



9876A/11479A Thermal Graphics Line Printer

*TECHNICAL DATA MAY 1980

Hewlett-Packard's 9876A is a fast, quiet and reliable thermal line printer which offers graphics capability in addition to alphanumeric printing. (The 11479A is the caseless version of the 9876A).

Featuring print speeds up to 480 lines per minute, the 9876 is ideal for applications which require high-speed listings, frequent working reports or quick plotting and graphics.

Another benefit offered by the 9876 is quiet operation, a primary requirement for today's work environments. And the 9876 is reliable — the result of continuous technological advancements to HP's printer line. The only moving part of the 9876 is the stepper motor that drives the paper past the printhead. Sophisticated, self-test features assure that everything is working correctly or help identify any problem.

Creative graphics is an additional bonus. Through the 9876 you can turn raw data into capsuled graphics for effective presentations.

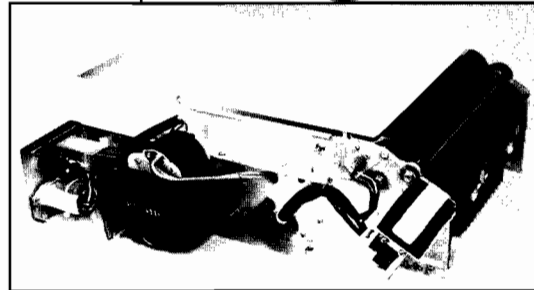
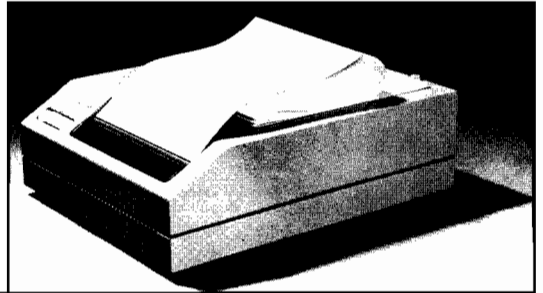
The standard ASCII character set is in a 5 x 7 dot matrix format. You can highlight elements of your output and make it easier to read through additional dots available for ascenders, descenders, underlines, overlines and oversized characters (50% taller). Plus you can store up to seven characters of your design in a 7 x 12 matrix through memory provided. The Raster Graphics Field contains 560 dots across an 18.5 cm field (see plot on page 4).

Through three standard interfaces available — RS-232-C, 8-bit parallel and HP-IB (IEEE Std. 488), the 9876 is compatible with a wide variety of computers and terminals from HP as well as other manufacturers.

The 9876 uses high-contrast and fade-resistant blue and black printing paper.

Features

- Fast printing up to 480 lines per minute
- Graphics
- High reliability
- Quiet operation
- RS-232-C, 8-bit parallel, HP-IB interfaces
- User-definable characters
- 9 Software-selectable character sets
- Form-control functions
- English/metric perforated, fanfold paper
- 30 dot/cm (77 dot/in.) graphics resolution
- Self-test



The HP 9876A is available as a standalone unit (top photo), or without case (Model 11479A) for simple integration into OEM systems.

SPEED

Print Speed	Up to 480 lines/min.
Graphics Speed	3.8 mm/s (0.15 in./s) minimum to 25 mm/s (0.98 in./s) maximum

PRINT DENSITY

Print Mode	80 char./line
Graphic Mode	560 dots across a 185 mm (7.28 in.) width (77 dots/in.) Horizontal and vertical.

DATA INPUT FORMAT

Print Mode	
HP-IB, 8-bit parallel	7- or 8-bit ASCII code, character serial
Graphics Mode	8-bit raster data

BUFFERS

Print Mode	Up to one 80-character line (Additional 255 byte input buffer with RS-232-C interface)
Graphic Mode	Up to one row of 460 dots

CHARACTER REPRESENTATION

5 x 7 dot matrix in 7 x 12 field (allows for ascenders and descenders).



HP-IB Not just IEEE-488 but the hardware documentation and support that delivers the shortest path to a measurement system.

HP Computer Museum
www.hpmuseum.net

For research and education purposes only.

CHARACTER SETS

(Included in printer)

US ASCII
French
German
British
Spanish
Swedish/Finnish
Danish/Norwegian
HP-European Extension (additional European characters)
Katakana

PAPER DIMENSIONS

(perforated, fanfold; black-print or blue-print)

English 330 pages of 216 mm (8.50 in.) wide by 279 mm (11 in.) long. A total 302.5 linear feet per pack.
Metric version 330 pages of 210 mm (8.27 in.) wide by 297 mm (11.69 in.) long. A total of 98.01 linear meters per pack.

PAPER PRINT FIELD

Top Margin User-selectable. (13 mm \pm 2 mm default.)
Bottom Margin Depends on text length, top margin, line spacing and paper length.
Text Length User-selectable. (66-line default.)
Print Field Width 185 mm (7.28 in.) (80 characters or 560 dots)

SIZE/WEIGHT

With Case (Model 9876A)

Height 147 mm (5.8 in.)
Width 351 mm (13.8 in.)
Depth 446 mm (17.5 in.)
Net Weight 13.6 kg (30 lb)
Shipping Weight (approximate) 24 kg (53 lb)

Without Case (Model 11479A)

Height 130 mm (5.1 in.)
Width 331 mm (13.0 in.)
Depth 424 mm (16.7 in.)
Net Weight 12.5 kg (27.5 lbs)
Shipping Weight (approximate) 20.4 kg (44.9 lbs)

ENVIRONMENTAL RANGE

Operating Temperature .. 0°C to +55°C
Non-operating Temperature -40°C to +75°C
Relative Humidity 10% to 95% (noncondensing)

AUDIBLE NOISE LEVEL

With case model (9876A) 57 dbA (avg.) at 1 meter.

POWER REQUIREMENTS

Source 100 V ac \pm 10%
120 V ac \pm 10%
220 V ac \pm 10%
240 V ac \pm 10%
Line Frequency 48 Hz to 66 Hz
Power Consumption 155VA maximum

Interfaces

IEEE 488-1978 (HP-IB)

HP's implementation of standard IEEE-488 with switch selectable Listen Always and SRQ disabling mode.

7-8 Bit Parallel

TTL level with Control and Acknowledge Lines jumper selectable.

Auto Carriage Return Enabling/Disabling jumper selectable.

Negative/Positive True Logic jumper selectable.

Default to desire secondary character set jumper selectable.

EIA Standard RS-232-C

Asynchronous serial operation.

Data Rate 50 to 19200 baud, switch selectable

Transmission full duplex protocol

Parity odd, even or none, switch selectable

Data Handshake ENQ/ACK, X-ON/X-OFF, or DTR

Current Loop 20mA passive (half or full duplex)

Connector 25 pin female (EIA Standard)

Accessories Supplied

Supplied with each cased model (9876A) or caseless model (111479A):

Item	Part Number
Spare Fuses (2)	
1.5 Amp (Slow Blow) ..	2110-0304
3.0 Amp (Slow Blow) ..	2110-0381
Power Cord	Depends on origin of sale

Thermal Paper

One package each of black-print and blue-print thermal paper (metric or English depending on option ordered.) See "Accessories Available" for part numbers.

Note: Minimum order quantity is one box (contains four packages).

Supplied with cased model (9876A) only:
 Paper Stacking Guide 1460-1779
 Peripherals Manual 09876-90000

Supplied with Opt. 025:
 Utility package 09876-10010
 9825A Programming
 Techniques Manual 09876-90025

Supplied with Opt. 035:
 Utility Package 09876-10000
 System 35/45 Programming
 Techniques Manual 09876-90035

Supplied with cased model (9876A) Opt. 002
 Short 25 pin EIA,
 male to male I/O
 adapter cable 8120-3097

Ordering Information 9876A/11479A

Note: The standard interface is IEEE 488-1978 (HP-IB).

Opt. 001 8-bit parallel interface.
 Opt. 002 EIA Std RS-232-C serial interface. Note:
 Cable included with cased model (9876A); cable not
 included with caseless model (11479A).

Opt. 003 Replaces English paper with metric paper
 and includes the 5041-1503 paper spacer.

9876A (Only) Options
 Opt. 025 Provides the manual and utility routines
 cartridges for use with the 9825A/S Desktop Computer.

Opt. 035 Provides the manual and Utility Routines
 Cartridge for use with the Systems 35 and 45 Desktop
 Computers.

Accessories Available

Item	Part Number
OEM Designers Guide . . .	09876-90020
Thermal Paper (High Contrast)	
Black-print perforated	
English 1 box (4 pkgs.)	9270-0640
Metric 1 box (4 pkgs.)	9270-0642
Blue-print perforated	
English 1 box (4 pkgs.)	9270-0641
Metric 1 box (4 pkgs.)	9270-0643
Spacer (for metric paper) .	5041-1503
For Opt. 002 interface only	
Short 25 pin EIA	
Male to male adapter cable	8120-3097

Maintenance Agreements

Maintenance agreements are available for HP
 computer products. Current U.S. rates are available from
 your local HP Sales and Service Office.

These agreements represent HP's best level of
 support. Major advantages to the customer include:

- fixed annual cost
- priority service response
- on-site service
- regular maintenance
- individualized contracts

Purchase Plans

Contact one of the Hewlett-Packard worldwide sales
 and service offices for specific prices and OEM or volume
 purchase plans.

*Data subject to change



System Requirements

Controller	9825 ¹	System 35 ²	System 45 ²	2640/45	2647/48 ³	HP-1000 ⁴
HP-IB Interface Requirements	98034A HP-IB Interface Cable	98034A HP-IB Interface Cable	98034A HP-IB Interface Cable	—	13296A Shared peripheral interface plus 10631A/B/C cables	59310B HP-IB Interface plus 10631A/B/C cables
Parallel Interface Requirements	98032A Opt. 076 Parallel Interface Cable	98032A Opt. 076 Parallel Interface Cable	98032A Opt. 076 Parallel Interface Cable	Opt. 240 (to the 9876A) includes terminal interface, PCA and cable		

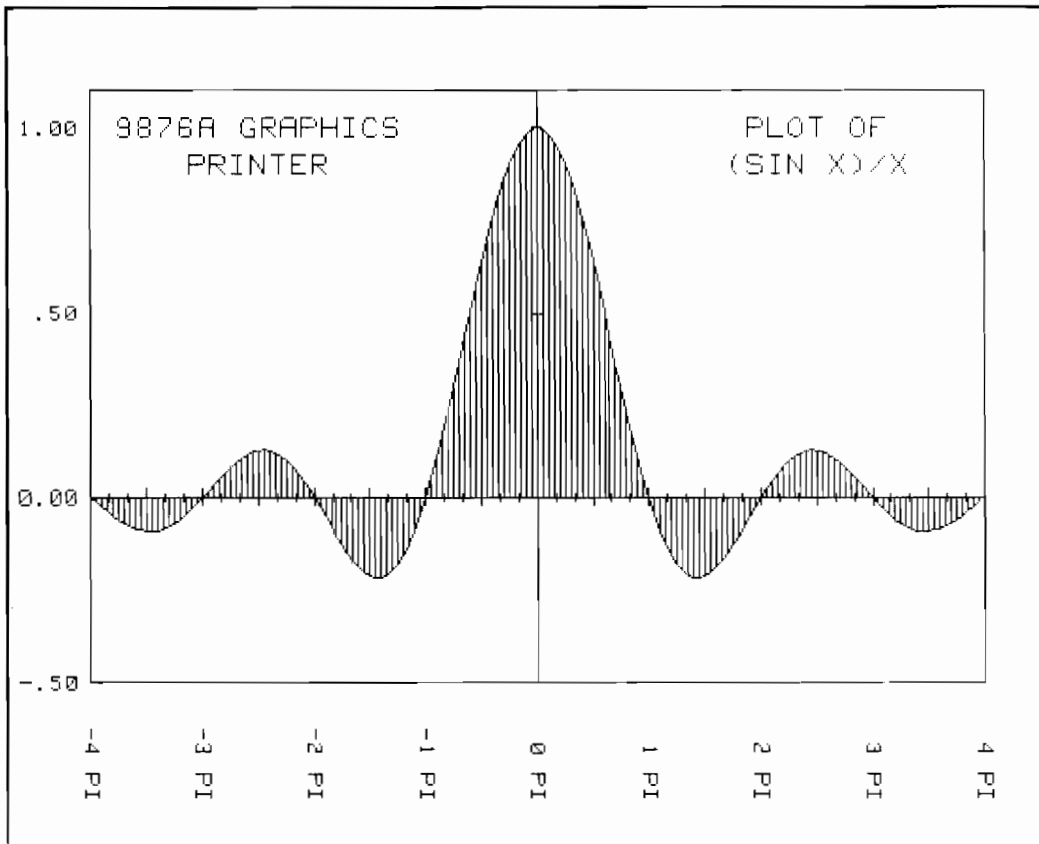
¹A general I/O ROM is required with a 9825A/S.

²An I/O ROM is required for HP-IB service requests and polling operations to indicate out of paper, overheating, non-recoverable hardware failure or self-test in progress, etc.

³The 2648 requires 13261A, Opt. 003 firmware.

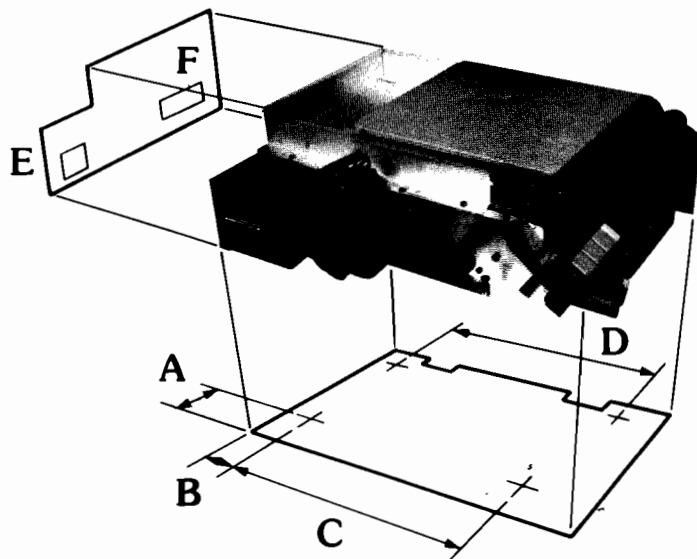
⁴Software driver DVR-37 is also required.

Sample Graphics



General Installation Measurements (caseless version 11479A)

- A** 6.55 cm (2.58 in.)
- B** 4.8 cm (1.89 in.)
- C** 24.85 cm (9.78 in.)
- D** 27.1 cm (10.67 in.)
- E** Power Supply
- F** I/O Port



For assistance call the HP regional office nearest you: Eastern 301/258-2000, Midwest 312/255-9800, Southern 404/955-1500, Western 213/877-1282, Canadian 416/678-9430. Or write to Hewlett-Packard, 3404 East Harmony Road, Fort Collins, Colorado 80525; in

Europe, Hewlett-Packard GmbH, Desktop Computer Division, Herrenberger Strasse 110, D-703 Boeblingen, Postfach 1430, West Germany; elsewhere in the world, Hewlett-Packard Intercontinental, 3495 Deer Creek Road, Palo Alto, California 94304.