Memorex 652 Flexible Disc File

A low cost, highly reliable, IBM compatible OEM subsystem with product enhancement capabilities, the Memorex 652 stores up to 3.2 megabits on interchangeable flexible disc cartridges.
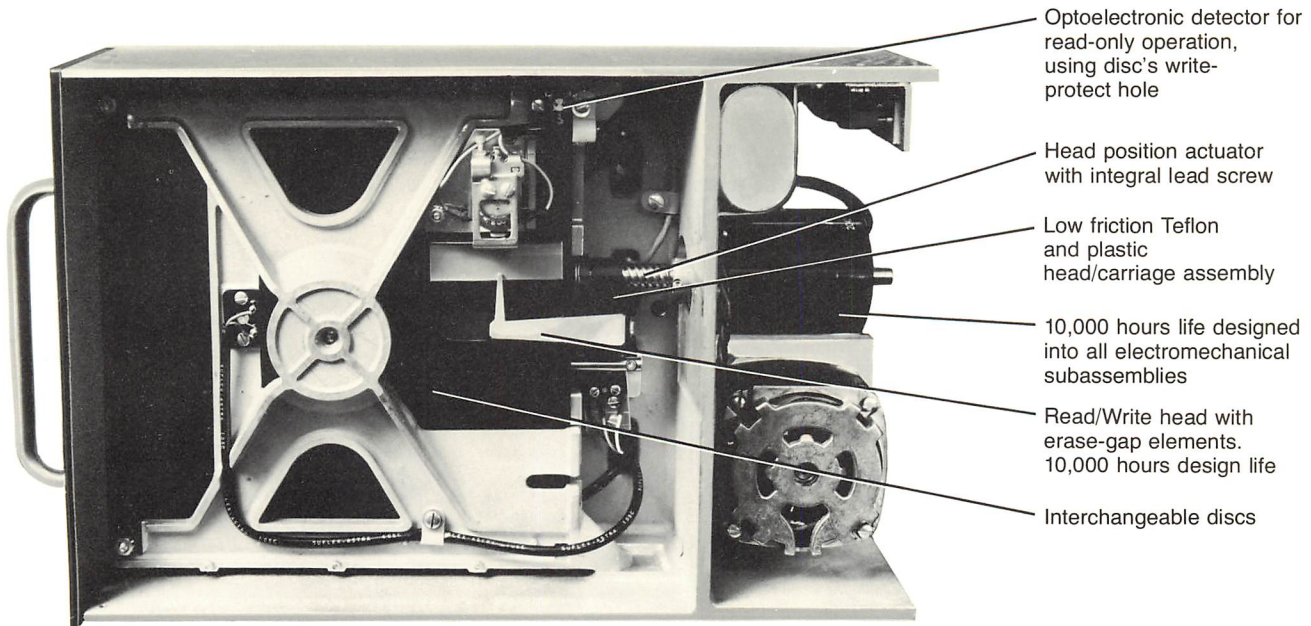
Memorex Markette I cartridges, IBM Diskettes, and other physically similar cartridges, may be used on the 652. Discs may be written and read on the 652, with an appropriate host system, and the IBM 3740 Data Entry System interchangeably. The Markette I is initialized for 3740 use, but may be used with other formats for new applications.

The Memorex 652 unit connects to the host system through two cables, one for TTL compatible control and data signals, the other for power. The unit provides all mechanical and electrical functions, required for on-line data storage and retrieval, except for addressing, function requests, data formatting, and power supplied by the user.
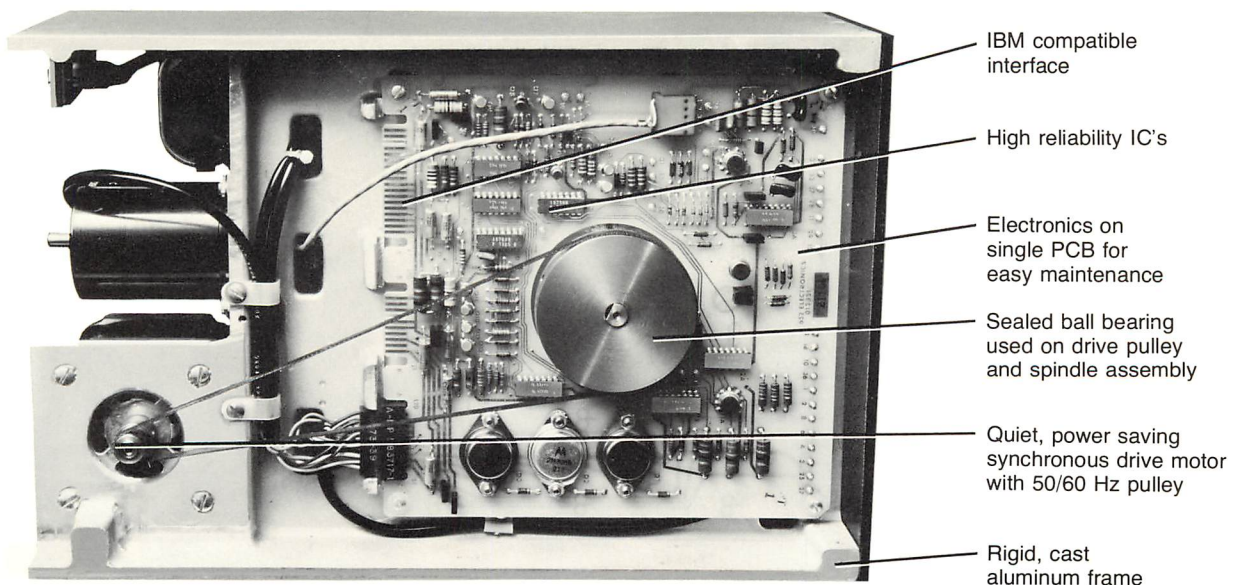
Compatibility with 3740 features, such as low-current writing on inner tracks, is assured by the head, drive and electronics design. The unit also offers considerable flexibility in host controller design, particularly when interfacing to minicomputers and microprocessors.

Read-only operation is provided by the write-protect hole in the disc cartridge and an LED-phototransistor circuit in the 652.

- Optoelectronic detector for read-only operation, using disc's write-protect hole
- Head position actuator with integral lead screw
- Low friction Teflon and plastic head/carriage assembly
- 10,000 hours life designed into all electromechanical subassemblies
- Read/Write head with erase-gap elements. 10,000 hours design life
- Interchangeable discs

- IBM compatible interface
- High reliability IC's
- Electronics on single PCB for easy maintenance
- Sealed ball bearing used on drive pulley and spindle assembly
- Quiet, power saving synchronous drive motor with 50/60 Hz pulley
- Rigid, cast aluminum frame

MEMOREX

652 Flexible Disc File

Key Features

- IBM compatible
- 10 ms track-to-track access
- Capable of high speed slewing
- 250 kilobits/second data transfer
- Write protect
- High reliability
    10^9 bits read/soft error
    10^{12} bits read/hard error
- 10,000 hours design life
- Superior, low-cost media
    Markette I disc (or equivalent)

Typical Applications

- 3740 Compatible systems
- Control store loading
- Auxiliary storage
- Data logging
- Key entry recording
- Programmable calculator peripherals
- Accounting machine storage
- Point of sales systems

Specifications

Capacity and format specifications below refer primarily to unique OEM formats. When the format is that of the IBM 3740 Data Entry System, the Markette's nominal capacity is 1.9 megabits with 26 sectors per data track.

Capacity (unformatted)
41 kilobits per track
3.2 megabits per disc

Format
77 tracks per disc
1 index per track
Sectors per track, user selected and formatted

Recording Mode
Frequency modulation

Recording Density
3268 bits per inch (inside track)

Operating Rates
360 RPM rotational speed
83 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° to 100°F
20% to 80% RH with maximum wet bulb 78°F

Power Requirements
AC Power
100 to 132 VAC, 1.0 amp, single phase
50/60 Hz $\pm$ 1.0 Hz

DC Power
+24 VDC, 1.5 amp
+5 VDC, 0.8 amp
−5 VDC, 0.05 amp (or −12 VDC or −15 VDC)

Heat Dissipation
346 BTU per hour, nominal

Physical Dimensions
9" high x 4½" wide and 14" deep

Weight
17 pounds

Options
208/230 VAC, single phase, 50/60 Hz
Chassis slide mounting hardware

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