



HP Designjet L25500 printer series

Site preparation guide (Second edition)

Legal notices

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

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
statement 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.

Table of contents

1 Overview

Introduction	1
Customer responsibility	1
Installation time schedule	1

2 Site preparation requirements

Physical space requirements	2
Unloading route	2
Environmental specifications	3
Ventilation and air conditioning	3
RIP workstation characteristics	4
Networking	4
Printing supplies	4
Electrical configuration	4
Single phase power	4
Circuit breakers	5
Wall receptacles and power cords	6
Powerline disturbances	9
Grounding	9

3 Site preparation checklist

1 Overview

Introduction

This *Site preparation guide* should be used for HP Designjet L25500 printers, both 42 inch and 60 inch. Specifications and requirements are stated for both printer widths wherever necessary.

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.

Customer responsibility

You are responsible for all preparations of the physical site to install and place the printer:

- Prepare the building's electrical system used to power the printer to meet the printer's requirements and the Electrical Code requirements according to the local jurisdiction of the country where the equipment is installed, and power up the printer on the day of installation. See [Electrical configuration on page 4](#).

 **NOTE:** Make sure a certified electrician reviews the setup and configuration of the electrical system used to power the printer. See [Electrical configuration on page 4](#).

- Meet temperature and humidity requirements and ensure proper ventilation for the printer. See [Environmental specifications on page 3](#).
- Meet all RIP requirements, networking and printing supplies. See [RIP workstation characteristics on page 4](#), [Networking on page 4](#) and [Printing supplies on page 4](#).
- Prepare the unloading route so the printer can be unloaded and maneuvered into place. See [Unloading route on page 2](#).

Installation time schedule

Allow a minimum of three hours for the installation. The installer may require the help of three people 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 42-in printer physical specifications

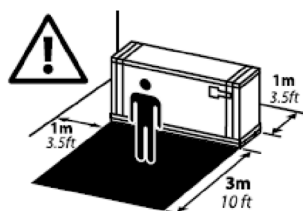
	Printer	Packaging
Length	78 in (1.99 m)	87.91 in (2.23 m)
Width	27.5 in (0.69 m)	32.09 in (0.82 m)
Height	54 in (1.37 m)	47.44 in (1.21 m)
Weight	355 lb (161 kg)	550 lb (250 kg)

Table 2-2 60-in printer physical specifications

	Printer	Packaging
Length	97 in (2.47 m)	105.7 in (2.69 m)
Width	27.5 in (0.69 m)	32.09 in (0.82 m)
Height	54 in (1.37 m)	47.44 in (1.21 m)
Weight	399 lb (181 kg)	682 lb (310 kg)

Doorways: minimum width 40 in (1.01 m) x minimum height 66 in (1.67 m) required.

The space required for assembly is 10 ft (3 m) in front and 3.5 ft (1 m) at the sides and rear.



Most of the installation process requires one person, but four 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 2-3 Printer environmental specifications

Relative humidity range for best print quality	20–80%, depending on substrate type
Temperature range for best print quality	18 to 25°C (64 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 condensate 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 condensate 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 and air conditioning

As with all equipment installations, to maintain comfortable ambient levels, air conditioning or ventilation in the work area should take into account the printer's heat dissipation. Maximum power dissipation is: 42-in printer: 3.5 Kw, 12.3 KBTU/h; 60-in printer: 4.8 Kw, 16.4 KBTU/h .

Air conditioning and ventilation should meet with local environmental, health and safety (EHS) guidelines and regulations. Consult your usual air conditioning or EHS specialist for advice on the appropriate measures for your location.

For a more prescriptive approach to adequate ventilation, the ANSI/ASHRAE (American Society of Heating, Refrigerating and Air-Conditioning Engineers) 62.1-2007 Ventilation for Acceptable Indoor Air Quality could be referred to. As an example, a minimum exhaust rate of 0.50 cfm/ft² (2.5 L/s.m²) of fresh make up air for "copy, printing rooms" is recommended.

 **NOTE:** The ventilation and air conditioning units should not blow air directly onto the printer.

NOTE: Maintaining positive air pressure in the print production room will help prevent dust from entering the room.

RIP workstation characteristics

The RIP computer and RIP software must be provided by the customer. 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. 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.

Printing supplies

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

- Six HP 789 ink cartridges, one for each color: black, cyan, magenta, yellow, light cyan and light magenta.
- At least one roll of substrate to perform calibrations and printhead alignment during printer setup.

Electrical configuration

 **NOTE:** An electrician is required for the setup and configuration of the building electrical system used to power the printer and also for printer installation. 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

	60-in printer	60-in printer (Japan only)	42-in printer
Number of power cords	2	2	2
Input voltage	220-240 V~ (-10%+6%)	200V (-10%+10%)	200-240 V~ (-10%+6%)
Input frequency	50 / 60 Hz	50 / 60 Hz	50 / 60 Hz

Table 2-4 Single phase line specifications (continued)

	60-in printer	60-in printer (Japan only)	42-in printer
Maximum power consumption	4.8 kW (overall consumption for both power cords)	4.8 kW (overall consumption for both power cords)	3.5 kW (overall consumption for both power cords)
Maximum load current (per power cord)	15 A	15 A	13 A
Active power consumption	2.6 kW	2.6 kW	1.8 kW

- ⚠ **WARNING!** Ensure that the printer's built-in Residual Current Circuit Breaker (also known as Ground Fault Circuit Interrupter) operates in the case of a leakage current fault to the product chassis, even when an isolation device (such as an isolating transformer) is used to supply power to the printer.
- ⚠ **CAUTION:** Ensure that the input voltage is within the printer's rated voltage range. The 60-in printer requires a step-up transformer for tri-phase 208 V or 200 V power systems (voltage line to line).

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 dedicated lines, each protected by a branch circuit breaker according to the rating of the wall socket outlet.

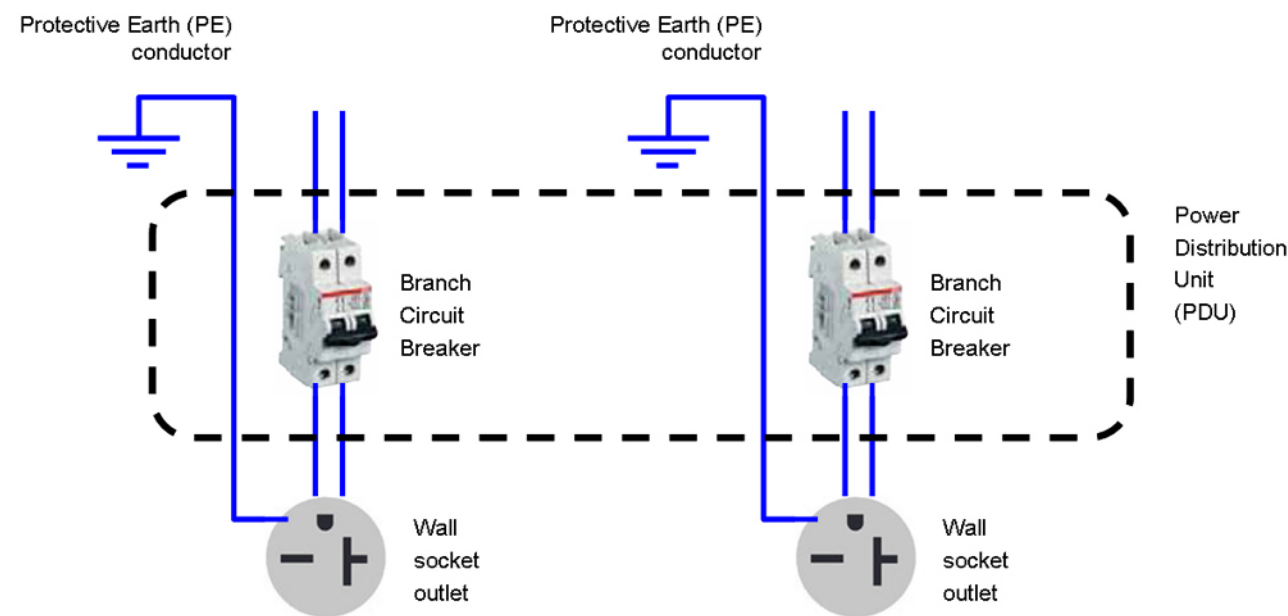
Table 2-5 Circuit breaker specifications

	Branch circuit breaker	Quantity
Single phase line	2 poles, 16 A * (20A for NEMA 6-20R wall socket) ¹	2, one for each dedicated line

¹ * Rating according to wall socket outlet

- 📋 **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.

Figure 2-1 Electrical configuration diagram



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 [Single phase power on page 4](#).
2. The wall socket outlets must be suitable for the **power cord plug type** used in the country of installation. [Table 2-6 60 inch printer power cord specifications on page 6](#) and [Table 2-7 42 inch printer power cord specifications on page 7](#) list several 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.

Table 2-6 60 inch printer power cord specifications

Country	HP Part Number *	Length	Plug type	Plug
USA, Canada, Mexico, Japan, Philippines, Thailand	8120-6893	4.5 m	NEMA 6-20P, 240 V, 20A, non-locking	

Table 2-6 60 inch printer power cord specifications (continued)

Country	HP Part Number *	Length	Plug type	Plug
International	8120-6897	4.5 m	IEC 60309, 240 V, 16 A, 2L+PE	
International – other	8120-6895	4.5 m	Stripped end termination, 240 V, 1.5 mm ² cross sectional area WARNING! A qualified electrician must attach a suitable plug according to local laws where the printer is installed, and to the printer's electrical requirements.	

* Alternative part numbers are valid with the same specifications and markings.

Table 2-7 42 inch printer power cord specifications

Country	HP Part Number *	Length	Plug type	Plug
Argentina	8120-6897	4.5 m	IEC 60309, 240V, 16A, 2L+PE	
Australia/New Zealand	8120-6351	2.5 m	AS/NZS 3112-3 (15A)	
Brazil	8121-110	2.5 m	NBR 14136	
China	8121-0924	2.5 m	GB 1002 (16A)	
Chile, Uruguay	8121-0923	2.5 m	CEI 23-50	
USA, Canada, Mexico, Philippines, Thailand, Japan	8120-6360	2.5 m	NEMA 6-20P, 240 V, 20 A, non-locking	

Table 2-7 42 inch printer power cord specifications (continued)

Country	HP Part Number *	Length	Plug type	Plug
Continental Europe, Korea, Indonesia, Russia	8120-6352	2.5 m	CEE 7-VII	
India	8121-1074	2.5 m	IS 1293	
Taiwan	8121-1033	4.5 m	CNS 690	
UK, Hong Kong, Singapore	8120-6898	4.5 m	BS 1363/A (13A fused)	
Denmark	8121-1077	2.5 m	DK 2-5A	
Israel	8121-1010	2.5 m	SI 32	
South Africa	8121-0915	2.5 m	SABS 164	
Switzerland, Liechtenstein	8120-6897	4.5 m	IEC 60309, 240 V, 16 A, 2L+PE	

* Alternative part numbers are valid with same specs and markings.

Table 2-8 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)
	 C19	 C20



NOTE: 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 .

3 Site preparation checklist

Safety requirements	Yes	No	Comments
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? 42-in printer: 200–240 V~ (–10%, +6%) 60-in printer: 220–240 V~ (–10%, +6%) For the 60-in printer, the tri-phase 208 V or 200 V power systems (voltage line-to-line) require a step-up transformer.	☐		(Required) Specify nominal mains voltage:
Are there two dedicated lines to connect the printer's two 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 general or 20 A for NEMA 6-20R only) been correctly installed for each dedicated line?	☐		(Required)
Has the single-phase branch circuit breaker (2 poles, 20 A) been correctly installed?	☐		(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: The printer's rated current is 15 A for 60-in printers, and 13 A for 42-in printers.	☐		(Required)

Electrical installation requirements	Yes	No	Comments
Are the wall receptacles (wall sockets) placed close enough to the printer that the plugs can be plugged and unplugged easily? NOTE: The power cord length is 14.8 ft (4.5 m) for 60-in printers, and 8.2 ft (2.5 m) for 42-in printers.	☐		(Required)
Would the printer's built-in Residual Current Circuit Breaker (also known as Ground Fault Circuit Interrupter) operate in the case of a current leakage fault to the product chassis (even if an isolation device is installed)?	☐		(Required)

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?	☐	☐	
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, and is there adequate ventilation or air conditioning?	☐	☐	
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?	☐	☐	

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)