MICROMATION

# HARD DISK CONTROLLER

#### MATES S-100, SHUGART SA 4000

The most dramatic performance improvement you can bring to a floppy disk based microcomputer. Micromation brings you the expertise in controller technology. Shugart brings you the extraordinarily reliable SA-4000.

#### MICROMATION CONTROLLER TECHNOLOGY

The Micromation Controller is designed, built and tested by Micromation, a leader in disk controller technology. The DOUBLER was the first S-100 controller to bring IBM double density to the microcomputer. Today it is still an industry standard.

Now, the Hard Disk Controller is available. The board features on board RAM buffer. The system interface employs the reliable Programmed Data Transfer. Data is transferred from disk to buffer and then to memory.

High speed, SOLID STATE LOGIC directs the controller during all disk data operations. Onboard PROM contains the system firmware.

#### THE SHUGART SA 4000

Shugart is the acknowledged leader in floppy disk technology. Not because their systems are the most advanced. But because their systems are the most RELIABLE. No single factor affects the performance of your system as greatly as disk reliability.

And Shugart reliability is built in to the SA 4000, too. Winchester technology, including a fixed platter and sealed system mean the SA 4000 is extraordinarily reliable.

Storage? 14 Megabytes with a single platter,

28 Megabytes with a dual platter (unformatted). The Micromation Hard Disk Controller will handle either one.

#### INTERFACES WITH THE DOUBLER.

To minimize your software investment, buy our hardware. To integrate the hard disk and your floppy disk subsystems, simply replace your floppy controller with the Doubler, add the Hard Disk Controller, and go. The Doubler reads single and double density, and supports up to four floppy disk drives. Transfer files from single density 8'' floppy to double density, to hard disk, to double density. Any way you want to go.

## CHOOSE FROM A VARIETY OF FINE DISK OPERATING SYSTEMS.

The Micromation Hard Disk Controller will run CP/M (\*), MP/M (\*), or OASIS (\*\*) operating systems. There is a huge library of software languages, applications, and utilities available right now for each of these operating system.

#### MICROMATION WARRANTY:

All Micromation products are shipped with a full 6-month parts and labor warranty. An optional one-year extended warranty is available.

#### AVAILABLE NOW.

The Micromation Hard Disk Controller is available now. Specify the Shugart SA 4000 Models 4004 for single platter, or 4008 for dual platter.

Or you can buy the Micromation Hard Disk Controller and the Shugart SA 4000 as a subsystem.

### **SPECIFICATIONS:**

#### **POWER REQUIREMENTS:**

+ 8V 1.1 Amp + 16V .1 Amp - 16V .1 Amp

#### FIRMWARE:

1K Bytes EPROM

#### **BUFFER:**

1K Bytes RAM DATA TRANSFER RATE:

889 K Bytes per second. **BUS:** 

#### S-100.

(\*) CP/M and MP/M are registered trademarks of Digital Research. (\*\*) Oasis is a registered trademark of Phase One Systems.