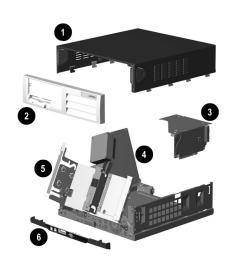
# Compaq EVO Workstation W4000

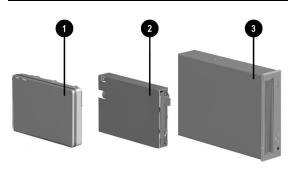
Illustrated Parts Map Small Form Factor





# System Unit

1	Computer cover	not spared
2	Front bezel	262011-001
3	Expansion card cage	not spared
4	Power supply	244166-001
5	Chassis assembly with drive cage	not spared
6	Front trim (below front bezel)	257404-001



# Mass Storage Devices

IVIA	wass storage Devices		
1	18-GB U3 SCSI 10K hard drive	160063-001	
*	18-GB U3 SCSI 15K hard drive	194585-001	
*	36-GB U3 SCSI 10K hard drive	192197-001	
*	72-GB U3 SCSI 10K hard drive	250187-001	
*	36-GB U3 SCSI 15K hard drive	250186-001	
*	20-GB UATA 100/7200 Quiet hard drive	180476-001	
*	40-GB UATA 100/7200 Quiet hard drive	202904-001	
*	60-GB UATA 100/7200 hard drive	232022-001	
2	Diskette drive, buttonless	237180-001	
3	48X CD-ROM drive	232320-001	
*	16/10/40X CD-RW drive	246691-001	
*	16X DVD-ROM drive	232319-001	
*	Zip drive, 250	232317-001	

\*Not shown

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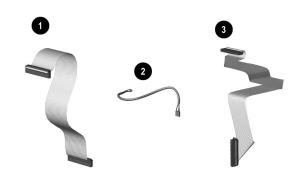
November 2001

Document Number 260713-001



Spare Part Number 262013-001





#### Cables

1	Diskette drive data cable, 8.5" (168999-003)	258208-001
2	CD-ROM audio cable, 18"	192263-001
3	Hard drive/CD-ROM data cable, 17.75" single device (180950-035)	258209-001
*	LED SCSI controller cable	247485-001
*	CD-ROM data cable, 12.25" (180950-34)	258207-001
*	SCSI Drive data cable	258210-001
*	Matrox G200 graphics cable assy. with bracket	171976-001

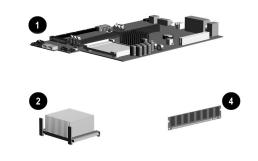
\*Not shown



# Miscellaneous Parts

1	Mouse, 3 button carbon	232616-001
*	Mouse 2 button, carbon	237241-001
2	Battery	150399-001
3	Solenoid, 2-coil	201485-001
4	Speaker	249968-001
5	Front bezel	262011-001
6	Front trim (below front bezel)	257404-001
*	Foot, rubber (4 ea) (166932-001)	266051-001
*	Chassis fan	257405-001
*	Return kit	212545-001

\*Not shown





### Standard and Optional Boards

1	System board	252299-001
*	U3 SCSI Controller	158364-001
Int	el Pentium 4 Microprocessor with alcohol pad	•
*	1.5 GHz	252918-001
*	2.0 GHz	252920-001
2	Heatsink with thermal grease and alcohol pad	254286-001
3	Riser board	252298-001
4	Memory Module, 128 MB, 133 MHz	257305-001
*	Memory Module, 256 MB, 133 MHz	257306-001
*	Memory Module, 512 MB, 133 MHz	257307-001
5	Modem, 56K, PCI, V92	239411-001
*	nVIDIA NV11 GL Graphics controller, 32 MB	250206-001
*	Matrox G200 MMS PCI Graphics controller	171975-001
*	NIC, 3Com	253951-001

<sup>\*</sup>Not shown

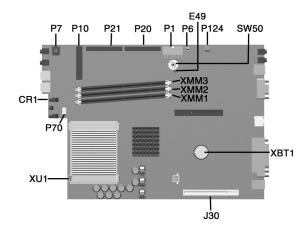
#### Keyboards (not illustrated)

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			

# Documentation and Packaging (not illustrated)

\*Bosnia-Herzegovina, Croatia, Slovenia, and Yugoslavia

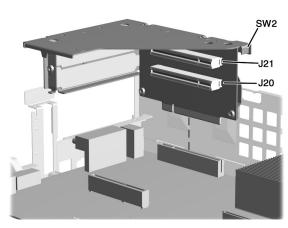
Service Reference Guide	259968-001
Quick Troubleshooting Guide	153837-001
Illustrated Parts Map	262013-001



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

CR1	3.3V Aux LED
E49	Password jumper (Installed = Enabled, Removed = Cleared)
J30	Riser board socket
P1	Power supply connector
P6	Speaker connector
P7	CD-ROM audio
P10	Diskette drive connector
P20	Primary IDE connector

P21	Secondary IDE connector
P70	CPU fan connector
P124	Hood lock header
SW50	Clear CMOS button
XBT1	Battery
XMM1-3	Memory sockets
XU1	Processor socket



#### **Riser Board Connectors and Jumpers**

J20	PCI slot	SW2	Security hood switch	
J21	PCI slot			

# **System Hardware Interrupts**

IRQ	System Function
0	Timer Interrupt
1	Keyboard
2	Interrupt Controller Cascade
3	Serial Port (COM B)
4	Serial Port (COM A)
5	Unused, available for PCI
6	Diskette Drive
7	Parallel Port (LPT 1)

IRQ	System Function
8	Real-Time Clock
9	Unused
10	Unused, available for PCI
11	Unused, available for PCI
12	Mouse
13	Coprocessor
14	Primary ATA (IDE) Controller
15	Secondary ATA (IDE) Controller

# System Hardware DMA

DMA	System Function	
0	Unused	
1	Unused	
2	Diskette Drive	
3	ECP Parallel Port LPT1 (Default; Alternate = DMA 0)	

DMA	System Function	
4	DMA Controller Cascading	
5	Unused	
6	Unused	
7	Unused	

# ICH Fixed I/O Registers

Port	Register Name		
00h, 02h, 04h, 06h	Channel 0, 1, 2, 3 DMA base and current address register		
C0h, C4h, C8h, CCh	Channel 4, 5, 6, 7 DMA base and current address register		
01h, 03h, 05h, 07h	Channel 0, 1, 2, 3 DMA base and current count register		
C2h, C6h, Cah, CEh	Channel 4, 5, 6, 7 DMA base and current count register		
10h-1Fh	Aliased at 00h-0Fh		
20h	Master PIC ICW1 Init. Cmd Word 1 register, Master PIC OCW2 Init. Cmd Word 2 register, and Master PIC OCW3 Init. Cmd Word 3 register		
21h	Master PIC OCW1 Init. Cmd Word 1 register, Master PIC ICW2 Init. Cmd Word 2 register, and Master PIC ICW3 Init. Cmd Word 3 register		
24h,-25h, 28-29h, 2Ch-2Dh, 30h- 31h, 34h-35h, 38h-39h, 3Ch-3Dh	Aliased at 20h-21h		
40h	Counter 0 interval time status byte format and Counter 0 counter access port register		
41h	Counter 1 interval time status byte format and Counter 1 counter access port register		
42h	Counter 2 interval time status byte format and Counter 2 counter access port register		
43h	Timer control word register, Timer control word register read back, and Counter latch command		
50h-53h	Aliased at 40h-43h		
61h	NMI status and control register		
70h	NMI enable register and Real-time clock (Standard RAM) index register		

#### ICH Fixed I/O Registers (Continued)

ter, Slave PIC ICW4 Init, end word 4 register, and Slave PIC OCW1 Init, end word 1 register  Adh-A5h, A8h-A8h, ACh-ADh, BCh-Bih, B4h-B5h, B8h-B9h, BCh-Bih, BAh-B5h,	I/O Address (Hex)	Register Name
	71h	Real-time clock (Standard RAM) target register
Alased at 70h-71h	72h	Extended RAM index register
76b-77h         Aliased at 72b-73h or 70b-71h           81h x 2b, x 2b, x 3b         Channel 2, 3, 1 DMA memory low page register           84h x 6b, x 8h         Reserved page registers           80h, x Al, x 8h         Channel 6, 7, 5 DMA memory low page register           80h, x Al, x 8h         Reserved page registers           87h         Refersh low page register           91b-97h (except 92h)         Aliased at 81b-87h           92b         Fast A 20 and INTT register           CP9h         Reset control register           Adh         Aliased at 81b-87h           9L         Aliased at 81b-87h           9L         Aliased at 81b-87h           9L         Aliased at 81b-87h           Adh         Aliased Aliase PIC (CWI Init. end word 3 register)           Alh A.5h, A8h-A8h, ACh-Dab, aliased at 2b-B. Aliased at 36b-81h Bh-81h, 8h-8b-89h, 8b-89h, 8b-81h, 8b-81h, 8b-81h-89h, 8b-81h, 8h-81h-89h, 8b-81h-81h, 8h-81h-81h,	73h	Extended RAM target register
81h, 82h, 83h         Channel 2, 3, 1 DMA memory low page register           84h 86h, 88h         Reserved page registers           8Ch-8Eh         Reserved page registers           8Ph         Refresh low page register           8Ph         Refresh low page register           9Ph-9Ph (except 92h)         Aliased at 81h-8Fh           92h         Fast A20 and INIT register           CP9h         Reset control register           A0h         Slave PEC CW2 Init. cmd word 1 register. Slave PEC OCW2 Init. cmd word 2 register, and Slave PEC OCW2 Init. cmd word 3 register. Slave PEC OCW2 Init. cmd word 3 register. Slave PEC OCW3 Init. cmd word 3 register. Slave PEC OCW3 Init. cmd word 3 register. Slave PEC OCW1 Init. cmd word 3 register. Slave PEC OCW2 Init. cmd word 3 register. Slave PEC OCW1 Init. cmd word 4 register. Slave PEC OCW1 Init. cmd word 3 register. Slave PEC OCW1 Init. cmd word 4 register. Slave PEC OCW1 Init. cmd wor	74h-75h	Alaised at 70h-71h
841-86h, 88h Reserved page registers  89h, 8Ah, 8Bh Chamel 6, 7, 5 DMA memory low page register  86h-8Eh Reserved page register  91h-97h (except 92h) Aliased at 81h-87h  92h Fast A20 and INIT register  CP9h Reset control register  A0h Salve PIC ICWI Init. end word 1 register, Slave PIC OCW2 Init. end word 2 register, and 5 slave PIC OCW3 Init. end word 3 register, and 5 slave PIC OCW1 init. end word 3 register, slave PIC ICWI Init. end word 4 register, and Slave PIC OCW3 Init. end word 3 register, slave PIC OCW3 Init. end word 3 register, slave PIC OCW3 Init. end word 4 register, and Slave PIC OCW1 Init. end word 3 register, slave PIC OCW3 Init. end word 4 register, and Slave PIC OCW1 Init. end word 4 register, and Slave PIC OCW1 Init. end word 4 register, and Slave PIC OCW1 Init. end word 4 register, and Slave PIC OCW1 Init. end word 4 register, and Slave PIC OCW1 Init. end word 4 register, and Slave PIC OCW1 Init. end word 4 register, and Slave PIC OCW1 Init. end word 4 register, and Slave PIC OCW1 Init. end word 4 register, and Slave PIC OCW1 Init. end word 4 register, and Slave PIC OCW1 Init. end word 4 register, and Slave PIC OCW1 Init. end word 4 register, and Slave PIC OCW1 Init. end word 4 register, and Slave PIC OCW1 Init. end word 4 register.  Aliased at A0h-A1h  B01-B1h, B4h-B5h, B8h-B9h, B4h-B5h, B8h-B9h, B4h-B5h, B8h-B9h, B4h-B5h, B4h-B	76h-77h	Aliased at 72h-73h or 70h-71h
89h. 8Ah. 8Bh         Channel 6, 7, 5 DMA memory low page register           8Ch-8Eh         Reserved page register           8Fh         Refresh low page register           91h-9Fh (except 92h)         Aliased at 81h-8Fh           92h         East A20 and INIT register           CF9h         Reset control register           A0h         Slave PIC ICWI Init. cmd word 1 register, Slave PIC OCW2 Init. cmd word 2 register, Slave PIC ICWI Init. cmd word 3 register.           A1         Slave PIC ICWI Init. cmd word 4 register, and Slave PIC OCWI Init. cmd word 3 register.           A4h-A5h, A8h-A8h, AAh. ADh, B0h-B1h, B4h-B5h, B8h-B9h, B8h-B9h, BCh-B8h         Aliased at A0h-A1h           BDD         Advanced power management control port register           C0h, C4h, C8h, CCh         Channel 4, 5, 6, 7 DMA base and current address register           C1h         Aliased at C0h           C3h         Aliased at CCh           C4h         Aliased at CCh           C5h         Aliased at CCh           C6h         Aliased at CCh           C7h         Aliased at CCh           C8h         Aliased at CCh           C8h         Aliased at CCh           C8h         Aliased at CCh           C8h         Aliased at Ch           C8h         Aliased at Ch	81h, 82h, 83h	Channel 2, 3, 1 DMA memory low page register
89h, 8Ah, 8Bh         Channel 6, 7, 5 DMA memory low page register           8Ch-8Eh         Reserved page registers           8Fh         Refresh low page register           91h-9Fh (except 92h)         Aliased at 81h-8Fh           92h         Fast A20 and INIT register           CF9h         Reser control register           A0h         Slave PIC ICWI Init. end word 1 register, Slave PIC OCW2 Init. end word 2 register, Slave PIC ICW3 Init. end word 3 register sixer, and Slave PIC ICWI Init. end word 4 register, and Slave PIC OCWI Init. end word 1 register           A1h-A3h, A8h-A8h, ACh-ADh, B0h-B1h, B4h-B5h, B8h-B9h, B8h-B9h, BBh-B9h,	84h-86h, 88h	
SCh-8Eh         Reserved page registers           8Fh         Refrash low page register           91h-9Fh (except 92h)         Aliased at 81h-8Fh           92h         Fast A20 and INIT register           CF9h         Reset control register           A0h         Slave PIC CW1 Init. end word 1 register. Slave PIC CW2 Init. cmd word 2 register, slave PIC CW2 Init. cmd word 3 register, slave PIC CW3 Init. cmd word 3 register, slave PIC CW4 Init. cmd word 4 register, and Slave PIC CW1 Init. cmd word 4 register, and Slave PIC CW1 Init. cmd word 4 register, and Slave PIC CW1 Init. cmd word 4 register, and Slave PIC CW1 Init. cmd word 4 register.           A4h-A5h, A8h-A8h, ACh-ADh, B0h-B1h, B4h-B5h, B8h-B9h, BCh-B4h         Advanced power management control port register           B2h         Advanced power management status port register           C0h, C4h, C8h, CCh         Channel 4, 5, 6, 7 DMA base and current address register           C1h         Aliased at C0h           C5h         Aliased at C8h           CDh         Aliased at CCh           C2h, C6h, C4h, CEh         Channel 4, 5, 6, 7 DMA base and current count register           C3h         Aliased at CCh           C3h         Aliased at CCh           C4h         Aliased at CCh           C5h         Aliased at CCh           C6h </td <td>89h, 8Ah, 8Bh</td> <td></td>	89h, 8Ah, 8Bh	
8Fh         Refresh low page register           91h-9Fh (except 92h)         Aliased at 81h-8Fh           92h         Fast A20 and INIT register           CF9h         Reset control register           A0h         Slave PIC ICWI Init. cmd word 1 register, Slave PIC OCW2 Init. cmd word 2 register, and Slave PIC OCW1 Init. cmd word 3 register.           A1         Slave BIC ICW2 Init. cmd word 2 register, Slave PIC ICW3 Init. cmd word 3 register. Slave PIC OCWI Init. cmd word 1 register           A4h-A5h, A8h-A8h, ACh-Abh, B6h-B9h,	8Ch-8Eh	
91h-9Ph (except 92h) Past A20 and INIT register CF9h Reset control register A0h Slave PIC CW1 Init. cmd word 1 register, Slave PIC OCW2 Init. cmd word 2 register, and Slave PIC ICW3 Init. cmd word 3 register A1 Slave PIC ICW4 Init. cmd word 2 register, Slave PIC CW3 Init. cmd word 3 register slave PIC ICW3 Init. cmd word 3 register, and Slave PIC ICW4 Init. cmd word 3 register, and Slave PIC ICW4 Init. cmd word 3 register, and Slave PIC OCW1 Init. cmd word 1 register and Slave PIC OCW1 Init. cmd word 1 register and Slave PIC OCW1 Init. cmd word 1 register A4h, A5h, A8h, A8h, ACh, ADh, B6h, B6h, B6h, B6h, B6h, B6h, B6h, B6	8Fh	
92h         Fast A20 and INIT register           CF9h         Reset control register           A0h         Slave PIC CWI Init. cmd word 1 register. Slave PIC OW2 Init. cmd word 2 register, and Slave PIC CW2 Init. cmd word 3 register           A1         Slave PIC LCW2 Init. cmd word 2 register, Slave PIC CW2 Init. cmd word 3 register. Slave PIC CW1 Init. cmd word 1 register. Slave PIC CW1 Init. cmd word 1 register.           A4h-A5h, A8h-A8h, ACh-ADh, B0h-Blh, B4h-B5h, B8h-B9h, BCh-Bdh         Aliased at A0h-A1h           B2h         Advanced power management control port register           B3h         Advanced power management status port register           C0h, C4h, C8h, CCh         Channel 4, 5, 6, 7 DMA base and current address register           C1h         Aliased at C0h           C5h         Aliased at C8h           C0h         Aliased at C8h           C0h         Aliased at C8h           C1h         Aliased at C8h           C2h         Aliased at C6h           C3h         Aliased at C6h           C3h         Aliased at C6h           C3h         Aliased at C6h           C4h         Aliased at C6h           C5h         Aliased at C7h           C7h         Aliased at C8h           C6h         Channel 4-7 DMA command register and status register           D5h	91h-9Fh (except 92h)	
CF9h Reset control register  A0h Slave PIC CCW1 Init. cmd word 1 register, Slave PIC OCW2 Init. cmd word 2 register, and Slave PIC (CW3 Init. cmd word 3 register ser, slave PIC (CW4) Init. cmd word 3 register. Slave PIC ICW4 Init. cmd word 3 register. Slave PIC ICW4 Init. cmd word 4 register, and Slave PIC OCW1 Init. cmd word 1 register. Slave PIC ICW4 Init. cmd w		
A0h Slave PIC ICW1 Init. cmd word 1 register, Slave PIC OCW2 Init. cmd word 2 register, and Slave PIC (W3 Init. cmd word 3 register)  A1 Slave PIC ICW2 Init. cmd word 3 register Slave PIC (W3 Init. cmd word 3 register)  Slave PIC ICW2 Init. cmd word 2 register, Slave PIC ICW3 Init. cmd word 3 register, Slave PIC ICW3 Init. cmd word 4 register, and Slave PIC OCW1 Init. cmd word 1 register  A4h-A5h, A8h-A8h, ACh-ADh, B0h-B1h, B8h-B9h, B8h-B9h, B8h-B9h, B1h-B5h, B8h-B9h, B8h-B9h, BCh-B4h  B2h Advanced power management control port register  B2h Advanced power management status port register  C0h, C4h, C8h, CCh Channel 4, 5, 6, 7 DMA base and current address register  C1h Aliased at C4h  C9h Aliased at C6h  C1h Aliased at C6h  C2h, C6h, C4h, C5h  Aliased at C6h  C2h, C6h, C4h, C5h  Aliased at C6h  C3h Aliased at C6h  C4h  C7h Aliased at C6h  C8h Aliased at D6h  C8h		-
All Slave PIC ICW2 Init. cmd word 2 register, Slave PIC ICW3 Init. cmd word 3 register, speech in the property		Slave PIC ICW1 Init. cmd word 1 register, Slave PIC OCW2 Init. cmd word 2 reg-
A4h-A5h, A8h-A8h, ACh-ADh, B0h-B1h, B4h-B5h, B8h-B9h, BCh-Bdh B2h B2h Advanced power management status port register  Chh, C4h, C8h, C6h Ch, C4h, C8h, C6h Channel 4, 5, 6, 7 DMA base and current address register  C1h Aliased at C0h C5h Aliased at C8h C9h Aliased at C8h C9h Aliased at C6h C2h, C6h, CAh, CEh C1h Aliased at C6h C2h, C6h, CAh, CEh Aliased at C6h C3h Aliased at C6h C3h Aliased at C6h C8h Aliased at C9h Aliased at D9h Aliased at D8h Channel 4-7 DMA channel mode register  D9h Aliased at D8h Channel 4-7 DMA anster clear register  D9h Aliased at D8h Channel 4-7 DMA master clear register  D8h Aliased at D8h Channel 4-7 DMA write all mask register  D8h Aliased at D8h Channel 4-7 DMA write all mask register  D8h Aliased at D8h Channel 4-7 DMA write all mask register  D8h Aliased at D8h DCh Channel 4-7 DMA write all mask register  D8h Aliased at D8h DCh DRh Channel 4-7 DMA clear mask register  D8h Aliased at D8h DCh DRh Channel 4-7 DMA write all mask register  D8h Aliased at D8h DCh DRh Channel 4-7 DMA write all mask register  D8h Aliased at D8h DRh ORDH-P7h PlO mode command block offset for secondary drive  170h-177h PlO mode command block offset for primary drive  4D0h Master PIC edge/level triggered register  4D0h Master PIC dege/level triggered register  4D0h Slave PIC dege/level triggered register  4D0h F800-F87F Reserved (GPIO management)	A1	Slave PIC ICW2 Init. cmd word 2 register, Slave PIC ICW3 Init. cmd word 3 register, Slave PIC ICW4 Init. cmd word 4 register, and Slave PIC OCW1 Init. cmd
B2h Advanced power management control port register  B3h Advanced power management status port register  C0h, C4h, C8h, CCh Channel 4, 5, 6, 7 DMA base and current address register  C1h Aliased at C0h  C5h Aliased at C8h  C9h Aliased at C8h  CDh Aliased at CCh  C2h, C6h, CAh, CEh Channel 4, 5, 6, 7 DMA base and current count register  C3h Aliased at CCh  C2h, C6h, CAh, CEh Channel 4, 5, 6, 7 DMA base and current count register  C3h Aliased at C6h  CBh Aliased at C6h  CBh Aliased at C6h  CBh Aliased at CCh  C7h Aliased at C6h  CBh Aliased at CCh  D0h Channel 4-7 DMA command register and status register  D1h Aliased at D0h  Channel 4-7 DMA write single mask register  D5h Aliased at D4h  Channel 4-7 DMA channel mode register  D7h Aliased at D8h  D8h Channel 4-7 DMA clear byte pointer register  D9h Aliased at D8h  DAh Channel 4-7 DMA clear mask register  DBh Aliased at DAh  DCh Channel 4-7 DMA clear mask register  DFh Aliased at DAh  DCh Channel 4-7 DMA clear mask register  DFh Aliased at DAh  DCh Channel 4-7 DMA clear mask register  DFh Aliased at DCh  DFh Aliased at DCh  Channel 4-7 DMA clear mask register  DFh Aliased at DCh  DFh Aliased at DCh  DFh Aliased at DCh  Channel 4-7 DMA clear mask register  DFh Aliased at DCh  DFh Aliased at DCh  Channel 4-7 DMA clear mask register  DFh Aliased at DCh  DFh Aliased at DCh  Channel 4-7 DMA clear mask register  DFh Aliased at DCh  Channel 4-7 DMA clear mask register  DFh Aliased at DCh  Channel 4-7 DMA command block offset for secondary drive  DFh Aliased at DCh  Channel 4-7 DMA command block offset for secondary drive  DFh Aliased at DCh  Channel 4-7 DMA command block offset for primary drive  3F6h PIO mode command block offset for primary drive  4D0h Master PIC edge/level triggered register  3F6h PIO mode control block offset for primary drive  4D0h Master PIC edge/level triggered register  3F6h PIO mode control block offset for primary drive  4D1h SlavePIC edge/level triggered register  4D1h SlavePIC edge/level triggered register	B0h-B1h, B4h-B5h, B8h-B9h,	
B3h Advanced power management status port register  C0h, C4h, C8h, CCh Channel 4, 5, 6, 7 DMA base and current address register  C1h Aliased at C0h  C5h Aliased at C8h  C0h Aliased at C8h  C0h Aliased at CCh  C2h, C6h, CAh, CEh Channel 4, 5, 6, 7 DMA base and current count register  C3h Aliased at C2h  C7h Aliased at C6h  C8h Aliased at C6h  C8h Aliased at C6h  C8h Aliased at C6h  C8h Aliased at C6h  C9h Aliased at C9h  C9h Aliased at D9h  C9h Aliased at D9h  C9h Aliased at D9h  D1h Aliased at D9h  D2h Aliased at D9h  D2h Aliased at D9h  D3h Aliased at D9h  D6h Channel 4-7 DMA write all mask register  D6h Aliased at D9h  D7h Aliased at D9h  D8h Aliased at D9h  D9h Aliased a		Advanced nower management control port register
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DFh Aliased at DEh  F0h Coprocessor error register  170h-177h PIO mode command block offset for secondary drive  1F0h-1F7h PIO mode command block offset for primary drive  376h PIO mode control block offset for primary drive  3F6h PIO mode control block offset for primary drive  4D0h Master PIC edge/level triggered register  3F6h PIO mode control block offset for primary drive  4D1h Slave PIC edge/level triggered register  400-47F Super I/O  F800-F87F Reserved (power management)  FA00-FA3F Reserved (GPIO management)	DEh	Aliased at DCh
F0h Coprocessor error register  170h-177h PIO mode command block offset for secondary drive  1F0h-1F7h PIO mode command block offset for primary drive  376h PIO mode control block offset for primary drive  3F6h PIO mode control block offset for primary drive  4D0h Master PIC edge/level triggered register  3F6h PIO mode control block offset for primary drive  4D1h Slave PIC edge/level triggered register  400-47F Super I/O  F800-F87F Reserved (power management)  FA00-FA3F Reserved (GPIO management)	DEh	Channel 4-7 DMA write all mask register
170h-177h PIO mode command block offset for secondary drive 1F0h-1F7h PIO mode command block offset for primary drive 376h PIO mode control block offset for secondary drive 3F6h PIO mode control block offset for primary drive 4D0h Master PIC edge/level triggered register 3F6h PIO mode control block offset for primary drive 4D1h Slave PIC edge/level triggered register 400-47F Super I/O F800-F87F Reserved (power management) FA00-FA3F Reserved (GPIO management)	DFh	Aliased at DEh
1F0h-1F7h PIO mode command block offset for primary drive 376h PIO mode control block offset for secondary drive 3F6h PIO mode control block offset for primary drive 4D0h Master PIC edge/level triggered register 3F6h PIO mode control block offset for primary drive 4D1h Slave PIC edge/level triggered register 400-47F Super I/O F800-F87F Reserved (power management) FA00-FA3F Reserved (GPIO management)	F0h	Coprocessor error register
376h PIO mode control block offset for secondary drive 3F6h PIO mode control block offset for primary drive 4D0h Master PIC edge/level triggered register 3F6h PIO mode control block offset for primary drive 4D1h Slave PIC edge/level triggered register 400-47F Super I/O F800-F87F Reserved (power management) FA00-FA3F Reserved (GPIO management)	170h-177h	PIO mode command block offset for secondary drive
3F6h PIO mode control block offset for primary drive  4D0h Master PIC edge/level triggered register  3F6h PIO mode control block offset for primary drive  4D1h Slave PIC edge/level triggered register  400-47F Super I/O  F800-F87F Reserved (power management)  FA00-FA3F Reserved (GPIO management)	1F0h-1F7h	PIO mode command block offset for primary drive
4D0h Master PIC edge/level triggered register  3F6h PIO mode control block offset for primary drive  4D1h Slave PIC edge/level triggered register  400-47F Super I/O  F800-F87F Reserved (power management)  FA00-FA3F Reserved (GPIO management)	376h	PIO mode control block offset for secondary drive
3F6h PIO mode control block offset for primary drive  4D1h Slave PIC edge/level triggered register  400-47F Super I/O  F800-F87F Reserved (power management)  FA00-FA3F Reserved (GPIO management)	3F6h	PIO mode control block offset for primary drive
3F6h PIO mode control block offset for primary drive  4D1h Slave PIC edge/level triggered register  400-47F Super I/O  F800-F87F Reserved (power management)  FA00-FA3F Reserved (GPIO management)		
4D1h Slave PIC edge/level triggered register  400-47F Super I/O  F800-F87F Reserved (power management)  FA00-FA3F Reserved (GPIO management)		
400-47F Super I/O F800-F87F Reserved (power management) FA00-FA3F Reserved (GPIO management)		
F800-F87F Reserved (power management) FA00-FA3F Reserved (GPIO management)		
FA00-FA3F Reserved (GPIO management)		-
, , , , , , , , , , , , , , , , , , ,		
	FC00-FC0F	Reserved (GPIO management)  Reserved (SMBUS controller)

 $NOTE: When the POS\_DEC\_EN\ bit\ is\ set,\ additional\ I/O\ ports\ get\ positively\ decoded\ by\ the\ ICH.$ 

# **System Memory Map**

Size	Memory Address	System Function
512 KB	FFFFFFFh to FFF80000h	System ROM
3839 MB	FFFBFFFFh to 10000000h	PCI memory expansion
511 MB	0FFFFFFh to 00100000h	Host or PCI memory expansion
128 KB	000FFFFFh to 000E0000h	System ROM
96 KB	000DFFFFh to 000C8000h	PCI option ROMs
32 KB	000C7FFFh to 000C0000h	Video ROM
128 KB	000BFFFFh to 000A0000h	Video RAM
640 KB	0009FFFFh to 00000000h	Base memory

# 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

- 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.
- $5. \quad \text{Turn the computer on and run F10 Computer Setup (delete-utility) to reconfigure the system.} \\$

# \*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\*

- 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 E49.
- 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. Plug in the computer and turn on power. Allow the operating system to start.

  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.