

HP Series 80 Accessories



Plug-in Modules

82903A 16K Memory module for HP-85.

Adds 16 Kbytes internal read/write memory to the HP-85. Each HP-85 will only accept one 16 Kbyte memory module.

82908A, 82909A Memory modules for HP-86/87.

The HP-82908A adds 64 Kbytes internal read/write memory to an HP-86/87. The HP-82909A adds 128 Kbytes. Up to four modules can be used for a maximum of 512 Kbytes.

82967A Speech synthesis module

The Series 80 plug in module allows speech output of over 1500 words/sounds/phrases from your Series 80 computer. Software is included which allows the user to review, listen and create the need phrases and store them for later use by an application program. A startup vocabulary of over 1500 words is provided. Software and vocabulary is provided on both a 3 1/2 inch and 5 1/4 inch flexible disk.

HP-85 requires 32 Kbytes memory, a flexible disc drive and a standard 8 ohm speaker or headphone.

HP-86 requires 64 Kbytes memory. The monitor speaker can be used with an additional HP 92220M Monitor Cable.

HP-87 requires 64 Kbytes memory and a standard 8 ohm speaker or headphone.

82900A CP/M® System.

The CP/M System extends the HP-86/87 by providing a wide variety of software solutions. It adds a Z-80 microprocessor and 64 Kbytes of dedicated RAM.

82928A System monitor.

Provides the necessary hardware to aid in developing and debugging assembly language programs for HP Series 80 Personal Computers. The HP 00085-15007 (or 00087-15007), 82928A and 82929A form a complete set of tools.

82929A Programmable ROM drawer.

The drawer lets you use the firmware created with the Assembler ROM in Series 80 Computers. You can plug in standard EPROMs that you can program yourself in your own code.

82936A ROM drawer.

Provides mounting for up to 6 of the firmware enhancement ROMs-shown below. Plugs into any port on the back of a Series 80 Computer. Only one ROM drawer can be used at a time.



Firmware Enhancements (ROMs)

00085-15001 Mass Storage ROM

Provides the capability to interface the HP-85 with the HP 8290X-series Flexible Disc Drives or the HP 9134A/9135A Winchester Disc Drive. Consumes 150 bytes of available user memory. (Mass Storage ROM capability is built into the HP-86/87).

00087-15002 Plotter ROM.

Allows data to be transferred from the HP-86/87 to an HP plotter. Also provides single commands to dump CRT graphics and alpha screens to any HP dot matrix printer. (Print and graphics commands for transferring data to an HP printer are included in each HP-86/87). Consumes 1392 bytes of available user memory.

00085-15003, 00087-15003 I/O ROM.

Provides straightforward input/output commands that enhance the HP Series 80 BASIC language capability. Consumes 416 bytes of available user memory.

00085-15004, 00087-15004 Matrix ROM.

Gives you a powerful set of statements and functions for working with arrays on the Series 80 personal computers. Both matrices (2-dimensional arrays) and vectors (1-dimensional arrays) are supported. Consumes only 69 bytes (HP-85) or 73 bytes (HP-86/87) of available user memory.

00085-15005, 00087-15005 Advanced programming ROM.

Extends your control over data, programs and Series 80 system operations with the functions, statements and commands provided in this ROM. Consumes only 132 bytes (HP-85) or 159 bytes (HP-86/87) of available user memory.

00085-15007, 00087-15007 Assembler ROM.

Provides the capability to write customized assembly language programs that can be executed from the Series 80 user memory or burned into EPROMs. Consumes only 124 bytes of available user memory. Use with the HP 82928A and HP 82929A.

00085-15011, 00087-15011 MIKSAM ROM.

MIKSAM is a powerful software development tool for application programmers and serves as a core around which custom file management can be designed to fill your special needs. With MIKSAM you can even search for more than one category of data at once. Use MIKSAM with your HP-86/87 and a minimum of one disc drive. Consumes 4K bytes of available user memory.

00087-15012 Electronic Disk (EDISC) ROM.

The HP-86/87 computers may accept up to 4 HP-82908A 64 Kbytes, or HP-82909A 128 Kbyte RAM cards. The EDISC ROM allows some of this memory to be used as a high-speed RAM disc speeding access to programs and data.

00085-15013, 00087-15013 EMS ROM.

The EMS ROM allows Series-80 computers to use SS-80 compatible mass storage devices (e.g. 9122, 9153, 9154, 9133D/H, and 9134D/H).



Interface Modules

82169A HP-IL/HP-IB Interface.

Interconnection of HP-IL and HP-IB is made possible with the HP-IL/HP-IB interface. It operates in either two modes: translator or mailbox. In translator mode, a translator exists in either the HP-IL or the HP-IB side of the interface, and the devices to be controlled may exist on both sides. Control may be passed between HP-IL and HP-IB controllers as long as only one is active at a time. In mailbox mode, controller systems exist on both sides of the interface, and information may be passed bidirectionally between the two systems through the two resident 110-byte buffers.

82937A HP-IB Interface.

The Hewlett-Packard Interface Bus (HP-IB) is an easy to use hardware and software interface system that permits bidirectional, asynchronous communication among a wide variety of instruments and peripherals. It implements the IEEE 488-1978 Standard Digital Interface for Programmable Instrumentation and allows your HP computer to communicate with up to 14 HP-IB compatible devices per interface, with a total of no more than 20 meters of cable.

82938A HP-IL Interface.

The Hewlett-Packard Interface Loop (HP-IL) is a bit-serial interface that combines low power, small size and low cost. With HP-IL, you can interface as many as 30 devices, with up to 10 meters of cable between each device.

82939A Serial Interface (RS-232).

The Serial Interface is the RS-232C compatible interface for the Series 80 Personal Computer. It provides bit-serial asynchronous data communication and is a common means of communicating between a computer and peripherals such as terminals and printers. The standard 82939A is terminated with an RS-232C female connector for use with the HP 2601A Printer (with its supplied cable). Option 001 is terminated with an RS-232C male connector for use with modems and some non-HP printers.

82940A GPIO Interface (Parallel).

This is a general purpose byte (8-bit) or word (16-bit) oriented interface commonly used with printers, paper tape readers and punches, card readers, and special instrumentation. It has two output-only 8-bit ports and two bidirectional 8-bit ports. They can be used as separate 8-bit ports or as 16-bit ports.

82941A BCD Interface (Binary Coded Decimal).

This interface supports interfacing with BCD instrumentation, such as voltmeters, multimeters, medical systems and weighting systems. It provides the mainframe with 11 digits of 4-bit BCD input or output data plus 4 sign bits for one or two channels.

82949A Printer Interface.

Provides interface for the HP Series 80 Computer to drive printers requiring a standard parallel Centronics-type interface. This output-only interface consists of a plug-in module and a captive cable, terminated with a standard Amphenol-type, 36 pin connector.

82950A Modem.

Provides data communications in the U.S. for HP Series 80 Personal Computers. It is a serial, asynchronous full duplex modem which operates at speeds of 110 or 300 baud. It connects directly to the telephone line and is compatible with Bell 103/113 Modems. Features automatic answering, automatic dialing and log-on, five sets of special function keys and includes the data communications software on flexible disc. Specify option 650 for 5 1/4 inch flexible disc or option 630 for 3 1/2 inch disc.

82966A Data Link Interface.

Configure Series 80 Personal Computers with most other HP computer products on a common network. By implementing the Data Link protocol, the new data link interface enables Series 80

personal Computers to connect to an HP 3074A adapter and an I/O ROM functions to communicate over HP's multi drop data communications network. The network consists of a group of terminals and/or computers connected to a common data line - where a single HP1000/3000 host computer is the master of all communications activity.

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