

## 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.

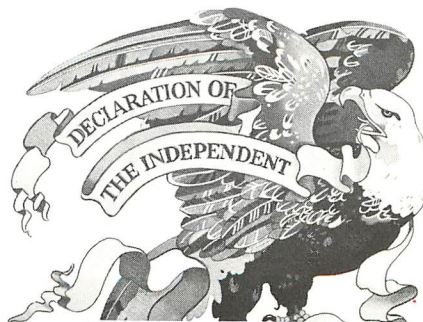
With the optional Multiple Channel Switching and String Switching features, the 3670 Disc Storage Subsystem may be accessed by alternate channels and/or control units from a single processor or shared by multiple processors.

## 3675 Disc Storage Module Description

The Memorex 3675 Disc Storage Module is a large capacity, high performance, direct access storage device. In conjunction with the Memorex 3673 Disc Controller, it provides in excess of 400 million bytes of on-line storage capacity. The 3675 Disc Storage Module is fully compatible with the IBM 3330 Model 11 Disc Storage.

The Memorex 3675 Disc Storage Module consists of two independent disc drives. Recording is pack and data compatible with the IBM 3330 Model 11, employing Memorex Mark XI or IBM 3336 Model 11 disc packs. Packs are removable and may be freely interchanged between 3675's and IBM 3333/3330 Model 11'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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## 3675 Disc Storage Module

### 3675 Disc Storage Module Features

Two 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 both drives in the module (35"), which is optimum from a human engineering standpoint.

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.

Write Format Release: Improves performance by allowing the 3675 to disconnect from the Storage Control Unit during the erase operation at the end of a format write command chain (Write Count, Key, and Data).

Field conversion from the 3670 Model 1 Disc Drive Module is allowed (not available for 3670 Model 2).

The 3675 and Memorex Mark XI Disc Pack are provided with a mechanical interlock compatible with the IBM 3333/3330 and 3336 Model 11 Disc Pack, which prevents the inadvertent mounting of Mark X (100 million byte capacity) packs on 3675 Disc Drive Modules or Mark XI (200 million byte capacity) packs on 3670 Disc Drive Modules.

### 3675 Disc Storage Module Highlights

#### Disc Pack Configuration

10 discs, 19 recording surfaces, 808 + 7 spare tracks per recording surface.

#### Storage Capacity

200,036,560 bytes/drive  
400,073,120 bytes/module

#### 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 Model 11

#### System Interface

Attached to Memorex 3673 Disc Controller

#### Physical Dimensions

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

#### Weight

1,100 pounds (module)

#### Operating Environment

60°-90° F, 20%-80% Relative Humidity

#### BTU Output

8,900 BTU/hour (module)

### Memorex Corporation

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