

HP Latex 500 Printer Series

Site Preparation Guide

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Edition 3

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1 Overview

Introduction

Your printer is supplied ready to use after a few simple installation procedures described in detail in the assembly instructions. It is important to read the information provided in this guide thoroughly and to ensure complete compliance with all installation and operation requirements, safety procedures, warnings, cautions, and local regulations. A well prepared site helps to provide a smooth and easy installation.

Documentation

The following manuals are provided with your printer, and can also be downloaded from http://www.hp.com/go/latex560/manuals/ and http://www.hp.com/go/latex570/manuals/ and <a href="http://www.hp.com/go/latex570/m

- Introductory information
- Limited warranty
- Legal information
- Site preparation guide (this guide)
- Assembly instructions
- User guide

Customer responsibility

You are responsible for preparing the physical site for the installation of the printer.

- Prepare the building's electrical system to meet the printer's requirements and the Electrical Code requirements according to the local jurisdiction of the country where the equipment is installed. See <u>Electrical configuration on page 6</u>.
- NOTE: Make sure that a certified electrician reviews the setup and configuration of the electrical system used to power the printer. See <u>Electrical configuration on page 6</u>.
- Meet temperature and humidity requirements and ensure proper ventilation for the printer. See <u>Environmental specifications on page 3</u>.
- Meet all requirements for RIP, networking and printing supplies. See <u>RIP workstation characteristics</u> on page 5, <u>Networking on page 5</u>, and <u>Printing supplies on page 6</u>.
- Prepare the unloading route so that the printer can be unloaded and maneuvered into place. See <u>Unloading</u> route on page 3.

Installation time schedule

Allow a minimum of three hours for the installation. The installer may require the help of one person to perform certain tasks during installation.

2 Site preparation requirements

Physical space requirements

Unloading route

The route between the unloading area of the printer and the installation site, including any corridors and doorways through which the printer must be transported, is important to proper site preparation and must be checked before the arrival of the printer. This pathway must be clear when the printer arrives.

Table 2-1 Physical specifications

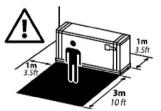
	Dimensions (mm)	Weight (kg)
HP Latex 560 in package	L2750 x W1037 x H1689	330
HP Latex 570 in package	L2750 x W1037 x H1689	360
HP Latex 560 Printer	L2560 x W792 x H1420	220
HP Latex 570 Printer	L2560 x W792 x H1420	250

Doorways without packaging: minimum width 1.01 m (40 in) × minimum height 1.67 m (66 in) required.

IMPORTANT: Maximum ramp slope 6°.

NOTE: The printer body cannot be disassembled from the legs. Correct printer functionality cannot be assured.

The space required for assembly is 1.5 m (5 ft) front and rear, and 7.7 m (25.3 ft) at the side.



Most of the installation process requires one person, but two people are required to perform certain tasks.



Environmental specifications

These environmental conditions must be kept within the specified ranges to ensure the correct operation of the printer. Failure to do so may cause print-quality problems or damage sensitive electronic components.

Table 2-2 Printer environmental specifications

Relative humidity range for best print quality	40–60%, depending on substrate type
Relative humidity range for printing	20–80%, depending on substrate type
Temperature range for best print quality	20 to 25°C (68 to 77°F), depending on substrate type
Temperature range for printing	15 to 30°C (59 to 86°F)
Temperature range when not in operation	-25 to +55°C (-13 to +131°F)
Temperature gradient	no more than 10°C/h (18°F/h)
Maximum altitude when printing	3000 m (10000 ft)

NOTE: The printer must be kept indoors.

NOTE: If the printer or ink cartridges are moved from a cold location to a warm and humid location, water from the atmosphere can condense on the printer parts and cartridges and can result in ink leaks and printer errors. In this case, HP recommends that you wait at least 3 hours before turning on the printer or installing the ink cartridges, to allow the condensation to evaporate.

In addition to controlling the temperature, humidity, and temperature gradient, there are other environmental conditions that must be met during site preparation:

- Do not install the printer where it will be exposed to direct sunlight or a strong light source.
- Do not install the printer in a dusty environment. Remove any accumulated dust before moving the printer into the area.

Ventilation

Ensure that the room in which the system is installed meets local environmental, health, and safety (EHS) guidelines and regulations.

Adequate ventilation needs to be provided to ensure that potential exposure is adequately controlled. Consult the Safety Data Sheets available at <u>http://www.hp.com/go/msds</u> to identify chemical ingredients of your ink consumables.

Airborne materials can be readily identified and quantified by using established indoor air-quality testing protocols. HP performs these assessments during the development phase for all products.

HP testing shows that, during printer operation, the concentrations of airborne contaminants measured in the workspace are consistently well below key occupational exposure limits. This observation is based on exposure assessments that model very active productivity at customer facilities. Customers should recognize that actual levels in their facilities are dependent on workspace variables they control such as room size, ventilation performance, and duration of equipment use.

HP's assessment, based on the available scientific information, concluded that airborne materials are not expected to present a health hazard as long as you provide a minimum of 5 ACH (air changes per hour) of fresh air ventilation and a minimum room volume of 30 m³.

If there is other equipment located in the room or different environmental conditions are present, the ventilation rate should be recalculated accordingly.

Air conditioning

In addition to fresh air ventilation, to avoid health hazards, consider maintaining workplace ambient levels by ensuring the climatic operating conditions specified in this document (see <u>Environmental specifications</u> <u>on page 3</u>) to avoid operator discomfort and equipment malfunction. Air conditioning in the work area should

take into account that the equipment produces heat. Typically, the printer's power dissipation is 3.7 kW (12.7 kBTU/h).

Air conditioning should meet local environmental, health, and safety (EHS) guidelines and regulations.

A CAUTION: The air conditioning units should not blow air directly onto the printer.

Designing the optimal print production area

Your printer requires enough space to perform the following tasks:

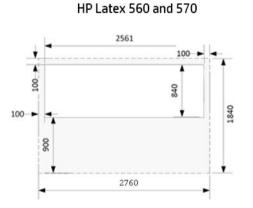
- Print
- Replace a substrate roll
- Service the printer or replace printer components
- Ensure the printer is well ventilated

Your printer has the following dimensions:

Table 2-3 Printer physical specifications

	560 Printer	570 Printer
Width	2560 mm (100.79 in)	2560 mm (100.79 in)
Depth	792 mm (31.18 in)	792 mm (31.18 in)
Height	1420 mm (55.91 in)	1420 mm (55.91 in)

The space required is illustrated in the following diagram:



RIP workstation characteristics

Each RIP has specific requirements. Check with your RIP vendor to find out the requirements for the PC that you'll be using for the RIP station. See <u>http://www.hp.com/go/latexrips</u> for a complete list of certified RIP stations available for this printer. Make sure that the RIP station is fully functional and ready for installation.

Networking

You are responsible for all networking requirements, and you must complete the following tasks:

NOTE: In order to perform remote support, the printer must have access to the Internet using the LAN connection.

- Have a Gigabit Ethernet network ready for the day of installation.
- Provide a CAT-6 LAN cable to connect the printer to your LAN and RIP workstation.
- Provide a Gigabit Ethernet switch.

To get the full features for your printer, it should be connected to the Internet. Most unmanaged networks are directly connected to the Internet. However, some networks require a web proxy. A proxy is a server that acts as an intermediary between computers on your local network and servers on the Internet. Before setting up the printer, please check if your network requires a web proxy.

To check this open Internet Explorer or Safari on any computer within your network, and browse to the <u>http://hp.com</u> site. If you cannot connect to hp.com, your network does not have Internet access and you need to consult with your IT provider on how to configure Internet access. If you can connect to hp.com, you can check the browser settings for proxy configuration as follows:

- For Internet Explorer, go to Tools > Internet Options > Connections > Local Area Network (LAN) Settings. In the "Proxy server" part of the window, if the Use a proxy server box is unchecked, you do not need a web proxy. If it is checked, make a note of the Address and Port settings in the main window, or in the HTTP part of the Advanced settings window.
- For Safari, go to Preferences > Advanced > Proxies > Change Settings. If the Web Proxy (HTTP) box is
 unchecked, you do not need a web proxy. If it is checked, make a note of the Web Proxy Server name
 (before the ":") and port (after the ":").
- Proxy server names are typically like "proxy.mycompany.com" and proxy port is typically 80, but details are network dependent.

If you are unable to determine whether you need a web proxy or how to configure it, please consult with your network administrator or Internet Service Provider. When in doubt, you probably do not need a web proxy.

Printing supplies

The following supplies should be purchased in addition to the printer and should be available on the day of installation:

- Six HP 831 ink cartridges, one for each color: black, cyan, magenta, yellow, light cyan, and light magenta, and one HP 831 optimizer cartridge.
- Six HP 871 ink cartridges for the HP Latex 570 printer.
- 3-liter cartridges for the HP Latex 570 printer.
- At least one roll of substrate to perform calibrations and printhead alignment during printer setup.

Return the site preparation checklist

The checklist must be completed and returned to your reseller or service representative a minimum of two weeks before the day of installation.

NOTE: Any delays during installation that are caused by an unprepared site will be charged to the customer. Take care that your site is properly prepared to ensure a smooth and easy installation.

Electrical configuration

NOTE: If configuration of the building electrical system used to power the printer needs to be modified to meet printer requirements, an electrician is required. Make sure that your electrician is appropriately certified according to local regulations and supplied with all the information regarding the electrical configuration.

Your printer requires the following electrical components to be supplied and installed by the customer, according to the Electrical Code requirements of the local jurisdiction of the country where the equipment is installed.

Single-phase power

Table 2-4 Single-phase line specifications

	HP Latex 560/570				
	Printer	Curing			
Number of power cords	2				
Input voltage	~200–240 V (two wires and protective earth)				
Input frequency	50 / 60 Hz				
Maximum load current (per power cord)	13 A				
Power consumption per power cord in printing mode	2.0 kW	1.7 kW			
Power consumption in ready mode	85 W				

Circuit breakers

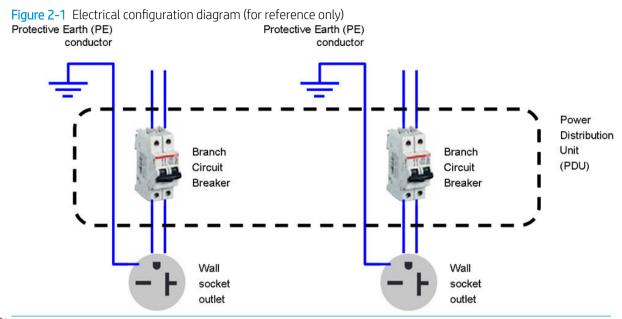
NOTE: The circuit breakers must meet the requirements of the printer and shall be in accordance with the Electrical Code requirements of the local jurisdiction of the country where the equipment is installed.

The printer requires two power cords that meet the following requirements.

Table 2-5 Dedicated lines per SKU

	HP Latex 560/570				
	Printer	Curing			
Dedicated line	Not required. Do not overload lines. Refer to Table 2-4				
Branch circuit breaker	2 poles, 16 A/20 A according to local laws and printer maximum load current				
Residual current circuit breaker ¹	Recommended				
	2 poles, 30 mA residual, at least 20 A capacity				

¹ Also known as Ground Fault Circuit Interrupter (GFCI)



NOTE: The Power Distribution Unit (PDU) must be rated to meet the power requirements of the printer, and shall be in accordance with the Electrical Code requirements of the local jurisdiction of the country where the equipment is installed.

MARNING! Do not use a power strip (relocatable power tap) to connect both power cords.

Wall receptacles and power cords

Two power cords are provided with your printer, according to the printer's electrical specifications. If those cords do not reach your PDU and/or UPS, a certified electrician must install suitable extension cables on the day of installation.

To make sure you have the right wall socket outlets (wall receptacles) ready for installation, check the following:

- 1. The wall socket outlets must be suitable for **printer input ratings**. See <u>Single-phase power on page 7</u>.
- 2. The wall socket outlets must be suitable for the **power cord plug type** used in the country of installation. The <u>Table 2-6 HP Latex 5x0 Printers</u> Power cord specifications for printer ratings 200-240, 13A on page 9 list examples of the power cords and the plugs provided with the printer according to the country. To make sure you have the right wall receptacle, find your country in the appropriate table and check the **plug type**.
 - WARNING! Use only use the power cord supplied by HP with the printer. Do not use a power strip (relocatable power tap) to connect both power cords. Do not damage, cut or repair the power cord. With a damaged power cord, there is risk of fire and electric shock. Always replace a damaged power cord with an HP-approved power cord.

Two power cords are provided with the HP Latex 5x0 printer according to printer electrical specifications.

If the two cords do not reach the PDU and/or UPS, a certified electrician must install suitable extension cables on the day of installation.

The following table lists several examples of the power cord provided with the printer.

	NOTE: For HP Latex 56			
Country	HP Part Number *	Length	Plug type	Plug
EU, Russia, Korea, Indonesia	8120-6352	2.5 m	CEE 7-VII	The second
Denmark	8121-1077	2.5 m	DK 2-5A	
srael	8121-1010	2.5 m	SI 32 90-DEG	
South Africa	8121-0915	2.5 m	SABS 164	
Switzerland, Liechtenstein	8121-1287	2.5 m	IEC 60309, 240V, 16A, 2L +PE	
Argentina	8121-0925	2.5 m	IRAM 2073	
U.K., Singapore, Hong Kong, Middle East	8120-0907	2.5 m	BS 1363/A (13A fused)	
US, Canada, Mexico/Japan, Philippines/Thailand, Middle East (Optional)	8120-6360	2.5 m	NEMA 6-20P, 240V, 20A (non-locking)	C.
Brazil	8121-1101	2.5 m	NBR 14136	
Chile, Uruguay	8121-0923	2.5 m	CEI 23-50	

Table 2-6 HP Latex 5x0 Printers — Power cord specifications for printer ratings 200-240, 13A

	NOTE: For HP Latex 56	0/570 Printers—	Use two power cords from below	
Country	HP Part Number *	Length	Plug type	Plug
Australia, New Zealand	8120-6351	2.5 m	AS/NZS 3112 (15A)	and and a second s
India	8121-1074	2.5 m	IS 1293	No Color
China	8121-0924	2.5 m	GB2099, GB 1002 (16A)	No. of Contraction of
Taiwan	8121-1033	2.5 m	CNS 690 Type 2(4)	

Table 2-6 HP Latex 5x0 Printers — Power cord specifications for printer ratings 200-240, 13A (continued)

Table 2-7 Appliance coupler (printer connection)

Country	Appliance coupler (power cable)	Appliance coupler inlet (printer)		
All	Detachable terminal as per IEC60320-1 C19 (squared type)	Detachable inlet as per IEC60320-1 C20 (squared type)		
		6 5 0 0		
	C19	C20		

WNOTE: Place the wall receptacle close enough to the printer so the plug can be plugged and unplugged easily.

Powerline disturbances

As with all computer and electronic equipment, reliable operation of your printer depends on the availability of relatively noise-free AC power.

- In order to ensure optimum performance and reliability, your printer should be protected from variations in line voltage. Lightning, line faults or the switching of lighting or machinery can generate line transients that far exceed the peak value of the applied voltage. If not reduced, these microsecond pulses can disrupt system operation and damage the printer.
- It is recommended to include overvoltage (OVP) and transient protection in the power supply to the printer.
- All electrical noise-generating equipment, such as fans, fluorescent lighting and air-conditioning systems, should be kept separate from the power source used for your printer.

Grounding

The printer must be connected to a good-quality ground line in order to avoid electrical risk. Please note your obligation to comply with the Electrical Code requirements of the local jurisdiction of the country where the equipment is installed.

The following grounding tasks must be fulfilled to meet the site preparation requirements:

- Grounding wires must be insulated and at least equal in size to the phase conductors.
- Ground impedance must be less than 0.5 Ω or comply with the Electrical Code requirements of the local jurisdiction of the country where the equipment is installed.

3 Site preparation checklist

Safety requirements	Yes	No	Comments
Do those who will operate the printer have the technical training and experience necessary to be aware of hazards to which they may be exposed in performing a task, and to take appropriate measures to minimize the risks?			(Required)
Is there an emergency exit in the print production area, with easy access and free from any obstruction?			

Electrical installation requirements	Yes	No	Comments
Is the electrician aware of all requirements and specifications highlighted in this guide?			(Required)
Is the single-phase line voltage inside the specified voltage range, 200–240 V?			(Required) Specify nominal mains voltage:
Are there the dedicated lines to connect printer's power cords? NOTE: Do not use a power strip (relocatable power tap) to connect both power cords.			(Required)
Have branch circuit breakers (2 poles, 16 A/20 A general) been correctly installed for each dedicated line?			(Required)
Have the Residual Current Circuit Breaker (also known as Ground Fault Circuit Interrupter) (2 poles, 30 mA residual, at least 20A capacity) been correctly installed if required or recommended?			(Required)
Is the Power Distribution Unit (PDU) correctly installed?			(Required)
Are the grounding conductors properly installed for each wall receptacle (wall socket)?			(Required)
Are the wall receptacles (wall sockets) suitable for the power cord plug type provided by HP?			(Required)
Are the wall receptacles (wall sockets) and electrical installation suitable for the printer's rated current ? NOTE: See Table 2-4 for specific information.			(Required)
Are the wall receptacles (wall sockets) placed close enough to the printer that the plugs can be plugged and unplugged easily?			(Required)
NOTE: See Table 2-6 and 2-7 for specific information.			

Electrical configuration requirements	Yes	No	Comments
Do you need an Uninterrupted Power Supply (UPS) or step-up transformer? If so, is it correctly installed?			

Networking and computer requirements	Yes	No	Comments
Is the RIP computer and software ready for installation?			
Have network connections been supplied as per spec?			
Do you need a web proxy? If so, write down proxy server name and port.			
Do you have a color sensor that is compatible with your RIP?			
Do you have a LAN cable long enough to connect the printer to the network?			

Environmental requirements	Yes	No	Comments
Have the temperature and humidity requirements been satisfactorily met in the print production area?			
Have the temperature and humidity requirements been satisfactorily met in the storage area?			
Is the print production area free from dirt and dust?			
Does the print production area have sufficient lighting?			
Have you checked the required ventilation and air-conditioning specifications with an expert?			(Required)

Other requirements	Yes	No	Comments
Have you arranged for supplies such as substrate and ink cartridges to be available on the day of installation?			
Have you met the requirements specified in this guide?			(Required)

Date of site preparation completion

Site preparation guide edition number or copyright date

Customer signature