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MEMOREX

3673 Disc Controller
General

The Memorex® 3670 Disc Storage Subsystem is a functionally superior replacement for the IBM 3330 Disc Storage Facility. It may be attached to the IBM System/370, 3031, 3032, and 3033 processor complexes or compatible systems. With the optional 2860 Selector Channel Attachment feature, all of the performance and functional capability of the 3670 become available to large IBM System/360 systems running under OS MFT/MVT. Significant features, standard on the 3670, include Rotational Position Sensing, Multiple Requesting, and Command Retry.

The Memorex 3670 Disc Storage Subsystem may be comprised of a 3672 or 3674 Storage Control Unit, from one to four 3673 Disc Controllers, and from one to sixteen 3670 and/or 3675 Disc Drive modules. Using the 3672 or 3674 Storage Control Unit, a maximum subsystem capacity of over 6.4 billion bytes may be achieved.

Additionally, the Memorex 3673 Disc Controller allows the attachment of 3670 and/or 3675 Disc Drive Modules to the IBM integrated 3330 attachments on the System/370 Models 125, 135, 138, 145, 148, 158, and 168.

When attached to the Memorex 3674 Storage Control Unit on System/370, 3670/3675 Disc Drive Modules may be combined with Memorex 3650 Storage Modules to satisfy requirements for increased data capacity yet retain necessary data mobility.

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With the optional Multiple Channel Switch and String Switch features, the 3670 Disc Storage Subsystem may be accessed by alternate channels and/or control units from a single processor or shared by multiple processors.

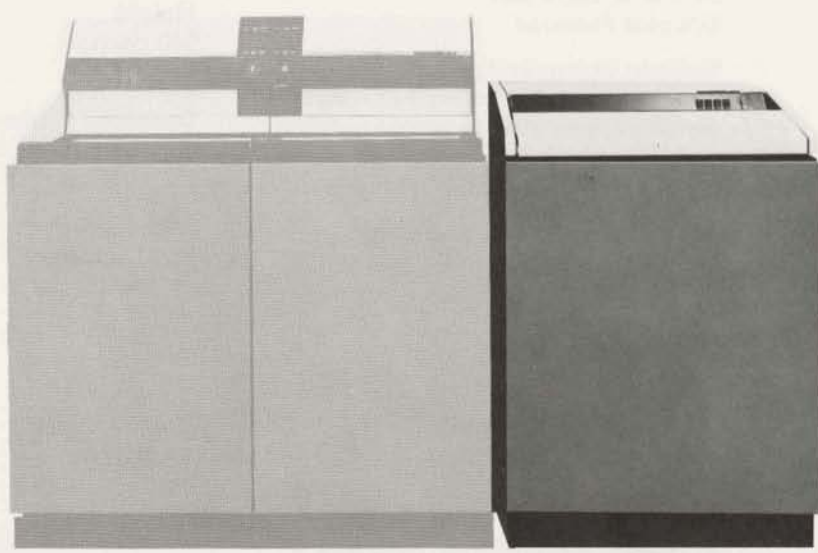
The 3673 Disc Controller is an electronic interface unit designed to provide drive-related control functions for 3670 and/or 3675 Disc Drive Modules. It may be attached to the Memorex 3672 or 3674 Storage Control Units or an IBM 3830-2 or 3. It may also be attached to the Direct Disc Attachment (DDA) on a 370/125, the Integrated File Adapter (IFA) on a 370/135 or 138, or the ISC on system 370/145 through 168.

Optional 2, 3, and 4 String Switch features allow the 3673 to interface with multiple storage control units, under program or manual control, for critical applications requiring this improved availability and performance.

Dual Intelligent String Control (DISC), a Memorex unique feature, uses two 3673, both having the Intelligent Dual Interface (IDI). This feature provides two simultaneous data transfers per string. The IDI is available with 2, 3, and 4 string interfaces.

When combined with a 3670 or 3675 Disc Drive Module, the 3673 is plug-compatible with and functionally equivalent to the IBM 3333 Disc Storage and Control Models 1 and 11, respectively, when attached as specified above.

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**3673 Disc Controller
Features**

Up to four 3670 or 3675 Disc Drive Modules in any combination may be attached to a 3673, for a maximum of eight spindles per 3673, although IBM integrated attachment constraints may limit attachment to a smaller number.

Up to four 3673 Disc Controllers may be attached to a Memorex 3672 or 3674 Storage Control Unit with 32 drive addressing capability.

If DISC is implemented (see optional features) the total number of connected 3673 Disc Controllers is eight.

Fully compatible in operation, the 3673/3670/3675 supports the same operational commands as the IBM 3333/3330 enabling efficient processing of all sequential and randomly organized files.

Full support of Command Retry, Rotational Position Sensing (RPS), Multiple Requesting, Command Chaining (including Disconnected Command Chaining), Record Overflow, and Write Format Release (3675 only), permits improved performance through those features supported by the IBM software.

Dynamic sharing of the 3673 between any combination of up to four 3672, 3674 and/or System/370 integrated or external control units is possible with the optional String Switch features (String Switching is not supported by the 370/125 DDA).

The 3673 may be attached to the same 370/135, 138 IFA or 370/145, 148, 158, 168 ISC as an IBM 3333 Model 1 or 11, or an IBM 3340 Model A2, and operated concurrently, as long as configuration limitations are honored and appropriate features are installed.

**3673 Disc Controller
Optional Features****Multiple String Switching**

Two, three, and four string switching permit alternate storage control units from the same or multiple processors to share the 3673/3670/3675 subsystem.

Dual Intelligent String Control (DISC) permits two separate drives on a string to be accessed simultaneously by two 3673 disc controllers.

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The Intelligent Dual Interface (IDI) in the disc controller directs the secondary controller to accept and process the command if the primary disc controller is busy. IDI logic is required in the 3673 Disc Controllers, and Dual Port features are required in the 3670/3675 Disc Storage Modules.

**3673 Disc Controller
Highlights****System Interface**

System/370 Models 135 through 195, 3031, 3032, and 3033 processor complex, and System/360 Model 195 or compatible processors: Attaches via Memorex 3672 or 3674 Storage Control Units to Block Multiplexer Channel.

System/370 Model 125:

Attaches to 3333/3330 Direct Disc Attachment.

System/370 Models 135 and 138:

Attaches to 3330/3340 Integrated File Adapter.

**System/370 Models 145, 148, 158,
and 168:**

Attaches to Integrated Storage Control.

Data Transfer Rate

806,000 bytes/second

System Limitation

Operates with System/370 or any other system compatible with the IBM 3333/3330 with configuration limitations equivalent to the IBM 3333.

Power Requirements

208/230 VAC, 60 \pm 1.0 Hz, 3 Phase
60 Amp.
220/380 VAC, 50 \pm 1.0 Hz, 3 Phase,
60 Amp.
(Modules powered from 3673.)

Physical Dimensions

28" wide x 40" high x 32" deep
(71 cm x 102 cm x 82 cm).

Weight

360 pounds
(163 kg)

Operating Environment

60°-90° F, 20%-80% Relative Humidity
(16°-32°C).

BTU Output

2,950 BTU/hour
(740 Kcal/hour)