



AEM-5C Cartridge Disk Replacement

RK05/DIABLO/PERTEC DRIVES UPGRADED TO SCSI

- DEC RK05, RK11
- Pertec D3000 Series
- Diablo 3000, 4000 Series
- Interdata / Perkin & Elmer
- Northern Telecom
- Sperry / Univac
- Xebec Controllers
- Digital PDP-8, PDP-11
- Data General Nova, Eclipse
- Boroughts
- Control Data - System 17
- CDC Hawk
- Western Dynex
- Wangco
- Mitra
- Alcatel
- Varian
- Foxboro
- Cyber 1784
- Bull
- Tempo / GTE
- Litton

Improved Performance and Capabilities: Featuring:

- Full-Disk Caching - Seek Times Eliminated.
- Multiple Volumes on a single drive.
- Power Reduced 85%, Weight Reduced - 24 lbs total.
- 300,000 to 1,000,000 Hr drive MTBF.
- Continuous Self-test.

NEW capabilities for drives.

Optional Features:

- Backup to second disk, 4 mm DAT, QIC tape, Jaz, or Optical disk.
- RAID-1 Internal Mirroring and On-line Copy.
- Removable Disk Drives or Cartridge for Backup.
- Disk to Disk Image Copy.

PLUG-COMPATIBLE with VINTAGE CARTRIDGE DRIVES

The AEM-5C is an upgraded data storage system to replace hard disk drives using the Diablo/Pertec interface. Merely unplug the existing drive and install the AEM-5C using the same cables.

The AEM-5C can be added to an existing system, along with the present drives. The AEM-5C can be daisy-chained to existing drives or to other AEM-5Cs.

MAINTENANCE FREE / DEFECT FREE

The AEM-5C uses SCSI disk drives for low maintenance operation. Drives are rated in excess of 300,000 hours MTBF and up to five years of continuous operation. Drives appear defect-free to the host computer.



AEM-5C with SCSI drive and removable Jaz cartridge for backup.

FULL-DISK CACHING

The AEM-5C includes Full-Disk Caching. The entire drive image is held in cache memory. Changes in the cache memory are continuously transferred to the SCSI storage device, which can be a hard disk, Zip, or Jaz drive. Full-Disk Caching also provides a faster performing emulation. Seek times, head switching and blocking times are eliminated. Data is available instantly, providing 30% to 50% faster operation than the original drive.

MORE DATA STORAGE

Multi-Volume provides additional storage by creating multiple images in separate volumes on the SCSI device. With sufficient space, 8 or more volumes can be stored on the SCSI device. Internal software allows copying between volumes. The front-panel Multi-Volume thumbwheel switch allows user selection of the active and bootable volume. Changing the thumbwheel switch during operation will spin the drive down, change the "pack", and spin the drive back up, all in less than a second.

OFF-LINE BACKUP, DISK COPY

The Off-line Backup Option allows the user to backup or copy the drive image to a removable SCSI disk or Jaz drive. Backup to disk is quick at 100 MB/min. An off-line backup to DAT or QIC tape can be done at 15 to 30 MB/min.

DISK MIRRORING

RAID-1 internal disk to disk Mirroring Option also adds on-line copy to the AEM-5C. Alternating reads continually assure the user of a valid mirror. Disk to disk mirroring provides a continuous, on-line, backup of critical data.

REDUCED POWER, COOLING, and WEIGHT

The AEM-5C uses significantly less power and requires less cooling than the drives it replaces, up to 85% less. The weight of the AEM-5C is just 23 lbs, a 50% or greater reduction!

FIRMWARE CONFIGURABLE

Drive emulation parameters may be changed via serial interface, RS-232 port with a front panel modular connector. Parameters such as number of heads, cylinders, track size, sector size, etc., are easily configurable by the user or maintenance personnel. This flexibility allows the AEM-5C to be reconfigured in the field by the user to emulate other disk drives. Software updates and some optional features can be downloaded and installed in the AEM-5C using an IBM compatible PC.

MANY CONFIGURATIONS AVAILABLE

The AEM-5C is available with fixed or removable SCSI drives and numerous options. The combination of highly reliable drives and new capabilities provide a dramatic upgrade to computer data storage.



AEM-5C with Jaz disk and SCSI drive removed. DEC RK05 drives (lower) with removable cartridge - capacity 2.5 MB each.

SPECIFICATIONS AEM-5C

INTERFACE

Diablo/Pertec interface.

Control/Maintenance: RS-232 serial port, ASCII (8, N, 1), front panel RJ-11 modular connector.

DATA TRANSFER RATE

2 to 8 Mbits/sec typical.
24 Mbits/sec maximum, controller regulated.

EMULATION *All parameters programmable*
Cylinders 203, 406

Heads 2 per platter

Track Length Programmable

Sector Length Programmable

CACHEBUFFER

Size 128 to 2048 MBytes
Capacity 1 to 2048 Tracks

SEEK TIMES, TYPICAL *Drive and Emulation Dependent*

Track to Track 0 - 20 ms
Average 4 - 18 ms
Maximum 20 - 30 ms
Average Access 11 - 28 ms
Average Latency 6.2 - 8.4 ms

RELIABILITY

MTBF 200,000+ hours
MTTR 15 minutes

POWER

Input Voltage 90 - 135, 180 - 264 VAC (Selectable)
Frequency 47 - 63 Hz
Power 50 - 90 Watts (Maximum)

PHYSICAL *High x Wide x Deep; Weight*

Rack Mount/ 5.25 in. x 19 in. x 17.5 in.; 23 / 33 lbs
Table Top 133 mm x 483 mm x 445 mm; 10.5 kg

Drive Module 1.7 in. x 4.6 in. x 8.2 in.; 3 lbs
43.2 mm x 117 mm x 208 mm; 1.4 kg

Specifications subject to change without notice.

OPTIONS

Multi-Volume Support
Jaz, Zip, or Optical Disk Image Copy/Backup
Disk to Disk Image Copy/Backup
RAID Disk Mirroring and On-line Copy
Disk to Tape Backup (DAT, QIC)
Table Top Cabinet
Fixed/Removable Drive Support
DEC RK05 Connector Style
Other Options Available