



MAY 1983

# MiniScribe II



## 5 1/4" Winchester Disk Drive 6.4 or 12.8 MBytes unformatted storage capacity

The MiniScribe II series of highly reliable, 5 1/4 inch Winchester disk drives are interface-, form factor-, and format-compatible with the industry's most widely accepted standards. They offer the system manufacturer/integrator a simple and economical solution to data storage needs of today's high-performance personal and desk top business computers.

MiniScribe II provides unformatted data storage capacities of 6.4 and 12.8 MBytes on one and two disks, respectively. It delivers 85 milliseconds average access time. And it offers many innovative features that will appeal to the OEM system designer.

- Field proven rack-and-pinion motion translator allows an increased number of recording tracks, yet retains the full-step holding torque and positioning repeatability of the stepper-motor actuator.
- IC preamplifier, within the sealed enclosure and in close proximity to the read/write heads, assures data reliability in electrically noisy environments.
- Efficient temperature compensation system (patent pending) enhances the positioning repeatability over the operating temperature range.
- Unique breather filter arrangement (patent pending), plus a recirculating air system, guarantees a clean pressurized operating environment to the heads and disks.
- Microprocessor-controlled buffered seek takes full advantage of the stepper motor high-speed slew characteristics. This results in a fast 85 millisecond average access time.
- Crystal control assures constant spin-motor speed, regardless of temperature variations and effects of motor life, and eliminates all adjustments.
- Microprocessor-controlled internal self diagnostics provide fast performance verification.
- A head shipping zone in a non-data area of the disk, coupled with a carriage locking feature, prevents disk damage during transport.
- Exact ST412 hardware and software interface compatibility, coupled with form factor and voltage requirements identical to the 5 1/4" floppy drive, simplify system integration.

# MiniScribe II

## MODEL SPECIFICATIONS

	Model 2006	Model 2012
<b>Storage Capacity-Unformatted</b>		
Per Drive	6.4 MBytes	12.8 MBytes
Per Track	10,416 Bytes	10,416 Bytes
<b>Storage Capacity-Formatted</b>		
Per Drive	5.0 MBytes	10.0 MBytes
Per Track	8,192 Bytes	8,192 Bytes
Per Sector	256 Bytes	256 Bytes
Sectors per Track	32	32
<b>Data Tracks</b>	612 (1 disk)	1224 (2 disks)

## GENERAL SPECIFICATIONS

<b>Recording Density</b>	
Areal	3.33 x 10 <sup>6</sup> bits per square inch
Linear (MFM)	8280 bpi
Radial	402 tpi
<b>Cylinders</b>	306
<b>Data Transfer Rate</b>	5.0 Mbits per second
<b>Access Time</b>	
Average Latency	8.33 msec
Seek Time	
Track-to-Track	3.0 msec
Average	85 msec (including settling)
Maximum	205 msec (including settling)
<b>MTBF</b>	10,000 hours (continuous operation)
<b>MTTR</b>	30 minutes
<b>Preventive Maintenance</b>	None
<b>Data Reliability</b>	1 soft error in 10 <sup>10</sup> bits read 1 permanent error in 10 <sup>12</sup> bits read 1 seek error in 10 <sup>6</sup> seeks
<b>Input Power Required</b>	+ 12VDC ± 5%, 1.5 amps 3.5 amps start (15 seconds)  + 5VDC ± 5%, 1.0 amp
<b>Operating Temperature</b>	40°F (4°C) to 115°F (46°C)
<b>Relative Humidity</b>	8% to 80%, non condensing 78°F (26°C) maximum wet bulb
<b>Physical Size</b>	3.25 in. H x 5.75 in. W x 8.00 in. D
<b>Weight</b>	5.5 pounds

Features and specifications subject to change without notice.

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