                               |
| Recommended | 30% to 70% RH                 |
| Allowed     | 20% to 80% RH                 |
| Altitude    |                               |
| Allowed     | 0 to 2600 m<br>(0 to 8530 ft) |

## Supply storage requirements

The life of supplies is greatly affected by their storage environment. Use Table 1-5 to determine the shelf life of stored supplies.

**Table 1-5 Supply storage requirements**

| Item                            | Storage time   | Storage condition  |
|---------------------------------|--|--|
| Temperature                     | Normal (maximum of 2.5 years)  | 0° to 35° C (32° to 95° F)   |
|                                 | Severe (maximum of 18 days)  | High 35° to 40° C (95° to 104° F)<br>Low 0° to -20° C (32° to -4° F) |
| Maximum temperature change rate | 40° to 15° C (104° to 59° F) within 3 minutes<br>-20° to 25° C (-4° to 77° F) within 3 minutes |  |
| Humidity                        | Normal (maximum of 2.5 years)  | 35% to 85% RH  |
|                                 | Severe (maximum of 18 days)  | High 85% to 95% RH<br>Low 10% to 35% RH                              |
| Atmospheric pressure            | 460 to 760 mm Hg (18.1 to 29.9 in Hg)  |  |
| Storage time <sup>1</sup>       | 2.5 years  |  |

<sup>1</sup> The average storage time includes use time. Use cartridges within 2.5 years of the date code on the cartridge.

## Printer specifications

Table 1-6 describes the dimensions of the printer.

**Table 1-6 Printer dimensions**

|        | HP Color LaserJet 5500, 5500n, 5500dn | HP Color LaserJet 5500dtn | HP Color LaserJet 5500hdn |
|--------|---------------------------------------|---------------------------|---------------------------|
| Height | 640 mm (25.2 inches)                  | 986 mm (38.8 inches)      | 1119 mm (44 inches)       |
| Width  | 577 mm (22.7 inches)                  | 630 mm (24.8 inches)      | 630 mm (24.8 inches)      |
| Depth  | 704 mm (27.7 inches)                  | 704 mm (27.7 inches)      | 704 mm (27.7 inches)      |
| Weight | 60 kg (132 lb)                        | 113 kg (250 lb)           | 128 kg (283 lb)           |

Table 1-7 lists the acoustic emissions of the printer when it is printing and when it is in standby mode.

**Table 1-7 Acoustic emissions**

|   | HP Color LaserJet 5500  |
|---|---|
| Sound power<br>Printing<br>PowerSave    | Per ISO 9296<br>$L_{WA} = 6.5$ bels(A) [65 dB (A)]<br>$L_{WA} = 5.0$ bels(A) [50dB (A)] |
| Bystander (1m)<br>Printing<br>PowerSave | Per ISO 9296<br>$L_{PA} = 49$ dB (A)<br>$L_{PA} = 33$ dB(A)                             |

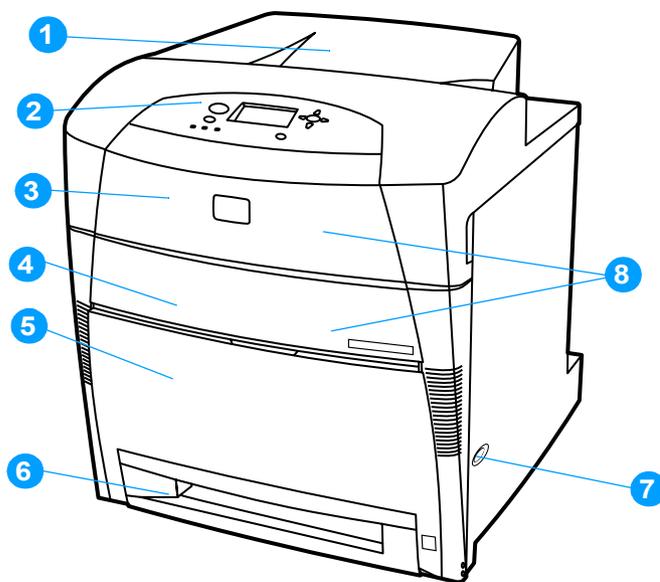
### Note

These values are subject to change. See <http://www.hp.com/support/lj5500> for current information.

Maximum duty cycle is 120,000 pages per month.

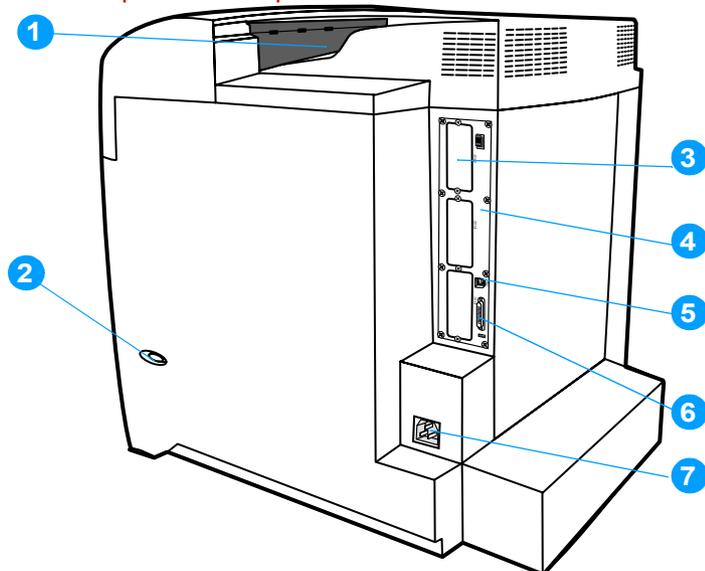
## Printer assemblies

Figures 1-5 and 1-6 show the location of each major assembly in the printer. These assemblies are described in Chapter 3.



**Figure 1-5** Front view, HP Color LaserJet 5500 series

- 1 output bin
- 2 printer control panel
- 3 top cover
- 4 front cover
- 5 Tray 1
- 6 Tray 2 (500-sheet standard tray)
- 7 on/off switch
- 8 access to print cartridges, transfer unit, and fuser



**Figure 1-6** Rear view, HP Color LaserJet 5500 series

- 1 output bin
- 2 on/off switch
- 3 EIO connection (quantity 3)
- 4 Formatter
- 5 FIR (Fast InfraRed) connection
- 6 parallel connection
- 7 power connection