3695 disc storage subsystem specifications

Capacity

Capacity per spindle	819.7 mb
Actuators per spindle	2
Capacity per actuator	409.8 mb
Cylinders per actuator	959
Tracks per cylinder	12
Capacity per track	35,616 bytes
Capacity per cylinder	427,392 bytes
Bit density (BPI)	12,128
Track density (TPI)	810

Data transfer rate

1.859 ± 3% mb/sec

Average rotational delay

Average latency time	10.1 ms
Rotational speed	3000 rpm nominal

Actuator positioning time

Seek time minimum	5 msec
Seek time average	19 msec
Seek time maximum	40 msec

Physical dimensions

	(W x D x H)
3697/98	77.5 x 81.3 x 107.5 cms 30.5 x 32.0 x 43.0 ins
3695	52.5 x 81.3 x 107.5 cms 21.0 x 32.0 x 43.0 ins

Service clearances

3697/95/98		Front	76.2 cm (30 ins)
		Rear	76.2 cm (30 ins)
Sides	3697	Right	61 cm (24 ins) – if end of string
		Left	76.2 cm (30 ins)
	3698	Right	61 cm (24 ins)
		Left	0
	3695	Right	61 cm (24 ins) – if end of string
		Left	0

Weight

3697/98	300 kg (660 lbs)
3695	210 kg (460 lbs)

Power supply requirement

200, 220, 235, 380V-50Hz 3 phases
200, 208, 230V-60Hz 3 phases

Power consumption

3697/98	1.2kVA
3695	0.8kVA

Average heat dissipation

3697/98	3100 BTU/hr
3695	1750 BTU/hr

Operating environment

Temperature	16 ~ 32°C
Humidity	8 ~ 80% RH

Air flow

	Cu Ft/Min
3697/98	190
3695	130

Features

String switch	
3697/98	Optional
Dual path	
3697/95	Optional
3698	Standard

CPU attachment

The 3695 attaches by means of the Memorex 3888 or the 3880 Storage Control Units to the:-

- 4331 Model Group 2
- 4341
- 4361
- 4381
- 303X series with optional Data Streaming feature
- 308X

Software support

The 3695 is supported by:-

- DOS/VSE Advanced Functions
- VM/System Product
- OS/VS1 Basic Programming Extensions
- MVS/System Product

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3695

3695 disc storage subsystem

The Memorex 3695 disc subsystem has been designed for the user who is looking for an alternative to the 3375 – with superior price performance.

Highlights:-

- ✱ 3695 is a plug compatible replacement for the 3375. It can be installed to replace or complement 3375 as shown.
- ✱ 3695 brings improved performance through dual path.
- ✱ Memorex dual path can be installed on short strings as well as on a full string.
- ✱ 3695 is based on the Memorex 3690 disc subsystem which has already proved itself to be exceptionally reliable.
- ✱ 3695 is competitively priced and will therefore give you unparalleled price/performance.

The subsystem consists of:

The 3697 contains the primary controller functions and one disc drive.

The 3695 is the standard disc drive.

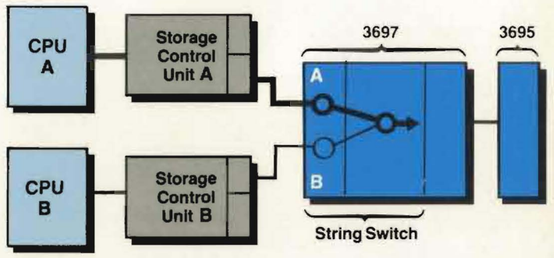
The 3698 contains the alternate controller functions and one disc drive. This provides access to the string as an alternative to the 3697.

Each disc drive within the subsystem contains a single spindle with a vertically mounted head disc assembly (HDA) providing 819.7 MB of data storage space accessed by two independently addressable actuators.

Each actuator accesses one half of the drive, or 409.8 MB of data. This permits a seek operation to overlap a concurrent read/write operation within a drive.

Optional Features

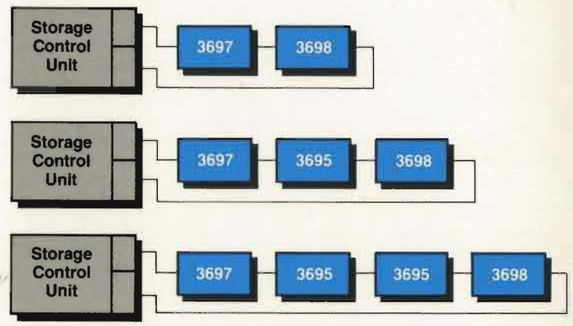
String Switch



The String Switch feature can be added to the 3697, and the 3698, to allow the string to be switched to a second control unit position on the same system, or on separate processing systems as shown.

With two channel switch and String Switch, the user can dynamically share disc spindles between CPUs and provide back-up against individual channel or storage director failures.

Dual Path



The Dual Path feature provides a second path to each drive within the string. The controllers within the 3697 and 3698 provide the two paths within the string and permit simultaneous read/write operations on two different drives within the string.

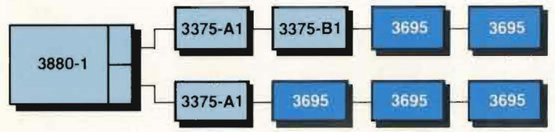
The benefits of Dual Path on the Memorex 3695 subsystem are:-

- ✱ the unit of contention is reduced giving improved performance over single path strings.
- ✱ the I/O response times and channel utilization are improved giving higher data availability to the user.
- ✱ the ability to configure short strings enables you to obtain the resultant benefits of increased performance on the length of string which matches your exact requirements.

Configuration flexibility

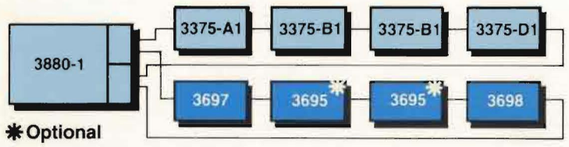
The Memorex 3695 disc subsystem can be configured in many combinations to suit your individual requirements. Some examples of this flexibility are shown below.

Add on to existing 3375 string



The 3695 can be added to an existing 3375 string attaching to either the A1 unit or the B1 unit.

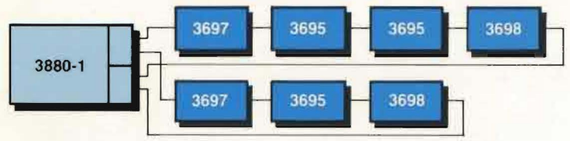
Run alongside existing 3375 with dual controller



✱ Optional

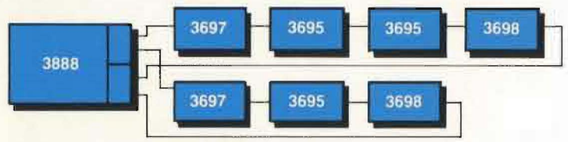
The 3695 subsystem can run alongside an IBM 3375 string which has a D1 unit to provide a dual path. Memorex can provide this facility on a full string or a short string.

Replace IBM 3375 with dual controller



The 3695 subsystem can replace the IBM 3375 dual path facility and provide alternate access on a full string or a short string.

Replace IBM 3375 and 3880



Memorex can replace both the IBM 3880 storage control unit and 3375 drives with the 3888 storage control unit and 3695 disc subsystem.

Reliability

The 3695 is based on the Memorex 3690 disc subsystem which has already proved to be exceptionally reliable. This reliability has been assured by the use of large scale integration of the controller electronics, and by the use of sealed head and disc assemblies. Because of the inherent design characteristics of the system the 3695 does not require any scheduled preventive maintenance.

Benefits

The Memorex 3695 disc subsystem offers you the following benefits:-

- ✱ The 3695 is a compatible replacement for the 3375. It can be installed to replace or complement 3375 with no impact on operational procedures.
- ✱ The 3695 brings improved performance through dual path which can be configured to meet your exact requirements.
- ✱ The 3695 is based on the Memorex 3690 disc subsystem and will therefore provide the same exceptional high reliability.
- ✱ The 3695 is supported by the Memorex Field Engineering organization which will provide you with continuing support.
- ✱ The 3695 is competitively priced. It will offer you savings in cost and give you outstanding reliability and performance.