

Memorex 680 Disc Storage Subsystem

Introduction

The Memorex 680 Disc Storage Subsystem is a large capacity, fast access storage and retrieval device that features state-of-the-art thin film heads and advanced thick-substrate media. Thin film is the result of years of Memorex research and development in both head and media technology. The Memorex-manufactured thin film heads that have resulted have both smaller size and mass than their ferrite counterparts, fly lower to the disc surface and can read and write at dramatically higher densities. Thus, the 680 can fulfill the large system users' needs for more capacity, increased throughput, significantly reduced environmental costs and improved reliability.

Description

The Memorex 680 Disc Drive is comprised of the 683 String Module and the 680 Disc Module. Each 680 module consists of a head disc assembly (HDA) that utilizes the thin film heads and advanced media noted above. Each HDA has a storage capacity of 1.3 gigabytes and is addressable by two (2) actuators. Each actuator is separately addressable and is capable of accessing one-half of the physical disc storage space.

"Dynamic Pathing," which is an enhanced version of the Memorex Intelligent Dual Interface (IDI), enables the user to simultaneously read/write to any two (2) actuators in a 680 string and is a standard feature of the system. Combine this increased capacity with significantly improved access time and data transfer rates and the results are the 680 subsystem, the most cost effective storage subsystem ever offered by Memorex.

OEM Interface

The Memorex 683 String Module attaches to a proposed industry-standard intelligent interface. This fully-interlocked interface is capable of operating at the maximum drive transfer rate, as well as lesser rates for speed matching to various system configurations. Data is transferred in double-byte parallel (16 bits), as are commands and status. Error detection, error correction and a number of diagnostic functions can be accomplished by the intelligence within the 683.

The Memorex 680 Disc Storage Subsystem will comply with U.L. and CSA standards and with the applicable FCC regulations for Class A computing devices.

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Product Specifications

680 Disc Module

- Attaches to a 683 String Module.
- Dual Port.
- 1.3 gigabytes per module.
- One (1) horizontal head disc assembly (HDA) per module.
- Two (2) actuators per HDA, each separately addressable.
- Memorex-developed advanced thin film heads and thick-substrate media.
- Microprocessor-based architecture.

683 Dual Path String Module

- Up to two (2) independent string controller functions that can attach to two (2) hosts.
- Dynamic Pathing which enables two (2) simultaneous read/write per 680 string at the actuator level is provided as a feature.
- Supports up to eight (8) 680 modules.
- Microprocessor-based architecture.
- Separate and independent components.

Maintainability

- Online/standalone diagnostics.
- Microprocessor-based maintenance architecture. Diagnostics performed at the unit level.
- Hand-held maintenance display attaches directly to each unit via a standard EIA interface.
- Remote diagnostics via a RS232 communications circuit.

Characteristics

General

Head Disc Assemblies per module	1
Actuators per HDA	2

Capacity

MB per module	1,260
MB per HDA	1,260
MB per actuator	630
MB per string	10,080

Performance

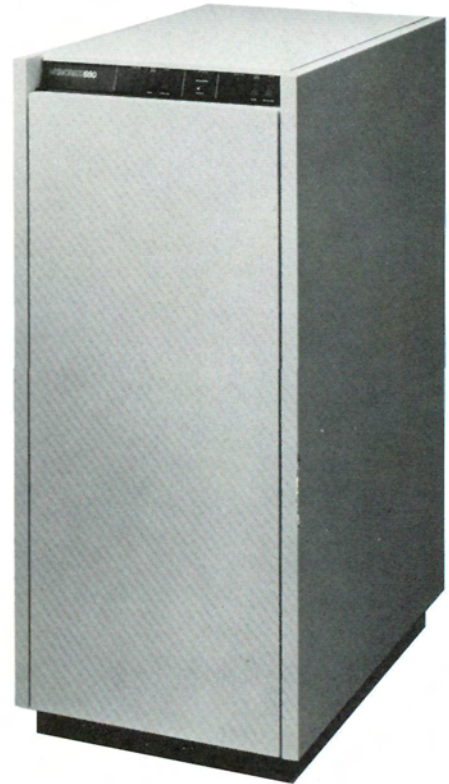
Average seek time	16 milliseconds
Average latency	8.3 milliseconds
Data transfer rate	3MB/second
Dynamic Pathing	Standard
Dual Port	Standard

Physical Dimensions 680/683

Height	49.85 inches
Width	22.76 inches
Depth	31.88 inches

Weight 680/683

550 pounds



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