



# Mariner.™

Conspicuous power  
in an  
inconspicuous place.

MIGROMATION

## Conspicuous power

Upgradeability is designed into our Mariner computer system. As your needs grow so does Mariner, supporting up to 8 on-line users and a variety of terminals and printers without suffering response time delays common to other multiuser, micro-based systems.

Mariner is based on Micromation's M/NET™ concept, a master/satellite configuration using Micromation's unique Z-64™ board. This single board contains a Z80A™ CPU running at 4 MHz, plus 64K bytes of dynamic RAM with 200ns access time. One Z-64 serves as master and includes a clock-calendar chip. Additional satellite processors are used for each user terminal. Floppy and Winchester-type disks provide storage capacity that matches usage.

Upgrading is quick and easy. A single-user system can become a multiple-user system, on-site, in minutes by installing additional satellites.

## Inconspicuous place

Mariner's packaging is all business. About the size of a two drawer file cabinet, its handsome looks blend into the environment. The freestanding design requires no custom designed furniture, saves desk top space, and eliminates unsightly rack mounting. Mariner performs its work in an efficient, office-quiet manner.

The packaging is functional as well as good looking. There's easy access to the card cage, and peripheral storage devices are designed for modular insertion and removal. Concealed wheels make Mariner easy to move.

## Choice of software

Mariner is available with either CP/M™ or MP/M™, or Micromation's AMDOS™, a CP/M compatible OS with embedded DBMS. This disk operating system has features found on larger computer systems.

## Reliable, proven design

Benefiting from Micromation's M/NET concept, Mariner delivers bigger system performance in a multitasking environment while realizing the proven reliability and economies of 8-bit technology. CP/M compatibility lets you choose from a wide range of applications software.

If you're serious about using computers to help your business, contact us for the name of your nearest Micromation distributor. And, if you're a computer dealer that's serious about expanding your market coverage and customer base, be sure to inquire about our dealer support program.

## Mariner specifications

### DIMENSIONS

Steel chassis and frame, 14 inches (35.6 cm) W x 20 inches (50.8 cm) D x 29 inches (73.7 cm) H

### WEIGHT

Approximately 100 pounds (220 kg)

### POWER

110 V at 60 Hz or 220 V at 50 Hz

### POWER SUPPLY

Constant voltage, ferro-resonant transformer

### CHASSIS FEATURES

Key positions

OFF, ON, RESET (key may be taken out in either ON or OFF positions)

Hidden wheels for easy movement over carpeted floors

Front panel lowers for easy access to card cage

Peripherals slide into sleeves to facilitate field upgrades

### OPERATING ENVIRONMENT

32°F (0°C) to 130°F (55°C)

### PROCESSOR CARDS

Master processor—Micromation Z-64  
Z80A 4 MHz processor  
64K bytes of 16Kx1 dynamic RAM  
Memory access 200ns  
Transparent refresh, no wait states  
Vectored priority interrupt encoder

Satellite processors—Micromation MicroSat™  
Z80A processor  
64K bytes of 16Kx1 dynamic RAM  
RS-232 serial port (USART)  
Memory access 200ns  
Transparent refresh, no wait states  
CP/M and MP/M emulator PROM

### PERIPHERALS

Floppy disk drives  
Shugart SA801 single-sided (.5Mb)  
Qume DataTrak 8™ double-sided (1Mb)

Winchester disk  
Fujitsu M2302 (21Mb), 512K bytes per sector

Tape cartridge  
Streaming, ¼ inch, 30 i.p.s., total storage capacity 20Mb on 4 tracks

### CONTROLLERS

Floppy controller—Micromation 4116 Doubler™  
2708 EPROM controller firmware

Format

Single density—IBM 3740

Double density—128 bytes/sector modified IBM 2D

Programmed data transfer

Hard disk—Micromation 4117 Disk Controller

1K bytes on board RAM

Data transfer at 593K bytes/second

Tape cartridge—Micromation MicroTape™

Controller is located on the Multi I/O card

### SYSTEM I/O

Primary—Micromation M/NET I/O™

Four serial USART's (8251), individually selectable baud rates (150–9600 BPS)

50-pin parallel port

Two 67S374 output drivers

8255 Parallel Peripheral Interface

8253 Programmable interval timer

5832 Time-of-day clock with battery back up

Secondary—Micromation Multi I/O™

Four serial USART's (8251), individually selectable baud rates (150–9600 BPS)

50-pin parallel port

Two 67S374 output drivers

8255 Parallel Peripheral Interface

8253 Programmable interval timer

### BACKPLANE

17 slot motherboard

Faraday shielding

Active termination

### OPTIONAL

Intelligent Console Processor

Used in place of serial ports on satellites

Z80A running at 4 MHz

1K RAM buffer

Eight RS-232 serial ports for user terminals

Handles console control and I/O for terminals at up to 19.2K baud

### SOFTWARE

Operating system

Single user—CP/M

Multiuser—choice of either:

Modified and enhanced MP/M

AMDOS (CP/M-compatible OS with integral DBMS)

## Micromation Incorporated

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Z80A is a trademark of Zilog, Inc.

DataTrak 8 is a trademark of Qume, Corp.

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