

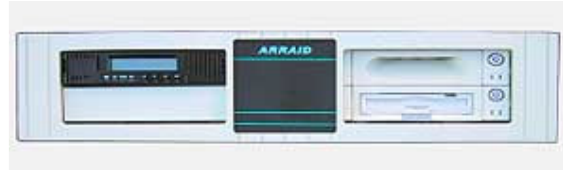


AEM-8 HP-IB DRIVE RETROFIT

HP Disk and Tapes Replaced with Reliable Emulator

HP1000, 3000, 9000 79xx Series Disk Drives, Featuring:

- HP-IB, IEEE-488, GPIB, CS/80 Interface.
- Plug-compatible with OEM drives.
- No Changes to Hardware or Software.
- Coexists with HP 79xx Series Drives.
- Removable Media for Fixed Disk.
- Multiple Volumes provide more disk storage.
- Internal Backup to Disk or Magneto-Optical Cartridge.



AEM-8 configured to replace the HP 7914R Disk / Tape Drive. Operator panel (upper left), with menu and LCD display, allows setting the unit address, MultiVolume, and Copy/Backup commands. Magneto Optical drive (lower right) replaces the obsolete 1/4" tape unit with a 640 MB rugged disk. SCSI hard drive (upper right) stores the 7914 disk data with room for many volumes. Drives are removable, allowing quick changes and easy storage of classified data.

PLUG-COMPATIBLE & COEXISTS with HP DRIVES

The AEM-8 is an enhanced data storage system to replace HP 79xx and C22xx Disk and/or Tape Drives using the HP-IB interface. Merely unplug the existing drive and install the AEM-8 using the same HP-IB cable.

The AEM-8 can be added to an existing system, along with the original HP drives. The AEM-8 supports simultaneous operation with existing OEM drives, or with other AEM-8s.

DISK EMULATION

The AEM-8 provides modern, reliable data storage for mission critical computers, and at the same time adds capabilities not available in the original drives.



The AEM-8 replaces the 7914 in this radar ATE system at Hill AFB. (From top) HP 7970E tape drive, HP 7914R, and AEM-8 HP-IB Emulation System.

Industry Standard SCSI-2 Interface

The 3.5-inch SCSI Flash Drives provide the same storage functions found in hard disk drives, plus high MTBF and rugged durability. The industry standard SCSI-2 interface simplifies the integration of flash storage memory into any computing platform and operating environment. These flash memory based storage systems emulate industry standard fixed disk and DAT storage products with operating characteristics familiar to system designers. No system modifications are required to replace a SCSI hard disk installed in an existing system, thereby making it easy to upgrade the reliability of the computing engine to all solid-state performance. SCSI Flash Drives are available in 50-pin Narrow, or 68-pin Wide interface.

More Data Storage - Larger Drives

The AEM drive capacity can be set to a larger size than the original OEM unit. Modifying the sysgen drive statement is required, and the application software program must be able to recognize the added capacity.

More Data Storage - MultiVolume

MultiVolume provides additional data storage by creating multiple drive images on the SCSI storage device. Up to 100 volumes can be stored on the disk, limited by disk capacity. MultiVolumes are selected through the operator panel menu. The selected volume is nonvolatile; the host will access the previous volume on boot-up, or when returning from a power outage.

Disk Copy, Backup, & Restore

The AEM-8 provides several off-line methods of copying and backing up drive data. In cases where the OEM drive included a backup device, such as the 7911/12/14, the internal Save/Restore function is emulated by the AEM. Also provided is a volume copy feature that allows copying between MultiVolumes on the SCSI data drive. These functions are accessed from the operator control panel of the AEM.

SPECIFICATIONS

TAPE EMULATION

If the original drive included a tape transport, often a 1/4" DC-600 cartridge drive, a substitution is necessary since the original tape unit is not available. HP drives that include a separate 1/2" tape transport, such as the 7914TD, can be replaced with the AEM-8 emulator and a new tape transport unit. In cases where media and data compatible tape drives are not available, we recommend the Magneto-Optical cartridge disk in its place. The MO provides a convenient and low cost method of moving files between host systems.

Tape Backup / Restore

In drives with a tape device, the AEM-8 emulates tape operation including full-disk Save and Restore functions. If an MO device is used for tape data storage, the MO's larger capacity, up to 640 MB, eliminates the need for multiple-tape backups. Additionally, the higher speed of the MO device dramatically reduces the backup time - in one case from 40 minutes to only 5 minutes!

HP-IB Disk & Tape Drives

- 7906B/H 20 MB, Removable
- 7907A 21/21 MB, Fixed/Removable
- 7908P/R 16 MB, 1/4" Tape
- 7911P/R 28 MB, 1/4" Tape
- 7912P/R 64 MB, 1/4" Tape
- 7914P/R 132 MB, 1/4" Tape
- 7914TD 128 MB, 9-track 1/2" Tape
- 7920B 50 MB
- 7925B 125 MB
- 7930B/M 50 MB
- 7933A/H/XP 404 MB
- 7935A/H/XP 404 MB, Removable
- 7936H/XP 307 MB
- 7937H/XP 571 MB
- 7941A 24 MB
- 7942A 24 MB, 1/4" Tape
- 7945A 55 MB
- 7946A 55 MB, 1/4" Tape
- 7957A/B 81 MB
- 7958A/B 130/152 MB
- 7959B 304 MB
- 7961B 81 MB, Upgradeable
- 7962B 152/304/456 MB
- 7963B 304/608/912 MB
- C2200A 335 MB
- C2202A 670 MB
- C2203A 670 MB

Contact Reactive for other drive models. HP MAC Interface and HP Disc Interface replacements are also available - see AEM-6C and AEM-7C data sheets, respectively.

SPECIFICATIONS

INTERFACE

HP-IB, IEEE 488, GPIB, CS/80 drives. Compatible with 12009A/12821A Controller and similar HP-IB interface controllers using CS/80 instruction set. Coexists with OEM drives and/or additional AEM-8 Drive Emulation units.

Single port access.

HP-IB - 24-contact IEEE 488 ribbon style connector, mates with OEM cable.

Control/Maintenance - RS-232 serial port, ASCII (8, N, 1), DB-9 connector.

HP-IB ADDRESS

Selectable through control panel menu.

MultiVolume

100 volumes maximum, selectable through control panel menu.

Self Test

Internal self-test with reporting via RS-232 connected terminal.

DATA TRANSFER RATE

Same as drive being emulated.

SEEK TIMES, TYPICAL

Track To Track, max 10 ms

Access, max 30 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 lbs

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.

LOW MAINTENANCE - RELIABLE OPERATION

The AEM-8 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.

REDUCED POWER, COOLING, and WEIGHT

The AEM-8 uses significantly less power and requires less cooling than the original. A modern switching power supply replaces the original, heavy analog supply. Power consumption of some OEM drives is 700 Watts; the AEM reduces this to 50 Watts ...and weight is reduced to 23 lbs!