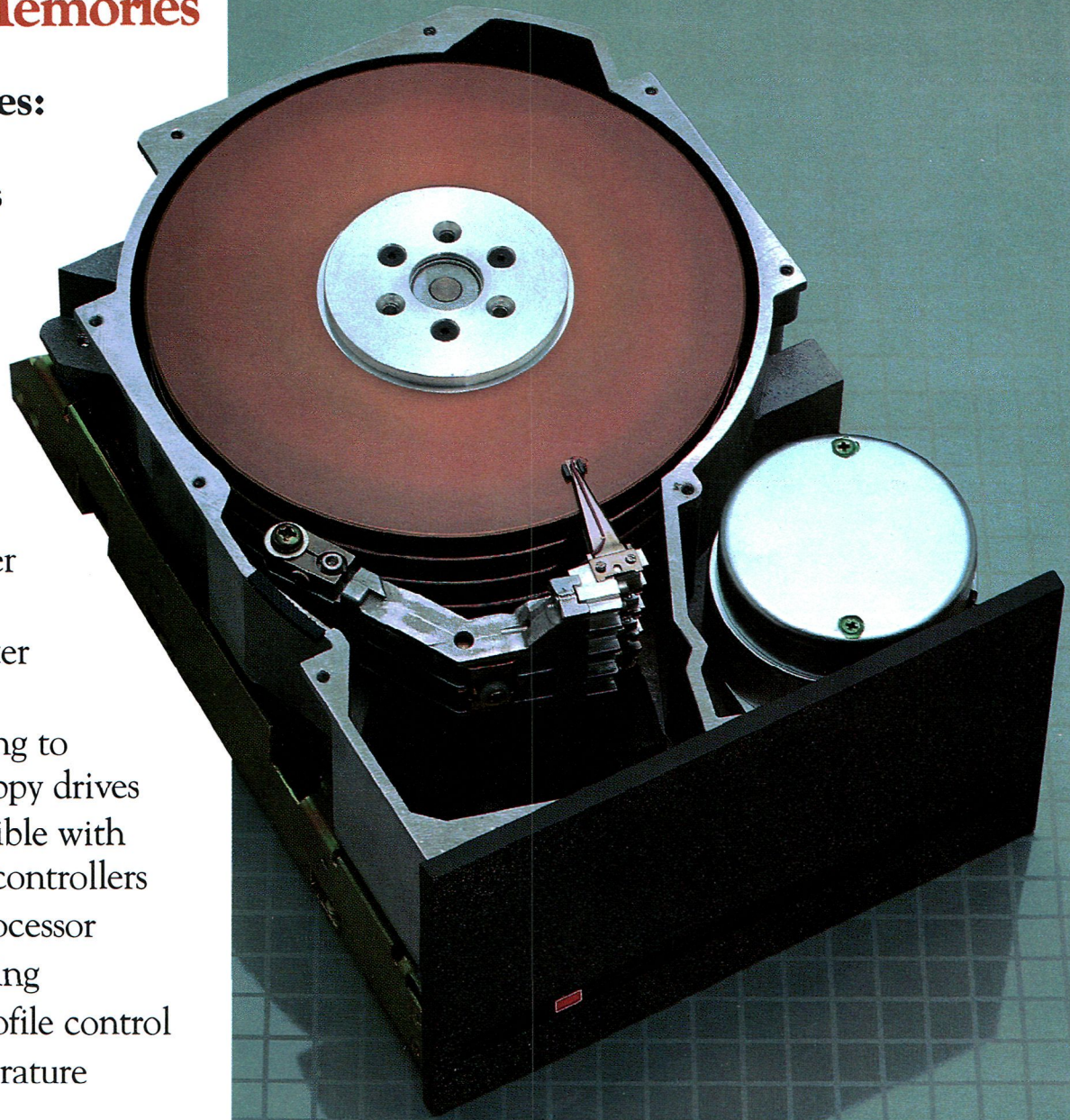


# 80 Megabyte 5 1/4" Winchester Disk Drive From Computer Memories

## CM 7000 features:

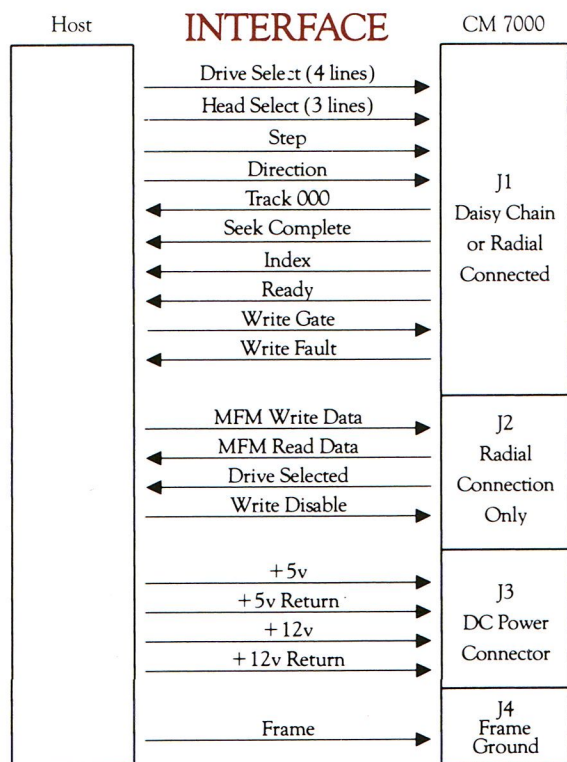
- Capacities of 60 and 80 megabytes unformatted.
- 40 millisecond average access time
- Closed loop servo positioner
- 15.74 megabytes formatted data per platter
- Proven Winchester technology
- Identical mounting to standard 5 1/4" floppy drives
- Interface compatible with readily available controllers
- 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
- Parking zone
- Head locking mechanism



**CM-7000 disk drive product information.** The Computer Memories CM-7000 series of Winchester disk drives offers exceptionally high storage capacities in a minifloppy size package. The CM-7000 series is offered in 60 and 80 Mbyte versions, with an average access time of only 40 msec. The intelligent integration of Winchester technology with solid and proven design techniques assures the OEM the ultimate in quality and reliability, thus profitability.

System integration is simplified because the CM-7000 series have the identical physical dimensions and mounting hole locations as a standard 5¼ inch floppy disk drive. DC voltage requirements are also the same as a mini-floppy drive, thus permitting the use of the same power supplies for both types of drives.

The exceptionally high capacities, performance and features of the CM-7000 series are achieved through the use of a closed loop servo positioning system, on-board microprocessor, step-pulse buffering, head velocity profile control, narrower track width and gap length manganese zinc heads, parking zone, head locking mechanism and associated electronics as well as innovative mechanical design. Utilization of a swing-arm actuator used in concert with the appropriate electronics and head configuration achieves a track density of 1173 tpi and a bit density of 9275 BPI.



## CM 7000

### Performance Specifications:

Capacity	CM-7660	CM-7880
<i>Unformatted</i>		
Per Drive	60 Mbytes	80 Mbytes
Per Surface	9.99 Mbytes	9.99 Mbytes
Per Track	10.4 Kbytes	10.4 Kbytes
<i>Formatted</i>		
Per Drive	47.22 Mbytes	62.97 Mbytes
Per Surface	7.87 Mbytes	7.87 Mbytes
Per Track	8.2 Kbytes	8.2 Kbytes
Per Sector	256 bytes	256 bytes
Sectors/Track	32	32
Transfer Rate	5.00 Mbits/sec	5.00 Mbits/sec
<i>Access Time (includes settle time)</i>		
Track to Track	10 msec	10 msec
Average	40 msec	40 msec
Maximum	80 msec	80 msec
Average Latency	8.3 msec	8.3 msec

### Functional Specifications:

Rotational Speed	3573 rpm	3573 rpm
Recording Density	9275 bpi	9275 bpi
Flux Density	9275 fci	9275 fci
Track Density	1173 tpi	1173 tpi
Cylinders	960	960
Tracks	5760	7680
R/W Heads	6	8
Disks	3	4

### Physical Specifications:

<i>Environmental Limits</i>	
Ambient Temperature	= 50°F to 115°F (10°C to 46°C)
Relative Humidity	= 8% to 80%
<i>DC Power Requirements</i>	
+12 VDC ±5%	typical: 3A seeking, 1A on track max:3.5A
+5VDC ±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 = 100 BTU/hr. typical (28.5 watts)	

### Reliability Specifications:

MTBF:	12,000 POH typical usage
PM:	Not required
MTTR:	30 minutes
Component Life:	5 years
<i>Error Rates:</i>	
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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