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HP Color LaserJet 8500/8550 Printer Family

Service Manual

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Introduction

This manual covers service topics for the following printers and their paper-handling optional accessories:

- HP Color LaserJet 8500 printer (base model)
- HP Color LaserJet 8500 N printer
- HP Color LaserJet 8500 DN printer
- HP Color LaserJet 8550 printer (base model)
- HP Color LaserJet 8550 N printer
- HP Color LaserJet 8550 DN printer
- HP Color LaserJet 8550 GN printer
- HP Color LaserJet 8550 MFP—print engine **only**

Note Service topics for the HP Color LaserJet 8550 MFP printer's copy module, automatic document feeder, and 1,000-sheet input paper deck are not included in this manual. See the HP Color LaserJet 8550 MFP printer service manual for all service information related to these devices.

Printer features

Table 1. Features and accessories by printer model

	Feature/accessory \ Model	8500	8500 N	8500 DN	8550	8550 N	8550 DN	8550 GN	8550 MFP
Features	● Standard DIMM memory (in MB)	32	32	64	32	64	64	128	64
	● Maximum DIMM memory[1] (in MB)	256	256	256	512	512	512	512	512
	● Internal hard disk		X	X		X	X	X	X
	● HP JetDirect EIO card		X	X		X	X	X	X
	● 500-sheet tray 2	X	X	X		X	X	X	X
	● 2,000-sheet input unit			X			X	X	
	● Duplexer			X			X	X	X
	● Copy module								X
Accessories	● External (EIO-compatible) printer hard disk	X			X				
	● DRAM DIMMs (synchronous)	X	X	X	X	X	X	X	X
	● Duplexer[2]	X	X		X	X			
	● HP JetDirect EIO card	X			X				
	● 500-sheet input tray				X				
	● 1,000-sheet paper deck (input)								X
	● Automatic document feeder								X
	● Multi-bin mailbox (output)			X			X	X	
	● 3,000-sheet stapler/ stacker or 3,000-sheet stacker (output)						X	X	

[1] To expand the dual inline memory module (DIMM) memory to 512 MB, install 64-MB DIMMs in all eight DIMM slots. Optimized memory for all models is 128 MB.

[2] Minimum 64 MB memory recommended for automatic duplex printing.

Table 2. Printer performance

Print speeds	• 24 pages per minute (ppm) black and white (b/w) • 6 ppm color
Text and graphics resolution	• 600 dots per inch (dpi) resolution
Approximate print speeds	
Letter and A4-size	• 24 ppm b/w; 6 ppm color
Legal, Executive, and 11-by-17 inch size	• 12 ppm b/w; 3 ppm color
Heavy paper	• 3.2 ppm b/w; 2.2 ppm color
Transparencies	• 2.6 ppm b/w; 2.0 ppm color
Fonts	• TrueType™ rasterizer in both HP PCL and Adobe PostScript® • 45 scalable HP typefaces • 136 scalable Adobe PostScript fonts
Printer personality support	• Automatic personality switching • PCL and PostScript support
User interface and EIO	• Standard ECP or bidirectional parallel cable interface (IEEE-1284 compliant) • 2 enhanced input/output (EIO) slots • Automatic input/output (I/O) switching

The approximate print speeds offered by this printer might vary from those listed above because the following factors affect processing time:

- complexity and size of graphics
- I/O configuration
- computer configuration
- amount of printer memory
- network operating system
- network configuration
- printer color calibration

Specifications

Electrical specifications

Table 3. Electrical specifications

Item	110-volt models	220-volt models
Power requirements	100 to 127 V (+/- 10%) 50/60 Hz (+/- 2 Hz)	220 to 240 V (+/- 10%) 50/60 Hz (+/- 2 Hz)
Power consumption (typical): During printing (b/w) During printing (color) During standby During Power Save mode During Off mode	 750 W (average) 375 W (average) 190 W (average) less than 45 W less than 2 W	 750 W (average) 375 W (average) 190 W (average) less than 45 W less than 2 W
Minimum recommended circuit capacity for typical product	12.0 A at 120 V	6.0 A at 220 V

Operating environment specifications

Table 4. Operating environment specifications

Item	Operating	Storage
Temperature Recommended Allowed	 20 to 26° C (68 to 79° F) 15 to 30° C (59 to 86° F)	 0 to 35° C (32 to 95° F) -20 to 60° C (-4 to 140° F)
Humidity Recommended Allowed	 20 to 50% relative humidity (RH) 10 to 80% RH	 35 to 85% RH 10 to 95% RH
Altitude Allowed	 0 to 3,048 meters (0 to 10,000 feet)	 0 to 3,048 meters (0 to 10,000 feet)

Note See the HP Color LaserJet 8550 MFP printer service manual for dimensions that include copy module, automatic document feeder, and 1,000-sheet input paper deck.

Acoustic emission specifications

Table 5. Acoustic emissions

Category		8500	8550
Operation position (per ISO 9296, DIN 45635, T.19)	Printing: Standby:	L_pA 54 dB(A) L_pA 49 dB(A)	L_pA 57 dB(A) L_pA 52 dB(A)
Bystander 1 meter (per ISO 7779, DIN 45635, T.19)	Printing: Standby:	L_pA 50 dB(A) L_pA 45 dB(A)	L_pA 54 dB(A) L_pA 47 dB(A)
Sound power (per ISO 9296)	Printing: Standby:	6.8 B (A) 6.3 B (A)	7.0 B (A) 6.4 B (A)

Printer dimensions

Table 6. Printer dimensions

Category	Printer	Printer with stand	Printer with 2,000-sheet input unit and multi-bin mailbox or stapler/stacker
Height	750 millimeters (mm) (30 inches)	1111 mm (44 inches)	1230 mm (48 inches)
Width	566 mm (22 inches)	566 mm (22 inches)	1056 mm (42 inches)
Depth	625 mm (25 inches)	625 mm (25 inches)	625 mm (25 inches)
Weight (with consumables)	87 kilograms (kg) (192 pounds)	100 kg (220 pounds)	118 kg (260 pounds)

Consumable storage specifications

The life of consumables is greatly affected by their storage environment. Use the following table to determine the shelf life of stored consumables.

For consumable replacement specifications, see page 119.

Table 7. Consumable storage specifications

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) Low: 0 to -20° C (32 to -4° F)
Maximum temperature change rate	
40 to 15° C (104 to 59° F) within 3 minutes -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 Low: 10 to 35% RH
Atmospheric pressure	
460 to 760 mm mercury (Hg)	

Site requirements

General guidelines

Locating and placing the printer correctly are important in maintaining the performance level set at the factory. In particular, be sure to adhere to the environmental specifications listed in this chapter. The following are recommendations for locating and placing the printer:

- Install in a well-ventilated, dust-free area.
- Install on a hard, level surface.
- Install where the temperature and humidity do not change abruptly. Do not install near water sources, humidifiers, air conditioners, refrigerators, or other major appliances.
- Do not expose the printer to direct sunlight, dust, open flames, or ammonia fumes.
- Install the printer away from walls or other objects. There must be enough space around the printer for proper access and ventilation (see figure 1 on page 28).
- Install the printer away from the direct flow of exhaust from air ventilation systems.

Product: 2000 HP Color LaserJet 8500/8550 Printer Family Service Repair Workshop Manual
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Space requirements

Note See the HP Color LaserJet 8550 MFP printer service manual for space requirements for the copy module, automatic document feeder, and 1,000-sheet input paper deck.

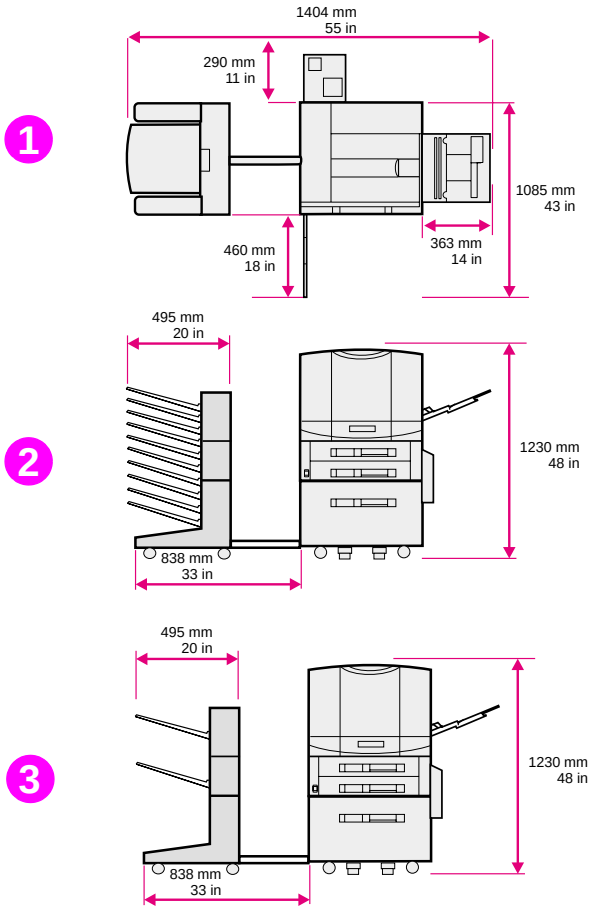

Figure 1. **Space requirements**

1 Top view (with an optional 2,000-sheet input tray and an optional multi-bin mailbox, 3,000-sheet stapler/stacker, or 3,000-sheet stacker)

2 Front view (with an optional 2,000-sheet input tray and an optional multi-bin mailbox)

3 Front view (with an optional 2,000-sheet input tray and an optional 3,000-sheet stapler/stacker or 3,000-sheet stacker)

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