



AlphaServer 800 Pedestal–Rackmount

V2.0—28 October 1997

DIGITAL Systems and Options Catalog

Product Description

The AlphaServer 800 is an Alpha microprocessor server, available in 333 MHz, 400 MHz, and 500 MHz versions with 2MB ECC cache. All are available in Pedestal and Rackmount systems with a choice of three popular operating systems: DIGITAL UNIX, OpenVMS, and Microsoft Windows NT Server. The AlphaServer 800 offers the following high-reliability features: hot swap drives, Remote Management Console, and ECC memory. Integrated on system motherboard is an UltraSCSI-2 controller, SVGA controller (TRIO-S3, 1MB RAM), Remote Management Console, diskette controller, two serial ports, one parallel port, and keyboard and mouse interfaces.

The AlphaServer 800 Pedestal and Rackmount Packaged Systems offer up to 8 internal storage devices, including a floppy diskette drive, a CD-ROM, two additional 5.25-inch removable media bays for optional removable media drives, and four hot swap SCA-2 Ultra disk drives. The system supports up to 36 GB of internal storage (with four 9 GB disks) and 2GB memory.

The AlphaServer 800 integrated Remote Management Console (RMC) features significantly enhances the ability to remotely manage and diagnose system conditions. The RMC allows a remote operator to monitor server voltages, temperatures, and fan, as well as manipulate the server (Power On/Off, reset, halt). An auxiliary regulator powers the RMC in the main power system that allows systems to be remotely interrogated even if systems are turned off or shut down. In the event of an alert condition, the RMC can be set up to automatically dial a user-definable pager phone or another system to make a remote operator aware of the alert condition.

ServerWORKS Manager provides advanced server and network management capabilities and is supplied with all AlphaServer systems. Simple Network Management Protocol (SNMP) enables information to pass from the managed system to the console for DIGITAL UNIX, Windows NT, and OpenVMS systems. Using ServerWORKS, the system manager may build and view topological maps of the network. Detailed server information is viewable, including system, network, storage, and environmental information. Alarms may be set against critical system parameters and events. All AlphaServer systems are supplied with management tools to complement ServerWORKS Manager. For more information, see the StorageWorks Software section of this catalog.

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Step 1—AlphaServer 800 Pedestal and Rackmount Package Systems

- Windows NT packaged systems include Factory Installed Software (FIS) Windows NT Server 4.0 on the hard disk drive.
 - North American variants include the Windows NT license and media kit (CD-ROM) in North American English.
 - Non-North American variants include FIS Windows NT 4.0 in English.
 - Selection of language specific Windows NT license and media kit (CD-ROM) is mandatory for all non-North American variants, see Step 7 in this section.
- DIGITAL UNIX and OpenVMS packaged systems include FIS software on the hard disk drive.
 - All DIGITAL UNIX system ship with UNIX V4.0B.
 - All DIGITAL OpenVMS systems ship with OpenVMS V7.1-1H1.
- Uninterruptable Power Supplies (UPS) are available; see the Uninterruptable Power Supplies topic in this section.
- Options ordered FIS will be factory installed unless specified as spares.

Pedestal and Rackmount Systems include

- Processor module with:
 - Alpha microprocessor 21164 with 333MHz CPU or 400MHz CPU or 500MHz CPU each CPU includes 2MB ECC onboard cache.
- Pedestal enclosure with:
 - Six expansion slots: three-PCI and one-PCI/EISA combo and two EISA.
 - Integral UltraSCSI-2 (internal-only SCSI bus) supports removable media (CD-ROMs and tapes) and internal drive shelf.
 - One memory kit included, one memory bank available for an additional memory option; 2 GB maximum system memory
 - Eight storage slots:
 - One diskette drive slot with 1.44 MB floppy drive
 - One CD-ROM drive slot with 600 MB CDROM
 - Two additional half height (or one full height) removable media slots
 - Four SCA-2 Fast Wide/Ultra hard drive slots.
 - 350 W switchable (120/240 V, 60/50 Hz) power supply.
 - Two serial ports support full duplex asynchronous modem control.
 - One bi-directional enhanced parallel port.
 - PS/2 style keyboard port and mouse port.
- 3-button mouse.
- 120 V power cord . Mandatory selection of country-specific power cord for all non-North American variants, see Step 8 in this section.
- PCI-based Fast 100 Ethernet (Twisted Pair)—uses one PCI slot.
- One ULTRA 4.3 GB hard disk drive.
- Windows NT US variants include a 101-key, PC-style US English keyboard. Windows NT non-US variants must order the appropriate keyboard. See Step 8 in this section.
- OpenVMS variants include a 108-key, VT-style US English keyboard. Other keyboard variants must be ordered. See Step 8 in this section.
- DIGITAL UNIX variants include a 104/105-key PC-style US English keyboard. Other keyboard variants must be ordered. See Step 8 in this section.
- US English documentation. Certain language selections are available; see Step 7 in this section.
- Integrated Advanced Server Management features, including ServerWORKS Manager kit.
- Hardware warranty: three-year on-site.¹
- Windows NT Server 4.0 plus 10-client access license, media kit (CD-ROM) or²
- DIGITAL UNIX Unlimited User license, Server Extension license, Internet AlphaServer System software kit, or
- OpenVMS base license with System Manager license, Enterprise Integrated Package
- Software Warranty: ¹
 - 90-day SPD conformance with advisory telephone support for DIGITAL UNIX and OpenVMS.
 - Warranty on Microsoft's Windows NT Server 4.0 is conformance to the written material accompanying the software for a period of ninety days.

1. Service upgrades are available; see Step 12 in this section.

2. Windows NT language.

Note: Rackmount packaged systems must be placed in a cabinet. Customers may place system in existing cabinet or order one. See Step 9 in this section.

Step 1a—Windows NT Pedestal and Rackmount Packaged Systems

- .. Digital's OEM license agreement for Windows NT mandates compliance with specific configuration rules:
- .. Windows NT Language Configuration
 - North American variants include pre-installed Windows NT Server 4.0 plus 10-client access license/North American English media (CD-ROM) kit.
 - For all non-North American variants, selection of language-specific Windows NT Server 4.0 license/media (CD-ROM) kit is mandatory, see Step 7 in this section. All non-North American variants include factory installed software (FIS) Windows NT 4.0 English.
- .. Video monitor is required for system management; order separately if not available at customer site.
- .. Windows NT US variants include a 101-key, PC-style US English keyboard. Windows NT non-U.S. variants must order the appropriate keyboard; see Step 8 in this section.

Note: Rackmount packaged systems must be placed in a cabinet. Customers may place the system in existing cabinet or order one; see Step 9 in this section.

Windows NT Pedestal Packaged Systems

Order Number	O/S Media	CPU	Power cord	Keyboard	Memory	Disk	Graphics	Monitor
PB80B-AE	Included	5/333	120 V	Included	64 MB	4.3 GB	Included	Required
PB80B-AF	Mandatory	5/333	Mandatory	Required	64 MB	4.3 GB	Included	Required
PB80B-AG	Included	5/333	120 V	Included	128 MB	4.3 GB	Included	Required
PB80B-AH	Mandatory	5/333	Mandatory	Required	128 MB	4.3 GB	Included	Required
PB80B-AL	Included	5/333	120 V	Included	512 MB	4.3 GB	Included	Required
PB80B-AM	Mandatory	5/333	Mandatory	Required	512 MB	4.3 GB	Included	Required
PB81B-AL	Included	5/400	120 V	Included	64 MB	4.3 GB	Included	Required
PB81B-AM	Mandatory	5/400	Mandatory	Required	64 MB	4.3 GB	Included	Required
PB81B-AN	Included	5/400	120 V	Included	128 MB	4.3 GB	Included	Required
PB81B-AP	Mandatory	5/400	Mandatory	Required	128 MB	4.3 GB	Included	Required
PB81B-AT	Included	5/400	120 V	Included	512 MB	4.3 GB	Included	Required
PB81B-AU	Mandatory	5/400	Mandatory	Required	512 MB	4.3 GB	Included	Required
PB82B-AJ	Included	5/500	120 V	Included	64 MB	4.3 GB	Included	Required
PB82B-AK	Mandatory	5/500	Mandatory	Required	64 MB	4.3 GB	Included	Required
PB82B-AA	Included	5/500	120 V	Included	128 MB	4.3 GB	Included	Required
PB82B-AB	Mandatory	5/500	Mandatory	Required	128 MB	4.3 GB	Included	Required
PB82B-AE	Included	5/500	120 V	Included	512 MB	4.3 GB	Included	Required
PB82B-AF	Mandatory	5/500	Mandatory	Required	512 MB	4.3 GB	Included	Required

Key: Mandatory items must be on purchase order at initial order acceptance.
 Required items are essential for full system operation.
 Recommended items enhance system functionality.

Step 1a—Windows NT Pedestal and Rackmount Packaged Systems (continued)
Windows NT Rackmount Packaged Systems

Order Number	O/S Media	CPU	Power cord	Keyboard	Memory	Disk	Graphics	Monitor
PB80P-AE	Included	5/333	120 V	Included	64 MB	4.3 GB	Included	Required
PB80P-AF	Mandatory	5/333	Mandatory	Required	64 MB	4.3 GB	Included	Required
PB80P-AG	Included	5/333	120 V	Included	128 MB	4.3 GB	Included	Required
PB80P-AH	Mandatory	5/333	Mandatory	Required	128 MB	4.3 GB	Included	Required
PB80P-AL	Included	5/333	120 V	Included	512 MB	4.3 GB	Included	Required
PB80P-AM	Mandatory	5/333	Mandatory	Required	512 MB	4.3 GB	Included	Required
PB81P-AL	Included	5/400	120 V	Included	64 MB	4.3 GB	Included	Required
PB81P-AM	Mandatory	5/400	Mandatory	Required	64 MB	4.3 GB	Included	Required
PB81P-AN	Included	5/400	120 V	Included	128 MB	4.3 GB	Included	Required
PB81P-AP	Mandatory	5/400	Mandatory	Required	128 MB	4.3 GB	Included	Required
PB81P-AT	Included	5/400	120 V	Included	512 MB	4.3 GB	Included	Required
PB81P-AU	Mandatory	5/400	Mandatory	Required	512 MB	4.3 GB	Included	Required
PB82P-AJ	Included	5/500	120 V	Included	64 MB	4.3 GB	Included	Required
PB82P-AK	Mandatory	5/500	Mandatory	Required	64 MB	4.3 GB	Included	Required
PB82P-AA	Included	5/500	120 V	Included	128 MB	4.3 GB	Included	Required
PB82P-AB	Mandatory	5/500	Mandatory	Required	128 MB	4.3 GB	Included	Required
PB82P-AE	Included	5/500	120 V	Included	512 MB	4.3 GB	Included	Required
PB82P-AF	Mandatory	5/500	Mandatory	Required	512 MB	4.3 GB	Included	Required

Key: Mandatory items must be on purchase order at initial order acceptance.

Required items are essential for full system operation.

Recommended items enhance system functionality.

Step 1a—DIGITAL UNIX Pedestal and Rackmount Packaged Systems

- .. All DIGITAL UNIX Pedestal and Rackmount packaged systems include pre-installed DIGITAL UNIX, Base license, Unlimited User license, Server Extension license, and Internet Access Server Software (IASS) media and license.
- .. Order DIGITAL UNIX media and documentation separately.
- .. DIGITAL UNIX packaged systems include factory installed software (FIS) DIGITAL UNIX 4.0B on the hard disk drive.
- .. DIGITAL UNIX variants include a 104/105-key PC-style US English keyboard. Other keyboard variants must be ordered. See Step 8 in this section.
- .. Selection of a keyboard and power cord are mandatory for all non-North American variants, see Step 8 in this section.

Note: Rackmount packaged systems must be placed in a cabinet. Customers may place the system in existing cabinet or order one; see Step 9 in this section.

Step 1a—DIGITAL UNIX Pedestal and Rackmount Packaged Systems (continued)
Digital UNIX Pedestal Packaged Systems

Order Number	Operating System	CPU	Memory	Disk	Keyboard ¹	Graphics	Monitor
PB80B-FE	DIGITAL UNIX	333	64 MB	4.3 GB	Mandatory	Included	Recommended
PB80B-FF	DIGITAL UNIX	333	128 MB	4.3 GB	Mandatory	Included	Recommended
PB80B-FG	DIGITAL UNIX	333	256 MB	4.3 GB	Mandatory	Included	Recommended
PB80B-FH	DIGITAL UNIX	333	512 MB	4.3 GB	Mandatory	Included	Recommended
PB80B-FJ	DIGITAL UNIX	333	1GB	4.3 GB	Mandatory	Included	Recommended
PB81B-FL	DIGITAL UNIX	400	64 MB	4.3 GB	Mandatory	Included	Recommended
PB81B-FM	DIGITAL UNIX	400	128 MB	4.3 GB	Mandatory	Included	Recommended
PB81B-FN	DIGITAL UNIX	400	256 MB	4.3 GB	Mandatory	Included	Recommended
PB81B-FP	DIGITAL UNIX	400	512 MB	4.3 GB	Mandatory	Included	Recommended
PB81B-FR	DIGITAL UNIX	400	1GB	4.3 GB	Mandatory	Included	Recommended
PB82B-FE	DIGITAL UNIX	500	64 MB	4.3 GB	Mandatory	Included	Recommended
PB82B-FA	DIGITAL UNIX	500	128 MB	4.3 GB	Mandatory	Included	Recommended
PB82B-FB	DIGITAL UNIX	500	256 MB	4.3 GB	Mandatory	Included	Recommended
PB82B-FC	DIGITAL UNIX	500	512 MB	4.3 GB	Mandatory	Included	Recommended
PB82B-FD	DIGITAL UNIX	500	1GB	4.3 GB	Mandatory	Included	Recommended

Digital UNIX Rackmount Packaged Systems

Order Number	Operating System	CPU	Memory	Disk	Keyboard ¹	Graphics	Monitor
PB80P-FE	DIGITAL UNIX	333	64 MB	4.3 GB	Mandatory	Included	Recommended
PB80P-FF	DIGITAL UNIX	333	128 MB	4.3 GB	Mandatory	Included	Recommended
PB80P-FG	DIGITAL UNIX	333	256 MB	4.3 GB	Mandatory	Included	Recommended
PB80P-FH	DIGITAL UNIX	333	512 MB	4.3 GB	Mandatory	Included	Recommended
PB80P-FJ	DIGITAL UNIX	333	1GB	4.3 GB	Mandatory	Included	Recommended
PB81P-FL	DIGITAL UNIX	400	64 MB	4.3 GB	Mandatory	Included	Recommended
PB81P-FM	DIGITAL UNIX	400	128 MB	4.3 GB	Mandatory	Included	Recommended
PB81P-FN	DIGITAL UNIX	400	256 MB	4.3 GB	Mandatory	Included	Recommended
PB81P-FP	DIGITAL UNIX	400	512 MB	4.3 GB	Mandatory	Included	Recommended
PB81P-FR	DIGITAL UNIX	400	1GB	4.3 GB	Mandatory	Included	Recommended
PB82P-FE	DIGITAL UNIX	500	64 MB	4.3 GB	Mandatory	Included	Recommended
PB82P-FA	DIGITAL UNIX	500	128 MB	4.3 GB	Mandatory	Included	Recommended
PB82P-FB	DIGITAL UNIX	500	256 MB	4.3 GB	Mandatory	Included	Recommended
PB82P-FC	DIGITAL UNIX	500	512 MB	4.3 GB	Mandatory	Included	Recommended
PB82P-FD	DIGITAL UNIX	500	1GB	4.3 GB	Mandatory	Included	Recommended

1. North American packaged systems include US keyboard. Non-North American keyboards must be ordered.

Key: Mandatory items must be on purchase order at initial order acceptance.
 Required items are essential for full system operation.
 Recommended items enhance system functionality.

Step 1a—OpenVMS Pedestal and Rackmount Packaged Systems

- .. All packaged systems include pre-installed OpenVMS, Base license, and DIGITAL Enterprise Integration Package. See Step 7 for contents.
- .. DIGITAL OpenVMS packaged systems include Factory Installed Software (FIS) DIGITAL OpenVMS V7.1-1H1 on the hard disk.
- .. OpenVMS variants include a 108-key, VT-style US English keyboard. Other keyboard variants must be ordered. See Step 8 in this section.
- .. Selection of a keyboard and power cord are mandatory for all non-North American variants; see Step 8 in this section.

Note: Rackmount packaged systems must be placed in a cabinet. Customers may place the system in an existing cabinet or order one; see Step 9 in this section.

DIGITAL OpenVMS Pedestal Packaged Systems

Order Number	Operating System	CPU	Memory	Disk	Keyboard ¹	Graphics	Monitor
PB80B-ME	OpenVMS	333	64 MB	4.3 GB	Mandatory	Included	Recommended
PB80B-MF	OpenVMS	333	128 MB	4.3 GB	Mandatory	Included	Recommended
PB80B-MG	OpenVMS	333	256 MB	4.3 GB	Mandatory	Included	Recommended
PB80B-MH	OpenVMS	333	512 MB	4.3 GB	Mandatory	Included	Recommended
PB80B-MJ	OpenVMS	333	1GB	4.3 GB	Mandatory	Included	Recommended
PB81B-ML	OpenVMS	400	64 MB	4.3 GB	Mandatory	Included	Recommended
PB81B-MM	OpenVMS	400	128 MB	4.3 GB	Mandatory	Included	Recommended
PB81B-MN	OpenVMS	400	256 MB	4.3 GB	Mandatory	Included	Recommended
PB81B-MP	OpenVMS	400	512 MB	4.3 GB	Mandatory	Included	Recommended
PB81B-MR	OpenVMS	400	1GB	4.3 GB	Mandatory	Included	Recommended
PB82B-ME	OpenVMS	500	64 MB	4.3 GB	Mandatory	Included	Recommended
PB82B-MA	OpenVMS	500	128 MB	4.3 GB	Mandatory	Included	Recommended
PB82B-MB	OpenVMS	500	256 MB	4.3 GB	Mandatory	Included	Recommended
PB82B-MC	OpenVMS	500	512 MB	4.3 GB	Mandatory	Included	Recommended
PB82B-MD	OpenVMS	500	1GB	4.3 GB	Mandatory	Included	Recommended

DIGITAL OpenVMS Rackmount Packaged Systems

Order Number	Operating System	CPU	Memory	Disk	Keyboard ¹	Graphics	Monitor
PB80P-ME	OpenVMS	333	64 MB	4.3 GB	Mandatory	Included	Recommended
PB80P-MF	OpenVMS	333	128 MB	4.3 GB	Mandatory	Included	Recommended
PB80P-MG	OpenVMS	333	256 MB	4.3 GB	Mandatory	Included	Recommended
PB80P-MH	OpenVMS	333	512 MB	4.3 GB	Mandatory	Included	Recommended
PB80P-MJ	OpenVMS	333	1GB	4.3 GB	Mandatory	Included	Recommended
PB81P-ML	OpenVMS	400	64 MB	4.3 GB	Mandatory	Included	Recommended
PB81P-MM	OpenVMS	400	128 MB	4.3 GB	Mandatory	Included	Recommended
PB81P-MN	OpenVMS	400	256 MB	4.3 GB	Mandatory	Included	Recommended
PB81P-MP	OpenVMS	400	512 MB	4.3 GB	Mandatory	Included	Recommended
PB81P-MR	OpenVMS	400	1GB	4.3 GB	Mandatory	Included	Recommended
PB82P-ME	OpenVMS	500	64 MB	4.3 GB	Mandatory	Included	Recommended
PB82P-MA	OpenVMS	500	128 MB	4.3 GB	Mandatory	Included	Recommended
PB82P-MB	OpenVMS	500	256 MB	4.3 GB	Mandatory	Included	Recommended
PB82P-MC	OpenVMS	500	512 MB	4.3 GB	Mandatory	Included	Recommended
PB82P-MD	OpenVMS	500	1GB	4.3 GB	Mandatory	Included	Recommended

1. North American package systems include US keyboard. Non-North American keyboards must be ordered.

Key: Mandatory items must be on purchase order at initial order acceptance.
 Required items are essential for full system operation.
 Recommended items enhance system functionality.

Step 2—Memory

- .. Packaged systems include one memory kit.
- .. System supports up to two memory kits. (Each kit includes four industry-standard DIMMs with ECC support.)
- .. System supports a maximum of 2 GB of memory.

PB8MA-AB	32 MB (4 x 8 MB DIMMs) memory kit
PB8MA-AC	64 MB (4 x 16 MB DIMMs) memory kit
PB8MA-AD	128 MB (4 x 32 MB DIMMs) memory kit
PB8MA-AE	256 MB (4 x 64 MB DIMMs) memory kit
PB8MA-AF	512 MB (4 x 128 MB DIMMs) memory kit
PB8MA-AG	1 GB (4 x 256 MB DIMMs) memory kit

Step 3—Monitors

- .. Windows NT systems require a graphics monitor to run all functions.
- .. Graphics monitors other than those listed below can be used if compatible with SVGA graphics included with system.

Note: Higher resolution available with optional EISA or PCI graphics adapters; see Step 5 in this section.

SN-VRCX5-WA/W3/W4	15" (13.9" viewable image size) Corporate Series auto-scan color monitor, flat square invar CRT, 0.28 mm dot pitch, VGA to 1024 x 768 @ 85 Hz, TCO 92, MPRII, Energy Star, attached video cable. -WA = Northern Hemisphere with 120 V power cord. -W3 = Northern Hemisphere without power cord. -W4 = Southern Hemisphere without power cord. Select country specific power cords for -W3 and -W4 variants.
SN-VRTX7-WA/W3/W4	17" (16.0" viewable image size) professional series auto-scanning color monitor, Trinitron CRT, 0.25 mm aperture grill pitch, VGA to 1280 x 1024 at 75 Hz, TCO 92, MPR-II, Energy Star, HD15 male to male video cable. -WA = Northern Hemisphere with 120V power cord. -W3 = Northern Hemisphere without power cord. -W4 = Southern Hemisphere without power cord. Select country specific power cord for -W3 and -W4 variants.
SN-VRCX1-WA/W3/W4	21" (19.7" viewable image size) auto-scanning color monitor, 0.28 Dot Pitch, VGA to 1600 x 1200 at 75 Hz NI, TCO 92, Energy Star, includes video cable. -WA = Northern Hemisphere with 120 V power cord. -W3 = Northern Hemisphere without power cord. -W4 = Southern Hemisphere without power cord. Select country specific power cord for -W3 and -W4 variants.

Step 4—Storage

Select storage devices as required. See the Storage Devices section for more information.

Step 4a—Internal Storage

- .. Storage devices in the Pedestal and Rackmount packaged systems include:
 - One 600 MB 12X CD-ROM drive
 - One 4.3 GB UltraSCSI SCA-2 hard drive
 - One 1.44 MB diskette drive in dedicated slot
- .. Bays available for internal storage expansion are:
 - Three hard disk drive bays
 - Two open removable bays for additional removable 5.25-inch half-height device OR
 - One additional removable 5.25-inch full-height device
- .. An integral UltraSCSI-2 controller is included in each system, which supports a maximum of seven internal devices, four SCA-2 devices plus three removable devices.

Step 4a—Internal Storage (*continued*)

Storage devices in the Pedestal and Internal Disk Drives

- .. All Pedestal and Rackmount packaged systems include one 4.3 GB SCSI SCA-2 hard disk drive (RZ1CB-SB).
- .. Up to three additional hard disk drives may be added internally.

RZ1BB-SB	2.1 GB UltraWide SCSI SCA-2 7200 RPM 3.5 x 1-inch hard disk drive
RZ1CB-SB	4.3 GB UltraWide SCSI SCA-2 7200 RPM 3.5 x 1-inch hard disk drive
RZ1DB-SB	9.0 GB UltraWide SCSI SCA-2 7200 RPM 3.5 x 1.6" hard disk drive

Internal Removable Media Devices

- .. All Pedestal and Rackmount packaged systems include one 600 MB CD-ROM drive.
- .. System supports two additional 5.2-inch half-height removable media devices or one additional 5.25-inch full-height removable media device.

RRD46-AB	600 MB 5.25 inch half-height 12X CD-ROM drive
PBXTZ-AA	2.0 GB 5.25 inch half-height SCSI QIC tape drive (TZK11)
TLZ09-LK	8.0 GB 5.25 inch x 1.6-inch SCSI 4 mm DAT drive, embedded
TLZ10-LK	12/24 GB 4MM DAT SCSI Tape Drive, embedded

Internal SCSI Cable Kits

PB8HA-DA	Includes 68-pin SCSI cable, connects 16-bit wide SCSI controller to internal storage assembly Example—connects KZPAC-xx PCI RAID controller to internal AlphaServer 800 storage assembly, maximum one per system.
BC25V-1H	Includes 68-pin SCSI cable, connects 16-bit wide SCSI controller to bulkhead for external 16-bit wide SCSI expansion, maximum two per system

Step 4b – Storage Controllers

- .. All packaged systems include an integral UltraSCSI controller that supports seven internal devices (four SCA-2 hard disk drives plus three removable media).
- .. Maximum four PCI-based KZPAC-xx SCSI controllers supported per system.
- .. Maximum three EISA-based KZESC-xx SCSI controllers supported per system.
Maximum number of EISA-based controllers of all types is limited by the total number of available EISA slots and available IRQs.
- .. Maximum combination number of KZESC-xx and KZPAC-xx SCSI controllers supported is four.
- .. KZPAC-xx StorageWorks RAID Array 230/Plus includes PCI backplane RAID controller and StorageWorks RAID Array 230/Plus Subsystem family software and documentation kit for OpenVMS, DIGITAL UNIX and Windows NT.
 - KZPAC-AA one-port controller installed in system requires a PB8HA-DA SCSI cable kit for connection to internal storage assembly.
 - KZPAC-CA three-port controller installed in system requires one PB8HA-DA SCSI cable kit for connection to internal storage assembly, or one BC25V-1H cable kit for connection to external expansion port bulkhead.
 - If the internal drives are connected to a PCI based RAID controller (instead of the integral Ultra SCSI controller), Fault Management must be disabled when the RCU (Raid Configuration Utility) is executed.
- .. KZESC-xx StorageWorks RAID Array 200 includes EISA backplane RAID controller and StorageWorks RAID Array 200 Subsystem family software and documentation kit for OpenVMS, DIGITAL UNIX and Windows NT.
 - KZESC-AA/BA controllers support external disks only. Connection to the internal AlphaServer 800 Storage assembly is not supported.
 - KZESC-BA three-port controller installed in system requires two BC25V-1H cable kit for connection to external expansion port bulkhead.
- .. KZPSA-BB PCI-based one-port Fast Wide Differential SCSI controller supports externally connected wide devices in BA356/BA36R with DWZZB signal converter, or narrow disks in BA35R with DWZZA signal converter. Internal hard disk drives are not supported on FWD controller.
- .. SCSI cables are not included and must be ordered separately.
- .. The PB8HA-DA cable is required to connect optional PCI based RAID controllers to the internal disk drives
- .. External DSSI cables are not included and must be ordered separately.
- .. Refer to the Supported Options List for O/S support (URL=http://www.digital.com/alphaserver/tech_docs/alpha_srv800/docs/supported_options.html).

Step 4b—Storage Controllers (continued)**SCSI Controllers**

KZPAA-AA	One-port PCI Fast Narrow Single-Ended (FNSE) SCSI controller.
BN21K-02	External narrow SCSI cable 2-meter (8-bit to 16-bit).
KZPBA-CA	One-port PCI Ultra Wide Single-Ended (UWSE) host adapter (.8 mm VHD).
BN38C-xx	External UltraSCSI cable that connects KZPBA-CA to BA356 storage shelves.
KZPSA-BB	One-port PCI Fast Wide Differential (FWD) 16-bit SCSI controller; supports external disks only. Supports clusters.
BN21K-02	External narrow SCSI cable; 2-meter 16-bit.
KZPAC-AA	One-port UltraSCSI PCI backplane RAID controller with 4 MB cache memory. Sixty-eight-pin HD connector on the module for internal connection and .8 mm sixty-eight-pin VHDCI connector on the module's standard PCI bulkhead for external connections. Requires selection of appropriate SCSI cables listed below. Includes StorageWorks RAID Array 230/plus subsystem software and documentation kit.
KZPAC-CA	Three-port UltraSCSI PCI backplane RAID controller, with 4 MB cache memory. Sixty-eight-pin HD connectors on the module for internal connection. Two external channels available through VHDCI connectors on the module's standard PCI bulkhead connector. Requires selection of appropriate SCSI cables listed below. Includes StorageWorks RAID Array 230/Plus subsystem software and documentation kit. Tape drives are not supported. BN31S-1E or BN37A-xx cables must be ordered for each port for connection to external storage. BN31K-0E or KZPAC-SB or BC25V-1H must be ordered for connection of third port to AlphaServer 800 bulkhead/breakouts.
KZPAC-CB	Same as KZPAC-CA with 8 MB cache memory.

Options

MS100-BB	8 MB EDRAM replacement to cache memory. Upgrades KZPAC-CA to KZPAC-CB.
KZPSC-UB	Cache battery-backup option for KZPAC controller.

Cables

BN31S-1E	External FW SCSI cable; 1.5-meters. Connects KZPAC-AA/AC external ports to wide StorageWorks enclosures or shelves. (VHDCI male to VHDCI male).
BN37A-xx	External UltraSCSI cable that connects the KZPAC external ports to BA356 storage shelves. (VHDCI male to VHDCI male)
PB8HA-DA	Internal Ultra or Fast Wide SCSI cable for connection of KZPAC internal port to ASVR800 internal storage assembly (68pin). Maximum one per system.
BC25V-1H	Internal UltraSCSI cable breakout assembly kit that connects internal third port of KZPAC-CA/CB to expansion breakout slot on the back of the AlphaServer 800; uses one expansion breakout slot. Maximum two per system.
BN31K-0E	Internal Fast Wide UltraSCSI cable bulkhead assembly kit that connects internal third port of KZPAC-CA/CB to bulkhead PCI/EISA slot. Uses one PCI/EISA bulkhead slot.
KZPAC-SB	Internal dual bulkhead FWSE UltraSCSI assembly kit that connects internal third port of two KZPAC controllers to be connected to a single bulkhead PCI/EISA slot. Uses one PCI/EISA bulkhead slot.

Step 4b – Storage Controllers (continued)
DSSI Controllers

- KFPSA-AA** **PCI-DSSI controller.** PCI-based single DSSI controller. (OpenVMS systems only).
- BC29S-XX** For KFPSA PCI based DSSI controller. KFPSA to any external “Micro-Ribbon” DSSI right-angle connection (all other DSSI systems and storage devices requiring right-angle connection) requires BC29S-xx DSSI cable.
- BC29S-09** - For KFPSA PCI based DSSI controller. Order BC29S-09 DSSI cable for HSD10 in BA36R-Ax shelves.
-

Step 4c – External Tape Expansion

- .. External tape drives are also supported on optional PCI-based SCSI controllers.
 - KZPAA-AA—maximum bus length including cable and tape device cannot exceed 3.0 meters.
 - KZPSA-BB—maximum bus length including cable and tape device cannot exceed 25.0 meters.
- .. External tape drives are not supported on one-and three-port (KZESC-xx) Fast UltraSCSI-2 controllers.
- .. Each tabletop tape device requires high density 50-pin to low density 50-pin SCSI cable (BN23G-xx).

External Tapes

Operating System Supported		OpenVMS	DIGITAL UNIX	Windows NT
TLZ09-DB	4.0/8.0 GB 4 mm DAT tabletop tape drive	V7.1-1H1	V4.0B	V4.0 SP2
TLZ9L-DB^{1,2}	32/64 GB 4 mm DAT tabletop autoloader	V7.1-1H1	V4.0B	V4.0 SP2
DS-TLZ10-DB	12/24 4mm DAT SCSI tape drive, tabletop	V7.1-1H1	V4.0B	
TSZ07-CA/FA	40/140 MB, 1600 b/in, tabletop tape drive (SE/DIFF)	V7.1-1H1	V4.0B	V4.0 SP2
TSZ07-AA/AD	40/140 MB, 1600 b/in tape drive rackmountable	V7.1-1H1	V4.0B	V4.0 SP2
TSZ07-BA/EB	40/140 MB, 1600 b/in, tape in a cabinet (H9642/H9A10)	V7.1-1H1	V4.0B	V4.0 SP2
DS-TZ89N-TA	35/70 5.25-inch differential DLT tabletop tape drive	V7.1-1H1	V4.0B	V4.0 SP2
TZK11-DA	2.0 GB 5.25-inch tabletop QIC streaming tape drive	V7.1-1H1	V4.0B	V4.0 SP2
DS-TZS20-DB	25/50GB 5.25-inch AIT (8 mm) tabletop tape drive	V7.1-1H1	V4.0B	V4.0 SP2
BN23G-01	3-foot molded SCSI cable; required for each tabletop tape (for OpenVMS and DIGITAL UNIX)			
BN23G-0E	3-foot molded SCSI cable; required for each tabletop tape (for Windows NT)			

1. Includes four cartridge loader. Larger magazines are supported.
 2. Base operating systems support sequential back-up mode only; additional software is required for random access backup. See Storage Devices section for details.
-

Step 4d—External Disk Expansion

See Storage Devices section for StorageWorks products and configuration rules.

Step 5—Graphics Adapters

- .. Select only if additional graphics card is required.
- .. All systems include onboard SVGA with 1 MB video RAM. On-board SVGA must be disabled when using multi-headed graphics options.
- .. **Note:** Only 1 GB maximum system memory is supported by PBXGB-AA/CA.
- .. Maximum of one PB2GA-JD supported per system. Onboard SVGA must be disabled.
- .. Maximum of four PBXGB-AA/CA supported on DIGITAL UNIX systems. Maximum of one PBXGB-AA/CA supported on OpenVMS and Windows NT systems. Onboard SVGA must be disabled.

Step 5—Graphics Adapters (*continued*)

PB2GA-JC	PCI-based MB DRAM graphics adapter (DIGITAL UNIX, OpenVMS, Windows NT)
PB2GA-JD	PCI-based 2-MB DRAM graphics adapter (DIGITAL UNIX, OpenVMS, Windows NT)
PBXGB-AA	PCI-based 8-plane 1280 x 1024 graphics adapter (DIGITAL UNIX, OpenVMS, Windows NT)
PBXGB-CA	PCI-based 24-plane 1280 x 1024 x 1024 graphics adapter (Digital UNIX, OpenVMS, Windows NT)

Step 6—Networks and Communications

- .. Packaged systems include PCI-based Fast-100 Ethernet (Twisted Pair) controller (DE500-AA), which uses one PCI slot.
 - .. Select networking cable for Ethernet controller
 - BN25G-03/04/07 OR BN24Q-XX for 10BaseT (Twisted Pair)
 - .. Maximum number of each EISA-based network controllers supported per system:
 - Three DW300-AA
 - .. Refer to the Supported Options List for O/S support and maximum number of options supported per system (URL=http://www.digital.com/alphaserver/tech_docs/alpha_srv800/docs/supported_options.html).
- | | |
|-----------------|---|
| AVA01-AA | ISA-based, sound card, head phones and microphone, maximum supported is one, DIGITAL UNIX, OpenVMS, Windows NT. |
| CXI01-AA | ISA asynchronous MUX adapter, 16 lines—expandable to 64 lines; DIGITAL UNIX, Windows NT. |
| CXI01-AD | ISA asynchronous MUX adapter, 16 lines—expandable to 224 lines; DIGITAL UNIX, Windows NT. |
| CXI01-AB | Asynchronous 16-port XEM expansion for CXI01-AA/AD. |
| CXI01-AC | Asynchronous MUX cable converter (RJ45-DB25). |
| CXI01-AE | Asynchronous 16-port EPC expansion for CXI01-AD; maximum supported is four. |
| CXI01-AF | Asynchronous MUX adapter (RJ45-MJ11), 8-pack. |
| DE500-AA | PCI-based Fast Ethernet network interface card. |
| DE450-CA | PCI-based DIGITAL Etherworks 32-bit network interface card (Twisted Pair, Thickwire, ThinWire). |
| DEFPA-AB | PCI-based DEC FDDIcontroller, single attachment; maximum supported is four, OpenVMS, Windows NT, DIGITAL UNIX |
| DEFPA-DB | PCI-based DEC FDDIcontroller, dual attachment, maximum supported is four, OpenVMS, Windows NT, DIGITAL UNIX. |
| DEFPA-UB | PCI-based DEC FDDIcontroller (UTP); maximum supported is four, OpenVMS, Windows NT, DIGITAL UNIX. |
| PBXDP-AA | PCI-based , 2-port, synchronous communications controller, maximum four, OpenVMS, DIGITAL UNIX |
| PBXDP-AB | PCI-based , 4-port, synchronous communications controller, maximum four, OpenVMS, DIGITAL UNIX |
| PBXDP-AC | PCI-based , 8-port, synchronous communications controller, maximum four, OpenVMS, DIGITAL UNIX |

Step 7—Software

Windows NT

- .. North American variants of Windows NT packaged systems include Windows NT license, media kits (CD-ROM).
- .. Selection of language specific Windows NT media kit is mandatory for non North American variants.
- .. Windows NT Server kits are only orderable with packaged systems. Not available separately.

Windows NT Server plus 10-client access license, media kits (CD-ROM)

QB-23CAA-SB	Windows NT server license, media kit North American English
QB-23C8A-SB	Windows NT Server license, media kit International English
QB-23CPA-SB	Windows NT server license, media kit French
QB-23CGA-SB	Windows NT server license, media kit German
QB-23CSA-SB	Windows NT server license, media kit Spanish
QB-23CUA-SB	Windows NT server license, media kit Italian
QB-23CJA-SB	Windows NT server license, media kit Japanese
QB-23CTA-SB	Windows NT server license, media kit Hebrew
QB-23CMA-SB	Windows NT server license, media kit Swedish
QB-23CQA-SB	Windows NT server license, media kit Arabic
QB-23C5A-SB	Windows NT Server license, media kit Thai
QB-23CHA-SB	Windows NT server license, media kit Dutch
QB-23CVA-SB	Windows NT server license, media kit Brazilian/Portuguese
QB-23C4A-SB	Windows NT server license, media kit Korean
QB-23C3A-SB	Windows NT server license, media kit Taiwanese
QB-23C2A-SB	Windows NT server license, media kit PRC Chinese

Windows NT Server Optional software and documentation

QB-53V9A-SA	Windows NT Server Cluster Kit
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DIGITAL UNIX

Software Processor Code = E

- .. DIGITAL UNIX packaged systems include Traditional Unlimited User license.
- .. DIGITAL UNIX packaged systems require operating system media and documentation for first system on site.

DIGITAL UNIX Media and Documentation—required for first system on site

QA-MT4AA-H8	DIGITAL UNIX media and on-line documentation on CD-ROM
QA-MT4AA-GZ	DIGITAL UNIX full hardcopy documentation

StorageWorks Software Packages for DIGITAL UNIX

QB-5RXAE-AA	StorageWorks Software Package (includes licenses for Logical Storage Manager and AdvFS Utilities).
QB-5RYAE-AA	StorageWorks Software Package (includes licenses for Logical Storage Manager and AdvFS Utilities plus Networker Save and Restore).

Step 7—Software (continued)**TruCluster Available Server License**

QL-05SAE-AA TruCluster Available Server License

DIGITAL UNIX Software Layered Products Library CD-ROM

QA-054AA-H8 Layered products media and documentation for DIGITAL UNIX on CD-ROM

DECnet for DIGITAL UNIX

QL-MTJAE-AA DECnet/OSI end-system license for DIGITAL UNIX

QL-MTKAE-AA DECnet/OSI extended function license for DIGITAL UNIX

OpenVMS

- .. Software Processor Code = E.
- .. OpenVMS Concurrent Use Licenses are not specific to a single system and can be moved between systems at user discretion.
- .. OpenVMS Concurrent Use Licenses can also be shared in a mixed OpenVMS VAX and OpenVMS Alpha Cluster.

OpenVMS Concurrent Use Licenses

QL-MT3AA-3B OpenVMS Concurrent Use 1-user license
 QL-MT3AA-3C OpenVMS Concurrent Use 2-user license
 QL-MT3AA-3D OpenVMS Concurrent Use 4-user license
 QL-MT3AA-3E OpenVMS Concurrent Use 8-user license
 QL-MT3AA-3F OpenVMS Concurrent Use 16-user license
 QL-MT3AA-3G OpenVMS Concurrent Use 32-user license
 QL-MT3AA-3H OpenVMS Concurrent Use 64-user license
 QL-MT3AA-3J OpenVMS Concurrent Use 128-user license
 QL-MT3AA-3K OpenVMS Concurrent Use 256-user license
 QL-MT2AE-AA OpenVMS Traditional unlimited user license

OpenVMS layered products

QL-MUZAE-AA OpenVMS Cluster License
 QL-2A1AE-AA Volume Shadowing License

OpenVMS media and documentation—required for first system on site

QA-MT1AA-H8 OpenVMS media and on-line documentation CD-ROM (V7.1)
 QA-MT1AG-H8 OpenVMS media and on-line documentation CD-ROM (V6.2-1H3)²
 QA-MT1AD-H8 OpenVMS media and on-line documentation CD-ROM (V7.1-1H1)¹
 QA-001AA-GZ OpenVMS hardcopy documentation

1. Required to run Ultra SCSI.

2. Ultra SCSI is not yet supported on OpenVMS V6.2-1H3. OpenVMS V6.2-1H3 will run in Fast-10 Mode.

Step 7—Software (continued)**OpenVMS Layered Products CD-ROM**

QA-03XAA-H8¹ Layered products media and documentation for OpenVMS on CD-ROM

1. Includes DIGITAL Enterprise Integration Package for OpenVMS media and documentation

DIGITAL Enterprise Integration Package

QA-5LVAA-H8 DIGITAL Enterprise Integration Package for OpenVMS media and documentation

DIGITAL Enterprise Integration Package

DIGITAL Enterprise Integration Package for OpenVMS includes: OpenVMS Management Station, DECams, Archive Backup System for OMT, Archive Backup Agent for NT, Datametrics ViewPoint Data Collector, Datametrics ViewPoint Management Console, eXcursion, ISG/Navigator ODBC & OLE DB Server, ISG/Navigator ODBC & OLE DB Client, Internet Product Suite, Pathworks V5.0 LAN Manager, Pathworks32, Team Links Mail Windows, MAPI Driver for All-In-1, DECwindows Motif, DECprint Supervisor, DEC TCP/IP, DECnet.

DECnet for OpenVMS

QL-MTGAE-AA DECnet extended function license for OpenVMS

QL-MTHAE-AA DECnet end-system to extended function upgrade license for OpenVMS

DSSI Information

EK-410AB-MG DSSI VMScluster Installation Guide

EK-D4AXP-TS DSSI VMScluster Troubleshooting Guide

Step 8—Power Cords, Keyboards, and Miscellaneous**Keyboards**

- .. Windows NT US variants include a 101-key, PC-style US English keyboard. Windows NT non-US variants must order the appropriate keyboard.
- .. OpenVMS variants include a 108-key, VT-style US English keyboard. Other keyboard variants must be ordered.
- .. UNIX variants include a 104/105 key PC-style US English keyboard. Other keyboard variants must be ordered.
- .. English language documentation. Certain language selections are available; see Step 10 in this section.

Step 8—Power Cords, Keyboards, and Miscellaneous (continued)

104/105 key PC style keyboard		Language	108 key VT style keyboard	
Windows NT	DIGITAL UNIX		OpenVMS	DIGITAL UNIX
LK97w-A2	LK97w-A2	U.S./English	LK46w-A2	LK46w-A2
LK97w-AB	LK97w-AB	Belgian	LK46w-AB	LK46w-AB
LK97w-AC	LK97w-AC	Canadian/French	LK46w-AC	LK46w-AC
LK97w-AD	LK97w-AD	Danish	LK46w-AD	LK46w-AD
LK97w-AE	LK97w-AE	United Kingdom	LK46w-A2	LK46w-A2
LK97w-AF	LK97w-AF	Finnish	LK46w-AF	LK46w-AF
LK97w-AG	LK97w-AG	German	LK46w-AG	LK46w-AG
LK97w-AH	LK97w-AH	Dutch	LK46w-AH	LK46w-AH
LK97w-AI	LK97w-AI	Italian	LK46w-AI	LK46w-AI
LK97w-AJ	LK97w-AJ	Japan		
		Swiss/French	LK46w-AK	LK46w-AK
		Swiss/German	LK46w-AL	LK46w-AL
LK97w-AK	LK97w-AK	Swiss/Generic		
LK97w-AF	LK97w-AF	Swedish	LK46w-AM	LK46w-AM
LK97w-AN	LK97w-AN	Norwegian	LK46w-AN	LK46w-AN
LK97w-AP	LK97w-AP	French	LK46w-AP	LK46w-AP
		Canadian/English		LK46w-AQ
LK97w-AR	LK97w-AR	Lat. America		

104/105 key PC style keyboard		Language	108 key VT style keyboard	
Windows NT	DIGITAL UNIX		OpenVMS	DIGITAL UNIX
LK97w-AS	LK97w-AS	Spanish	LK46w-AS	LK46w-AS
LK97w-AV	LK97w-AV	Portuguese	LK46w-AV	LK46w-AV
LK97w-BH	LK97w-BH	Greek	LK46w-BH	LK46w-BH
LK97w-AT	LK97w-AT	Hebrew	LK46w-AT	LK46w-AT
LK97w-BI	LK97w-BI	Taiwanese		
LK97w-BP	LK97w-BP	Polish	LK46w-BP	LK46w-BP
LK97w-BQ	LK97w-BQ	Hungarian	LK46w-BQ	LK46w-BQ
LK97w-CZ	LK97w-CZ	Slovak	LK46w-CZ	LK46w-CZ
LK97w-BY	LK97w-BY	Serbian		
LK97w-CB	LK97w-CB	Thai		
LK97w-CQ	LK97w-CQ	Icelandic		
LK97w-BV	LK97w-BV	Czech	LK46w-BV	LK46w-BV
LK97w-BR	LK97w-BR	Arabic		
LK97w-BU	LK97w-BU	Turkish Q		
LK97w-BW	LK97w-BW	Turkish F	LK46w-BW	LK46w-BW
LK97w-BT	LK97w-BT	Cyrillic		

Pedestal and Monitor Power Cords

- .. North American variants include BN27Y-1J 120 V (North American, Japan) power cord. If another power cord is selected, both power cords ship with system.
- .. For non-North American system variants, selection of a power cord is mandatory.

BN27Y-1J	North American, Japan, 120 V, 75-inches long
BN19H-2E	Australia, New Zealand, 2.5 meters long
BN19C-2E	Central Europe, 2.5 meters long
BN19A-2E	UK, Ireland, 2.5 meters long
BN19E-2E	Switzerland, 2.5 meters long
BN19K-2E	Denmark, 2.5 meters long
BN19M-2E	Italy, 2.5 meters long
BN19S-2E	Egypt, India, South Africa, 2.5 meters long
BN18L-2E	Israel, 2.5 meters long

Step 8—Power Cords, Keyboards, and Miscellaneous (*continued*)

Rackmount Power Cords

- .. North American variants include BN20Z-4E 120 V (North American, Japan) power cord. If another power cord is selected, both power cords ship with system.
- .. For non-North American system variants, selection of a power cord is mandatory.

Note: AlphaServer 800 Pedestal system power cords are less than 15-feet long and are not supported in cabinet enclosures.

BN20Q-4E	15-foot 240 V, North American, 50 Hz power cord connects system to power distribution unit located inside cabinet
BN20Z-4E	15-foot (4.5-meter) 120 V, 60 Hz power cord connects system to power distribution unit located inside cabinet
2T-00365-17	15-foot (4-meter) 240 V, IEC 320 power cord

Air Filter Option

PB8HA-CA Pedestal Air filter, placed in front of fixed storage disk area.

Pedestal to Rackmount Conversion Kit

PB8HA-BA AlphaServer 800 Pedestal to Rackmount conversion kit. Includes bezel, slide rails and mounting hardware necessary for mounting system in any cabinet equipped with industry-standard RETMA or METRIC rails. Rackmount power cords must be ordered separately.

Mouse and Extension Cable Kit

PBXWS-WA 3-button mouse (included with all systems, order as spare or replacement)
2T-450KM-AA Extension cable kit for VGA, PC style keyboard, and mouse, for use with Rackmount systems.

Step 9—Cabinet Enclosure

Rackmount packaged systems may be placed in an existing cabinet. If required, select cabinet enclosure for packaged AlphaServer 800 Rackmount systems. The color of cabinets listed is Digital 277 Blue-Gray.

- .. H9A10 19-inch EIA cabinet enclosure dimensions
 - Outside: 66.9-inches high, 23.62-inches wide, 33.8-inches deep.
 - Internal usable rackmountable space: 56 inches high, 19 inches wide, 30.8 inches deep.
 - An H9A10 cabinet with two H7600 power controllers can support a maximum of six AlphaServer 800 Rackmount systems.
- .. H9A15 19-inch EIA cabinet enclosure dimensions
 - Outside: 78.7 inches high, 23.62 inches wide, 33.4 inches deep.
 - Internal usable rackmountable space: 68.25 inches high, 19 inches wide, 29.8 inches deep.
 - An H9A15 cabinet with two H7600 power controllers can support a maximum of six AlphaServer 800 Rackmount systems.
- .. H9A11 19-inch EIA Cabinet Enclosure Dimensions
 - Outside: 43.3-inches high, 33.8-inches wide, 30.8-inches deep
 - Internal usable rackmountable space: 35-inches high, 19-inches wide, 30.8 inches
 - An H9A11 cabinet with one H7600 power controller can support a maximum of three AlphaServer 800 Rackmount systems.
- .. Cabinet power plugs
 - 120 V cabinets have one or two L5-30P plugs
 - 240 V cabinets have one or two IEC-pin-and-sleeve 316 P6 plugs

Step 9—Cabinet Enclosure (*continued*)

H9A10-RL	120V EIA Cabinet assembly, with two power controller, rear swing door
H9A10-RT	240V EIA Cabinet assembly, with two power controller, rear swing door
H9A10-EJ	120V EIA Cabinet assembly, with two power controller, front and rear swing door
H9A10-EH	240V EIA Cabinet assembly, with two power controller, front and rear swing door
H9A15-RA	120V EIA Cabinet assembly, with two power controllers, rear swing door
H9A15-RG	240V EIA Cabinet assembly, with two power controllers, rear swing door
H9A15-RE	EIA Cabinet assembly, no power, rear swing door
H9A11-RA	120V EIA Cabinet assembly, with one power controller, lift-off rear door
H9A11-RG	240V EIA Cabinet assembly, with one power controller, lift-off rear door

Step 10—Hardware and Software Supplemental Support Services
Hardware—Americas and Asia Pacific only

- .. Systems include three-year hardware warranty, on-site with 5 x 9, 24-hour response time.
- .. Select optional Hardware Supplemental Support Services if required.
- .. Select optional Hardware Installation.

FM-CH4HR-36	5 x 9, 4-hour response time
FM-CH512-36	5 x 12, 4-hour response time
FM-CH616-36	6 x 16, 4-hour response time
FM-CH724-36	7 x 24, 4-hour response time
FM-CHXHW-60	Years 1-5, next day, Onsite
FM-CH4HR-60	Years 1-5, 5x9, 4-hour response time
FM-CH512-60	Years 1-5, 5x12, 4-hour response time
FM-CH616-60	Years 1-5, 6x16, 4-hour response time
FM-CH724-60	Years 1-5, 7x24, 4-hour response time
FM-24INT-IN	Hardware Installation

Software—Americas and Asia Pacific only

- .. DIGITAL UNIX and OpenVMS systems include 90-day Conformance to SPD and Telephone Advisory Support. Select optional Software Supplemental Support Services, if required.
- .. Warranty on Microsoft's Windows NT Server 4.0 is conformance to the written material accompanying the software for a period of 90 days.
- .. Software service upgrades for Windows NT include advisory and remedial software support for the time period indicated.

FM-WNTO3-12	12-month Software Supplemental Support for Windows NT AlphaServer 800 systems
FM-WNTO3-36	36-month Software Supplemental Support for Windows NT AlphaServer 800 systems
FM-WNTO3-60	60-month Software Supplemental Support for Windows NT AlphaServer 800 systems

Step 10—Hardware and Software Supplemental Support Services (*continued*)**Software—Americas and Asia Pacific only**

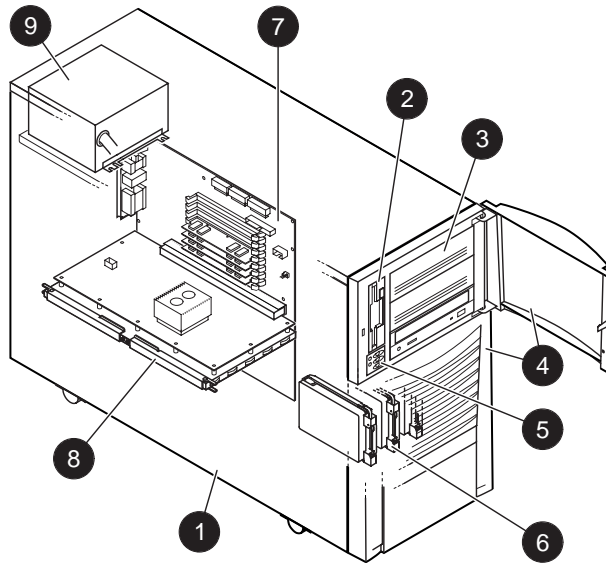
FM-80BUS-12	12-month Full Software Supplemental Support for DIGITAL UNIX AlphaServer 800 systems
FM-80BUS-36	36-month Full Software Supplemental Support for DIGITAL UNIX AlphaServer 800 systems
FM-80BUS-60	60-month Full Software Supplemental Support for DIGITAL UNIX AlphaServer 800 systems
FM-80BUN-12	12-month Node Software Supplemental Support for DIGITAL UNIX AlphaServer 800 systems
FM-80BUN-36	36-month Node Software Supplemental Support for DIGITAL UNIX AlphaServer 800 systems
FM-80BUN-60	60-month Node Software Supplemental Support for DIGITAL UNIX AlphaServer 800 systems
FM-80BVS-12	12-month Software Supplemental Support for OpenVMS AlphaServer 800 systems
FM-80BVS-36	36-month Software Supplemental Support for OpenVMS AlphaServer 800 systems
FM-80BVS-60	60-month Software Supplemental Support for OpenVMS AlphaServer 800 systems
FM-80BVN-12	12-month Node Software Supplemental Support for OpenVMS AlphaServer 800 systems
FM-80BVN-36	36-month Node Software Supplemental Support for OpenVMS AlphaServer 800 systems
FM-80BVN-60	60-month Node Software Supplemental Support for OpenVMS AlphaServer 800 systems

Step 10a—Hardware and Software Supplemental Support Services (Europe only)

Europe does not have specific part numbers for Hardware and Software Supplemental Support Services. Prices can be quoted using the Excelerator tool; contact MCS Sales in your country for information on Hardware and Software Supplemental Support Services.

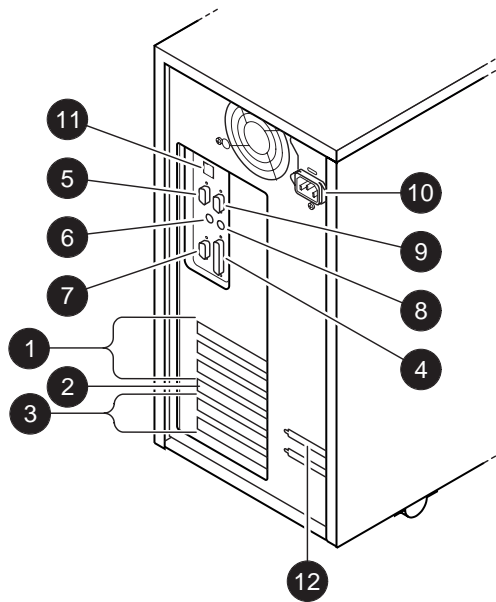
AlphaServer 800

AlphaServer 800 System Diagram – Side view



1. Removable side cover of system enclosure
2. Floppy diskette drive
3. Removable media drives
4. Lower and upper doors
5. Control panel
6. Hard disk drives
7. System board
8. CPU daughter card
9. Power supply

AlphaServer 800 System Diagram – Rear of Enclosure



1. Three 32-bit PCI slots
2. One 64-bit PCI/EISA slot
3. Two EISA slots
4. Parallel port
5. Serial port
6. Mouse port
7. VGA port
8. Keyboard port
9. Remote console modem port
10. Power inlet
11. Serial port/terminal port (MMJ with data leads only)
12. SCSI breakouts

AlphaServer 800 Pedestal System Specifications

Shipping Dimension		
Height	47 cm (18.5 in.)	
Width	60 cm (23.6 in.)	
Depth	77.5 cm (30.5 in.)	
Weight	33 kg (73 LB) typical 37 kg (82 LB) maximum	
Installed Dimensions		
Height	45 cm (17.1 in.)	
Width	22.6 cm (8.9 in.)	
Depth	65.8 cm (25.9 in.)	
Weight	24.5 kg (54 LB) typical 28 kg (62 LB) maximum	
Clearances	Operating	Service
Front	75 cm (29.5 in.)	75 cm (29.5 in.)
Rear	15 cm (5.9 in.)	75 cm (29.5 in.)
Left side	None	75 cm (29.5 in.)
Right side	None	5 cm (2 in.)
Environmental		
Temperature	Operating ¹	10–40° C (50–104° F)
	Nonoperating	Not tested
	Storage (60 days)	-40–66° C (-40–151° F)
	Rate of change	11° C/hr (20° F/hr)
Relative humidity	Operating	20–80%
	Nonoperating	20–80%
	Storage (60 days)	10–95%
	Rate of change	20%/hr
Maximum wet bulb temperature	Operating	28° C (82° F)
	Storage (60 days)	46° C (115° F)
Minimum dew point temperature	Operating	2° C (36° F)
	Storage (60 days)	Not tested
Maximum heat dissipation	380 Watt	
	1297 Btu/hr	
Air flow and quality	Intake location	Front
	Exhaust location	Rear
	Particle size	N/A
	Concentration	N/A
	Altitude	Operating ²
Mechanical shock	Nonoperating	12190 m (40,000 ft)
	Operating	7.5 G 10 ms
	Nonoperating	20 G peak 30 ms
Vibration	Operating	10-500 Hz .1 G peak
Acoustics	Operating	LNPEc (BELs)
		6.0 MAX per ISO 7779
Electrical—Power Supplies are universal 120/240 V ac		
Nominal ac voltage	100-120 V ac	220-240 Vac
Operating Voltage range	90-128 V ac	180-256 Vac
Power source phase	Single	Single
Nominal frequency	50/60 Hz	50/60 Hz
Frequency range	49/51/59-61 Hz	49-51/59-61 Hz
RMS current at nominal voltage (steady state)		
Maximum Power Consumption (Watts)	7.0 Amps 380 Watts	3.0 Amps
Power cord	Type	IEC 320 C13
	Length	190 cm (75 in.)
	US plug	NEMA 5-15

1. Maximum operating temperature at Sea Level. Reduce by 1 C (1.8 F) for each 600 m (2000 ft) above Sea Level.
2. Higher altitudes are possible if maximum operating temperature is reduced (see Temperature, above); other restrictions may apply, such as maximum permissible altitude for hard drives.

AlphaServer 800 Pedestal System Specifications (*continued*)

Regulatory	
Agency approvals	UL Listed to UL1950 (3 rd edition) CSA Certified to CAN/CSA-C22.2 No. 950-M95 TUV EN 60950 GS marked CB Certification pending FCC (Class B) Part 15, Subpart B (CFR 54,1995) EMC Directive 89/336/EEC EN 55022:1994 Class B EN 50082-1 1992 Light Industrial CE Class B VCCI Class II ITE AS/NZS 3548:1992 (Class B)
Reviewed to	AS 3260:1993 Australian/New Zealand Standard EN 60 950: 1995 European Norm IEC 950

AlphaServer 800 Rackmount System Specifications

Shipping Dimension	
Same as Pedestal	
Installed Dimensions	
Height	22 cm (8.6 in.) fits 8.75 in. [5U] standard EIA 310D
Width	standard EIA 310D (RETMA)
Depth	63.8 cm (25.1 in.)
Weight	24.5 kg (54 LB) typical 28 kg (62LB) maximum
Clearances	Service
Front	See requirements of specific cabinet
Rear	Slides forward 68.6 cm (27 in.)
Sides	then accessible from the top
Environmental	
Temperature	
Operating	10–35° C (50–95° F)
Nonoperating	Not tested
Storage (60 days)	-40–66° C (-40–151° F) 11 c/hr (20 F/HR)
Relative humidity	
Operating	20–80%
Nonoperating	20–80%
Storage (60 days)	10–95%
Rate of change	20%/hr
Air flow and quality	
Intake location	Front
Exhaust location	Rear
Electrical—Power Supplies are universal 120/240 V ac	
Same as Pedestal	
Regulatory	
Same as Pedestal	

Uninterruptable Power Supplies

Prestige 1250EXT

UPS offerings include EIA232 port for local or network monitoring and plug-in battery extension provisions to increase run time up to two hours. For complete protection, UPS products should be used with data line surge protectors and UPS monitoring software.

Solutions for Pedestal Systems

4N-AEABF-AA	Prestige 1250EXT, 1250 VA/900W, 1 phase, 50/60 Hz, 120V 6-foot cord with 5-15P plug, (4) 5-15R receptacle, 9 minutes battery at full UPS load.
4N-AEABF-BF	Prestige 1250EXT, 1250 VA/900W, 1 phase, 50/60 Hz, 200-240V in/out selectable. Uses system power cord for detachable IEC320 input connection at UPS. Includes (3) IEC320 10A output receptacles, (2) output jumpers with IEC320 connectors to system.
4N-AEABF-BB	Extension pack for 120V 60 Hz models, up to four packs at 30 minutes per pack supported
4N-AEABF-BD	Extension pack for 240V 50 Hz models, up to four packs at 30 minutes per pack supported
4N-AEAE0-PA	Hot-swap Power-Pass Module for 60 Hz UPS with (7) 5-15R Surge Protected outlets.
4N-AEAE0-PB	Hot-swap Power-Pass Module for 50 Hz UPS with (6) IEC320, 10A surge protected outlets.
4N-AEWAR-G1	Prestige 5 year on-site exchange warranty upgrade (US only).

Rackmount UPS

UPS Model	Application	Type	Receptacle module
4N-AEAAH-FA 60Hz	Rackmount UPS, supports up to 5 systems	3kVA Custom RM ¹	Included ²
4N-AEAAH-FB 50Hz	Rackmount UPS, supports up to 5 systems	3kVA Custom RM ¹	Included
4N-AEAAJ-CL³ 60Hz	Out of Cabinet UPS	6kVA Prestige ⁴	Included
4N-AEAAJ-CU 50Hz	Out of Cabinet UPS	6kVA Prestige ⁴	Hardwired

1. Factory installation must be specified at time of order. Up to two UPS systems, one UPS for up to 5 fully configured systems. Recommended UPS distribution option combines multiple UPS input plugs into a single L6-30P plug-in connection to simplify future UPS add-on. Order 4NAEAAH-FF 60 Hz; 4N-AEAAH-FG 50 Hz).
2. Includes six IEC receptacle strips for connection to IEC plugs in cabinet.
3. 208-120/208V shown; order 4N-AEAAJ-CT for 240-120/240V models
4. Optional mobile stacker with seismic mounting provision for 6kVA Prestige (4N-AEACH-HD)

4N-AEAAJ-CL	Prestige 6 kVA (4 kW), single phase, 60Hz, 208-120/208V, 6 ft. cord with L6-30P and (2) L6-30R, (8) 5-15R receptacle. Modular hot-swap design with 7 minute battery at full UPS load, extendible plug and play batteries and receptacle provisions. Substitute -CT for 240V 240/120V operation.
4N-AEAAJ-CU	Prestige 6 kVA (4 kW) 50Hz package, single phase, 50Hz, 200-240V in/out selectable, hardwired input/output.
4N-AEWAR-G3/G4	Prestige 5 year on-site exchange warranty upgrade for 4N-AEAAH-CM/CT. G4 provides on-site remedial and start-up service.

UPS Monitoring and Unattended Shutdown Software (for above UPS systems only) is included in ServerWORKS Kits shipping with all AlphaServers. Order Cable Kit separately.

4N-ONLIN-NT	Cable Kit for Windows NT and DIGITAL UNIX
4N-ONLIS-FE	Cable Kit for OpenVMS

Network Management or multi system shutdown (via SNMP or ServerWORKS Manager) for DIGITAL UNIX and OpenVMS requires Network Adapter option.

60 Hz Applications	50 Hz Application	Network Adapter Option
4N-AEAE0-DB/DD	4N-AEAE0-DB/DD	Prestige 3 kVA RM, DB=Twisted pair; DD=ThinWire
4N-AEAE0-DA/DC	4N-AEAE0-DB/DD	Prestige 6 kVA and PUPS Plus UPS, DA/DB=Twisted pair; DC=ThinWire

Note: Multiple system shutdown via OpenVMS requires multi-port hardware option (RN-JMIU4-AB). Ports can be daisy chained.