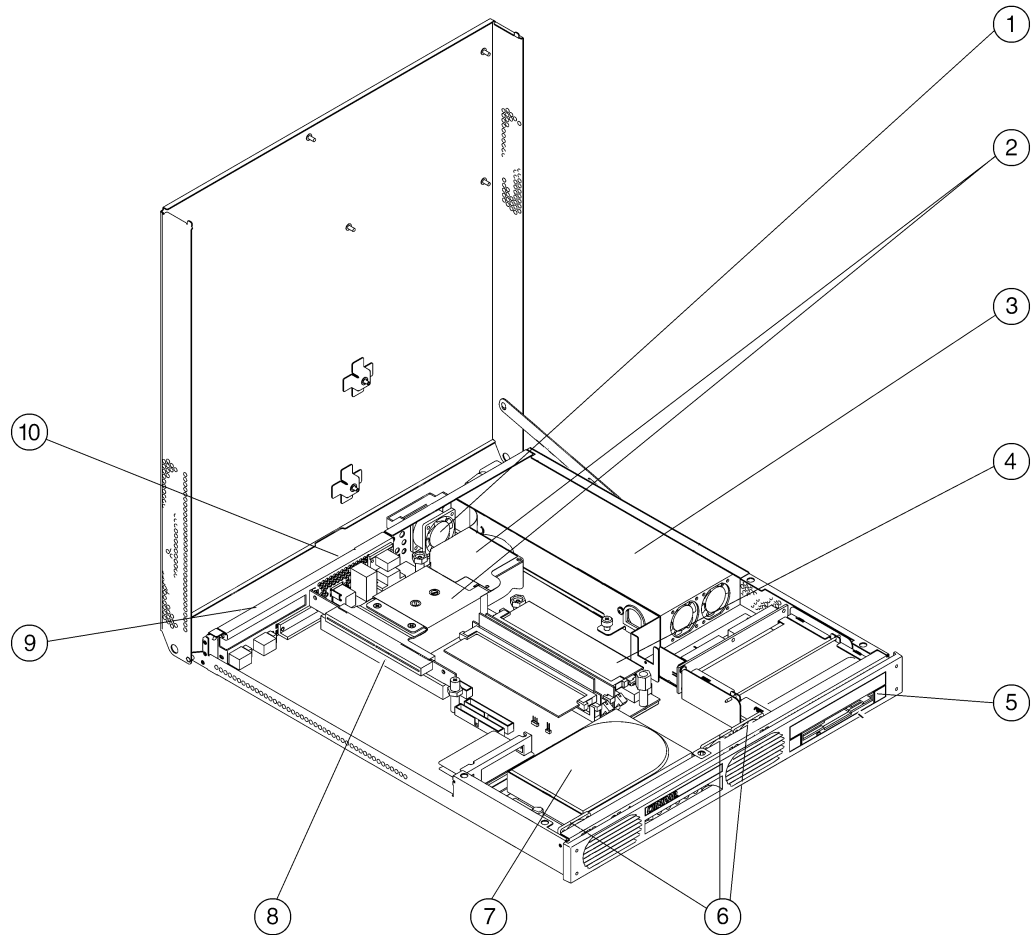


Overview

At A Glance

AlphaServer DS10L 1U Systems include:

- 1U Alpha processor module with 466-MHz or 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 3.5" x 1" hard disk drive bay or optional combo 1.44-MB diskette drive/ 24X CD-ROM 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 Compaq Services, including one-year, on-site hardware with next business day response
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

Processor	Alpha 21264 466-MHz processor or Alpha 21264A 600-MHz processor; 2-MB onboard cache	
Upgradability	One CPU standard; supports upgrades of memory and hard drives	
Memory	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)
Network Controller	Two onboard 10/100 BaseT Ethernet ports	
Expansion Slots	PCI slots	One full length 64-bit slot
	Storage bays	One storage bay – one 3.5" x 1" hard disk drive bay or optional combo 1.44-MB diskette drive/24X CD-ROM drive
Storage Controller	Onboard IDE controller for internal storage, choice of optional storage controllers	
Storage	Diskette Drive/CD-ROM	Optional
	Hard Drives	20-GB and 40-GB IDE disk drives or 9.1-GB, 18.2-GB, and 36.4-GB UltraSCSI disk drives available with optional SCSI controller
Expansion Ports	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
Form Factor	1U Rackmount or Desktop (1.75" h x 17.5" w x 20.5" d), 20 lbs	
Power Supply	150W Power Supply	
Manageability	Compaq Insight Manager	
Supported Options	A detailed summary of options supported on the AlphaServer DS10L is available at: http://www.compaq.com/alphaserver/options/asds10l/asds10l_options.html	
OS Support	AlphaServer DS10L Tru64 UNIX systems include pre-installed software (V5.1), 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 (V7.2-1), 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; Red Hat 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	
Service and Support	Compaq 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.	

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, contact CustomSystems (1-800-AT-COMPAQ)

AlphaServer DS10L Systems

OS	CPU	Memory	PCI Slots	IDE Controller	2 Ethernet Ports	Hard Drive	Order No.
Tru64 UNIX	466 MHz	256 MB	1	Onboard	Onboard	Mandatory	DA-71AAA-DA
Tru64 UNIX	466 MHz	512 MB	1	Onboard	Onboard	Mandatory	DA-71AAA-EA
Tru64 UNIX	466 MHz	1 GB	1	Onboard	Onboard	Mandatory	DA-71AAA-FA
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	466 MHz	256 MB	1	Onboard	Onboard	Mandatory	DY-71AAA-DA
OpenVMS	466 MHz	512 MB	1	Onboard	Onboard	Mandatory	DY-71AAA-EA
OpenVMS	466 MHz	1 GB	1	Onboard	Onboard	Mandatory	DY-71AAA-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	466 MHz	512 MB	1	Onboard	Onboard	Mandatory	DJ-71AAA-EA
Linux-Ready	466 MHz	1 GB	1	Onboard	Onboard	Mandatory	DJ-71AAA-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" x 1" drives only
- For multiple system configurations that share a system disk external to system enclosure, contact Compaq CustomSystems

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

Note: Requires console firmware update – update available at <http://ftp.digital.com/pub/Digital/Alpha/firmware/interim/ds10/v5.9-6/>

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	9.1-GB 7,200 rpm Ultra2 SCSI drive	DS-RZ2DA-WA
	9.1-GB 10,000 rpm Ultra3 SCSI drive	DS-RZ3DD-WA
	18.2-GB 7,200 rpm Ultra2 SCSI drive	DS-RZ2EA-WA
	18.2-GB 10,000 rpm Ultra3 SCSI drive	DS-RZ3EF-WA
	36.4-GB 10,000 rpm Ultra3 SCSI 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 only) – 3X-KZPEA-DB
Note: Patch kit required, kit available at http://ftp1.support.compaq.com/public/Digital_UNIX/v5.1/

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"	BN26J-1K
	Australia, New Zealand, 2.5m	BN19H-2E
	Central Europe, 2.5m	BN19C-2E
	Denmark, 2.5m	BN19K-2E
	Egypt, India, South Africa, 2.5m	BN19S-2E
	Israel, 2.5m	BN18L-2E
	Italy, 2.5m	BN19M-2E
	Japan, 2.5m (straight connector)	3X-BN46F-02
	Switzerland, 2.5m	BN19E-2E
	UK, Ireland, 2.5m	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" hard disk drive bay (refer to Step 2a) or
 - One 3.5" x 1" 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 4 a– External Storage (Removable Media) – Optional

40/80-GB DLT tape drive in StorageWorks carrier	DS-TZ90N-VW
20/40-GB DLT tape drive in StorageWorks carrier (Tru64 UNIX and OpenVMS)	TZ-88N-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 www.compaq.com/alphaserver/products/m-series/index.html

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
H9A10, H9A15	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	
H9A10-MD/MC	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
H9A15-MC/MD	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	

*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-m 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" or 1U space required for each system unit.

Cabinet	Mounting Kit	Cabinet Height / Space	Systems	RA3000 + Shelves
H9A10-MC/MD	3X-PBX01-BE	54.2" / 32U	4-8	1 + 4 (max)
			9-14	1 + 2
			15-23	1 + 1 (basic)
H9A15-MC/MD	3X-PBX01-BE	66.5" / 40U	5-16	1 + 4 (max)
			17-22	1 + 3
			23-24	1 + 2
			25-30	1 + 1 (basic)

Cabinet Configuration Chart for AlphaServer DS10L with StorageWorks BA370 and Disk Shelves

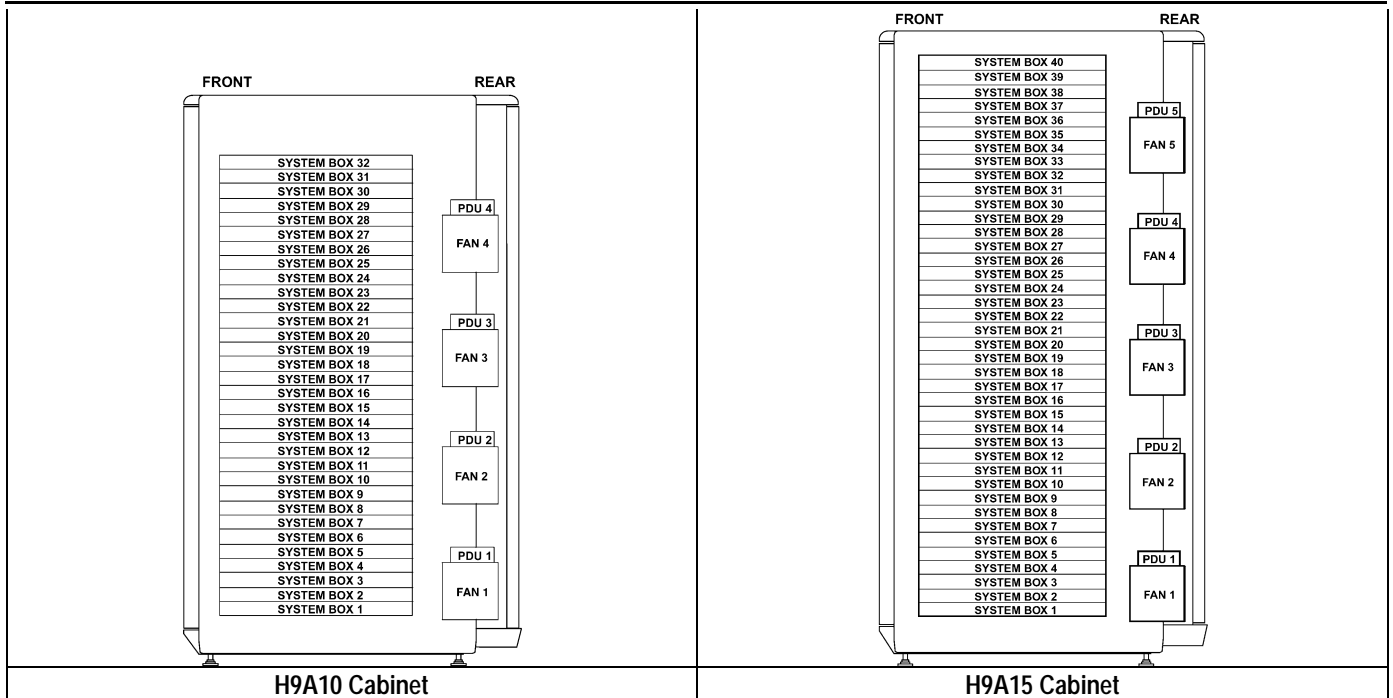
- 20U of vertical cabinet space is reserved for one front-mounted BA370 rackmount. Note that top fan (1U) is removed from cabinet when BA370 rackmount enclosure is installed. Additional PDU is required to support the BA370.
- Systems and StorageWorks shelves are supported in remaining vertical space; StorageWorks shelves are not supported in rear of cabinet behind a front-mounted BA370 rackmount enclosure.
- 1.75" or 1U space required for each system unit.

Cabinet	Rack Kit	Cabinet Height/Space	Systems	BA370	Shelves
H9A10-MC/MD	3X-PBX01-BE	56" / 32U	13	1 (front)	2
H9A15-MC/MD	3X-PBX01-BE	66.5" / 40U	20	1 (front)	6

Note: Installing one BA370 and one system in H9A15 cabinet requires the mandatory selection of a ballast kit.

Options

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



M-series Cabinet Descriptions		
67" cabinet enclosure with 54.2" or 33U 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" cabinet enclosure with 54.2" or 33U of usable vertical space; 240V dual-16 A 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" cabinet enclosure with 66.5" or 40U 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" cabinet enclosure with 66.5" or 40U 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

M-series Cabinet Rackmount Kits for AlphaServer DS10L		
Single rack kit for AlphaServer DS10L		3X-PBX01-BE
Quad rack kit for AlphaServer DS10L		3X-PBX01-BD
<i>Note: Refer to the Cabinet Configuration Charts above for configuration rules.</i>		

M-series Cabinet PDU/Fan/Cable Management Kits		
<ul style="list-style-type: none"> Kits include PDU, fans, shelf, and cables to serve eight AlphaServer DS10L systems 		
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

Options

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

M-series Cabinet Fan/Cable Management Kits	<ul style="list-style-type: none"> Kits include fans, shelf, and cables to serve eight AlphaServer DS10L systems; for use with PDU that ships with cabinet 	
	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
StorageWorks Shelves Supported in M-series Cabinets with Front Doors (H9A 10, H9A 15)	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
BA370 Rackmounted Enclosure	BA370 front-mount rackmount enclosure includes RETMA rackmount kit; first BA370 enclosure must be front mounted in cabinet, 20U height	2T-BA370-AS
M-series Cabinet Front Doors	<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"> Factory integration required 	
	Factory integration of systems and storage devices assembled and configured in cabinet enclosure in H9A10 or H9A15 cabinet enclosures	YS-ASCAA-AA
M-series Cabinet Ballast Kits	<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 in Step 5. 	
	Two 35-40 lb. steel plates	H9C10-MC
M-series Cabinet Rackmount Power Cords	<ul style="list-style-type: none"> Two power cords required for US/Canada and Japan systems that include H7600-AA power supply; power cords are included in PDU kits for non-US systems. 	
	US/Canada	BN20Z-4E
	Non-US	BN35S-4E
	Japan 4.5m (right-angle connector)	3X-BN46D-4E
Compaq CustomSystems Support	<ul style="list-style-type: none"> Cabinets that contain systems and storage must be assembled by qualified assemblers: Compaq Manufacturing, Compaq CustomSystems, or an authorized Compaq Certified Integration Partner. 	
	<ul style="list-style-type: none"> 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 color, contact Compaq CustomSystems at 1-800-AT COMPAQ, or your local authorized Compaq Certified Integration Partner. 	

Options

Step 6 – External Storage – Optional

UltraSCSI Configuration Rules	<ul style="list-style-type: none"> UltraSCSI configurations require UltraSCSI components (controllers, adapters, shelves, disks, and cables) UltraSCSI adapters and RAID controllers support UltraSCSI disks at UltraSCSI speeds in UltraSCSI top gun blue shelves (DS-BA356-xx) 																				
UltraSCSI StorageWorks Pedestals	<ul style="list-style-type: none"> 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 UltraSCSI shelf supports: seven 3.5" hard disk drives, or one 5.25" device and four 3.5" hard disk drives, or two 5.25" devices and one 3.5" hard disk drive Installation of redundant power supply reduces number of 3.5" drive slots by one <table border="1"> <tr> <td>UltraSCSI single-ended pedestal, single-bus personality module, 180W power supply</td> <td>DS-BA356-KF</td> </tr> <tr> <td>UltraSCSI single-ended pedestal, split-bus personality module, 180W power supply</td> <td>DS-BA356-KG</td> </tr> <tr> <td>UltraSCSI pedestal, single-channel differential personality module, 180W power supply</td> <td>DS-BA356-KH</td> </tr> <tr> <td>180W power supply, or redundant power, includes 120V North American and 240V IEC power cord</td> <td>CK-BA35X-HH</td> </tr> </table>	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												
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																				
Tabletop Tape Drives	<ul style="list-style-type: none"> Tape drives require LVD or single-ended UltraSCSI adapter and country-specific power cord <table border="1"> <tr> <td>12/24-GB 4-mm DAT narrow single-ended tabletop SCSI tape, includes 120V North American power cord, requires BN31W-xx SCSI cable</td> <td>DS-TLZ10-DB</td> </tr> <tr> <td>20/40-GB SCSI (DLT 4000E) tabletop drive (Tru64 UNIX and OpenVMS only)</td> <td>TZ88N-TA</td> </tr> <tr> <td>50/100-GB 8mm AIT LVD tabletop SCSI tape – North America (Tru64 UNIX and OpenVMS only)</td> <td>157767-001</td> </tr> <tr> <td>50/100-GB 8mm AIT LVD tabletop SCSI tape – International (Tru64 UNIX and OpenVMS only)</td> <td>157767-B31</td> </tr> <tr> <td>50/100-GB 8mm AIT LVD tabletop SCSI tape – Japan (Tru64 UNIX and OpenVMS only)</td> <td>157767-291</td> </tr> <tr> <td>40-80-GB SCSI LVD (DLT8000) tabletop drive – Worldwide</td> <td>146197-B21</td> </tr> <tr> <td>40-80-GB SCSI LVD (DLT8000) tabletop drive – Japan</td> <td>146197-291</td> </tr> <tr> <td>110/220-GB SDLT Ultra2 (LVD) tabletop tape drive, US</td> <td>192103-001</td> </tr> <tr> <td>110/220-GB SDLT Ultra2 (LVD) tabletop tape drive, International</td> <td>192103-B31</td> </tr> <tr> <td>110/220-GB SDLT Ultra2 (LVD) tabletop tape drive, Japan</td> <td>192103-291</td> </tr> </table>	12/24-GB 4-mm DAT narrow single-ended tabletop SCSI tape, includes 120V North American power cord, requires BN31W-xx SCSI cable	DS-TLZ10-DB	20/40-GB SCSI (DLT 4000E) tabletop drive (Tru64 UNIX and OpenVMS only)	TZ88N-TA	50/100-GB 8mm AIT LVD tabletop SCSI tape – North America (Tru64 UNIX and OpenVMS only)	157767-001	50/100-GB 8mm AIT LVD tabletop SCSI tape – International (Tru64 UNIX and OpenVMS only)	157767-B31	50/100-GB 8mm AIT LVD tabletop SCSI tape – Japan (Tru64 UNIX and OpenVMS only)	157767-291	40-80-GB SCSI LVD (DLT8000) tabletop drive – Worldwide	146197-B21	40-80-GB SCSI LVD (DLT8000) tabletop drive – Japan	146197-291	110/220-GB SDLT Ultra2 (LVD) tabletop tape drive, US	192103-001	110/220-GB SDLT Ultra2 (LVD) tabletop tape drive, International	192103-B31	110/220-GB SDLT Ultra2 (LVD) tabletop tape drive, Japan	192103-291
12/24-GB 4-mm DAT narrow single-ended tabletop SCSI tape, includes 120V North American power cord, requires BN31W-xx SCSI cable	DS-TLZ10-DB																				
20/40-GB SCSI (DLT 4000E) tabletop drive (Tru64 UNIX and OpenVMS only)	TZ88N-TA																				
50/100-GB 8mm AIT LVD tabletop SCSI tape – North America (Tru64 UNIX and OpenVMS only)	157767-001																				
50/100-GB 8mm AIT LVD tabletop SCSI tape – International (Tru64 UNIX and OpenVMS only)	157767-B31																				
50/100-GB 8mm AIT LVD tabletop SCSI tape – Japan (Tru64 UNIX and OpenVMS only)	157767-291																				
40-80-GB SCSI LVD (DLT8000) tabletop drive – Worldwide	146197-B21																				
40-80-GB SCSI LVD (DLT8000) tabletop drive – Japan	146197-291																				
110/220-GB SDLT Ultra2 (LVD) tabletop tape drive, US	192103-001																				
110/220-GB SDLT Ultra2 (LVD) tabletop tape drive, International	192103-B31																				
110/220-GB SDLT Ultra2 (LVD) tabletop tape drive, Japan	192103-291																				

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
Fibre Channel cable xx=02, 05, 15, 30, 50 meters				BNGBX-xx
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 m				BN37A-xx
PCI 1-port Ultra2 SCSI (LVD) single-ended adapter, 68-pin HD connector, requires BN38C cable (2 to 20 m) 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 m				BN38C-xx
PCI 2-channel LVD multimode Ultra3 SCSI adapter, VHDCI (Tru64 UNIX V5.1 only) Note: Patch kit required, kit available at: http://ftp1.support.compaq.com/public/Digital_UNIX/v5.1/	1 V5.1	-	-	3X-KZPEA-DB
PCI 1-port UltraSCSI differential adapter; includes external 68-pin HD connector, requires BN38C-xx cable (2 to 25 m) to connect adapter to differential UltraSCSI shelf or RAID controller	1	1	1	KZPBA-CB
68-pin HD male-to-VHDCI male UltraSCSI cable; xx = 02, 03, 05, 10, 20, 25 m				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 (.3 to 20 m) to connect to single-ended UltraSCSI shelf Note: Floppy/CD-ROM (3X-PBXRY-AA) must also be ordered.	1 V4.0F	1	-	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 (.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 m Note: Manufacturing may substitute BN37A-02 cable for specific cabinet configurations.				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

Options

Step 6 – External Storage – Optional (continued)

StorageWorks BA370 Rackmount Enclosure	<ul style="list-style-type: none"> M-series cabinets (H9A10 and H9A15) allow one BA370 enclosure to be installed in front cabinet Host adapter, RAID Array controller, platform specific Solutions Software Kit, and disk drives must be ordered separately 	
	BA370 front mount rackmount enclosure with five 180W power supplies, includes RETMA rackmount kit; first BA370 enclosure must be front mounted in cabinet, 20U height	2T-BA370-AS
	Factory configured RAID of rackmounted BA370/HSZ80	YS-ASCRD-AA
	<p>Note: Factory configured RAID sets for disks in rackmounted BA370 StorageWorks shelf controlled by one or two HSZ70s require completion of questionnaire located at http://www.digital.com/alphaserver/fcr</p>	
Removable Media Devices for External StorageWorks Shelves	12/24-GB 4 mm DAT narrow SCSI tape drive in StorageWorks carrier	DS-TLZ10-VA
	35/70-GB AIT tape drive in StorageWorks carrier (Tru64 UNIX and OpenVMS only)	DS-AIT35-VW
	20/40-GB DLT tape drive in StorageWorks carrier (Tru64 UNIX and OpenVMS only)	TZ88N-VA
	40/80-GB DLT tape drive in StorageWorks carrier	DS-TZ90N-VW
	600-MB 32X CD-ROM drive in StorageWorks carrier	DS-RRD47-VA
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"> Maximum six (10,000 rpm) or seven (7,200 rpm) drives supported in StorageWorks shelf One power supply supports a maximum of six 10,000 rpm disks 	
	9.1-GB 7,200 rpm UltraSCSI drive	DS-RZ1DA-VW
	18.2-GB 7,200 rpm UltraSCSI drive	DS-RZ1EA-VW
	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
	StorageWorks Universal Drive Shelves – Model 4314R (Ultra3)	StorageWorks Model 4314R Ultra3 rackmount single bus, US
Same as above, International		DS-SL13R-AB
Same as above, Japan		DS-SL13R-AJ
StorageWorks Universal Drive Shelves – Model 4354R (Ultra3)	StorageWorks Model 4354R Ultra3 rackmount dual bus, US	DS-SL13R-BA
	Same as above, International	DS-SL13R-BB
	Same as above, Japan	DS-SL13R-BJ
StorageWorks Universal Drive Shelves – Model 4300	StorageWorks Model 4300 Ultra 160 single-port LVD I/O module	DS-SE3ZJ-DA
	StorageWorks Model 4300 Ultra 160 dual-port LVD I/O module	DS-SE3ZJ-SA
StorageWorks Universal Drive Shelves Single Bus – Model 4314T Tower (Ultra3)	StorageWorks Model 4314T Tower, Ultra3 Universal drive shelves, single bus, US	DS-SL13T-AA
	StorageWorks Model 4314T Tower, Ultra3 Universal drive shelves, single bus, International	DS-SL13T-AB
	StorageWorks Model 4314T Tower, Ultra3 Universal drive shelves, single bus, Japan	DS-SL13T-AJ

Options

Step 6 – External Storage – Optional (continued)

Universal Disk Drives Supported in Model 42xx/43xx Universal Drive Shelves	9.1-GB Ultra3 (LVD)–10,000 rpm 1.0" Universal drive	3R-A0584-AA
	9.1-GB Ultra3 (LVD) 15,000 rpm 1.0" Universal drive	3R-A1542-AA
	18.2-GB Ultra3 (LVD) 15,000 rpm 1.0" Universal drive	3R-A1543-AA
	36.4-GB Ultra3 (LVD) 10,000 rpm 1.0" Universal drive	3R-A0919-AA

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

RAID Array 3000 Rackmount Controller Shelf	<ul style="list-style-type: none"> Selection of RA3000 Solutions Software Kit is required Supported SCSI adapter: KZPBA-CB PCI 1-port UltraSCSI differential adapter 	
	<p>RA3000 rackmount controller shelf, blue, with one controller, 110V</p> <p>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 American power cords, and RETMA mounting bracket (disk shelves and disks not included)</p> <p>Requires: Solutions Software Kit for platform, host adapter, RA3000 disk shelf, and disks</p> <p>Options: 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>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)</p> <p>Requires: Solutions Software Kit for platform, two country-specific power cords, host adapter, RA3000 disk shelf, and disks</p> <p>Options: Second HSZ22 controller, up to four additional RA3000 disk shelves, cache memory upgrade</p>	DS-SWXRA-GK
RAID Array 3000 Rackmount Disk Shelf	<ul style="list-style-type: none"> Select one to four disk shelves 	
	<ul style="list-style-type: none"> 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-m BN37A-02 SCSI cable be ordered <p>RA3000 rackmount disk shelf, blue, includes UltraSCSI BA356 disk shelf, two 180 W power supplies, single-ended UltraSCSI personality card, one half meter 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

Options

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

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-m 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-m 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	QB-5TWAB-SA
	RA3000 Solutions Software Kit for OpenVMS	QB-5TWAC-SA
HSG80/HSZ80 External Controllers	Fibre Channel controller (DS-HSG80-BJ), includes 2-MB cache expandable to 128 MB; requires 128697-B21 HSG80 ACS V8.4F software kit or 128698-B21 V8.4P software kit for each HSG80 ordered	380672-B21
	Fibre Channel controller (DS-HSG80-BH), includes 64-MB cache expandable to 128 MB; requires 128697-B21 HSG80 ACS V8.4F software kit or 128698-B21 V8.4P software kit for each HSG80 ordered	380671-B21
	UltraSCSI controller (DS-HSZ80-AH), includes 64-MB cache expandable to 128 MB; requires 400569-001 for Tru64 UNIX or 400571-001 for OpenVMS	400564-B21
	UltraSCSI controller (DS-HSZ80-AJ), includes 256-MB cache expandable to 512 MB; requires 400569-001 for Tru64 UNIX or 400571-001 for OpenVMS	400565-B21
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 DS10L systems Supported SCSI adapter for HSZ80/HSZ70 – KZPBA-CB PCI 1-port UltraSCSI differential adapter Supported SCSI adapter for HSG80 – KGPSA-BC PCI 1-port Fiber-Channel adapter 	

Step 8 – 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
ELSA Gloria synergy graphics with 8-MB SGRAM 1600 x 1200, 2D/3D graphics accelerator	1	1	1	SN-PBXGK-BB
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 9 –Monitors –Optional

- Graphics monitors other than those listed can be used if compatible with SVGA graphics ordered with 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" monitor

V570 15" (13.8" viewable image size) multiple-scan color monitor, VGA to 800 x 600 @85 Hz, 0.28mm AG, TCO99, Northern Hemisphere with NA power cord	3R-A3082-AA
S510 15" (13.8" viewable image size) multiple-scan color monitor with Invar Shadow Mask, VGA to 1024 x 768 @ 75 Hz, 0.28mm AG, MPR II; Northern Hemisphere with Eurocord	3R-A2832-AA
Same as above, APD, no power cord	3R-VRQS5-24
V500 15" (13.8" viewable image size) auto scanning color monitor, VGA to 1024 x 768 @85 Hz, 0.28mm FST, MPRII, Southern Hemisphere with Australia/New Zealand power cord	3R-VRQV5-11
P710 17" (16" viewable image size) auto-scanning color monitor, Diamondtron NF, 0.25mm aperture grille pitch, VGA to 1280 x 1024 @ 75 Hz, TCO 99; Northern Hemisphere with NA power cord	3R-A2936-AA
Same as above, APD, no power cord	3R-A2260-AA
Same as above, PRC with power cord, CCIB	3R-A3335-AA
Same as above, Southern Hemisphere with Australia/New Zealand power cord	3R-A2263-AA
Same as above, Northern Hemisphere, with Power Factor Correction and Eurocord, 220V only	3R-A2261-AA
TFT 8020 18" (18.1" viewable image size) flat panel monitor, TFT active matrix, in-plane switching technology 160 degrees viewing angles, 1280 x 1024 resolution, brightness 200 nits, detachable base; requires ELSA GLoria Synergy or PowerStorm 3xx video adapter	3R-A0852-AA
P910 19" (18" viewable image size) auto-scanning color monitor, Diamondtron NF, 0.25mm aperture grille pitch, VGA to 1280 x 1024 @ 85 Hz, TCO 99; Northern Hemisphere with NA power cord	3R-A2935-AA
Same as above, PRC with power cord, CCIB	3R-A3334-AA
Same as above, Southern Hemisphere with Australia/New Zealand power cord	3R-A2267-AA
Same as above, Northern Hemisphere, with power factor correction and Eurocord, 220V only	3R-A2265-AA
P1100 21" (19.6" viewable image size) auto-scanning color monitor, Trinitron CRT, 0.28mm aperture grille pitch, VGA to 1600 x 1200 @75 Hz, TCO99, Southern Hemisphere, Australia/New Zealand power cord	3R-VRQP1-23
P1210 22" (20" viewable image size) auto-scanning color monitor, Diamondtron NF, 0.24mm aperture grille pitch, VGA to 1600 x 1200 @ 85 Hz, TCO 99 with power factor correction, Northern Hemisphere with NA power cord	3R-A2934-AA
Same as above with Eurocord	3R-VRQP2-AA
Same as above, PRC with power cord, CCIB	3R-A3333-AA
Same as above, APD, no power cord	3R-A2268-AA

Options

Step 9 –Monitors –Optional (continued)

Video Extension Cable	Each monitor includes a 1.8-meter signal cable – a video extension cable is required for most server applications.	BN39C-02
Monitor Power Cords	North American, 120V, 75"	BN26J-1K
	Australia, New Zealand, 2.5m	BN19H-2E
	Central Europe, 2.5m	BN19C-2E
	Denmark, 2.5m	BN19K-2E
	Egypt, India, South Africa, 2.5m	BN19S-2E
	Israel, 2.5m	BN18L-2E
	Italy, 2.5m	BN19M-2E
	Japan, 2.5m	3X-BN46F-02
	Switzerland, 2.5m	BN19E-2E
	UK, Ireland, 2.5m	BN19A-2E

Options

Step 10 – 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 Ethernet adapter (Twisted Pair)	1 V4.0F	1	1	3X-DE602-AA
PCI 2-port 10/100 Mbit, Fast Ethernet adapter, UTP	-	1	1	3X-DE602-FA
PCI 10/100 Mbit 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 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
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 meters				BN34D-xx
SC-to-SC dual fiber optic cable mm, pp xx = length in meters				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
3m (9.8") FDDI cross-over cable mm, pp xx = length in meters				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

Options

Step 11 –Keyboards

- Keyboards are not included with system and must be ordered separately

	Tru64 UNIX or Linux	OpenVMS
U.S./English keyboard	SN-LKQ47-BA	LK461-A2
Arabic keyboard	SN-LKQ47-BR	-
Belgian keyboard	SN-LKQ47-AB	LK461-AB
BHCSY keyboard	SN-LKQ47-AX	-
Canadian/English keyboard	-	LK461-AQ
Canadian/French keyboard	SN-LKQ47-AC	LK461-AC
Cyrillic keyboard	SN-LKQ47-BT	LK461-BT
Czech keyboard	SN-LKQ47-BV	LK461-BV
Danish keyboard	SN-LKQ47-AD	LK461-AD
Dutch keyboard	SN-LKQ47-AH	LK461-AH
Finnish keyboard	SN-LKQ47-AF	LK461-AF
French keyboard	SN-LKQ47-AP	LK461-AP
German keyboard	SN-LKQ47-AG	LK461-AG
Greek keyboard	SN-LKQ47-BH	LK461-BH
Hebrew keyboard	SN-LKQ47-AT	LK461-AT
Hungarian keyboard	SN-LKQ47-BQ	LK461-BQ
Italian keyboard	SN-LKQ47-AI	LK461-AI
Korean keyboard	SN-LKQ47-BK	-
Latin-American keyboard	SN-LKQ47-AR	-
Norwegian keyboard	SN-LKQ47-AN	LK461-AN
Polish keyboard	SN-LKQ47-BP	LK461-BP
Portuguese keyboard	SN-LKQ47-AV	LK461-AV
Romanian keyboard	-	LK461-BL
S. Chinese keyboard	SN-LKQ47-CV	-
Slovak keyboard	SN-LKQ47-CZ	LK461-CZ
Spanish keyboard	SN-LKQ47-AS	LK461-AS
Swedish keyboard	SN-LKQ47-AM	LK461-AM
Swiss/French keyboard	SN-LKQ47-AK	LK461-AK
Swiss/German keyboard	-	LK461-AL
Taiwanese keyboard	SN-LKQ47-BI	-
Thai keyboard	SN-LKQ47-CB	-
Turkish keyboard	SN-LKQ47-BU	LK461-BU
Turkish/French keyboard	-	LK461-BW
UK keyboard	SN-LKQ47-AE	-
Yugoslavian keyboard	-	LK461-BY

Options

Step 11 –Keyboards (continued)

Keyboard or Mouse Extension Cable	6 ft keyboard or mouse extension cable; to extend both keyboard and mouse order two cables	3X-BC34A-06
Mouse	Standard Compaq opal mouse	SN-PBQWS-WA

Step 12 – Console Terminal – Optional

<ul style="list-style-type: none"> 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-CC-1P-AA
---------------------------------------	-------------

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

<ul style="list-style-type: none"> 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
	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

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"> OpenVMS systems include Base license with System Manager license and Compaq Enterprise Integration Server License Package for OpenVMS Revision V3.0A. 	
	<ul style="list-style-type: none"> Compaq Enterprise Integration Package includes licenses for TCP/IP Services for OpenVMS, DECwindows Motif for OpenVMS Alpha, DECnet-Plus for OpenVMS Alpha End System 	
	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"> 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. 	
	<ul style="list-style-type: none"> 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. 	
	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; Red Hat 6.0 or SuSe 6.1 may be purchased separately from a Linux distributor.

Options

Step 15 – Hardware and Software Support Services

CarePaq Priority Services	<ul style="list-style-type: none"> 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 are available for Compaq AlphaServer systems running Compaq 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	<ul style="list-style-type: none"> 9x5 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	<ul style="list-style-type: none"> 24x7 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	<ul style="list-style-type: none"> 24x7 HW Support with Named Engineer, 4-hour response 24x7 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	<ul style="list-style-type: none"> 24x7 HW support with Named Engineer, 4-hour response for on-site support 24x7 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)*

Priority Gold Executive

- 24x7 HW support with Named Engineer, two-hour response for on-site support
 - 24x7 Gold SW support - Named Account Rep
 - 30-minute callback (critical); one-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)
 - 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 Compaq 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
 - License Subscription: Compaq O/S (where applicable)
 - Telephone support through Principal server covered by full support package
-

Installation

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

Installation & Startup Compaq O/S

- Pre-installation review
 - Unpacking of equipment
 - Assemble and test
 - Basic product usage info
 - Install operating systems
 - Product configuration
 - Print and network access
 - Orientation
-

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
AlphaServer DS10L				
Priority	FP-A01AA-12	FP-A01AA-36	FP-A21AA-12	FP-A21AA-36
Priority 24	FP-A02AA -12	FP-A02AA-36	FP-A22AA-12	FP-A22AA-36
Priority Silver	FP-A04AA-12	FP-A04AA-36	FP-A24AA-12	FP-A24AA-36
Priority Gold	FP-A08AA-12	FP-A08AA-36	FP-A28AA-12	FP-A28AA-36
Priority Gold Exec.	FP-A09AA-12	FP-A09AA-36	FP-A29AA-12	FP-A29AA-36
Installation	FP-AINST-AA	FP-AINST-AA	FP-AINST-AA	FP-AINST-AA
Installation & Startup	FP-ASTAR-AA	FP-ASTAR-AA	FP-ASTAR-AA	FP-ASTAR-AA

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 Compaq Sales Account Manager or visit <http://www.compaq.com/services/>

Technical Specifications

Physical Characteristics	Dimensions (WxDxH)	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 lbs / 9.4 kg		
Cabinets		H9A10 M-series	H9A15 M-series	
	Dimensions (HxWxD)	67 x 23.6 x 43.27 in/ 170 x 60 x 110 cm	79 x 23.6 x 35.4 in/ 200 x 60 x 90 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 lbs / 450 kg	
	Shipping Weight	Configuration dependent, maximum payload 1,000 lbs	1,056 lbs / 550 kg (normal) 1,408 lbs / 640 kg (maximum)	
System Unit	Environmental			
	Temperature	Operating (Tower, Rackmount)	50° to 95°F / 10° to 35°C	
		<i>Note: Maximum operating temperature at sea level; reduce by 1.8°C per 1,000m (1.0°F per 1,000 ft) above sea level.</i>		
		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, 466 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	
Air Flow and Quality	Intake location	Front (desktop and rack)		
	Exhaust location	Rear (desktop and rack)		
	Particle size	N/A		
	Concentration	N/A		
Altitude	Operating	10,000 ft/3,048m		
	Non-operating	40,000 ft/12,192m		
	<i>Note: Higher altitudes are possible if maximum operating temperature is reduced (see Temperature); other restrictions may apply such as maximum permissible altitude for hard drives.</i>			

Technical Specifications

System Unit (continued)		<i>Acoustics</i> (Declared values per ISO 9296 and ISO 7779)	
Acoustics		Note: 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
Vibration	Operating	5-500 Hz at .1 G peak (limited by 0.02"/0.5mm double amplitude)	
	Non-operating	1.03 Grms 5-300 Hz	
Shock	Operating	10 G 10ms half-sine	
<i>Electrical</i> (Power supplies are universal, PFC, auto ranging, 100/240 Vac)			
Nominal Voltage (Vac)	100	120	200 to 240
Voltage Range (Vac) (temporary condition)	90 to 100	110 to 128	180 to 250
Power Source Phase	Single	Single	Single
Nominal Frequency (Hz)	50/60	50/60	50/60
Frequency Range (Hz)	49 to 51/59 to 61	49 to 51/59 to 61	49 to 51/59 to 61
RMS Current (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
Power Cords	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
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 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)	