LASERJET PRO 400
COLOR M451 printer series

Produce professional-quality color documents with ease and fast speed. Seamlessly integrate into your office or wireless home network. HP features help you save paper and energy, and print from virtually anywhere with HP ePrint.[3]

Print Speed[1]: Up to 21 ppm black (letter), Up to 21 ppm color (letter)
Print Resolution: Up to 600 x 600 dpi
Print Technology Resolution: HP ImageREt 3600
Display: 2-line LCD (text)
Monthly Volume (Duty Cycle): Up to 40,000 pages
Paper Handling: 50-sheet multipurpose tray, 250-sheet input tray 2, 150-sheet output bin, 250-sheet input tray 3 (optional)

Professional-grade speed and color

- Boost productivity and save time with print speeds up to 21 ppm letter.[1]
- Produce bold text and smooth color with HP ImageREt 3600 and Original HP LaserJet toner cartridges.
- Produce color marketing materials in-house on a range of media sizes by using tips and templates from HP.
- Print documents affordably. Get the same black cost per page as a black-and-white HP LaserJet printer.[4]

Manageability, productivity, and mobility

- Conserve resources and save paper, using automatic two-sided printing.[10]
- Proactively manage office printing with HP Web Jetadmin.
- Conveniently locate the printer anywhere in the office, using built-in wireless connectivity.[2, 11] Share printing resources, using built-in Ethernet.
- Print from virtually anywhere with HP ePrint.[3]

Easy-to-use and resource-conserving

- Reduce energy use with HP Auto-On/Auto-Off Technology.[5] Also save with Instant-on Technology.[7]
- Start right away with HP Smart Install.[6] Use HP Auto Wireless Connect to autoconfigure networking.[2]
- Receive consistent results with Original HP cartridges and easily reorder with HP SureSupply.[8]
- Take advantage of free, easy recycling—cartridges returned through HP Planet Partners are recycled responsibly.[9]

ecoHIGHLIGHTS

HP LaserJet Pro 400 color M451 printer series

- Save energy—HP Auto-On/Auto-Off Technology turns your printer on when you need it, off when you don't.[1]
- Reduce paper use by up to 50%, using automatic two-sided printing.
- Lower your impact—reduce energy and paper use with HP EcoSMART Console.

ENERGY STAR® qualified

[1]HP Auto-On/Auto-Off capabilities subject to printer and settings.

www.hp.com/ecosolutions

Please recycle your computing hardware and printing supplies. Find out how at our website.

[1]Measured using ISO/IEC 24734, excludes first set of test documents. For more information see **http://www.hp.com/go/printerclaims**. Exact speed varies depending on the system configuration, software application, driver, and document complexity. [2]Wireless performance is dependent upon physical environment and distance from access point, and may be limited during active VPN connections. [3]Requires an Internet connection to the printer. Feature works with any Internet- and e-mail-capable device. Print times may vary. For a list of supported documents and image types, see **http://www.hp.com/go/eprintcenter**. [4]Compared with HP LaserJet Pro P1566/ P1606dn printer. Assuming customer is printing at least 30% of total pages in color with content similar to the color ISO/IEC 19798 test suite (**http://www.iso.org/jtc1/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 color pages printed, and other factors. [5]HP Auto-On/Auto-Off capabilities subject to printer and settings. Actual results may vary. [6]HP Smart Install works with Windows only. [7]Compared with traditional fusing. [8]Program features and availability may vary by country. For more information, visit **http://www.hp.com/learn/suresupply**. [9]Program availability varies. HP print cartridge return and recycling is currently available in more than 50 countries and territories around the world through the HP Planet Partners program. For more information, or to request return envelopes and bulk collection boxes, visit **http://www.hp.com/recycle**. [10]Automatic two-sided printing is avaliable on the HP LaserJet Pro M451dn and M451dw only. [11]Built-in wireless is available on the HP LaserJet Pro 400 Color M451nw and M451dw only.

ENERGY STAR · Compatible with Windows 7 · Works with Windows Vista · Hi-Speed USB Certified · ePrint · Smart install

LASERJET PRO 400
COLOR M451 printer series

TECHNICAL SPECIFICATIONS

PRODUCT NUMBER	**CE956A:** LaserJet Pro 400 Color M451nw **CE957A:** LaserJet Pro 400 Color M451dn **CE958A:** LaserJet Pro 400 Color M451dw
PRINT TECHNOLOGY	Laser
PRINT SPEED[1]	**Black (Normal, letter):** Up to 21 ppm; **Color (Normal, letter):** Up to 21 ppm **First Page Out**[2]**:** As fast as 17 sec Color (letter, ready), As fast as 17 sec black (letter, ready)
PRINT RESOLUTION	**Black (Best):** Up to 600 x 600 dpi; **Black (Normal):** Up to 600 x 600 dpi **Color (Best):** Up to 600 dpi
PRINT TECHNOLOGY RESOLUTION	HP ImageREt 3600
DUPLEX PRINT OPTIONS	• **M451dn & M451dw:** Automatic (standard) • **M451nw:** Manual (driver support provided)
HP ePrint CAPABILITY	Yes
MOBILE PRINTING CAPABILITY	HP ePrint, Apple AirPrint™, Wireless Direct Print[10]
STANDARD PRINT LANGUAGES	HP PCL 6, HP PCL 5c, HP postscript level 3 emulation
NUMBER OF PRINT CARTRIDGES	4 (1 each black, cyan, magenta, yellow)
SURESUPPLY SUPPORTED[3]	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	HP ePrint, Apple AirPrint™, Smart Install, HP Auto-On/Auto-Off technology **M451nw & M451dw:** Plus Wireless Direct Print **M451dn & M451dw:** Plus Automatic two-sided printing
STANDARD CONNECTIVITY	• **M451dn:** 1 Hi-Speed USB 2.0 port, 1 Fast Ethernet 10/100Base-TX network port • **M451nw & M451dw:**1 Hi-Speed USB 2.0 port, 1 Fast Ethernet 10/100Base-TX network port, 1 WiFi 802.11 b/g/n
WIRELESS CAPABILITY	• **M451dn:** No • **M451nw & M451dw:** Yes, built-in WiFi 802.11 b/g/n
NETWORK CAPABILITIES	• **M451dn:** Via built-in 10/100 Fast Ethernet • **M451nw & M451dw:** Via built-in 10/100 Fast Ethernet, Wireless 802.11 b/g/n
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, colored, glossy, letterhead, photo, plain, preprinted, prepunched, recycled, rough), postcards, transparencies, labels, envelopes
MEDIA SIZES SUPPORTED	• **M451nw:** Tray 1: Letter, legal, executive, 8.5 x 13 in, 3 x 5 in, 4 x 6 in, 5 x 8 in, envelopes (No 10, Monarch); Tray 2, optional Tray 3: Letter, legal, executive, 8.5 x 13 in, 4 x 6 in, 5 x 8 in, envelopes (No 10, Monarch) • **M451dn & M451dw:** Tray 1: Letter, legal, executive, 8.5 x 13 in, 3 x 5 in, 4 x 6 in, 5 x 8 in, envelopes (No 10, Monarch); Tray 2, optional Tray 3: Letter, legal, executive, 8.5 x 13 in, 4 x 6 in, 5 x 8 in, envelopes (No 10, Monarch); Automatic duplexer: Letter, legal, executive, 8.5 x 13 in
MEDIA WEIGHTS SUPPORTED	**Tray 1:** 60 to 176 g/m² (up to 220 g/m² with postcards and HP Color laser glossy photo papers); **Tray 2, Tray 3 (optional):** 60 to 163 g/m² (up to 176 g/m² with postcards); Automatic duplexer: 60 to 163 g/m²
RECOMMENDED MEDIA WEIGHT	16 to 43 lb (60 to 163 g/m²)
DUTY CYCLE (MONTHLY, LETTER)[4]	Up to 40,000 pages
RECOMMENDED MONTHLY PAGE VOLUME[5]	Up to 750 to 2,000 pages
DISPLAY	2-line LCD (text)
MAXIMUM/STANDARAD MEMORY	384 MB/128 MB
PAPER HANDLING	50-sheet multipurpose tray, 250-sheet input tray 2, 150-sheet output bin **Input Capacity (standard):** Up to 300 Sheets, Up to 50 transparencies, Up to 10 envelopes **Input Capacity (maximum):** Up to 550 Sheets (with optional tray 3) **Ouput Capacity:** Up to 50 Sheets, Up to 50 transparencies, Up to 20 envelopes
PROCESSOR SPEED	600 MHz
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 v 10.5, v 10.6, 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® XP 32-bit (SP2 or higher); Driver only installs supported on: Microsoft® Windows® Server 2008 32-bit and 64-bit, Windows® Server 2003 32-bit (SP3 or higher); Mac OS X v 10.5, v 10.6; Linpus Linux (9.4, 9.5), Red Hat Enterprise Linux 5.0 (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
OPERATING ENVIRONMENT	**Operating Humidity Range:** 10 to 80% RH (non-condensing) **Recommended Humidity Operating Range:** 20 to 70% RH (non-condensing) **Operating Temperature Range:** 59 to 86° F (15 to 30°C) **Recommended Operating Temperature Range:** 59 to 80.6° F (15 to 27° C) **Storage Temperature Range:** -4 to 104° F (-20 to 40° C) **Non-Operating Humidity:** 10 to 95% RH (non-condensing)
ACOUSTIC[6]	**Acoustic Power Emissions:** 6.5 B(A); **Acoustic Power Emissions (Ready):** 4.1 B(A); **Acoustic Pressure Emissions Bystander (Active, Printing):** 51 dB(A); **Acoustic Pressure Emissions Bystander (Ready):** 27 dB(A)
POWER	**Power Requirements:** Input voltage: 110 to 127 VAC (+/- 10%), 60 Hz (+/- 3 Hz) **Power Supply Type:** Internal (Built-in) power supply; **Power Consumption**[7]**:** 425 watts (Active), 15.2 watts (Ready), 4.0 watts (Sleep), 0.5 watts (Off); **Typical Electricity Consumption (TEC) Number:** 1.509 kWh/Week
PRODUCT DIMENSIONS	**M451nw:** **W x D x H:** 15.9 x 17.9 x 12.7 in (405 x 454 x 322 mm) **Maximum:** 15.9 x 25.9 x 12.7 in (405 x 659 x 322 mm) **M451dn & M451dw:** **W x D x H:** 15.9 x 19.1 x 12.7 in (405 x 484 x 322 mm) **Maximum:** 15.9 x 27.1 x 12.7 in (405 x 689 x 322 mm)
PRODUCT WEIGHT	**M451nw:** 50.1 lb (22.74 kg) **M451dn & M451dw:** 52.1 lb (23.64 kg)
SECURITY MANAGEMENT	**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 certificate validation, HTTP Basic Access Authentication, SASL authentication
WHAT'S IN THE BOX[8]	Printer, Four preinstalled introductory HP LaserJet toner cartridges (yield ~ 1,400 pages), In-box documentation (Hardware installation guide), Software drivers and documentation on CD-ROMs, Power cord, Built-in Automatic duplexer for two-sided printing (M451dn & M451dw models only), Built-in Wireless Card (M451nw & M451dw models only), USB cable (M451nw & M451dw models only)
WARRANTY	One-year limited warranty, return to HP or authorized service provider
HP SERVICES AND SUPPORT OPTIONS	HP 3y Nbd Exch Color LaserJt M451 HW SVC, U1H88E HP 1yPW Nbd Exch Color LaserJet M451 SVC, U1H98PE HP NtwkInstall Inkjet/prsnl LaserJet SVC, H3110E
REPLACEMENT CARTRIDGES[9]	HP 305A Black LaserJet Toner Cartridge (~ 2,200 pages), CE410A HP 305X Black LaserJet Toner Cartridge (~ 4,000 pages), CE410X HP 305A Cyan LaserJet Toner Cartridge (~ 2,600 pages) CE411A HP 305A Yellow LaserJet Toner Cartridge (~ 2,600 pages) CE412A HP 305A Magenta LaserJet Toner Cartridge (~ 2,600 pages) CE413A
ACCESSORIES	HP LaserJet 250-sheet Paper Feeder, CF106A HP 256 MB DDR2 144-pin DIMM, CB423A

FOR MORE INFORMATION VISIT OUR WEBSITE AT WWW.HP.COM

HP LASERJET PRO 400 COLOR M451 printer series Product Number: CE956A, CE957A and CE958A
ENERGY STAR® qualified models; see **http://www.hp.com/go/energystar**

[1]Measured using ISO/IEC 24734, excludes first set of test documents. For more information see **http://www.hp.com/go/printerclaims**. Exact speed varies depending on the system configuration, software application, driver, and document complexity. [2]Exact speed varies depending on the system configuration, software application, driver and document complexity. [3]HP SureSupply alerts you when your print cartridge is running low and helps you purchase online or locally through HP or a participating retailer. Only available with Original HP supplies; Internet access required. To learn more, visit **http://www.hp.com/go/SureSupply**. [4]Duty cycle is defined as the maximum number of pages per month of imaged output. This value provides a comparison of product robustness in relation to other HP LaserJet or HP Color LaserJet devices, and enables appropriate deployment of printers and MFPs to satisfy the demands of connected individuals or groups. [5]HP recommends that the number of printed pages per month be within the stated range for optimum device performance, based on factors including supplies replacement intervals and device life over an extended warranty period. [6]Values are subject to change. For current information see Product Support page at **http://www.hp.com/support**. Configuration tested: simplex, mono. [7]Power requirements are based on the country/region where the printer is sold. Do not convert operating voltages. This will damage the printer and void the product warranty. [8]Introductory cartridges included; yields ~ 1,400 color composite (C/Y/M) and black pages. Actual yields vary considerably based on images printed and other factors. For details see **http://www.hp.com/go/learnaboutsupplies**. [9]Ships with preinstalled introductory print cartridges (yield ~ 1,400 pages). [10]Wireless direct print is available on the HP LaserJet Pro 400 Color M451nw and M451dw only.

©2011-2012 Hewlett-Packard Development Company, L.P. HP is a registered trademark of the Hewlett Packard Company. ENERGY STAR and the ENERGY STAR logo are registered U.S. marks. All other trademarks are the property of their respective owners. Microsoft and Windows are registered trademarks of Microsoft Corporation. Adobe and Acrobat are trademarks of Adobe Systems Incorporated. This listing of non HP products does not constitute an endorsement by Hewlett Packard Company. The information contained herein is subject to change without notice and is provides "as is" without warranty of any kind. HP shall not be liable for technical or editorial errors or omissions contained herein. **March 2012, Rev.2**