

HP 82903A 16K Memory Module Instruction Sheet



The HP 82903A 16K Memory Module has been designed by Hewlett-Packard to meet your expanded programming and data storage needs. When plugged into one of the HP-83 or HP-85 plug-in ports, the memory module provides an additional 16,128 bytes of memory for programming and data storage use.

WARNING

Do not place fingers, tools, or other foreign objects into the computer's plug-in ports. Such actions may result in minor electrical shock hazard and interference with pacemaker devices worn by some persons. Damage to the computer's port contacts and internal circuitry may also result.

Installing and Removing the Memory Module

CAUTION

Always turn off the computer and any connected peripherals *before* installing or removing the memory module. If this is not done, the system may be damaged.

The computer is designed to operate with no more than one HP 82903A 16K Memory Module installed at any time. Installing more than one memory module will not increase memory or computing power. However, it may create error conditions and can damage the module.

To install the memory module:

1. Turn off the computer and any connected peripherals.
2. Remove the protective cover from any unused port. The remaining unused ports should be kept covered.

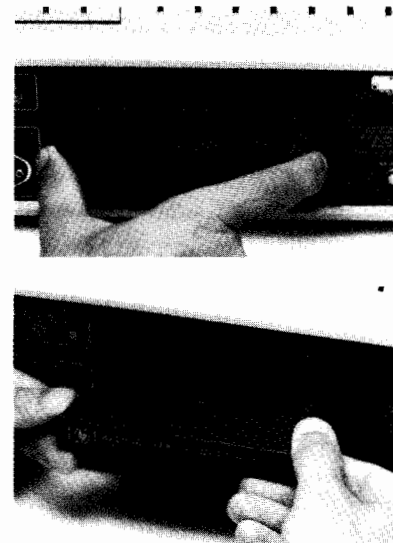
CAUTION

Do not force the memory module into the port. If the module is upside-down, forcing it further may result in damage to the computer or the module itself.

3. Position the module as shown. Slide the module into the port until the grips meet the sides of the port. A slight side-to-side motion may be necessary to seat the module in the port. Notice that the tracks are keyed to prevent the module from being inserted upside-down.

The complete system is now ready to operate. If you are operating the HP-83 or HP-85 with only the HP 82903A 16K Memory Module installed, there are now 30,704 bytes of memory available. (Press **LIST** to view the number of bytes available.) It is not necessary to remove the memory module unless you want to use the port for other equipment.

Note: Some other peripherals and modules, when plugged into the computer, will reduce the amount of available memory by small amounts.



To remove the memory module:

1. If you find it necessary to remove the memory module, first turn off the computer and any connected peripherals.
2. Firmly grasp the module and pull it from the port. Store the module in its original container or where it will be safe from damage.



CAUTION

Static electricity could damage the memory module's circuitry.

3. Replace the protective port cover.

Maintenance

If at any time you suspect the memory module may be malfunctioning, do the following:

1. Turn off the computer and all peripherals. After disconnecting the memory module and all other plug-in devices from the ports, turn on the computer. If the cursor appears and no error message is displayed, the computer is functioning properly.
2. Turn off the computer. After installing the memory module in any port, turn on the computer.
 - If `ERROR 23 : SELF-TEST` appears, type in `ERRL` `(ENDLINE)`. If `0` then appears, the memory module requires service.
 - If the cursor does not appear, the system is not operating properly. To help determine if the memory module is interfering with proper operation, repeat this step with the module installed in a different port.
3. Press `(LIST)`. You should see 30704 in the display.
 - If 14576 is displayed, the module may not be plugged in properly or circuitry defects may exist. Turn off the computer, remove the memory module, and plug it in again; or plug it into a different port. Then turn on the computer and press `(LIST)` again. If 30704 is displayed, the module has been recognized by the system. Resume normal operations. However, if 14576 is still displayed, the computer has not recognized the module. Either the module or the computer may require service. If possible, test the module in another HP-83 or HP-85, or test your computer by using other plug-in devices.
 - If 30704 is displayed after pressing `(LIST)`, but malfunctions continue during normal operation, test the module in another HP-83 or HP-85, or test your computer by using it with other plug-in devices.

Note: It should not be necessary to clean the memory module contacts. The action of installing the module is normally sufficient to clean contamination from the contacts.

4. If improper operation is indicated in either the memory module or the computer, repair service is required.

Warranty and Repair Service Information

The warranty statement and procedures for obtaining repair service are contained on the Warranty and Service Information sheet shipped with your HP 82903A 16K Memory Module. If you need additional information, please contact your authorized HP dealer or the nearest Hewlett-Packard Sales and Service facility. The addresses of these facilities are listed at the back of the owner's manual for your computer.



Place this instruction sheet in your Series 80 system binder for future reference.