

## 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.

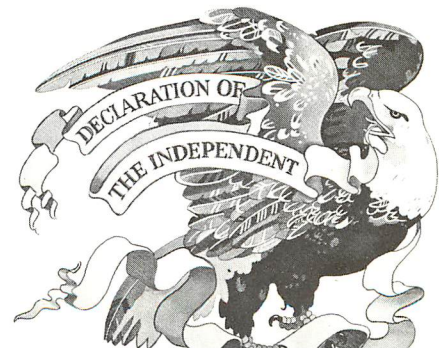
With the optional Multiple Channel Switching and String Switching features, the 3670 Disc Storage Subsystem may be accessed by alternate channels and/or control units from a single processor or shared by multiple processors.

## 3670 Model 1 and 3670 Model 2 Disc Storage Modules Description

The Memorex 3670 Disc Storage Modules are large capacity, high performance, direct access storage devices. When attached to a Memorex 3671 Storage Control Unit or a 3673 Disc Controller, the 3670 Model 1 Disc Storage Module provides in excess of 200 million bytes (the 3670 Model 2, 100 million bytes) of on-line storage capacity. The 3670 Disc Storage Modules are fully compatible with the IBM 3330 Disc Storage Models 1 and 2.

The Memorex 3670 Model 1 Disc Storage Module consists of two independent disc drives (the 3670 Model 2 contains a single disc drive). Recording is pack and data compatible with the IBM 3330, employing Memorex Mark X or IBM 3336 Model 1 disc packs. Packs are removable and may be freely interchanged between 3670's and IBM 3330's.

A linear "voice coil" mechanism provides access to any cylinder. A servo head is used to position and lock the carriage on the desired cylinder. Once this is achieved, any data head is electronically selected, and the data is recorded or retrieved from the data track.



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## 3670 Model 1 and 3670 Model 2 Disc Storage Modules

### 3670 Disc Storage Module Features

Operator control panels, one per drive, provide detailed information on drive status and function.

Compact packaging allows for installation in significantly less floor space with a 13" lower height than equivalent storage devices.

Pack loading height is the same for all drives (35"), which is optimum from a human engineering standpoint.

When attached to a 3671 Storage Control Unit, each module in a multiple module subsystem may be placed in any location, and modules need not be adjacent. Any arrangement of modules in a 3671/3670 subsystem is permissible.

A removable device designation plug enables the user to change the logical device address of each drive in the storage subsystem.

Rotational Position Sensing allows the control unit and channel to disconnect during search time, thus increasing control unit and channel availability and system throughput.

### 3670 Disc Storage Module Highlights

#### Disc Pack Configuration

10 discs, 19 recording surfaces, 404 + 7 spare tracks per recording surface

#### Storage Capacity

100,018,280 bytes/drive  
200,036,560 bytes/module (3670 Model 1)

#### Data Transfer Rate

806,000 bytes/second

#### Rotational Speed

3600 RPM

#### Access Time

50 ms — maximum  
27 ms — average  
7 ms — minimum

#### Start Time

20 seconds

#### Stop Time

20 seconds

#### Data Recording Format

Compatible with IBM 3330

#### System Interface

Attached to Memorex 3671 Storage Control Unit or Memorex 3673 Disc Controller

#### Physical Dimensions

44" wide x 47" high x 32" deep (module)

#### Weight

3670 Model 1: 1,100 pounds  
3670 Model 2: 745 pounds

#### Operating Environment

60°-90° F, 20%-80% Relative Humidity

#### BTU Output

3670 Model 1: 8,900 BTU/hour  
3670 Model 2: 5,400 BTU/hour

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