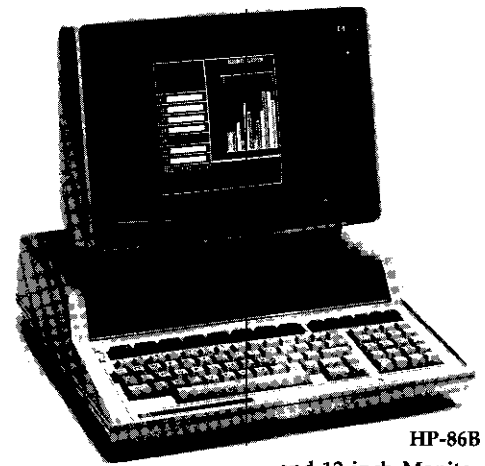


Hewlett-Packard Series 80 HP-86 Personal Computer



HP-86B
and 12-inch Monitor

The HP-86 gives you flexible configurations to meet your unique needs for computational power at competitive prices. You have the choice of two monitors, various built-in interfaces, expandable memory, a large selection of peripherals, optional operating systems, and lots of software.

And now it's available in two models. Both include HP BASIC programming capabilities and a built-in CRT interface. The HP-86A also offers 64K bytes of built-in user memory that's expandable to 576K, plus built-in interfaces for up to two disc drives and a printer.

Alternatively, the HP-86B gives you 128K bytes of built-in user memory that's expandable to 640K, an Electronic Disc ROM, and an HP-IB Interface—plus optional local keyboards* at no extra cost.

Software Solutions

You can either purchase software programs or create your own. If you want prepared software, there's lots—from general purpose programs for electronic spreadsheet and file management to programs that are designed for a specific profession or industry. Plus, optional operating systems give you access to a growing library of UCSD p-System and CP/M® solutions. Or you can use HP's powerful built-in enhanced BASIC operating system to create your own software.

Electronic Disc

Conceptually, Electronic Disc acts as a high-speed disc drive. Using the Electronic Disc ROM's capability, you can turn plug-in memory modules into an electronic mass storage medium. You can even create two or more Electronic Discs simply by assigning different volume labels. Disc space is electronically, rather than mechanically accessed, so execution

Features

- HP-86A/B:**
 - Powerful HP BASIC Programming Language
 - Integrated Graphics Capability
 - Modular System
 - Expandable Memory
 - 14 Built-in Softkeys
- HP-86B:**
 - Built-in HP-IB Interface
 - Built-in Electronic Disc ROM
 - Optional Local Language Keyboards

Benefits

- Saves time*—Lets you write programs quickly by using fewer statements.
- Makes graphics programming easier*—Graphics commands are built right into the computer's BASIC language.
- Increases your flexibility*—Build the system that meets your needs now. Then, modify it if your needs change later.
- Gives you extensive computing power*—Provides 64K (HP-86A) or 128K (HP-86B) bytes that's expandable to 576K or 640K bytes respectively, to handle complex analyses, reports, and problems.
- Make it easy to write programs*—Let you define subroutines within program execution.
- Saves money*—Eliminates the need to purchase a separate HP-IB Interface.
- Enhances system expandability*—Lets you connect your computer to as many as 14 peripherals or instruments without using an expansion port.
- Saves time*—Provides high-speed mass storage performance.
- Let you communicate in your own language*—Optional keyboards are laid out in standard typewriter style for each language.

speeds of software such as Graphics Presentations, WORD/80, and FILE/80 are greatly enhanced. You don't even need to modify your software. The Electronic Disc ROM also gives you access to HP's new 10M byte Winchester disc drives, the largest capacity mass storage devices available for Series 80 personal computers. At the end of a work session you'll want to back up the contents of Electronic Disc, because it resides in volatile RAM and is lost when the power is turned off.

NOTE: The Electronic Disc ROM is built into the HP-86B; it's available as a separate ROM for the HP-86A.

Local Language Keyboards*

Ten local language keyboards in addition to English are available with the HP-86B Personal Computer (see Ordering Information). You'll feel right at home immediately, because keyboard layouts match standard typewriter keyboards. Characters on the screen appear in the local language, and appropriate characters print out on your printer—right down to accent marks and other character modifiers. All current HP printers support local character printing with the HP-86B. In addition, some software has already been translated for use with local language keyboards.

*Local keyboards available in the fall, 1983.

Specifications

Unique to the HP-86

(Also see Tables A and B on pp. 15-17 for programming specifications.)

SYSTEM REQUIREMENTS

• Peripherals

- HP 82912A 9-inch Monitor, or HP 82913A 12-inch Monitor
- HP Disc Drive
- Printer for hard-copy output

CRT DISPLAY

NOTE: Monitor must be purchased separately.

Capacity:

Alphanumeric	.....	16 or 24 lines (variable) × 80 characters
Graphics	.....	400 or 544 (variable) × 240 dots

Scrolling capacity:

Mixed mode	.....	54 lines
All alpha mode	.....	204 lines
Character set	.....	256 characters; set of 128 with or without inverse video
Character font	.....	5- × 7-dot matrix
Intensity	.....	adjustable
Cursor	.....	inverse video

BASIC LANGUAGE AND OPERATING SYSTEM (bytes)

	HP-86A	HP-86B
Standard ROM	48K	56K
Maximum add-on ROM	48K	48K
CRT memory RAM	16K	16K
Optional Local Language ROM	-	8K

USER READ/WRITE MEMORY (bytes)

	HP-86A	HP-86B
Standard	64K	128K
Maximum	576K	640K

TOTAL MEMORY (bytes)

	HP-86A	HP-86B
Standard	128K	200K*
Maximum	640K	712K*

ELECTRONIC DISC MEMORY (bytes)

	HP-86A	HP-86B
Maximum user memory that can be allocated as Electronic Disc memory	32K	96K
Maximum add-on	384K	512K
Maximum total	416K	608K

ELECTRONIC DISC TRANSFER RATES (bytes/sec)

Program LOAD (allocated)	.....	46,000
Program LOAD (deallocated)	.....	17,000
Data file (maximum)	.....	13,000
Data file (minimum)	.....	540

BUILT-IN INTERFACES

HP-86A:

- Monitor
- Disc drive (2)
- Parallel printer

HP-86B:

- Monitor
- HP-IB

ELECTRONIC DISC ROM

Provides statements that control Electronic Disc memory plus external flexible and Winchester (including 10M byte) disc drives. It's built into the HP-86B, and is available as a separate ROM for the HP-86A.

Statements

CONFIG—Resets or defines Electronic Disc space and specifies volume label, directory length, mass storage unit specifier, and amount of RAM dedicated to it.

DISC FREE—Returns the number of unused records on a disc.
 GET—Loads and transforms a data file into a BASIC program file.
 MSUS\$—Returns a string specifying the current default mass storage unit specifier.
 SAVE—Stores a BASIC program as a data file of ASCII characters.
 SWAP—Swaps two BASIC programs; one in main memory, and one in Electronic Disc.
 UNCONFIG—Returns to system memory all memory stolen by the Electronic Disc.
 VOL\$—Returns volume label of specified MSUS.

OPERATING REQUIREMENTS

Line voltage	.....	115 Vac nominal (90-127 Vac), 230 Vac nominal (200-254 Vac), switch selectable
Frequency	.....	50-60 Hz
Power consumption	.....	25 watts (HP-86A); 18 watts (HP-86B) nominal
Operating temperature	.....	0° to 55°C (32° to 131°F)

Storage temperature	.....	-40° to 55°C (-40° to 131°F)
Humidity	.....	5% to 80% at 40°C

SIZE AND WEIGHT

Height	.....	13 cm (5 in.)
Width	.....	42 cm (16.5 in.)
Depth	.....	46 cm (17.8 in.)
Weight:		
Net	.....	6.8 kg (15 lbs)
Shipping	.....	14.1 kg (31 lbs)

Customer Support

Services Available:

- HP Dealer Repair Center (check with dealer for availability)
- On-site service at your location
- HP Field Repair Center
- Phone-in support
- User newsletter
- Training

UCSD p-System and UCSD Pascal are trademarks of the Regents of the University of California.

*Does not include Local Language ROM.

**Hardware is identical for options 001 and 011.

Ordering Information

HP Part Numbers:

- HP-86A (U.S./U.K. keyboard only)
- HP-86B (U.S./U.K. keyboard is standard), or HP-86B with Local Keyboard Option:
 - Opt. 001-Swedish**
 - Opt. 002-Danish/Norwegian
 - Opt. 004-German
 - Opt. 006-Spanish
 - Opt. 008-French
 - Opt. 009-Italian
 - Opt 010-Dutch
 - Opt. 011-Finnish**
 - Opt. 020-Swiss German
 - Opt. 021-Swiss French

Product Includes:

- HP-86A or HP-86B
- HP-86 Owner's Manual
- Pocket Guide
- HP-IB Cable (with HP-86B only)
- Video Cable
- 2 Fuses and Fuse Instruction Card
- Keyboard Overlays
- Demonstration Disc (5¼" and 3½")
- Service Card
- Users' Library Flyer