

Overview

The HP 20/40-GB DAT 8 Cassette Autoloader includes an integrated DDS-4 DAT Drive and changer mechanism with convenient access to an eight cassette magazine, allowing you to develop a media management tape rotation scheme for scheduled backups of servers 40 GB or less.

| | | |
|---------------|---|------------|
| Models | 20/40-GB DAT DDS-4 8 Cassette Autoloader (Internal) | 166504-B21 |
| | 20/40-GB DAT DDS-4 8 Cassette Autoloader (External) | 166505-001 |

Product Highlights

Industry Standard DDS-4 The DDS-4 technology has a drum rotation speed of 8,503 rpm while the tape moves at 11.6 mm/s. Features of the format allow a linear bit density greater than DDS-3, which increases transfer rate and capacity.

Investment Protection The 20/40-GB DAT autoloader uses a compatibility mode to read and write DDS-1, DDS-2, DDS-3 and DDS-4 tapes. This offers investment protection for users who have standardized with the DAT technology. Users will also have the ability to restore archived media from previous backups and interchange with previously shipping DDS-3 6 and 8 cassette Autoloader drives.

Lowers TCO with Automation Automated DAT backup systems offer lower total cost of ownership with a higher storage capacity and performance than a stand alone tape backup drive and is targeted at the price sensitive environments.

Operating Environment Support

| | |
|------------------------------|---|
| Microsoft® Windows® NT®/2000 | Supported on NT v4.0 with VERITAS Backup Exec v7.3 for NT and CA ARCserveIT v6.61 for NT. Both software packages require optional autoloader modules. Dantz Retrospect v5.6 for NT/2000 (Server Version). |
| Novell NetWare v4.x & 5.x | Supported on NetWare v4.x and 5.x with VERITAS Backup Exec v8.5 for NetWare and CA ARCserveIT v6.61 for NetWare. Both software packages require optional autoloader modules. |

Software Support

- VERITAS Backup Exec v8.6 for NT
- VERITAS Backup Exec v8.5 for NetWare
- Computer Associates ARCserve v7.0 for NT
- Computer Associates ARCserve v7.0 for NetWare
- Computer Associates ARCserve 2000 for 2000
- Dantz Retrospect Backup v5.x

Option Kit Contents

| | |
|--|--|
| 20/40-GB DAT DDS-4 8 Cassette Autoloader Internal | 20/40-GB DAT drive with loader mechanism Documentation 8 Cassette Magazine 1 Data Cassette and 1 Cleaning Cassette |
| 20/40-GB DAT DDS-4 8 Cassette Autoloader External | 20/40-GB DAT drive with loader mechanism in an enclosure Documentation 8 Cassette Magazine 1 Data Cassette and 1 Cleaning Cassette Power Cord External LVD SCSI Cable |

Rackmount Tape Options Supported on StorageWorks 3U Rackmount Kit by Compaq. Allows customer to install up to 2 internal DAT AutoLoaders in a 3U rackmount space. Standard configuration provides two internal SCSI buses (channels) supporting 1 DAT AutoLoader per bus. Please refer to "Rackmount Tape Drive Kits" QuickSpec for further information.

Qualified with HP's Data Protection Suite for Tape Utilities Complete set of Data Protection Tools focused on simplifying the process of configuring, implementing, and maintaining a data protection strategy. Includes software applications such as Tape Storage Management Console and Insight Manager, as well as product information tools including technology White Papers, Service Advisories, and the Storage Products CD. For information on the Data Protection Software Suite, please check the "Related Options" section of this QuickSpec or visit the Web site at: <http://h18000.www1.hp.com/storage/software.html>.
NOTE: This Web site is available in English only.

Compatibility

Server and Tape Compatibility

| ProLiant Servers | Internal | External |
|------------------|----------|----------|
| DL320 | | X |
| DL360G2 | | X |
| DL380 | X | X |
| DL380G2 | | X |
| DL580 | | X |
| PL8500 | | X |
| ML 330G2 | X | X |
| ML350G2 | X | X |
| ML370G2 | X | X |
| ML530G2 | X | X |
| ML570 | X | X |
| PL8000 | X | X |
| CL380 | X | X |
| CL1850 | X | X |

NOTE: When upgrading a Non-Hot Plug Model to Hot Plug, the purchase of the Hot Plug Cage Upgrade Option Kit (161275-B21) is required.

| | | |
|--|---|------------|
| Host Bus Adapters and Controllers for Intel Based Servers | 64-Bit/66-MHz Single Channel Wide Ultra3 SCSI Adapter | 154457-B21 |
| | 64-Bit/66-MHz Dual Channel Wide Ultra3 SCSI Adapter | 129803-B21 |

AlphaServer and Tape Compatibility

| AlphaServers | Internal | External |
|-------------------|----------|----------|
| Alpha Server 4100 | X | X |
| AlphaServer DS10 | X | X |
| DS10L | | X |
| AlphaServer DS20E | X | X |
| AlphaServer ES40 | X | X |
| AlphaServer ES45 | X | X |
| GS60E | X | X |
| GS80/160/320 | X | X |

* **NOTE:** These platforms also have internal disk enclosures support of the hot plug option, in addition to support in external LVD enclosures.

| | | |
|---|--|-------------|
| Host Bus Adapters and Controllers Compatibility for AlphaServers | 32-bit Single Channel UltraWide HBA | KZPBA-CA |
| | *not supported with hot plug | |
| | 32-bit Single Channel LVD LSI SYM 8952Uia HBA | SN-KZPCA-AA |
| | 32-bit Single Channel LVD SCSI LSI SYM 8952Uia HBA | 3X-KZPCA-AA |
| | 32-bit Single Channel LSI SYM 8951Uia | 30-56041-01 |
| | Comb SCSI/Ether Dual Channel | KZPCM-DA |
| | *not supported with hot plug | |
| | 64-bit Dual Channel Ultra 3 LVD HBA | 3X-KZPEA-DB |
| Combo Ultra2 SCSI/2D Video/10-100 Ethernet | 3X-DEPVZ-AA | |

Configuration Information

Base Configuration

Select one:

| | Model Description | Part Number |
|--|--|-------------|
| 20/40-GB DAT Autoloader, Internal | Contains one 8 Cassette 20/40-GB DAT autoloader, US English hard copy manual and translation CD, Warranty card, 1 DDS-2 data cassette, 1 DAT cleaning cassette, 2-internal cables. | 166504-B21 |
| 20/40-GB DAT Autoloader, External | Contains one 8 Cassette 20/40-GB DAT autoloader enclosed in an external housing, power cord, SCSI terminator, 1 DDS-4 data cassette, 1 DAT cleaning cassette, external 3¢ cable, warranty card, US English documentation with translations CD. | 166505-001 |

Related Options

| Media | | |
|-------|--|--------|
| | HP DDS-2 8GB 120m Data Cartridge | C5707A |
| | HP DDS-3 24GB 125m Data Cartridge | C5708A |
| | HP DDS-4 40GB 150m Data Cartridge | C5718A |
| | NOTE: HP DDS-4 Data Cartridge is recommended. | |
| | HP DDS Cleaning Cartridge | C5709A |

| Tape Storage Software | Data Protection Software Suite | 259596-B21 |
|-----------------------|--------------------------------|------------|
|-----------------------|--------------------------------|------------|

| Rackmount Tape Options & Cable Kits | | |
|-------------------------------------|--|------------|
| | 3U Rackmount Kit, All (Please refer to " Rackmount Tape Drive Kits " QuickSpec for further information) | 274338-B21 |
| | LVD Cable Kit, 68-pin HD/VHDCI (Internal & External Cables) | 168048-B21 |
| | LVD Cable Kit, 68-pin HD/68-pin HD (Internal & External Cables) | 242381-B21 |
| | 68-pin HD/VHDCI, 12 ft/3.66 m (External Cable only) | 341177-B21 |
| | 68-pin HD/68-Pin HD, 16.40 ft/ 5 m (External Cable only) | 328215-001 |
| | 68-pin HD/68-Pin HD, 32.81 ft/10 m (External Cable only) | 328215-002 |

Technical Specifications

| | | | |
|--|---|---|--------------|
| Warranty | Maximum | The remaining warranty of the server product in or onto which it is installed to a maximum three-year limited warranty. (Certain restrictions and exclusions apply. Consult the Customer Support Center for details.) | |
| | Minimum | Three year parts, one year next-business day exchange | |
| Liquid Crystal Display (LCD) | The dot matrix front panel information display provides user-friendly information on the autoloader's operating status, potential error conditions, current cassette and magazine status. | | |
| Recommended Maximum Server Size | 40 GB | | |
| Performance Specification | Native | Maximum | 8.4 GB/hour |
| | | Typical | 6.0 GB/hour |
| | 2:1 Compression | Maximum | 16.8 GB/hour |
| | | Typical | 15 GB/hour |
| NOTE: Typically, users will be able to compress their data at a 2 to 1 ratio; however, compression ratios will vary based on the type of data being compressed. | | | |
| | Cartridge Swap Time | 50 seconds/average | |
| | Load Time | 58 seconds/average | |
| | Unload Time (depending on tape type and position) | 32 seconds to 160 seconds | |
| | Search Speed | 45 seconds average file access for any part of a 150 meter tape | |
| Maximum Formatted Capacity (unattended) | 8-Cassette Magazine | | |
| | Without compression | 160 GB | |
| | Based on typical 2:1 compression ratio | 320 GB | |
| NOTE: Typically, users will be able to compress their data at a 2 to 1 ratio; however, compression ratios will vary based on the type of data being compressed. | | | |
| Mechanical Measurements | Tape Width | 0.15 in (0.38 cm) | |
| | Tape Length | 492 ft (150 m) | |
| | Dimensions (HxWxD) | 3.25 x 5.75 x 9.51 in (8.26 x 14.61 x 24.16 cm) | |
| | Weight | 5.258 lb (2.4 kg) | |
| Tape Speed | Read/Write | 0.46 ips/11.6 mm/s | |
| | Head to Tape Speed | 262 ips/6,670 mm/s | |
| | Rewind/Fast Forward | 130 x Read/Write Speed | |
| Tape Format | Recording Method | Helical Scan | |
| | Bytes/Group | 38,4296 | |
| | Data Frame/Group | 22 | |
| | Density/Inch | 122,000 | |
| | Flux Reversal/Inch | 1,524,000 | |
| | Track Density/Inch | 2,793 | |
| | Data Encoding Method | PRML | |
| | Data Transfer Rate | 2.3 MB/s | |
| | Error Detection/Correction | Reed-Solomon-3 levels | |
| | Reliability Cartridge Swaps | > 100,000 | |
| MTBF | 250,000 hours at 30% duty cycle | | |

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