

## HP LaserJet Pro 400 color Printer M451 series

Ideal for work teams of up to 8 users, who need the convenience of wireless and professional-quality colour from an easy-to-use, highly affordable, networked HP LaserJet printer.





## Enjoy high productivity with great print speeds and professional-quality colour.

- Boost productivity and save time with print speeds of up to 20 ppm A4.
- Produce crisp, detailed text and consistently smooth colour with HP ImageREt 3600 and Original HP Laserlet toner cartridges.
- Design and produce colour marketing materials in-house on a range of media sizes from 8.9 x 12.7 cm (3.5 x 5 inches) to 21.6 x 35.6 cm (8.5 x 14 inches). Go to www.hp.com/create for tips and templates from HP.
- Print documents affordably: get the same black cost per page as a black-and-white HP LaserJet printer<sup>4</sup>.



- Install and proactively manage this printer remotely using HP Web Jetadmin.
- Get started right away with HP Smart Install no CD required<sup>5</sup>.
- Use the printer anywhere in the office, with built-in wireless connectivity<sup>1</sup>. Share printing on a network with built-in 10/100 Ethernet.
- Print from virtually anywhere with HP ePrint<sup>3</sup>. Print from a smartphone directly to your printer using HP wireless direct printing<sup>6</sup>, and print wirelessly from your iPad®, iPhone®, and iPod touch® with AirPrint<sup>TM7</sup>



- Reduce energy use with HP Auto-On/Auto-Off Technology, which turns the printer on when you need it and off when you don't<sup>a</sup>. Save even more energy with Instant-on Technology<sup>a</sup>.
- Reduce waste and easily manage paper use with automatic two-sided printing<sup>2</sup>.
- Save money and print for longer with Original HP high capacity black cartridges<sup>10</sup>, and easily reorder with HP SureSupply<sup>11</sup>.
- Take advantage of free, easy recycling cartridges returned through HP Planet Partners are recycled responsibly<sup>12</sup>.



Wireless performance is dependent upon physical environment and distance from access point, and may be limited during active VPN connections. Built-in wireless is available on the HP LaserJet Pro 400 Color M451nw and M451dw only. 
Automatic two-sided printing is available on the HP LaserJet Pro 400 M451nh and M451dw only. 
Requires an Internet connection to the printer. Feature works with any Internet- and email-capable device. Print times may vary. For a list of supported documents and image types, see http://www.hp.com/go/eprintcenter. 
Compared with HP LaserJet Pro P1566/ P1606An printer. Assuming customer is printing at least 30% of total pages in colour with content similar to the colour ISO/IEC 19798 test suite (http://www.iso.org/itc1/sc28) and overall average job length of three pages. Yields established using ISO/IEC test standards. Actual yields and costs vary considerably depending on images printed, number of colour pages printed, and other factors. 
Page 1875 Smart Install works with Windows only. 
Mobile device, available at http://www.hp.com/go/eprintcenter. 
Supports iOS 4.2 devices (iPad, iPhone 4, iPhone 3GS, and 3rd and 4th generation iPod touch) that support multitasking. Works with HP ePrintenabled printers and all-in-ones. AirPrint and iOS 4.2 devices require an 802.11 wireless network connection to the printer. Vireless performance is dependent upon physical environment and distance from the access point. AirPrint and the AirPrint lago are trademarks of Apple Inc., registered in the U.S. and other countries. 
Page 1875 Auto-On-Auto-Off capabilities subject to printer and settings. 
Page 2875 Auto-Off capabilities subject to printer and settings. 
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## TECHNICAL SPECIFICATIONS

Print Technology	Laser
Print Speed	Black (Normal): Up to 20 ppm; First page out black (A4, ready): As fast as 17 sec;
	Colour (Normal): Up to 20 ppm; First Page Out Colour (A4, ready): As fast as 17 sec;
Print Resolution	<b>Black (Best):</b> Up to $600 \times 600$ dpi; <b>Black (Normal):</b> Up to $600 \times 600$ dpi; <b>Colour (Best)</b> . Up to $600 \times 600$ dpi;
Print Technology Resolution	HP ImageREt 3600
Recommended Monthly Page Volume	750 to 2000
Monthly Duty Cycle	Up to 40,000 pages
Standard Print Languages	HP PCL 5c, HP PCL 6, HP Postscript Level 3 emulation
Number of Print Cartridges	4 (1 each black, cyan, magenta, yellow)
Suresupply Supported	Yes
Printer Management	Windows®: HP Device Toolbox (default install), SNP Alerts (minimum network install), HP Web Jetadmin (download); Mac: HP Utility
Printer Smart Software Features	CE957A: HP ePrint, Apple AirPrint <sup>TM</sup> , HP Smarl Install, HP Auto-On/Auto-Off Technology, Automatic two-sided printing CE958A: HP ePrint, Apple AirPrint <sup>TM</sup> , Wireless direct printing, HP Smarl Install, HP Auto-On/Auto-Off Technology, Automatic two-sided printing CE956A: HP ePrint, Apple AirPrint <sup>TM</sup> , Wireless direct printing, HP Smart Install, HP Auto-On/Auto-Off Technology
Standard Connectivity	CE957A: 1 Hi-Speed USB 2.0; 1 Fast Ethernet 10/100Base-TX CE958A: 1 Hi-Speed USB 2.0; 1 Fast Ethernet 10/100Base-TX network; 1 WiFi 802.11 b/g/n CE956A: 1 Hi-Speed USB 2.0; 1 Fast Ethernet 10/100Base-TX network; 1 WiFi 802.11
Wireless Capability	b/g/n <b>CE957A</b> : No
vvireless Cupubliny	CE958A: Yes, built-in WiFi 802.11 b/g/n CE956A: Yes, built-in WiFi 802.11 b/g/n
Network Capabilities	CE957A: Via built-in 10/100 Fast Ethernet CE958A: Via built-in 10/100 Fast Ethernet; Wireless 802.11 b/g/n CE956A: Via built-in 10/100 Fast Ethernet; Wireless 802.11 b/g/n
Supported Network Protocols	CF957A: Via built-in networking solution: TCP/IP, IPv4, IIPv6; Print: TCPIP port 9100 Direct Mode, LPD (raw queue support only), Web Services Printing; Discovery: SLP, Bonjour, Web Services Discovery; IP Config: IPv4 (BootP, DHCP, AutolP, Manual), IPv6 (Stateless), IPP Print, SSL Security and Certificate management, Apple AirPrint <sup>TM</sup> CE958A: Via built-in networking solution: TCP/IP, IPv4, IPv6; Print: TCPIP port 9100 Direct Mode, LPD (raw queue support only), Web Services Printing; Discovery: SLP, Bonjour, Web Services Discovery; IP Config: IPv4 (BootP, DHCP, AutolP, Manual), IPv6 (Stateless); Wireless: 802.1 b.g/n, VPS, IPP Print, SSL Security and certificate management, Apple AirPrint <sup>TM</sup> , HP wireless direct printing CE956A: Via built-in networking solution: TCP/IP, IPv4, IPv6; Print: TCP-IP port 9100 Direct Mode, IPD (raw queue support only), Web Services Printing; Discovery: SLP, Bonjour, Web Services Discovery; IP Config: IPv4 (BootP, DHCP, AutolP, Manual), IPv6 (Stateless); Wireless: 802.11 b/g/n, VPS, IPP Print, SSL Security and certificate management, Apple AirPrint <sup>TM</sup> , HP wireless direct printing
Control Panel	2-line, 16-character backlit LCD display; 5 buttons (Cancel job, Left arrow, Right arrow, Select, Back); 2 LED lights (Attention, Ready)
Fonts and Typefaces	84 scalable TrueType fonts
Media Types Supported	Paper (bond, brochure, coloured, glossy, letterhead, photo, plain, preprinted, prepunched, recycled, rough), postcards, transparencies, labels, envelopes
Media Sizes Supported	Tray 1, Tray 2, optional Tray 3: A4, A5, A6, B5 (JIS), 10 x 15 cm, postcards (JIS single, JIS double), envelopes (ISO DL, ISO C5, ISO B5)
Media Sizes Custom	Tray 1: $76 \times 127$ to 216 x 356 mm; Tray 2, optional Tray 3: 100 x 148 to 216 x 356 mm
Media Weight Supported	CE957A: Tray 1: 60 to 176 g/m² (up to 220 g/m² with postcards and HP Color Laser glossy photo papers); Tray 2, optional Tray 3: 60 to 163 g/m² (up to 176 g/m² with postcards); Automatic duplewer: 60 to 163 g/m² (up to 176 g/m² with postcards); Automatic duplewer: 60 to 163 g/m² with postcards and HP Color Laser glossy photo papers); Tray 2, optional Tray 3: 60 to 163 g/m² (up to 176 g/m² with postcards); Automatic duplewer: 60 to 163 g/m² (up to 176 g/m² with postcards); Automatic duplewer: 60 to 163 g/m² (up to 220 g/m² with postcards and HP Color Laser glossy photo papers); Tray 2, optional Tray 3: 60 to 163 g/m² (up to 176 g/m² with postcards) and HP Color Laser glossy photo papers); Tray 2, optional Tray 3: 60 to 163 g/m² (up to 176 g/m² with postcards)
Paper Handling	50-sheet multipurpose tray, 250-sheet input tray Input Handling: Up to 300 sheets, Up to 10 envelopes Output Handling: Up to 150 sheets, Up to 50 sheets
Processor Speed	600 MHz
Standard Memory	128 MB
Maximum Memory	384 MB
Memory Upgrade	Expandable to 384 MB through 1 industry-standard DIMM slot
Software Included	Windows®: HP Installer/Uninstaller, HP PCL 6 print driver, Status Alerts, HP Update,
	DXP; Mac: HP Installer/Uninstaller, HP Postscript driver, HP Setup Assistant, HP Utility, HP Alerts, HP Firmware Updater
Minimum System Requirements	PC: Microsoft® Windows® 7 (32-bit/64-bit), Windows Vista® (32-bit/64-bit): 1 GHz 32-bit (x86) or 64-bit (x64) processor, 1 GB RAM (32-bit) or 2 GB RAM (64-bit), 400 MB free hard disk space, CD/DVD-ROM or Internet, USB or Network port; Windows® XP (32-bit) SP2: Pentium® 233 MHz processor, 512 MB RAM 400 MB free hard disk space, CD/DVD-ROM or Internet, USB or Network port Mac: Mac OSX v10.5, v10.6; PowerPC G4, G5, or Intel® Core™ Processor; 500 MB hard disk; CD-ROM/DVD-ROM or Internet; USB or Network port
Compatible Operating Systems	Full software installs supported on: Microsoft® Windows® 7 32-bit and 64-bit, Windows Vista® 32-bit and 64-bit, Windows WP 32-bit (SP2 or higher); Driver only installs supported on: Microsoft® Windows® Server 2008 32-bit and 64-bit, Windows® Server 2008 32-bit and 64-bit, Windows® Server 2003 32-bit (SP3 or higher); Mac OS X v10.5, v10.6; Linpus Linux (9.4, 9.5), RED HAT Enterprise Linux 50 (supported with a pre-built package); SUSE Linux (10.3, 11.0, 11, 11.1, 11.2), Fedora™ (9, 9.0, 10, 10.0, 11.0, 11, 12, 12.0), Ubuntu® (8.04, 8.04.1, 8.04.2, 8.10, 9.04, 9.10, 10.04), Debian (5.0, 5.0.1, 5.0.2, 5.0.3) (supported by the automatic installer); HPUX 11 and Solaris® 8/9

What's In The Box	CE957A: HP LaserJet Pro 400 color M451dn printer; Four preinstalled introductory HP LaserJet noner cartridges (yield ~1400 pages); In-box documentation (Hardware installation guide); Software drivers and documentation on CD-ROMs; Power cord; Built-in Automatic duplexer for two-sided printing CE958A: HP LaserJet Pro 400 color M451dw printer; Four preinstalled introductory HP LaserJet none cartridges (yield ~1400 pages); In-box documentation (Hardware installation guide); Software drivers and documentation on CD-ROMs; Power cord; Built-in Automatic duplexer for two-sided printing; Built-in Wireless Card; USB cable CE956A: HP LaserJet Pro 400 color M451nw printer; Four preinstalled introductory HP LaserJet Pro 400 color M451nw printer; Four preinstalled introductory HP LaserJet Pro 400 color M451nw printer; Four preinstalled introductory HP LaserJet Pro 405 color M451nw printer; Four preinstalled introductory HP LaserJet Pro 405 color M451nw printer; Four preinstalled introductory HP LaserJet Pro 405 color M452 color profits the color profits of the Color M452 color profits the color profits of the Color M452 color profits the color profits of the Color M452 color profits the color profits of the Color M452 color profits the color profits of the Color M452 color profits the color profits of the Color M452 color profits the color profits of the Color M452 color profits the color profits of the Color M452 color profits the color profits of the Color M452 color profits the Color M452 color profits the color profits the Color M452 col
Accessories	CF106A HP LaserJet 250-sheet Paper Feeder CB423A HP 256 MB DDR2 144-pin DIMM J8021A HP Jedliract ew2500 802.11b/g Wireless Print Server
Supplies	CE10A HP 305A Black LaserJet Toner Cartridge Average continuous Black Cartridge yield 2200 standard pages. Declared yield value in accordance with ISO/IEC 19798. CE410X HP 305X Black LaserJet Toner Cartridge Average continuous Black Cartridge yield 4000 standard pages. Declared yield value in accordance with ISO/IEC 19798. CE411A HP 305A Vgn LaserJet Toner Cartridge Average continuous composite Cyan/Yellow/Magenta Cartridge yield 2600 standard pages. Declared yield value in accordance with ISO/IEC 19798. CE412A HP 305A Yellow LaserJet Toner Cartridge Average continuous composite Cyan/Yellow/Magenta Cartridge yield 2600 standard pages. Declared yield value in accordance with ISO/IEC 19798. CE413A HP 305A Magenta LaserJet Toner Cartridge Average continuous composite Cyan/Yellow/Magenta Cartridge yield 2600 standard pages. Declared yield value in accordance with ISO/IEC 19798.
Operating Environment	Operating Temperature Range: 15 to 30°C Recommended Operating Temperature: 15 to 27°C Storage Temperature Range: :20 to 40°C Non-Operating Humidity Range: 10 to 80°R RH (non-condensing) Operating Humidity Range: 10 to 80°R RH (non-condensing) Recommended Humidity Operating Range: 20 to 70°R RH (non-condensing)
Acoustic	Acoustic Power Emissions: 6.5 B(A) Acoustic Pressure Emissions: 51 dB(A)
Power	Power Supply Type: Built-in power supply Power Requirements: Input voltage: 110 to 127 VAC (+/- 10%), 60 Hz (+/- 3 Hz); 220 to 240 VAC (+/- 10%), 50 Hz (+/- 3 Hz) Power Consumption: 425 watts (active), 15.2 watts (ready), 4.0 watts (sleep), 0.5 watts (manual-off). Typical Electricity Consumption (TEC): 1.509 kWh/Week
Product Certifications	CISPR 22: 2005+A1/EN 55022: 2006+A1 Class B, EN 61000-32: 2006, EN 61000-3-3: 2008, EN 55024: 1998+A1+A2, FCC Title 47 CFR, GB9254-2008, EMC Directive 2004/108/EC with CE Marking (Europe), other EMC approvals as required by individual countries; Safety certifications: IEC 60950-1 (International), EN 60950-1-A1 (IEU), IEC 60825-1, GS it ciense (Europe), EN 60825-1 (Class 1 Laser/LED Device), Low Voltage Directive 2006/95/EC with CE Marking (Europe); other safety approvals as required by individual countries; ENERGY STAR: CESTSA: Ves; CESS6A: Vio
Product Dimensions (W x D x H)	CE957A: 405 x 484 x 322 mm CE958A: 405 x 484 x 322 mm CE956A: 405 x 454 x 322 mm
Product Weight	CE957A: 23.64 kg CE958A: 23.64 kg CE956A: 22.74 kg
Security Management	CE957A: Embedded Web Server: password-protection, secure browsing via SSL/TLS; Network: enable/disable network ports and features, SNMPv1 community password change; HP ePrint: HTTPS with certificate validation, HTTP Basic Access Authentication, SASL authentication (CE958A: Wireless: WEP (128 bit), WPA/WPA2 - Personal (AES, TKIP); Embedded Web Server: password-protection, secure browsing via SSL/TLS; Network: enable/disable network ports and features, SNMPv1 community password change; HP ePrint: HTTPS with CE956A: Wireless: WFP (128 bit), WPA/WPA2 - Personal (AES, TKIP); Embedded Web Server: password-protection, secure browsing via SSL/TLS; Network: enable/disable network ports and features, SNMPv1 community password change; HP ePrint: HTTPS with certificate validation, HTTP Basic Access Authentication, SASL authentication
Warranty	One-year limited warranty. Warranty and support options vary by product, country and local legal requirements.
Service And Support Options	U1H90E - HP 3 year Next Business Day Color LaserJet M451 Hardware Support U1H96FE - HP 1 year Post Warranty Next Business Day Color LaserJet M451 Hardware Support U1H91E - HP 3 year Return Color LaserJet M451 Hardware Service U1H95E - HP 1 year Post Warranty Return Color LaserJet M451 Hardware Service (U1H91E and U1H95E: only Central and Eastern Europe, Middle East, Mediterranean

Count on dependable support to create the best image possible. We can help you enhance your printing and imaging environment, protect your IT investment, and grow your business—with expert support that's affordable, personal, and tailored to your needs through HP Care Pack Services.

For more information, visit our website at http://www.hp.com

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