

# MEMOREX

## 651 Flexible Disc File

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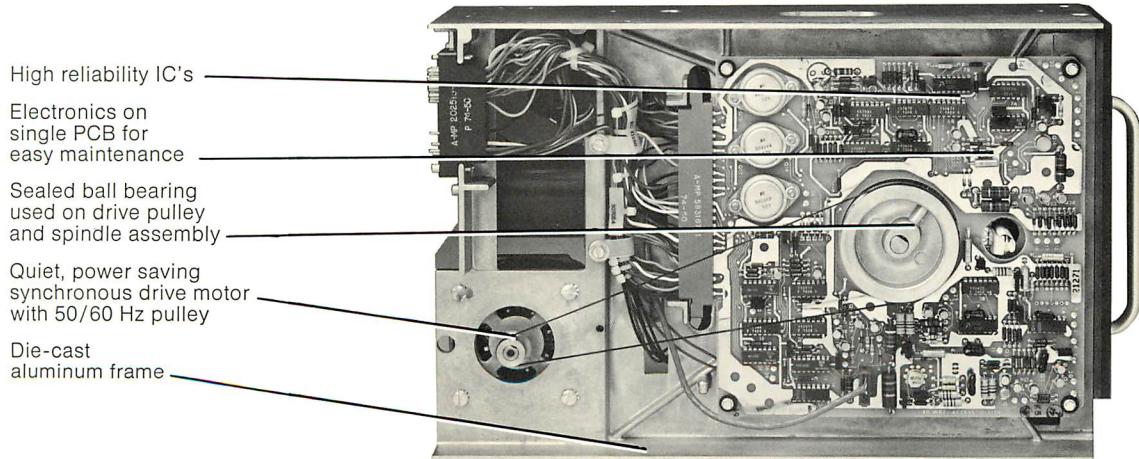
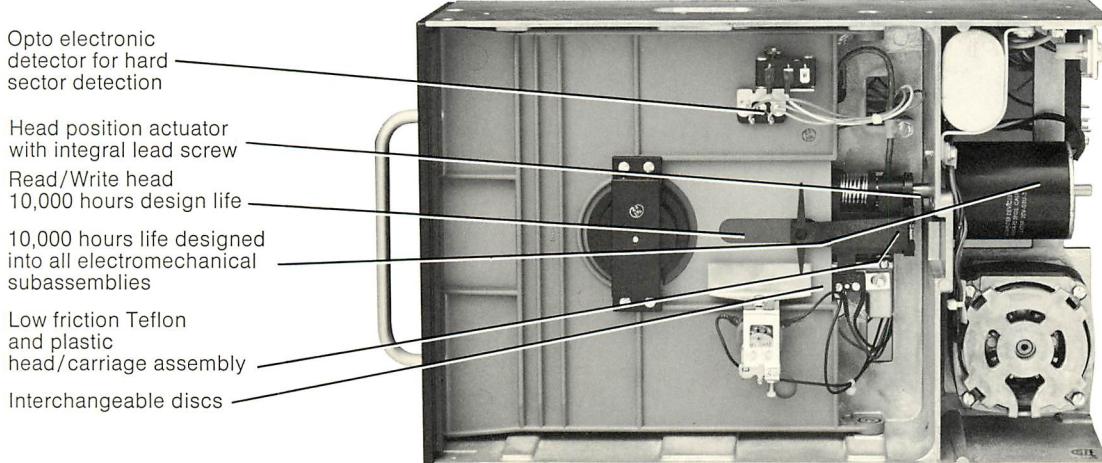
The Memorex 651 Flexible Disc File is a compact, direct access, OEM disc subsystem that is used in the distribution, handling, and storage of digital information.

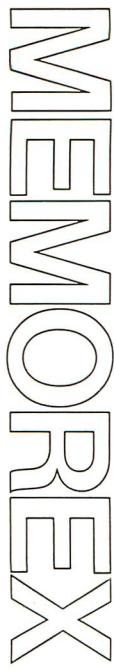
The Memorex 651 stores up to 2.5 megabits of digital data on interchangeable FD/IV or FD/V Flexible Disc Cartridges. Disc capacity may be divided into as many as 2048 records (132 bytes/sector) to optimize the file organization.

The file unit contains a drive mechanism read/write head, head actuator, interlocks to protect the disc during loading and unloading, plus the following circuits assembled on a single printed circuit board; read/write amplifier and transition detector, sector/index detector, data/clock separation, safety sensing, and drivers for track position and head load actuator.

The read/write head is in direct contact with the disc. The head surface has been designed to obtain maximum signal transfer to and from the magnetic surface of the disc with minimum head/disc wear. The write gap is wider than the read gap. This technique of writing wide and reading narrow allows deviation from the nominal track centerline without affecting signal-to-noise ratio, assuring disc interchangeability from unit to unit.

The Flexible Disc Cartridge is composed of a Mylar® disc substrate coated with a magnetic oxide and encased in a flexible plastic envelope, eight inches square by one-sixteenth inch thick, which provides protection during handling, operation and storage. The disc is 7.5 inches in diameter, and it has holes spaced around the periphery for sector definition and for indexing.





# 651 Flexible Disc File

## Key Features

- 10 ms track-to-track access
- 250 kilobits/second data transfer
- Write protect
- High reliability
  - 10<sup>9</sup> bits read/soft error
  - 10<sup>12</sup> bits read/hard error
- 10,000 hours design life
- Superior, low-cost media

## Typical Applications

- Data acquisition and logging
- Microprogram storage
- Peripheral memories for minicomputers, microcomputers, programmable calculators and accounting machines
- Point-of-sales systems
- Numerical controls and replacement of paper tape reader/punchers
- Key-entry data systems
- Intelligent terminals

## Specifications

Capacity and format specifications below are based upon use of the Memorex FD/IV or FD/V disc cartridge. The disc is 7.5 inches in diameter, has 32 sector holes and one index hole around the disc periphery, and is packaged in a protective plastic cartridge. The cartridge has a keying notch and may be used with a write-protect tab.

### Recording Mode

Frequency modulation

### Recording Density

3100 bits per inch (inner track)

### Maximum Record Lengths

1056 bits at 32 records per track  
39 kilobits at 1 record per track

### Maximum Disc Capacity

2.1 megabits at 32 records per track  
2.5 megabits at 1 record per track

### Format

1 index per track  
64 tracks per disc  
32 sectors per track (tracks are divisible into 1, 2, 4, 8, 16 or 32 records with sector hole definition)

### Operating Rates

375 RPM rotational speed  
80 ms average latency  
10 ms step rate, track to track access time  
10 ms access settling time  
250 kilobits per second data transfer

### Operational Environment

60°F to 100°F  
20% to 80% RH with maximum wet bulb 78°F

### Power

AC Power  
115 VAC, 1.0 Amp  
50/60 Hz  $\pm$  1.0 Hz, single phase  
DC Power  
+24 VDC, 1.5 amp  
-15 VDC, 0.1 amp (or -12 VDC, 0.1 amp)  
+ 5 VDC, 1.0 amp

### Heat Dissipation

346 BTU per hour

### Physical Dimensions

9" high x 4½" wide x 14" deep

### Weight

17 pounds

### Options

208/230 VAC, 0.5A  
50/60 Hz  $\pm$  1.0 Hz, single phase  
Slide Mounting Hardware  
Chassis Slide Mounting Hardware

## Memorex Corporation

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