



# LASERJET PRO CP1020

COLOR PRINTER SERIES

## Service Manual







# HP LaserJet Pro CP1020 Color Printer Series

Service Manual

**Copyright and License**

© 2010 Copyright Hewlett-Packard Development Company, L.P.

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

The information contained herein is subject to change without notice.

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

Part number: CE913-90943


Edition 1, 10/2010

**Trademark Credits**


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

## Conventions used in this guide

---

 **TIP:** Tips provide helpful hints or shortcuts.

 **NOTE:** Notes provide important information to explain a concept or to complete a task.

 **CAUTION:** Cautions indicate procedures that you should follow to avoid losing data or damaging the product.

 **WARNING!** Warnings alert you to specific procedures that you should follow to avoid personal injury, catastrophic loss of data, or extensive damage to the product.

---



---

# Table of contents

<b>1</b>	<b>Removal and replacement .....</b>	<b>1</b>
	Introduction .....	2
	Removal and replacement strategy .....	2
	Electrostatic discharge .....	3
	Required tools .....	3
	Service approach .....	4
	Before performing service .....	4
	After performing service .....	4
	Post-service test .....	4
	Print-quality test .....	4
	Parts removal order .....	5
	Removal and replacement procedures .....	6
	Replace the print cartridges .....	6
	Replace the imaging drum .....	9
	Input tray .....	13
	Secondary transfer roller .....	14
	Separation pad assembly .....	15
	Remove the separation pad assembly .....	15
	Pickup roller .....	16
	Remove the pickup roller assembly .....	17
	Covers .....	18
	Right cover assembly .....	18
	Remove the right cover assembly .....	18
	Left cover assembly .....	19
	Remove the left cover assembly .....	19
	Top door assembly .....	20
	Remove the top door assembly .....	20
	Rear top cover assembly .....	22
	Remove the rear top cover assembly .....	22
	Rear door assembly .....	23
	Remove the rear door assembly .....	23
	Rear lower cover assembly .....	24
	Remove the rear lower cover assembly .....	24
	Control panel .....	25

Remove the control panel .....	25
Front door .....	27
Remove the front door .....	27
Main assemblies .....	29
ITB assembly .....	29
Remove the ITB assembly .....	29
Fuser delivery assembly .....	38
Remove the fuser delivery assembly .....	39
Formatter PCA (base model) .....	43
Remove the formatter PCA (base model) .....	43
Formatter and wireless PCA (plus model) .....	44
Remove the formatter and wireless PCA (plus model) .....	44
Engine controller assembly .....	46
Remove the engine controller assembly .....	46
Low-voltage power supply assembly .....	49
Remove the low-voltage power supply assembly .....	49

## 2 Solve problems ..... 53

Solve problems checklist .....	54
Step 1: Make sure that the product is set up correctly .....	54
Step 2: Check the cabling or wireless connection (network models only) .....	54
Step 3: Check to see if any control-panel lights are lit .....	54
Step 4: Check the paper .....	54
Step 5: Check the software .....	55
Step 6: Test print functionality .....	55
Step 7: Check the supplies .....	55
Step 8: Try sending a print job from a computer .....	55
Troubleshooting process .....	56
Determine the problem source .....	56
Power subsystem .....	57
Power-on checks .....	57
Tools for troubleshooting .....	58
Component diagnostics .....	58
Engine diagnostics .....	58
Engine test page .....	58
Diagrams .....	59
Plug/jack locations .....	59
Locations of connectors .....	60
Locations of major components .....	61
General timing chart .....	63
General circuit diagram .....	64
Internal print-quality test pages .....	65
Print quality troubleshooting page .....	65

Interpret the Print Quality Page .....	65
Clean the paper path .....	66
Print configuration page .....	66
Print-quality troubleshooting tools .....	67
Repetitive image defects ruler .....	67
Calibrate the product .....	67
Interpret control panel light patterns .....	68
Status alert messages .....	71
Clear jams .....	77
Prevent paper jams .....	77
Jam locations .....	78
Clear jams from the input tray .....	78
Clear jams from the output bin .....	80
Clear jams from the rear door .....	81
The product does not feed automatically .....	82
The product feeds multiple sheets .....	82
Solve image-quality problems .....	83
Image defects table .....	83
Clean the product .....	89
Clean the separation pad or pickup roller .....	89
Clean the paper path .....	90
Clean the exterior .....	90
Solve performance problems .....	91
The product does not print .....	91
The product prints slowly .....	91
Solve connectivity problems .....	92
Solve direct-connect problems .....	92
Solve network problems .....	92
Poor physical connection .....	92
The computer is using the incorrect IP address for the product .....	92
The computer is unable to communicate with the product .....	93
The product is using incorrect link and duplex settings for the network .....	93
New software programs might be causing compatibility problems .....	93
The computer or workstation might be set up incorrectly .....	93
The product is disabled, or other network settings are incorrect .....	93
Solve wireless network problems (wireless models only) .....	94
Wireless connectivity checklist .....	94
The product does not print after the wireless configuration completes .....	94
The product does not print, and the computer has a third-party firewall installed .....	95
The wireless connection does not work after moving the wireless router or product .....	95
Cannot connect more computers to the wireless product .....	95
The wireless product loses communication when connected to a VPN .....	95

The network does not appear in the wireless networks list .....	95
The wireless network is not functioning .....	95
Service mode functions .....	97
Product resets .....	97
Product updates .....	97
<b>3 Parts and diagrams .....</b>	<b>99</b>
Order parts by authorized service providers .....	100
Order replacement parts .....	100
Related documentation and software .....	100
Supplies part numbers .....	100
Service parts .....	100
Whole-unit replacement part numbers .....	101
How to use the parts lists and diagrams .....	102
Assembly locations .....	103
Base product (no optional trays or accessories) .....	103
Covers, panels, and doors .....	104
Internal assembly .....	106
Internal assembly .....	106
PCAs .....	108
Alphabetical parts list .....	110
Numerical parts list .....	112
<b>Appendix A Service and support .....</b>	<b>115</b>
Hewlett-Packard limited warranty statement .....	116
HP's Premium Protection Warranty: LaserJet print cartridge limited warranty statement .....	118
HP's LaserJet imaging drum limited warranty statement for replacement imaging drums .....	119
Data stored on the print cartridge and imaging drum .....	120
End User License Agreement .....	121
OpenSSL .....	123
Customer self-repair warranty service .....	124
Customer support .....	124
Repack the product .....	125
<b>Appendix B Specifications .....</b>	<b>127</b>
Physical specifications .....	128
Power consumption .....	128
Acoustic specifications .....	129
Environmental specifications .....	129
<b>Appendix C Regulatory information .....</b>	<b>131</b>
FCC regulations .....	132
Declaration of conformity (base models) .....	133

Declaration of conformity (wireless models) .....	135
Certificate of Volatility .....	137
Safety statements .....	139
Laser safety .....	139
Canadian DOC regulations .....	139
VCCI statement (Japan) .....	139
Power cord instructions .....	139
Power cord statement (Japan) .....	139
EMC statement (Korea) .....	140
Laser statement for Finland .....	140
GS statement (Germany) .....	140
Substances Table (China) .....	141
Restriction on Hazardous Substances statement (Turkey) .....	141
Additional statements for wireless products .....	142
FCC compliance statement—United States .....	142
Australia statement .....	142
Brazil ANATEL statement .....	142
Canadian statements .....	142
European Union regulatory notice .....	142
Notice for use in France .....	143
Notice for use in Russia .....	143
Korean statement .....	143
Taiwan statement .....	143

<b>Index .....</b>	<b>145</b>
--------------------	------------