CMT-71-32KE and CMT-71-64KE

EPROM Modules for the HP-71

Instructions

INTRODUCTION

Just like the users of any other computers, the HP-71B Handheld computer user is constantly looking for ways to increase the memory capacity of his machine. The CMT-71 Memory Modules fill this need by allowing the user to add RAM or EPROM to his HP-71B conveniently and economically.

Both the CMT-71 RAM and the CMT-71 EPROM Modules plug into the front ports of the HP-71B. You can use any combination of CMT-71 RAM, CMT-71 EPROM, HP RAM or HP ROM Modules in these ports.

The maximum extra memory permitted by the use of the CMT-71 Memory Modules is as listed below:

Modules Used	Additional Memory
4 CMT-71-32R	128K bytes of RAM
4 CMT-71-32KE	128K bytes of EPROM
4 CMT-71-64KE	256K bytes of EPROM

While the CMT-71-32R Modules provide an extension of the HP-71B RAM, the CMT-71-32KE and the CMT-71-64KE are used to store customized application programs. The CMT-71 EPROM modules retain their contents until they are intentionally erased with ultraviolet light. They can then be reprogrammed. Thus the CMT-71 EPROM Modules are in effect updatable ROM Modules.

The CMT-71 EPROM Modules are programmed by means of the CMT-71-P01 Stand-Alone CMT-71 EPROM Programmer. Both the Programmer and the necessary software are supplied by CMT. The Programmer plugs into a front port of the HP-71. It has 64K bytes of RAM that is used for building the ROM image. The RAM of the Programmer is accessible through commands in the HP-71.

A description of the CMT-71 EPROM Modules is given below. A separate manual is provided with each CMT-71 EPROM Programmer. If you require further information or assistance, contact our office at:

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Corvallis Microtechnology, Inc.
Grant Plaza
895 NW Grant Ave.
Corvallis, OR 97333

Tel: (503)752-5456

Hours: 9 a.m. - 6 p.m.

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Section 1

Installing and Removing the CMT-71 EPROM Module

CAUTION:

* Turn off the HP-71 before you install or remove any module.

* After removing a module, turn the HP-71 on and off so it is ready to accept another module.

To insert a CMT-71 EPROM Module:

1. Turn off the HP-71 by pressing [f][ON].

2. Hold the CMT-71 EPROM Module with the broadest side facing up, and the connector slot aimed toward an open HP-71 front port.

3. Push the module all the way into the port.

To remove a CMT-71 EPROM Module:

1. Turn off the HP-71 by pressing [f][ON].

2. Use the fingernails of your middle and ring fingers to get hold of the lip on the underside of the module, and pull the module out of the port.

3. Turn the HP-71 on and then off.

4. Insert a blank module into the port to protect its electrical contacts.

Section 2

The CMT-71 EPROM Modules

The CMT-71 EPROM Modules come in two versions:

    CMT-71-32KE with 32K bytes of CMOS EPROM
    CMT-71-64KE with 64K bytes of CMOS EPROM

Up to four CMT-71 EPROM Modules may be inserted into the front ports of the HP-71.

The CMT-71-32KE is organized as one 32K byte block of memory, while the CMT-71-64KE is organized as one 64K byte block of memory.

Typically, the CMT-71 EPROM Modules are used to store custom application programs. You can run programs stored in these modules as well as read data from them. The CMT-71 EPROM Modules retain their contents when removed form the HP-71.

To see the amount of external EPROM provided by your CMT-71 EPROM Module, follow the instructions given in Section 1 to plug the module into a front port of the HP-71, then execute **SHOW PORT**. The port number, the memory capacity in bytes and the memory type will be displayed for each port containing Independent RAM or plug-in ROM. The CMT-71 EPROM has a memory type of "2".

Inserting a blank CMT-71 EPROM Module into the HP-71 will not disrupt its operations.

Self-Test

Each CMT-71 EPROM Module is shipped with some self-test software burned onto it. This will allow you to verify that the module is functioning properly. You may want to make a copy of the self-test software for use when the need for verification arises in the future.

You can do either of the following two tests:

1. With the EPROM Module plugged into a front port of the HP-71, execute

        ROMTST

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The status of the EPROM Module will then be indicated by the displayed message

ROM OK   or   **ROM BAD**

Note: When you are doing this test, make sure you do not have any other module in the HP-71 that contains the self-test software.

2. With the EPROM Module plugged into a front port of the HP-71, execute

PTTEST$(':PORT(P.DD)')

In the above expression, P.DD is a valid HP-71 port specifier appropriate for the port used.

The module is okay if the HP-71 displays the string

00000

If a different string is returned, the module has failed the test. The displayed string represents the hexadecimal checksum of the ROM image less the number 1.

Note: This test can be performed while the other ports are occupied by other ROM or EPROM modules.

Section 3

MAINTENANCE INFORMATION

Initial Inspection

When you first receive the device, examine the package for signs of damage. Check to see that the device is in good mechanical condition.

If there is any mechanical damage, notify the dealer. If the shipping container is damaged, notify the carrier as well as the dealer.

Care of the Unit

* Always turn off the HP-71B before you install or remove any module.

* Keep the electrical contacts of the module clean. Do not insert any foreign object into the slot for the electrical contacts.

* Store the module in a clean, dry place.

* Observe the temperature specifications:

  Operating: 0 to 45 deg. C (32 to 113 deg. F)
  Storage: -20 to 55 deg. C (-4 to 131 deg. F)

Warranty Information

WARRANTY

This CMT product is warranted against defects in material and workmanship for a period of 90 days from the date of shipment. During this period, Corvallis Microtechnology, Inc. will, at its option, either repair or replace products which prove to be defective.

Buyer shall prepay shipping charges to return the product to CMT for warranty service, repair or replacement. Buyer shall pay all shipping charges, duties, and taxes for products returned to CMT from any country outside the U.S.A.

CMT does not warrant that the operation of this device and any firmware or software installed on it will be error-free.

LIMITATION OF WARRANTY

The foregoing warranty shall not apply to defects or malfunctioning resulting from improper or inadequate handling or maintenance by buyer, buyer-supplied interfacing, unauthorized modification or misuse, or operation outside the environmental specifications for the product.

No other warranty is expressed or implied. Corvallis Microtechnology specifically disclaims the implied warranties of fitness for a particular purpose.

Service and Shipping Information

Should your unit require service, notify the Service Department of CMT.

Do not ship any product back to CMT without first contacting us about your problem. We do not accept any unauthorized returns.

After obtaining a return authorization number, ship your CMT-71 EPROM Module in a protective package to avoid damage. (Use the original shipping container and cushioning material.) In-transit damage is not covered by the warranty.

When returning the unit for service, repair or replacement, be sure to include your name and address as well as a description of the problem.

For warranty service or repair, please return the sales receipt with the unit.