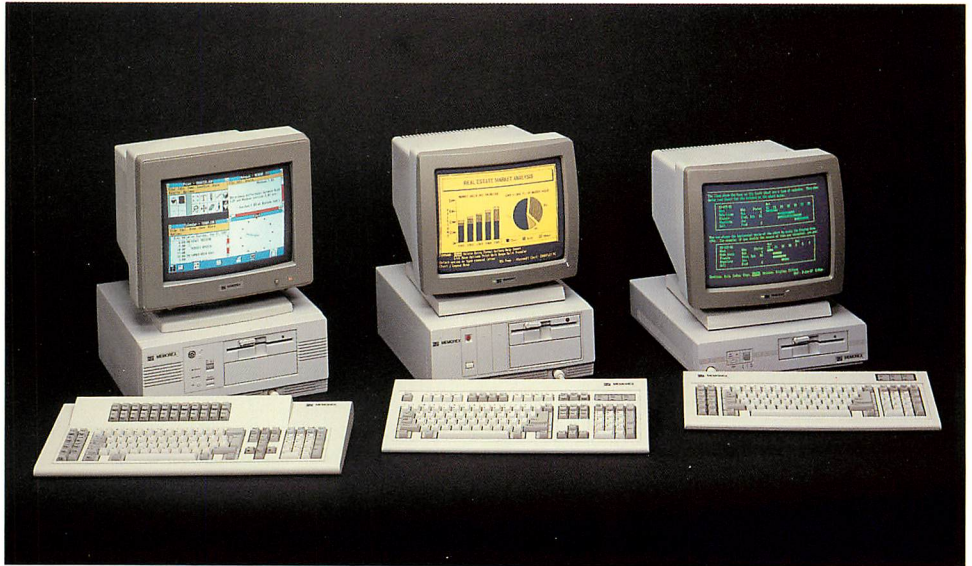# MEMOREX

Data Communications Peripherals & Direct Access Storage Devices

Summer 1987

Workstation and Personal Systems

7000 Series Personal System

A family of personal system models offering a range of IBM PC/XT/AT functionality. Dozens of configurations are available, which can include choice of green, amber or color monitors; three system units with up to 5 expansion slots; and 84-, 101-, or 122-key keyboards. Other features available include 3270 Connection for 3270 communication, file transfer capabilities, memory expansions, display enhancements, 5.25- or 3.5-inch fixed disk drives with 20 or 40 Mb, mouse, 3270 PC emulation and 3279/S3G graphics emulation. 640 Kb of memory, 360 Kb or 1.2 Mb diskette drive, clock/calendar, parallel and serial I/O ports, and MS-DOS operating system and software are included as standard.

Functional alternative for IBM PC/XT/AT as well as IBM 3178, 3179, 3278 and 3279

6273 Workstation

Offers both 3270 and IBM PC/AT compatibility. Using "3270 Connection" software, the 6273 is a functional replacement to IBM coaxial display stations. Additional features include screen capture and access to menu-driven configuration files; diagnostics; extended highlighting; APL and light pen support. When operating in full IBM PC/AT compatibility, the 6273 runs the most recent and powerful software programs on the market. Available in 20 and 40 megabyte versions, the 6273 is able to display graphics in 16 colors from a 64 color palette. Other standard features include tilt and swivel monitor; standard 640 Kb memory; 84-key, PC/AT style, adjustable height keyboard; 1.2 Mb, high density diskette drive; and two available internal expansion slots.

A functional replacement for IBM 3178, 3179, 3278 and 3279 Display Stations, as well as the IBM PC/AT.

Display Stations

2178 Display Station
A compact, modular display with a detachable, ergonomic keyboard offered in four configurations. Features a removable 12-inch monitor that tilts and swivels. Available with green or amber phosphor screen, Memorex local screen printer port, automatic dimming and adjustable height keyboard as standard features.
Plug compatible replacement for the IBM 3178

2179-1 Color Display Station
Compact, modular color display station with a detachable 88 key or 122 key keyboard available in three layouts. Removable 14-inch monitor tilts and swivels. Two, four, or seven display colors; Memorex local printer port; keystroke record/playback feature; and security keylock are all standard.
Plug compatible replacement for the IBM 3179

2197-C Color Display Station
A modular color display station plug compatible with IBM Systems/36/38. The 2197-C features a two or seven color display, removable, 14-inch monitor that tilts and swivels. Detachable 122 key ergonomic keyboard offers convenient keystroke record/playback feature. Also features dual host session support; Memorex local screen printer support; and system addressable printer support.
Plug compatible replacement for the IBM 3197-C

2197-D Display Station
A modular display station with a small footprint, that is plug compatible with IBM Systems/36/38. The 2197-D provides the ability for the host to change the display format automatically to one of two sizes according to the type of application selected. Available with green or amber display, removable 15-inch monitor, and detachable 122 key ergonomic keyboard. Features keystroke record/playback; Memorex Screen Printer support; system addressable printer support; and dual host session support.
Plug compatible replacement for the IBM 3197-D

2192-C Color Display Station
Select from three screen formats (1920, 2560, or 3440 characters) to suit your application on a 14-inch screen. Two, four or seven color display; ergonomic keyboard; vertical scrolling; Memorex Screen Printer support; light pen support; extended highlighting; APL support; and security keylock are all standard features.
Plug compatible replacement for the IBM 3179-1, 3192-C

2192-D Display Station
A modular display station featuring four user selectable screen formats (from 1920 to 3564 characters); a 15-inch removable monitor with green, amber or white display; vertical scrolling (7680 partition); Memorex Screen Printer support; and light pen support, all standard.
Plug compatible replacement for the IBM 3180-1, 3192-D

2192-DS Display Station
Two split screen sessions can be displayed simultaneously on the green, amber or white screen. Other standard features include 15-inch screen, vertical scrolling in a 7680-character partition, Memorex Screen Printer support, and selectable screen sizes from 1920 to 3440 characters.
Memorex exclusive product—no IBM equivalent

2291 Display Station
Lightweight, space-saving monochrome display station featuring a 122 key modifiable keyboard. Also features Memorex Screen Printer support, and removable monitor with 12-inch screen and green or amber phosphor display. Line and column indicator and mark unprotected field indicator are also standard.
Plug compatible replacement for the IBM 3191

2296 Display Station
A modular, lightweight (less than 26 pounds) monochrome display station that fits in nearly any work environment. Fully plug compatible with IBM Systems/36/38, the 2296 offers a 122 key keyboard with a 1,500-character record/playback feature; Memorex Screen Printer support; easy display customization through the keyboard; and a full three-year warranty.
Plug compatible replacement for the IBM 3196

Printers

2391 Display Station
A 14-inch screen in green or amber phosphor, tilt and swivel monitor, Memorex Screen Printer support and choice of adjustable 122-key modifiable or 88-key keyboards are highlights of the 2391. Also offered are automatic dimming, line and column indicator, security keylock and mark unprotected field indicator.
Plug-compatible replacement for the IBM 3191

2124-2E Multifunction Printer
Able to print report drafts at 350 CPS and near-letter quality, in a variety of fonts and spacing, at 80 CPS. A quiet operating printer that also prints in any one of 10 resident bar codes as well as OCR "A" or "B" characters. Handles fanfold paper up to 16-inches wide and 6-parts thick, and offers a choice of five paper paths for maximum set-up and operation flexibility.
A plug compatible alternative to the IBM 4224-202, 3268, & 3287

2114-1 Multifunction Printer
A 3270 compatible printer that prints draft quality (220 CPS), correspondence quality (110 CPS), and near-letter quality (55 CPS). Unique park feature allows interruption of continuous feed paper path for cut sheet printing. Also features automatic paper loading; four fonts; five line space and four character space settings. Uses a cassette-type ribbon and a user replaceable, 200 million character life printhead.
A functional alternative to the IBM 4224-201

2114-2 Multifunction Printer
An IBM System/34/36/38 compatible printer that prints draft quality (110 CPS), and near-letter quality (55 CPS). Offers park feature that allows interruption of continuous feed paper path for cut sheet printing and twinaxial module for easy set-up and service. Also features automatic paper loading; small footprint; and a variety of fonts, line space and character space settings. Uses a cassette-type ribbon and a user replaceable, 200 million character life printhead.
A functional alternative to the IBM 4214-2

2062 Line Printers
A 3270 and IBM System/34/36/38 plug compatible line printer family. Two 3270 and two System/3X compatible models available (400 and 800 lines per minute), both offering data processing, letter quality, bar codes, and line and block graphics printing modes. Quiet 60 dBA operation (optional 55 dBA sound deadening package also available) makes the 2062 family ideal for office or industrial use.
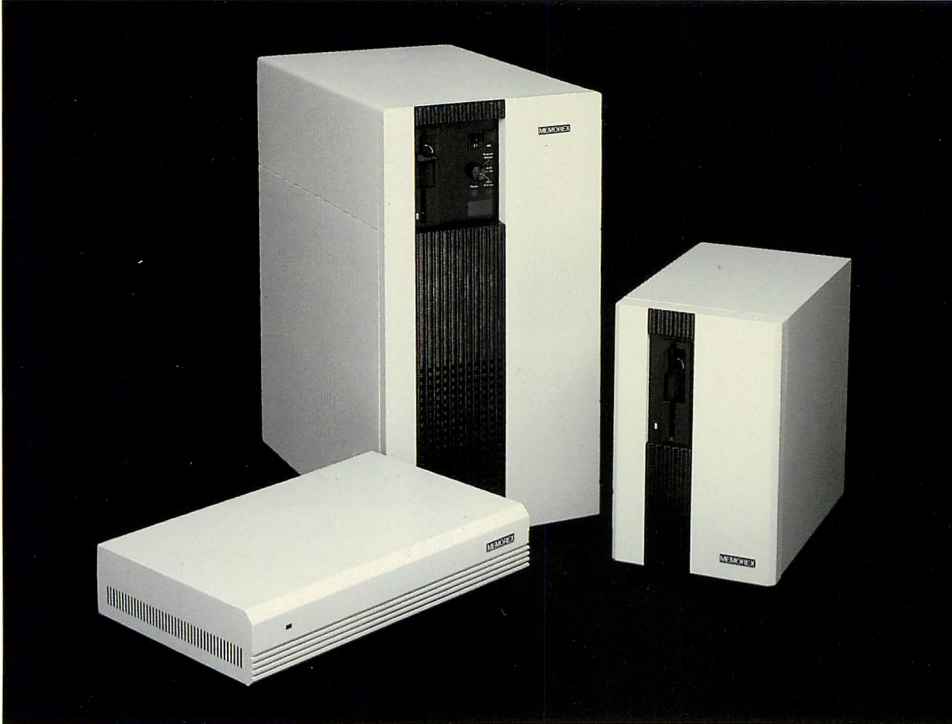**A plug compatible alternative to the IBM 3262**

2173-B Screen Printer
Exclusive serial interface attaches this dot matrix screen printer directly to Memorex 2051, 2078 (Model 82), 2080, 2178, 2179-1, 2191 and 2291 Display Stations. Standard Centronics parallel interface makes the 2173-B compatible with Memorex 2179-2, 2192-C, 2192-D, 2192-DS, 2180-C, 2180-1, 2180-2, 2296 and 2391 Display Stations. Offers a choice of standard (9 by 9, 120 CPS) or high resolution (9 by 17, 30 CPS) matrix. Also attaches to Memorex 6273 and 7000 series workstations. Handles fanfold paper up to 10-inches wide and four-parts thick, and roll or single sheets (manually fed) up to 10-inches wide. Also features a bi-directional, short-line-seeking printhead and 8K buffer.
Compatible only with Memorex Display Stations, no IBM equivalent

Controllers

2274-1C/1CX Remote Cluster Controller
Operating at speeds up to 56,000 bits per second in BSC or SNA/SDLC environments, the 2274-1C is lightweight, compact, and will support graphics, APL/text, seven color displays, and light pens. Available with 8 to 16 ports, and can be field upgraded.
A plug compatible replacement for the discontinued IBM 3274-51C

2274-2C/2CX Remote Cluster Controller
Operating at speeds up to 57,600 bits per second in BSC or SNA/SDLC environments, the 2274-2C is also lightweight, compact, and will support graphics, APL/text, seven color displays, and light pens. Available with 16 to 32 ports, and can be field upgraded.
A plug compatible replacement for the discontinued IBM 3274-51C or the IBM 3174-1R

2274-2A Local Cluster Controller
Operates in local SNA or non-SNA (extended 3272) environments. Easy to operate, and able to support the functions of up to 32 Category A devices. Provides full support for display station features and extended functions. Features self-diagnostics, hardware testing, and software monitoring.
A plug compatible alternative to the IBM 3174-1L and 3174-41D

2374-81R/82R Remote Cluster Controller
The 2374-81R offers full compatibility with SNA/SDLC, X.25 and BSC clusters. The 82R communicates with SNA/X.25 environments. Supports four Category A devices, with an optional addition to eight ports available. Standard features include dual-purpose coax/twisted pair connectors, self-diagnostics and a 3.5-inch floppy drive. Supports Memorex 6273 Workstations and 7000 Series Personal System family as well as IBM PC/XT/ATs with 3270 emulation boards. Also supports extended highlighting, extended color, dual sessions, PAM and KDU. Operates in speeds from 9,800 to 64,000 BPS.
Plug-compatible replacement for the IBM 3174-81R/82R

Tape Subsystem Peripherals

6521 Single Tape Cache Processor
6522 Dual Tape Cache Processor
An intelligent I/O processor for Memorex 3220, 3260, and 3280 Tape Storage Subsystems. Provides a low cost alternative to magnetic tape cartridge subsystems. Allows data to be transferred at the 3 megabyte channel rate via an internal buffer with a 1 megabyte capacity. A unique data compaction feature reduces the amount of tape needed to write data by an average of 50%, resulting in faster throughput and a substantial reduction in the number of reels needed to store data.
Compatible with Memorex Tape Storage Subsystems, and all IBM compatible 9 track Tape Subsystem

Tape Storage Subsystems

3221 Single Controller
3222 Dual Controller
3226/3227/3228 Drive Unit

Offers speeds of 125 IPS (3226 Drive Unit) and 200 IPS (3227 and 3228 Drive Units), with data transfer rates from 200 Kb to 1,250 Kb per second. Supports GCR, PE and NRZI recording methods. Provides densities of 1600 BPI and 6250 BPI (3226 and 3228), or 800 BPI and 1600 BPI (3227).
Fully compatible with IBM 3803 Model 2, and 3420 Models 6, 7, and 8 Tape Drive Subsystems

3261 Single Controller
3262 Dual Controller
3265/3266 Drive Unit

Provides densities of 800 BPI and 1600 BPI on the 3265 Drive Unit, or 1600 BPI and 6250 BPI on the 3266 Drive Unit. The 3265 Drive supports PE and NRZI recording methods, while the 3266 Drive supports the PE and GCR recording methods. Features 125 IPS speed; data transfer rates of 100 Kb to 200 Kb per second (3265) or 200 Kb to 781 Kb per second (3266). Both the 3261 Single and 3262 Dual Controller include one 3266 integrated drive and will support 3265 and 3266 Drive Units.
Fully compatible with IBM 3803 Model 2, and 3420 Tape Drive Subsystems

3261-T Master Unit
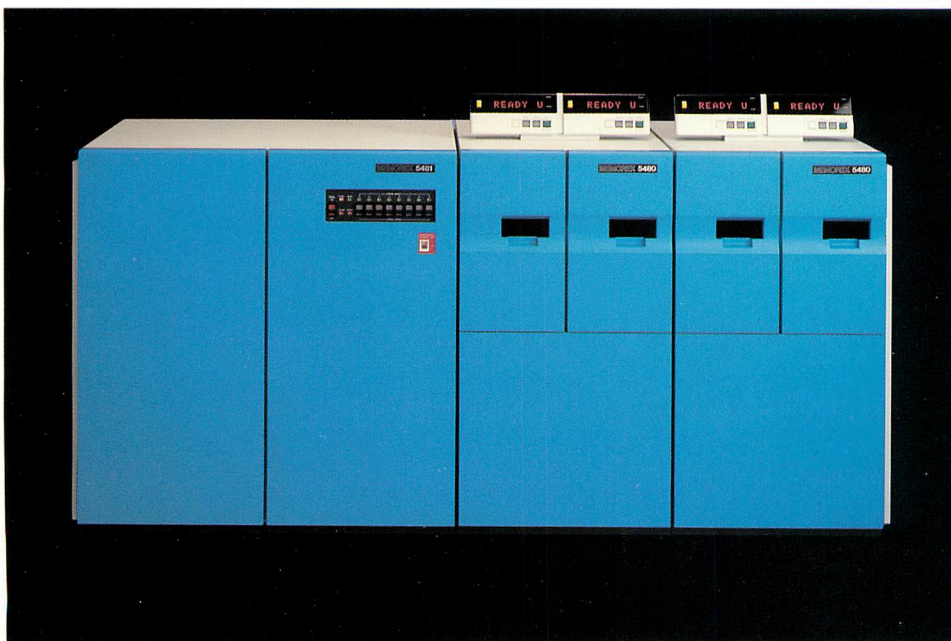## 3266-T Drive Unit

Ideal for IBM System/38 unload operations, the Memorex 3260-T Tape Storage Subsystem offers densities of 1600 BPI and 6250 BPI; supports GCR and PE recording methods; and operates at 125 IPS with data transfer rates of from 200 Kb to 780 Kb per second. The 3261-T Master Unit houses the controller and an integrated 3266 Drive Unit for a compact footprint. Up to three additional 3266-T Drive Units can be attached to the Master Unit for a complete four-drive subsystem.
Fully compatible with IBM 3422 and 3430 Tape Drive Subsystems

3281 Single Controller
3282 Dual Controller
3288 Drive Unit

Features densities of 1600 BPI and 6250 BPI. Supports PE and GCR recording methods, as well as NRZI (with the addition of an optional feature). Offers 200 IPS of operating speed, compact footprint, and data transfer rates of 320 Kb and 1250 Kb per second. The 3281 Single and 3282 Dual Controllers support Memorex 3265, 3266 and 3288 Drive Units.
Fully compatible with IBM 3803, and 3420 Tape Drive Subsystems.

◄ 5481 Buffered Tape Controller
5480 Dual Drive Unit

Offers a recording density of 38,000 BPI (approximately 20% more storage capacity than standard 10½″ reels containing 2400-feet of tape), and a data transfer rate of 3 megabytes per second (nearly 2.5 times faster than a conventional 200 IPS tape subsystem). Each 5480 Dual Drive Unit contains two separate tape transports, and a single 5481 Buffered Tape Controller can support the attachment of up to four of these drives (making a 1 controller by 8 tape transports logical configuration string). Two 5481 Controllers can be connected together using an optional 6201 Two-Controller Switch. This configuration allows the two 5481 Controllers to share a pool of up to eight 5480 Dual Drive Units, and each access a total of 16 individual tape transports.
A fully compatible, functional alternative to the IBM 3480 Cartridge Tape Drive Subsystem

Direct Access Storage Devices

3650 Direct Access Storage Device
3653 Primary String Controller
3654 Alternate String Controller
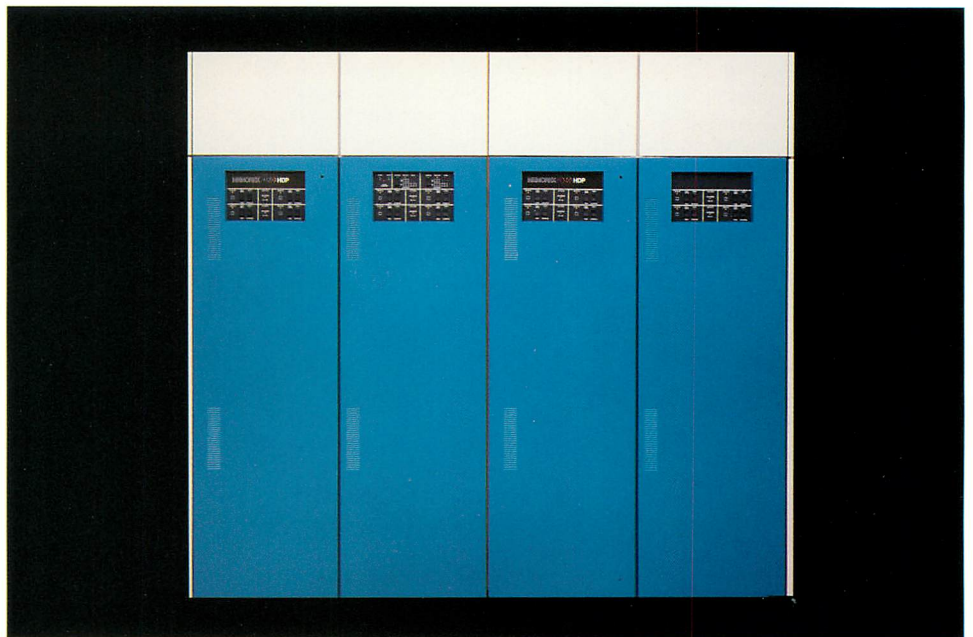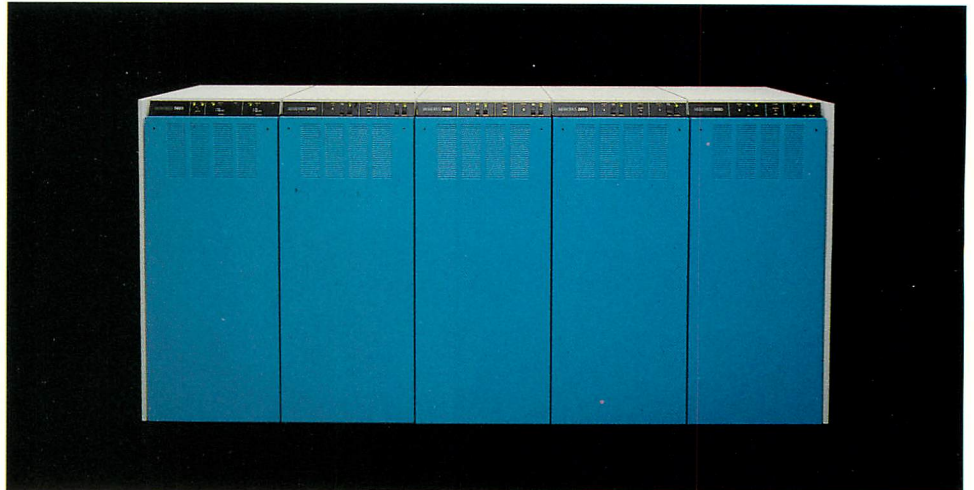**3674 Storage Control Unit**

A maximum capacity subsystem (2.54 gigabytes), consisting of a 3653 Primary String Controller and three 3650 DASD modules. Intelligent dual interface is accomplished by substituting a 3654 Alternate String Controller for one of the 3650 modules. Average access time is 25 milliseconds, data transfer rate is 1.198 megabytes per second.
A plug compatible replacement for the IBM 3350 Disk Storage Facility

3652 Direct Access Storage Device
3655 Primary String Controller
3656 Alternate String Controller
3674 Storage Control Unit

A high-speed, double-capacity version of the Memorex 3650 DASD Subsystem. A maximum capacity subsystem (5 gigabytes), consists of a 3655 Primary String Controler and three 3652 DASD modules. Intelligent dual interface is accomplished by substituting a 3656 Alternate String Controller for one of the 3652 modules. Average access time is 22 milliseconds, data transfer rate is 1.198 megabytes per second.
No IBM equivalent, the 3652 DASD Subsystem is supported on the Memorex 3674 or 3888 Storage Control Unit
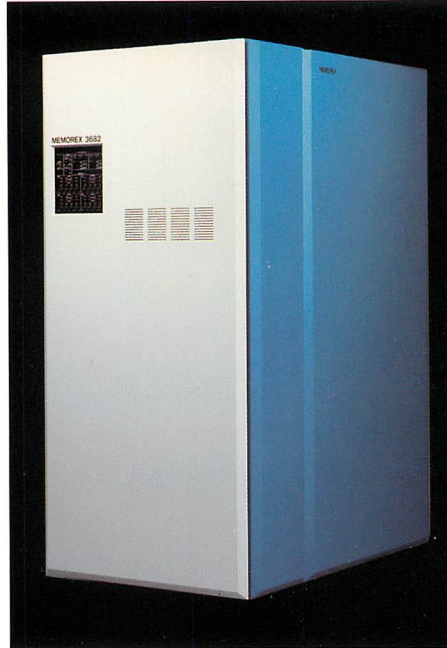
Disk Storage Subsystems

◀ **3680 Disk Storage Device**
3683 Dual Path String Controller
3888 Dual Director Controller
A single spindle, single density drive with 1.26 gigabytes of storage capacity. Average access time is 16 milliseconds, and the data transfer rate is 3 megabytes per second.
A functional alternative to the single density IBM 3380 Disk Subsystem

◀ **6240 Disk Storage Subsystem**
3888 Dual Director Controller
An eight spindle, single density drive with 10.08 gigabytes of storage capacity that requires only 26 square-feet of floor space. The 6240 includes a built-in string controller; needs no side access; and only 15-inches of front and rear service clearance. Average access time is 16 milliseconds, and the data transfer rate is 3 megabytes per second.
A functional alternative to a full string of single density or half string of double density IBM 3380 Disk Storage Subsystem

3682 Disk Storage Device
3685 Dual Path String Controller
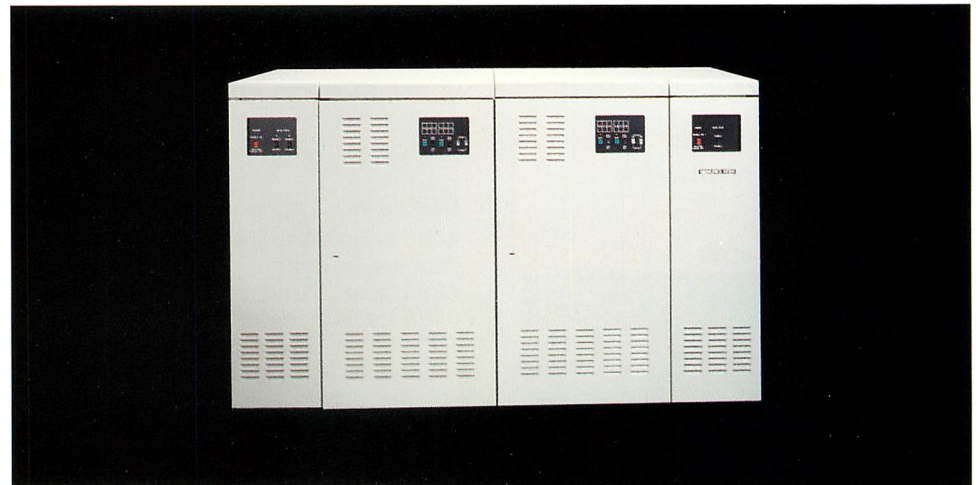**3888 Dual Director Controller**
Maximum configuration of this subsystem (one 3685 dual Path String Controller and four 3682 double density Disk Storage Devices) holds 20.16 gigabytes of data. Each 3682 unit contains two 2.52 gigabyte capacity head disk assemblies (using third generation thin film head design), and four independently addressable actuators (each with access to 1.26 gigabytes of data). Average access time is 17 milliseconds, and the data transfer rate is 3 megabytes per second.
A system compatible equivalent to the IBM 3380-E Series (double capacity) Disk Storage Subsystem

3690-2 Disk Storage Device
3693-2 String Controller
3699-2 Alternate String Controller
3888 Dual Director Controller
Each of the 3690-2 Disk Storage Devices within the subsystem contains a single spindle with 729.8 megabytes of storage capacity. Average access time is 19 milliseconds, data transfer rate is 1.859 megabytes per second.
A functional replacement for the IBM 3370 and 3370-2 Disk Storage Subsystems, the Memorex 3690-2 Disk Storage Subsystem is also compatible and may be used with an IBM System/38.

3695 Disk Storage Device
3697 Primary String Controller
3698 Alternate String Controller
3888 Dual Director Controller
A disk storage subsystem with an average access time of 19 milliseconds, and a data transfer rate of 1.859 megabytes per second. Unique Dual Path feature provides improved performance over the IBM equivalent. Each of the 3695 Disk Storage units contains a single spindle with 819.7 megabytes of storage.
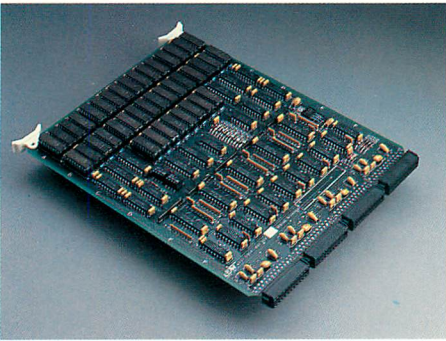**A functional replacement for the IBM 3375 Disk Storage Subsystem**

3888-23 Disk Cache Storage Control Unit
Offers from 8 to 64 megabytes of storage capacity (available in 8 megabyte increments), and a 256 Kb dynamic ram memory. The 3888-23 also features an independent processor for cache management.
A functional replacement for the IBM 3880 Model 23

Add-In Memory Cards

9000 Add-In Memory
Memorex add-in memory cards meet or exceed all IBM operating and environmental specifications. Their advanced design gives an instant boost to system performance and throughput, and typically, more users and new application software packages can be added. The cards can be installed without modification to the CPU or operating system.
The 9000 Add-In Memory card allows a complete range of memory upgrades to all IBM System/38 models, from Model 6 upwards.
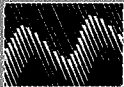

6880 Solid State Disk Storage Device
6888 Control Unit
6889 Backup Power Unit
A high speed (average access time .3 milliseconds) I/O subsystem for large volume, online applications. Standard 6880 Storage Devices provide a 32 megabyte capacity and dual directors. Larger capacities are available (in 32 megabyte increments) up to a maximum of 128 megabytes per device. The new 6880 ECF model has a minimum of 128 mb and can be upgraded in 128 mb storage increments. As many as four 6880 Storage Devices can be attached to a string for a total subsystem storage capacity of 512 megabytes for the standard 6880 model and 2048 megabytes for the 6880 ECF model. An optional quad-port feature allows four concurrent data transfers to take place at an aggregate data transfer rate of 12 megabytes per second. Each 6888 Control Unit has two directors (a single director version is also available), with two-channel and four-channel switches as options. Two of the 6888 Control Units can be attached to the same subsystem to provide a maximum of 16 channels.
Although there is no IBM equivalent, the Memorex 6880 is a fully compatible storage subsystem able to emulate IBM 2305 Model 2, or 3330, 3350, or 3380 Disk Drive Storage Subsystems

MEMOREX