

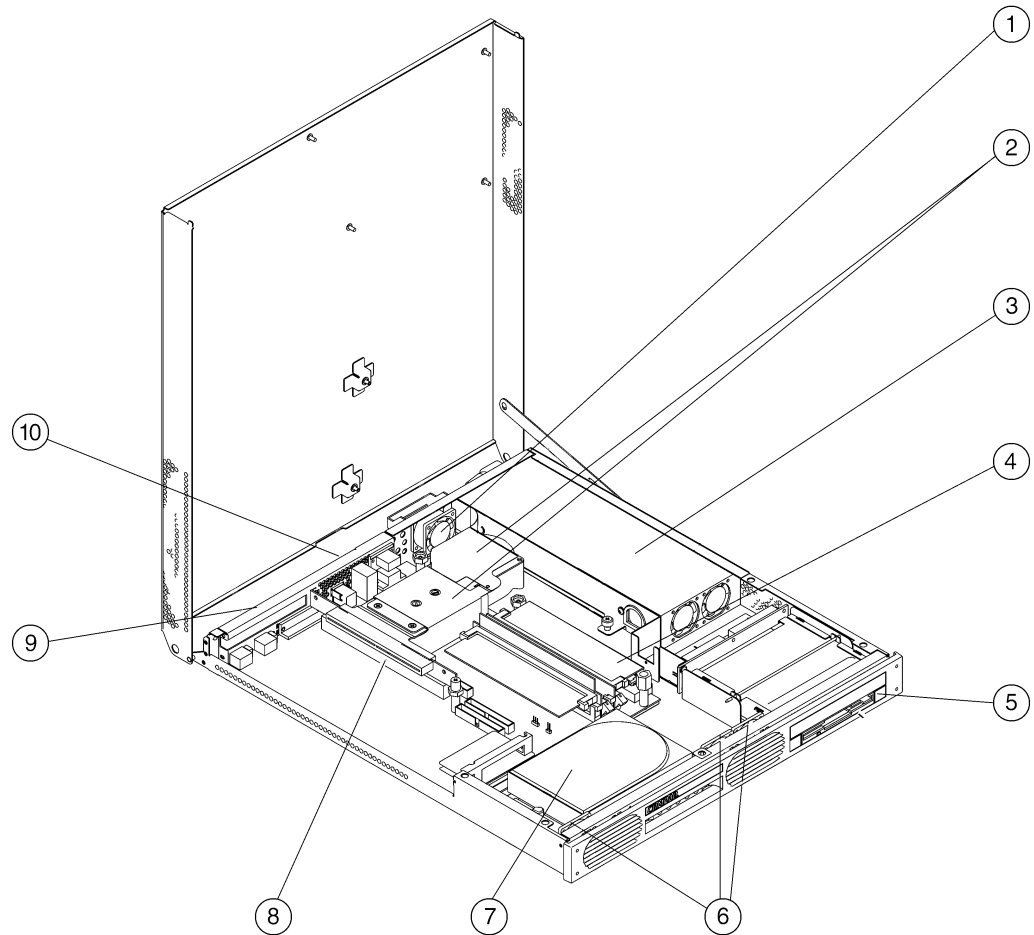
### Overview

#### At A Glance

AlphaServer™ DS10L 1U Systems include:

- 1U Alpha processor module with 600-MHz CPU with 2-MB onboard ECC cache
- 256-MB, 512-MB, or 1-GB SDRAM memory – expandable to 1-GB maximum memory capacity
- Onboard dual IDE controller for internal storage
- Onboard dual 10/100 BaseT Ethernet ports
- One full-length 64-bit PCI expansion slot
- One internal 3.5-inch x 1-inch hard disk drive bay and optional bay for use as a removable media bay (combo 1.44-MB diskette drive/24X CD-ROM drive) or additional hard disk drive bay (one 3.5-inch x 1-inch hard disk drive)
- Internal storage capacity up to 80 GB (IDE) or 72 GB (SCSI)
- Integral remote system management console
- 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
- 150W (120/240V, 60/50 Hz) power supply with auto-ranging AC input
- U.S. English documentation
- *Tru64™* UNIX™ or *OpenVMS™* Factory Installed Software with 90-day software product warranty; Linux-Ready systems available
- Protected by HP Services, including one-year, on-site hardware with next business day response. Certain restrictions and exclusions may apply. For details, consult the Product Information Centre at 1-888-882-6672.

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



1. Fan
2. CPU and fan
3. Power supply
4. Memory boards
5. Diskette/CD-ROM drive

6. Fans
7. Disk
8. PCI riser card
9. Two Ethernet ports
10. Keyboard and mouse ports

### Standard Features

<b>Processor</b>	Alpha 21264A 600-MHz processor; 2-MB onboard cache	
<b>Upgradability</b>	One CPU standard; supports upgrades of memory and hard drives	
<b>Memory</b>	Standard	256 MB, 512 MB, or 1 GB (one memory kit) – Tru64 UNIX, OpenVMS 512 MB or 1 GB – Linux-Ready
	Maximum	1 GB (One memory kit – kits include two industry-standard DIMMs with ECC support)
<b>Network Controller</b>	Two onboard 10/100 BaseT Ethernet ports	
<b>Expansion Slots</b>	PCI slots	One full length 64-bit slot
	Storage bays	One internal storage bay (one 3.5-inch x 1-inch hard disk drive bay) and optional bay for use as a removable media bay (combo 1.44-MB diskette drive/24X CD-ROM drive) or additional hard disk drive bay (one 3.5-inch x 1-inch hard disk drive)
<b>Storage Controller</b>	Onboard IDE controller for internal storage, choice of optional storage controllers	
<b>Storage</b>	Diskette Drive/CD-ROM	Optional
	Hard Drives	20-GB and 40-GB IDE disk drives or 18.2-GB and 36.4-GB UltraSCSI disk drives available with optional SCSI controller
<b>Expansion Ports</b>	Parallel	One bi-directional enhanced port
	Serial	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
	Pointing Device (Mouse)	One port
	Keyboard	One PS/2-style port
<b>Form Factor</b>	1U Rackmount or Desktop (H x W x D) 1.75 x 17.5 x 20.5 in/4.45 x 44.5 x 52.1 cm, 20 lb/9.1 kg	
<b>Power Supply</b>	150W Power Supply	
<b>Manageability</b>	Compaq <i>Insight Manager</i> <sup>™</sup>	
<b>Supported Options</b>	A detailed summary of options supported on the AlphaServer DS10L is available at: <a href="http://www.compaq.com/alphaserver/options/asds10/asds10_options.html">http://www.compaq.com/alphaserver/options/asds10/asds10_options.html</a> <b>NOTE:</b> This website is available in English only.	
<b>OS Support</b>	AlphaServer DS10L Tru64 UNIX systems include pre-installed software (V5.1A), 2-user Base license, Internet Express, iPlanet Directory Server, iPlanet Enterprise Server, and Compaq Secure Web Server. AlphaServer DS10L OpenVMS systems include pre-installed software (V7.3), Base license with System Manager license and Compaq Enterprise Integration Server License Package for OpenVMS Revision V3.0A AlphaServer DS10L Linux-Ready systems ship without system software; RedHat 6.0 or SuSe 6.1 may be purchased separately from a Linux distributor. Minimum OS support: Tru64 UNIX V4.0F, OpenVMS V7.1-2	
<b>Service and Support</b>	HP Services provides a wide range of service offerings including a one-year limited warranty fully supported by a worldwide network of resellers and service providers; lifetime toll-free 7 x 24 hardware technical phone support. Certain restrictions and exclusions may apply. For details, consult the Product Information Centre at 1-888-882-6672.	

## Systems/Options

### Step 1 – Select system

AlphaServer DS10L systems require the mandatory selection of the following items:

- System disk drive
  - If SCSI disk is selected, SCSI adapter and SCSI cable kit are required
  - If IDE disk is selected, IDE cable kit is required
- Power cord if used as desktop system
- Rackmount systems require rackmount kit and cable management kit
- Software media and documentation for first system onsite

**NOTES:** AlphaServer DS10L systems DO NOT include keyboard, mouse, power cords, rackmount kits, CD-ROM, or floppy drives – order as required.  
 Rackmount system minimum for factory integration is four AlphaServer DS10L minimum OS support – Tru64 UNIX V4.0F, OpenVMS V7.2-1.  
 For system integration of options with 6-3 part numbers, non-U.S./Canada orders, contact CustomSystems (1-800-AT-COMPAQ).  
 Option part numbers identified with the notation "U.S./Canada orders" and "Other country orders" refers specifically to the country where the order originates, and indicates the valid and orderable part numbers in the respective geographies.

### AlphaServer DS10L Systems

OS	CPU	Memory	PCI Slots	IDE Controller	2 Ethernet Ports	Hard Drive	Order Number
Tru64 UNIX	600 MHz	256 MB	1	Onboard	Onboard	Mandatory	DA-71BAA-DA
Tru64 UNIX	600 MHz	512 MB	1	Onboard	Onboard	Mandatory	DA-71BAA-EA
Tru64 UNIX	600 MHz	1 GB	1	Onboard	Onboard	Mandatory	DA-71BAA-FA
OpenVMS	600 MHz	256 MB	1	Onboard	Onboard	Mandatory	DY-71BAA-DA
OpenVMS	600 MHz	512 MB	1	Onboard	Onboard	Mandatory	DY-71BAA-EA
OpenVMS	600 MHz	1 GB	1	Onboard	Onboard	Mandatory	DY-71BAA-FA
Linux-Ready	600 MHz	512 MB	1	Onboard	Onboard	Mandatory	DJ-71BAA-EA
Linux-Ready	600 MHz	1 GB	1	Onboard	Onboard	Mandatory	DJ-71BAA-FA

### Options

#### Step 2 – Select mandatory options

##### Step 2a – System Disk Drive – Mandatory

- Maximum two internal disk drives. The second drive is installed in the media bay. Select either a CD-ROM/floppy drive or second internal disk – not both – or leave the media bay empty.
- Internal support for 3.5-inch x 1-inch drives only
- For multiple system configurations that share a system disk external to system enclosure, contact CustomSystems

IDE Disk Drive	20-GB 7,200 rpm IDE (UDMA) drive	3X-RE58A-AA
	40-GB 7,200 rpm IDE (UDMA) drive	3X-RE58A-BA

**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/>

**NOTE:** This website is available in English only

##### System Disk Cable Configuration Rules

**For systems configured with two IDE hard disks, order the following:**

Two 3X-BN51A-IB (One drop DS10L IDE cable kit)

**For systems configured with one IDE hard disk and one SCSI hard disk, order the following:**

One 3X-BN51A-SF (One drop DS10L SCSI cable kit)

One 3X-BN51A-IB (One drop DS10L IDE cable kit)

**For systems configured with one IDE hard disk and the optional Floppy/CD combo, order the following:**

One 3X-PBXRY-AA (Floppy/CD combo that comes with one drop IDE cable and floppy cable)

One 3X-BN51A-IB (One drop DS10L IDE cable kit)

**For systems configured with one SCSI hard disk and the optional Floppy/CD combo, order the following:**

One 3X-BN51A-SF (One drop DS10L cable kit)

One 3X-PBXRY-AA (Floppy/CD combo that comes with one drop IDE cable and floppy cable)

**For systems configured with two SCSI hard disks, order the following:**

One 3X-BN51A-SD (Two drop DS10L SCSI cable kits)

Internal SCSI Disk Drives	18.2-GB Ultra3 SCSI 10,000 rpm drive	DS-RZ3EF-WA
	36.4-GB Ultra3 SCSI 10,000 rpm drive	DS-RZ3FD-WA

##### Step 2b – Internal SCSI Adapter and Cable Kit – (Internal SCSI disks require SCSI adapter and SCSI cable kit)

###### SCSI Adapters

(for Internal Drives)

- SCSI adapter and SCSI cable kit required for internal SCSI disks and tape
- Single-channel SCSI adapters may only be used for internal or external drive connections, not both. Mixed cable types are not supported on the same SCSI bus.

PCI 1-channel Ultra2 SCSI adapter (LVD) 3X-KZPCA-AA

PCI combo card – PCI 2-channel UltraSCSI single-ended adapter and 10/100 Mbit Ethernet (Tru64 UNIX and OpenVMS only) KZPCM-DA

PCI combo card – 1-channel Ultra2 SCSI (LVD), 2D 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:** Floppy/CD-ROM (3X-PBXRY-AA) must also be ordered.

PCI 2-channel LVD multimode Ultra3 SCSI adapter, VHDCI (Tru64 UNIX V5.1 or higher and OpenVMS V7.2-2 or higher) – **NOTE:** Patch kit required, kit available at: [http://ftp1.support.compaq.com/public/Digital\\_UNIX/v5.1/](http://ftp1.support.compaq.com/public/Digital_UNIX/v5.1/) 3X-KZPEA-DB

**NOTE:** This website is available in English only.

**NOTE:** No shared SCSI or SDLT tape/library support.

##### SCSI Cable Kit (required for SCSI disks)

(Refer to “System Disk Cable Configuration Rules”)

### Options

#### Step 2 – Select mandatory options (continued)

##### Step 2c – Power Cords (Mandatory for desktop systems)

- For rackmounted systems refer to Step 5, M-Series PDU/Fan/Cable Management Kits

Desktop Power Cords		
	North American 120V, 75-inch	BN26J-1K
	Australia, New Zealand, 2.5-metre	103541-011 (U.S./Canada orders)
		BN19H-2E (Other country orders)
	Central Europe, 2.5-metre	BN19C-2E
	Denmark, 2.5-metre	103541-481 (U.S./Canada orders)
		BN19K-2E (Other country orders)
	Egypt, India, South Africa, 2.5-metre	103541-AR1 (U.S./Canada orders)
		BN19S-2E (Other country orders)
	Israel, 2.5-metre	BN18L-2E
	Italy, 2.5-metre	103541-461 (U.S./Canada orders)
		BN35M-02 (Other country orders)
	Japan, 2.5-metre (straight connector)	3X-BN46F-02
	Switzerland, 2.5-metre	103541-511 (U.S./Canada orders)
		BN19E-2E (Other country orders)
	UK, Ireland, 2.5-metre	BN19A-2E

#### Step 3 – Memory – Optional

- Maximum 1-GB memory
- Systems include one memory kit: maximum one memory kit per system – Each kit includes two industry-standard DIMMs with ECC support
- To increase memory, order new memory and replace resident memory with the new DIMMS

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 – Internal Storage – Optional

- System includes one bay in system enclosure; optional bay may be used as a media bay or drive bay:
  - One 1-inch hard disk drive bay (refer to Step 2a) or
  - One 3.5-inch x 1-inch hard disk drive supported in removable media bay
- SCSI adapter and SCSI cable kit required for SCSI disks or tapes

1.44-MB diskette drive/600-MB 24X CD-ROM combo	3X-PBXRY-AA
--	-------------

#### Step 4a– External Storage (Removable Media) – Optional

40/80-GB DLT tape drive in <i>StorageWorks</i> ™ carrier	DS-TZ90N-VW
20/40-GB DLT tape drive in StorageWorks carrier (Tru64 UNIX and OpenVMS)	TZ88N-VA

**NOTE:** Refer to "System Disk Cable Configuration Rules" in Step 2.

### Options

#### Step 5 – M-series Cabinets – Optional

M-series cabinet enclosures support up to 40 AlphaServer DS10L systems (H9A15) and/or up to three StorageWorks shelves. M-series enclosures require selection of the following items:

- H9A10 or H9A15 Cabinet, 120V or 240V
- Minimum four AlphaServer DS10L systems for rack configuration; minimum five systems for H9A15 cabinet
- Rack kit for each system (or quad rack for every four systems)
- PDU/Fan/Cable management kit according to the configuration chart
- Cabinet front door based on cabinet height
- Factory integration
- Ballast kit according to the configuration chart
- Power Cord

Up to six BA356 shelves are supported; shelves cannot be mounted behind AlphaServer DS10L systems

#### Cabinet Configuration Chart for AlphaServer DS10L Rackmount Systems

- Minimum number of systems orderable in a rack is four for H9A10 cabinet; five for H9A15 cabinet
- Power cords are available in cable management kits as follows:
  - The first 16 systems in an H9A10 or H9A15 cabinet require a fan/cable management kit.
  - For every 1-8 additional systems, a PDU/fan/cable management kit is required.

**NOTE:** For more information on M-series Cabinet Enclosures, see <http://www.compaq.com/alphaserver/products/m-series/index.html>

**NOTE:** This website is available in English only.

Cabinet	Rack Kits 3X-PBX01-BD quad	Rack kit 3X-PBX01-BE single	Systems 1U	Shelves @ 4U	Fan Cable Mgmt. Kit 3X-H7210- BA/BB/BC	PDU Kit 3X-H7210- AA/AB/AC	Ballast H9C10-MC
<b>H9A10, H9A15</b>	1 for each set of 4 systems	1 for each additional system	Per rack	Per rack	Used with existing PDU	Used when PDU is required	
<b>H9A10-MD/MC</b>	1 or 2	0 to 3	4-8	6	1	0	2*
	2 or 3	0 to 3	9-12	5	2	0	0
	3 or 4	0 to 3	13-16	4	2	0	0
	4 or 5	0 to 3	17-20	3	2	1	0
	5 or 6	0 to 3	21-24	2	2	1	0
	6 or 7	0 to 3	24-28	1	2	2	0
	7 or 8	0 to 3	29-32	0	2	2	0
<b>H9A15-MC/MD</b>	1 to 2	0 to 3	5-8	6	1	0	2
	2 or 3	0 to 3	9-12	5	2	0	1
	3 or 4	0 to 3	13-16	4	2	0	0
	4 or 5	0 to 3	17-20	3	2	1	0
	5 or 6	0 to 3	21-24	3	2	1	0
	6 or 7	0 to 3	25-28	3	2	2	0
	7 or 8	0 to 3	29-32	2	2	2	0
	8 or 9	0 to 3	33-36	1	2	3	0
	9 or 10	0 to 3	37-40	0	2	3	0

**NOTE:** \* = With 4, 5, and 6 systems, 2 ballast kits required, with 7 and 8 systems, 1 ballast kit is required.

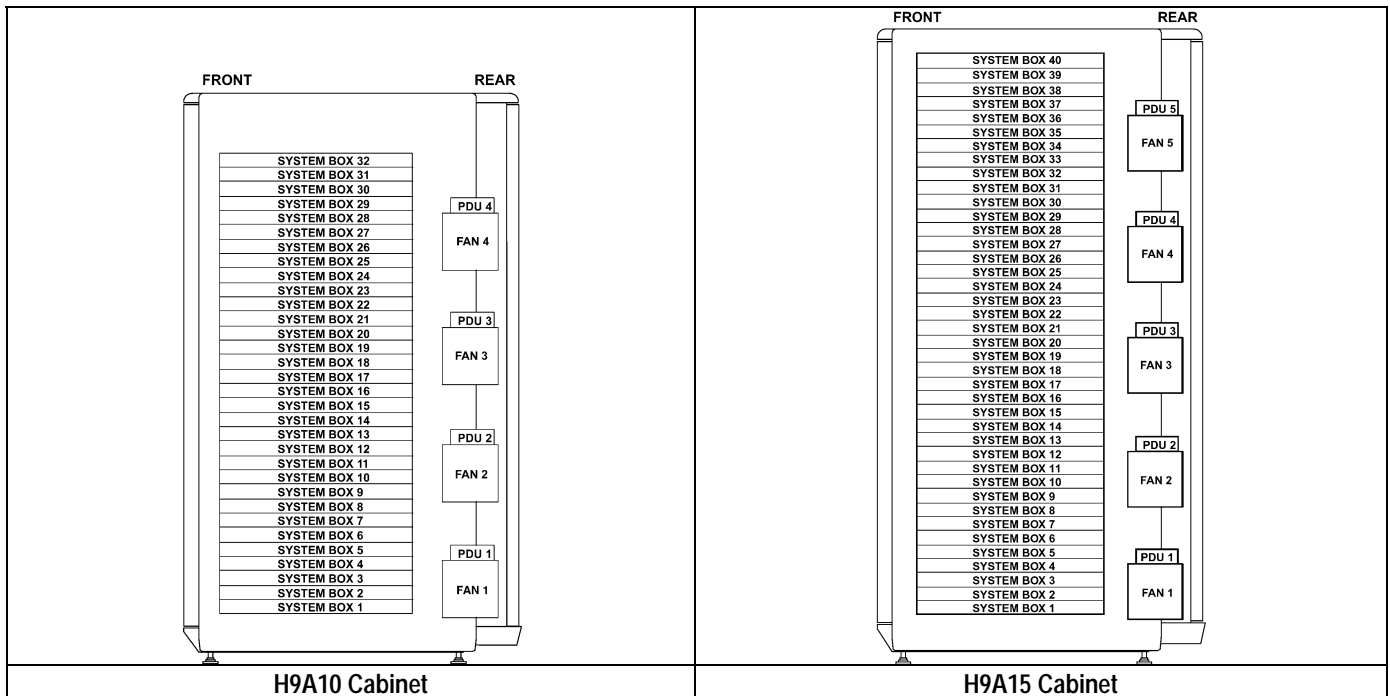
## Options

### Step 5 – M-series Cabinets – Optional (continued)

#### Cabinet Configuration Chart for AlphaServer DS10L Rackmount Systems with StorageWorks RA3000 and Disk Shelves

- 12U of vertical cabinet space is reserved for one RA3000 controller shelf and up to four disk shelves mounted in top of cabinet, front to back; an additional 2U of vertical space is required for RA3000 controller shelf UPS.
- RAID Array 3000 and UPS each require a separate PDU (H7600-AA/DB).
- 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 table below depicts space requirements for the RA3000, systems, PDU kits, and UPS.
- 1.75-inch or 1U space required for each system unit.

Cabinet	Mounting Kit	Cabinet Height/Space	Systems	RA3000 + Shelves
H9A10-MC/MD	3X-PBX01-BE	67-inch/34U	4-8	1 + 4 (maximum)
			9-14	1 + 2
			15-23	1 + 1 (basic)
H9A15-MC/MD	3X-PBX01-BE	79-inch/41U	5-16	1 + 4 (maximum)
			17-22	1 + 3
			23-24	1 + 2
			25-30	1 + 1 (basic)



### Options

#### Step 5 – M-series Cabinets – Optional (*continued*)

<b>M-series Cabinets</b>	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
<b>M-series Cabinet Rackmount Kits for AlphaServer DS10L</b>	Single rack kit for AlphaServer DS10L	3X-PBX01-BE
	Quad rack kit for AlphaServer DS10L	3X-PBX01-BD
	<p><b>NOTE:</b> Refer to the Cabinet Configuration Charts above for configuration rules.</p> <p><b>NOTE:</b> Factory integration of a DS10L system drawer in a Compaq 9000 rackmount cabinet using rack kit, 3X-PBX01-BA, is not supported. Contact Custom Systems.</p>	
<b>M-series Cabinet PDU/Fan/Cable Management Kits</b>	<ul style="list-style-type: none"> <li>Kits include PDU, fans, shelf, and cables to serve eight AlphaServer DS10L systems</li> </ul>	
	Power Distribution Unit/Fan/Cable Management Kit, North America	3X-H7210-AA
	Power Distribution Unit/Fan/Cable Management Kit, Europe	3X-H7210-AB
	Power Distribution Unit/Fan/Cable Management Kit, Japan	3X-H7210-AC
<b>M-series Cabinet Fan/Cable Management Kits</b>	<ul style="list-style-type: none"> <li>Kits include fans, shelf, and cables to serve eight AlphaServer DS10L systems; for use with PDU that ships with cabinet</li> </ul>	
	Fan/Cable Management Kit, North America	3X-H7210-BA
	Fan/Cable Management Kit, Europe	3X-H7210-BB
	Fan/Cable Management Kit, Japan	3X-H7210-BC
<b>StorageWorks Shelves Supported in M-series Cabinets with Front Doors (H9A10, H9A15)</b>	StorageWorks UltraSCSI single bus, single-ended shelf with 180W power supply and RETMA mounting kit	BA36R-RC
	StorageWorks UltraSCSI split bus, single-ended shelf with 180W power supply and RETMA mounting kit	BA36R-RD
	180W power supply for redundant power in a BA36R (includes power cord)	CK-BA35X-HH
<b>M-series Cabinet Front Doors</b>	<ul style="list-style-type: none"> <li>Requires selection of door based on cabinet height</li> </ul>	
	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
<b>M-series Cabinet Factory Integration</b>	<ul style="list-style-type: none"> <li>Factory integration required</li> </ul> <p>Factory integration of systems and storage devices assembled and configured in cabinet enclosure in H9A10 or H9A15 cabinet enclosures</p>	YS-ASCAA-AA
<b>M-series Cabinet Ballast Kits</b>	<ul style="list-style-type: none"> <li>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.</li> </ul> <p>Two 35 to 40 lb/16 to 18 kg steel plates</p>	H9C10-MC

### Options

#### Step 5 – M-series Cabinets – Optional (*continued*)

<b>M-series Cabinet Rackmount Power Cords</b>	<ul style="list-style-type: none"> <li>Two power cords required for U.S./Canada and Japan systems that include H7600-AA power supply; power cords are included in PDU kits for non-U.S. systems.</li> </ul>	
	U.S./Canada	BN20Z-4E
	Non-U.S.	BN35S-4E
	Japan 4.5 metre (right-angle connector)	3X-BN46D-4E

- Compaq CustomSystems Support**
- Cabinets that contain systems and storage must be assembled by qualified assemblers: Compaq Manufacturing, CustomSystems, or an authorized Compaq Certified Integration Partner.
  - For custom integration of systems, options, cabinet expansion offerings, and additional Compaq 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 Compaq Certified Integration Partner.

#### Step 6 – External Storage – Optional

<b>UltraSCSI Configuration Rules</b>	<ul style="list-style-type: none"> <li>UltraSCSI configurations require UltraSCSI components (controllers, adapters, shelves, disks, and cables)</li> <li>UltraSCSI adapters and RAID controllers support UltraSCSI disks at UltraSCSI speeds in UltraSCSI top gun blue shelves (DS-BA356-xx)</li> </ul>	
<b>UltraSCSI StorageWorks Pedestals</b>	<ul style="list-style-type: none"> <li>UltraSCSI top gun blue pedestals provide support for UltraSCSI disk drives; pedestal is available in single-bus or split-bus configurations and includes a personality module and 180W power supply</li> <li>UltraSCSI shelf supports: seven 3.5-inch hard disk drives, or one 5.25-inch device and four 3.5-inch hard disk drives, or two 5.25-inch devices and one 3.5-inch hard disk drive</li> <li>Installation of redundant power supply reduces number of 3.5-inch drive slots by one</li> </ul>	
	UltraSCSI single-ended pedestal, single-bus personality module, 180W power supply	DS-BA356-KF
	UltraSCSI single-ended pedestal, split-bus personality module, 180W power supply	DS-BA356-KG
	UltraSCSI pedestal, single-channel differential personality module, 180W power supply	DS-BA356-KH
	180W power supply, or redundant power, includes 120V North American and 240V IEC power cord	CK-BA35X-HH

### Options

#### Step 6 – External Storage – Optional (continued)

<b>Tabletop Tape Drives</b>	<ul style="list-style-type: none"> <li>Tape drives require LVD or single-ended UltraSCSI adapter and country-specific power cord</li> </ul>	
	DAT 12/24-GB 4-mm narrow single-ended tabletop SCSI tape, includes 120V North American power cord, requires BN31W-xx SCSI cable	DS-TLZ10-DB
	DLT 4000E 20/40-GB SCSI tabletop drive (Tru64 UNIX and OpenVMS only)	340743-B22 (U.S./Canada orders)
		TZ88N-TA (Other country orders)
	AIT 35/70-GB 8-mm LVD carbon black tabletop tape drive, North America	216885-001
	Same as above, International	216885-B31
	Same as above, Japan	216885-291
	DLT8000 40/80-GB DLT tabletop external tape drive, carbon black, U.S.	146197-B22
	Same as above, International	146197-B31
	Same as above, Japan	146197-293
	AIT 50/100-GB 8 mm LVD carbon black tabletop SCSI tape, North America (Tru64 UNIX and OpenVMS only)	157767-002
	Same as above, International (Tru64 UNIX and OpenVMS only)	157767-B32
	Same as above, Japan (Tru64 UNIX and OpenVMS only)	157767-292
	SDLT 110/220-GB Ultra2 (LVD) carbon black tabletop tape drive, U.S.	192103-002
	Same as above, International	192103-B32
	Same as above, Japan	192103-292
	SDLT 160/320-GB carbon black tabletop external tape drive, U.S.	257319-001
	Same as above, International	257319-B31
	Same as above, Japan	257319-291
	<b>Internal Tape Drive (SDLT)</b>	SDLT 160/320-GB carbon black tabletop internal tape drive for use in 3U LVD tape enclosure
<b>DLT/SDLT Tape Libraries</b>	MSL5026DLX or MSL5026SL, DLT/SDLT rackmount library, 0 drives – requires rackmount kit (254795-001)	231979-B21
	MSL5026DLX, DLT table top library with one 40/80-GB DLT tape drive, LVD	231821-B21
	MSL5026DLX, DLT table top library with two 40/80-GB DLT tape drives, LVD	231821-B22
	MSL5026DLX, DLT rackmount library with one 40/80-GB DLT tape drive, LVD - requires rackmount kit (254795-001)	231891-B21
	MSL5026DLX, DLT rackmount library with two 40/80-GB DLT tape drives, LVD - requires rackmount kit (254795-001)	231891-B22
	MSL5026SL, SDLT tabletop library with one 110/220-GB SDLT tape drive, LVD	231822-B21
	MSL5026SL, SDLT tabletop library with two 110/220-GB SDLT tape drives, LVD	231822-B22
	MSL5026SL, SDLT rackmount library with one 110/220-GB SDLT tape drive, LVD – requires rackmount kit (254795-001)	231892-B21
	MSL5026SL, SDLT rackmount library with two 110/220-GB SDLT tape drives, LVD – requires rackmount kit (254795-001)	231892-B22
	MSL5052, 0 drives, LVD, rackmount	255102-B21
	MSL5052SL with two SDLT 110/220-GB drives, LVD, tabletop	249490-B21
	MSL5052SL with two SDLT 110/220-GB drives, LVD, rackmount	249491-B21
	MSL5052SL SDLT 110/220-GB drive field upgrade, LVD	231823-B22

### Options

#### Step 6 – External Storage – Optional *(continued)*

<b>DAT Tape Drives</b>	DAT 20/40-GB 4-mm Wide Ultra2 (LVD) carbon black tabletop SCSI tape drive with 120V North American power cord	157770-002
	Same as above, International	157770-B32
	Same as above, Japan	157770-292
	DAT 20/40-GB autoloader external, North America	166505-001
	Same as above, International	166505-B31
	Same as above, Japan	166505-291
<b>External Tape Drive Enclosures</b> (for rackmount configurations)	3U rackmount tape Model 0 enclosure, supports up to two DLT/SDLT full height drives or four DAT/AIT half height drives	274338-B21
	Rackmount kit for 3U tape enclosure and H9Axx series cabinets	3R-A3804-AA
	5U rackmount tape Model 0 enclosure	274339-B21
	SDLT 110/220-GB, dual-drive, 3U rackmount kit, carbon black	274334-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
	DLT 40/80-GB, 3U rackmount kit, carbon black	274332-B21
	AIT 50-GB, 3U rackmount kit, carbon black	274333-B21
	SDLT 110/220-GB Tape Array III, carbon black, 5U	274336-B21
	DLT 40/80-GB Tape Array III, carbon black, 5U	274337-B21
<b>Fibre Channel Switches</b>	Fibre Channel SAN Switch – 2 GB, 16-ports, two power supplies (Tru64 UNIX and OpenVMS) – requires Tru64 UNIX V5.1A patch kit: T64V51AB01AS0001-20020116.tar	287055-B21 (U.S./Canada orders)
		DS-DSGGD-BA (Other country orders)
	Fibre Channel 2-GB 8-port SAN switch	258707-B21 (U.S./Canada orders)
		DS-DSGGD-AC (Other country orders)
	Fibre Channel 2-GB 16-port SAN switch	283056-B21 (U.S./Canada orders)
		DS-DSGGD-AD (Other country orders)
<b>McData 64-port Fibre Channel SAN Director Class Switch</b>	SAN Director Connectivity Manager Kit	DS-DMGGO-AA
	SAN Director 64 Long-wave 4-port module kit	DS-DMGGD-AC
	SAN Director 64 Short-wave 4-port module kit	DS-DMGGD-AD
	SAN Director 64 Combo Long – 1 Port/Short – 3 Ports - Wave Module Kit	DS-DMGGD-AE

## Options

### Step 6 – External Storage – Optional (continued)

- Storage Controllers/Adapters for External StorageWorks Shelves**
- Storage controllers require Tru64 UNIX V4.0F or OpenVMS V7.1-2
  - PCI controllers/adapters use one PCI slot

	Maximum # Supported			
	Tru64 UNIX	OpenVMS	Linux-Ready	
PCI-to-Fibre Channel host bus adapter	1	1	-	DS-KGPSA-CA 168794-B21
PCI-to-Fibre Channel 64-bit/33-MHz, 2-GB, single-channel host bus adapter	1	1	-	DS-KGPSA-DA 261329-B21
Fibre Channel cable 234457-B2x = B21 (2-metre), B22 (5-metre), B23 (15-metre), B24 (30-metre), B25 (50-metre)				234457-B2x (U.S./Canada orders)
Fibre Channel cable BNGBX-xx = 02, 05, 15, 30, 50-metres				BNGBX-xx (Other country orders)
PCI 2-port UltraSCSI single-ended adapter and 10/100-Mb Ethernet combo adapter; includes internal 68-pin and 50-pin HD connectors and two external 68-pin VHDCI SCSI connectors, requires BN37A-xx cable to connect to single-ended UltraSCSI shelf	1	1	-	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	1	1	1	3X-KZPCA-AA
68-pin HD male-to-VHDCI male UltraSCSI cable; xx = 02, 03, 05, 10, 20-metres				BN38C-xx
PCI 2-channel LVD multimode Ultra3 SCSI adapter, VHDCI (Tru64 UNIX V5.1 and OpenVMS V7.2-2) only supported in dual-bus shelves <b>NOTE:</b> Patch kit required, kit available at: <a href="http://ftp1.support.compaq.com/public/Digital_UNIX/v5.1/">http://ftp1.support.compaq.com/public/Digital_UNIX/v5.1/</a> <b>NOTE:</b> This website is available in English only. <b>NOTE:</b> No shared SCSI or SDLT tape/library support.	1 V5.1 or higher	1 V7.2-2 or higher	-	3X-KZPEA-DB

## Options

### Step 6 – External Storage – Optional (continued)

#### Storage Controllers/Adapters for External StorageWorks Shelves

(continued)

	Maximum # Supported			
	Tru64 UNIX	OpenVMS	Linux-Ready	
PCI 1-port UltraSCSI wide differential 32-bit/33-MHz adapter (uses one PCI slot); includes external 68-pin HD connector, requires BN38C-xx cable (2 to 25 metres) to connect adapter to differential UltraSCSI shelf or RAID controller	1	1	1	3X-KZPBA-CC
68-pin HD male-to-VHDCI male UltraSCSI cable; xx = 02, 03, 05, 10, 20, 25-metres				BN38C-xx
PCI 1-port UltraSCSI RAID controller with 4-MB cache memory, includes RAID Array 230/Plus Subsystem software and documentation kit; includes VHDCI female connector; tape drives not supported; 18.2-GB disk drives not supported, requires BN37A-xx cable (0.3 to 20 m) to connect to single-ended UltraSCSI shelf <b>NOTE: Floppy/CD-ROM (3X-PBXRY-AA) must also be ordered.</b>	1 V4.0F or higher	1 V7.1-2 or higher	-	KZPAC-AA
PCI 3-port UltraSCSI RAID controller with 4-MB cache memory, includes RAID Array 230/Plus Subsystem software and documentation kit; includes VHDCI female connector; tape drives not supported; 18.2-GB disk drives not supported, requires BN37A-xx cable (0.3 to 20 m) to connect to single-ended UltraSCSI shelf	1 V4.0F	1	-	KZPAC-CA
Same as KZPAC-CA with 8-MB cache memory	1 V4.0F	1	-	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, 25-metres <b>NOTE: Manufacturing may substitute BN37A-02 cable for specific cabinet configurations.</b>				BN37A-xx
SCSI cable/bulkhead assembly kit, supports one third-port connection from KZPAC-CB, allows external connection of one third port				BN31K-0E
SCSI cable/bulkhead assembly kit, supports two third-port connections from KZPAC-CB, allows external connection of two third ports				KZPAC-SB

Removable Media Devices for External StorageWorks Shelves		
	DAT 12/24-GB 4-mm narrow SCSI tape drive in StorageWorks carrier	DS-TLZ10-VA
	AIT 35/70-GB tape drive in StorageWorks carrier (Tru64 UNIX and OpenVMS only)	DS-AIT35-VW
	DLT 20/40-GB tape drive in StorageWorks carrier (Tru64 UNIX and OpenVMS only)	TZ88N-VA
	DLT 40/80-GB tape drive in StorageWorks carrier	DS-TZ90N-VW
	AIT 35/70-GB LVD Universal tape drive, for 43xxx shelves	3R-A2396-AA
	AIT 50/100-GB LVD Universal tape drive, for 43xxx shelves	3R-A2779-AA

StorageWorks UltraSCSI Shelves		
	Requires selection of UltraSCSI adapter and SCSI cable	
	StorageWorks UltraSCSI single-bus shelf kit	BA36R-RC
	StorageWorks UltraSCSI split-bus shelf kit	BA36R-RD

Disk Drives supported in StorageWorks UltraSCSI Shelves		
	<ul style="list-style-type: none"> <li>Maximum six (10,000 rpm) or seven (7,200 rpm) drives supported in StorageWorks shelf</li> <li>One power supply supports a maximum of six 10,000 rpm disks</li> </ul>	
	9.1-GB 10,000 rpm UltraSCSI drive	DS-RZ1DD-VW
	18.2-GB 10,000 rpm UltraSCSI drive	DS-RZ1ED-VW
	36.4-GB 10,000 rpm UltraSCSI drive	DS-RZ1FC-VW

### Options

#### Step 6 – External Storage – Optional *(continued)*

<b>StorageWorks Universal Drive Shelves – Model 4314R (Ultra3)</b>	StorageWorks Model 4314R Ultra3 rackmount single bus, U.S./Worldwide except Japan (190209-001)	DS-SL13R-AA (All regions except Japan)
	Same as above, Japan	190209-291 (U.S./Canada orders for Japan variant)
<b>StorageWorks Universal Drive Shelves – Model 4354R (Ultra3)</b>	StorageWorks Model 4354R Ultra3 rackmount dual bus, U.S./Worldwide except Japan (190211-001)	DS-SL13R-BA (All regions except Japan)
	Same as above, Japan	190211-291 (U.S./Canada orders for Japan variant)
<b>StorageWorks Universal Drive Shelves – Model 4300</b>	StorageWorks Model 4300 Ultra 160 single-port LVD I/O module	190212-B21 (U.S./Canada orders)
		DS-SE3ZJ-DA (Other country orders)
	StorageWorks Model 4300 Ultra 160 dual-port LVD I/O module	190213-B21 (U.S./Canada orders)
		DS-SE3ZJ-SA (Other country orders)
<b>StorageWorks Universal Drive Shelves Single Bus – Model 4314T Tower (Ultra3)</b>	StorageWorks Model 4314T Tower, Ultra3 Universal drive shelves, single bus, U.S.	190210-001 (U.S./Canada orders)
		DS-SL13T-AA (Other country orders)
	StorageWorks Model 4314T Tower, Ultra3 Universal drive shelves, single bus, International	190210-001 (U.S./Canada orders)
		DS-SL13T-AB (Other country orders)
	StorageWorks Model 4314T Tower, Ultra3 Universal drive shelves, single bus, Japan	190210-291 (U.S./Canada orders)
		DS-SL13T-AJ (Other country orders)
<b>Universal Disk Drives Supported in Model 42xx/43xx Universal Drive Shelves</b>	18.2-GB Ultra3 (LVD) 10,000 rpm 1-inch Universal drive	3R-A0585-AA
	18.2-GB Ultra3 (LVD) 15,000 rpm 1-inch Universal drive	3R-A1543-AA
	36.4-GB Ultra3 (LVD) 10,000 rpm 1-inch Universal drive	3R-A0919-AA
	36.4-GB Ultra3 (LVD) 15,000 rpm 1-inch Universal drive	3R-A3079-AA
	72.8-GB Ultra 3 (LVD) 10,000 rpm 1-inch Universal drive	3R-A3050-AA

## Options

### Step 7 –UltraSCSI RAID Array Controllers and UltraSCSI RAID Packaged Solutions – Optional

<b>RAID Array 3000 Rackmount Controller Shelf</b>	<ul style="list-style-type: none"> <li>• Selection of RA3000 Solutions Software Kit is required</li> <li>• Supported SCSI adapter: 3X-KZPBA-CC PCI 1-port UltraSCSI differential adapter</li> </ul>	
	<p>RA3000 rackmount controller shelf, blue, with one controller, 110V</p> <p><b>Includes:</b> 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-metre 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 American power cords, and RETMA mounting bracket (disk shelves and disks not included)</p> <p><b>Requires:</b> Solutions Software Kit for platform, host adapter, RA3000 disk shelf, and disks</p> <p><b>Options:</b> Second HSZ22 controller, up to four additional RA3000 disk shelves, cache memory upgrade</p>	DS-SWXRA-GH
	<p>RA3000 rackmount controller shelf, blue, with one controller, 230V</p> <p><b>Includes:</b> 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-metre 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)</p> <p><b>Requires:</b> Solutions Software Kit for platform, two country-specific power cords, host adapter, RA3000 disk shelf, and disks</p> <p><b>Options:</b> Second HSZ22 controller, up to four additional RA3000 disk shelves, cache memory upgrade</p>	DS-SWXRA-GK
<b>RAID Array 3000 Rackmount Disk Shelf</b>	<ul style="list-style-type: none"> <li>• Select one to four disk shelves</li> <li>• 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</li> </ul>	
	<p>RA3000 rackmount disk shelf, blue, includes UltraSCSI BA356 disk shelf, two 180 W power supplies, single-ended UltraSCSI personality card, one half metre SCSI cable (BN37A-0E), two North American power cords, and RETMA mounting bracket (disks not included); order two country-specific power cords for non-North American use</p>	DS-SWXRA-GN
<b>HSZ22 Controller</b>	<ul style="list-style-type: none"> <li>• Note that second HSZ22 controller ordered is field installed only, not factory installed; requires BN37A-0E SCSI jumper cable be ordered separately</li> </ul> <p>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</p>	DS-HSZ22-AA
	<p>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</p>	DS-HSZ22-AB
<b>RA3000 Solutions Software Kit</b>	<ul style="list-style-type: none"> <li>• StorageWorks Command Console (SWCC) software</li> <li>• Platform specific software</li> <li>• Installation scripts and installation documentation</li> </ul>	
	<p>RA3000 Solutions Software Kit for Tru64 UNIX</p>	QB-5TWAB-SA
	<p>RA3000 Solutions Software Kit for OpenVMS</p>	QB-5TWAC-SA

## Options

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

<b>HSG80 External Controllers</b>	Fibre Channel Controller (HSG80), includes 256-MB cache, requires following firmware:	DS-HSG80-BK
	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	DS-HSDIM-AC 380674-B21
	Single cache battery, one per HSG80 controller	DS-SE2CS-CB 135823-B21
	Model 2200 controller shelf for HSG80 controller (DS-SE2ZS-C8) – includes dual power supplies and power cables	135820-B21

### ESA 10000, RAID Array 7000, RAID Array 8000

- Enterprise Storage Array 10000 and RAID Array 7000 (HSZ70) product set are supported on AlphaServer DS10L systems
- Supported SCSI adapter for HSZ70 – 3X-KZPBA-CC PCI 1-port UltraSCSI differential adapter
- Supported SCSI adapter for HSG80 – KGPSA-BC PCI 1-port Fiber-Channel adapter

### Step 8 – Networks and Communications – Optional

- 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	
PCI 1-port 10/100-Mb Ethernet adapter (Twisted Pair)	1	1	1	3X-DE600-AA
PCI 2-port 10/100-Mb Fast Ethernet adapter, UTP, maximum one per system, maximum six 10/1000 Ethernet ports per system <b>NOTE:</b> Two 10/100 Ethernet ports included with DS10L system.	1 V4.0F	1	1	3X-DE602-AA
FE FX daughter card for 3X-DE602-AA (3X-DE602-AA is a prerequisite) maximum six 10/100 Ethernet ports supported per system. <b>NOTE:</b> Two 10/100 Ethernet ports included with DS10L system.	-	1	1	3X-DE602-FA
PCI 2-port 10/100 Mb Fast Ethernet adapter, UTP, maximum one per system, maximum six 10/100 Ethernet ports per system. <b>NOTE:</b> Two 10/100 Ethernet ports included with DS10L system.	1	1	-	3X-DE602-BB
PCI 2-port 10/100 Mb, UTP, Ethernet add-on daughter card for 3X-DE602-BB, maximum one per system, maximum six 10/100 Ethernet ports per system. <b>NOTE:</b> Two 10/100 Ethernet ports included with DS10L system.	1	1	-	3X-DE602-TA
PCI 10/100 Mb 4-port Ethernet adapter, UTP	1	1	1	DE504-BA
Cable for 10BaseT twisted pair connection				BN25G-xx
PCI Gigabit Ethernet adapter, SC connectors, MMF, no boot support	1	1	1	DEGPA-SA
SC-to-SC dual fiber optic cable				BN34B-xx
PCI-to-Gigabit Ethernet adapter – UTP, with RJ45 (no boot support)	1	1	-	DEGPA-TA
PCI combo adapter, Permedia P2 graphics, 10/100 Mbit NIC	1	1	1	3X-DEPVD-AA
PCI combo adapter, Permedia P2 graphics, 10/100 NIC, 1-port SCSI	1	1	-	3X-DEPVZ-AA

## Options

### Step 8 – Networks and Communications – Optional (continued)

- 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	
PCI FDDI adapter, single attachment station (SAS), multi-mode fiber (MMF), SC connector	1	-	-	3X-DEFPA-AC
PCI FDDI adapter, DAS, MMF, SC connector	1	-	-	3X-DEFPA-DC
MIC-SC dual fiber optic cable mm, pp xx = length in metres				BN34D-xx
SC-to-SC dual fiber optic cable mm, pp xx = length in metres				BN34B-xx
PCI FDDI adapter, SAS, TP-PMD, requires BN25H-03 cable	1	-	-	3X-DEFPA-UC
PCI FDDI dual adapter, DAS, TP-PMD, requires BN25H-03 cable	1	-	-	3X-DEFPA-MC
3-metre (9.8-inch) FDDI cross-over cable mm, pp xx = length in metres				BN25H-03
PCI 4-port asynchronous controller; maximum two PBXDA-xx controllers per system	1 V4.0F	1	-	PBXDA-AA
PCI 8-port asynchronous controller, cable included; maximum two PBXDA-xx controllers per system	1 V4.0F	1	-	PBXDA-AB
PCI 16-port asynchronous controller, cable included; maximum two PBXDA-xx controllers per system	1 V4.0F	1	-	PBXDA-AC
PCI-to-ATM 155 Mb adapter - Fiber	1 V4.0F	1 V7.2-1	-	3X-DAPBA-FA
PCI-to-ATM 155 Mb adapter - UTP	1 V4.0F	1 V7.2-1	-	3X-DAPBA-UA
PCI-to-ATM 622 Mb adapter - Fiber	1 V4.0F	1 V7.2-1	-	3X-DAPCA-FA
PCI-to-dual port synchronous controller	-	1	-	3X-PBXDD-AA
PCI-to-quad port synchronous controller	-	1	-	3X-PBXDD-AB

### 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

	Maximum # Supported			
	Tru64 UNIX	OpenVMS	Linux-Ready	
3Dlabs Oxygen VX1 32-MB PCI 2D graphics accelerator	1	1	-	SN-PBXGF-AB
PCI combo adapter, Permedia P2 graphics, 10/100 Mbit NIC	1	1	1	3X-DEPVD-AA
PCI combo adapter, Permedia P2 graphics, 10/100 NIC, 1-port USCSI	1	1	-	3X-DEPVZ-AA

### Options

#### Step 10 –Monitors – Optional

- Graphics monitors other than those listed can be used if compatible with SVGA graphics ordered with system
- At least one video cable, 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 will ship with, but not be integrated with the system
- AlphaServer DS10L has been designed for desktop use and will support a 21-inch monitor

<b>Carbon/Silver Monitors</b>	P720 17-inch (16-inch viewable image size) auto-scanning colour monitor, Diamondtron NF, 0.25 mm aperture grille pitch, VGA to 1280 x 1024 @85 Hz, MPRII/TCO 99/Energy Star Compliant, Northern Hemisphere with NA power cord, VGA cable	3R-A3388-AA 244373-001
	Same as above, with Euro-power cord	3R-A3389-AA 244373-021
	Same as above, APD, no power cord	3R-A3390-AA 244373-B24
	Same as above, PRC with power cord, CCIB	3R-A3391-AA 244373-AA1
	Same as above, Southern Hemisphere, with Australia/New Zealand power cord	3R-A3392-AA 244373-011
	P920 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-A3393-AA 244375-001
	Same as above, with Euro power cord	3R-A3394-AA 244375-021
	Same as above, PRC with power cord, CCIB	3R-A3396-AA 244375-AA1
	Same as above, Southern Hemisphere, 0.25 to 0.27 mm aperture grille pitch, with Australia/New Zealand power cord	3R-A3397-AA 244375-011
	P1220 22-inch (20-inch viewable image size) auto-scanning colour monitor, Diamondtron NF, 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-A3398-AA 244374-001
Same as above, with Euro power cord	3R-A3399-AA 244374-021	
Same as above, APD, no power cord	3R-A3400-AA 244374-B24	
Same as above, PRC with power cord, CCIB	3R-A3401-AA 244374-AA1	
Same as above, Southern Hemisphere, with Australia/New Zealand power cord	3R-A3402-AA 244374-011	
<b>Carbon/Silver Flat Panel Monitors</b>	TFT8030, 18.1-inch (18.0-inch viewable image size) TFT flat panel monitor, 0.28 mm pixel pitch, 1280 x 1024 @75 Hz, multi-mode support, MPRII/TCO99/Energy Star compliant, six video input connectors (two VGA, two DVI-I, one S-video, and one C-video), NA power cord, VGA and DVI-I cables	3R-A3511-AA 234362-001
	TFT5030, 15.1-inch (15.0-inch viewable image size) TFT flat panel monitor, 0.30 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-A3353-AA 228134-001

## Options

### Step 10 –Monitors –Optional (*continued*)

<b>Video Extension Cable</b>	Each monitor includes a 6-foot/1.8-metre signal cable – a video extension cable is required for most server applications.	BN39C-02
<b>Monitor Power Cords</b>	North American, 120V, 75-inch	BN26J-1K
	Australia, New Zealand, 2.5-metre	103541-011 (U.S./Canada orders)
		BN19H-2E (Other country orders)
	Central Europe, 2.5-metre	BN19C-2E
	Denmark, 2.5-metre	103541-481 (U.S./Canada orders)
		BN19K-2E (Other country orders)
	Egypt, India, South Africa, 2.5-metre	103541-AR1 (U.S./Canada orders)
		BN19S-2E (Other country orders)
	Israel, 2.5-metre	BN18L-2E
	Italy, 2.5-metre	103541-461 (U.S./Canada orders)
		BN35M-02 (Other country orders)
	Japan, 2.5-metre	3X-BN46F-02
	Switzerland, 2.5-metre	103541-511 (U.S./Canada orders)
		BN19E-2E (Other country orders)
	UK, Ireland, 2.5-metre	BN19A-2E

## Options

### Step 11 –Keyboards, Mouse – Recommended

- Keyboards are not included with system and must be ordered separately
- Selection of country-specific keyboard is recommended
- All keyboards listed may not be available in all geographies
- Select an opal OpenVMS keyboard for use with VT5xx text terminals

Keyboard/Language	Opal		Carbon	
	OpenVMS	Tru64 UNIX	OpenVMS	
U.S./English keyboard	LK461-A2	3R-LKQ48-AA	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 keyboard	LK461-BU	3R-LKQ48-BU	3X-LK462-BU	
Turkish/French keyboard	LK461-BW	-	3X-LK462-BW	
UK keyboard	-	3R-LKQ48-AE	-	
Yugoslavian keyboard	LK461-BY	-	3X-LK462-BY	

<b>Mouse</b>	3-button mouse – opal	SN-PBQWS-WA
	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)	H8975-E

#### Step 13 – Cosmetic Sleeve – Optional

Cosmetic sleeve for AlphaServer DS10L	3X-CC71P-AA
---------------------------------------	-------------

#### Step 14 – Software – Required selection of media and online documentation kit for first system on site

- Software Processor Code = E

#### Tru64 UNIX

Tru64 UNIX systems include Tru64 UNIX V5.1, 2-user Base license, Internet Express, iPlanet Directory Server, iPlanet Enterprise Server, and Compaq Secure Web Server.

#### When using Tru64 UNIX V5.0A or later

Tru64 UNIX media and online documentation kit on CD-ROM	QA-6ADAA-H8
Tru64 UNIX full hard copy documentation	QA-6ADAA-GZ
<i>TruCluster</i> <sup>TM</sup> 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

## Options

### Step 14 – Software – Required selection of media and online documentation kit for first system on site (*continued*)

OpenVMS	<ul style="list-style-type: none"> <li>OpenVMS systems include Base license with System Manager license and Enterprise Integration Server License Package for OpenVMS Revision V3.0A.</li> <li>Enterprise Integration Package includes licenses for TCP/IP Services for OpenVMS, DECwindows Motif for OpenVMS Alpha, DECnet-Plus for OpenVMS Alpha End System</li> </ul>	
	OpenVMS V7.1-2 media and online documentation kit on CD-ROM	QA-MT1AR-H8
	OpenVMS V7.2-1 media and online documentation kit on CD-ROM	QA-MT1AT-H8
	OpenVMS media and online documentation kit 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
	Open3D for OpenVMS on CD-ROM, includes graphics drivers	QA-0ADAA-H8
	<ul style="list-style-type: none"> <li>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.</li> <li>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.</li> </ul>	
	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

**NOTE:** Linux-Ready systems ship without system software; RedHat 6.0 or SuSe 6.1 may be purchased separately from a Linux distributor.

Linux Kit – Optional	Linux RedHat CD-ROM Kit	QA-6M1AA-H8
----------------------	-------------------------	-------------

### Options

#### Step 15 – 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 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 systems and SSPs (Subsequent System Packages) – that meet a full range of customer support requirements.

#### Program Features – Principal Server

---

##### Priority

- 9 x 5 HW/SW support
- 4-hour response on-site hardware support
- 2-hour response for Bronze software support
- License Subscription for Compaq 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 Compaq 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 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 Compaq 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.)
- 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 Compaq 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.)
- Technical newsletter, SW activity review and 10 hours Upgrade impact planning
- Proactive Revision Management
- Two (2) System Healthchecks per year
- Mandatory pre-qualification required

## Options

### Step 15 – Hardware and Software Support Services *(continued)*

---

#### CarePaq Priority Services *(continued)*

#### Program Features – Principal Server *(continued)*

---

- |                                |  |
|--------------------------------|--|
| <b>Priority Gold Executive</b> | <ul style="list-style-type: none"><li>• 24 x 7 HW support with Named Engineer, two-hour response for on-site support</li><li>• 24 x 7 Gold SW support - Named Account Rep</li><li>• 30-minute callback (critical); one-hour callback (non-critical)</li><li>• License Subscription for Compaq O/S software and embedded L/P (i.e., EIS for OpenVMS, unlimited users, and server extensions for Tru64 UNIX)</li><li>• Software update distribution on CD-ROM: OpenVMS or Tru64 UNIX and their layered products (Layered products not included on Condist can be ordered separately.)</li><li>• Technical newsletter, SW activity review and 10 hours Upgrade impact planning</li><li>• Proactive Revision Management</li><li>• Two (2) System Healthchecks per year</li><li>• Customer site must be within 25 miles of a Compaq service location</li><li>• Mandatory pre-qualification required</li></ul> |
|--------------------------------|--|

#### Program Features – Additional Services

---

- |   |  |
|---|--|
| <b>SSPs</b><br>(Subsequent System Packages) | <ul style="list-style-type: none"><li>• For Priority, Priority 24, Priority Silver, Priority Gold, and Priority Gold Executive</li><li>• HW Support at same level as corresponding package for Principal server</li><li>• License Subscription: Compaq O/S (where applicable)</li><li>• Telephone support through Principal server covered by full support package</li></ul> |
|---|--|
- 

- |                     |   |
|---------------------|---|
| <b>Installation</b> | <ul style="list-style-type: none"><li>• Preinstallation review</li><li>• Unpacking of equipment</li><li>• Assemble and test</li><li>• Basic product usage info</li><li>• No software installation added</li></ul> |
|---------------------|---|
- 

- |  |   |
|--|---|
| <b>Installation &amp; Startup Compaq O/S</b> | <ul style="list-style-type: none"><li>• Preinstallation review</li><li>• Unpacking of equipment</li><li>• Assemble and test</li><li>• Basic product usage info</li><li>• Install operating systems</li><li>• Product configuration</li><li>• Print and network access</li><li>• Orientation</li></ul> |
|--|---|

### Options

#### Step 15 – Hardware and Software Support Services *(continued)*

##### CarePaq Priority Services *(continued)*

Model/CarePaq Priority Service	Principal Server 1 year	Principal Server 3 years	Subsequent Systems 1 year	Subsequent Systems 3 years
<b>AlphaServer DS10L</b>				
Priority	FM-A01AE-12	FM-A01AE-36	FM-A21AE-12	FM-A21AE-36
Priority 24	FM-A02AE-12	FM-A02AE-36	FM-A22AE-12	FM-A22AE-36
Priority Silver	FM-A04AE-12	FM-A04AE-36	FM-A24AE-12	FM-A24AE-36
Priority Gold	FM-A08AE-12	FM-A08AE-36	FM-A28AE-12	FM-A28AE-36
Priority Gold Exec.	FM-A09AE-12	FM-A09AE-36	FM-A29AE-12	FM-A29AE-36
Installation	FM-AINST-AE	FM-AINST-AE	FM-AINST-AE	FM-AINST-AE
Installation & Startup	FM-ASTAR-AE	FM-ASTAR-AE	FM-ASTAR-AE	FM-ASTAR-AE

#### NOTES:

- AlphaServer DS10L systems include one-year hardware warranty with 5x9, on-site Next Business Day response.
- New Compaq hardware options internal to the AlphaServer enclosure receive the same warranty or service level as purchased with the server.
- 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 Compaq service options available for AlphaServers, 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 (W x D x H)	17.5 x 20.5 x 1.75 in/44.5 x 52 x 4.5 cm
	Shipping Dimensions	23.6 x 21.7 x 10.1 in/60 x 55 x 26 cm
	Weight	21 lb/9.4 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 95°F/10° to 35°C
	<b>NOTE:</b> Maximum operating temperature at sea level; reduce by 1.0°F per 1,000 ft (1.8°C per 1,000 m) above sea level.	
	Non-operating	41° to 122° F/5° to 50° C
	Storage (60 days)	-40° to -151° F/-40 to -66° C
	Rate of change (operating)	20°F/hr/11°C/hr
Relative Humidity	Operating	10% to 90% RH
	Non-operating	10% to 95%
	Storage (60 days)	10% to 95%
Maximum Wet Bulb Temperature	Operating	82° F/28° C
	Non-operating	90° F/32° C
	Storage (60 days)	115° F/46° C
Heat Dissipation	Typical configuration: AlphaServer DS10L, 600 MHz 250W Power Supply Main logic board with EV6 CPU 1-GB main memory 1 hard disk, 1 floppy drive, 1 CD-ROM 1 PCI network interface card Running system exerciser during power measurement Input voltage = 100VAC @ 60 Hz Input current = 1.85 Amps	Single Unit = 185W = 631 BTU/hr Rack of 40 systems with 5 PDU/Fan kits = ~7,900W = 26,980 BTU/hr

## Technical Specifications

System Unit <i>(continued)</i>	ENVIRONMENTAL <i>(continued)</i>		
<b>Air Flow and Quality</b>	Intake location	Front (desktop and rack)	
	Exhaust location	Rear (desktop and rack)	
	Particle size	N/A	
	Concentration	N/A	
<b>Altitude</b>	Operating	10,000 ft/3,048 m	
	Non-operating	40,000 ft/12,192 m	
<b>NOTE:</b> Higher altitudes are possible if maximum operating temperature is reduced (see Temperature); other restrictions may apply such as maximum permissible altitude for hard drives.			
<b>ACOUSTICS</b> (Declared values per ISO 9296 and ISO 7779)			
<b>Acoustics</b>	<b>NOTE:</b> Current values for specific configurations are available from Compaq, note that 1 B = 10 dBA.		
		LWAd3B	LnAm5dBA (bystander position)
	Idle	6.0	46
Operating	6.1	47	
<b>Vibration</b>	Operating	5-500 Hz at .1 G peak (limited by 0.02 in/0.5 mm double amplitude)	
	Non-operating	1.03 Grms 5-300 Hz	
<b>Shock</b>	Operating	10 G 10 ms half-sine	
<b>ELECTRICAL</b> (Power supplies are universal, PFC, auto ranging, 100/240 VAC)			
<b>Nominal Voltage (VAC)</b>	100	120	200 to 240
<b>Voltage Range (VAC)</b> (temporary condition)	90 to 100	110 to 128	180 to 250
<b>Power Source Phase</b>	Single	Single	Single
<b>Nominal Frequency (Hz)</b>	50/60	50/60	50/60
<b>Frequency Range (Hz)</b>	49 to 51/59 to 61	49 to 51/59 to 61	49 to 51/59 to 61
<b>RMS Current</b> (maximum steady state)			
Single power cord	2.3A	1.9A	1.1A
Maximum VA	230	229	220
M-series Cabinet (configuration dependent)			
Nominal voltage (VAC)	100	120	220-240
Each power cord	24A	24A	16A

### Technical Specifications

System Unit <i>(continued)</i>	<b>ELECTRICAL</b> (Power supplies are universal, PFC, auto ranging, 100/240 VAC) <i>(continued)</i>		
<b>Power Cords</b>	Desktop	1 (75 in/190 cm)	IEC 320 C13 to NEMA 5-15 (N. America) or IEC 320 C13 to country-specific
	Rackmount	1 (14 ft 10 in/452 cm)	IEC 320 C13 to NEMA 5-15 (N. America) or IEC 320 C13 to IEC 320 C14 (other countries)
	Cabinet	2 (10 ft 10 in/330 cm)	120V non-removable NEMA L5-30P or 200-240V non-removable IEC 309
<b>Regulatory</b>	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 A	
		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)	

© 2002 Compaq Canada Corporation (An HP Company). All rights reserved. Printed in Canada  
 Compaq, the Compaq logo, AlphaServer, CarePac, Compaq Insight Manager, OpenVMS, StorageWorks, TruCluster and Tru64 are registered trademarks or trademarks of Compaq Information Technologies Group, L.P. in the U.S. and/or other countries. UNIX is a registered trademark or trademark of The Open Group, Inc. in the U.S. and/or other countries. All other product names mentioned herein may be registered trademarks or trademarks of their respective companies.

Compaq shall not be liable for technical or editorial errors or omissions contained herein. The information is provided "as is" without warranty of any kind and is subject to change without notice. The warranties for Compaq products are set forth in the express limited warranty statements accompanying such products. Nothing herein should be construed as constituting an additional warranty.