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AlphaStation Options
V96-1.4—6-Aug-96
Digital Systems and Options Catalog

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Section IV—AlphaStation Country Specific Keyboards and Power Cords

- LK47W and LK46W are Frost White keyboards for AlphaStation 255 and 500 Systems **only**.
- LK471 and LK461 are Light Gray keyboards for all other AlphaStations.

Required option		101/102 Key—PC style keyboard		108 Key—VT style keyboard	
Keyboard Country Table	Select	1		1	
North America/English		LK471-AA *	LK47W-AA *	LK461-AA *	LK46W-AA *
Arabic		LK471-BR	LK47W-BR		
Belgian		LK471-AB	LK47W-AB	LK461-AB	LK46W-AB
Canadian/French		LK471-AC	LK47W-AC	LK461-AC	LK46W-AC
Cyrillic		LK471-BT	LK47W-BT	LK461-BT	LK46W-BT
Czech		LK471-BV	LK47W-BV	LK461-BV	LK46W-BV
Danish		LK471-AD	LK47W-AD	LK461-AD	LK46W-AD
Finnish				LK461-AF	LK46W-AF
French		LK471-AP	LK47W-AP	LK461-AP	LK46W-AP
German		LK471-AG	LK47W-AG	LK461-AG	LK46W-AG
Dutch		LK471-AH	LK47W-AH	LK461-AH	LK46W-AH
Greek		LK471-BH	LK47W-BH	LK461-BH	LK46W-BH
Hebrew		LK471-AT	LK47W-AT	LK461-AT	LK46W-AT
Hungarian		LK471-BQ	LK47W-BQ	LK461-BQ	LK46W-BQ
Icelandic		LK471-CQ	LK47W-CQ		
Italian		LK471-AI	LK47W-AI	LK461-AI	LK46W-AI
Latin American		LK471-AR	LK47W-AR		
Norwegian		LK471-AN	LK47W-AN	LK461-AN	LK46W-AN
Polish		LK471-PB	LK47W-PB	LK461-BP	LK46W-BP
Portuguese		LK471-AV	LK47W-AV	LK461-AV	LK46W-AV
Romanian				LK461-BL	LK46W-BL
Slovak		LK471-CZ	LK47W-CZ	LK461-CZ	LK46W-CZ
Spanish		LK471-AS	LK47W-AS	LK461-AS	LK46W-AS
Swiss/Generic		LK471-AK	LK47W-AK		
Swiss/French				LK461-AK	LK46W-AK
Swiss/German				LK461-AL	LK46W-AL
Swedish				LK461-AM	LK46W-AM
Swedish/Finnish		LK471-AF	LK47W-AF		
Taiwanese		LK471-BI	LK47W-BI		
Thai		LK471-CB	LK47W-CB		
Turkish		LK471-BU	LK47W-BU	LK461-BU	LK46W-BU
Turkish F.		LK471-BW	LK47W-BW	LK461-BW	LK46W-BW
United Kingdom/English		LK471-AE	LK47W-AE	LK461-A2	LK46W-A2
Yugoslavia		LK471-BY	LK47W-BY	LK461-BY	LK46W-BY

* LK471-AA, LK461-AA, LK471W, and LK461W English keyboards, include U.S. power cord, power cord does not need to be ordered separately

Power Cord	Select 1	System	Monitor
Africa/India		BN19S-2E	BN19S-2E
Australia, NZ		BN19H-2E	BN19H-2E
Denmark		BN19K-2E	BN19K-2E
Italy		BN19M-2E	BN19M-2E
Israel		BN18L-2E	BN18L-2E
North America		BN19P-1K	BN19P-1K
Central Europe		BN03A-2E	BN03A-2E
Switzerland		BN19E-2E	BN19E-2E
UK, Ireland		BN26D-2E	BN26D-2E

Section V—AlphaStation Options and Technical Specifications

Refer to System Sections for allowable option configurations. All options will be factory installed unless specified as Spares on original order.

Used On	200 4/100	200 4/166, 4/233	250 4/266	255/233 255/300	400 4/233	500/266 500/333	500/400	600 5/266 600 5/333
Monitors								
VRC15-KA/K4	Y	N	N	N	N	N	N	N
VRC15-WA/W3/W4	N	N	N	Y	N	N	N	N
VRT17-PA/P4	Y	Y	Y	N	Y	N	N	Y
VRT17-WA/W3/W4	N	N	N	Y	N	Y	Y	N
VRC21-LA/L4	Y	Y	Y	N	Y	N	N	Y
VRC21-WA/W3/W4	N	N	N	Y	N	Y	Y	N

Section V—AlphaStation Options and Technical Specifications

Refer to System Sections for allowable option configurations. All options will be factory installed unless specified as Spares on original order.

Monitors	
	15" (13.9" viewable image size) high-resolution color monitor with Light Gray enclosure. Flat-square CRT with 0.28 mm dot pitch and anti-reflection, anti-glare, anti static coating. Auto-scanning from VGA to 1024 x 768 at 75Hz NI refresh rates. MPR-II, Energy Star, DPMS and NUTEK compliant. 120/240V universal power supply. Includes 1.4 meter HD15 male to male video cable. Select -KA for Northern Hemisphere or -K4 for Southern Hemisphere operation. If purchased in North America, -KA includes 120V power cord, otherwise power cords for -KA and -K4 not included, order separately.
	15" (13.9" viewable image size) high resolution color monitor with Frost White enclosure. Flat-square CRT with 0.28mm dot pitch and anti-reflection, anti-glare, anti static coating. Auto-scanning from VGA to 1024x768 at 75Hz NI refresh rates. MPR-II, Energy Star, DPMS and NUTEK compliant. 120/240V universal power supply. Includes 1.4 meter HD15 male to male video cable. The -WA and -W3 are for Northern Hemisphere operation. The -W4 is for Southern Hemisphere operation. The -WA includes 120V power cord. Power cords for -W3 and -W4 not included, order separately.
	17" (16.0" viewable image size) high-resolution color monitor with Light Gray enclosure. Trinitron aperture grille CRT with 0.26mm stripe pitch and anti-reflection, anti-glare, anti static coating. Auto-scanning from VGA to 1280 x 1024 at 75Hz NI refresh rates. MPR-II, Energy Star, DPMS and NUTEK compliant. 120/240V universal power supply. Includes 3.0 meter HD15 male to BNC video cable. Select -PA for Northern Hemisphere or -P4 for Southern Hemisphere operation. If purchased in North American, -PA includes 120V power cord, otherwise power cords for -PA and -P4 not included, order separately.
	17" (16.0" viewable image size) high resolution color monitor with Frost White enclosure. Trinitron aperture grille CRT with 0.26mm stripe pitch and anti-reflection, anti-glare, anti static coating. On Screen Display (OSD). Auto-scanning from VGA to 1280x1024 at 75Hz NI refresh rates. Stereo viewing compatible. MPR-II, Energy Star, DPMS and NUTEK compliant. 120/240V universal power supply. Includes 1.8 meter HD15 male to male video cable. The -WA and -W3 are for Northern Hemisphere operation. The -W4 is for Southern Hemisphere operation. The -WA includes 120V power cord. Power cords for -W3 and -W4 not included, order separately.
	21" (19.6" viewable image size) ultra high-resolution color monitor with Light Gray enclosure. Diamondtron aperture grille CRT with 0.30 mm stripe pitch and anti-reflection, anti-glare, anti static coating. Auto-scanning from VGA to 1600 x 1200 at 75Hz NI refresh rates. On Screen display (OSD). Stereo viewing compatible. MPR-II, Energy Star, DPMS and NUTEK compliant. 120/240V universal power supply. Includes 3.0 meter HD15 male to BNC video cable. Select -LA for Northern Hemisphere, or -L4 for Southern Hemisphere operation. If purchased in North America, -LA includes 120V power cord, otherwise power cords for -LA and -L4 not included, order separately.
	21 inch (19.6" viewable image size) ultra high resolution color monitor with Frost White enclosure. Diamondtron aperture grille CRT with 0.30 mm stripe pitch and anti-reflection, anti-glare, anti static coating. Auto-scanning from VGA to 1600x1200 at 75Hz NI refresh rates. On screen Display (OSD). Stereo viewing compatible. MPR-II, Energy Star, DPMS and NUTEK compliant. 120/240V universal power supply. Includes 3.0 meter HD15 male to male video cable. The -WA and -W3 are for Northern Hemisphere operation. The -W4 is for Southern Hemisphere operation. The -WA includes 120V power cord. Power cords for -W3 and -W4 not included, order separately.

Section V—AlphaStation Options and Technical Specifications

Refer to System Sections for allowable option configurations. All options will be factory installed unless specified as Spares on original order.

Used On		200 4/100	200 4/166, 4/233	250 4/266	255/233 255/300	400 4/233	500/266 500/333	500/400	600 5/266 600 5/333
Graphics									
PB2GA-JA	(a)	Y	Y / N	N	Y / N	Y	N	N	N
PBXGA-AA	(b)	Y	Y	Y	N	Y	N	N	Y
PBXGA-BA	(b)	Y	Y	Y	N	Y	N	N	Y
PBXGA-CA	(b)	Y	Y	Y	N	Y	N	N	Y
PBXGA-AN	(c)	Y	Y	Y	N	Y	N	N	Y
PBXGA-BN	(c)	Y	Y	Y	N	Y	N	N	Y
PBXGA-CN	(c)	Y	Y	Y	N	Y	N	N	Y
PBXGB-AA	(d)	N	N	N	Y	N	Y	Y	Y
PBXGB-CA	(d)	N	N	N	Y	N	Y	Y	Y
PBXGC-AA	(e)	N	Y	Y	Y	Y	Y	Y*	Y
PBXGC-AN	(e)	N	Y	Y	Y	Y	Y	Y	Y
PBXGC-BA	(e)	N	Y	Y	Y	Y	Y	Y*	Y
PBXGC-BN	(e)	N	Y	Y	N	Y	Y	Y	Y
PBXGE-BB	(f)	N	N	Y	N	N	Y	N	Y
PBXGE-BD	(f)	N	N	Y	N	N	Y	N	Y
PBXGE-BG	(f)	N	N	Y	N	N	Y	N	Y
PBXGE-CB	(g)	N	N	Y	N	N	Y	N	Y
PBXGE-CC	(g)	N	N	Y	N	N	Y	N	Y
MSP01-DA	(g)	Y	Y	Y	N	Y	N	N	N

(a) Embedded in AlphaStation 255/233 Case Advantage Configuration, and orderable for 255/233 Base systems. **Not** orderable for AlphaStation 255/300 systems.

(b) Up to **3** ZLXp-Ex, or any combination of up to three ZLXp -E1, -E2 and -E3 graphics options and three monitors are supported on Digital UNIX and Open VMS systems. Options require Digital Open3D media which is included in factory installed software (FIS) on Digital UNIX and OpenVMS systems.

(c) Multi screen support for Windows NT must be homogeneous (Three ZLXp -E1, three -E2 or three -E3). Graphics options include Graphics Support Services Software license, media and documentation. 3D multi screen not hardware accelerated for Windows NT.

(d) Up to **3** PowerStorm 3D30 or **3** PowerStorm 4D20, or any combination of up to three PowerStorm 3D30/4D20 graphics options and 3 monitors are supported on Digital UNIX and OpenVMS systems. **Note:** AlphaStation 255 support **2** PowerStorm graphics options and 2 monitors on OpenVMS systems. Graphics options require Digital Open3D media, included in factory installed software (FIS) on Digital UNIX and OpenVMS systems. Multi screen support for Windows NT must be homogeneous (three PowerStorm 3D30 options or three PowerStorm 4D20). Windows NT graphics options include Graphics Support Services Software license, media and documentation. 3D multi screen not hardware accelerated for Windows NT.

(e) One ZLXp-Lx graphics options supported per system; -Lx graphics cannot be mixed with any other graphics option.

(f) E&S Freedom Series graphics are packaged in a deskside pedestal and connect to PCI interface card in AlphaStation system box by a 10-foot interface cable. Graphics options include graphics subsystem, PCI interface card, interface cable, and video cable for a VRC21-LA/L4 monitor. Country specific power cord is required. Texture memory module upgrades are available for E&S Freedom Series graphics. **Note:** E&S 64-bit graphics are supported in both 64-bit and 32-bit PCI slots; 64-bit slots are recommended for best performance.

(g) To upgrade E&S Freedom Series graphics memory, select one texture memory module for each performance module.

(*) Currently supported on Digital UNIX and OpenVMS only.

Section V—AlphaStation Options and Technical Specifications

Refer to System Sections for allowable option configurations. All options will be factory installed unless specified as Spares on original order.

Bus / Slots Required		Description
Graphics		
1 PCI slot	**	PowerStorm 3D10 8-plane, PCI graphics accelerator, 1280x1024, 72Hz, 256 colors for Digital UNIX, OpenVMS and Windows NT
1 PCI slot	**	ZLXp-E1 2D 8-plane PCI graphics accelerator, 2 MB memory, 1280x1024, 72 Hz, 256 colors for Digital UNIX and OpenVMS
1 PCI slot	**	ZLXp-E2 2D/3D 24-plane PCI graphics accelerator, 8 MB memory, 1280x1024, 72 Hz, 16.7M colors for Digital UNIX and OpenVMS
1 PCI slot	**	ZLXp-E3 3D 24-plane PCI graphics accelerator, plus 24 bit Z-buffer, 16 MB memory, 1280x1024, 72 Hz, 16.7M colors for Digital UNIX and OpenVMS
1 PCI slot	**	ZLXp-E1 2D 8-plane PCI graphics accelerator, 2 MB memory, 1280x1024, 72 Hz, 256 colors for Windows NT
1 PCI slot	**	ZLXp-E2 2D/3D 24-plane PCI graphics accelerator, 8 MB memory, 1280x1024, 72 Hz, 16.7M colors for Windows NT
1 PCI slot	**	ZLXp-E3 3D 24-plane PCI graphics accelerator, plus 24 bit Z-buffer, 16 MB memory, 1280x1024, 72 Hz, 16.7M colors for Windows NT
1 PCI slot	**	PowerStorm 3D30 2D 8-plane PCI graphics accelerator, 2 MB memory, 1280x1024, 72 Hz, 256 colors for Digital UNIX, OpenVMS and Windows NT
1 PCI slot	**	PowerStorm 4D20 3D 24-plane double buffered PCI graphics accelerator, 24-bit Z-buffer, 16 MB memory, 1280x1024 75Hz (1600x1200 75Hz 12 planes double buffered plus 24-bit Z-buffer) for Digital UNIX, OpenVMS and Windows NT
1 PCI slot		ZLXp-L1 3D 24-plane double buffered PCI graphics accelerator, 24-bit Z-buffer, 16 MB memory, 1280x1024 72 Hz, 1 rendering engine, for Digital UNIX and OpenVMS
1 PCI slot		ZLXp-L1 3D 24-plane double buffered PCI graphics accelerator, 24-bit Z-buffer, 16 MB memory, 1280x1024 72 Hz, 1 rendering engine, for Windows NT
2 PCI slots		ZLXp-L2 3D 24-plane double buffered PCI graphics accelerator, 24-bit Z-buffer, 32 MB memory, 1280x1024 72 Hz, 2 rendering engines, for Digital UNIX and OpenVMS
2 PCI slots		ZLXp-L2 3D 24-plane double buffered PCI graphics accelerator, 24-bit Z-buffer, 32 MB memory, 1280x1024 72 Hz, 2 rendering engines, for Windows NT
1 PCI slot		E&S Freedom Series 3150, 3 Performance Modules, 1 MB texture memory
1 PCI slot		E&S Freedom Series 3250, 5 Performance Modules, 1 MB texture memory
1 PCI slot		E&S Freedom Series 3400, 8 Performance Modules, 4 MB texture memory
		4 MB Texture memory module upgrade for E&S Freedom Series graphics
		16 MB Texture memory module upgrade for E&S Freedom Series graphics
		2 MB DRAM upgrade for PBXGA-JA

** ZLXp-Ex graphics options and PowerStorm 3D30 and 4D20 graphics options **cannot** be mixed in same system.

Section V—AlphaStation Options and Technical Specifications

Used On	200 4/100	200 4/166, 4/233	250 4/266	255/233 255/300	400 4/233	500/266 500/333	500/400	600 5/266 600 5/333
2D and 3D Input Devices								
PBXWA-AA	Y	Y	Y	Y	Y	Y	N	Y
PBXWB-AA	Y	Y	Y	Y	Y	Y	N	Y
PBXWT-AA	Y	Y	Y	Y	Y	Y	N	Y
PBXWT-AB	Y	Y	Y	Y	Y	Y	N	Y
PBXWT-AC	Y	Y	Y	Y	Y	Y	N	Y
PBXWT-AD	Y	Y	Y	Y	Y	Y	N	Y
PBXWT-BA	Y	Y	Y	Y	Y	Y	N	Y
PBXWS-AA	Y	Y	Y	N	Y	N	N	Y
PBXWS-WA	N	N	N	Y	N	Y	Y	N
System Memory								
MSP01-AA	Y	Y	N	N	Y	N	N	N
MSP01-AB	Y	Y	N	N	Y	N	N	N
MSP01-AC	Y	Y	N	N	Y	N	N	N
MSP01-AD	Y	Y	N	N	Y	N	N	N
MSP01-AE	Y	Y	N	N	Y	N	N	N
MSP01-BA	N	N	Y	Y	N	N	N	N
MSP01-BB	N	N	Y	Y	N	N	N	N
MSP01-BC	N	N	Y	Y	N	N	N	N
MSP01-BD	N	N	Y	Y	N	N	N	N
MSP01-FA	N	N	N	N	N	Y	Y	N
MSP01-FB	N	N	N	N	N	Y	Y	N
MSP01-FC	N	N	N	N	N	Y	Y	N
MSP01-FD	N	N	N	N	N	Y	Y	N
MSP01-CA	N	N	N	N	N	N	N	Y
MSP01-CB	N	N	N	N	N	N	N	Y
MSP01-CC	N	N	N	N	N	N	N	Y
MSP01-CD	N	N	N	N	N	N	N	Y
Cache Memory								
MSP01-EA	N	N	N	N	N	N	N	Y
MSP01-EB	N	N	N	N	N	N	N	Y

Section V—AlphaStation Options and Technical Specifications

Bus / Slots Required	Description
2D and 3D Input Devices	
	Spaceball Model 3003 3D Motion Control Device. Full simultaneous six-degree-of-freedom control with dynamic pan, zoom, and rotation of models (X,Y,Z translations and rotations) instantly. Serial port interface. Includes Spaceware device driver on CD-ROM. Supported on Digital UNIX, OpenVMS and Windows NT. Check with ISV for application support status.
	3-button Trackball. Replaces standard AlphaStation mouse as an alternative pointing device. Plugs into AlphaStation mouse port. No special device drivers required. Supported on Digital UNIX, OpenVMS and Windows NT.
	12" x 12" Digitizing Tablet with Opaque surface, user selectable resolution up to 2,540 lpi, 16 button cordless cursor, serial interface cable, 9 to 25 pin adapter cable, Digital UNIX driver, Windows NT (WinTab compliant) driver, OpenVMS driver, 120V North American wall mounted power supply.
	12" x 12" Digitizing Tablet with Opaque surface, user selectable resolution up to 2,540 lpi, 16 button cordless cursor, serial interface cable, 9 to 25 pin adapter cable, Digital UNIX driver, Windows NT (WinTab compliant) driver, OpenVMS driver, 220V European wall mounted power supply.
	12" x 12" Digitizing Tablet with Opaque surface, user selectable resolution up to 2,540 lpi, 16 button cordless cursor, serial interface cable, 9 to 25 pin adapter cable, Digital UNIX driver, Windows NT (WinTab compliant) driver, OpenVMS driver, 240V U.K. wall mounted power supply.
	12" x 12" Digitizing Tablet with Opaque surface, user selectable resolution up to 2,540 lpi, 16 button cordless cursor, serial interface cable, 9 to 25 pin adapter cable, Digital UNIX driver, Windows NT (WinTab compliant) driver, OpenVMS driver, 100V Japan wall mounted power supply.
	Two button click tip pen for PBXWT-Ax Digitizing Tablet
	Spare 3-button mouse, Light Gray enclosure
	Spare 3-button mouse, Frost White enclosure

System Memory	
1 bank	8 MB (2 x 4 MB SIMMs) 1Mx33
1 bank	16 MB (2 x 8 MB SIMMs) 2Mx33
1 bank	32 MB (2 x 16 MB SIMMs) 4Mx33
1 bank	64 MB (2 x 32 MB SIMMs) 8Mx33
1 bank	128 MB (2 x 64 MB SIMMs) 16Mx33
1 bank	32 MB (4 x 8 MB SIMMs) 2Mx33
1 bank	64 MB (4 x 16 MB SIMMs) 4Mx33
1 bank	128 MB (4 x 32 MB SIMMs) 8Mx33
1 bank	256 MB (4 x 64 MB SIMMs) 16Mx33
1 bank	32 MB (4 x 8 MB DIMMs) 1Mx72
1 bank	64 MB (4 x 16 MB DIMMs) 2Mx72
1 bank	128 MB (4 x 32 MB DIMMs) 4Mx72
1 bank	256 MB (4 x 64 MB DIMMs) 8Mx72
1 bank	32 MB (8 x 4 MB SIMMs) 1Mx36
1 bank	64 MB (8 x 8 MB SIMMs) 2Mx36
1 bank	128 MB (8 x 16 MB SIMMs) 4Mx36
1 bank	256 MB (8 x 32 MB SIMMs) 8Mx36

Cache Memory	
	2 MB 3 x .667 MB SIMMs
	4 MB 3 x 1.33 MB SIMMs

Section V—AlphaStation Options and Technical Specifications

Used On	200 4/100	200 4/166, 4/233	250 4/266	255/233 255/300	400 4/233	500/266 500/333	500/400	600 5/266 600 5/333
Internal SCSI Storage								
PBXRX-AA	Y	Y	Y	N	Y	N	N	Y
PBXRX-AB	N	N	N	Y	N	Y	Y	N
PBXRD-CA	Y	Y	Y	N	Y	N	N	Y
PBXRD-CB	N	N	N	Y	N	Y	Y	N
PBXRZ-BB (h)	Y	Y	N	N	N	N	N	N
PBXRZ-EB	Y	Y	Y	Y	Y	Y (i)	Y (i)	Y (i)
PBXRZ-ED (h)	Y	Y	Y	Y	N	N	N	N
PBXRZ-HB	Y	Y	Y	N	Y	Y (i)	Y (i)	Y (i)
PBXRZ-JB	Y	Y	Y	Y	Y	Y (i)	Y (i)	Y (i)
PBXRZ-NA	Y	Y	Y	Y	Y	Y (i)	Y (i)	Y (i)
PBXRW-EA	N	N	N	N	N	Y	Y	Y
PBXRW-EB	N	N	N	N	N	Y	Y	Y
PBXRW-HB	N	N	N	N	N	Y	Y	Y
PBXRW-JB	N	N	N	N	N	Y	Y	Y
PBXRW-NA	N	N	N	N	N	Y	Y	Y
PBXTL-CA	Y (j)	Y (j)	Y (j)	N	Y	N	N	Y
PBXTL-DA	Y (j,q)	Y (j,q)	Y (j,q)	N	Y (q)	N	N	Y (q)
PBXTZ-AA	Y (j)	Y (j)	Y (j)	N	Y	N	N	Y
PBXTZ-CA	Y (j)	Y (j)	Y (j)	N	Y	N	N	Y
External SCSI Storage (k,l)								
BA350-KF	Y	Y	Y	Y	Y	Y (m)	Y (m)	Y (m)
BA353-AA (n)	Y	Y	Y	Y	Y	Y (m)	Y (m)	(o, m)
BA356-KC	Y (ac)	Y (ac)	Y (ac)	Y (ac)	Y (ac)	Y (ac)	Y (ac)	Y (ac)
BA362-AA/AB	Y (p)	Y (p)	Y (p)	Y (p)	Y (p)	Y (p)	Y (p)	Y (p)
BA364-AA/AB	Y (p)	Y (p)	Y (p)	Y (p)	Y (p)	Y (p)	Y (p)	Y (p)
TLZ07-DA	Y	Y	Y	Y	Y	Y (m)	Y (m)	Y (m)
TLZ09-DB	Y (q)	Y (q)	Y (q)	Y (q)	Y (q)	N	N	Y (q)
TLZ09-DC	N	N	N	N	N	Y (q)	Y (q)	N
TZ87-TA	Y	Y	Y	Y	Y	Y (m)	N	Y (m)

(h) Does not support Tag Command Queuing, Seek Reordering, Spindle Sync, Variable Sector Size, or OpenVMS SCSI clusters.

(i) To add a narrow SCSI drive to AlphaStation 500 and 600 systems, order a wide to narrow adapter (PBXKP-BA) for each drive.

(j) Supported as embedded only in place of CD-ROM drive

(k) For more than 7 internal or external devices, a fast SCSI-2 controller, which supports 7 devices, is required.

(l) Each external device requires a 3-foot SCSI cable.

(m) To run narrow devices/enclosures off the Wide external SCSI bus, order a BN36A-0B, a 68-pin HD to 50-pin HD hi-byte terminator adapter, and either 50-pin HD to 50-pin LD BN23G-01 one-meter cable for tabletop devices, or 50-pin HD to 50-pin HD BN21H-01 one-meter cable for BA350/BA353.

(n) Supports 5400 RPM drives only.

(o) See AlphaStation 600 external expansion in order menu.

(p) For narrow device support from external 8-bit narrow SCSI port on AlphaStations 200, 250, 255 and 400, order a one-meter 68-pin HD to 50-pin HD external SCSI cable BN31V-01. For wide device support from external 16-bit wide SCSI port on AlphaStations 500 and 600, order a 1-meter 68-pin HD to 68-pin HD external SCSI cable BN31G-01.

(q) Supported on Digital UNIX and OpenVMS systems only for Windows NT V3.51 support, a driver is available at no charge from Seagate Technology at Web site location ftp://www.sssmg.seagate.com/arcada/bewinnt. Also see software update note Digital Part Number AV-ROP2A-TE for more details/restrictions. Full support is resident in Windows NT V4.0.

(ac) For narrow connection to BA356-KC with AlphaStation 200, 250, 255, and 400, order a KZPAA-AA controller and BN21N-02 SCSI cable. For wide connection off the external wide bus on AlphaStations 500 and 600, order a BN21K-01.

Section V—AlphaStation Options and Technical Specifications

Bus / Slots Required	Description
Internal SCSI Storage	
3.5" x 1" bay	1.44 MB 3.5" diskette drive, included in most systems (FDI), Light Gray
3.5" x 1" bay	1.44 MB 3.5" x 1 diskette drive, Frost White
5.25" bay	600 MB 5.25" half-height quad-speed CD-ROM drive, included in most systems, Light Gray
5.25" bay	600 MB 5.25" half-height quad-speed CD-ROM drive, included in most systems, Frost White
3.5 x 1" or 1.6" bay	535 MB 3.5" x 1" **narrow** hard disk drive 5400 RPM
3.5 x 1" or 1.6" bay	1.05 GB 3.5" x 1" **narrow** hard disk drive 5400 RPM
3.5 x 1" or 1.6" bay	1.05 GB 3.5" x 1", **narrow** hard disk drive 5400 RPM
3.5 x 1.6" bay	2.1 GB 3.5" x 1.6" **narrow** hard disk drive 5400 RPM
3.5 x 1" or 1.6" bay	2.1 GB 3.5" x 1.6", **narrow** hard disk drive 7200 RPM
3.5 x 1.6" bay	4.3 GB 3.5" x 1.6", **narrow** hard disk drive 7200 RPM
3.5 x 1" or 1.6" bay	1.05 GB 3.5" x 1", **wide** hard disk drive 5400 RPM
3.5 x 1" or 1.6" bay	1.05 GB 3.5" x 1", **wide** hard disk drive 5400 RPM
3.5 x 1" or 1.6" bay	2.1 GB 3.5" x 1" **wide** hard disk drive 5400 RPM
3.5 x 1" or 1.6" bay	2.1 GB 3.5" x 1", **wide** hard disk drive 7200 RPM
3.5 x 1.6" bay	4.3 GB 3.5" x 1.6", **wide** hard disk drive 7200 RPM
5.25" bay	4.0/8.0 GB 5.25" x 1.6" 4-mm DAT drive
5.25" bay	4.0/8.0 GB 5.25" x 1.6" 4-mm DAT drive
5.25" bay	2.0 GB 5.25" half-height QIC tape drive
5.25" bay	2.3 GB 5.25" half-height QIC tape drive

Bus / Slots Required	Description
External SCSI Storage	
(o)	Deskside unit with BA350 shelf, supports up to seven 5400/7200 RPM narrow disk drives, BA35X-VD pedestal mounting kit, BA35X-HF universal power, dual-speed blowers, and North American power cord. Requires BN23G-01 off external SCSI bus, or BN23G-02 off KZPAA-AA SCSI controller.
(o)	StorageWorks desktop expansion box (up to three devices)
(o)	Deskside unit with BA356 shelf and power supply BA35X-HF, pedestal kit BA35X-VA, dual-speed blowers, 16-bit I/O module BA35X-MH, and North American power cord. Supports up to seven Narrow and Wide device.
external	StorageWorks desktop expansion for Narrow and Wide devices, supports up to two devices
external	StorageWorks desktop expansion for Narrow and Wide devices, supports up to four devices
external	8.0 GB 4-mm DAT tape drive, Tabletop, Light Gray, requires BN23G-01 SCSI cable
external	8.0 GB 4-mm DAT tape drive, Tabletop, Frost White (Digital UNIX, OpenVMS support only); includes SCSI cable
external	8.0 GB 4-mm DAT tape drive, Tabletop with wide to narrow SCSI adapter and cable, Frost White (Digital UNIX, OpenVMS support only)
external	20/10 GB DLT cartridge tape drive, single slot, Tabletop, requires BN23G-01 SCSI cable

(o) See AlphaStation 600 external expansion section in order menu.

Section V—AlphaStation Options and Technical Specifications

Used On	200 4/100	200 4/166, 4/233	250 4/266	255/233 255/300	400 4/233	500/266 500/333	500/400	600 5/266 600 5/333
External SCSI Storage *(continued)* **(k,l)**								
TZ88N-TA	Y	Y	Y	Y	Y	Y (m)	N	Y (m)
TZ875-TA	N	N	Y	N	Y	N	N	N
TZ877-TA	N	N	Y	N	Y	N	N	N
TZ885-NT	Y	Y	Y	N	Y	Y (m)	N	Y (m)
TZ887-NT	Y	Y	Y	N	Y	Y (m)	N	Y (m)
TZK20-DB	Y	Y	Y	Y	Y	N	N	Y
TZK20-DC	N	N	N	N	N	Y	N	N
TZK11-DA	Y	Y	Y	Y	Y	Y (m)	Y (m)	Y (m)
RRD45-DA	Y	Y	Y	Y	Y	Y (m)	Y (m)	Y (m)
SCSI Controllers and Adapter								
KZPAA-AA	Y	Y	Y	Y	Y	Y	Y	Y
KSPSA-BB	Y (r,s)	Y (r,s)	Y (s)	N	Y	N	N	Y (s)
DWZZB	Y	Y	Y	N	Y	N	N	Y
KZPSC-AA	N	N	Y (t)	N	Y (t)	Y (t,u)	Y (t,u)	Y (t,u)
KZPSC-BA	N	N	Y (t)	N	Y	Y (t,u)	Y (t,u)	Y (t,u)
PBXKP-BA (v)	N	N	N	N	N	Y	Y	Y

(m) To run narrow devices/enclosures off the Wide external SCSI bus, order a BN36A-0B, a 68-pin HD to 50-pin HD hi-byte terminator adapter, and either 50-pin HD to 50-pin LD BN23G-01 one-meter cable for tabletop devices, or 50-pin HD to 50-pin HD BN21H-01 one-meter cable for BA350/BA353.

(r) Digital UNIX V3.2D/OpenVMS V6.2-1H1 both require SRM console V6.1-2 minimum, which supports a bootable version of ARC and the V3.6 firmware CD-ROM which contains ARC images required to build a bootable floppy. Refer to Web Site http://ftp.digital.com/pub/Digital/Alpha/firmware/utilities/

(s) Not supported on OpenVMS SCSI clusters.

(t) Boot support of RAID set under OpenVMS requires minimum of OpenVMS V6.2-1H3, previous versions support data device RAID set only. Digital UNIX support requires minimum of V3.2D, and requires patch OSF350-135.

(u) KZPSC hardware Rev C or greater requires console firmware upgrade to V6.0-21 or later. Access Website http://ftp.digital.com:80/pub/Digital/Alpha/firmware/interim/

(v) To add a narrow SCSI drive to AlphaStation 500 and 600 systems, order a wide to narrow adapter (PBXKP-BA) for each drive.

Section V—AlphaStation Options and Technical Specifications

Bus / Slots Required	Description
External SCSI Storage *(continued)* **(k,l)**	
external	40/20 GB DLT cartridge tape drive, single slot, Tabletop (Digital UNIX, OpenVMS support only), requires BN21H-01 SCSI cable
external	100/50 GB TZ87 (5 cartridge loader) Tabletop, requires BN23G-01 SCSI cable
external	140/70 GB TZ87 (7 cartridge loader) Tabletop, requires BN23G-01 SCSI cable
external	200/100 GB DLT (5 cartridge loader) Tabletop, (Digital UNIX, OpenVMS support only), requires BN23G-01 SCSI cable
external	280/140 GB DLT (7 cartridge loader) Tabletop, (Digital UNIX, OpenVMS support only), requires BN23G-01 SCSI cable
external	2.3 GB QIC tape drive, Tabletop, includes SCSI cable, Frost White
external	2.3 GB QIC tape drive, Tabletop with wide to narrow SCSI adapter and cable, Frost White
external	2.0 GB QIC tape, Tabletop, requires BN23G-01 SCSI cable
external	600 MB 5.25" half-height quad-speed CD-ROM drive, Tabletop, requires BN23G-01 SCSI cable

Bus / Slots Required	Description
SCSI Controllers and Adapter	
1 PCI slot	PCI-based Fast Narrow Single Ended (FNSE) SCSI-2 controller, maximum 2 per system, requires BN21H-02 SCSI cable.
1 PCI slot	PCI-based Fast Wide Differential (FWD) SCSI-2 controller, requires DWZZB-AA adapter
External	SCSI bus extender and converter, Fast Wide Differential on one end to Fast Wide Single Ended on other, requires BN21K-xx SCSI cable.
1 PCI slot	PCI-based one port RAID controller, requires BN31S-1E SCSI cable
1/2 PCI slot	PCI-based three port RAID controller, requires three BN31S-1E and one BN31K-0E bulkhead kit adapter for third port connection (third port requires one additional PCI bulkhead slot)
internal adapter	Wide to Narrow SCSI adapter

Section V—AlphaStation Options and Technical Specifications

Used On	200 4/100	200 4/166, 4/233	250 4/266	255/233 255/300	400 4/233	500/266 500/333	500/400	600 5/266 600 5/333
Communication Options—Check availability of PCI, EISA, and ISA slots								
DE425-AA	N	N	N	N		N	N	Y
DE435-AA	Y	Y	Y	N	Y	N	N	Y (w)
DE450-CA	Y	Y	Y	Y	Y	Y	N	Y
DE450-TA	Y	Y	Y	Y	Y	N	N	Y
DE500-XA	Y	Y	Y	Y	Y	Y	N	Y
DE205-AC	Y	Y	Y	Y	Y	N	N	N
DGLPB-AB	Y	Y	Y	N	Y	N	N	Y
DIIAA-AA	Y	Y	Y	N	Y	N	N	Y
DIIAA-AB	Y	Y	Y	N	Y	N	N	Y
PBXDC-DA	N	N	N	Y	N	N	N	N
PBXDF-AA	Y	Y	Y	Y	Y	N	N	N
PBXDF-BA	Y	Y	Y	Y	Y	N	N	Y
PBXDI-AA	Y (x)	Y (x)	Y (x)	Y / N (y)	Y (x)	N	N	N
PBXDI-AB	Y (x)	Y (x)	Y (x)	Y	Y (x)	N	N	N
PBXDI-AC	Y (x)	Y (x)	Y (x)	Y	Y (x)	N	N	N
PBXNP-AA	Y	Y	Y	Y	Y	Y	N	Y
DEFPA-AA	Y	Y	Y	Y	Y	Y	N	Y
DEFPA-DA	Y	Y	Y	Y	Y	Y	N	Y
DEFPA-UA	Y	Y	Y	Y	Y	Y	N	Y
DEFPA-MA	Y	Y	Y	Y	Y	Y	N	Y
DETTR-BA/BB	Y	Y	Y	Y	Y	N	N	N
DNSES-AA	N	N		N			N	Y
CXI01-AA	Y	Y	Y	N	Y	N	N	N
CXI01-AD	Y	Y	Y	N	Y	N	N	N
DJ-ML200-AA				Y		Y	N	
PCP3H-AG				Y		Y	Y	
Multimedia and Audio								
AVH01-AA	Y	Y	Y	Y	Y	Y	Y	Y
AVP20-AA	Y	Y	Y	Y	Y	Y	N	Y
AVP00-AN	Y	Y	Y	Y	Y	Y	N	Y
AVP23-CA	Y	Y	Y	Y	Y	Y	N	Y
AVP03-CA	Y	Y	Y	Y	Y	Y	N	Y
AV301-AA	Y	Y	Y	Y	Y	Y	Y (z)	Y
AV321-AA	Y	Y	Y	Y	Y	Y	Y (aa)	Y
AV201-AA	Y	Y	Y	Y	Y	Y	Y	Y
AV202-XA	N	N	N	N	N	N	N	N
AVC00-AA	Y	Y	Y	Y	Y	Y	N	Y
AVC00-AE	Y	Y	Y	Y	Y	Y	N	Y
AVC00-AJ	Y	Y	Y	Y	Y	Y	N	Y
AVC00-CA	Y	Y	Y	Y	Y	Y	N	Y

(w) AlphaStation 600 10BaseT connection requires shielded twisted pair cable BN26M-xx.

(x) Supported in ISA/combination slot only.
(y) Supported on 255/233 systems only.

Section V—AlphaStation Options and Technical Specifications

Bus / Slots Required	Description
Communication Options	
1 EISA	EISA Ethernet
1 PCI	High-performance Ethernet. Supported by Digital UNIX, OpenVMS and Windows NT. For AlphaStation 200, 250, and 400 select BNE4G-02 for AUI; BN26K-xx for 10BaseT (twisted pair), BC16M-xx for ThinWire. **Note:** AlphaStation 600 10BaseT connection requires shielded twisted pair cable BN26M-xx.
1 PCI	PCI Ethernet, Twisted Pair, ThinWire, Thick wire
1 PCI	PCI Ethernet, Twisted Pair
1 PCI	PCI Fast Ethernet, 100 MB
1 ISA	ISA Ethernet for Digital UNIX and Windows NT
1 PCI	PCI to ATM adapter features multi-mode fiber cable interface and SONET/SDH framing, for Digital UNIX and Windows NT
1 ISA	ISA ISDN adapter/network interface card for Windows NT. U interface for U.S. and Canada
1 ISA	ISA ISDN adapter/network interface card for Windows NT. S/T interface for Europe and APA
	Ethernet Halo AUI Card, ThinWire
1 ISA	ISA modem 14.4K (U.S. only)
1 ISA	ISA modem 28.8K (U.S. only)
1 ISA / Combo slot	2-port ISA Synchronous communication controller, X.25/SNA V.24/V.28 equivalent to EIA 232, supported in ISA/Combo slot only
1 ISA / Combo slot	2-port ISA Synchronous communication controller, X.25/SNA V 35, supported in ISA/Combo slot only
1 ISA / Combo slot	2-port ISA Synchronous communication controller, X25/SNA V 21/EIA-530, supported in ISA/Combo slot only
1 PCI	PCI Token Ring Network Adapter for all operating systems
	10BaseT to AUI (UTP to thick wire) single port adapter/repeater, 120/240V, 120V variant includes North American power cord; order country specific power cord for 240V variant. Supported on all systems.
1 PCI	PCI-based Digital FDDI-SAS/PCI (MMF) controller, Single attachment
1 PCI	PCI-based Digital FDDI-DAS/PCI (MMF) controller, Dual attachment
1 PCI	PCI-based Digital FDDI-SAS/PCI (UTP) controller
1 PCI	PCI-based Digital FDDI-DAS/PCI (UTP) controller, Dual attachment
1 EISA	2 port EISA Synchronous communication controller, X.25/SNA V.24/V.28 Equivalent to EIA-232
1 ISA	16-64 Port Asynchronous Multiplexer for Digital UNIX and Windows NT
1 ISA	16-224 Port Asynchronous Multiplexer for Digital UNIX and Windows NT
1 PCI	PCI Prestoserve 2 MB Digital UNIX
external	Kensington lock for added security

Bus / Slots Required	Description
MultiMedia and Audio	
	Replacement headphones and microphone
	Video conferencing upgrade kit with camera for Digital UNIX
	Video conferencing upgrade kit with camera for Windows NT
	Video conferencing upgrade kit without camera for Digital UNIX
	Video conferencing upgrade kit without camera for Windows NT
1 PCI slot	FullVideo Supreme for all systems
1 PCI slot	FullVideo Supreme JPEG for all systems
1 PCI slot	FullVideo Basic for Digital UNIX and Windows NT
	Koss Speakers
	Toshiba camera, North America
	Toshiba camera, UK
	Toshiba camera, Japan
	Toshiba camera, Europe

Section V—AlphaStation Options and Technical Specifications

Used On	200 4/100	200 4/166, 4/233	250 4/266	255/233 255/300	400 4/233	500/266 500/333	500/400	600 5/266 600 5/333
Recommended UPS								
4N-AEABC-AF 120V	Y	Y	Y	N	N	N	N	N
4N-AEABC-BF 240V	Y	Y	Y	N	N	N	N	N
4N-AEABD-AF 120V	N	N	N	N	Y	N	N	N
4N-AEABD-BF 240V	N	N	N	N	Y	N	N	N
4N-AEABF-AA 120V	N	N	N	N	N	Y	Y	Y
4N-AEABF-BF 240V	N	N	N	N	N	Y	Y	Y
Data Line Surge protectors (For complete protection select surge protectors for UPS products)								
4N-GA249-AB	Y	Y	Y		Y	Y	Y	Y
4N-GA249-CA	Y	Y	Y		Y	Y	Y	Y
4N-GA249-BF	Y	Y	Y		Y	Y	Y	Y

(z) Supported on Digital UNIX systems only.
(aa) Supported on Windows NT systems only.

Section V—AlphaStation Options and Technical Specifications

Bus / Slots Required	Description
Recommended UPS	
Prestige Model 650 for 120V systems	
Prestige Model 650 for 240V systems	
Prestige Model 800 for 120V systems	
Prestige Model 800 for 240V systems	
Prestige Model 1250 EXT for 120V systems. Unit includes plug-in battery extension provisions to over 2 hours at full load	
Prestige Model 1250 EXT for 240V systems. Unit includes plug-in battery extension provisions to over 2 hours at full load	

Data Line Surge protectors—Surge protectors for UPS products	
Data line surge protector for two wire modem	
Data line surge protector for 10BaseT	
Data line surge protector for ThinWire	

Section VI Operating System and Layered Software

Used on	200 4/100	200 4/166, 4/233	250 4/266	255/233 255/300	400 4/233	500/266 500/333	500/400	600 5/266 600 5/333
Processor Code	E	E	E	E	E	E	E	G
Digital UNIX Media and Documentation								
QA-MT4AA-H8	Y	Y	Y	Y	Y	Y	Y	Y
QA-MT4AA-GZ	Y	Y	Y	Y	Y	Y	Y	Y
QA-MT4AB-GZ	Y	Y	Y	Y	Y	Y	Y	Y
QA-MT5AA-GZ	Y	Y	Y	Y	Y	Y	Y	Y
QA-MT6AA-GZ	Y	Y	Y	Y	Y	Y	Y	Y
Digital UNIX Layered Products CD-ROM								
QA-054AA-H8	Y	Y	Y	Y	Y	Y	Y	Y
Digital Open3D for Digital UNIX								
QA-0AFAA-H8	Y	Y	Y	Y	Y	Y	Y	Y
Digital NAS Client 150 for Digital UNIX								
Included with operating system	Y	Y	Y	Y	Y	Y	Y	Y
OpenVMS Media and Documentation								
QA-MT1AA-H8 (ab)	Y	Y	Y	Y	Y	Y	Y	Y
QA-MT1AG-H8				Y		Y	Y	
QA-MT1AH-GZ				Y		Y	Y	
QA-001AA-GZ	Y	Y	Y	Y	Y	Y	Y	Y
OpenVMS Layered Products CD-ROM								
QA-03XAA-H8	Y	Y	Y	Y	Y	Y	Y	Y
Digital Open 3D for OpenVMS								
QA-0ADAA-H8	Y	Y	Y	Y	Y	Y	Y	Y
Digital NAS Client 150 for OpenVMS								
Included with operating system	Y	Y	Y	Y	Y	Y	Y	Y
Media for Microsoft Windows NT								
QB-0QRAA-SA	Y	Y	Y	Y	Y	Y	Y	N
QB-4LTAA-SA	Y	Y	Y	Y	Y	Y	Y	Y
Support Services Software for Microsoft Windows NT								
QM-356AA-AA	Y	Y	Y	Y	Y	Y	Y	Y
QB-356AA-SA	Y	Y	Y	Y	Y	Y	Y	Y
QA-356AA-GZ	Y	Y	Y	Y	Y	Y	Y	Y
Layered Software								
QA-4DEAA-GZ	Y	Y	Y	Y	Y	Y	Y	Y
QM-4DFAA-BA	Y	Y	Y	Y	Y	Y	Y	Y
QB-4DFAA-WA	Y	Y	Y	Y	Y	Y	Y	Y

(ab) OpenVMS V6.2-1H1 kit is required for AlphaStation 255 and AlphaStation 500. It must be installed over OpenVMS V6.2 media when reloading operating system

Section VI Operating System and Layered Software

Digital UNIX Media and Documentation
Digital UNIX media and documentation on CD-ROM
Digital UNIX base hardcopy documentation
Digital UNIX End User Documentation
Digital UNIX Developer's Documentation
Digital UNIX Server Extension documentation

Digital UNIX Layered Products CD-ROM
Layered products media and documentation for on CD-ROM

Digital Open3D for Digital UNIX
Digital Open3D for Digital UNIX media and documentation

Digital NAS Client 150 for Digital UNIX
Digital NAS Client 150 license is included with Digital UNIX systems. Media available on layered products CD-ROM.

OpenVMS Media and Documentation
OpenVMS V6.2 media and documentation on CD-ROM
OpenVMS V62-1H1 media and documentation on CD-ROM
OpenVMS Base hardcopy documentation
OpenVMS Full hardcopy documentation

OpenVMS Layered Products CD-ROM
Layered products media and documentation for OpenVMS on CD-ROM

Digital Open 3D for OpenVMS
Digital Open3D for OpenVMS media and documentation on CD

Digital NAS Client 150 for OpenVMS
Digital NAS Client 150 license is included with OpenVMS systems. Media available on layered products CD-ROM.

Media for Microsoft Windows NT
Windows NT Media Kit (CD-ROM)
Digital Light & Sound Pack (License and CD-ROM)

Support Services Software for Microsoft Windows NT
License for Graphics Support Services Software for Microsoft Windows NT
Graphics Services Software for Microsoft Windows NT, license, media (diskette), and documentation
Graphics Services Software for Microsoft Windows NT (documentation only)

Layered Software
Communique! Administrators Guide and documentation kit for Digital UNIX
Communique! Starter license for Digital UNIX
Communique! Starter kit for Digital UNIX and Windows NT (License and CD-ROM)

Section VII—AlphaStation Concurrent Use Licenses

Used on	200 4/100	200 4/166, 4/233	250 4/266	255/233 255/300	400 4/233	500/266 500/333	500/400	600 5/266 600 5/333
Processor Code	E	E	E	E	E	E	E	G
Digital UNIX Concurrent Use Licenses								
Note: Digital UNIX Concurrent Use Licenses are not specific to a single system and can be moved from one system to another at user discretion.								
QL-MT7AM-3B	Y	Y	Y	Y	Y	Y	Y	Y
QL-MT7AM-3C	Y	Y	Y	Y	Y	Y	Y	Y
QL-MT7AM-3D	Y	Y	Y	Y	Y	Y	Y	Y
QL-MT7AM-3E	Y	Y	Y	Y	Y	Y	Y	Y
QL-MT7AM-3F	Y	Y	Y	Y	Y	Y	Y	Y
QL-MT7A*-AA	* = E	* = E	* = E	* = E	* = E	* = E	* = E	* = G
QL-MT6AE-AA	Y	Y	Y	Y	Y	Y	Y	Y
QL-MT5AE-AA	Y	Y	Y	Y	Y	Y	Y	Y
OpenVMS Concurrent Use Licenses								
Note: OpenVMS Concurrent Use Licenses are not specific to a single system and can be moved from one system to another at user discretion and can be shared in a mixed OpenVMS VAX and OpenVMS Alpha cluster..								
QL-MT3AA-3B	Y	Y	Y	Y	Y	Y	Y	Y
QL-MT3AA-3C	Y	Y	Y	Y	Y	Y	Y	Y
QL-MT3AA-3D	Y	Y	Y	Y	Y	Y	Y	Y
QL-MT3AA-3E	Y	Y	Y	Y	Y	Y	Y	Y
QL-MT3AA-3F	Y	Y	Y	Y	Y	Y	Y	Y
QL-MT3AA-3G	Y	Y	Y	Y	Y	Y	Y	Y
QL-MT3AA-3H	Y	Y	Y	Y	Y	Y	Y	Y
QL-MT3AA-3J	Y	Y	Y	Y	Y	Y	Y	Y
QL-MT3AA-3K	Y	Y	Y	Y	Y	Y	Y	Y
QL-MT2A*-AA	* = E	* = E	* = E	* = E	* = E	* = E	* = E	* = G

Section VII—AlphaStation Concurrent Use Licenses

Digital UNIX Concurrent Use Licenses
Note: Digital UNIX Concurrent Use Licenses are not specific to a single system and can be moved from one system to another at user discretion.
Digital UNIX Concurrent Use 1-user license
Digital UNIX Concurrent Use 2-user license
Digital UNIX Concurrent Use 4-user license
Digital UNIX Concurrent Use 8-user license
Digital UNIX Concurrent Use 16-user license
Digital UNIX Traditional unlimited user license
Digital UNIX server extension license
Digital UNIX developer's extension license

OpenVMS Concurrent Use Licenses
Note: OpenVMS Concurrent Use Licenses are not specific to a single system and can be moved from one system to another at user discretion and can be shared in a mixed OpenVMS VAX and OpenVMS Alpha cluster..
OpenVMS Concurrent Use 1-user license
OpenVMS Concurrent Use 2-user license
OpenVMS Concurrent Use 4-user license
OpenVMS Concurrent Use 8-user license
OpenVMS Concurrent Use 16-user license
OpenVMS Concurrent Use 32-user license
OpenVMS Concurrent Use 64-user license
OpenVMS Concurrent Use 128-user license
OpenVMS Concurrent Use 256-user license
OpenVMS Traditional unlimited user license

Section VIII User Documentation

Used on	200 4/100	200 4/166, 4/233	250 4/266	255/233 255/300	400 4/233	500/266 500/333	500/400	600 5/266 600 5/333
User Documentation								
EK-PCDTA-UI	Y	Y	N	N	N	N	N	N
EK-PCDTA-UP	Y	Y	N	N	N	N	N	N
EK-PCDTA-UG	Y	Y	N	N	N	N	N	N
EK-PCDTA-UU	Y	Y	N	N	N	N	N	N
EK-PCDTA-US	Y	Y	N	N	N	N	N	N
EK-PCDTA-UH	Y	Y	N	N	N	N	N	N
EK-PCCTA-UI	N	N	N	N	Y	N	N	N
EK-PCDSA-TI	N	N	N	N	N	N	N	N
EK-PCDSA-UI	N	N	N	N	N	N	N	N
EK-PCDSA-CI	N	N	N	N	N	N	N	N
EK-PCDSP-UI	N	N	N	N	N	N	N	N
EK-PCDSP-CI	N	N	N	N	N	N	N	N
EK-PCDSG-UI	N	N	N	N	N	N	N	N
EK-PCDSG-CI	N	N	N	N	N	N	N	N
EK-PCDSI-UI	N	N	N	N	N	N	N	N
EK-PCDSI-CI	N	N	N	N	N	N	N	N
EK-PCDSS-UI	N	N	N	N	N	N	N	N
EK-PCDSS-CI	N	N	N	N	N	N	N	N
EK-PCDSH-UI	N	N	N	N	N	N	N	N
EK-PCDSH-CI	N	N	N	N	N	N	N	N
EK-PCDSY-UI	N	N	N	N	N	N	N	N
EK-PCDSY-CI	N	N	N	N	N	N	N	N
EK-AS800-UI	N	N	N	N	N	N	N	Y
EK-AS800-IN	N	N	N	N	N	N	N	Y
EK-VLLXA-UI	N	N	N	Y	N	N	N	N
EK-VLLXS-UI	N	N	N	Y	N	N	N	N
EK-VLLXF-UI	N	N	N	Y	N	N	N	N
EK-VLLXG-UI	N	N	N	Y	N	N	N	N
EK-VLLXI-UI	N	N	N	Y	N	N	N	N
EK-VLLXD-UI	N	N	N	Y	N	N	N	N
EK-VLLXJ-UI	N	N	N	Y	N	N	N	N
EK-VLLXA-TI	N	N	N	Y	N	N	N	N
EK-VLLXA-II	N	N	N	Y	N	N	N	N
AK-QUBKA-CA	N	N	N	Y	N	N	N	N
EK-A0864-UG	N	N	N	N	N	Y	Y	N
EK-A0865-UG	N	N	N	N	N	Y	Y	N
EK-A0866-UG	N	N	N	N	N	Y	Y	N
EK-A0867-UG	N	N	N	N	N	Y	Y	N
EK-A0868-UG	N	N	N	N	N	Y	Y	N
EK-A0869-UG	N	N	N	N	N	Y	Y	N
EK-ALPH5-UI	N	N	N	N	N	Y	Y	N

Section VIII User Documentation

User Documentation
User Documentation - English
User Documentation - French
User Documentation - German
User Documentation - Italian
User Documentation - Spanish
User Documentation - Dutch
User Documentation - English - Alpha Station 250 4/266
Technical Documentation
User Documentation - English
CPU Documentation - English
User Documentation - French
CPU Documentation - French
User Documentation - German
CPU Documentation - German
User Documentation - Italian
CPU Documentation - Italian
User Documentation - Spanish
CPU Documentation - Spanish
User Documentation - Dutch
CPU Documentation - Dutch
User Documentation - Japanese
CPU Documentation - Japanese
User Documentation - English
Installation Guide - English
AlphaStation 255 User Information - English
AlphaStation 255 User Information - Spanish
AlphaStation 255 User Information - French
AlphaStation 255 User Information - German
AlphaStation 255 User Information - Italian
AlphaStation 255 User Information - Dutch
AlphaStation 255 User Information - Japanese
AlphaStation 255 Technical Information
AlphaStation 255 Installation Information
AlphaStation 255 Service Guide Floppy
AlphaStation 500 Series User Information - German
AlphaStation 500 Series User Information - French
AlphaStation 500 Series User Information - Spanish
AlphaStation 500 Series User Information - Italian
AlphaStation 500 Series User Information - Dutch
AlphaStation 500 Series User Information - Japanese
AlphaStation 500 Series User Information - English

Section IX—AlphaStation Service Options

H/W Supplemental Services	200 4/100	200 4/166, 4/233	250 4/266	255/233 255/300	400 2/233
Year 2&3, 5x9, next day	FM-AFXHW-36	FM-AFXHW-36	FM-AFXHW-36	FM-AFXHW-36	FM-ACXHW-36
Year 1-3, 5x9, 4 hour	FM-AF4HR-36	FM-AF4HR-36	FM-AF4HR-36	FM-AF4HR-36	FM-AC4HR-36
Year 1-3, 5x12, 4 hour	FM-AF512-36	FM-AF512-36	FM-AF512-36	FM-AF512-36	FM-AC512-36
Year 1-3, 6x16, 4 hour	FM-AF616-36	FM-AF616-36	FM-AF616-36	FM-AF616-36	FM-AC616-36
Year 1-3, 7x24, 4 hour	FM-AF724-36	FM-AF724-36	FM-AF724-36	FM-AF724-36	FM-AC724-36
Year 2-4, 5x9, next day	FM-AFXHW-48	FM-AFXHW-48	FM-AFXHW-48	FM-AFXHW-48	FM-ACXH2-48
Year 1-4, 5x9, 4 hour	FM-AF4HR-48	FM-AF4HR-48	FM-AF4HR-48	FM-AF4HR-48	FM-AC4HR-48
Year 1-4, 5x12, 4 hour	FM-AF512-48	FM-AF512-48	FM-AF512-48	FM-AF512-48	FM-AC512-48
Year 1-4, 6x16, 4 hour	FM-AF616-48	FM-AF616-48	FM-AF616-48	FM-AF616-48	FM-AC616-48
Year 1-4, 7x24, 4 hour	FM-AF724-48	FM-AF724-48	FM-AF724-48	FM-AF724-48	FM-AC724-48
Year 2-5, 5x9, next day on site	FM-AFXHW-60	FM-AFXHW-60	FM-AFXHW-60	FM-AFXHW-60	FM-ACHXW-60
Year 1-5, 5x9, 4 hour	FM-AF4HR-60	FM-AF4HR-60	FM-AF4HR-60	FM-AF4HR-60	FM-AC4HR-60
Year 1-5, 5x12, 4 hour	FM-AF512-60	FM-AF512-60	FM-AF512-60	FM-AF512-60	FM-AC512-60
Year 1-5, 6x16, 4 hour	FM-AF616-60	FM-AF616-60	FM-AF616-60	FM-AF616-60	FM-AC616-60
Year 1-5, 7x24, 4 hour	FM-AF724-60	FM-AF724-60	FM-AF724-60	FM-AF724-60	FM-AC724-60

S/W Supplemental Services					
12-month - Digital UNIX	FM-A4OSF-12	FM-A2OSF-12	FM-M3OSF-12	FM-M3OSF-12	FM-A4OSF-12
OpenVMS	FM-A4VMS-12	FM-A2VMS-12	FM-M3VMS-12	FM-M3VMS-12	FM-A4VMS-12
Windows NT	FM-A4NTS-12	FM-A2NTS-12	FM-M3NTS-12	FM-M3NTS-12	FM-A4NTS-12
36-month - Digital UNIX	FM-A4OSF-36	FM-A2OSF-36	FM-M3OSF-36	FM-M3OSF-36	FM-A4OSF-36
OpenVMS	FM-A4VMS-36	FM-A2VMS-36	FM-M3VMS-36	FM-M3VMS-36	FM-A4VMS-36
Windows NT	FM-A4NTS-36	FM-A2NTS-36	FM-M3NTS-36	FM-M3NTS-36	FM-A4NTS-12
60-month - Digital UNIX	FM-A4OSF-60	FM-A2OSF-60	FM-M3OSF-60	FM-M3OSF-60	FM-A4OSF-60
OpenVMS	FM-A4VMS-60	FM-A2VMS-60	FM-M3VMS-60	FM-M3VMS-60	FM-A4VMS-60
Windows NT	FM-A4NTS-60	FM-A2NTS-60	FM-M3NTS-60	FM-M3NTS-60	FM-A4NTS-60

Monitor Supplemental Services					
Year 2&3, 5x9, next day	FM-MNXHW-36	FM-MNXHW-36	FM-MNXHW-36	FM-MNXHW-36	FM-MNXHW-36
Year 1-3, 5x9, 4 hour	FM-MN4HR-36	FM-MN4HR-36	FM-MN4HR-36	FM-MN4HR-36	FM-MN4HR-36
Year 1-3, 5x12, 4 hour	FM-MN512-36	FM-MN512-36	FM-MN512-36	FM-MN512-36	FM-MN512-36
Year 1-3, 6x16, 4 hour	FM-MN616-36	FM-MN616-36	FM-MN616-36	FM-MN616-36	FM-MN616-36
Year 1-3, 7x24, 4 hour	FM-MN724-36	FM-MN724-36	FM-MN724-36	FM-MN724-36	FM-MN724-36

Warranty Attributes

The above extended coverage offerings can be purchased at any time during the warranty duration. Supplemental Service commencement date is the same as warranty commencement date.

Digital honors the warranty worldwide where Digital maintains a direct service presence. For orders placed with ultimate destination in a country where Digital has an indirect presence, warranty is not available except with the express written consent of the country distributor, and when Digital provides parts, parts replacement and training. Contact Digital Services for additional Warranty information.

AlphaStations are covered by a three (3) year warranty

- One (1) year hardware service 8am - 5pm, Monday through Friday, next business day response.
- Years two (2) and three (3) Return-To-Digital support for hardware.
- Ninety (90) days software advisory level telephone support, 8am-5pm, Monday through Friday, for Digital UNIX, OpenVMS, Multimedia Services (MMS), Open 3D, and NAS purchased and shipped with the hardware.
- In the case of distributor shipments to end users, Digital AlphaStation options integrated with the base hardware system, including graphics, storage disks, keyboards and mouse will be covered by the three (3) year warranty.
- Monitor are covered by a 3-year Customer Returnable Unit (CRU) warranty.

Section IX—AlphaStation Service Options

500/266, 500/333 500/400		600 5/266 600 5/333	**Hardware Supplemental Services**
FM-AF4HR-36		FM-PBXHW-36	Years 2 and 3, 5 x 9, next day response time
FM-AFXHW-36		FM-PB4HR-36	Years 1 to 3, 5 x 9, 4 hour response time
FM-AF512-36		FM-PB512-36	Years 1 to 3, 5 x 12, 4 hour Response time
FM-AF616-36		FM-PB616-36	Years 1 to 3, 6 x 16, 4 hour response time
FM-AF724-36		FM-PB724-36	Years 1 to 3, 7 x 24, 4 hour response time
FM-AFXHW-48		FM-PBXHW-48	Years 2 to 4, 5 x 9, next day response time
FM-AF4HR-48		FM-PB4HR-48	Years 1 to 4, 5 x 9, 4 hour response time
FM-AF512-48		FM-PB512-48	Years 1 to 4, 5 x 12, 4 hour Response time
FM-AF616-48		FM-PB616-48	Years 1 to 4, 6 x 16, 4 hour response time
FM-AF724-48		FM-PB724-48	Years 1 to 4, 7 x 24, 4 hour response time
FM-AFXHW-60		FM-PBXHW-60	Year 2-5, 5x9, next day on site
FM-AF4HR-60		FM-PB4HR-60	Years 1 to 5, 5 x 9, 4 hour response time
FM-AF512-60		FM-PB512-60	Years 1 to 5, 5 x 12, 4 hour response time
FM-AF616-60		FM-PB616-60	Years 1 to 5, 6 x 16, 4 hour response time
FM-AF724-60		FM-PB724-60	Years 1 to 5, 7 x 24, 4 hour response time

500/266, 500/333 500/400		600 5/266, 5/333	**Software Supplemental Services**
FM-M3OSF-12 FM-M3VMS-12 FM-M3NTS-12		FM-PB6UX-12 FM-PB6VM-12 FM-PB6NT-12	12 Month Software Supplemental Support Services
FM-M3OSF-36 FM-M3VMS-36 FM-M3NTS-36		FM-PB6UX-36 FM-PB6VM-36 FM-PB6NT-36	36 Month Software Supplemental Support Services
FM-M3OSF-60 FM-M3VMS-60 FM-M3NTS-36		FM-PB6UX-60 FM-PB6VM-60 FM-PB6NT-60	60 Month Software Supplemental Support Services

500/266, 500/333 500/400		600 5/266	**Monitor Supplemental Services**
FM-MNXHW-36		FM-MNXHW-36	Years 2 and 3, 5 x 9, next day response time
FM-MN4HR-36		FM-MN4HR-36	Years 1 to 3, 5 x 9, 4 hour response time
FM-MN512-36		FM-MN512-36	Years 1 to 3, 5 x 12, 4 hour response time
FM-MN616-36		FM-MN616-36	Years 1 to 3, 6 x 16, 4 hour response time
FM-MN724-36		FM-MN724-36	Years 1 to 3, 7 x 24, 4 hour response time