CMT-71-64R RAM Module for the HP-71

Instructions

Notice:

INTRODUCTION

Just like the users of any other computers, the HP-71 Hand Held 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 the 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 Memory Modules as is listed below:

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

While the CMT-71-64R Modules provide an extension of the HP-71B internal 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.

A description of the CMT-71-64R Modules is given below. If you require further assistance, contact our office at:

Corvallis Microtechnology, Inc.
413 SW Jefferson Ave.
Corvallis, OR 97333

TEL: (503)752-5456

Hours: 8:30 a.m. - 5:30 p.m.
Pacific Standard Time

Section 1

Installing and Removing the Memory 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 Memory Module:

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

2. Hold the CMT-71 Memory 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 Memory Module:

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

To prevent a Memory Lost condition, use the HP-71 FREE PORT command before removing it from the port (See Section 3).

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.

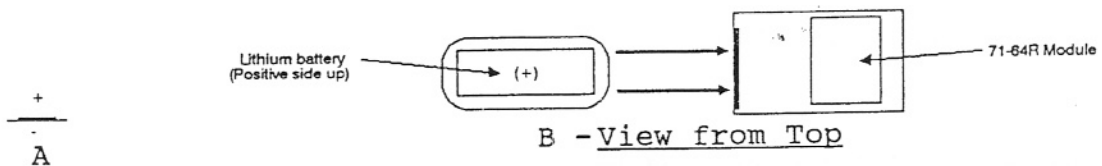4. Insert a blank module into the port to protect its electrical contacts.

Section 2

Battery Insertion and Removal

The battery in the CMT-71-64R will retain the contents of the module for six months if the module is removed from the HP-71B. While the module is in the HP-71B, it will draw its required power from the HP-71B batteries. Should the voltage level of the HP-71B drop to a point that is unable to retain the contents of the 71-64R, the lithium battery in the module will supply the necessary current.

Installing and Removing the Lithium Battery

CAUTION: Never hold the 64R lithium battery with pliers or any other metal object. This will cause the battery to short out. If you have data stored into the 64R module, do not remove the battery. Doing so will cause all module contents to be lost.

As you can see, there are small ridges on top of the battery and the underside is relatively flat. The top side is positive (+) and the underside is negative (-) (See diagram A below).

A

Lithium battery
(Positive side up)   (+)

71-64R Module

B — View from Top

To remove a lithium battery:

1. Gently grasp the edge of the battery and pull it away from the module.

2. If you are planning to use the battery again, be careful that you do not place the battery in a position where both sides are in contact with a conductive material. Placing the battery on a conductive material will cause the battery capacity to drain.

To insert a lithium battery:

1. Locate the positive (+) side of the battery and orient it so that (+) is facing up (See diagram B above).

2. Gently slide the battery into the battery holder, taking care not to bend the battery. The battery should protrude out of the module case approximately 1/8".

3. Make sure the battery is inserted all the way into holder. DO NOT force the battery. It should go in easily.

The CMT-71-64R

When plugged into a front port of the HP-71, each CMT-71-64R Module adds 64K Bytes of RAM to the 17.5K Bytes of HP-71 internal RAM. Up to 256K Bytes of extra RAM can be thus installed in your HP-71. (See Section 1 for instructions on installing and removing the CMT-71 modules.)

Like the HP-71 RAM, the CMT-71 RAM can be used as Main RAM or Independent RAM.

Main RAM

As soon as the CMT-71 is plugged into a front port of the HP-71, its RAM becomes part of the Main RAM. This can be verified by executing MEM.

Main RAM is used for the operations of the HP-71. Therefore, be sure to declare the CMT-71 RAM as Independent RAM (see below) before removing the module from the HP-71.

Independent RAM

The CMT-71 RAM can be set aside as Independent RAM by executing:

FREE PORT(port number) []

The contents of the Independent RAM are not disturbed by the operations of the HP-71.

Note that the CMT-71 RAM is FREE PORTed only in 32K Byte blocks.

Thus, if your 71-64R module is installed in port 2, to set all 64K Bytes aside as independent RAM, you would need to enter:

FREEPORT(2) []

FREEPORT(2.01) []

Section 4

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 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 malfunctionings 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 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 RAM or 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.