

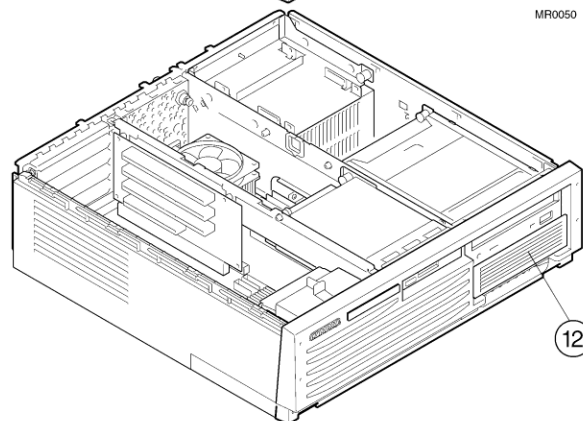
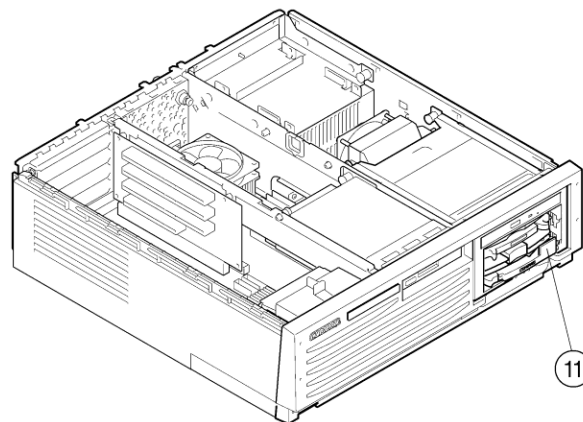
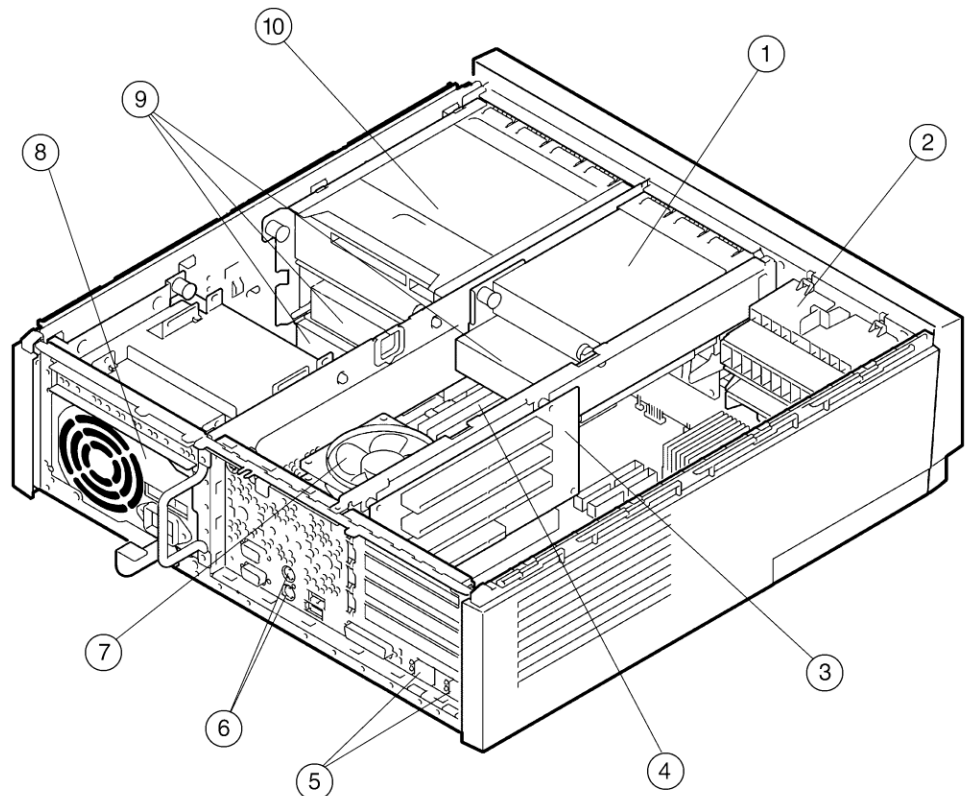
Overview

At A Glance

AlphaServer™/AlphaStation™ DS10 3U Systems include:

- Alpha 600-MHz CPU with 2-MB onboard ECC cache
- 256-MB, 512-MB, or 1-GB SDRAM memory – expandable to 2-GB maximum memory capacity
- Onboard dual 10/100 BaseT Ethernet ports
- Four PCI expansion slots – three 64-bit PCI slots and one 32-bit PCI slot
- Onboard dual IDE controller
- 1.44-MB diskette drive
- 600-MB CD-ROM drive
- Two storage cage subsystems: Internal Storage Cage for IDE/SCSI tapes/drives; Front Access Storage Cage for SCSI drives
- DS10 Internal Storage Cage Systems can be configured with: three internal 3.5-inch x 1-inch hard disk drives or two internal 3.5-inch x 1-inch hard disk drives and one 5.25-inch x 1.6-inch removable media device
- DS10 Front Access Storage Cage Systems can be configured with: two front access 3.5-inch x 1-inch hard disk drives and two internal 3.5-inch x 1-inch hard disk drives) or one Front Access Universal tape drive (AIT or DAT) and two internal disk drives
- Maximum Internal storage capacity: Internal Storage Cage-108-GB SCSI or 120-GB IDE; Front Access Storage Cage-364-GB SCSI
- Two serial ports: COM1 port is both an RMC port with modem control and a full-duplex asynchronous communications port; COM2 port is a full-duplex asynchronous communications port
- Bi-directional enhanced parallel port
- PS/2-style keyboard port and mouse port
- 300W (120/240V, 60/50 Hz) power supply
- U.S. English documentation
- *Tru64™* UNIX™ or *OpenVMS™* Factory Installed Software
- 90-day software product warranty
- Protected by HP Services, including three-year, on-site hardware with next business day response. Certain restrictions and exclusions apply. For details, consult the Product Information Centre at 1-888-882-6672.

NOTE: Keyboard, power cord, and mouse must be ordered separately.



1. Diskette drive
2. Fan
3. PCI riser card
4. Memory boards
5. Dual Ethernet ports
6. Keyboard and mouse ports
7. CPU and fan
8. Power supply
9. Disks
10. CD-ROM drive
11. Front Access Storage Cage
12. Internal Storage Cage

MR0050

MR0049

Standard Features

Processor	Alpha 21264A 600-MHz processor	
Cache Memory	2-MB onboard cache	
Upgradability	Standard	One CPU
Memory	Standard	256 MB, 512 MB, or 1 GB (one memory kit) – Tru64 UNIX, OpenVMS; 512 MB or 1 GB – Linux-Ready
	Maximum	2 GB (two memory kits, kits include two industry-standard DIMMs with ECC support)
Network Controller	Onboard dual 10/100 BaseT Ethernet ports	
Expansion	Storage bays	Internal Storage Cage Systems: Five total – CD-ROM, FDD, and three storage bays: Three internal 3.5-inch x 1-inch hard disk drives or two internal 3.5-inch x 1-inch hard disk drives and one 5.25-inch x 1.6-inch removable media device Front Access Storage Cage Systems: Six Total – CD-ROM, FDD, and Four Storage bays (two front access 3.5-inch x 1-inch hard disk drives and two internal 3.5-inch x 1-inch hard disk drives)
	PCI slots	Four full-length slots (three 64-bit, one 32-bit)
Storage	Diskette Drive	1.44-MB diskette drive
	CD-ROM	Internal Storage Cage Systems: 5.25-inch half height 40X CD-ROM drive Front Access Storage Cage Systems 24X slim-line CD-ROM drive
	Hard Drives	20-GB and 40-GB IDE disk drives or 18.2-GB and 36.4-GB Wide Ultra3 available with the Internal Storage Cage, and 18.2-GB, 36.4-GB, 72.8-GB, or 146-GB Universal SCSI drives available with Front Access Storage Cage. SCSI disk drives require optional SCSI adapter. IDE drives not supported in Front Access Cage systems.
Storage Adapter/Controller	Onboard IDE controller for internal storage, choice of optional storage adapters/controllers	
Expansion Ports	Parallel	One bi-directional enhanced port
	Serial	Two ports, one serial port with full-duplex asynchronous modem control and one RMS dedicated serial port with full-duplex asynchronous modem control
	Keyboard	One PS/2-style port
	Mouse	One port
Power Supply	300W (88-260V, 47-63 Hz)	
Manageability	Compaq <i>Insight Manager™</i>	
Supported Options	A detailed summary of options supported on the AlphaServer/AlphaStation DS10 is available at http://www.compaq.com/alphaserver/options/asds10/asds10_options.html NOTE: This Web site is available in English only.	

Standard Features

OS Support

AlphaServer DS10 Tru64 UNIX systems include pre-installed software (V5.1B), Base license, Unlimited User license, Server Extension license, Internet Express and Secure Web Server.

AlphaStation DS10 Tru64 UNIX systems include pre-installed software (V5.1B), 2-user Base license

AlphaServer DS10 OpenVMS systems include pre-installed software (V7.3-1), Base license with System Manager license and Enterprise Integration Server License Package for OpenVMS V3.0A.

AlphaStation DS10 OpenVMS systems include pre-installed software (V7.3-1), Base license, Concurrent Use 1-user license, and NAS 150 Client license.

Minimum OS support: Tru64 UNIX V4.0F or OpenVMS V7.1 -2

Service and Support

Protected by HP Services, including a three-year, on-site hardware warranty with next business day response. Software warranty is a 90-day telephone advisory. Training, consulting, network integration, software support, comprehensive system maintenance and guaranteed uptime services are also available for customers requiring higher levels of service and support. Certain restrictions and exclusions apply. For details, consult the Product Information Centre at 1-888-882-6672.

Systems/Options

Step 1 – Select system

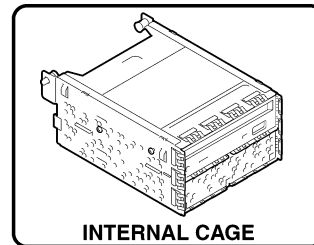
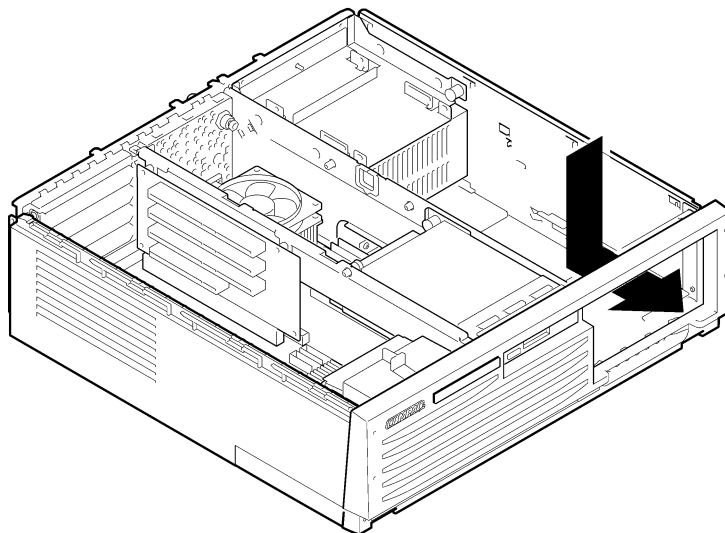
AlphaServer/AlphaStation DS10 600-MHz systems require the **mandatory** selection of the following items:

- **One Storage Cage** (either Internal Storage Cage or Front Access Storage Cage) **and one system disk**
 - **If Internal Storage Cage is selected:**
 - Mandatory selection of one IDE or one internal SCSI system disk drive
 - Mandatory selection of SCSI adapter and SCSI cable kit required for internal SCSI disks and tape
 - **If Front Access Storage Cage is selected:**
 - Mandatory selection of one Universal SCSI system disk drive
 - Mandatory selection of SCSI adapter is required for Front Access Storage Cage (cable is included)
 - Front Access Storage Cage based system is SCSI only. (IDE drives cannot be used.)
 - Country-specific power cord
 - Software media and documentation for first system on site
 - Rackmount kit for rackmount systems (See Step 5 – M-Series Cabinet Enclosures)
 - Minimum OS support: Tru64 UNIX V4.0F or OpenVMS V7.1-2
- NOTE:** Country-specific keyboard and mouse are recommended. See Step 11.

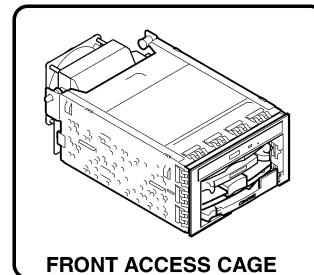
AlphaServer DS10 600-MHz Base Systems							
OS	CPU	Memory	PCI	2-10/100t Ports	Hard Drive	Storage Cage	Order Number
Tru64 UNIX	600 MHz	256 MB	4	Onboard	Mandatory	Mandatory	DA-74BAA-DA
Tru64 UNIX	600 MHz	512 MB	4	Onboard	Mandatory	Mandatory	DA-74BAA-EA
Tru64 UNIX	600 MHz	1 GB	4	Onboard	Mandatory	Mandatory	DA-74BAA-FA
OpenVMS	600 MHz	256 MB	4	Onboard	Mandatory	Mandatory	DY-74BAA-DA
OpenVMS	600 MHz	512 MB	4	Onboard	Mandatory	Mandatory	DY-74BAA-EA
OpenVMS	600 MHz	1 GB	4	Onboard	Mandatory	Mandatory	DY-74BAA-FA
Linux-Ready	600 MHz	512 MB	4	Onboard	Mandatory	Mandatory	DJ-74BAA-EA
Linux-Ready	600 MHz	1 GB	4	Onboard	Mandatory	Mandatory	DJ-74BAA-FA
AlphaStation DS10 600-MHz Base Systems							
OS	CPU	Memory	PCI	2-10/100t Ports	Hard Drive	Storage Cage	Order Number
Tru64 UNIX	600 MHz	256 MB	4	Onboard	Mandatory	Mandatory	DA-74BAA-DW
Tru64 UNIX	600 MHz	512 MB	4	Onboard	Mandatory	Mandatory	DA-74BAA-EW
Tru64 UNIX	600 MHz	1 GB	4	Onboard	Mandatory	Mandatory	DA-74BAA-FW
OpenVMS	600 MHz	256 MB	4	Onboard	Mandatory	Mandatory	DY-74BAA-DW
OpenVMS	600 MHz	512 MB	4	Onboard	Mandatory	Mandatory	DY-74BAA-EW
OpenVMS	600 MHz	1 GB	4	Onboard	Mandatory	Mandatory	DY-74BAA-FW
Linux-Ready	600 MHz	512 MB	4	Onboard	Mandatory	Mandatory	DJ-74BAA-EW
Linux-Ready	600 MHz	1 GB	4	Onboard	Mandatory	Mandatory	DJ-74BAA-FW

Systems/Options

Step 2 – Select Mandatory Options (Storage Cage, System Disk, SCSI Controller, Power Cord)



INTERNAL CAGE



FRONT ACCESS CAGE

MR0051

Step 2a – Mandatory Selection of Storage Cage

- DS10 Systems support **one** Storage Cage
- Selection of one Storage Cage is **mandatory (no exceptions)**
- DS10 Internal Storage Cage: DS10 System with Internal Cage supports three storage devices: 3X-BA10A-AA
 - Either three internal hard disk drives or one 5.25-inch half height backup tape and two internal hard disk drives
- DS10 Front Access Storage Cage: DS10 System with Front Access Cage supports up to four storage devices: 3X-BA10B-AA
 - Two Universal disk drives plus two internal disk drives, or
 - One Front Access Universal Tape Drive (AIT or DAT) and two internal disk drives

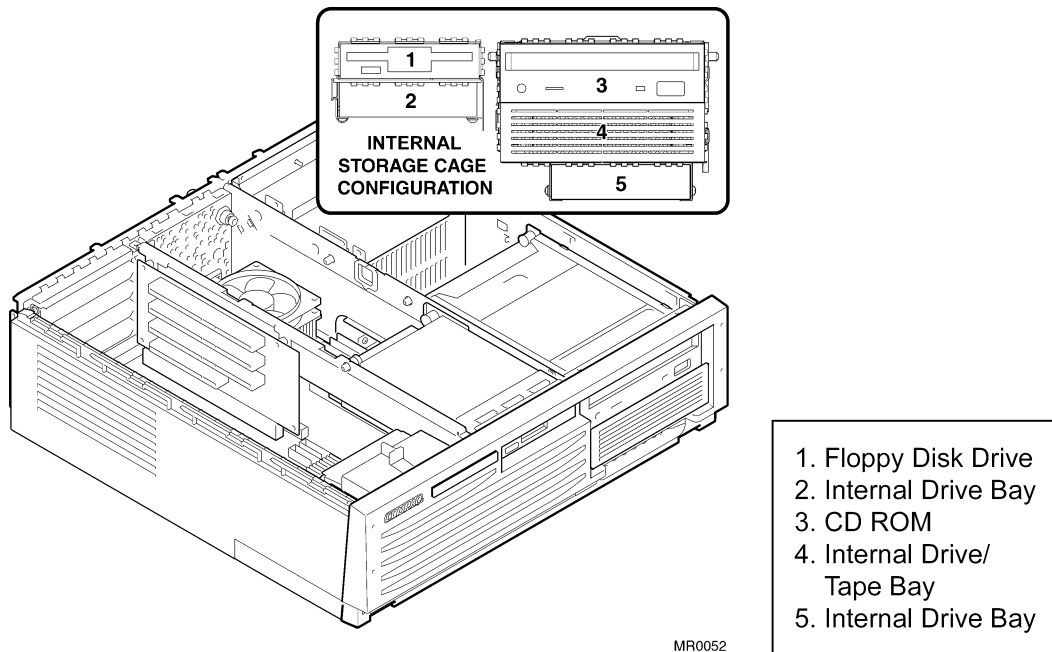
Step 2b – Internal Storage Cage - System Disk Drive – Mandatory

- Selection of one system disk drive is mandatory for the Internal Storage Cage (3X-BA10A-AA)
 - Mandatory selection of one IDE **or** one internal SCSI system disk drive
 - Mandatory selection of SCSI adapter and SCSI cable kit required for internal SCSI disks and tape

Systems/Options

Step 2 – Select Mandatory Options (Storage Cage, System Disk, SCSI Controller, Power Cord) *(continued)*

Step 2b – Internal Storage Cage - System Disk Drive – Mandatory *(continued)*



DS10 Storage Configuration Rules with Selection of Standard Storage Cage:

- DS10 Systems configured with the Internal Storage Cage include a 600-MB 40X half height CD-ROM and 1.44-MB diskette in dedicated drive slots
- DS10 Systems configured with the Internal Storage Cage include three internal storage bays (two in the Storage cage plus one in the system box) that can be configured as follows:
 - Maximum of three internal disk drives (3.5-inch x 1-inch drives) or two internal disk drives (3.5-inch x 1-inch) and one 5.25-inch half height removable media device
- Mandatory selection of SCSI adapter and SCSI cable kit is required for internal SCSI disks or tapes
- IDE Disk drive cable kits are included with the system

NOTE: When a tape drive is ordered it will be installed in the top slot (Slot 3) and the CD will be installed in Slot 4.

Internal IDE Disk Drives	20 GB 7,200 rpm IDE (UDMA) drive	3X-RE58A-AA
	40-GB 7,200 rpm IDE (UDMA) drive	3X-RE58A-BA
<p>NOTE: Requires minimum console firmware V5.9-6 or higher. Updates available at http://ftp.digital.com/pub/Digital/Alpha/firmware/interim/ds10/v5.9-6/</p> <p>NOTE: This Web site is available in English only.</p>		
Internal SCSI Disk Drive	36.4-GB Ultra3 SCSI 10,000 rpm drive	DS-RZ3FD-WA

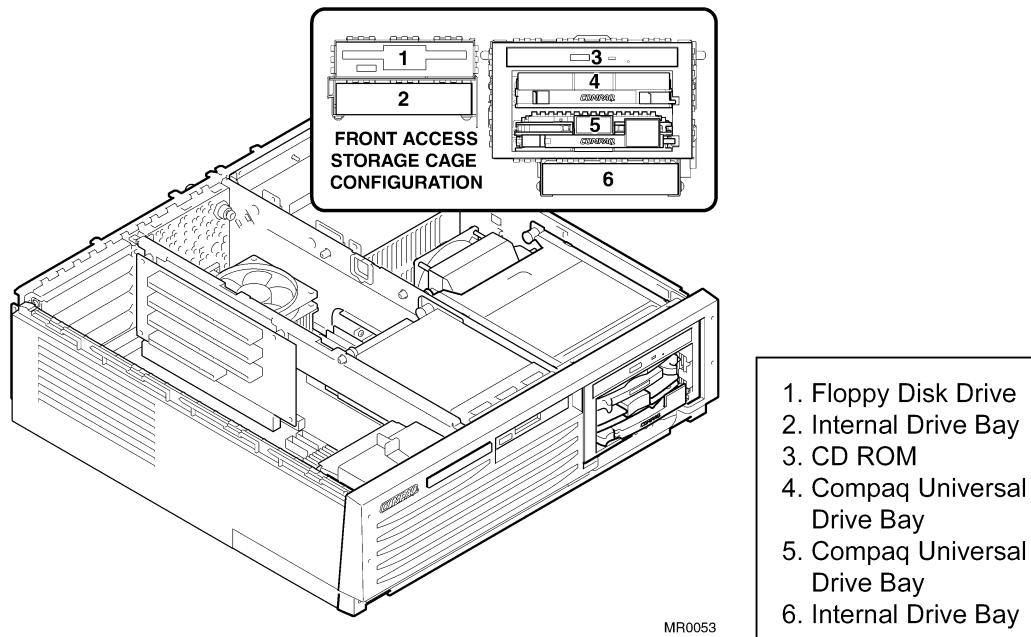
Systems/Options

Step 2 – Select Mandatory Options (Storage Cage, System Disk, SCSI Controller, Power Cord) *(continued)*

Step 2b – Internal Storage Cage - System Disk Drive – Mandatory *(continued)*

Internal Tape Drives	DAT 12/24-GB 4-mm 5.25-inch half-height SCSI tape drive, top gun blue; requires single-ended UltraSCSI or Ultra2 adapter (KZPBA-CA, 3X-DEPVZ-AA, 3X-KZPCA-AA, or KZPCM-DA) and SCSI cable (SCSI adapter SN-PBXKP-BA required)	TLZ10-LB
	DAT 20/40-GB 4-mm 5.25-inch half-height Ultra2 (LVD) SCSI tape drive, top gun blue; requires Ultra2 (LVD) adapter and SCSI cable (Tru64 UNIX and OpenVMS only)	3X-SD20X-LB
	AIT 5.25-inch half-height 35/70-GB 8-mm Wide UltraSCSI tape drive, top gun blue; requires single ended UltraSCSI adapter or Ultra2 adapter (KZPBA-CA, 3X-DEPVZ-AA, KZPCM-DA, or 3X-KZPCA-AA) and SCSI cable (Tru64 UNIX and OpenVMS only)	3X-SZ35X-LB
	AIT 35/70-GB tape drive (LVD), carbon black	3R-A2392-AA
	AIT 5.25-inch half-height 50/100-GB 8-mm Ultra2 (LVD) SCSI tape drive, top gun blue; requires Ultra2 (LVD) adapter and SCSI cable (Tru64 UNIX and OpenVMS only)	3X-SZ50X-LB
	AIT 5.25-inch half-height 100/200-GB 8-mm Ultra3 SCSI tape drive; supported with 3X-DEPVZ-AA, 3X-KZPEA-DB, and 3X-KZPCA-AA adapters, carbon black	3R-A3623-AA
	Wide-to-narrow SCSI adapter	SN-PBXKP-BA

Step 2c – Front Access Storage Cage - System Disk or Tape Drive – Mandatory



Front Access Storage Cage System Disk Drive Selection – Mandatory

- Selection of one Universal system disk drive or Universal tape drive is mandatory for each Front Access Storage Cage
 - Mandatory selection of one Universal SCSI system disk drive or Universal tape drive
 - Mandatory selection of SCSI adapter is required for Front Access Storage Cage
 - SCSI cable with connections to the four disk drives is included with the Front Access Storage Cage

DS10 Storage Configuration Rules with Selection of Front Access Storage Cage:

- DS10 Systems configured with Front Access Storage Cage include a 600-MB 24X slim-line CD-ROM and 1.44-MB drive in dedicated drive slots
- DS10 Systems configured with the Front Access Storage Cage include four storage bays (two Universal SCSI disk drives and two internal SCSI drives) which can be configured as follows:
 - Maximum of two internal disk drives (3.5-inch x 1-inch drives) and two Universal disk drives (3.5-inch x 1-inch) or one Front Access Universal tape drive (AIT or DAT) and two internal disk drives.
- Mandatory selection of SCSI adapter for Front Access Cage Systems
- SCSI cable included with Front Access Cage

NOTE: IDE drives may not be used on Front Access Cage systems.

Systems/Options

Step 2 – Select Mandatory Options (Storage Cage, System Disk, SCSI Controller, Power Cord) (continued)

Step 2c – Front Access Storage Cage - System Disk or Tape Drive – Mandatory (continued)

Internal SCSI Disk Drive (For Drives Internal to System)	36.4-GB 10,000 rpm Ultra3 SCSI drive	DS-RZ3FD-WA
Universal Disk Drives (For Front Access Storage Cage)	18.2-GB Ultra320 SCSI 15,000 rpm 1-inch Universal disk drive	3R-A3848-AA
	36.4-GB Ultra320 SCSI 10,000 rpm 1-inch Universal disk drive	3R-A3838-AA
	36.4-GB Ultra320 SCSI 15,000 rpm 1-inch Universal disk drive	3R-A3849-AA
	72.8-GB Ultra320 SCSI 10,000 rpm 1-inch Universal disk drive	3R-A3839-AA
	72.8-GB Ultra320 SCSI 15,000 rpm 1-inch Universal disk drive	3R-A3851-AA
	146-GB Ultra320 SCSI 10,000 rpm 1-inch Universal disk drive	3R-A3841-AA
Universal Tape Drives (For Front Access Storage Cage)	AIT 35/70-GB LVD Universal tape drive, uses two slots	3R-A2396-AA
	AIT 50/100-GB LVD Universal tape drive, uses two slots	3R-A2779-AA
	AIT 100/200-GB LVD Universal tape drive, uses two slots (supported with 3X-DEPVZ-AA, 3X-KZPEA-DB, and 3X-KZPCA-AA adapters)	3R-A3621-AA
	DAT 20/40-GB DDS4 LVD Universal tape drive, uses two slots	3R-A2780-AA

Step 2d – Internal SCSI Adapters and Cable Kits

- Front Access Storage Cage:
 - Mandatory selection of SCSI adapter is required for Front Access Storage Cage
 - Front Access Storage Cage includes SCSI cable kit for connection to four disks
- Internal Storage Cage:
 - Mandatory selection of SCSI adapter and SCSI cable kit are required for Standard Storage Cage systems with SCSI disk or tapes

SCSI Adapters (For Internal and Front Access Drives)	PCI 1-channel Ultra2 SCSI adapter (LVD)	3X-KZPCA-AA
	PCI 2-channel multi-mode Ultra3 LVD SCSI adapter, VHDCI (Tru64 UNIX V5.1 or higher and OpenVMS V7.2-2 or higher) No shared bus support with OpenVMS. No shared tape/library support with OpenVMS or Tru64 UNIX. 3X-KZPEA-DB adapter supports shared bus using hard disk drives under Tru64 UNIX V5.1A with PK4 and NHD5 or V5.1B and TruCluster V5.1B with Initial Patch Kit installed; supports maximum of two nodes per shared bus; requires 3X-BN55A-01 Y-cable and connector plug assembly, and 3X-H32CT-AA external LVD terminator per shared bus. NOTE: Tru64 UNIX Initial Patch Kit for V5.1B located at: http://ftp1.support.compaq.com/public/unix/5.1b	3X-KZPEA-DB
	NOTE: Patch kit required, kit available at http://ftp1.support.compaq.com/public/Digital_UNIX/v5.1/	
	NOTE: This Web site is available in English only.	
	PCI combo card – PCI 2-channel UltraSCSI single-ended adapter and 10/100 Mbit	KZPCM-DA
	PCI combo card – 1-channel Ultra2 SCSI (LVD) Graphics, 10/100 Ethernet (Tru64 UNIX and OpenVMS only)	3X-DEPVZ-AA
	PCI 1-channel UltraSCSI RAID controller (Tru64 UNIX and OpenVMS only)	KZPAC-AA
	NOTE: Internal or Front Access Disk Drives connected to a KZPAC controller are not capable of implementing the fault management features of this controller, such as 'hot spare' and 'automatic rebuilds' – manual rebuilds are supported.	
	PCI 3-port UltraSCSI RAID controller (4-MB/8-MB cache) (Tru64 UNIX V4.0F, OpenVMS V7.2-1)	KZPAC-CA/CB
	NOTE: Internal or Front Access Disk Drives connected to a KZPAC controller are not capable of implementing the fault management features of this controller, such as 'hot spare' and 'automatic rebuilds' – manual rebuilds are supported.	
PCI 1-channel Ultra2 SCSI RAID controller, 4-MB cache (Linux-Ready Systems only)	SN-KZPBC-AA	
PCI 3-channel Ultra2 SCSI RAID controller, 32-MB cache (Linux-Ready Systems only)	FR-PCTAR-IB	
PCI 3-channel Ultra2 SCSI RAID controller, 64-MB cache (Linux-Ready Systems only)	FR-PCTAR-IC	
DS10 SCSI cable kit (with connections for three internal drives)	3X-BN51A-SE	
NOTE: The DS10 SCSI cable kit is included with the Front Access Storage Cage. The DS10 SCSI cable kit is required for Internal Storage Cage systems with SCSI disks or tapes.		

Systems/Options

Step 2 – Select Mandatory Options (Storage Cage, System Disk, SCSI Controller, Power Cord) *(continued)*

Step 2e – Mandatory Selection of Power Cord

Desktop Power Cords	North America, 2.5-metre	3X-BN46K-2E	
	North America, 200 to 240V, 75-inch	BN18J-1K	
	Australia, New Zealand, 2.5-metre (103541-011)	BN19H-2E	
	Central Europe, 2.5-metre	BN19C-2E	
	Denmark, 2.5-metre (103541-481)	BN19K-2E	
	Egypt, India, South Africa, 2.5-metre (103541-AR1)	BN19S-2E	
	Israel, 2.5-metre	BN18L-2E	
	Italy, 2.5-metre	BN35M-02	
	Japan, 2.5-metre, Dentori approved	3X-BN46G-02	
	Switzerland, 2.5-metre (103541-511)	BN19E-2E	
	UK, Ireland, 2.5-metre	BN19A-2E	
	Rackmount (M-Series Cabinet) Power Cords	U.S./Canada	BN20Z-4E
		Non-U.S.	3X-BN46L-4E
Japan, 4.5-metre (right-angle connector)		3X-BN46D-4E	

Step 3 – Memory – Optional

- Maximum 2-GB memory
- Systems include one memory kit; maximum two memory kits per system – each kit includes two industry-standard DIMMs with ECC support

256-MB memory kit, two 200-pin, 100-MHz, 128-MB DIMMs	3X-MS310-CA
512-MB memory kit, two 200-pin, 100-MHz, 256-MB DIMMs	3X-MS310-DA
1-GB memory kit, two 200-pin, 100-MHz, 512-MB DIMMs	3X-MS310-EA

Step 4 – DVD-ROM Drive – Optional

16X DVD-ROM Drive – Supported in Internal Storage Cage only – not supported in Front Access Storage Cage – supported in slot 3 of the Internal Storage Cage and replaces standard CD-ROM (see diagram on page 6, Step 2b). Ships as spare, not integrated in manufacturing.	3X-PBXR-BA
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Systems/Options

Step 5 – M-Series Cabinets – Optional

- M-Series cabinet enclosures support up to 12 DS10 systems (H9A15).
- M-Series enclosures require selection of the following items:
 - H9A10, or H9A15 Cabinet, 120V or 240V
 - Cabinet front door based on cabinet height
 - Factory integration

Cabinet Configuration Chart for AlphaServer DS10 Rackmount Systems

- A minimum of two AlphaServer DS10 systems is required in the H9A15 M-Series cabinet.
- Each system requires a DS10 M-Series Rackmount kit (3X-PBX01-AB).
- Each system requires a rack mount power cord.

NOTE: The number of ballast kits required is determined only by the number of system boxes. Ballast kits are required according to the following chart:
For more information on M-Series Cabinet Enclosures, see <http://www.compaq.com/alphaserver/products/m-series/index.html>

NOTE: This Web site is available in English only.

Cabinet Configuration Chart for AlphaServer DS10 (3U) Rackmount Systems with RA3000 and Disk Shelves (12U)

M-Series Cabinet	System Rack Kit per DS10 system	M-Series Cabinet Height/Space	DS10 Systems	StorageWorks DS-SL13R Disk Shelf	Ballast Kits Required
H9A10-MC/MD	3X-PBX01-AB	67-inch/32U	1 or 2	6	2
			3 or 4	6	1
			5	6	1
			6	4	0
			7	2	0
			8, 9, or 10	0	0
H9A15-MC/MD	3X-PBX01-AB	79-inch/39U	2 or 3	6	2
			4	6	1
			5	6	1
			6	4	1
			7	2	0
			8 to 12	0	0

Options

Step 5 – M-Series Cabinets – Optional (continued)

Cabinet Configuration Chart for AlphaServer DS10 (3U) Rackmount Systems with RA3000 and Disk Shelves (12U)

- 12U of vertical cabinet space is reserved for one RA3000 controller shelf and up to five disk shelves mounted in top of cabinet, front to back; an additional 2U of vertical space is required for RA3000 controller shelf UPS.
- Disk shelves can be a combination of RA3000 DS-SWXRA-GN disk shelves and StorageWorks BA36R-RC/RD disk shelves.
- RA3000 controller shelf supports a maximum of four DS-SWXRA-GN disk shelves; third and fourth DS-SWXRA-GN disk shelf ordered will be installed in rear of M-Series cabinet; rear mounted shelves require that a 2-metre SCSI cable (BN37A-02) be ordered separately.
- Systems are supported in remaining vertical space. The following table considers space requirements for the DS10 system boxes and RA3000.
- For ballast requirements refer back to "Cabinet Configuration Chart for AlphaServer DS10 (3U) with StorageWorks Shelves (4U)"

M-Series Cabinet	System Rack Kit per DS10 system	M-Series Cabinet Height/Space	DS10 Systems	StorageWorks RA3000 + Shelves
H9A10-MC/MD	3X-PBX01-AB	67-inch/34U	1	1 + 5
			2	1 + 5
			3	1 + 5
H9A15-MC/MD	3X-PBX01-AB	79-inch /41U	2	1 + 5
			2	1 + 5
			3	1 + 5
			4	1 + 5

M-Series Rackmount Kit for AlphaServer DS10

- Rackmount kit must be ordered separately
- DS10 M-Series rackmount kit 3X-PBX01-AB

NOTE: Factory integration of a DS10 system drawer in a 9000 Series Rackmount Cabinet using rack kit, 3X-PBX01-AA, is not supported. Contact Custom Systems.

M-Series Cabinets		
	67-inch cabinet enclosure with 59.5-inch or 34U of usable vertical space; 120V dual-24A controller, each with 10 NEMA 5-15R outlets, input power plug NEMA L5-30P, Americas, Asia Pacific; includes rear door, top fan tray, and two H7600-AA power distribution units	H9A10-MC
	67-inch cabinet enclosure with 59.5-inch or 34U of usable vertical space; 240V dual-16A controller, each with 12 IEC C13 outlets, input power plug IEC 309, 16A, Europe; includes rear door, top fan tray, and two H7600-DB power distribution units	H9A10-MD
	79-inch cabinet enclosure with 71.7-inch or 41U of usable vertical space; 120V dual-24A controller, each with 10 NEMA 5-15R outlets, input power plug NEMA L5-30P, Americas, Asia Pacific; includes rear door, top fan tray, and two H7600-AA power distribution units	H9A15-MC
	79-inch cabinet enclosure with 71.7-inch or 41U of usable vertical space; 240V dual-16A controller, each with 12 IEC C13 outlets, input power plug IEC 309, 16A, Europe; includes rear door, top fan tray, and two H7600-DB power distribution units	H9A15-MD

Options

Step 5 – M-Series Cabinets – Optional (continued)

M-Series Cabinet Rear Cabinet Extender	<ul style="list-style-type: none"> Requires selection of one cabinet extender for each H9A10 or H9A15 cabinet 	
	Rear cabinet extender, top gun blue, for H9A10-MC/MD cabinets	H9C10-TE
	Rear cabinet extender, top gun blue, for H9A15-MC/MD cabinets	H9C15-TE
	NOTE: Rear Cabinet Extender, H9C10-TE or H9C15-TE, is mandatory for second BA370.	
M-Series Cabinet Front Door	<ul style="list-style-type: none"> Requires selection of door based on cabinet height 	
	Front door, top gun blue, for H9A10-MC/MD cabinet enclosure	H9C10-TF
	Front door, top gun blue, for H9A15-MC/MD cabinet enclosure	H9C15-TF
M-Series Cabinet Factory Integration	<ul style="list-style-type: none"> Mandatory selection 	
	Factory Integration of systems and storage devices assembled and configured in cabinet enclosure for H9A10 or H9A15 cabinet enclosures	YS-ASCAA-AA
M-Series Cabinet Ballast Kits	<ul style="list-style-type: none"> Add ballast kits as required 	
	<ul style="list-style-type: none"> Ballast is added to a cabinet at particular locations for specific configurations to meet safety regulations for installation, operation, and service; see Cabinet Configuration Charts 	
	Two 35 to 40 lb steel plates	H9C10-MC
M-Series Cabinet Rackmount Power Cords	U.S./Canada	BN20Z-4E
	Non-U.S.	BN35S-4E
	Japan, 2.5-metre	3X-BN46D-4E

CustomSystems Support

- Cabinets that contain systems and storage must be assembled by qualified assemblers: HP Manufacturing, CustomSystems, or an authorized HP Certified Integration Partner.
- For custom integration of systems, options, cabinet expansion offerings, and additional HP and third-party devices, or for other cabinets, doors, and trim kits of a different colour, contact CustomSystems at 1-800-AT COMPAQ, or your local authorized HP Certified Integration Partner.

Options

Step 6 – External Storage – Optional

- Tape drives require an LVD adapter (3X-KZPCA-AA or 3X-KZPEA-DB) or single-ended UltraSCSI adapter (KZPBA-CA or KZPCM-DA) and country-specific power cord. **NOTE: 3X-KZPEA-DB does not support shared tape/libraries.**

Tape Devices

AIT Tabletop Tape Drives	AIT 35/70-GB 8-mm LVD tabletop tape drive, North America, carbon black; requires LVD adapter	216885-001
	Same as above, International	216885-B31
	Same as above, Japan	216885-291
	AIT 50/100-GB 8-mm SCSI tabletop tape drive with 120V North America power cord, carbon black; requires Ultra2 (LVD) adapter	157767-002
	Same as above, International	157767-B32
	Same as above, Japan	157767-292
	AIT 100/200-GB 8-mm SCSI tabletop tape drive with 120V North America power cord	249160-001
	Same as above, International	249160-B31

AIT Hot-plug Tape Drives

<ul style="list-style-type: none"> AIT hot-plug tape drives require two Universal slots 	AIT 35/70-GB hot-plug LVD Universal tape drive, uses two slots in 43xxx shelves	3R-A2396-AA
	AIT 50/100-GB hot-plug LVD Universal tape drive, uses two slots in 43xxx shelves	3R-A2779-AA
	AIT 100/200-GB LVD Universal tape drive, uses two slots in 43xxx shelves (supported with 3X-DEPVZ-AA, 3X-KZPEA-DB and 3X-KZPCA-AA adapters)	3R-A3621-AA

AIT Autoloaders

AIT Autoloaders	AIT 35-GB tabletop autoloader, 8 cartridge, U.S.	292355-001
	Same as above, International	292355-B31
	AIT 35-GB rackmount autoloader, 8 cartridge, U.S.	280349-001
	Same as above, International	280349-B31
	AIT Rail kit for rackmount autoloader	284930-001

AIT Tape Libraries

AIT Tape Libraries	SSL2020 AIT tabletop library with one AIT 50-GB drive and 20 slots, LVD	175195-B21
	SSL2020 AIT tabletop library with two AIT 50-GB drives and 20 slots, LVD	175195-B22
	SSL2020 AIT rackmount library with one AIT 50-GB drive and 20 slots, LVD	175196-B21
	SSL2020 AIT rackmount library with two AIT 50-GB drives and 20 slots, LVD	175196-B22

DAT Tabletop Tape Drives

DAT Tabletop Tape Drives	DAT 20/40-GB 4-mm Wide Ultra2 (LVD) tabletop SCSI tape drive with 120V North America power cord, carbon black; requires Ultra2 (LVD) adapter	157770-002
	Same as above, International	157770-B32
	Same as above, Japan	157770-292
	12/24-GB 4 mm DAT narrow single-ended tabletop SCSI tape, includes 120V North America power cord, requires BN31W-xx SCSI cable for the 3X-KZPCA-AA; 3X-KZPEA-DB requires BN31W-xx SCSI cable plus BN38B-01 cable	DS-TLZ10-DB

DAT Hot-plug Tape Drive

DAT Hot-plug Tape Drive	DAT 20/40-GB DDS4 hot-plug LVD Universal tape drive, uses two slots in 43xxx shelves	3R-A2780-AA
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DAT Autoloaders

DAT Autoloaders	DAT 20/40-GB auto loader external; requires BN31W-xx SCSI cable and 3X-KZPCA-AA, or 3X-DEPVZ-AA adapter, North America	166505-001
	Same as above, International	166505-B31
	Same as above, Japan	166505-291

Options

Step 6 – External Storage – Optional (continued)

Tape Devices (continued)

DLT/SDLT Tabletop Tape Drives	DLT8000 tabletop 40/80-GB DLT external tape drive, carbon black – requires 3X-KZPCA-AA LVD adapter – U.S.	146197-B23
	Same as above – Japan	146197-292
	SDLT tabletop 110/220-GB external tape drive, carbon black– requires 3X-KZPEA-AA or 3X-KZPEA-DB LVD adapter – U.S.	192103-002
	Same as above – International	192103-B32
	Same as above – Japan	192103-292
	SDLT tabletop 160/320-GB external tape drive, carbon black – requires 3X-KZPCA-AA or 3X-KZPEA-DB LVD adapter – U.S.	257319-001
	Same as above – International	257319-B31
	Same as above –Japan	257319-291

DLT/SDLT Tape Libraries

	Rackmount kit for H9Axx M-Series cabinets – required for mounting MSL5000 series in M-Series cabinets	254795-001
	MSL5026DLX, DLT tabletop library with 1 40/80-GB DLT tape drive, LVD	231821-B21
	MSL5026DLX, DLT tabletop library with 2 40/80-GB DLT tape drives, LVD	231821-B22
	MSL5026DLX or MSL5026SL, DLT/SDLT rackmount library, 0 drives – requires rackmount kit (254795-001)	231979-B21
	MSL5026DLX, DLT rackmount library with 1 40/80-GB DLT tape drive, LVD – requires rackmount kit (254795-001)	231891-B21
	MSL5026DLX, DLT rackmount library with 2 40/80-GB DLT tape drives, LVD – requires rackmount kit (254795-001)	231891-B22
	MSL5026S2, SDLT2 tabletop library with one 160/320-GB SDLT tape drive, LVD	293473-B21
	MSL5026S2, SDLT2 tabletop library with two 160/320-GB SDLT tape drives, LVD	293473-B22
	MSL5026S2 SDLT rackmount library, 0 drives, LVD – requires rackmount kit (254795-001)	293472-B21
	MSL5026S2, SDLT2 rackmount library with one 160/320-GB SDLT tape drive, LVD	293472-B22
	MSL5026S2, SDLT2 rackmount library with two 160/320-GB SDLT tape drive, LVD	293472-B23
	MSL5026S2, SDLT2 rackmount library with one 160/320-GB SDLT tape drive with Fibre Channel, LVD	293472-B24
	MSL5026S2, SDLT2 rackmount library with two 160/320-GB SDLT tape drive with Fibre Channel, LVD	293472-B25
	MSL5026SL, SDLT tabletop library with one 110/220-GB SDLT tape drive, LVD	302511-B21
	MSL5026SL, SDLT tabletop library with two 110/220-GB SDLT tape drives, LVD	302511-B22
	MSL5026SL, SDLT rackmount library with one 110/220-GB SDLT tape drive, LVD	302512-B21
	MSL5026SL, SDLT rackmount library with two 110/220-GB SDLT tape drives, LVD	302512-B22

Options

Step 6 – External Storage – Optional (continued)

Tape Devices (continued)

DLT/SDLT Tape Libraries (continued)	MSL5052, 0 drives, LVD, rackmount	255102-B21
	MSL5052SL SDLT tabletop library with 2 110/220-GB drives, LVD	249490-B21
	MSL5052SL SDLT rackmount library with 2 110/220-GB drives, LVD – requires rackmount kit (254795-001)	249491-B21
	MSL5052SL SDLT 110/220-GB drive field upgrade, LVD	231823-B22
	MSL5052S2, SDLT2 tabletop library with two 160/320-GB SDLT tape drives, LVD, graphite	293476-B21
	MSL5052S2, SDLT2 rackmount library with two 160/320-GB SDLT tape drive, LVD	293474-B21
	MSL5052S2, SDLT2 rackmount library with two 160/320-GB SDLT tape drive with Fibre Channel, LVD	293474-B24
	ESL9326SL SDLT tape library with six 110/220-GB SDLT tape drives, LVD	234615-B21
	ESL9326SL SDLT tape library with eight 110/220-GB SDLT tape drives, LVD	234615-B22
	ESL9326SL SDLT tape library with 16 110/220-GB SDLT tape drives, LVD	234615-B26

3U Rackmount Tape Drive Enclosure

3U LVD Rackmount Tape Drive Enclosure for use in H9Axx M-Series Cabinets, 0 drives, carbon black,	274338-B21
Rackmount Kit for H9Axx Series Cabinets, carbon black – required for mounting 3U Rackmount Tape Drive Enclosure in M-Series cabinet	3R-A3804-AA
NOTE: The 3U Tape Drive Enclosure supports up to four internal half-height removable devices, or up to two full height devices. Select up to four AIT or DAT devices, or two DLT/SDLT devices with 3U Rackmount Tape Drive Enclosure (274338-B21), or select preconfigured configurations listed below	
AIT 35/70-GB 3U tape drive, requires 3X-KZPCA-AA LVD adapter, carbon black	216884-B21
AIT 50/100-GB 3U tape drive, requires 3X-KZPCA-AA LVD adapter, carbon black (157766-B22)	3R-A3753-AA
DAT 20/40-GB 3U tape drive, requires 3X-KZPCA-AA LVD adapter, carbon black (157769-B22)	3R-A3752-AA
DLT8000 40/80-GB tape drive, requires 3X-KZPCA-AA LVD adapter	146196-B22
SDLT 110/220-GB tape drive, requires 3X-KZPCA-AA or 3X-KZPEA-DB LVD adapter	192106-B25
SDLT 160/320-GB tape drive, requires 3X-KZPCA-AA or 3X-KZPEA-DB LVD adapter, carbon black	257319-B21
Preconfigured Configurations	
AIT 50-GB 3U rackmount kit, carbon black	274333-B21
DLT 40/80-GB, 3U rackmount kit, carbon black	274332-B21
DLT 40/80-GB, dual-drive, 3U rackmount kit, carbon black	274335-B21
SDLT 110/220-GB, 3U rackmount kit, carbon black	274331-B21
SDLT 110/220-GB, dual-drive, 3U rackmount kit, carbon black	274334-B21

Options

Step 6 – External Storage – Optional (continued)

Tape Devices (continued)

5U Rackmount Tape Drive Enclosure	5U LVD Rackmount Tape Drive Enclosure, carbon black, for use in H9Axx M-Series Cabinets, 0 drives	274339-B21
	Rackmount Kit for H9Axx Series Cabinets, carbon black – required for mounting 5U Rackmount Tape Drive Enclosure in M-Series cabinet	254795-001
NOTE: The 5U Rackmount Tape Drive Enclosure supports four full-height devices; select up to four DLT or SDLT devices with 274339-B21, or select preconfigured configurations listed below.		
	DLT8000 40/80-GB tape drive, requires 3X-KZPCA-AA LVD adapter, carbon black	146196-B22
	SDLT 110/220-GB tape drive, requires 3X-KZPCA-AA or 3X-KZPEA-DB LVD adapter, carbon black	192106-B25
	SDLT 160/320-GB tape drive, requires 3X-KZPCA-AA or 3X-KZPEA-DB LVD adapter, carbon black	257319-B21

Preconfigured configurations

SDLT 110/220-GB Tape Array III, 5U rackmount kit, carbon black	274336-B21
DLT 40/80-GB Tape Array III, 5U rackmount kit, carbon black	274337-B21
DLT Tape Array III Model 0 enclosure, U.S.	168047-001
Same as above, International	168047-B31
Same as above, Japan	168047-291

Removable Media Device for External StorageWorks Shelves	DAT 12/24-GB 4-mm narrow SCSI tape drive in StorageWorks carrier	DS-TLZ10-VA
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Network Storage Routers

NOTE: The following Network Storage Routers are supported with MSL5000 and ELS9000 tape libraries:

NSR e1200 One Fibre Channel x 2 LVD FC to SCSI Data Router, Tru64 UNIX and OpenVMS, carbon black (262672-B21)	3R-A3746-AA
NSR e2400 Two Fibre Channel x 4 LVD FC to SCSI Data Router with card cage, Tru64 UNIX and OpenVMS, carbon black (262665-B21)	3R-A3935-AA
NSR e2400 Two Fibre Channel x 4 LVD FC to SCSI Data Router with no card cage, Tru64 UNIX and OpenVMS, carbon black (262664-B21)	3R-A3745-AA
NSR N1200 One Fibre Channel x 2 LVD FC to SCSI Data Router, Tru64 UNIX and OpenVMS, supports tape drives and tape libraries (280823-B21)	3R-A3747-AA
NSR m2402 Two Fibre Channel x 4 LVD FC to SCSI Data Router, Tru64 UNIX and OpenVMS (262653-B21)	3R-A3740-AA
NSR m2402 Two Fibre Channel x 4 HVD FC to SCSI Data Router, Tru64 UNIX and OpenVMS (262654-B21)	3R-A3741-AA

Options

Step 6 – External Storage – Optional (continued)

Storage Controllers/Host Bus Adapters for StorageWorks Pedestals and Shelves

- Storage controllers require a minimum operating system revision of Tru64 UNIX V4.0F or OpenVMS V7.1-2 unless noted otherwise.
- Each storage controller/adaptor uses one PCI slot

	Maximum # Supported			
	Tru64 UNIX	OpenVMS	Linux	
PCI-to-Fibre Channel host bus adapter (168794-B21)	2	2	-	DS-KGPSA-CA
PCI to 2-Gb Fibre Channel adapter, 64-bit/33 MHz, single-channel (261329-B21)	2	2	-	DS-KGPSA-DA
Fibre Channel cable BNGBX-xx=02, 05, 15, 30, 50 metres (234457-B2x) 234457-B2x=1 (02m), 2 (05m), 3 (15m), 4 (30m), 5 (50m)				BNGBX-xx
PCI-to-Fibre Channel 64-bit adapter, HBA	-	-	2	DS-SWLA4-PD
PCI 2-port UltraSCSI single-ended adapter and 10/100 Mb Ethernet combo adapter	2	2	-	KZPCM-DA
VHDCI male-to-VHDCI male UltraSCSI cable, xx=02, 2E(2.5), 03, 05, 10, 20 metres)				BN37A-xx
PCI 1-port Ultra2 SCSI (LVD) single-ended adapter, 68-pin HD connector, requires BN38C cable (2 to 20 metres) to connect to single-ended UltraSCSI shelf	2	2	3	3X-KZPCA-AA
68-pin HD male-to-VHDCI male UltraSCSI cable; required for each external UltraSCSI shelf attached to KZPCA-AA adapter				BN38C-xx
PCI 2-channel LVD multi-mode Ultra3 SCSI adapter, VHDCI (only supported in dual-bus shelves) Requires use of Ultra160 SCSI cables. NOTE: Patch kit required, kit is available at http://ftp1.support.compaq.com/public/Digital_UNIX/v5.1/ NOTE: This website is available in English only. No shared bus support with OpenVMS. No shared tape/library support with OpenVMS or Tru64 UNIX. 3X-KZPEA-DB adapter supports shared bus using hard disk drives under Tru64 UNIX V5.1A with PK4 and NHD5 or V5.1B and TruCluster V5.1B with Initial Patch Kit installed; supports maximum of two nodes per shared bus; requires 3X-BN55A-01 Y-cable and connector plug assembly, and 3X-H32CT-AA external LVD terminator per shared bus. NOTE: Tru64 UNIX Initial Patch Kit for V5.1B located at: http://ftp1.support.compaq.com/public/unix/5.1b . NOTE: These Web sites are available in English only.	1 (V5.1 or higher)	1	-	3X-KZPEA-DB

Options

Step 6 – External Storage – Optional (continued)

Storage Controllers/Host Bus Adapters for StorageWorks Pedestals and Shelves (continued)

- Storage controllers require a minimum operating system revision of Tru64 UNIX V4.0F or OpenVMS V7.1-2 unless noted otherwise.
- Each storage controller/adaptor uses one PCI slot

	Maximum # Supported			
	Tru64 UNIX	OpenVMS	Linux	
Ultra160 SCSI cables xx=02 for 6 feet, 03 for 12 feet, 04 for 24 feet				3X-BC56J-xx
PCI 1-port UltraSCSI differential adapter; includes external 68-pin HD connector; requires BN38C-xx cable (2-25 metres) to connect adapter to Differential UltraSCSI shelf or RAID controller NOTE: Internal Connection is not supported.	2	2	2	3X-KZPBA-CC
68-pin HD male-to-VHDCI male UltraSCSI cable; required for each external UltraSCSI shelf attached to KZPBA-CA/CB adapter				BN38C-xx
PCI 3-channel Ultra2 LVD RAID controller, 64-bit, 64-MB cache NOTES:	2 (V4.0F/4.0G/5.1/V5.1A)	-	-	DS-KZPCC-CE
<ul style="list-style-type: none"> • Supported with BA610-6D, BA356 DS-SL13R-xx, or DS-SSL14-Rx shelves only. • BA610-6D Nile Card must be at rev 0B to support internal RAID. • When installed in BA356 shelves, part number DS-BA35X-FC is required for non-factory installations. • Graphics card is required to run the DS-KZPCC-CE console utilities (SMOR) with SRM console versions lower than V6.0 or, alternatively can be run via serial line and terminal emulation software for SRM V6.0 or higher. PB2GA-JC/JD graphics cards are not supported. • EV6 systems not supported. • Tru64 UNIX V4.0F requires NHD3 and Patch Kit 4 (BL15) or later. • Tru64 UNIX V5.1 requires Patch Kit 3 (BL17) and Early Release Patch C462. <ul style="list-style-type: none"> - Patch Kit 3 (BL17) is located at: T64V5117-C0046202-11060-Manual-ER-20010615.tar - Patch C462.02 is located at: http://ftp1.support.compaq.com/public/unix/v5.1/ • NOTE: This Web site is available in English only. • TruCluster V5.1 (restricted to non-shared buses only) 				

Options

Step 6 – External Storage – Optional (continued)

Storage Controllers/Host Bus Adapters for StorageWorks Pedestals and Shelves (continued)

- Storage controllers require a minimum operating system revision of Tru64 UNIX V4.0F or OpenVMS V7.1-2 unless noted otherwise.
- Each storage controller/adaptor uses one PCI slot

	Maximum # Supported			
	Tru64 UNIX	OpenVMS	Linux	
PCI 1-channel Ultra2 LVD backplane RAID controller, 64-bit, 16-MB cache NOTES: <ul style="list-style-type: none"> • Supported with BA610-6D, BA356, and DS-SL13R-xx shelves only. • BA610-6D Nile Card must be at rev 0B to support internal RAID. • When installed in BA356 shelves, part number DS-BA35X-FC is required for non-factory installations. • Graphics card is required to run the DS-KZPCC-AC console utilities (SMOR) with SRM console versions lower than V6.0 or, alternatively can be run via serial line and terminal emulation software for SRM V6.0 or higher. PB2GA-JC/JD graphics cards are not supported. • EV6 systems not supported. Tru64 UNIX V4.0F requires NHD3 and Patch Kit 4 (BL15) or later. • Tru64 UNIX V5.1 requires Patch Kit 3 (BL17) and Early Release Patch C462. <ul style="list-style-type: none"> - Patch Kit 3 (BL17) is located at: T64V5117-C0046202-11060-Manual-ER-20010615.tar - Patch C462.02 is located at: http://ftp1.support.compaq.com/public/unix/v5.1/ • NOTE: This Web site is available in English only. • TruCluster V5.1 (restricted to non-shared buses only) 	2 (V4.0F/4.0G/5.1/ V5.1A)	-	-	DS-KZPCC-AC
PCI 2-port PCI to Ultra3, 64-bit, 66-MHz, LVD backplane RAID controller with 128-MB cache (uses one PCI slot); requires connection to DS-SL13R-xx shelves. Requires use of Ultra160 SCSI cables. NOTE: Host-based volume shadowing or shared bus support not supported under OpenVMS. Tru64 UNIX support: TruCluster support is restricted to non-shared buses only. Requires V5.1B with Initial Patch Kit located at: http://ftp1.support.compaq.com/public/unix/51b . Tru64 UNIX V5.1A support requires patch kit located at: http://ftp1.support.compaq.com/public/unix/V5.1a	1	1	-	3X-KZPDC-BE
PCI 4-port PCI to Ultra3, 64-bit, 66-MHz, LVD backplane RAID controller with 256-MB cache (uses one PCI slot); requires connection to DS-SL13R-xx shelves. Requires use of Ultra160 SCSI cables. NOTE: Host-based volume shadowing or shared bus support not supported under OpenVMS. Tru64 UNIX support: TruCluster support is restricted to non-shared buses only. Requires V5.1B with Initial Patch Kit located at: http://ftp1.support.compaq.com/public/unix/51b . Tru64 UNIX V5.1A support requires patch kit located at: http://ftp1.support.compaq.com/public/unix/V5.1a NOTE: These Web sites are available in English only.	1	1	-	3X-KZPDC-DF
Ultra160 SCSI cables xx=02 for 6 feet, 03 for 12 feet, 04 for 24 feet.				3X-BC56J-xx
PCI 1-port UltraSCSI RAID controller with 4-MB cache memory, includes RAID Array 230/Plus Subsystem software and documentation kit and VHDCI female connector; tape drives not supported – 18.2-GB or higher disk drives not supported on KZPAC-xx RAID controllers	2	2	-	KZPAC-AA
PCI 3-port UltraSCSI RAID controller with 4-MB cache memory, includes RAID Array 230/Plus Subsystem Software and documentation kit; tape drives not supported; SCSI cable required for each active port; requires BN31K-0E for external third-port connection – 18.2-GB or higher disk drives not supported on KZPAC-xx RAID controllers	2	2	-	KZPAC-CA

Options

Step 6 – External Storage – Optional (continued)

Storage Controllers/Host Bus Adapters for StorageWorks Pedestals and Shelves (continued)

- Storage controllers require a minimum operating system revision of Tru64 UNIX V4.0F or OpenVMS V7.1-2 unless noted otherwise.
- Each storage controller/adaptor uses one PCI slot

	Maximum # Supported			
	Tru64 UNIX	OpenVMS	Linux	
PCI 3-port UltraSCSI RAID controller with 8-MB cache memory, includes RAID Array 230/Plus Subsystem Software and documentation kit; tape drives not supported; SCSI cable required for each active port; requires BN31K-0E for external third-port connection –18.2-GB or higher disk drives not supported on KZPAC-xx RAID controllers	2	2	-	KZPAC-CB
Cache battery backup for KZPAC controller				KZPSC-UB
VHDCI male-to-VHDCI male UltraSCSI cable, xx=02, 2E(2.5), 03, 05, 10, 20 m) NOTE: Manufacturing may substitute BN37A-02 cable for specific cabinet configurations				BN37A-xx
SCSI cable/bulkhead assembly kit with KZPAC-CA/CB, allows external connection of one third port				BN31K-0E
SCSI cable/bulkhead assembly kit, supports two third-port connections from KZPAC-CA/CB, allows external connection of two third ports				KZPAC-SB
PCI 1-channel Ultra2 SCSI RAID controller, 4-MB cache (Linux-Ready systems only)	-	-	3	SN-KZPBC-AA
PCI 3-channel Ultra2 SCSI RAID controller, 32-MB cache (Linux-Ready systems only)	-	-	3	FR-PCTAR-IB

Options

Step 6 – External Storage – Optional (continued)

External Storage Solutions/Controllers	Enterprise Virtual Array Model 2C6D-B 60-Hz, includes 41U graphite storage cabinet, M3220 controller assembly with dual HSV110 controllers, six M5214 dual-redundant FC loop 14-bay drive enclosures, four 12-port FC loop switches; requires DS-KGPSA-xx (283198-B21)	DS-SV110-JA
	Enterprise Virtual Array Model 2C6D-B 50-Hz, includes 41U graphite storage cabinet, M3220 controller assembly with dual HSV110 controllers, six M5214 dual-redundant FC loop 14-bay drive enclosures, four 12-port FC loop switches; requires DS-KGPSA-xx (283198-B22)	DS-SV110-JB
	Enterprise Virtual Array Model 2C12D-B 60-Hz, includes 41U graphite storage cabinet, M3220 controller assembly with dual HSV110 controllers, twelve M5214 dual-redundant FC loop 14-bay drive enclosures, four 12-port FC loop switches; requires DS-KGPSA-xx (283199-B21)	DS-SV110-KA
	Enterprise Virtual Array Model 2C12D-B 50-Hz, includes 41U graphite storage cabinet, M3220 controller assembly with dual HSV110 controllers, twelve M5214 dual-redundant FC loop 14-bay drive enclosures, four 12-port FC loop switches; requires DS-KGPSA-xx (283199-B22)	DS-SV110-KB
	Enterprise Virtual Array Model 8C8D 60-Hz, includes 41U graphite storage cabinet, four M3220 controller assembly with eight HSV110 controllers, eight M5214 dual FC loop 14-bay drive enclosures; requires DS-KGPSA-xx (283263-B21)	DS-SV110-LA
	Enterprise Virtual Array Model 8C8D 50-Hz, includes 41U graphite storage cabinet, four M3220 controller assembly, with eight HSV110 controllers, eight M5214 dual FC loop 14-bay drive enclosures; requires DS-KGPSA-xx (283263-B22)	DS-SV110-LB
	Enterprise Virtual Array Model 0C6D-B 60-Hz, includes 41U graphite storage cabinet, six M5214 dual-redundant FC loop 14-bay drive enclosures, twelve 16.4-foot/5-metre interconnect cables (to 2C12D-B); requires DS-KGPSA-xx (283264-B21)	DS-SV110-MA
	Enterprise Virtual Array Model 0C6D-B 50-Hz, includes 41U graphite storage cabinet, six M5214 dual-redundant FC loop 14-bay drive enclosures, twelve 16.4-foot/5-metre interconnect cables (to 2C12D-B); requires DS-KGPSA-xx (283264-B22)	DS-SV110-MB
	Enterprise Virtual Array Model 0C12D-B 60-Hz, includes 41U graphite storage cabinet, twelve M5214 dual-redundant FC loop 14-bay drive enclosures, twenty-four 16.4-foot/5-metre interconnect cables (to two 2C12D-B's); requires DS-KGPSA-xx (283265-B21)	DS-SV110-NA
	Enterprise Virtual Array Model 0C12D-B 50-Hz, includes 41U graphite storage cabinet, twelve M5214 dual-redundant FC loop 14-bay drive enclosures, twenty-four 16.4-foot/5-metre interconnect cables (to two 2C12D-B's); requires DS-KGPSA-xx (283265-B22)	DS-SV110-NB
SAN Solutions Kits	Tru64 UNIX SAN Solutions Kit for Enterprise Virtual Array V2.0 (250193-B22) NOTE: V5.1 requires Patch Kit 3: T64V51B19AS0005-20020411.tar V5.1A requires Patch Kit 3: T64V51AB03AS0003-20020827.tar	QB-6RPAB-SB
	OpenVMS SAN Solutions Kit for Enterprise Virtual Array V2.0 (250194-B22) NOTE: V7.2-2 requires Tima Kit: DEC-AXPVMS-VMS722_FIBRE_SCSI-V0200 V7.3 REQUIRES Tima Kit: DEC-AXPVMS-VMS73_FIBRE_scsi-V0300	QB-6RPAC-SB

Options

Step 6 – External Storage – Optional (continued)

Modular Array 8000 RAID Solution	Modular Array 8000 Fibre Channel RAID storage solution, 60 Hz; includes one HSG80 controller with 256-MB cache, one M2200 controller shelf, three dual-bus disk shelves, two I/O ports, two power supplies	DS-SWXEB-CA
	Modular Array 8000 Fibre Channel RAID storage solution, 50 Hz; includes one HSG80 controller with 256-MB cache, one M2200 controller shelf, three dual-bus disk shelves, two I/O ports, two power supplies	DS-SWXEB-CB
Enterprise Modular Array 12000 Solution	Enterprise Modular Array 12000 Fibre Channel RAID storage solution, 60 Hz	DS-SWXEB-DA
	Enterprise Modular Array 12000 Fibre Channel RAID storage solution, 50 Hz	DS-SWXEB-DB
StorageWorks Fibre Channel Switches	<p>NOTE: For more information on the following switches, refer to http://www.compaq.com/products/quickspecs/10457_na/10457_na.HTML</p> <p>NOTE: This Web site is available in English only.</p>	
	Fibre Channel SAN switch, 8-ports, 2-Gb, with Fabric Operating Software (258707-B21)	DS-DSGGD-AC
	Fibre Channel SAN Switch, 16-ports, 2-Gb, with Fabric Operating Software (283056-B21)	DS-DSGGD-AD
	Fibre Channel SAN Switch, 16-ports, 2 Gb, with Fabric Operating Software, two power supplies (Tru64 UNIX and OpenVMS) – requires Tru64 UNIX V5.1A patch kit: T64V51AB01AS0001-20020116.tar (287055-B21)	DS-DSGGD-BA
	Fibre Channel 2-Gb 64-port Core Switch, with Fabric Operating software	DS-DSGGE-AB
	Unmanaged Fibre Channel 7-port Storage Hub, North America (Tru64 UNIX only) (234453-001)	DS-SWXHB-07
	Fibre Channel 7-port Storage Hub, International (Tru64 UNIX only) (234453-B31)	DS-SWXHB-17
	Fibre Channel 7-port Storage Hub, Japan (Tru64 UNIX only) (234453-291)	DS-SWXHB-J7
	Long wave GBIC (127508-B21)	DS-DSGGA-MA
	Short wave optical GBIC (380561-B21)	DS-DXGGA-SA
	2 x 4 LVD Fiber Channel to SCSI Network Storage Router (262653-B21)	3R-A3740-AA
McData 64-port Fibre Channel SAN Director Class Switch	SAN Director 2 Gb, 64 ports	DS-DMGGD-BA
	SAN Edge Switch 2 Gb, 32 ports	DS-DMGGE-BC
	SAN Edge Switch 2 Gb, 16-ports	DS-DMGGE-BB
	<p>NOTE: Connection for, or between, 1-Gb and/or 2-Gb SAN switches requires different cables. Refer to the Switches, Hubs, and Interconnects QuickSpecs at: http://www.compaq.com/products/quickspecs/North_America/10490.html</p> <p>NOTE: This Web site is available in English only.</p>	
Fibre Channel Disk Drives	36-GB 10K rpm dual-port 2-Gb/sec FC-AL 1-inch (25.4mm) drive (238590-B21)	3R-A3239-AA
	72-GB 10K rpm dual-port 2-Gb/sec FC-AL 1-inch (25.4mm) drive (238921-B21)	3R-A3260-AA
	36-GB 15K rpm dual-port 2-Gb/sec FC-AL 1-inch (25.4mm) drive (236205B21)	3R-A3210-AA
Removable Media Device for External StorageWorks Shelves	DAT 12/24-GB 4 mm narrow SCSI tape drive in StorageWorks carrier	DS-TLZ10-VA

Options

Step 6 – External Storage – Optional (continued)

StorageWorks Universal Drive Shelves – Model 4314R (Ultra3)	StorageWorks Model 4314R Ultra3 SCSI (LVD) single bus, Universal drive rackmount shelf, North America and International, except Japan (190209-001)	DS-SL13R-AA
	Same as above, Japan (190209-291)	DS-SL13R-AJ
StorageWorks Universal Drive Shelves – Model 4354R (Ultra3)	StorageWorks Model 4354R Ultra3 SCSI (LVD), dual bus, Universal drive rackmount shelf, North America and International, except Japan (190211-001)	DS-SL13R-BA
	Same as above, Japan (190211-291)	DS-SL13R-BJ
StorageWorks Universal Drive Shelves – Model 4314T (Ultra3)	StorageWorks Model 4314T, Ultra3, Universal Drive Shelves Single Bus, Tower, U.S. (190210-001)	DS-SL13T-AA
	StorageWorks Model 4314T, Ultra3, Universal Drive Shelves Single Bus, Tower, International (190210-B31)	DS-SL13T-AB
	StorageWorks Model 4314T, Ultra3, Universal Drive Shelves Single Bus, Tower, Japan (190210-291)	DS-SL13T-AJ
StorageWorks Universal Drive Shelves – Model 4200 to Model 4300 Upgrade I/O Modules	StorageWorks Model 4300 Ultra 160 single-port LVD I/O Module (190212-B21)	DS-SE3ZJ-DA
	StorageWorks Model 4300 Ultra 160 dual-port LVD I/O Module (190213-B21)	DS-SE3ZJ-SA
System Disk Drives (Supported in Model 4314R, 4314T, or 4354R Universal Drive Shelves)	18.2-GB Ultra320 SCSI 15,000 rpm 1-inch Universal disk drive	3R-A3848-AA
	36.4-GB Ultra320 SCSI 10,000 rpm 1-inch Universal disk drive	3R-A3838-AA
	36.4-GB Ultra320 SCSI 15,000 rpm 1-inch Universal disk drive	3R-A3849-AA
	72.8-GB Ultra320 SCSI 10,000 rpm 1-inch Universal disk drive	3R-A3839-AA
	72.8-GB Ultra320 SCSI 15,000 rpm 1-inch Universal disk drive	3R-A3851-AA
	146-GB Ultra320 SCSI 10,000 rpm 1-inch Universal disk drive	3R-A3841-AA

Options

Step 7 – UltraSCSI RAID Array Controllers & UltraSCSI RAID Packaged Solutions – Optional

Enterprise Virtual Array Model 8C8D	Enterprise Virtual Array Model 8C8D 60-Hz, includes 42U opal storage cabinet, four M3220 controller assembly with eight HSV110 controllers, eight M5214 dual FC loop 14-bay drive enclosures	239782-001
	Enterprise Virtual Array Model 8C8D 50-Hz, includes 42U opal storage cabinet, four M3220 controller assembly with eight HSV110 controllers, eight M5214 dual FC loop 14-bay drive enclosures	249977-B21
RAID Array 3000 Rackmount Controller Shelf	<ul style="list-style-type: none"> • Selection of RA3000 Solutions Software Kit is required • Supported SCSI adapter – 3X-KZPBA-CC PCI 1-port UltraSCSI differential adapter RA3000 rackmount controller shelf, blue, with one controller, 110V Includes: UltraSCSI BA356 controller shelf, one HSZ22 2-channel controller with 16-MB cache, integrated Environmental Monitoring Unit (EMU), two 180W power supplies, two dual-port host differential UltraSCSI I/O SBBs, dual-channel UltraSCSI single-ended personality modules, one 120V 1000VA rackmount UPS, 5-m host SCSI cable (BN37A-05), BN38E-0B adapter, UPS serial cable, PC connection serial cable (DB-9), two 68-pin HD tri-link adapters (H8861-AA), two North America power cords, and RETMA mounting bracket (disk shelves and disks not included) Requires: Solutions Software Kit for platform, host adapter, RA3000 disk shelf, and disks Options: Second HSZ22 controller, up to four additional RA3000 disk shelves, cache memory upgrade	DS-SWXRA-GH
	RA3000 rackmount controller shelf, blue, with one controller, 230V Includes: UltraSCSI BA356 controller shelf, one HSZ22 2-channel controller with 16-MB cache, integrated Environmental Monitoring Unit (EMU), two 180W power supplies, two dual-port host differential UltraSCSI I/O SBBs, dual-channel UltraSCSI single-ended personality modules, one 230V 1000VA rackmount UPS, 5-m host SCSI cable (BN37A-05), BN38E-0B adapter, UPS serial cable, PC connection serial cable (DB-9), two 68-pin HD tri-link adapters (H8861-AA), RETMA mounting bracket (disk shelves and disks not included) Requires: Solutions Software Kit for platform, two country-specific power cords, host adapter, RA3000 disk shelf, and disks Options: Second HSZ22 controller, up to four additional RA3000 disk shelves, cache memory upgrade	DS-SWXRA-GK

Options

Step 7 – UltraSCSI RAID Array Controllers & UltraSCSI RAID Packaged Solutions – Optional (continued)

RAID Array 3000 Rackmount Disk Shelf	<ul style="list-style-type: none"> Select one to four disk shelves Third and fourth DS-SWXRA-GN disk shelf ordered will be installed in rear of M-Series cabinet; rear mounted shelves require that a 2-metre BN37A-02 SCSI cable be ordered RA3000 rackmount disk shelf, blue, includes UltraSCSI BA356 disk shelf, two 180W power supplies, single-ended UltraSCSI personality card, one half metre SCSI cable (BN37A-0E), two North America power cords, and RETMA mounting bracket (disks not included); order two country-specific power cords for non-North America use	DS-SWXRA-GN						
HSZ22 Controller	<ul style="list-style-type: none"> Note that second HSZ22 controller ordered is field installed only, not factory installed; requires BN37A-0E SCSI jumper cable be ordered separately Second HSZ22 controller with 16-MB cache and two 16-MB SIMMs for mirror cache, one BN37A-05 5-metre UltraSCSI cable, one BN38E-0B cable adapter – field installable only; note that second HSZ22 controller does not require additional Solution Software Kit	DS-HSZ22-AA						
	Second HSZ22 controller with 32-MB cache and two 32-MB SIMMs for mirror cache, one BN37A-05 5-metre UltraSCSI cable, one BN38E-0B cable adapter – field installed only; note that second HSZ22 controller does not require additional Solution Software Kit	DS-HSZ22-AB						
RA3000 Solutions Software Kit	<ul style="list-style-type: none"> StorageWorks Command Console (SWCC) software Platform specific software Installation scripts and installation documentation RA3000 Solutions Software Kit for Tru64 UNIX RA3000 Solutions Software Kit for OpenVMS	QB-5TWAB-SA QB-5TWAC-SA						
HSG80 External Controllers	Fibre Channel Controller (HSG80), includes 256-MB cache, requires following firmware: 8.6-4F ACS FW (222318-B22, QB-6BUAA-SD), one per controller 8.6-4S ACS FW (222364-B22, QB-6ENAA-SC), one per controller 8.6-4P ACS FW (222316-B22, QB-6CAAA-SD), one per controller Requires Tru64 UNIX software: 222320-B23, QB-65RAB-SE, one per controller Requires OpenVMS software: 222321-B22, QB-65RAC-SD, one per controller Additional 256-MB cache for HSG80 (380674-B21) Single cache battery, one per HSG80 controller (135823-B21) Model 2200 controller shelf for HSG80 controller (DS-SE2ZS-C8) – includes dual power supplies and power cables	DS-HSG80-BK DS-HSDIM-AC DS-SE2CS-CB 135820-B21						
StorageWorks Disk Array Family	<p>NOTE: The HP StorageWorks Disk Array Family, specifically the XP128 and XP1024, are now supported on AlphaServer DS10 systems. For product and ordering information, refer to the following Web pages: http://www.hp.com/products1/storage/products/disk_arrays/highend/xp1024/index.html http://www.hp.com/products1/storage/products/disk_arrays/highend/xp128/index.html</p> <p>NOTE: These Web sites are available in English only. The following part numbers have been assigned for reference purposes only:</p> <table border="1" data-bbox="505 1436 1274 1486"> <tr> <td>3R-A4417-AA</td> <td>A7876A</td> <td>XP128 Disk Array Control Frame</td> </tr> <tr> <td>3R-A4418-AA</td> <td>A7906A</td> <td>XP1024 Disk Array Control Frame</td> </tr> </table>		3R-A4417-AA	A7876A	XP128 Disk Array Control Frame	3R-A4418-AA	A7906A	XP1024 Disk Array Control Frame
3R-A4417-AA	A7876A	XP128 Disk Array Control Frame						
3R-A4418-AA	A7906A	XP1024 Disk Array Control Frame						
RA3000 Pedestals	RA3000 UltraSCSI seven SBB slot pedestal cabinet, blue-gray, 230 volts, includes one DS-HSZ22-A controller, 16-MB cache, two host ports, two device ports, slot for second DS-HSZ22-AA, two redundant power supplies 204 watts with fans, one BN37A-05 cable, one BN38E-0B adapter, one serial cable, on UPS, two North America power cords RA3000 UltraSCSI seven SBB slot pedestal, blue-gray, 120/230 volts, includes two redundant power supplies 204 watts with fans, one BN37A-01 cable, two country power cords	DS-SWXRA-GC DS-SWXRA-GD						
ESA 10000, RAID Array 7000, RAID Array 8000	<ul style="list-style-type: none"> Enterprise Storage Array 10000 and RAID Array 7000 (HSZ70) product set are supported on AlphaServer DS10 systems Supported SCSI adapter for HSZ80/HSZ70 – 3X-KZPBA-CC PCI 1-port UltraSCSI differential adapter Supported SCSI adapter for HSG80 – KGPSA-BC PCI 1-port Fiber-Channel adapter 							

Options

Step 8 – Networks and Communications – Optional

- Reference individual product information for operating system support.
- Systems include dual embedded 10/100 BaseT Ethernet ports (BN25G-xx cable must be ordered separately)
- Additional Ethernet ports can be added using available PCI slots

	Maximum # Supported			
	Tru64 UNIX	OpenVMS	Linux-Ready	
Ethernet 10/100				
PCI (32-bit, 33-MHz) single-port 10/100 Ethernet (UTP/RJ45) NIC Use BN25G, BN26M, BN24Q, or BN28Q twisted pair RJ45 cables.	2	2	2	3X-DE600-AA
Single-port 100Mbps (MMF/duplex-SC) add-on daughter card for use with 3X-DE602-BB. The combined 3X-DE602-BB 3X-DE602-FA provides two 10/100 (UTP/RJ45s) and one 100Mbps (MMF/SC) ports in a single PCI slot option. Maximum two per system, maximum ten 10/100 Ethernet ports supported per system. Use BN34A or BN34B cables. NOTE: The 3X-DE602-FA cannot be used standalone. NOTE: Two 10/100 Ethernet ports included with DS10 system.	2	1	-	3X-DE602-FA
PCI (32-/64-bit, 33-/66-MHz) dual-port 10/100 Ethernet (UTP/RJ45s) NIC and Base Module. (One 3X-DE602-TA or 3X-DE602-FA optional add-on daughter card can be combined with this module.) Maximum two per system, maximum ten 10/100 Ethernet ports per system. Use BN25G, BN26M, BN24Q, or BN28Q twisted pair RJ45 cables. NOTE: Two 10/100 Ethernet ports included with DS10 system.	2	2	-	3X-DE602-BB
Dual-port 10/100 Ethernet (UTP/RJ45) add-on daughter card for use with the 3X-DE602-BB only. The combined 3X-DE602-BB and 3X-DE602-TA modules provide four 10/100 (UTP/RJ45s) ports in a single PCI slot option; allows for a maximum of 16 ports per system. Maximum two per system, maximum ten 10/100 Ethernet ports per system. Use BN25G, BN26M, BN24Q, or BN28Q twisted pair RJ45 cables. NOTE: The 3X-DE602-TA cannot be used standalone. <ul style="list-style-type: none"> ▪ OpenVMS V7.3 requires Tima Kit: <ul style="list-style-type: none"> - DEC-AXPVMS-VMS73_LAN-V0100—4.PCSI ▪ OpenVMS V7.2-2H1 requires OpenVMS Tima Kit located at: <ul style="list-style-type: none"> - http://ftp.support.compaq.com/patches/new/openvms.shtml NOTE: Two 10/100 Ethernet ports included with DS10 system. NOTE: This Web site is available in English only.	2	2	-	3X-DE602-TA
Cable for 10BaseT twisted pair connection				BN25G-xx
PCI (32-/64-bit, 33-/66-MHz) single-port 1000 Mbps (MMF/SC) NIC; no on-board boot-ROM support. Use BN34A or BN34B cables.	1	1	1	DEGPA-SA
Multi-function Ethernet 10/100				
PCI combo adapter, Permedia P2 graphics, 10/100 NIC, 1-port SCSI	1	1	-	3X-DEPVZ-AA
3X-DEPVZ-AA specific-use 3-metre LVD2 SCSI cable				BN37A-03
PCI-to-Gigabit Ethernet adapter – UTP, with RJ45 (no boot support)	1	1	1	DEGPA-TA

Options

Step 8 – Networks and Communications – Optional (continued)

- Reference individual product information for operating system support.
- Systems include dual embedded 10/100 BaseT Ethernet ports (BN25G-xx cable must be ordered separately)
- Additional Ethernet ports can be added using available PCI slots

	Maximum # Supported			
	Tru64 UNIX	OpenVMS	Linux-Ready	
FDDI				
PCI FDDI adapter, single attachment station (SAS), multi-mode fiber (MMF), SC connector	1	1	-	3X-DEFPA-AC
PCI (32-bit, 33-MHz) to FDDI DAS (MMF/duplex-SC) NIC. Use BN34A, BN34B, or BN34D cables.	1	1	-	3X-DEFPA-DC
FDDI-specific cable - Multimode fiber optic (MMF) 62.5/125um duplex cable with SC-to-MIC connectors. -xx = available lengths: (01, 03, 10) for 1, 3, 10 metres				BN34D-xx
SC-to-SC dual fiber optic cable mm, pp xx = length in metres				BN34B-xx
PCI (32-bit, 33-MHz) to FDDI SAS (UTP/RJ45) NIC. Use BN25G, BN26M, BN24Q, or BN28Q twisted pair RJ45 cables.	1	1	-	3X-DEFPA-UC
PCI (32-bit, 33-MHz) to FDDI DAS (UTP/RJ45s) NIC. Use BN25G, BN26M, BN24Q, or BN28Q twisted pair RJ45 cables.	1	1	-	3X-DEFPA-MC
ATM				
PCI (32-bit, 33-MHz) to 155 Mbps ATM, copper NIC with RJ45 connector. Use BN25G-xx, or BN26M-xx cables.	2 (V4.0F)	2 (V7.2-1)	-	3X-DAPBA-UA
PCI (32-bit, 33-MHz) to 155 Mbps ATM fiber NIC with SC connector. Use BN34B-xx cable.	2 (V4.0F)	2 (V7.2-1)	-	3X-DAPBA-FA
PCI (32-bit, 33-MHz) to 622 Mbps ATM fiber NIC with SC connector. Use BN34B-xx cable.	1 (V4.0F)	2 (V7.2-1)	-	3X-DAPCA-FA
Asynchronous Communications (ASYNC)				
PCI (32-bit, 33-MHz) to quad-port Async Communications NIC with DB-25 octopus cable				PBXDA-BA
PCI (32-bit, 33-MHz) to 8-port Async Communications NIC with DB-25 octopus cables				PBXDA-BB
PCI 16-port asynchronous controller, cable included; maximum three PBXDA-Ax per system	3 (V4.0F)	3	-	PBXDA-AC
PBXDA-AC Asynchronous Connector Adapters				
RJ45 to DB-25 converter cable				CXI01-AC
RJ45 to DEC MJ11 converter cable (8 pack)				CXI01-AF
Synchronous Communications (SYNC)				
PCI (32-bit, 33-MHz) to dual-port intelligent synchronous communications NIC. Requires at least one (maximum two) BN34x synchronous cable listed below.	2	2	-	3X-PBXDD-AA
PCI (32-bit, 33-MHz) to quad-port intelligent synchronous communications NIC. Requires at least one (maximum four) BN34x synchronous cable listed below.	2	2	-	3X-PBXDD-AB

Options

Step 8 – Networks and Communications – Optional (continued)

- Reference individual product information for operating system support.
- Systems include dual embedded 10/100 BaseT Ethernet ports (BN25G-xx cable must be ordered separately)
- Additional Ethernet ports can be added using available PCI slots

	Maximum # Supported			
	Tru64 UNIX	OpenVMS	Linux-Ready	
Synchronous-Specific Cables				
EIA-530 single-port cable				3X-BC34G-06
V.24/EIA-232 single-port cable				3X-BC34L-06
V.11/x.21 single-port cable				3X-BC33S-06
V.35 single-port cable				3X-BC34T-06
Ethernet, FDDI, ATM Multi-use Cables				
Multimode fiber optic (MMF) 62.5/125um duplex cable, with SC-to-ST connectors. -xx = available lengths: (2E, 4E, 01, 03, 10, 20, 30) for 2.4, 4.5, 1, 3, 10, 20, 30 metres				BN34A-xx
Multimode fiber optic (MMF) 62.5/125um duplex cable, with SC-to-SC connectors. -xx = available lengths: (2E, 4E, 01, 03, 10, 20, 30) for 2.4, 4.5, 1, 3, 10, 20, 30 metres				BN34B-xx
Category 5e (4-Unshielded Twisted Pairs / UTP) straight-through cable with RJ45-to-RJ45 connectors for system to switch, repeater, or hub connectivity. -xx = available lengths: (0B, 0E, 01, 03, 04, 07) for 0.2, 0.5, 1, 3, 4, 7 metres				BN25G-xx
Category 5e (4-Twisted Pairs, Screened/ ScTP) straight-through cable with RJ45-to-RJ45 connectors for system to switch, repeater, or hub connectivity. -xx = available lengths: (0E, 01, 03, 04, 07) for 0.5, 1, 3, 4, 7 metres				BN26M-xx
Category 5e (4-Unshielded Twisted Pairs / UTP) Xover cable with RJ45-to-RJ45 connectors for system to switch, repeater, or hub connectivity. -xx = available lengths: (0E, 01, 03, 04, 07) for 0.5, 1, 3, 4, 7 metres				BN24Q-xx
Category 5e (4-Twisted Pairs, Screened / ScTP) Xover cable with RJ45-to-RJ45 connectors for system to switch, repeater, or hub connectivity. -xx = available lengths: (0E, 01, 03, 04, 07) for 0.5, 1, 3, 4, 7 metres				BN28Q-xx

Step 9 – Graphics Adapters – Optional

- RAID Configuration Utility is accessible via console port for Tru64 UNIX and OpenVMS systems; optional graphics capability available
- Select graphics adapter, monitor, and country-specific keyboard if required
- Open3D license ships with PowerStorm 300/350 graphics accelerators – Open3D drivers and libraries ship with either the operating system or graphics accelerator.

	Maximum # Supported			
	Tru64 UNIX	OpenVMS	Linux-Ready	
3Dlabs Oxygen VX1 32-MB PCI 2D graphics accelerator. NOTE: Only VX1 cards can be used in a multihead environment.	4	4	1	SN-PBXGF-AB
PowerStorm 300 3D multi-head graphics accelerator with 15-MB frame buffer memory and 16-MB texture memory	3	3	-	SN-PBXGD-AD
PowerStorm 350 3D multi-head graphics accelerator with 30-MB frame buffer memory and 32-MB texture memory	3	3	-	SN-PBXGD-AE
PCI combo adapter, Permedia P2 graphics, 10/100 NIC, 1-port SCSI	1	1	-	3X-DEPVZ-AA

Options

Step 10 – Monitors – Optional

- Graphics monitors other than those listed below can be used if compatible with SVGA graphics ordered with system
- A video cable, 6-foot/1.8-metre length, is included with all variants of monitors
- Video extension cable required if monitor is located more than 1.5-metre from system
- Monitors ship with, but are not integrated with the system

Carbon/Silver Monitors	V7550 17-inch (16-inch viewable image size) flat-faced shadow mask colour monitor, two-tone (carbon/silver), 0.25mm dot pitch, VGA to 1024 x 768 @85 Hz, MPRII/TCO99/Energy Star compliant, Northern Hemisphere with NA power cord, VGA cable	3R-A4002-AA
	Same as above, with Euro power cord	3R-A4201-AA
	Same as above, APD, no power cord	3R-A4202-AA
	Same as above, with PRC power cord, CCIB	3R-A4446-AA
	Same as above, Southern Hemisphere, with Australia/New Zealand power cord	3R-A4203-AA
	P930 19-inch (18-inch viewable image size) auto-scanning colour monitor, Diamondtron NF, 0.24-mm aperture grille pitch, VGA to 1600 x 1200 @85 Hz, MPRII/TCO 99/Energy Star Compliant, Northern Hemisphere with NA power cord, VGA cable	3R-A4215-AA
	Same as above, with Euro power cord	3R-A4391-AA
	Same as above, Taiwan, with NA power cord	3R-A4392-AA
	Same as above, with PRC power cord, CCIB	3R-A4394-AA
	Same as above, Southern Hemisphere, 0.25 to 0.27 mm aperture grille pitch, with Australia/New Zealand power cord	3R-A4393-AA
	P1130 21-inch (19.8-inch viewable image size) FD Trinitron auto-scanning colour monitor, 0.24-mm aperture grille pitch, VGA to 1792 x 1344 @85Hz, dual video input, USB Hub, MPRII/TCO 99/Energy Star Compliant, Northern Hemisphere with NA power cord, VGA cable	3R-A4216-AA
	Same as above, with Euro power cord	3R-A4396-AA
	Same as above, Taiwan, no power cord	3R-A4397-AA
Same as above, with PRC power cord, CCIB	3R-A4400-AA	
Same as above, Southern Hemisphere, with Australia/New Zealand power cord	3R-A4398-AA	
Carbon/Silver Flat Panel Monitors	TFT1825, 18-inch (18-inch viewable image size) TFT flat panel monitor, 0.28mm pixel pitch, 1600 x 1200 @60Hz, multi-mode support, MPRII/TCO99/Energy Star compliant, one VGA, one DVI-I input connector. NA power cord, VGA and DVI-I cables	3R-A4292-AA
	TFT1520, 15-inch (15-inch viewable image size) TFT flat panel monitor, 0.297 mm pixel pitch, 1024 x 768 @75 Hz, multi-mode support, MPRII/TCO99/Energy Star compliant, two video input connectors (one VGA and one DVI-I), NA power cord, VGA and DVI-I cables	3R-A4249-AA
Video Extension Cable	6-foot/1.8-metre video extension cable	BN39C-02

Options

Step 10 – Monitors – Optional (continued)

Monitor Power Cords		
	North America	BN26J-1K
	Australia, New Zealand, 2.5-metre (103541-011)	BN19H-2E
	Central Europe, 2.5-metre	BN19C-2E
	Denmark, 2.5-metre (103541-481)	BN19K-2E
	Egypt, India, South Africa, 2.5-metre (103541-AR1)	BN19S-2E
	Israel, 2.5-metre	BN18L-2E
	Italy, 2.5-metre (103541-461)	BN35M-02
	Japan, 2.5-metre, Dentori approved	3X-BN46F-02
	Switzerland, 2.5-metre (103541-511)	BN19E-2E
	UK, Ireland, 2.5-metre	BN19A-2E

Options

Step 11 – Keyboards, Mouse

- Keyboards are not included with the system and must be ordered separately
- Selection of country-specific keyboard is recommended
- Select an opal OpenVMS keyboard for use with VT5xx text terminals.

Keyboard/Language	Opal		Carbon	
	OpenVMS	Tru64 UNIX	OpenVMS	
U.S. keyboard	LK461-A2	3R-LKQ48-BA	3X-LK462-A2	
Arabic keyboard	-	3R-LKQ48-BR	-	
Belgian keyboard	LK461-AB	3R-LKQ48-AB	3X-LK462-AB	
BHCSY keyboard	-	3R-LKQ48-AX	-	
Canadian/English keyboard	LK461-AQ	-	3X-LK462-AQ	
Canadian/French keyboard	LK461-AC	3R-LKQ48-AC	3X-LK462-AC	
Cyrillic keyboard (Russian)	LK461-BT	3R-LKQ48-BT	3X-LK462-BT	
Czech keyboard	LK461-BV	3R-LKQ48-BV	3X-LK462-BV	
Danish keyboard	LK461-AD	3R-LKQ48-AD	3X-LK462-AD	
Dutch keyboard	LK461-AH	3R-LKQ48-AH	3X-LK462-AH	
Finnish keyboard	LK461-AF	3R-LKQ48-AF	3X-LK462-AF	
French keyboard	LK461-AP	3R-LKQ48-AP	3X-LK462-AP	
German keyboard	LK461-AG	3R-LKQ48-AG	3X-LK462-AG	
Greek keyboard	LK461-BH	3R-LKQ48-BH	3X-LK462-BH	
Hebrew keyboard	LK461-AT	3R-LKQ48-AT	3X-LK462-AT	
Hungarian keyboard	LK461-BQ	3R-LKQ48-BQ	3X-LK462-BQ	
International keyboard	-	3R-LKQ48-BA	-	
Italian keyboard	LK461-AI	3R-LKQ48-AI	3X-LK462-AI	
Japanese keyboard	-	3R-LKQ48-AJ	-	
Korean keyboard	-	3R-LKQ48-BK	-	
Latin-American keyboard	-	3R-LKQ48-AR	-	
Norwegian keyboard	LK461-AN	3R-LKQ48-AN	3X-LK462-AN	
Polish keyboard	LK461-BP	3R-LKQ48-BP	3X-LK462-BP	
Portuguese keyboard	LK461-AV	3R-LKQ48-AV	3X-LK462-AV	
Romanian keyboard	LK461-BL	-	3X-LK462-BL	
Simplified Chinese keyboard	-	3R-LKQ48-CV	-	
Slovak keyboard	LK461-CZ	3R-LKQ48-CZ	3X-LK462-CZ	
Spanish keyboard	LK461-AS	3R-LKQ48-AS	3X-LK462-AS	
Swedish keyboard	LK461-AM	3R-LKQ48-AM	3X-LK462-AM	
Swiss/French keyboard	LK461-AK	3R-LKQ48-AK	3X-LK462-AK	
Swiss/German keyboard	LK461-AL	-	3X-LK462-AL	
Traditional Chinese keyboard	-	3R-LKQ48-BI	-	
Thai keyboard	-	3R-LKQ48-CB	-	
Turkish Q keyboard	LK461-BU	3R-LKQ48-BU	3X-LK462-BU	
Turkish/F keyboard	LK461-BW	-	3X-LK462-BW	
UK keyboard	-	3R-LKQ48-AE	-	
Yugoslavian keyboard	LK461-BY	-	3X-LK462-BY	

Mouse – Recommended

3-button mouse – carbon

3R-A3480-AA

Options

Step 12 – Console Terminal – Optional

- Any terminal can be used as a console device
- Third-party console devices require an EIA-232 25-pin DSUB connector

VT510 video terminal; requires H8575-x cable, either male or female	VT510-xx
Console cable, female connector	H8575-A
Console cable, male connector	H8575-D
Console cable, male connector (IBM compatible)	H8575-E

Step 13 – MEMORY CHANNEL – Optional

Tru64 UNIX Systems

- Requires Tru64 UNIX V5.0A or later and either *TruCluster™* Server license (QL-6BRAC-AA) or TruCluster Plus Software Package (QP-6R9AC-AA)

OpenVMS Systems

- Requires OpenVMS V7.1-2 or later and OpenVMS Cluster license (QL-MUZAC-AA)

Configuring Information

- Up to two PCI-to-System Area Network adapters (CCMAB-AA) are supported in a single system.
- Two-node clusters can be configured by ordering a CCMAB-AA for each node and one BN39B-04 or BN39B-10 cable; cable connects directly to CCMAB-AA in each node.
- For a two-node cluster that will not need to be rebooted when adding additional members, order one CCMAB-AA adapter and one BN39B-04 or BN39B-10 cable for each node, and one CCMHB-AA hub for the cluster.
- For three- or four- node clusters, order one CCMAB-AA adapter and one BN39B-04 or BN39B-10 cable for each node, and one CCMHB-AA hub for the cluster
- CCMHB-AA includes four CCMLB-AA line cards and supports up to four nodes; expansion up to eight system nodes can be achieved by adding up to four CCMLB-AA line cards.
- If two CCMAB-AAs are configured in each system, a second CCMHB-AA is required.
- If nodes must be separated by a distance longer than standard copper cables allow the CCMFB option converts the output of the standard CCMAB controller or CCMLB line card to single-mode fiber optic cable. The fiber optic connection may be up to 2,000 metres long between two CCMAB controllers connected in virtual hub mode, or 3,000 metres between a CCMAB controller and a CCMHB hub. (The connection from the CCMHB hub to a second system may also be 3,000 metres.) The CCMFB option requires a second PCI slot in the system from which it draws power only. It is normally connected to the corresponding CCMAB controller with the short BN39B-01 cable. The CCMFB is also used in the CCMHB hub where it occupies a slot normally used by the CCMLB line card, limiting expansion to four radial fiber optic connections.
- CCMHB-BA hub expansion box provides additional slots for up to eight fiber optic connections. Two standard length single-mode fiber optic cables are available (BN34R-10 and BN34R-31); however, users normally provide this fiber optic connection. Fiber optic connectivity is completely transparent to the systems using it and has no performance impact.
- For integration of MEMORY CHANNEL hubs into cabinet configurations, a rackmount kit (2T-MAVRK-AA) and power cord (BN35S-02) are required

Options

Step 13 – MEMORY CHANNEL – Optional (*continued*)

MEMORY CHANNEL Controller	PCI System Area Network Controller, maximum two	CCMAB-AA
	System Area Network Hub with four line cards; includes BN19P-2E power cord for Canada, Japan, and U.S. operations—for other regions, order appropriate power cord from list below	CCMHB-AA
	Hub expansion box with no line cards	CCMHB-BA
	Expansion line card for CCMHB hub	CCMLB-AA
	1-metre cable for CCMAB and CCMHB	BN39B-01
	4-metre cable for CCMAB and CCMHB	BN39B-04
	10-metre cable for CCMAB and CCMHB	BN39B-10
	Copper-to-single mode fiber optic converter - 5V (clock not affected)	CCMFB-AA
	Rackmount kit for CCMHB hub	2T-MAVRK-AA
	Power cord for rackmount CCMHB hub	BN35S-02
MEMORY CHANNEL Power Cords	Australia, New Zealand (103541-011)	BN19H-2E
	Central Europe	BN19C-2E
	Denmark (103541-481)	BN19K-2E
	Egypt, India (103541-AR1)	BN19S-2E
	Ireland, United Kingdom	BN19A-2E
	Israel	BN18L-2E
	Italy (103541-461)	BN35M-02
	Switzerland (103541-511)	BN19E-2E

Options

Step 14 – Floor Stand

Floor Stand for AlphaServer/AlphaStation DS10	3X-BA73P-AA
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Step 15 – Software – Required selection of media and documentation for first system on site

- Software processor code = E

Tru64 UNIX

- AlphaServer DS10Tru64 UNIX systems include Base license, Unlimited User license, Server Extension license, Internet Express, and Secure Web Server
- AlphaStation DS10 Tru64 UNIX systems include 2-user Base license

When using Tru64 UNIX V5.0A or later	Tru64 UNIX media and online documentation on CD-ROM	QA-6ADAA-H8
	Tru64 UNIX full hard copy documentation	QA-6ADAA-GZ
	TruCluster Plus Software Package with licenses for TruCluster Server, Logical Storage Manager, and AdvFS Utilities	QP-6R9AC-AA
	TruCluster Server License	QL-6BRAC-AA
	AdvFS Utilities License	QL-0EGAE-AA
	Logical Storage Manager License	QL-2GVAE-AA
	Advanced Server for Tru64 UNIX, 25 client concurrent use license	QL-5U29M-3D
	Advanced Server for Tru64 UNIX, 50 client concurrent use license	QL-5U29M-3E
	Advanced Server for Tru64 UNIX, 100 client concurrent use license	QL-5U29M-3F
	Advanced Server for Tru64 UNIX, 250 client concurrent use license	QL-5U29M-3G
	Advanced Server for Tru64 UNIX, 500 client concurrent use license	QL-5U29M-3H
	Layered products media and documentation for Tru64 UNIX on CD-ROM	QA-054AA-H8
	DECnet/OSI end-system license for Tru64 UNIX	QL-MTJAE-AA
DECnet/OSI extended function license for Tru64 UNIX	QL-MTKAE-AA	

OpenVMS

- AlphaServer DS10 OpenVMS systems include Base license with System Manager license and Enterprise Integration Server License Package for OpenVMS Revision V3.0A.
- AlphaStation DS10 OpenVMS systems include Base license, Concurrent Use 1-user license, and NAS 150 Client license.
- Enterprise Integration Package includes licenses for TCP/IP Services for OpenVMS, DECwindows Motif for OpenVMS Alpha, DECprint Supervisor for OpenVMS Alpha Plus, DECprint Supervisor for OpenVMS Open, DECnet-Plus for OpenVMS Alpha End System, Archive/Backup System for OpenVMS Management Tools, Archive/Backup Agent for Windows NT, OpenVMS Disk Services for Windows NT, Office Server for OpenVMS, PATHWORKS 32, PATHWORKS V6 for OpenVMS – Advanced Server, and DIGITAL Office Server Client Access License

OpenVMS V7.1-2 media and online documentation on CD-ROM	QA-MT1AR-H8
OpenVMS V7.2-1 media and online documentation on CD-ROM	QA-MT1AT-H8
OpenVMS media and online documentation on CD-ROM	QA-MT1AA-H8
OpenVMS hard copy documentation	QA-001AA-GZ
Layered products media and documentation for OpenVMS on CD-ROM	QA-03XAA-H8

- OpenVMS Concurrent Use licenses provide the right to interactively use the operating system by the specified number of concurrent users on a designated OpenVMS system. OpenVMS Concurrent Use licenses can be moved from one system to another at user discretion and can be shared in a mixed OpenVMS VAX and OpenVMS Alpha cluster.
- OpenVMS Traditional Unlimited Use license is system specific and can only be used on one single system at a time. It cannot be shared between systems or in an OpenVMS VAX or OpenVMS Alpha Cluster.

Options

Step 15 – Software – Required selection of media and documentation for first system on site (*continued*)

OpenVMS (<i>continued</i>)	Concurrent Use 1-user license	QL-MT3AA-3B
	Concurrent Use 2-user license	QL-MT3AA-3C
	Concurrent Use 4-user license	QL-MT3AA-3D
	Concurrent Use 8-user license	QL-MT3AA-3E
	Concurrent Use 16-user license	QL-MT3AA-3F
	Concurrent Use 32-user license	QL-MT3AA-3G
	Concurrent Use 64-user license	QL-MT3AA-3H
	Concurrent Use 128-user license	QL-MT3AA-3J
	Concurrent Use 256-user license	QL-MT3AA-3K
	Traditional Unlimited User license	QL-MT2AE-AA
	OpenVMS Cluster license for Alpha systems	QL-MUZAC-AA
	OpenVMS Cluster Client license for Alpha systems	QL-3MRAC-AA
	OpenVMS Cluster Client-to-Full OpenVMS Cluster Migration license	QL-6J7AC-AA
Linux Kit – Optional	Linux Red Hat CD-ROM Kit	QA-6M1AA-H8

Step 16 – Hardware and Software Support Services

- Select one of the optional *CarePaq*™ Priority Service Packages described below that best supports the customer's operational requirements for system availability.

CarePaq Priority Services

- CarePaq Priority Services are available for AlphaServer/AlphaStation systems running Tru64 UNIX or OpenVMS operating systems. Priority Services are designed for the growing number of customers who need support beyond the basic warranty. Five packages are offered - Priority, Priority 24, Priority Silver, Priority Gold, and Priority Executive with coverage for both Principal servers/stations and SSPs (Subsequent System Packages) – that meet a full range of customer support requirements.

Program Features – Principal Server/Station

Priority

- 9 x 5 HW/SW support
- 4-hour response on-site hardware support
- 2-hour response for Bronze software support
- License Subscription for HP O/S software and embedded L/P (i.e., EIS for OpenVMS, unlimited users, and server extensions for Tru64 UNIX)
- Condist update distribution for OpenVMS or Tru64 UNIX and their layered products. (Layered products not included on Condist can be ordered separately.)

Priority 24

- 24 x 7 HW/SW support
- Named HW engineer
- 4-hour response on-site hardware support
- 2-hour response for Bronze software support
- License Subscription for HP O/S software and embedded L/P (i.e., EIS for OpenVMS, unlimited users, and server extensions for Tru64 UNIX)
- Condist update distribution for OpenVMS or Tru64 UNIX and their layered products. (Layered products not included on Condist can be ordered separately.)

Options

Step 16 – Hardware and Software Support Services *(continued)*

Program Features – Principal Server/Station *(continued)*

Priority Silver

- 24 x 7 HW Support with Named Engineer, 4-hour response
- 24 x 7 Silver SW Support - Named Account Rep, 1-hour response Monday – Friday, 8AM-5PM local time; 2-hour response remaining hours
- License Subscription for HP O/S software and embedded L/P (i.e., EIS for OpenVMS, unlimited users, and server extensions for Tru64 UNIX)
- Condinst update distribution for OpenVMS or Tru64 UNIX and their layered products. (Layered products not included on Condinst can be ordered separately.)
- Technical newsletter and SW activity review
- Proactive Patch Notification
- One (1) System Healthcheck per year

Priority Gold

- 24 x 7 HW support with Named Engineer, 4-hour response for on-site support
- 24 x 7 Gold SW support - Named Account Rep
- 30-minute callback (critical); 1-hour callback (non-critical)
- License Subscription for HP O/S software and embedded L/P (i.e., EIS for OpenVMS, unlimited users, and server extensions for Tru64 UNIX)
- Condinst update distribution for OpenVMS or Tru64 UNIX and their layered products. (Layered products not included on Condinst can be ordered separately.)
- Technical newsletter, SW activity review and 10 hours Upgrade impact planning
- Proactive Revision Management
- Two (2) System Healthchecks per year
- Mandatory pre-qualification required

Priority Gold Executive

- 24 x 7 HW support with Named Engineer, two-hour response for on-site support
- 24 x 7 Gold SW support - Named Account Rep
- 30-minute callback (critical); one-hour callback (non-critical)
- License Subscription for HP O/S software and embedded L/P (i.e., EIS for OpenVMS, unlimited users, and server extensions for Tru64 UNIX)
- Software update distribution on CD-ROM: OpenVMS or Tru64 UNIX and their layered products (Layered products not included on Condinst can be ordered separately.)
- Technical newsletter, SW activity review and 10 hours Upgrade impact planning
- Proactive Revision Management
- Two (2) System Healthchecks per year
- Customer site must be within 25 miles of a Hewlett-Packard service location
- Mandatory pre-qualification required

Program Features – Additional Services

SSPs

(Subsequent System Packages)

- For Priority, Priority 24, Priority Silver, Priority Gold, and Priority Gold Executive
- HW Support at same level as corresponding package for Principal server/station
- License Subscription: HP O/S (where applicable)
- Telephone support through Principal server/station covered by full support package

Installation

- Pre-installation review
- Unpacking of equipment
- Assemble and test
- Basic product usage info
- No software installation added

Options

Step 16 – Hardware and Software Support Services (continued)

Program Features – Additional Services (continued)

Installation & Startup HP O/S	<ul style="list-style-type: none"> • Pre-installation review • Unpacking of equipment • Assemble and test • Basic product usage info • Install operating systems • Product configuration • Print and network access • Orientation
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Model/CarePaq Priority Service	Principal Server/Station 1 year	Principal Server/Station 3 years	Subsequent Systems 1 year	Subsequent Systems 3 years
AlphaServer/AlphaStation DS10				
Priority	FP-A01BA-12	FP-A01BA-36	FP-A21BA-12	FP-A21BA-36
Priority 24	FP-A02BA -12	FP-A02BA-36	FP-A22BA-12	FP-A22BA-36
Priority Silver	FP-A04BA-12	FP-A04BA-36	FP-A24BA-12	FP-A24BA-36
Priority Gold	FP-A08BA-12	FP-A08BA-36	FP-A28BA-12	FP-A28BA-36
Priority Gold Exec.	FP-A09BA-12	FP-A09BA-36	FP-A29BA-12	FP-A29BA-36
Installation	FP-AINST-BA	FP-AINST-BA	FP-AINST-BA	FP-AINST-BA
Priority	FP-A01BA-12	FP-A01BA-36	FP-A21BA-12	FP-A21BA-36
Installation & Startup	FP-ASTAR-BA	FP-ASTAR-BA	FP-ASTAR-BA	FP-ASTAR-BA

NOTES:

- AlphaServer/AlphaStation DS10 systems include three years hardware warranty with 5x9, on-site Next Business Day response.
- New Compaq hardware options internal to the AlphaServer/AlphaStation enclosure receive the same warranty or service level as purchased with the server or station.
- External storage devices/cabinets carry their own level of warranty and should be quoted separately for uplifted warranty services (CarePaq Priority Service).
- In addition to the CarePaq Priority Services, uplifted warranty Supplemental Services are available for separate hardware and software support. For more information on Hardware and Software Supplemental Services and other service options available for AlphaServers and AlphaStations, consult your Sales Account Manager or visit

English: <http://www.compaq.ca/English/service/services.htm>

French: <http://www.compaq.ca/Francais/service/servicesf.htm>

NOTE: Certain restrictions and exclusions may apply. For details, consult the Product Information Centre at 1-888-882-6672.

Technical Specifications

Physical Characteristics	Dimensions (H x W x D)	5.1 x 17.6 x 19 in (13 x 45 x 48 cm)		
	Weight (maximum)	36 lb (16.3 kg)		
Cabinets		H9A10 M-Series	H9A15 M-Series	
	Dimensions (H x W x D)	67 x 23.6 x 36.1 in (170 x 60 x 91.6 cm)	79 x 23.6 x 36.1 in (200 x 60 x 91.6 cm)	
	Shipping Dimensions	73 x 36 x 48 in (185.5 x 91.5 x 122 cm)	85 x 36 x 48 in (216 x 91.5 x 122 cm)	
	Weight	Configuration dependent	1,000 lb/450 kg	
	Shipping Weight	Configuration dependent, maximum payload 1,000 lb (453.6 kg)	1,056 lb (550 kg) (normal) 1,408 lb (640 kg) (maximum)	
System Unit	ENVIRONMENTAL			
	Temperature	Operating (Tower, Rackmount)	50° to 104° F (10° to 40° C)	
		NOTE: Maximum operating temperature at sea level. Reduce by 1.8°F (1°C) for each 2,000 ft (660 m) above sea level.		
	Non-operating	-40° to 151° F (-40° to 66° C)		
	Humidity	Operating	10% to 95%	
		Non-operating	20% to 80%	
	Heat Dissipation	Single unit = 176 Watts = 601 BTU/Hr		
		Rack of 12 systems = 2112 Watts = -7,212 BTU/Hr		
	Typical System	AlphaServer DS10 600 MHz		
		Power Supply, 300W		
		Main logic board containing Alpha CPU, EV6, 600 MHz		
		Main memory = 1 GB		
		(3) Hard disk drive		
(1) Floppy disk drive				
(1) CD-ROM disk drive				
(1) PCI Graphics Card				
(1) PCI Graphics Card				
Running system exerciser during the power measurement.				
Measured Input Voltage = 116 VAC RMS @ 60Hz				
Measured Input Current = 2.27 Amps RMS				
Measured Input Power = 176 Watts				
Altitude (unpressurized)	Operating	40,000 ft (12,192 m)		
	Non-operating	10,000 ft (3,048 m)		
NOTE: Higher altitudes are possible if maximum operating temperature is reduced.				

Technical Specifications

System Unit <i>(continued)</i>	ELECTRICAL (Power supplies are universal, PFC, auto ranging, 100/240 VAC)			
	Nominal Voltage (VAC)	100 to 120 VAC/220 VAC		
	Operating Voltage Range (VAC) (temporary condition)	90 to 128 VAC/180 to 265 VAC		
	Power Source Phase	Single/Single/Single		
	Nominal Frequency (Hz)	60 Hz/50 Hz		
	Frequency Range (Hz)	59 to 61 Hz /49-51 Hz		
	Maximum Inrush Current	11 amps/22 amps		
	Power Supply (single cordset)	12 amps/5 amps		
	ACOUSTICS (Declared values per ISO 9296 and ISO 7779)			
AlphaServer DS10 with one HDD	$L_{WA}dB$	L_{pAm} , dBA (Operator position)	L_{pAm} , dBA (Bystander Position)	
	Idle	5.7	48	41
	Operating	6.0	52	45
Regulatory	Agency Approvals	UL: Listed to UL1950 (3rd edition)		
		CUL Listed: CAN/CSA-C22.2 No. 950-M95		
		TUV: EN 60950/A11: 1997 GS marked		
		FCC: Part 15 Class B		
		CE: EN55022, EN50082		
		VCCI Class II ITE		
		BMSI: CISPR22, CNS13438		
		C-Tick: CISPR22, AS/NZS 3548		
	Reviewed to	AS/NZ 3260:1993 Australian/New Zealand Standard		
		EN 60950/A11: 1997 European Norm		
		IEC950 (2nd edition, 4th amend)		

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