# CMT-71-32R RAM Module for the HP-71

Instructions

## NOTICE

Corvallis Microtechnology, Inc. assumes no liability resulting from any errors or omissions in these instructions, from the use of the informaton obtained herein, orfrom the use of the CMT-71 Plug-In Modules or the CMT-71-P01 EPROM Programmer.

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## 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.

A description of the CMT-71-32R Modules is given below. If you require further assistance, contact our office at:

Corvallis Microtechnology, Inc. Grant Plaza 895 NW Grant Ave. Corvallis, OR 97330

Tel: (503)752-5456

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

## 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.
- \* The contents of the CMT-71-32R are not backed up by battery when removed from the HP-71.
- \* Because there is a chance of memory loss, it is good practice to back up important files before installing or removing any module.

## To insert a CMT-71 Memory Module:

- 1. Turn off the HP-71 by pressing [f][ON].
- 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 memory loss, FREE PORT the CMT-71-32R before
  removing it from the port.
- 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-71-32R RAM Module

When plugged into a front port of the HP-71, each CMT-71-32R Module adds 32K bytes of RAM to the 17.5K bytes of HP-71 internal RAM. Up to 128K 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-71RAM, 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. Otherwise, the entire Main RAM will be cleared when the module is removed.

#### 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 can be FREE PORTed only as a 32K byte block.

The CMT-71-32R retains its memory contents while plugged into an HP-71 with proper battery level. It does not contain a battery to back up its memory when unplugged from the HP-71. Because of the CMOS static RAM used, its standby current is typically less than 2 uA.

#### 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 disclaimsthe 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 RAM or EPROM Module in a protective package to avoid damage. (Use the original shipping container and cushioning material.) Intransit 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.