

3670 Disc Storage Subsystem General

The Memorex 3670 Disc Storage Subsystem is a plug-compatible replacement for the IBM 3330 Disc Storage Facility on the IBM System/370. With the optional 2860 Selector Channel Attachment feature (available on the 3671 Storage Control Unit only) 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 3671 Storage Control Unit and from one to four 3670 Disc Drive Modules. In this configuration, the 3670 subsystem is the equivalent of the IBM 3830 Model 1/3330 Storage Facility.

In larger configurations, the Memorex 3670 Disc Storage Subsystem may be comprised of a 3672 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 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, 145, 158, and 168.

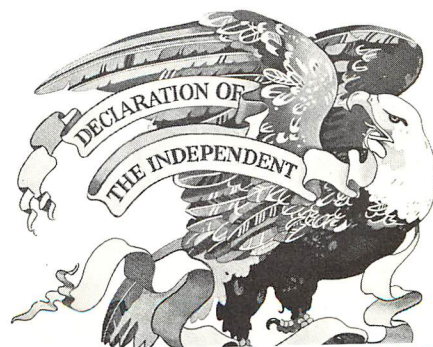
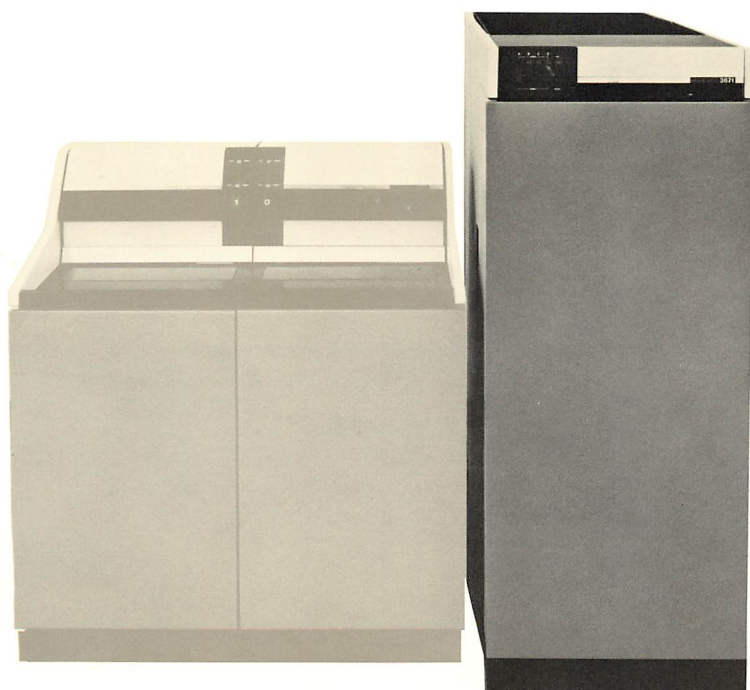
With the optional Multiple Channel Switching and String Switching features, the 3670 Disc Storage Subsystem may be accessed by alternate channels and/or control units from a single processor or shared by multiple processors.

3671 Storage Control Unit Description

The Memorex 3671 Storage Control Unit is an on-line device that controls the operation of the associated 3670 Disc Storage Module(s). The 3671 interfaces directly to the IBM System/370 and the IBM System/360 models 85 and 195 via the Block Multiplexer channels. The 3671 is both hardware and software compatible with IBM 3830 Model 1.

Optionally, the 3671 may interface to the 2860 Selector Channel on System/360 models 65, 67, 75, 91, and 95, with full functional capability. Software support for selector channel attachment is Memorex provided . . . OS MFT/MVT. Optional Multiple Channel Switching permits sharing of the 3670 subsystem by two, three, or four processors . . . System/360 and/or System/370.

The 3671 is a microprogrammed controller with a read/write monolithic memory, having its program loaded during the power on sequence from a disc cartridge located within the 3671. This small cartridge is easily interchanged with another so that program updates are facilitated and controlled simply by changing the disc.



**3671 Storage Control Unit
Features**

Field Conversion from the 3671 to the 3672 Storage Control Unit. The 3672 offers significant capabilities (such as 3675 support and 32 drive addressing) not available on the 3671, although 2860 attachment (#3700) is not available for the 3672.

Record overflow on the 3671, like the 3830 Model 1, permits records on 3670's to span track boundaries within a cylinder.

Rotational Position Sensing permits positioning to a specified sector within a track thus freeing the channel during all of the seek and most of the rotational (latency) time.

Disconnected Command Chaining permits the 3671 to release the channel during mechanical movement within the 3670 module. Multiple Requesting allows up to eight channel programs (one per spindle) to be active in the 3671 at one time. These two complementary features greatly increase performance.

Command Retry, coupled with extensive error correction capability, allows the 3671 to correct the majority of errors without the intervention of the host processor.

Microprograms are stored in a read/write monolithic memory loaded from a small disc cartridge in the 3671. The cartridge contains the operating microprogram, diagnostic programs, and other backup programs.

Operating programs are loaded from the disc cartridge during the power on sequence.

Comprehensive diagnostic programs are loaded from the disc cartridge under the control of a Field Engineering Console contained within the 3671.

**3671 Storage Control Unit
Optional Features****Multiple Channel Switching**

Two, three, and four channel switching permit alternate channels from the same or multiple processors to share the 3670 Subsystem.

2860 Selector Channel Attachment

Permits full function 3670 attachment to IBM System/360 models 65, 67, 75, 91, 95 under OS MFT/MVT. Software and diagnostic support is provided for Rotational Position Sensing, Multiple Requesting, Disconnected Command Chaining, and Command Retry.

**3671 Storage Control Unit
Highlights****System Interface**

System/370 and System/360 models 85 and 195: Attaches to Block Multiplexer Channel.

System/360 models 65, 67, 75, 91, 95 through optional 2860 Selector Channel Attachment feature: Attaches to 2860 Selector Channel.

Data Transfer Rate

806,000 bytes/second

System Limitation

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

With optional 2860 Selector Channel Attachment Feature, operates with System/360 models 65, 67, 75, 91, 95, under OS MFT/MVT (Release 21.6 and up).

Power Requirements

208/230 VAC, 60 \pm 1/2 Hz, 3 Phase, 60 AMP

220/380 VAC, 50 \pm 1/2 Hz, 3 Phase, 60 AMP

(modules powered from 3671)

Physical Dimensions

24" wide x 60" high x 60" deep

Weight

850 pounds

Operating Environment

60°-90° F, 20%-80% Relative Humidity

BTU Output

9,000 BTU/hour

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