# Compaq EVO Workstation W4000

Illustrated Parts Map Convertible Mini Tower



COMPAQ



# System Unit

1	Computer cover	not spared
2	Front bezel assembly	257300-001
3	Chassis assembly	not spared
4	Power supply, PFC, dual voltage	244166-001

#### Mass Storage Devices (not illustrated)

18-GB U3 SCSI 10K hard drive	160063-001
18-GB U3 SCSI 15K hard drive	273053-001
36-GB U3 SCSI 10K hard drive	192197-001
36-GB U3 SCSI 15K hard drive	250186-001
72-GB U3 SCSI 10K hard drive	250187-001
20-GB UATA 100/7200 Quiet hard drive	180476-001
40-GB UATA 100/7200 Quiet hard drive	202904-001
80-GB UATA 100\7200	250185-001
Diskette drive, buttonless	237180-001
48X CD-ROM drive	232320-001
16/10/40X CD-RW drive	246691-001
16X DVD-ROM drive	232319-001
8/4/32+8 Combination CD-RW/DVD-ROM drive	255704-001
Zip drive, 250	232317-001

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# Document Number 261488-003



Spare Part Number 262013-001



#### Keyboards (not illustrated)

Internet		164996-xxx		
Arabic	-171	International	-002	
Belgian	-181	Latin American Spanish	-161	
Brazilian Portuguese	-201	Norwegian	-191	
BHCSY*	-B41	Polish	-002	
Czech	-221	Portuguese	-131	
Danish	-081	Russian	-251	
Dutch/Netherlands	-002	Slovakian	-231	
Finnish	-351	Spanish	-071	
French	-051	Swedish	-101	
French-Canadian	-121	Swiss	-111	
German	-041	Taiwanese	-AB1	
Greek	-151	Thai	-281	
Hungarian	-211	Turkish	-141	
Italian	-061	United Kingdom	-031	
Japanese	-191	U.S.	-001	
Korean (Hanguel)	-AD1			



# Cables

ou	5100	
1	DVI to VGA graphics adapter	202997-001
*	CD-ROM Audio cable (387527-001)	149806-001
*	USB Interface cable use with 252610-001	255439-001
*	Diskette drive cable (143218-005)	257309-001
*	Matrox G200 graphics cable assembly with bracket	171976-001
*	IDE Ultra ATA dual device, hard drive/CD-ROM cable, 10" with pull tab (108950-037)	257047-001
*	IDE Ultra ATA dual device, hard drive/CD-ROM cable, 14" (108950-038)	257048-001
*	Power switch/LED cable with switch and LEDs (174682-002)	257303-001
*	SCSI LED cable (225537-001)	247485-001
*	SCSI data cable (155825-001)	158277-001
*	Front panel audio cable use with 252610-001	255440-001
*M	iscellaneous cable kit (not shown)	254551-001
G2	00 Quad analog cable (168754-001)	•
G2	00 Quad DVI cable (168754-002)	
*M	iscellaneous Cable, kit includes: (not shown)	192264-001
Sin	gle UATA device hard drive/CD-ROM cable, 18" (108	950-001)
Au	dio cable, 21" (387527-001)	
Sin	gle UATA device hard drive/CD-ROM cable, 12.5" (10	05876-001)
Au	dio cable, 21" (288489-002)	
Sin	gle UATA device, hard drive/CD-ROM cable, 9.75" (1	08950-021)
Mo	dem Adapters with Plug and Cable (not shown)	
U.S	3.	165224-00
Un	ited Kingdom	158593-03
Ge	rmany	304398-042
Fra	nce	304398-051
Ital	у	304398-061
Sw	itzerland	304398-112



#### **Miscellaneous Parts**

1	Diskette drive adapter	239063-001
2	Chassis fan	257304-001
*	Mouse, 3 button carbon	232616-001
*	Mouse 2 button, carbon	237241-001
*	Heatsink with fan, retaining clip, thermal interface, and alcohol pad (for system board 252608-001)	254284-001
*	Heatsink with fan, retaining clip, thermal interface, and alcohol pad (for system board 277500-001)	254285-001
*	Speaker	192518-001
*	Battery	153099-001
*	Return kit U.S.	166990-001
*	Return kit International	166990-002
*	Solenoid, hood lock	201485-001

\*Not shown





#### Standard and Optional Boards

1	System board (3 memory modules)	252608-001
*	System board - DDR Memory (2 memory modules)	277500-001
*	U3 SCSI Controller	158364-001
Inte	el Pentium 4 Microprocessor with alcohol pad	
*	1.5 GHz (for system board 252608-001)	252918-001
*	1.7 GHz (for system board 252608-001)	252919-001
*	2.0 GHz (for system board 252608-001)	252920-001
*	1.8 GHz (for system board 277500-001)	255435-001
*	2.0 GHz (for system board 277500-001)	273051-001
*	2.2 GHz (for system board 277500-001)	273052-001
3	Modem, 56K, PCI, V92	239411-001
*	Front panel USB/Audio board	252610-001
*	Matrox G450 AGP graphics card	203626-001
*	Matrox G550 AGP graphics card	253275-001
*	Matrox G200 MMS PCI Graphics controller	171975-001
*	nVIDIA NV11 GL AGP Graphics controller, 32 MB	244278-001
*	nVIDIA NV15 GL AGP Graphics controller, 64 MB	225829-001
*	nVIDIA Quadro2 EX AGP Graphics controller	233122-001
*	FGL AGP2X/4X/ATX Graphics controller, 64MB	224885-001
*	NIC, 3Com	253951-001
*	PCI Expansion Card	252609-001
*	Hood lock board	252611-001

\*Not shown

# Memory Modules (see previous picture #2)

Description	ECC	SDRAM	DDR*
128-MB	257305-001	170081-001	272931-001
256-MB	257306-001	192014-001	272932-001
512-MB	257307-001	254317-001	272933-001
1.0-GB	not available	not available	272934-001



#### Miscellaneous Plastics, kit

Mi	scellaneous Plastics Kit, includes:	400549-001
*	Switch holder (166777-001) (not this product)	
*	Card guide (166778-001)	
*	Rubber, foot (4 ea.) (166939-002) (not this product)	
Mi	scellaneous Plastics Kit, includes:	257051-001
*	Front bezel blank, carbon (166775-002)	
*	Power switch spring (166837-002) (not this product)	
*	Power switch/LED holder (245154-001)	
1	LED holder (112589-001) (not this product)	
*	Power switch cable clip (172948-001)	

\*Not shown.

\*Not shown

\*Used only on system boards with 2 memory module sockets.

# Miscellaneous Screw Kit (not illustrated)

6-32 x 1/4 hi-top, thread-forming screw with serra (192308-001)	tions (5 ea.)
6-32 x 3/16 (1 ea.) (296769-002) (not this produc	et)
6-32 x 1/4 TT, hi-top Torx (2 ea.) (114399-067)	
6-32 x 3/16 hi-top, thread-forming screw with serr (192308-003)	rations (4 ea.)
6-19 x 5/16 (1 ea.) (114399-069) (not this produc	et)
M3 x 5mm, hi-top, taptite screw with serrations (4	ea.) (247348-001)
Plastite, metric, flathead Phillips (4 ea.) (247481-0	001)

# Documentation and Packaging (not illustrated)

Service Reference Guide	259968-001
Quick Troubleshooting Guide	153837-001
Illustrated Parts Map	262013-001



#### System Boards with 2 memory module sockets use only DDR memory modules.

#### System Board Connectors and Jumpers (position of some untitled components may vary in location)

J20-22	PCI slots	P23	Front Panel Audio header
J30	PCI Extension socket	P24	Front Panel USB header
J40	AGP/AIMM connector	P29	SCSI LED connector
P1	Power supply connector	P49	Password jumper (Installed = Enabled, Removed = Cleared)
Р5	Power button, Power LED, and HD LED connector	P70	CPU fan connector
P6	Speaker connector	P124	Hood lock solenoid connector
P7	CD-ROM audio connector	P125	Hood intrusion sensor
P8	Chassis fan connector	SW50	Clear CMOS button
P10	Diskette drive connector (Floppy)	XBT2	Battery
P11	Aux audio connector	XMM1-2	Memory sockets (2 sockets) (DDR only)
P20	Primary IDE connector	XMM1-3	Memory sockets (3 sockets) (DIMM only)
P21	Secondary IDE connector	XU1	Processor socket

### System Hardware Interrupts

IRQ	System Function	IRQ	System Function
0	Timer Interrupt	8	Real-Time Clock
1	Keyboard	9	Unused
2	Interrupt Controller Cascade	10	Unused, available for PCI
3	Serial Port (COM B)	11	Unused, available for PCI
4	Serial Port (COM A)	12	Mouse
5	Unused, available for PCI	13	Coprocessor
6	Diskette Drive	14	Primary ATA (IDE) Controller
7	Parallel Port (LPT 1)	15	Secondary ATA (IDE) Controller

# Computer Diagnostic 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, fol- lowed 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	

# 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.

#### Clearing CMOS\*

The computer's configuration (CMOS) may occasionally be corrupted. If it is, 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 Remove the access panel.

- 2.
- 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 and run F10 Computer Setup (Setup-utility) to reconfigure the system.

\*When the CMOS button is pushed or the jumper is removed, both the power-on password and the setup password become invalid because both are stored in the configuration memory. You will need to reset the passwords.

#### Disabling or Clearing the Power-On and Setup Passwords\*

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

Refer to the Computer Setup (F10 Setup) instructions to establish new passwords. \*When the CMOS button is pushed or the jumper is removed, both the power-on password and the setup password become invalid because both are stored in the configuration memory. You will need to reset the passwords.

#### 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.

#### Num, Caps, Scroll Lock Green On (Rising Tone) ROM reflashed successfully Num Lock On ROMPaq diskette not present, is bad, or drive Green not ready. Caps Lock Green On Enter password. Num, Caps, Scroll Lock Green Blink On in sequence, one at a Keyboard locked in network mode time - N, C, SL

\* 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<sup>1</sup>

Main Power Switch Status	3.3 V_Aux LED	5 V_Aux/PSON LED	Power Button LED
OFF <sup>2</sup>	ON	$ON^4$	OFF
ON <sup>3</sup>	ON	OFF <sup>5</sup>	ON

1. ON and OFF state of LEDs apply only to a good, working system board with AC power applied to the power supply.

Power LED on front of computer is OFF.
Power LED on front of computer is ON (Green).

4. 5V\_Aux is ON.

5. PSON is active = power supply is turned ON.