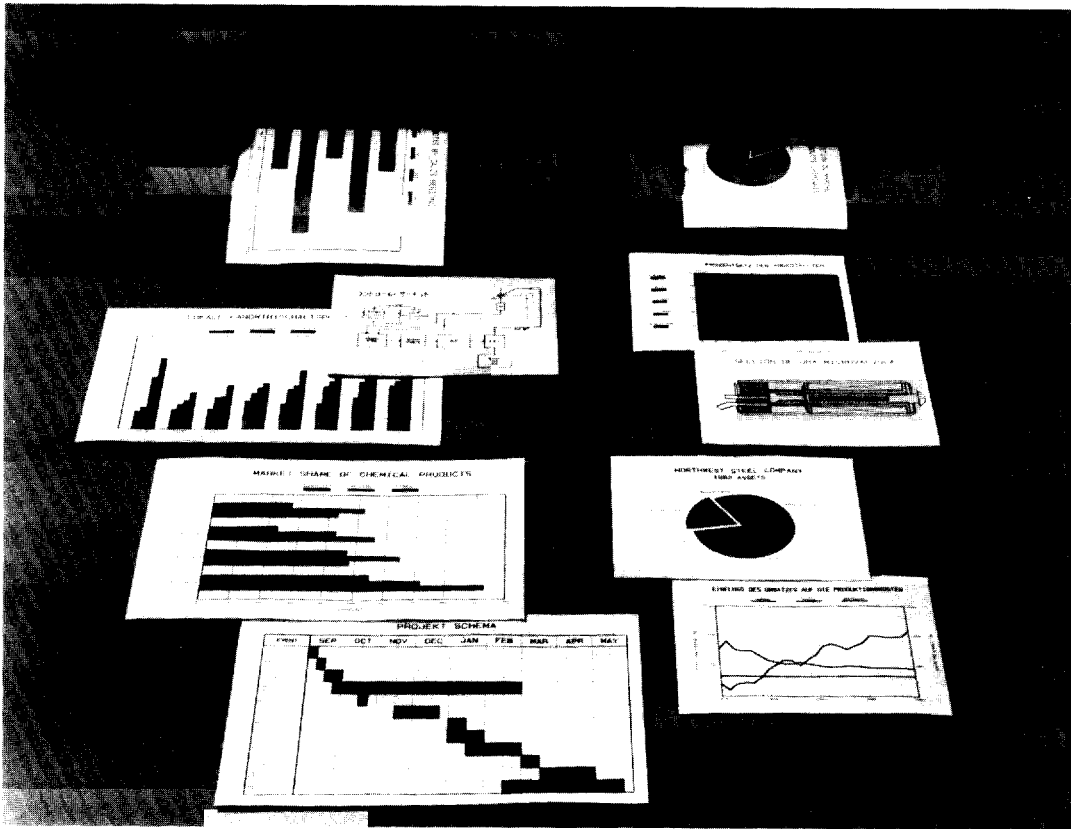




- Low cost, high performance
- Choice of six- or two-pen models

- Plot on paper
- Plot on HP overhead transparency film



Hewlett-Packard's HP 7470A and 7475A graphics plotters provide the kind of graphics excellence you would expect to find only in much more expensive plotters. They feature the same high-quality components and innovative paper-moving technology which were introduced in HP's drafting plotters and which make it possible to offer high performance plotters at affordable prices. Refer to the table below for a quick comparison of the main features available in each plotter.

Features	HP 7475A	HP 7470A
<b>Media sizes</b>	Two ANSI sizes: A (8.5 x 11 in.) and B (11 x 17 in.) Two ISO sizes: A4 (210 x 297 mm) and A3 (297 x 420 mm)	One ANSI size: A (8.5 x 11 in.) One ISO size: A4 (210 x 297 mm)
<b>Pens</b>	Six fiber-tip; programmable pen selection; automatic capping	Two fiber-tip; programmable pen selection; automatic capping
<b>HP-GL Instructions</b>	More than 50 instructions	More than 40 instructions
<b>Character sets</b>	19 sets, including ISO European standards and Katakana	Five sets
<b>Standard Interfaces</b>	HP-IB (IEEE 488-1978) or RS-232-C (CCITT V.24)	HP-IB (IEEE 488-1978) or RS-232-C (CCITT V.24) or HP-IL
	Each plotter incorporates one permanent interface option.	
<b>Technology</b>	Both plotters use the same micro-grip drive for paper movement and have the same high resolution, repeatability, and velocity.	

### Computer Applications

The HP 7470A and 7475A provide hardcopy computer graphics for technical, scientific, and business applications. Colorful A4/A-size charts and graphs are ideal for reports and overhead transparencies. Use them for summarizing data, identifying trends, comparing results, and focusing on exceptions. The larger A3/B-size plots that can be drawn on the HP 7475A are particularly useful for time lines, PERT charts, schematics, engineering drawings, and other applications where you need to show visual detail.

### Measurement Applications

The HP 7470A and 7475A add hardcopy graphics capability to intelligent instruments and instrument systems with HP-IB (IEEE 488-1978). For most applications that use a display screen and an oscilloscope camera, these plotters can produce high-quality hardcopy of the screen for a cost that is substantially lower than camera film. Because they plot directly from measured data, they eliminate problems created by distortion from the screen. And plotter output provides better visual resolution than photographs. Many systems without screen displays can also have the benefits of HP 7470A or 7475A hardcopy graphics at very little additional cost.

### Easy to Use

When the HP 7475A or 7470A plotters are turned on, default conditions are automatically established for most plotting parameters. In many cases, it is only necessary to load the pens and plotting medium in order to start plotting.

Media and pen loading are also easy. A guide control lever makes media alignment perfect every time. The front panel can be used to select pens, to halt the program for exchanging pen colors, or to move the plot forward to "view" what you have plotted.

The front panel also allows easy access to the plotter's digitizing capability and scaling points. And, on the HP 7475A, push buttons can rotate plots 90 degrees or run a demonstration plot directly from the plotter.

### Intelligence Features

Intelligence features are built directly into these plotters to save you time by eliminating the need for software-generated characters and functions. Many HP-GL instructions (more than 50 in the HP 7475A; more than 40 in the HP 7470A) govern such tasks as labeling, pen movement, drawing arcs and circles, and selecting from a large variety of character sets. The HP 7475A has 19 character sets in-

# COMPUTER PERIPHERALS

## Graphics Plotters

### Model 7470A and 7475A (cont'd)

cluding ISO European sets, Katakana, ASCII, and Roman 8 extensions; the HP 7470A has five internal character sets.

The HP 7475A's extra HP-GL instructions, which are used for filling rectangles and wedges for pie and bar charts, provide an enhancement especially designed for professional graphics.

### Writing Systems

The HP 7470A has two built-in pen stalls which make two-color plotting easy. For plots with more than two colors, the program can be halted through program or front panel control; new pens can then be installed and plotting resumed. The HP 7475A's six-pen carousel allows you to store up to six different pen colors or a variety of colors and widths.

Several automatic features are included to protect the tip of the pen and increase pen life. When housed in the stall or carousel, the pen is capped to prevent premature drying. When a pendown command is given, the pen force is damped and the pen is gently lowered to the plotting surface.

### High-Quality Output

The HP 7470A and 7475A have an addressable step size of 0.025

mm (0.001 in.). With this resolution, they can plot up to 1000 points in a 1-inch line. When commanded to return to the same point with no pen change, they achieve this repeatability within 0.1 mm (0.004 in.) Because of this outstanding resolution and repeatability, both plotters produce straight lines and smooth circles that have an artist-drawn appearance.

### Interface Options

The HP 7475A and 7470A are easy to interface with most HP and non-HP computers. Both plotters offer the RS-232-C/CCITT V.24 or HP-IB (IEEE 488-1978) interface. With the RS-232-C option, a dual input/output cable is available for connecting the plotters with a terminal and computer. In addition, the HP 7470A offers a third interface option, HP-IL. This interface is used to connect the plotter with low-cost, portable HP systems.

### Graphics Software

HP offers a full line of graphics software packages for use on most HP computer products. And software is also available for many non-HP computers. These packages make it easy for non-programmers to use the HP 7470A and 7475A plotters. Details are available from any HP sales and support office.

### Specifications

	HP 7475A	HP 7470A
<b>Resolution</b>	Smallest addressable step size: 0.025 mm (0.001 in.)	
<b>Repeatability</b>	With a given pen: 0.1 mm (0.004 in.) From pen to pen: 0.2 mm (0.008 in.)	
<b>Pen velocity (each axis)</b>	Pen up, 50.8 cm/s (20 in./s); pen down, maximum — 38.1 cm/s (15 in./s), programmable — 1 to 38 cm/s in 1 cm/s increments	
<b>Acceleration</b>	Approximately 2 g's	
<b>Environmental range</b>	Operating, 0°C to 55°C Non-operating, -40°C to 75°C	
<b>Plotting area</b>		
X-axis	258 mm (10.2 in.), A/B 275 mm (10.8 in.), A4/A3	191 mm (7.5 in.) A 191 mm (7.5 in.), A4
Y-axis	198 mm (7.80 in.), A 192 mm (7.56 in.), A4 414 mm (16.3 in.), B 402 mm (15.8 in.), A3	257 mm (10.2 in.), A 272 mm (10.7 in.), A4
<b>Interfaces</b>	HP-IB (IEEE 488-1978), implements the following HP-IB functions as defined in IEEE 488-1978: SH1, AH1, T2, TE0, LE0, SR1, RL0, DC1, DT0, L2, PP0, (listen only or address less than 7, otherwise PP2)	
	RS-232-C/CCITT, asynchronous serial ASCII with switch selectable baud rates of 75, 110, 150, 200, 300, 600, 1200, 2400, 4800, 9600. External clock input capabilities with intermediate baud rates of up to 9600 baud. 1024 byte buffer.	Same as HP 7475A except 255 byte buffer.
		HP-IL, Hewlett-Packard Interface Loop for use with portable systems.
<b>Power Requirements</b>	<b>Source:</b> 100, 120, 200, 240 V~ -10%, +5% <b>Frequency:</b> 48-66 Hz	
	<b>Consumption:</b> 35 W maximum	<b>Consumption:</b> 25 W maximum
<b>Size:</b>		
Height	127 mm (5 in.)	127 mm (5 in.)
Width	568 mm (22.4 in.)	432 mm (17 in.)
Depth	367 mm (14.5 in.)	343 mm (13.5 in.)
<b>Weight:</b>		
Net	7 kg (16.0 lb)	6 kg (13.5 lb)
Shipping	Approx. 11 kg (25.0 lb)	Approx. 10 kg (22.0 lb)
<b>FCC</b>	FCC certified to conform to limits set for radio frequency interference when used with a Class B computing device.	

### Accessories Supplied

#### HP 7475A

- HP 07475-90001 Interfacing and Programming Manual
- HP 07475-90002 Operation and Interconnection Manual
- HP 07475-90004 Reference Card

#### HP 7470A

- HP 07470-90001 Interfacing and Programming Manual
- HP 07470-90002 Operator's Manual
- HP 07470-90003 Interconnection Guide
- HP 07470-90004 Reference Card

Power cords and an assortment of pens and drawing media are also supplied with the plotters. The media size and the appropriate power cord are determined by plotter destination. The HP-IL cable (½-metre) is supplied with Option 003 only.

Note: Interface cables are not supplied with Option 001 and Option 002 plotters.

### Ordering Information

#### Options

- 001 RS-232-C/CCITT V.24 (cable not included) N/C
- 002 HP-IB (IEEE 488-1978) (cable not included) N/C
- 003 HP-IL for 7470A only (cable included) N/C

Note: Option 001, 002, or 003 must be specified when ordering HP 7470A; Option 001 or 002 must be specified with HP 7475A.

#### Interface Cables

- HP 13242G Male-male, special RS-232-C cable for use with Option 001, HP 150 Personal Computer \$69
- HP 17255D Male-female, special RS-232-C cable for use with Option 001, IBM Personal Computers \$50
- HP 17355F Male-male standard cable for use with Option 001 \$52.50
- HP 17455A Eavesdrop cable for use with Option 001 \$75
- HP 10833A or HP 45529A or HP 31389A HP-IB 1-metre cable for use with Option 002 \$81
- HP 82167A HP-IL ½-metre cable (included with Option 003) \$6

#### Plotters

- HP 7470A Two-pen Graphics Plotter \$1095
- HP 7475A Six-pen Graphics Plotter \$1895