DIGITAL Ultimate Workstation 533a^2/533au^2
V2.1—12 November 1997
DIGITAL Systems and Options Catalog

Product Description

DIGITAL Ultimate Workstation 533a^2/533au^2 is an Alpha based workstation available with dual 533 MHz EV56 Alpha processors and with 4MB ECC cache. The workstation is available in a pedestal with a choice of Microsoft Windows Windows NT and DIGITAL UNIX.

DIGITAL Ultimate Workstation 533a^2/533au^2 CPU performance measures 16.6 SPECint95 (single) and 30.5 SPECfp95 (Dual).

The system pedestal enclosure supports up to 2 GB of memory, six I/O slots (five PCI and one PCI/ISA), and ten internal storage slots, including a floppy diskette drive, a CD-ROM drive, and one additional 5.25-inch removable media slot. Other standard features include supports for up to 30.1 GB of internal storage with seven 4.3 GB disks, Twisted Pair Ethernet, and external ports for serial/parallel communication options.

DIGITAL Ultimate Workstation 533a2/533au2 systems come with the best hardware warranty in the industry – a three year warranty with 1 year on site, and 2 years return to factory.

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Step 1—DIGITAL Ultimate Workstation 533a²/533au²

- Windows NT Packaged systems include Windows NT license, media (CD-ROM) kit North American English
- DIGITAL UNIX Packaged systems include factory installed (FIS) software on hard disk drive.
- Minimum supported operating systems are:
  - DIGITAL UNIX V4.0B
  - Windows NT 4.0, with Service Release and Service Pack
- Options ordered that are factory installable, will be factory installed unless specified as **spares.**

Pedestal Systems include

- Dual Alpha microprocessor 21164
  - 533-MHz CPU with 4 MB ECC onboard cache
- Wide Pedestal enclosure with:
  - 6 expansion slots:
    Five PCI and one PCI/ISA combination
    Integrated Fast Narrow Single-Ended (supports internal removable media, CD-ROM and tapes **only**)
  - 16 DIMM memory slots support 8 memory options
  - 10 storage slots:
    One diskette drive slot
    One CD-ROM drive slot
    One additional removable media slot
    Seven StorageWorks wide and/or narrow hard drive slots
  - Two 420 Watt (120/240V, 60/50Hz) power supplies
  - Two serial ports, support full duplex asynchronous modem control
  - One bi-directional enhanced parallel port
  - PS/2 style keyboard port and mouse port
- 1.44 MB diskette drive in dedicated slot
- KZPBA-CA One-port Fast Wide Single-Ended (FWSE) UltraSCSI adapter—uses one PCI slot. Supports internal hard disk drives.
- DE500 PCI-based Fast 100 Ethernet (Twisted Pair)—uses one PCI slot
- 600 MB CD-ROM—uses one removable media slot
- One wide hard disk drive, see below
- Minimum 512 MB memory with up to 2 GB available
- 3-button mouse
- Three 120V power cords. Mandatory selection of country-specific power cords for all non-North American variants, see Step 8.
- 101-key, PC style U.S. English keyboard. See Step 8 for country-specific keyboards.
- English language documentation.
- Hardware Warranty: 1-year on-site, 2 years return to factory
- Software Warranty:*
  - 90-day SPD conformance with advisory telephone support for DIGITAL UNIX
  - Warranty on Microsoft's Windows NT 4.0 in conformance to the written material accompanying the software for a period of ninety days
- Windows NT Workstation 4.0 1 to 2 CPU license, media (CD-ROM) kit **or**
- DIGITAL UNIX 2 User license

***** Service upgrades are available; see Step 9, Hardware and Software Supplemental Services

DIGITAL Ultimate Workstation 533a²—Windows NT Packaged System

- Windows NT Language Configuration English only**:**
  - Include pre-installed Windows NT 4.0, 1 to 2 CPU license/North American English media (CD-ROM) kit.
- Selection of graphics option is **mandatory** all systems
- Video monitor is **required** for system management; order separately.

Note: Windows NT Pedestal Packaged systems have **four** available PCI slots. Installation of graphics option is mandatory and reduces available PCI slots to **three.**

Order Number	O/S Media	CPU	Power Cord	Keyboard	Memory	Disk	Graphics	Monitor
SN-PBF5W-VA	Included	Dual 533	120 V	Included	512 MB	4.3 GB	Mandatory	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 1—DIGITAL Ultimate Workstation 533a²/533au² *(continued)*

DIGITAL Ultimate Workstation 533au²—DIGITAL UNIX Packaged System

Systems include pre-installed DIGITAL UNIX, Base license, 2 User license. Order media and documentation separately.

Note: DIGITAL UNIX Pedestal Packaged systems have **four** available PCI slots. Installation of graphics option is recommended and reduces available PCI slots to **three.**

Order Number	O/S Media	CPU	Power Cord	Keyboard	Memory	Disk	Graphics	Monitor
SN-PBF5W-3A	DIGITAL UNIX	Dual 533	120 V	Included	512 MB	4.3 GB	Recommended	Recommended

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 two 256 MB memory kits. 2 ECC DIMMs per kit (bank).
- System supports up to eight memory kits (each kit includes 2 industry-standard ECC DIMMs).

MS300-BA	64 MB (32 MB DIMMs) memory kit
MS300-DA	256MB 70ns (128 MB DIMMs) memory kit

Step 3—Storage

- Pedestal enclosure supports ten storage devices: one dedicated diskette drive slot, two removable media slots, seven 3.5-inch internal hard disk drives.
- Systems include:
  - One 16-bit Fast Wide Single-Ended (FWSE) SCSI controller with SCSI cable to support up to seven 3.5-inch internal hard drives.
  - One CD-ROM drive and support for one additional removable device connected to integrated Fast Narrow Single-Ended (FNSE) SCSI-2 controller.

Note: 9.1GB disk drives are not supported in the wide pedestal.

Step 3a—Disk Drives

System supports up to six additional disk drives.

DS-RZ1BB-VW	2.1 GB 7200 RPM 16-bit UltraSCSI disk drive
DS-RZ1CC-VW	4.3 GB 7200 RPM 16-bit UltraSCSI disk drive

Step 3b—Removable Media

- Systems include CD-ROM drive in 5.25” drive slot connected to integrated FNSE SCSI-2 controller.
- System supports one additional removable media device. Optional 5.25” half-height removable media slot in Pedestal systems is connected to integrated FNSE SCSI-2 controller.

Tape Drive Supported in Pedestal Enclosure

PBXTL-DA	8.0 GB 5.25-inch x 1.6-inch SCSI 4 mm DAT drive (TLZ09)

Additional Tape Drives Supported

TLZ09-DB/VA	4/8 GB 4 mm SCSI DAT drive, 5.25-inch tape drive. Tabletop / StorageWorks snap in carrier
DS-TLZ10-DB/VA	12/24 GB 4 mm SCSI DAT drive. Tabletop / StorageWorks snap in carrier
TLZ9L-DB/VA	32/64 GB DAT loader. Tabletop / StorageWorks snap in carrier
TZ88N-TA	20/40 GB SCSI tabletop tape drive

Step 3c—Storage Works Shelves

UltraSCSI Configuration Rules

- UltraSCSI configurations require UltraSCSI components (controllers, adapters, shelves, disks, and cables).
- UltraSCSI adapters and RAID controllers support UltraSCSI disks at UltraSCSI speeds in UltraSCSI Top Gun Blue shelves (DS-BA356-xx).
- Fast-10 BA356-xx SCSI shelves may not be retrofitted. Replace Fast-10 SCSI shelf with DS-BA356-xx shelf when adding an UltraSCSI disk and when connecting to UltraSCSI adapter.
- UltraSCSI and Fast-10 drives can be mixed in DS-BA356 Top Gun Blue UltraSCSI shelf. Drives negotiate maximum transfer speeds with UltraSCSI adapter /controller.
- KZPAC ordered with systems will be factory reset to operate in UltraSCSI mode.
- KZPAC controllers ordered as spares ships in Fast-10 mode, but can run at UltraSCSI speeds by running RCU utility.

UltraSCSI Connectors and Cables

- KZPBA-CA PCI one port Fast Wide Single-Ended UltraSCSI adapters have HD68 connector and require BN38C cables (2 to 20 m) to connect to UltraSCSI shelf.
- KZPAC-AA/CA/CB RAID controllers have VHDCI connectors and require BN37A cables (.3 to 25 m) to connect to UltraSCSI shelf.

BN38C VHDCI to 68HD Cables—KZPBA UltraSCSI adapter to UltraSCSI shelf

BN38C-02	2 m VHDCI male to 68HD male
BN38C-03	3 m VHDCI male to 68HD male
BN38C-05	5 m VHDCI male to 68HD male
BN38C-10	10 m VHDCI male to 68HD male
BN38C-20	20 m VHDCI male to 68HD male

BN37A VHDCI to VHDCI Cables—KZPAC RAID controller to UltraSCSI shelf

BN37A-0C	0.3 m VHDCI male to VHDCI male
BN37A-0E	0.5 m VHDCI male to VHDCI male
BN37A-01	1.0 m VHDCI male to VHDCI male
BN37A-1E	1.5 m VHDCI male to VHDCI male
BN37A-02	2.0 m VHDCI male to VHDCI male
BN37A-2E	2.5 m VHDCI male to VHDCI male
BN37A-03	3.0 m VHDCI male to VHDCI male
BN37A-05	5.0 m VHDCI male to VHDCI male
BN37A-10	10.0 m VHDCI male to VHDCI male
BN37A-15	15.0 m VHDCI male to VHDCI male
BN37A-20	20.0 m VHDCI male to VHDCI male
BN37A-25	25.0 m VHDCI male to VHDCI male

DS-BA356 StorageWorks UltraSCSI Shelf Kits

The DS-BA36-xx is a “Top Gun Blue” shelf which provides UltraSCSI support for the 2.1GB and 4.3GB disk drives. The shelf is configured as a single-bus or as a split-bus configuration and includes the new personality module and a 180W power supply.

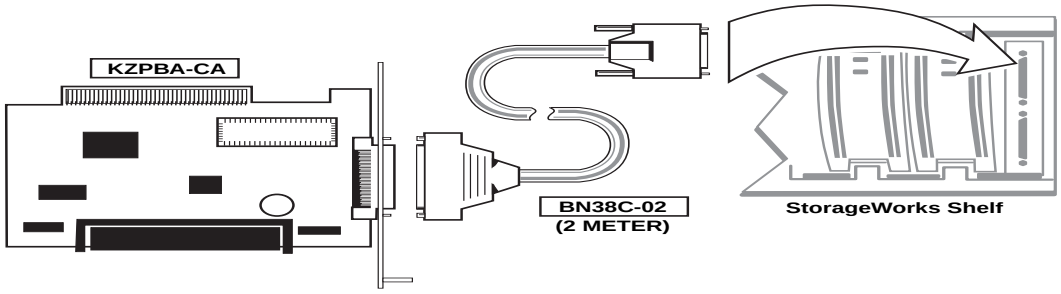
- Each BA356 shelf supports:
  - seven 3.5-inch hard disk drives or
  - one 5.25-inch device and four 3.5-inch hard disk drives or
  - two 5.25-inch devices and one 3.5-inch hard disk drive
- Installation of redundant power supply reduces number of 3.5-inch devices by one.

DS-BA356-KF	UltraSCSI single-ended pedestal, single-bus, personality module, 180W power supply
DS-BA35X-HH	180W power supply
DS-BA35X-FA	UltraSCSI personality module, single bus

Step 3d—Storage Controllers *(continued)*

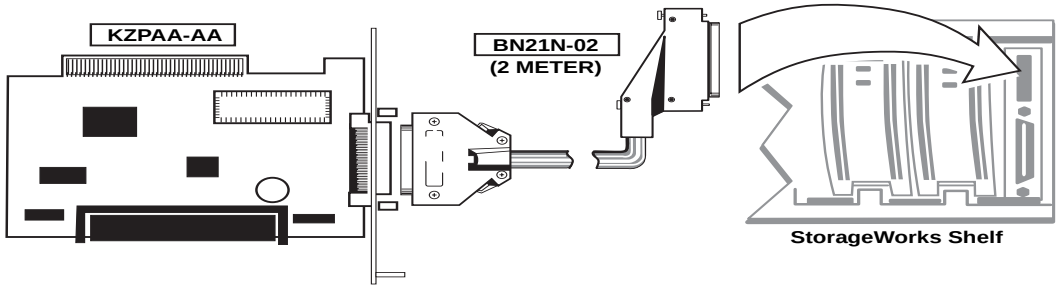
- Systems include KZPBA-CA PCI one-port FWSE UltraSCSI adapter.
- The following adapters and controllers can be configured in DIGITAL Ultimate Workstation 533 Systems.

		Maximum # Supported	
Order Number	**Description**	**Windows NT 4.0**	**DIGITAL UNIX V4.0B**
KZPBA-CA	**PCI one port UltraSCSI controller**	2	2
BN38C-02	2-meter SCSI cable, required for each StorageWorks shelf SCSI port attached to KZPBA controller.		



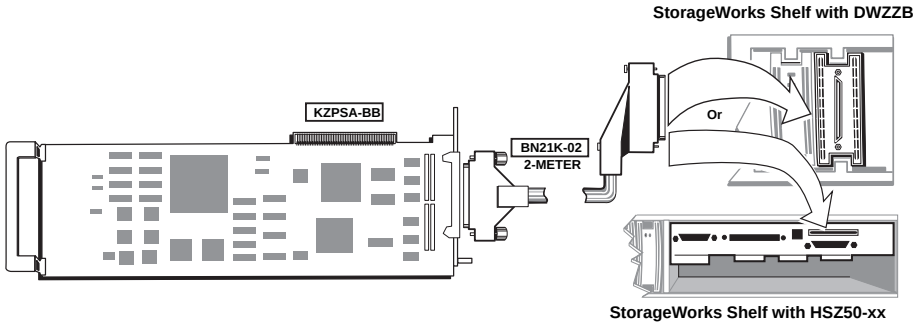
		Maximum # Supported	
Order Number	**Description**	**Windows NT 4.0**	**DIGITAL UNIX V4.0B**
KZPDA-AA	**PCI one port FWSE SCSI controller**	2	2
BN21K-02	2-meter SCSI cable, required for each StorageWorks shelf SCSI port attached to KZPDA controller. Note: 1 KZPDA per PCI bus.		

		Maximum # Supported	
Order Number	**Description**	**Windows NT 4.0**	**DIGITAL UNIX V4.0B**
KZPAA-AA	**PCI one port FNSE SCSI controller**	2	2
BN21N-02	2-meter 8-bit to 16-bit SCSI cable		

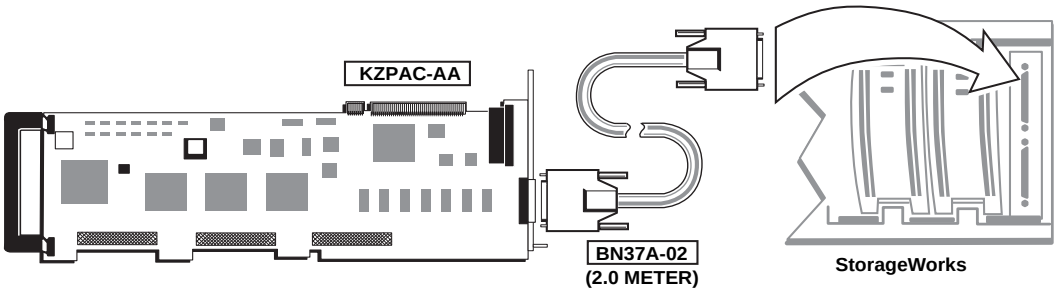


Step 3d—Storage Controllers *(continued)*

		Maximum # Supported	
Order Number	**Description**	**Windows NT 4.0**	**DIGITAL UNIX V4.0B**
KZPSA-BB	**PCI one-port FWD SCSI controller;** requires DWZZB-VW signal converter if connecting directly to StorageWorks shelf.	3	3
BN21K-02 **BN21K-03** **BN21K-05** **BN21K-10** **BN21K-15** **BN21K-20**	02-meter 16-bit SCSI cable (internal) 03-meter 16-bit SCSI cable (external) 05-meter 16-bit SCSI cable (external) 10-meter 16-bit SCSI cable (external) 15-meter 16-bit SCSI cable (external) 20-meter 16-bit SCSI cable (external)		



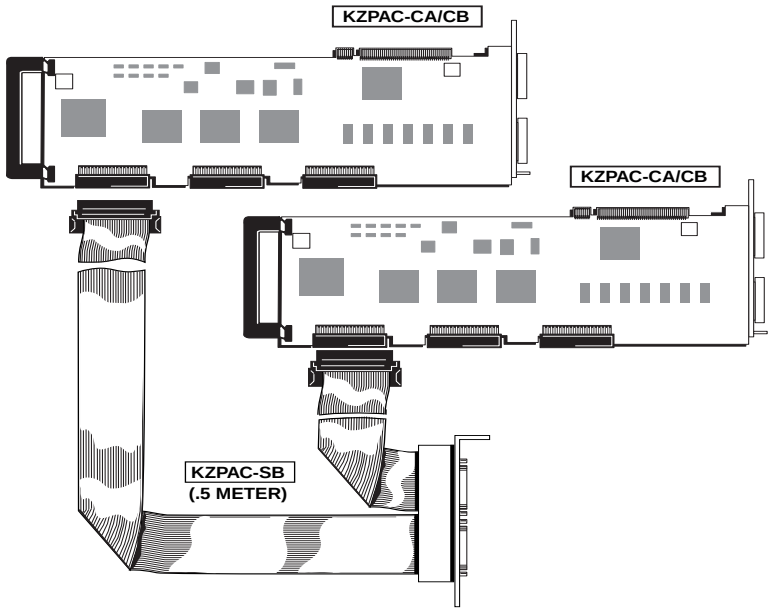
		Maximum # Supported	
Order Number	**Description**	**Windows NT 4.0**	**DIGITAL UNIX V4.0B**
KZPAC-AA	**PCI one-port FWSE SCSI RAID controller with 4 MB cache memory**; includes RAID Array 230/plus Subsystem software and documentation kit; tape drives not supported	3	3
KZPSC-UB	Cache battery-backup for KZPAC controller		
BN37A-02	02-meter UltraSCSI cable, VHDC1 connector, required for each UltraSCSI shelf attached to the KZPAC controller		



Step 3d—Storage Controllers *(continued)*

		Maximum # Supported	
Order Number	**Description**	**Windows NT 4.0**	**DIGITAL UNIX V4.0B**
KZPAC-CA	**PCI three-port RAID controller with 4 MB cache memory;** includes RAID Array 230/plus Subsystem Software and documentation kit; tape drives not supported; must order BN31S-1E cable for each active port. Order BN31K-0E or KZPAC-SB for third port connection.	2[1]	2[1]
KZPAC-CB	Same as KZPAC-CA with 8 MB cache memory	2[1]	2[1]
KZPSC-UB	Cache battery-backup for KZPAC controller		
BN31S-1E	1.5-meter SCSI cable, required for each StorageWorks shelf attached to KZPAC controller. **Note**: Manufacturing may substitute BN31S-02 cable for certain cabinet configurations.		
BN37A-1E	1.5-meter UltraSCSI cable, required for each StorageWorks shelf attached to KZPAC controller. **Note**: Manufacturing may substitute BN37A-02 cable for certain cabinet configurations.		
BN37A-02	02-meter UltraSCSI cable		
KZPAC-SB	SCSI cable/bulkhead assembly kit with two ports for KZPAC-CA/CB, allows connection of 2 third-port outputs using one PCI bulkhead slot		

1. KZPAC-SB two port SCSI cable/bulkhead assembly kit is required for third-port connection. Windows NT systems have three available PCI slots after installation of mandatory graphics option. Graphics option is recommended for DIGITAL UNIX systems. Three remaining slots support two KZPAC three-port controllers with KZPAC-SB two port SCSI cable/bulkhead assembly kit.



Step 4—Graphics Adapters

- Graphics adapter is **mandatory** for Windows NT systems
- Graphics Adapter is recommended for DIGITAL UNIX systems.
- Graphics adapter must be installed in PCI slot 0. Graphics adapters that requires two PCI slots must be installed in PCI slots 0 and 1.
- Windows NT systems do **not** support multi-head graphics until release of Microsoft Windows NT 5.0
  - Windows NT graphics options include Graphics Support Services Software license, media and documentation.
  - Selection of one graphics adapter is mandatory.
- DIGITAL UNIX systems support multi-head graphics in the following combinations:
  - Up to two PowerStorm 3D30 options, **or**
  - Up to two PowerStorm 4D20 options, **or**
  - Up to one PowerStorm 3D30 and one PowerStorm 4D20 options, **or**
  - Two PowerStorm 4D50T, **or** two PowerStorm 4D60T Each 4D50T or 4D60T option must include the identical amount of textured memory PowerStorm 4D50T and PowerStorm 4D60T options **cannot** be mixed with any other graphics option.
  - Graphics options require DIGITAL Open3D media, included in factory installed software (FIS).

Windows NT	DIGITAL UNIX	Graphics Options	PCI Slot(s)
PBXGB-AA	**PBXGB-AA**	PowerStorm 3D30, requires one PCI slot	PCI slot 0
PBXGB-CA	**PBXGB-CA**	PowerStorm 4D20, requires one PCI slot	PCI slot 0
PBXGI-AB	**PBXGI-AB**	PowerStorm 4D50T, requires two PCI slots	PCI slot 0 and 1
PBXGI-AC	**PBXGI-AC**	PowerStorm 4D60T (includes 16MB texture memory) , requires two PCI slots	PCI slot 0 and 1

Graphics Memory Upgrades

PowerStorm Texture Memory Upgrades are supported on PowerStorm 4D50T and 4D60T graphics options **only**.

PBXGI-GA	4 MB Texture memory
PBXGI-GB	16 MB Texture memory
PBXGI-GC	32 MB Texture memory

Step 5—Networks and Communications

- Base systems include DE500 PCI 10/100-Mbit Ethernet controller—uses one PCI slot.
- Numbers indicate the maximum number of options tested for each operating system. Check available PCI slot for maximum allowable options.

Order Number	Description	Windows NT 4.0	DIGITAL UNIX V4.0B
DE500-BA	PCI 10/100-Mbit Fast Ethernet controller (Twisted Pair)	3	3
BN25G-03 **BN25G-04** **BN25G-07**	3-meter (9.8 ft.) cable for 10BaseT Twisted Pair connection 4-meter (13.1 ft.) cable for 10BaseT Twisted Pair connection 7-meter (22.3 ft.) cable for 10BaseT Twisted Pair connection		

Order Number	Description	Windows NT 4.0	DIGITAL UNIX V4.0B
DE450-CA	PCI 10-Mbit Ethernet controller; AUI, 10BaseT, or 10Base2	3	3
BNE4C-02 **BNE4C-05**	2-meter cable for AUI connection, Ethernet/IEEE 802.3 devices 5-meter cable for AUI connection		
BN25G-03 **BN25G-04** **BN25G-07**	3-meter cable for 10BaseT Twisted Pair connection 4-meter cable for 10BaseT Twisted Pair connection 7-meter cable for 10BaseT Twisted Pair connection		
BC16M-06 **BC16M-15** **BC16M-30**	6-ft cable for 10Base2 ThinWire connection 15-ft cable for 10Base2 ThinWire connection 30-ft cable for 10Base2 ThinWire connection		

Step 5—Networks and Communications *(continued)*

Order Number	Description	Windows NT 4.0	DIGITAL UNIX V4.0B
DEFPA-AB	PCI to FDDI Adapter, single attachment station (SAS), multi-mode fiber (MMF), SC connector	3	3
DEFPA-DB	PCI to FDDI Adapter, DAS, MMF, SC connector	3	3
BN34D-03	3-meter MIC-SC dual fiber optic cable		
BN34D-10	10-meter MIC-SC dual fiber optic cable		
BN34B-03	3-meter SC to SC dual fiber optic cable		
BN34B-10	10-meter SC to SC dual fiber optic cable		
BN34B-20	20-meter SC to SC dual fiber optic cable		
BN34B-30	30-meter SC to SC dual fiber optic cable		

Order Number	Description	Windows NT 4.0	DIGITAL UNIX V4.0B
DEFPA-UB	PCI to FDDI Adapter, SAS, TP-PMD, requires BN25H-03	3	3
DEFPA-MB	PCI to FDDI Dual Adapter, DAS, TP-PMD, requires BN25H-03	3	3
BN25H-03	3-meter FDDI crossover cable		

Order Number	Description	Windows NT 4.0	DIGITAL UNIX V4.0B
PBXNP-AA	PCI Token Ring adapter	N/A	1
BN25G-03	3-meter (9.8 ft.) cable		
BN25G-04	4-meter (13.1 ft.) cable		
BN25G-07	7-meter (22.3 ft.) cable		

Order Number	Description	Windows NT 4.0	DIGITAL UNIX V4.0B
DGLPB-AB	PCI ATMworks 350 bus adapter	N/A	4

Order Number	Description	Windows NT 4.0	DIGITAL UNIX V4.0B
CXI01-AA	ISA-based asynchronous multiport MUX 16 port XEM	1	1
CXI01-AD	ISA-based asynchronous multiport MUX 16 port EPC	1	1
CXI01-AB	ISA-based asynchronous multiport MUX expander XEM		
CXI01-AC	ISA-based asynchronous MUX cable converter (RJ45-DB25)		
CXI01-AE	ISA-based asynchronous multiport MUX expander EPC		
CXI01-AF	ISA-based asynchronous MUX adapter (RJ45-MJ11), 8 pack		

Step 6—Monitors

Windows NT systems require a graphics monitor to run **all** functions.

SN-VRTX7-WA/W3
SN-VRT17-W4
17" (16.0" viewable image size) Professional Series auto-scan color monitor, Trinitron CRT, 0.25 mm aperture grill pitch, VGA to 1280 x 1024 @ 75Hz, TCO 92, MPRII, Energy Star, HD15 male to male video cable. -WA = Northern Hemisphere with 120 V power cord, -W3 = Northern Hemisphere
without power cord, SN-VRT17-W4 = Southern Hemisphere. Select country specific power cord for W3 and W4 variant.

SN-VRCX1-WA/ W3/W4
21" (19.7" viewable image size) Professional series auto-scan color monitor, Diamondtron CRT, 0.28 mm aperture grill pitch, VGA to 1600 x 1200 @ 75 Hz, TCO 92, MPRII, Energy Star, HD15 male to male 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.

SN-PCXAV-AZ
24"(22.5" viewable image size) Professional series auto-scan color monitor, Trinitron CRT, 0.26-0.28MM variable dot pitch, VGA TO 1920 x 1200 @ 75Hz, TCO 95, MPRII, Energy Star, HD15 male to male video cable. Northern Hemisphere **only**. (**Note:** Requires PowerStorm 4D60T for monitor to operate at 1920 x 1080 @ 75Hz or 1920 x 1200 @ 65Hz resolution modes).

Step 7—Software

DIGITAL UNIX

- DIGITAL UNIX Packaged systems include Traditional two User license (QL-MT4AE-AA) that includes QL-0AFAE-AA Open3D U/A TRAD LIC
- DIGITAL UNIX Packaged systems **require** 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 hard copy documentation

DIGITAL UNIX Layered Products CD-ROM

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

Step 8—Keyboards, Power Cords and Documentation

Systems ordered in the Americas and AP include U.S./English keyboard, mouse and power cords.

Americas

SN-LK97W-A2	United States
SN-LK97W-AC	French Canada
SN-LK97W-AR	LACR-Spanish

Europe

SN-LK97W-AB	Belgium
SN-LK97W-AD	Denmark
SN-LK97W-AE	United Kingdom
SN-LK97W-AF	Finland
SN-LK97W-AG	Germany
SN-LK97W-AH	Netherlands
SN-LK97W-AI	Italy
SN-LK97W-AK	Switzerland
SN-LK97W-AF	Sweden
SN-LK97W-AN	Norway
SN-LK97W-AP	France
SN-LK97W-AS	Spain
SN-LK97W-AT	Israel
SN-LK97W-AV	Portugal
SN-LK97W-BH	Greece
SN-LK97W-BP	Poland
SN-LK97W-BQ	Hungary
SN-LK97W-BR	Arabic
SN-LK97W-BT	Cyrillic/Russian
SN-LK97W-BU	Turkey
SN-LK97W-BW	Turkey
SN-LK97W-BY	Serbia
SN-LK97W-CQ	Iceland
SN-LK97W-BV	Czech Republic
SN-LK97W-CZ	Slovak

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

Asia Pacific

SN-LK97W-AJ	Japan
SN-LK97W-BI	Taiwan
SN-LK97W-BK	South Korea
SN-LK97W-CB	Thailand

Pedestal and Monitor Power Cords

- North American variants include three BN26J-1K 120 V (North American, Japan) power cord. If an other power cord is selected, both power cords ship with system.

BN26J-1K	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	U.K., Ireland, 2.5 meters long
BN19E-2E	Switzerland, 2.5 meters long
BN19K-2E	Denmark, 2.5 meters long
BN19Z-2E	Italy, 2.5 meters long
BN19S-2E	Egypt, India, South Africa, 2.5 meters long
BN18L-2E	Israel, 2.5 meters long

Documentation: Customer and Service Kits

- All variants include (QZ-011AA-GZ) English customer kit documentation.
- Select Service Kit if required.

Customer Kit	Service Kit	
QZ-001AA-GZ	**QA-00MAB-GZ**	Customer and Service kit for DIGITAL Ultimate Workstation 533—English

Step 9—Hardware and Software Supplemental Services

Hardware—Americas and Asia Pacific only

- Systems include one-year hardware warranty, on-site with 5 x 9, next day on site response.
- Years two and three parts only
- Select optional Hardware Supplemental Support Services if required.

FM-AF*-**	36 month/60 month 5 x 9, 4-hour response time
FM-AF*-**	36 month/60 month 7 x 24, 4-hour response time
FM-AF*-**	36 month/60 month 5 x 9, next business day
FM-WSDSD-IN	Hardware installation support

Software—Americas and Asia Pacific only

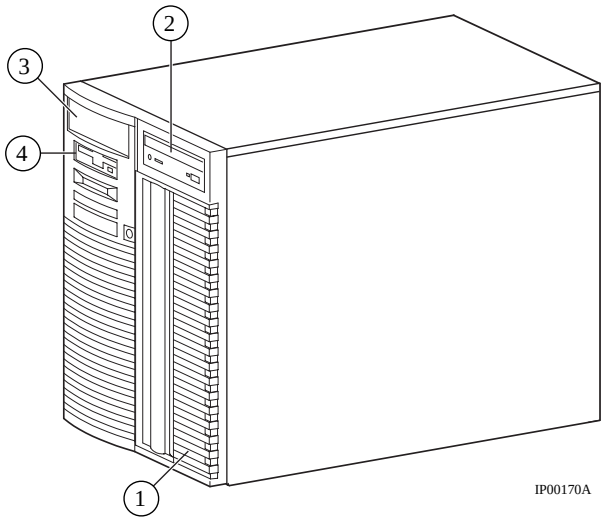
- DIGITAL UNIX Systems include 90-day Conformance to SPD and Telephone Advisory Support. Select optional Software Supplemental Support Services, if required.
- Software service upgrades for Windows NT include advisory and remedial software support for the time period indicated.
- Software service upgrades for DIGITAL UNIX include advisory and remedial software support with new version license rights for operating system for time period indicated.

FM-WNT03-**	12, 36, 60-month 5X9 help desk Support for **Windows NT**
FM-PBUNS-**	12, 36, 60-month 7X24 Software Supplemental Support for **DIGITAL UNIX**
FM-PBUNN-**	12, 36, 60-month System Node Service Software Supplemental Support for **DIGITAL UNIX**
FM-PBUN9-**	12, 36, 60-month 9 x 5 Full Service Support for **DIGITAL UNIX**

Step 9a—Hardware and Software Supplemental Support Services (Europe only)

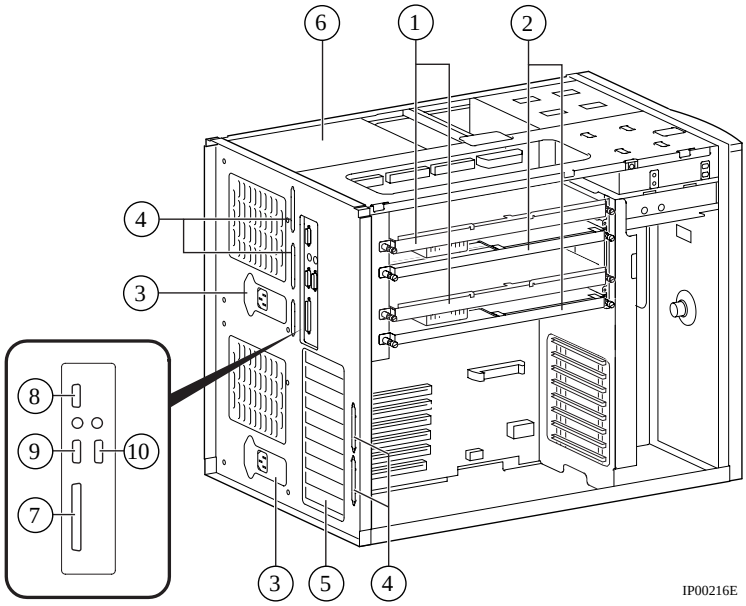
Europe does not have specific part numbers for Hardware and Software Supplemental Support Services. Prices are quoted based on world wide service reference pricing, contact MCS Sales in your country for information on Hardware and Software Supplemental Support Services.

DIGITAL Ultimate Workstation Front View



1. StorageWorks Shelf for hard disk drives
2. CD-ROM drive
3. Optional Removable media drive
4. Floppy diskette drive

DIGITAL Ultimate Workstation Side and Back View



1. CPU modules
2. Memory riser modules
3. Power inlet
4. SCSI ports
5. PCI/ISA bulkhead ports
6. Power supply
7. Parallel port
8. VGA port
9. COM2 port
10. COM1 port

DIGITAL Ultimate Workstation 533a²/533au² System Specifications

Shipping Dimension		
Height	60 cm (23.8 in.)	
Width	43 cm (16.9 in)	
Depth	65 cm (25.6 in)	
Weight	43 kg (95 lb) typical 71 kg (156 lb) maximum	
Installed Dimensions		
Height	46 cm (18.1 in.)	
Width	35.8 cm (14.1 in.)	
Depth	58.6 cm (23.1 in.)	
Weight	39 kg (86 lb) typical 51 kg (113 lb) maximum	
Clearances	**Operating**	**Service**
Front	75 cm (29.5 in.)	75 cm (29.5 in.)
Rear	15 cm (6 in.)	75 cm (29.5 in.)
Sides	None	75 cm (29.5 in.)
Environmental		
Temperature	Operating*	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)	39° C (115°F)
Minimum dew point temperature	Operating	12° C (36° F)
	Storage (60 days)	Not tested
Maximum heat dissipation Dual supply	Current 4097 Btu/hr	
Air flow and quality	Intake location	Front
	Exhaust location	Rear
	Particle size	N/A
	Concentration	N/A
Altitude	Operating†	2000 m (6562 ft)
	Nonoperating	3600 m (12,000 ft)
Mechanical shock	Operating	7.5 G 10 ms
	Nonoperating	20 G peak 30 ms
Vibration	Operating	10-500 Hz .1 G peak
Acoustics		Average Declared
	Operating	6.2 L^{wA}, B 6.5 L^{wAd}, B
	Idle	6.0 L^{wA}, B 6.3 L^{wAd}, B
Electrical—Power Supplies are universal 120/240 Vac		
Nominal ac voltage	100-120 Vac	220-240 Vac
Operating Voltage range	90-128 Vac	180-256 Vac
Power source phase	Single	Single
Nominal frequency	60 Hz	50 Hz
Frequency range	59-61 Hz	49-51 Hz
Maximum inrush current	50 Amps	50 Amps
RMS current at nominal voltage (steady state) Dual power supply	9.2 Amps	4.4 Amps
Power cord	Type	IEC 320 C13
	Length	190 cm (75 in.)
	U.S. plug	NEMA 5-15

* Maximum operating temperature at Sea Level. Reduce by 1 C (1.8 F) for each 600 m (2000 ft) above Sea Level.

† 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.

DIGITAL Ultimate Workstation 533a2/533au2 System Specifications*(continued)*

Regulatory	
Agency approvals	UL Listed to UL1950 (2nd edition) CSA Certified to CAN/CSA-C22.2 No. 950-M89 TUV EN 60950 VDE 0805 GS marked ZH1/618 FCC 15J Part 15 Class A Verified CE Class B Verified VCCI Class II ITE
Reviewed to	AS 3260 Australian Standard SS 436 14 50 Swedish Standard NZS 6661:1989 New Zealand Standard EN 60 950: 1992 European Norm IEC 950 (2nd edition)