

Installing expansion cards

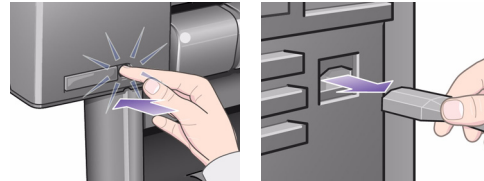
The following options are available for your printer:

- [Network card installation](#)

Network card installation

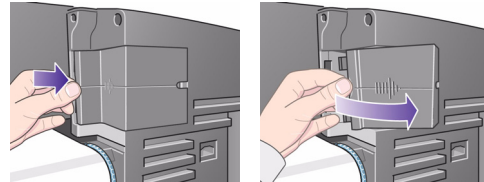
HP Jetdirect network card installation

1. Before installing a card, switch off the printer and unplug it from the mains electricity supply.



2. Carefully remove the plastic cover from the left-hand rear of the printer by unclipping it. This cover gives access to the two slots for an Accessory card and a LAN card.

- Press in the thumb-tab on the side furthest from the edge that has the cable-hole.
- Ease the cover out in the direction of the embossed arrow, pivoting it by the hinge clips on the side that has the edge cable-hole.

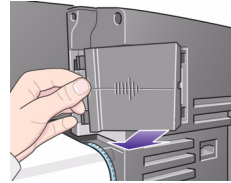


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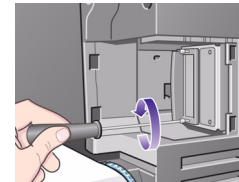
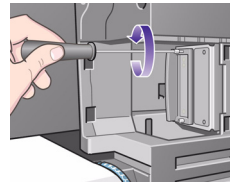
HP Jetdirect network card installation

3. Remove the cover completely. Inside the compartment there are two slots for a LAN card or an Accessory card.

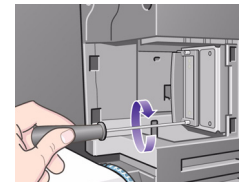
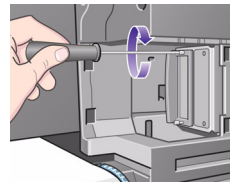
If you use an HP-GL/2 card, the LAN card should be in the right-hand slot (nearer the back of the printer), the accessory card on the left.



4. To insert a LAN card (or an Accessory card), remove the metal cover from the appropriate slot by unscrewing its two screws.



5. When you have inserted the card, screw it into place, using its two screws (at the top and bottom of the card).

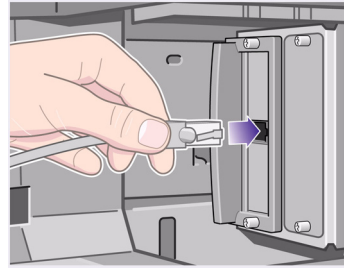


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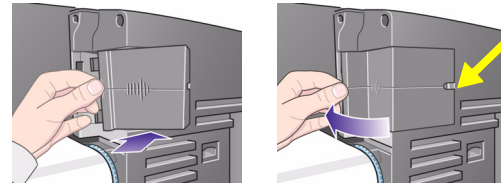
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HP Jetdirect network card installation

6. Insert the LAN cable into the LAN card. It is simply pushed into place and clicks when locked.



7. Carefully replace the plastic cover by clipping it back into place.
- Put the two hinge clips on the side that has the edge cable-hole into their slots.
 - Swivel the cover in the direction opposite to the embossed arrow and clip the other two tabs on the opposite side into their slots. Ensure that the LAN cable passes correctly through the edge cable-hole (shown by the yellow arrow).
 - Route the LAN cable carefully so that it does not interfere with the spindle or roll.



8. Once you have completed the physical installation of the card, you will have to configure it for your LAN, see [Setting up the I/O card](#).

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Specifications

- [Functional specifications](#)
- [Memory specifications](#)
- [Printer power specifications](#)
- [Ecological specifications](#)
- [Environmental specifications](#)
- [Acoustic specifications](#)
- [Connection specifications](#)

Functional specifications

HP Designjet 510 and 510ps functional specifications

Functional specifications				
HP ink supplies	Four colors: cyan, magenta, yellow and black.			
	Printheads:	600 dpi,	36 kHz (cyan, magenta, yellow). 36 kHz (black).	
	Ink cartridges:		Cyan	28 or 69 ml
			Magenta	
Yellow				
		Black	69 ml	
Paper sizes	Width (carriage axis)		Length (paper axis)	
	Minimum	Maximum	Minimum	Maximum
Roll – D/A1 size printer	140 mm 5.5 in	625 mm 25 in	1000 mm 40 in	100 mm 4 in roll external diameter
Roll – A0+/E+ size printer		1071.8 mm 42.2 in		
Sheet – D/A1 size printer		625 mm 25 in	140 mm 5.5 in	1897 mm 74.7 in
Sheet – A0+/E+ size printer		1071.8 mm 42.2 in		

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HP Designjet 510 and 510ps functional specifications

Functional specifications
HP supported paper types^a
HP Bright White Inkjet Paper (Bond)
HP Vellum
HP Natural Tracing Paper
HP Coated Paper
HP Heavyweight Coated Paper
HP Matte Film
HP High-Gloss Photo Paper
HP Semi-Gloss Photo Paper
HP Paper-Based Semi-Gloss
HP Clear Film
HP Translucent Bond
HP Studio Canvas
HP Satin Poster Paper
HP Banners with Tyvek®
HP Colorfast Adhesive Vinyl

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HP Designjet 510 and 510ps functional specifications

Functional specifications				
Resolution	Print mode		Line drawing/text	Image
	Fast	Render	300×300dpi	150×150 dpi
		Halftone	600×300 dpi	600×300 dpi
	Normal	Render	600×600 dpi	300×300 dpi
		Halftone	600×600 dpi	600×300 dpi
	Best (default)	Render	600×600 dpi	600×600 dpi
		Halftone	600×600 dpi	600×600 dpi
	Best (maximum detail)	Render	600×600 dpi	1200×1200 dpi
		Halftone	1200×600 dpi	2400×1200 dpi ^b

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HP Designjet 510 and 510ps functional specifications

Functional specifications		
Margins	Roll and sheet (normal)	Roll (small)
		Side margins 5 mm Leading edge margin 17 mm Trailing edge margin 17 mm
Graphics languages supported	HP-GL/2 HP-RTL CALRASTER	
Accuracy	0.2% of the specified vector length at 23° (73°F), 50-60% relative humidity, on HP special polyester film.	

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- a. From time to time, new paper types may become available. For up-to-date information, please contact your HP dealer or our Web site, <http://www.hp.com/go/designjet/>.
- b. Glossy photo paper only.

Physical specifications

Physical specifications				
Type	Weight	Width	Depth	Height
D/A1 size printer	38.5 kg 85 lb	1253 mm 49 in	470 mm 19 in	349 mm 14 in
A0+/E+ size printer	45 kg 99 lb	1690 mm 67 in	674 mm 27 in	1100 mm 43 in

Memory specifications

Memory specifications	
Internal RAM	160 MB
Can be upgraded to:	416 MB

Printer power specifications

Printer power specifications	
Source	100–240 V AC \pm 10% auto-ranging
Frequency	50/60 Hz
Current	3 A maximum
Consumption	150 W maximum

Ecological specifications

Ecological specifications	
Energy efficiency	To determine the ENERGY STAR® qualification status of this product, see http://www.hp.com/go/energystar/ . ENERGY STAR and the ENERGY STAR trademark are registered U.S. trademarks.
Manufacturing process	Free from ozone-depleting chemicals (Montreal Protocol).
Plastics	Free from brominated flame retardants (PBB and PBDE). All housing parts made of the same material: ABS. Parts marked according to ISO 11469 standard.
Metals	Enclosures made of electro-galvanized steel sheet.
Packaging	Cardboard (non-chlorine-bleached) and foam are 100% recyclable. Inks used for printing do not contain heavy metals.
User documentation	Majority provided in Adobe Acrobat PDF format on CD-ROM
Batteries	Not used.
Recyclability	Modular construction, screws easy to find and disassembly done using universal tools.

Environmental specifications

Environmental specifications		
Operating ranges	Printing:	15°C to 35°C (59° F to 95° F) RH 20% to 70%.
	Optimal print quality for HP glossy paper:	15°C to 30°C (59° F to 86° F) RH 20% to 80%.
	Optimal print quality for other HP papers:	15°C to 35°C (59° F to 95° F) RH 20% to 70%.
Non-operating ranges	Printer:	-40°C to 70°C (-40° F to 158° F)
	Packed consumable items and system:	-40°C to 60°C (-40° F to 140° F)

NOTE: At altitudes greater than 3000 m, the printer may have operational problems.

Acoustic specifications

Acoustic specifications	
Operating sound pressure	54 dB (from a one-meter bystander position)
Idle sound pressure	< 30 dB (A) (from a one-meter bystander position)
Operating sound power	6.5 Bels (A)
Idle sound power	< 4.3 Bels (A)

Connection specifications

- [Cable specification](#)
- [Recommended cables](#)

Cable specification

The connector on the printer is a 36-pin female connector. Most existing parallel cables support IEEE-1284 compatible communication, but for use with this printer, the cable must meet the specifications in the following table:

Parallel (IEEE-1284 compatible/ Centronics) Interface		
Pin	Wire/Signal Name	Source
1	Strobe	computer
2 ... 9	D0 ... D7 (data lines)	both
10	Ack	printer
11	Busy	printer
12	PError	printer
13	Select (SelectOut)	printer
14	AutoFd	computer
16	GND	
19 ... 30	GND	
31	Init	computer
32	Fault	printer
36	SelectIn	computer

Recommended cables

The following cable is recommended for optimum performance and electromagnetic compatibility:

Recommended cable			
Interface type (computer)	HP part number	Cable length	Connector type at computer end of cable
IEEE compatible/Centronics Interface (All)	C2951A	3.0 m	25-pin male
USB	C2392A	5.0 m	USB plug

Ordering accessories

You can order supplies and accessories in any of the following ways:

- Call your local authorized HP dealer.
- Contact your local HP Sales and Support office.
- Refer to the *Hewlett-Packard Support / Services* booklet that was supplied with your printer.
- [Hardware](#)
- [Consumable items](#)

Hardware

Item		HP part number
Memory module	256 MB	CH654A
The memory expansion module is: SODIMM PC2700 333 MHz 256 MB DDR CL = 2.5		
Jetdirect EIO network cards	HP Jetdirect 620n Fast Ethernet ^a	J7934A
	HP Jetdirect 630n IPv6 Gigabit Ethernet	J7997G
	HP Jetdirect IPv6/IPsec Gigabit Ethernet	J7961A
USB print servers	HP Jetdirect ew2400 802.11g Wireless	J7951G
	HP Jetdirect en1700 IPv6, Fast Ethernet	J7988G
Spindle	610 mm - 24 inch	C2388A
	1067 mm - 42 inch	C2389A
Stand 610 mm - 24 inch		

a. Supported for the HP Designjet 510 but not for the 510ps

Consumable items

Item	Color	HP supply no.	Capacity	HP part number
Ink cartridges	Black	82	69 ml	CH565A
	Cyan	82	69 ml	C4911A
	Magenta			C4912A
	Yellow			C4913A
	Cyan	82	28 ml	CH566A
	Magenta			CH567A
	Yellow			CH568A
Printheads	Black	11	-	C4810A
	Cyan			C4811A
	Magenta			C4812A
	Yellow			C4813A

To achieve the best performance from your printer, we recommend that you use only genuine Hewlett-Packard accessories and supplies, whose reliability and performance have been thoroughly tested to give trouble-free performance.

Glossary

Term	Meaning
ANSI paper	An American standard paper size; e.g. D, E.
Architectural paper	The Architectural paper sizing system.
application	The software you use to create your drawings.
Centronics	A standard for the parallel interface between computer and device.
clipping	Losing part of a drawing at the edges.
CMP	Complementary Media Program that helps HP customers grow their businesses by referencing third-party printing material choices to ensure maximum HP Designjet printer flexibility and printing solutions.
CMYK	Cyan, magenta, yellow and black. The colors of the printer's four inks, and also a standard color model.
Coated paper	Paper coated on one side for inkjet printing.
default	A value or condition that is assumed if no other value or condition is specified.
device	An external item connected to the computer: printer, tape drive, etc. Your HP Designjet is a device.
dpi	Dots per inch, a measure of print resolution.
drivers	Software that controls the communication between a computer and a device.
front panel	The control panel on the front right of the printer.
front panel menus	The structure of options in the front-panel display.

Term	Meaning
graphics language	A programming language telling a print device how to output graphic data.
grayscale	Shades of gray to represent colors.
high-gloss photo	A glossy, opaque photographic paper.
HP-GL/2	One of Hewlett-Packard's standard graphics languages for plotters and printers. Produces vector data.
I/O Input/output	The transmission of data between a computer and a device.
IEEE-1284	A standard issued by the Institute of Electrical and Electronics Engineers (IEEE) as the Standard Signaling Method for a Bi-directional Parallel Peripheral Interface for Personal Computers
ink cartridge	The part of the HP ink supplies which contains all the ink used in the printer. It is installed into the printer on the right-hand side.
inked area	The smallest rectangle that contains all the content of the drawing, while maintaining its relative dimensions.
ISO paper	An international standard paper size; e.g. A1, A2, etc.
JIS	A Japanese standard paper size.
LAN	Local area network.
long-axis printing	Printing a page when the length is longer than a standard page size.
margin	The space around the page added by the printer to separate one page from another and to avoid printing right to the edge of the paper.

Term	Meaning
nesting	Placing two or more pages side-by-side on roll paper to avoid waste.
nozzles	Located underneath the printhead. The nozzles direct the ink onto the page.
palette	A set of logical pens defined by color and width.
PJL	Printer Job Language. A programming language that controls jobs going to a printer.
parallel interface	A type of interface between computer and device. Generally faster than a serial interface.
PANTONE	The PANTONE MATCHING SYSTEM® is an international standard for color communication in the graphics art industry.
pen	Even though the printer has no physical pens, the lines it draws match the attributes of a pen.
platen	The exterior part of the printer on which the paper rests before going into the printer.
printhead	The printhead is installed into the carriage assembly. It is the part that prints the ink onto the paper.
printing area	Page size minus margins.
PostScript	Adobe PostScript is a computer language that describes the appearance of a page, including elements such as text, graphics, and scanned images, to a printer or other output device.
queueing	Placing each print received by the device into memory for processing with other prints.
raster	A method for defining an image, in terms of dots rather than lines. Raster data typically needs more memory than vector data.

Term	Meaning
rendering intent	Rendering intent is a concept defined by ICC Spec ICC.1:1998-09, “File Format for Color Profiles”. From the specification: “Rendering intent specifies the style of reproduction to be used during the evaluation of this profile in a sequence of profiles. It applies specifically to that profile in the sequence and not to the entire sequence. Typically, the user or application will set the rendering intent dynamically at runtime or embedding time.”
RGB	Red, green and blue. A standard color model.
RIP	Raster Image Processor.
RTL	Raster Transfer Language is one of Hewlett-Packard’s standard graphics languages for plotters and printers. Produces raster data.
spindle	The rod that holds the roll of paper.
paper-axis	The vertical axis in which the paper feed moves, as you look at the printer from the front.
scan-axis	The horizontal axis in which the print carriage moves, as you look at the printer from the front.
service station	The part of the printer that services the printheads. It keeps the printheads clean and stops them from drying out.
USB	Universal Serial Bus.

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