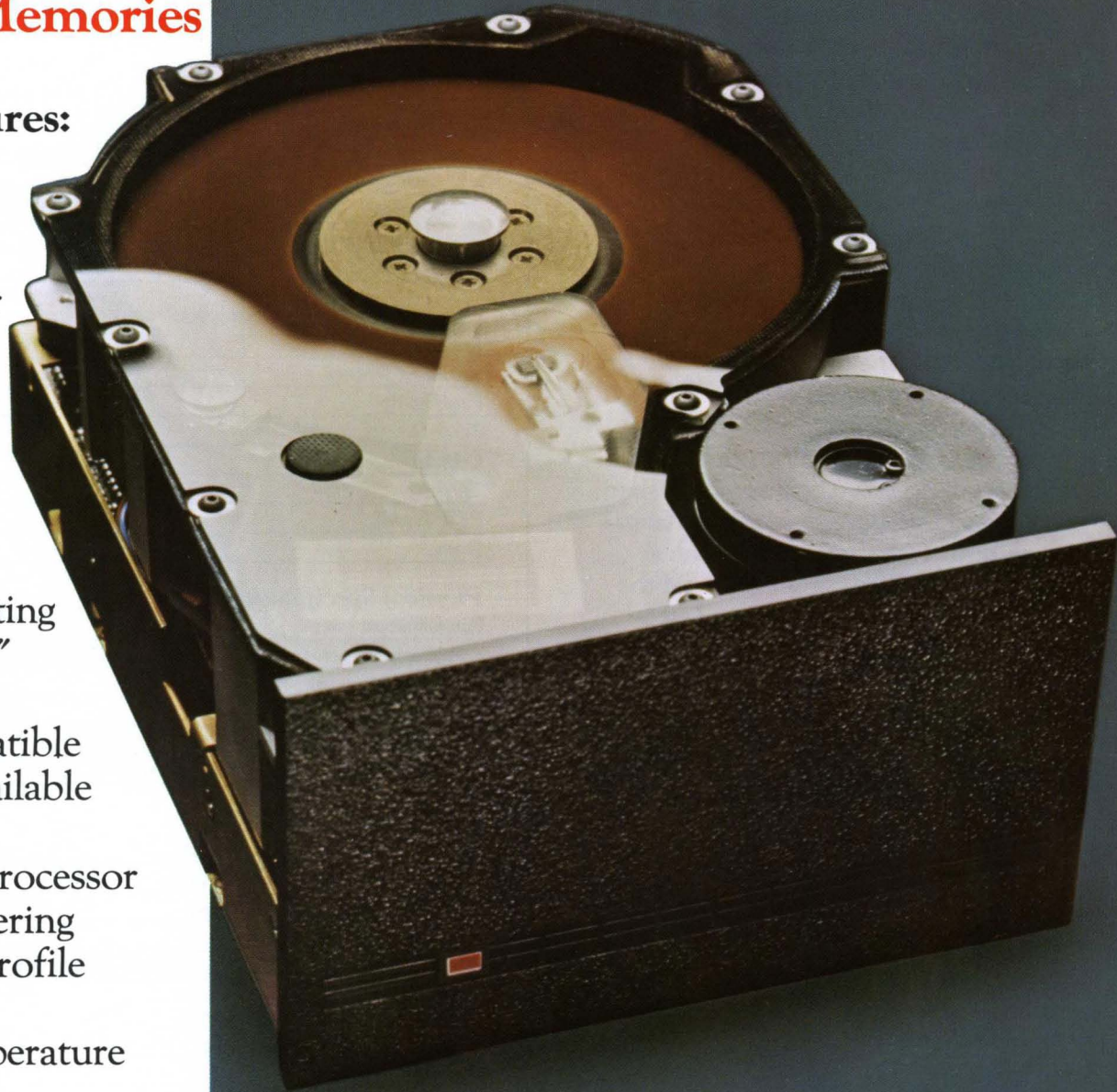


SEP 30 1982

## 40 Megabyte 5 $\frac{1}{4}$ " Winchester Disk Drive From Computer Memories

### CM 5640 features:

- Capacity of 40 megabytes unformatted
- Lowest cost per megabyte
- 31.5 megabytes formatted data
- Proven Winchester technology
- Identical mounting to standard 5 $\frac{1}{4}$ " floppy drives
- Interface compatible with readily available controllers
- Internal microprocessor
- Step-pulse buffering
- Head velocity profile control
- Optimized temperature compensation
- High output, high resolution heads
- All electronics and motors located outside clean area

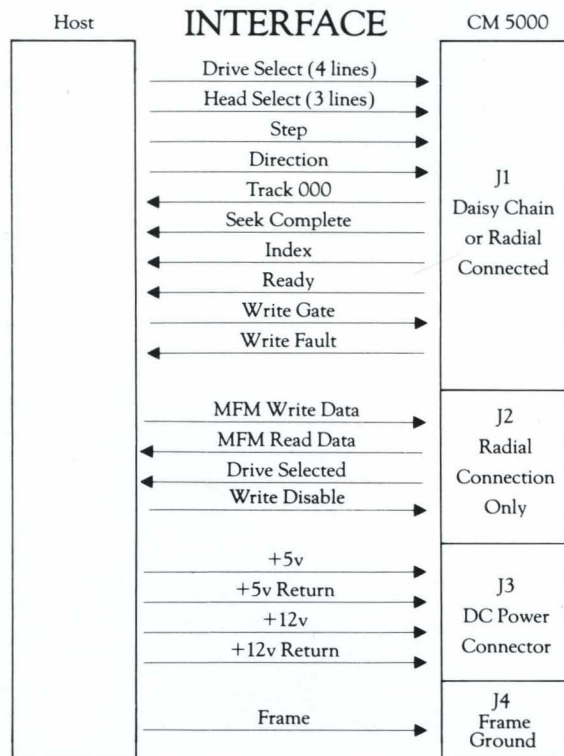




**CM 5640 disk drive, product information.** The Computer Memories series of Winchester technology disk drives offer the highest storage capacity currently available in a minifloppy size package. The CM 5640, at 40 Mbytes, offers the lowest cost/Mbyte in its capacity range. By means of a combination of Winchester technology and proven design techniques, the OEM is assured of the ultimate in quality and reliability.

In order to ease system integration, the CM 5640 has the same physical dimensions and mounting hole locations as a standard 5¼" floppy disk drive. DC voltage requirements are also the same as a mini-floppy drive thus enabling the use of a single power supply for both types of drives.

The high capacities of the CM 5640 are achieved by the utilization of a closed loop servo positioning system, on-board microprocessor, and manganese-zinc heads — unique in such a small device. The combination of the swing-arm actuator, associated electronics, and head allow the CM 5640 to achieve a track density of 690 TPI and bit density of 9650 BPI.



## CM 5640 Specifications

### Performance Specifications:

#### Capacity

Unformatted	
Per Drive	40 Mbytes
Per Surface	6.67 Mbytes
Per Track	10.4 Kbytes
Formatted	
Per Drive	31.5 Mbytes
Per Surface	5.24 Mbytes
Per Track	8.2 Kbytes
Per Sector	256 bytes
Sectors/Track	32
Transfer Rate	5.00 Mbits/sec
Average Seek Time	40 msec
Average Latency	8.3 msec

#### Functional Specifications:

Rotational Speed	3,600 rpm
Recording Density	9,650 bpi
Flux Density	9,650 fci
Track Density	690 tpi
Cylinders	640
Tracks	3840
R/W Heads	6
Disks	3

#### Physical Specifications:

##### Environmental Limits

Ambient Temperature = 50°F to 115°F (10°C to 46°C)

Relative Humidity = 8% to 80%

##### DC Power Requirements

+12 VDC ±10% 2.0A typical, 3.5A max

+5 VDC ±5% 0.9A typical, 1.0A max

#### Mechanical Dimensions:

Height = 3.25 in. (82.6 mm)

Width = 5.75 in. (146.1 mm)

Depth = 8.00 in. (203 mm)

Weight = 5 lbs. (2.3 Kg)

Heat Dissipation = 100BTU/hr. typical (28.5 watts)

#### Reliability Specifications:

MTBF: 8000 POH typical usage

PM: Not required

MTTR: 30 minutes

Component Life: 5 years

##### Error Rates:

Soft Read Errors: 1 per 10<sup>10</sup> bits read

Hard Read Errors: 1 per 10<sup>12</sup> bits read

Seek Errors: 1 per 10<sup>6</sup> seeks



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