Compaq Evo Workstation W8000

Illustrated Parts Map

COMPAQ

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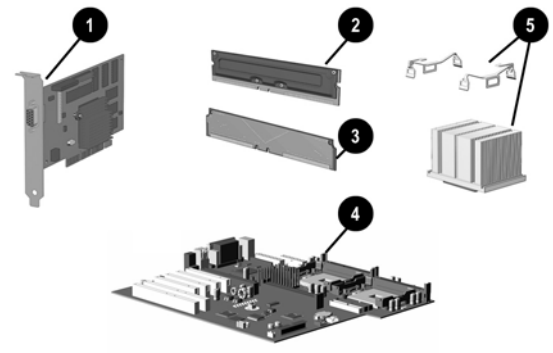
September 2002

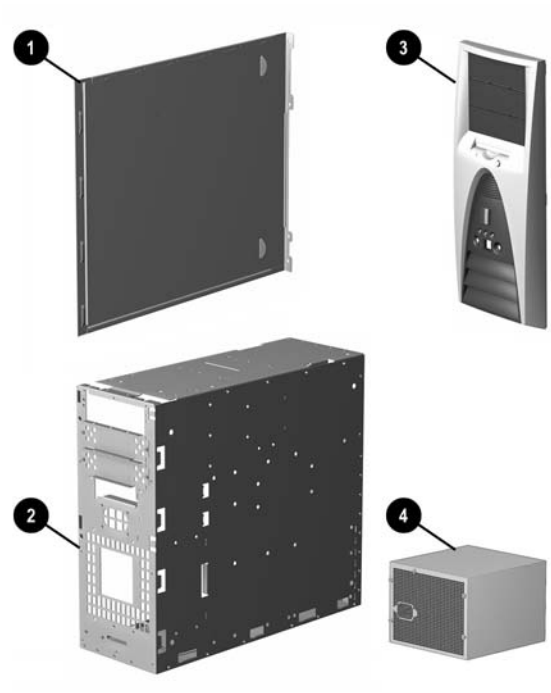
Part Number

229691-005

Spare Part Number

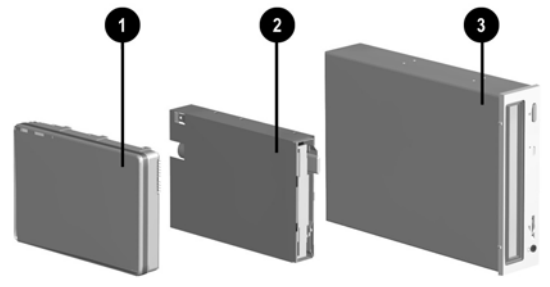
229782-001





System Unit

1	Access panel	Not spared
2	Chassis/basepan	Not spared
3	Front bezel assembly	239328-001
4	Power supply assembly, includes PFC power supply and power supply air baffle, dual voltage	202349-001
*	VRM, power supply	239327-001



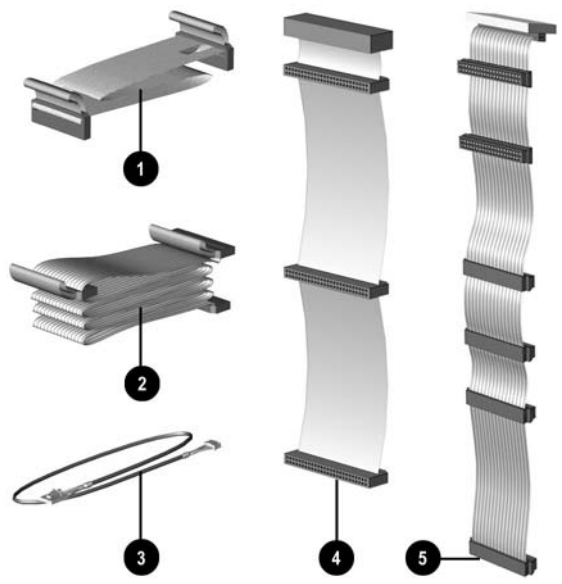
Mass Storage Devices

1	18.2-GB SCSI hard drive (10000 rpm)	229737-001
*	18.2-GB U3 SCSI hard drive (15000 rpm)	194585-001
*	36.2 GB U3 SCSI hard drive (10000 rpm)	192197-001
*	20-GB UATA hard drive (7200 rpm)	180475-001
*	80-GB UATA hard drive (7200 rpm)	250185-001
2	Diskette drive, 3.5-inch, buttonless, carbon	237180-001
3	48X CD-ROM drive	232320-001
*	Writeable CD drive, 12X/8X/32X, carbon	232315-001
*	Writeable CD drive, 32X/10X/40X, S2, carbon	283919-001
*	DVD-RAM, drive, 4.7-GB, carbon	232318-001
*	Zip drive, 250-MB, carbon	232317-001

**Not shown*

Documentation (not illustrated)

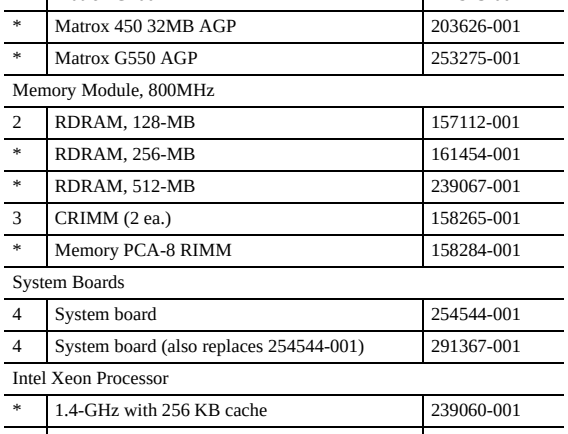
Illustrated Parts Map	229782-001
Maintenance and Service Guide	229781-001
Quick Troubleshooting Guide	153837-001



Cables

1	Diskette drive cable, 16”	239330-001
*	Diskette drive cable, 14.5”, w/o green tab	239329-001
2#	UATA dual connector, 18”, with pull tabs	239331-001
3	CD-ROM drive audio cable, 21”	149806-001
2#	UATA dual connector, 18”, without pull tabs	239064-001
2#	UATA dual connector, 18” , without pull tabs	225881-001
*#	UATA dual connector, 18”	224484-001
5	SCSI LVD twisted pair 5-device data cable, 51.75” lg (269157-003)	164412-001
5	SCSI Wide 5-device data cable, 46.5” lg (155825-002)	402222-001
*	Dual serial port cable	164536-001
*	G200 quad, analog cable 12” lg, 2 ea. (168754-001) with board retaining washer (for use with Matrox G200 MMS graphics board #171975-001)	171976-001
*	Cable kit, contains:	254551-001
*	G200 quad, analog cable 12” lg (168754-001)	
*	G200 quad, digital cable, 72” lg (168754-002)	
*	Power switch cable assembly, includes power switch and cable, with LEDs	301051-001

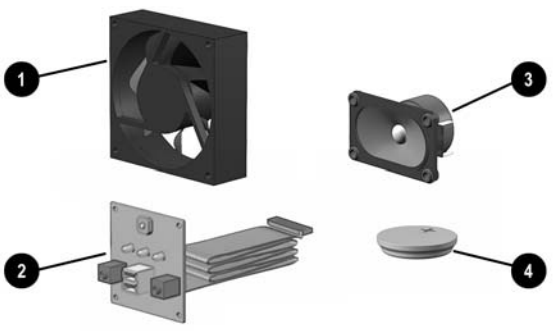
** Not shown*
 # Cables are interchangeable



Standard and Optional Boards

Graphics Controllers		
1	nVidia Quadro2 Pro, 64-MB	225829-001
*	nVidia Quadro2 MXR	221492-001
*	nVidia GeForce2 MX 400 2	309492-001
*	Matrox G200	171975-001
*	Matrox 450 32MB AGP	203626-001
*	Matrox G550 AGP	253275-001
Memory Module, 800MHz		
2	RDRAM, 128-MB	157112-001
*	RDRAM, 256-MB	161454-001
*	RDRAM, 512-MB	239067-001
3	CRIMM (2 ea.)	158265-001
*	Memory PCA-8 RIMM	158284-001
System Boards		
4	System board	254544-001
4	System board (also replaces 254544-001)	291367-001
Intel Xeon Processor		
*	1.4-GHz with 256 KB cache	239060-001
*	1.5-GHz with 256 KB cache	239061-001
*	1.7-GHz with 256 KB cache	239062-001
*	2.0-GHz with 256 KB cache	253072-001
*	1.8-GHz processor with 512 KB cache	278543-001
*	2.0-GHz processor with 512 KB cache	278544-001
*	2.2-GHz processor with 512 KB cache	278545-001
*	2.4-GHz processor with 512 KB cache	284645-001
*	2.6-GHz processor with 512 KB cache	303015-001
*	2.8-GHz processor with 512 KB cache	307548-001
5*	Heatsink, with thermal grease (also replaces 239111-001)	255354-001
*	Heatsink with thermal grease (2.0 GHz and above)	284440-001
Other Boards		
*	PCI board, USB connector (NA only)	291001-001
*	PCI board, USB connector (Rest of world)	300866-001
*	8-RIMM Memory Expansion Board	230314-001
*	3COM 10/100 3C905C-TX NIC	118042-001

**Not shown*
#Requires 1.15 or later system BIOS to recognize the cache.



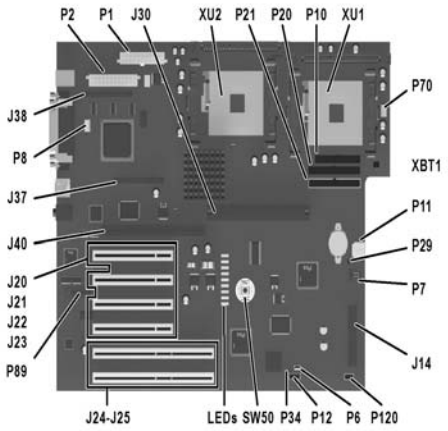
Miscellaneous Parts

1	92-mm fan (front fan)	158275-001
*	92-mm fan (air plenum fan)	239332-001
*	92-mm fan (rear fan)	166922-001
2	Front power button, LED, I/O board	226982-001
3	Speaker (40mm x 70mm)	180809-001
4	Battery	153099-001
*	Drive cage with thumbscrews	338557-001
*	Mouse, 3-button, carbon	232616-001
*	Mouse, carbon	165000-001
*	Main air baffle	239334-001
*	Shipping box	244889-001

**Not shown*

Keyboards (not illustrated)

Easy Access Keyboard		**164996-xxx**	
US	-001	French Canadian	-121
UK	-031	LA Spanish	-161
German	-041	Japanese	-191
French	-051	PRC	-AA1
Italian	-061	Taiwanese	-AB1
Spanish	-071	Korean (Hanguel)	-AD1
Swiss	-111	International	-B31



Connectors and Jumpers

E1	Bus Parking Disable Header	P10	Diskette Drive Connector
J2	VRM Socket B	P11	Auxiliary Audio-in Connector
J14	Front I/O Board Connector	P12	Alert-On-LAN (AOL) Connector
J19	VRM Socket A	P20	Primary Ultra ATA Connector
J20-23	Four 32-bit, 33-MHz PCI Sockets	P21	Secondary Ultra ATA Connector
J24-25	64-Bit, 66-MHz PCI Sockets	P29	SCSI Led Connector
J30	Memory expansion board socket	P34	Boot Block Protection Disable Header
J37	Ultra 160 SCSI Connector (Channel A)	P49	Power-On Password Enable Jumper
J38	Ultra 160 SCSI Connector (Channel B)	P70	Processor Fan Connector
J40	1.5V AGP Pro Socket	P89	Serial Port Connector
LEDs	Troubleshooting LEDs	P120	Front Fan Connector
P1	24-Pin Power Supply Connector	SW50	Clear CMOS button
P2	22-Pin Power Supply Connector	XBT1	Battery
P6	Front Speaker Connector	XU1	Primary Processor Socket
P7	Audio Connector	XU2	Secondary Processor Socket
P8	Rear Fan Connector		

System Hardware Interrupts (PIC Mode)

IRQ	System Function	IRQ	System Function
0	Timer Interrupt	8	System CMOS/Real-Time Clock
1	Keyboard	9	Unused
2	Unused	10	Video controller Intel 8255-based embedded NIC
3	Serial Port (COM 2)	11	Adaptec AIC-7892 embedded SCSI channel 1 Standard USB controller 1
4	Serial Port (COM 1)	12	Mouse
5	Adaptec AIC-7899 embedded SCSI channel 1 Creative ES1371/1373 embedded audio Standard USB controller 2	13	Numeric Data Processor
6	Diskette Drive	14	Primary ATA (IDE) Controller
7	Parallel Port (LPT 1)	15	Secondary ATA (IDE) Controller

System Hardware Interrupts (IO APIC Mode)

IRQ	System Function	IRQ	System Function
0	System Timer	12	Mouse
1	Keyboard	13	Numeric Data Processor
2	Unused	14	Primary IDE Controller
3	Serial Port (COM 2)	15	Secondary IDE Controller
4	Serial Port (COM 1)	16	Adaptec AIC-7899 embedded SCSI channel 2
5	Unused	17	Intel 8255-based embedded NIC
6	Diskette Drive	18	Video controller
7	Parallel Port (LPT 1)	19	Standard USB controller 2
8	System CMOS/Real-Time Clock	20	Creative ES1371/1373 embedded audio
9	ACPI-compliant system	21	Unused
10	Unused	22	Adaptec AIC-7899 embedded SCSI channel 1
11	Unused	23	Standard USB controller 1

Computer LEDs (On front of computer)

LED	Color	LED Activity	State/Message
Power	Green	On	(S0) Computer on
Power	Green	1 blink every 1 second	(S1) Normal Suspend Mode
Power	Green	1 blink every 2 seconds	(S3) Suspend to RAM
Power	Green	1 blink every 4 seconds	(S4) Suspend to Disk (if applicable)
Power	Clear	Off	(S5) Computer off
Power	Red	2 blinks 1 second apart, followed by 2-second pause - Repeat	CPU thermal shutdown
Power	Red	On	CPU not installed
Power	Red	1 blink every 1 second	ROM error
Power	Red	1 blink every 2 seconds	Power supply crow bar
Hard Drive	Green	Blinking	Hard drive activity

ROM BIOS

Current ROM BIOS is 686P6, ver 01.21 dated 5-21-02

Keyboard Diagnostic LEDs

LED	Color	LED Activity	State/Message
Num Lock	Green	Flashing (Beeps - 1S, 2L)	Memory error
Caps Lock	Green	Flashing (Beeps - 1L, 2S)	No video
Scroll Lock	Green	Flashing (Beeps - 2L, 1S)	System board failure, prior to video
Num, Caps, Scroll Lock	Green	Flash On-Off 2 times (Beeps - 1L, 3S)	Invalid system ROM detected. ROM forces reflash.
Num, Caps, Scroll Lock	Green	On (Rising Tone)	ROM reflashed successfully
Num Lock	Green	On	ROMPaq diskette not present, is bad, or drive not ready.*
Caps Lock	Green	On	Enter password.
Num, Caps, Scroll Lock	Green	Blink On in sequence, one at a time - N, C, SL	Keyboard locked in network mode

** Insert valid ROMPaq diskette in drive A. Turn power switch off, then on to reflash ROM. If ROM flash is successful, all three keyboard LEDs will light up, and you will hear a rising tone series of beeps. Remove diskette and turn power off, then on to restart the computer. For more information about flashing the ROM, refer to the Troubleshooting guide.*

System Board Diagnostic Lights[1]

Main Power Switch Status	3.3 V_Aux LED	5 V_Aux/PSON LED	Power Button LED
OFF[2]	ON	ON[4]	OFF
ON[3]	ON	OFF[5]	ON

1. ON and OFF state of LEDs apply only to a good, working system board with AC power applied to the power supply.
2. Power LED on front of computer is OFF.
3. Power LED on front of computer is ON (Green).
4. 5V_Aux is ON.
5. PSON is active = power supply is turned ON.

Integrated Network Interface (NIC) Diagnostic Lights (on back of computer)*

LED Color on RJ-45 Connector	LED Activity	State/Message
Green	ON	Network link
Green	Flashing	Network activity
Amber	ON	100 Mb Connection
Amber	OFF	10 Mb Connection

**Applies only to NICs that are an integral part of the system board.*

Computer Setup (F10) Utility Features (not all features may be available)

File	System Information About Set Time and date Save to Diskette Restore From Diskette Set defaults and Exit Ignore Changes and Exit Save Changes and Exit
Storage	Device Configuration Options IDE DPS Self-Test Controller Order SCSI Narrow Termination Boot Order
Security	Setup Password Power-On Password Password Options Smart Cover Smart Sensor DriveLock Master Boot Record Security Save Master Boot Record Restore Master Boot Record Device Security Network Service Boot System IDs
Power	Energy Saver Timeouts Energy Saver Options
Advanced	Power-On Options Onboard devices PCI Devices Bus Options Devise Options PCI VGA Configuration

Note: See Computer Setup (F10) Utility Guide on the Documentation Library CD.

Clearing CMOS

The computer's configuration (CMOS) may occasionally be corrupted. If it does, it is necessary to clear the CMOS memory using switch SW50.

To clear and reset the configuration, perform the following procedure:

1. Prepare the computer for disassembly.

CAUTION: The power cord must be disconnected from the power source before pushing the Clear CMOS Button (NOTE: All LEDs on the board should be OFF). Failure to do so may damage the system board

2. Remove the access panel.
3. Press the CMOS button located on the system board and keep it depressed for 5 seconds.
4. Replace the access panel.
5. Turn the computer on.
6. Run F10 Computer Setup (delete-utility) to reconfigure the system.

Disabling or Clearing the Power-On and Setup Passwords

1. Turn off the computer and any external devices, and disconnect the power cord from the power outlet.
2. Remove the access panel.
3. Locate the header and jumper labeled P49.
4. Remove the jumper from pins 1 and 2. Place the jumper over pin 2 only, in order to avoid losing it.
5. Replace the access panel.
6. Reconnect the external equipment.
7. Plug in the computer and turn on power. Allow the operating system to start. This clears the current passwords and disables the password features.
8. To re-enable the password features, repeat steps 1-4, then replace the jumper on pins 1 and 2.
9. Repeat steps 6-8, then establish new passwords.

   Refer to the Computer Setup (F10 Setup) instructions to establish new passwords.