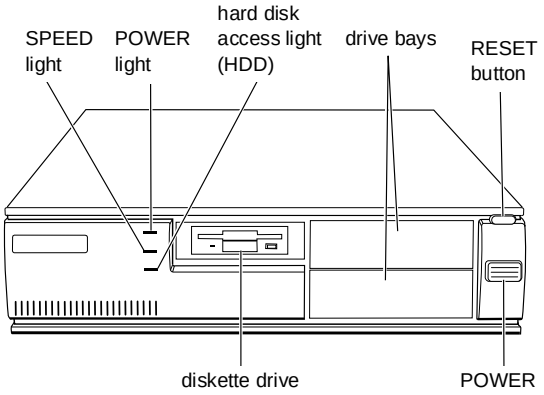
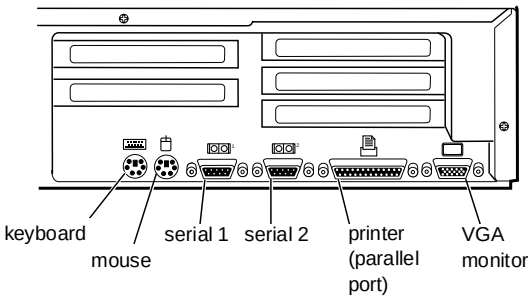
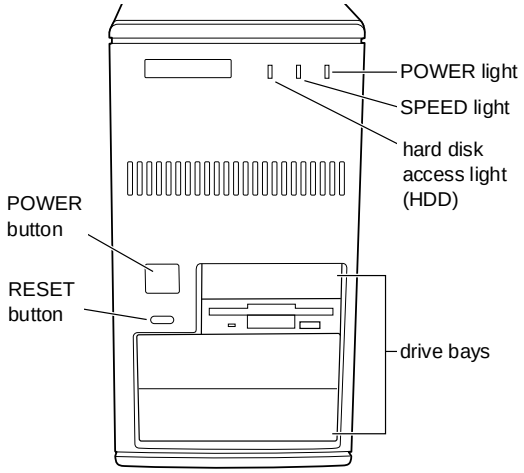
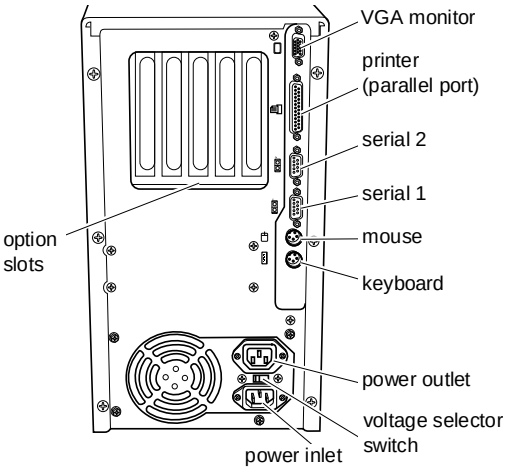
Slimline computer





Tower computer





Computer Specifications

CPU and Memory

64-bit CPU	586-class processor
Green PC energy saver	Energy Star compliant, low-power, doze, standby, and suspend modes for the CPU, hard disk drive, and VGA display; select time-out periods, power-saving rates, and other options in SETUP
Memory	64-bit DRAM interface supporting 8MB RAM standard on two 4MB SIMMs; expandable to 128MB using 4MB, 8MB, 16MB, and 32MB SIMMs; SIMMs must be tin-plated, 72-pin, 32-bit or 36-bit, fast-page mode or EDO mode, parity or no-parity type with access speed of 70ns or faster
ROM	128KB Phoenix® system BIOS, video BIOS, and SETUP code in a flash memory device on system board
Video RAM	1MB video DRAM on system board; expandable to 2MB using two 512KB, 40-pin, SOJ flat pack video DRAM chips
Shadow RAM	Supports shadowing of system and video BIOS ROM into RAM; video and option ROM shadowing selectable in SETUP
Cache	16KB of internal cache in the processor; 256KB of external cache installed on system board with two pipelined burst SRAM chips; internal and external cache controllable through SETUP
Math coprocessor	Math coprocessor built into the 586-class processor
Clock/ calendar	Real-time clock, calendar, and CMOS RAM socketed on system board with integrated backup battery

Controllers

PCI chipset	Provides PCI caching, memory, and control for the PCI bus and the two-channel, bus-mastered, PCI IDE interface (described under "Hard disk and other IDE devices" below); integrated PCI bridge translates CPU bus cycles to PCI bus cycles and CPU-to-PCI memory write cycles to PCI burst cycles

Video	S3™ Trio64V+™ PCI VGA controller with integrated 24-bit RAMDAC, 64-bit DRAM interface; includes power-saving and multimedia features; supports resolutions up to 1280 × 1024 in 16 colors with 1MB of video RAM, increasing to 256 colors with 2MB of video RAM; True Color™ support at 640 × 480 resolution and Hi-Color support at 800 × 600 resolution
Diskette	Controller on system board supports up to two diskette drives, or one diskette/combo diskette and one tape drive
Hard disk and other IDE devices	Two PCI, ATA-2 compatible, bus-mastered IDE interfaces on system board support up to four IDE devices (two on each interface); IDE CD-ROM drives cannot be connected to the primary IDE interface or to the same interface as IDE hard disk drives; BIOS provides hard disk auto-sensing and enhanced IDE functions

Interfaces

Monitor	Energy Star compliant video interface for fixed or multifrequency monitor built into system board; 15-pin, D-shell connector
Parallel	One standard, multimode parallel interface built into system board; supports 8-bit unidirectional, 16-bit bidirectional EPP (Enhanced Parallel Port) and ECP (Extended Capability Port) modes; 25-pin, D-shell connector; operation controllable by SETUP program and jumpers
Serial	Two high-speed RS-232C, programmable, asynchronous interfaces built into system board; 16C550 compatible; 9-pin, D-shell connectors; operation controllable through SETUP
Keyboard	PS/2 compatible keyboard interface built into system board; 6-pin, mini DIN connector
Mouse	PS/2 compatible mouse interface built into system board; 6-pin, mini DIN connector
Option slots	Connector card with five I/O expansion slots; three ISA compatible (8.33 MHz bus speed) and two PCI bus-mastering slots (33 MHz bus speed)
Speaker	Internal

Mass Storage	*Slimline* Internal bay: One 3.5-inch wide, one-inch high drive Externally accessible bays: One 3.5-inch wide, one-inch high drive and two 5.25-inch wide, half-height drives *Tower* Front internal bay: One 3.5-inch wide, one-inch high drive Rear internal bracket: Two 3.5-inch wide, one-inch high drives or one 3.5-inch wide, full-height drive Externally accessible bays: Two 3.5-inch wide, one-inch high drives and two 5.25-inch wide, half-height drives
Diskette drive types	3.5-inch diskette drive, 720KB or 1.44MB storage capacity; 5.25-inch diskette drive, 360KB or 1.2MB storage capacity; or a combination 3.5-inch/5.25-inch diskette drive
Hard disk drive types	5.25-inch or 3.5-inch form factor hard disk drive(s), up to half-height size; maximum of four drives
Other devices	Half-height tape drives, CD-ROM drives, optical drives, PCMCIA card readers, or other devices; 5.25-inch, or 3.5-inch with mounting frames
Keyboard	Detachable, two-position height; 104 or 105 sculpted keys; country-dependent main typewriter keyboard; numeric/cursor control keypad; four-key cursor control keypad; 12 function keys; 3 Windows 95 keys
Mouse	Detachable, two-button, PS/2 compatible
SETUP Program	Stored in ROM; accessible by pressing Del during boot
System security	User and Supervisor level passwords available for system boot or diskette access
Virus protection	Write protection feature for the hard disk drive boot sector

Power Supply

Type	200 Watt, UL/TUV/CSA listed, fan-cooled
Input ranges	98–132 VAC or 196–264 VAC; switch-selectable
Maximum output	+5 VDC at 20 Amps, –5 VDC at 0.5 Amp +12 VDC at 8 Amps, –12 VDC at 0.5 Amp
Frequency	48 to 63 Hz
Cables	Two to system board, five to mass storage devices; for more than five devices, Y cables can be installed on the existing cables

Option Slot Power Limits

Output voltage (VDC)	+5 Volts	–5 Volts	+12 Volts	–12 Volts
For all slots	12 Amps	0.4 Amp	4.0 Amps	0.4 Amp

Physical Characteristics

Dimension	Slimline	Tower
Width	16.8 inches (427 mm)	7.125 inches (181 mm)
Depth	15.8 inches (401 mm)	16.25 inches (413 mm)
Height	4.4 inches (112 mm)	13.25 inches (337 mm)
Weight	18.2 lb (8.3 kg) with one diskette drive, but without keyboard	20.6 lb (9.3 kg) with one diskette drive, but without keyboard

Environmental Requirements

Condition	Operating range	Storage range
Temperature	41° to 90° F (5° to 32° C)	–4° to 140° F (–20° to 60° C)
Humidity (non-condensing)	20% to 90%	10% to 90%
Altitude	–330 to 9,900 ft (–100 to 3,000 m)	–330 to 39,600 ft (–100 to 12,000 m)

Jumper Settings

CPU clock jumper settings

CPU type *	External clock speed	JP12	JP17	JP29
Cyrix 6x86-P120+ (100 MHz)	50 MHz	Open	1-2	Open
Cyrix 6x86-P150+ (120 MHz)	60 MHz	3-4	1-2	Open
Cyrix 6x86-P166+ (133 MHz)	66 MHz	1-2, 3-4	1-2	Open
Pentium 75 MHz	50 MHz	Open	Open	Open
Pentium 90 MHz	60 MHz	3-4	Open	Open
Pentium 100 MHz	66 MHz	1-2, 3-4	Open	Open
Pentium 120 MHz	60 MHz	3-4	1-2	Open
Pentium 133 MHz	66 MHz	1-2, 3-4	1-2	Open
Pentium 150 MHz	60 MHz	3-4	1-2	1-2
Pentium 166 MHz	66 MHz	1-2, 3-4	1-2	1-2

* Default setting depends on speed of CPU

Parallel port ECP mode DMA channel (DRQ) settings

DMA channel	JP23	JP24
DRQ1	1-2 *	1-2 *
DRQ3	2-3	2-3

* Default setting

VGA DRAM jumper settings

Timing mode	JP3	JP20
Fast page mode	1-2 *	1-2 *
EDO mode	2-3	2-3

* Default setting

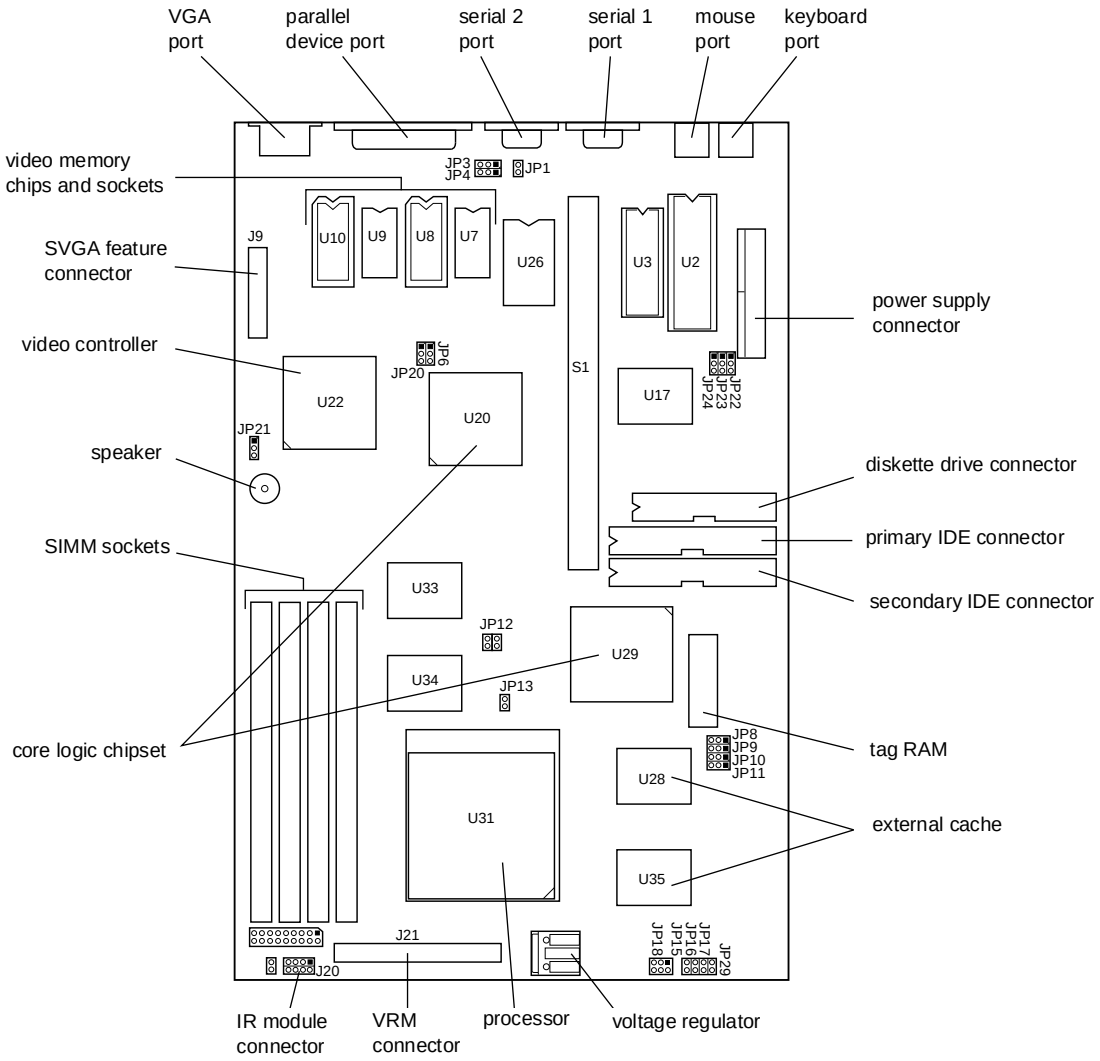
Miscellaneous jumper settings

Jumper number	Jumper setting	Function
JP1	1-2 Open *	Clear the CMOS SETUP values Normal CMOS operation
JP4	2-3 * 1-2	1MB video DRAM 2MB video DRAM
JP6	2-3 * 1-2	System clock PCICLK/4 System clock PCICLK/3
JP16	1-2 Open *	Write-back cache Write-through cache
JP18	5-6 * 3-4 1-2	+3.3 V CPU voltage +3.358 V – 3.36 V (VR) CPU voltage +3.525 V – 3.528 V (VRE) CPU voltage
JP21	1-2 * 2-3	Enable VGA controller Disable VGA controller
JP22	1-2 * 2-3	Enable serial ports and diskette drive controller Disable serial ports and diskette drive controller
J20	5-6, 7-8 * Open	Use serial port for infrared (IR) device Use IR module connector for IR device

* Default setting

System Board Components

The diagram below illustrates the components on the system board.



System board components

Connector	Function
PS1	Power connector
J14	Primary IDE connector
J1	PS/2 keyboard connector
J13	Diskette drive connector
J15	Secondary IDE connector
J22	HDD LED connector
J3	PS/2 mouse connector
J5	Serial 1 port connector
J6	Serial 2 port connector
J21	Pins 2-3: Turbo LED connector Pins 9-10: Hardware reset connector Pins 11-13: Power LED connector Pins 17-20: Speaker connector
J7	Printer (parallel) port connector
J9	SVGA feature connector
J8	15-pin DIN type VGA connector
S1	Riser card slot; default settings of PCI AD Select are AD12 and AD13
U28, U35	External cache SRAM chips
U2	AMIKEY-2 keyboard controller
U27	Cache tag RAM chip
U3	Phoenix system and video BIOS chip
U31	Processor (CPU)
U6	Dallas DS 12887 real-time clock chip
U17	SMC FDC 37C665 parallel port super I/O diskette controller
U8, U10	Soldered standard video RAM
U20, U29, U33, U34	PCI chipset
U22	S3 Trio64V+ VGA controller
U7, U9	Video DRAM expansion sockets

SIMM Installation

The computer comes with 16MB of RAM standard on two 8MB SIMMs. You can increase the memory up to 128MB using 4MB, 8MB, 16MB, or 32MB SIMMs. The SIMMs must be tin-plated, 72-pin, single- or double-sided, fast-page mode or EDO mode, parity or no-parity type with an access speed of 70ns or faster. Be sure all the SIMMs operate at the same speed.

The table below lists all the possible SIMM configurations; do not install SIMMs in any other configuration.

SIMM configurations

Bank 0		Bank 1		
SIM1	SIM2	SIM3	SIM4	Total memory
4MB	4MB	—	—	8MB
—	—	4MB	4MB	8MB
4MB	4MB	4MB	4MB	16MB
4MB	4MB	8MB	8MB	24MB
4MB	4MB	16MB	16MB	40MB
4MB	4MB	32MB	32MB	72MB
8MB	8MB	—	—	16MB
—	—	8MB	8MB	16MB
8MB	8MB	4MB	4MB	24MB
8MB	8MB	8MB	8MB	32MB
8MB	8MB	16MB	16MB	48MB
8MB	8MB	32MB	32MB	80MB
16MB	16MB	—	—	32MB
—	—	16MB	16MB	32MB
16MB	16MB	4MB	4MB	40MB
16MB	16MB	8MB	8MB	48MB
16MB	16MB	16MB	16MB	64MB
32MB	32MB	—	—	64MB
—	—	32MB	32MB	64MB
32MB	32MB	4MB	4MB	72MB
32MB	32MB	8MB	8MB	80MB
32MB	32MB	16MB	16MB	96MB
32MB	32MB	32MB	32MB	128MB

System Memory Map

Address range	Function
FE0000h-FFFFFFh	128KB duplication of ROM BIOS stored at 0E0000h-0FFFFFh
100000h-FDFFFFh	System extended memory (128MB maximum)
0E0000h-0FFFFFh	128KB ROM BIOS
0C8000h-0DFFFFh	Adapter ROM BIOS
0C0000h-0C7FFFh	Video ROM BIOS
0A0000h-0BFFFFh	128KB video memory
000000h-09FFFFh	640KB base memory

Video Memory

The computer comes with 1MB of video memory. You can increase the video memory to 2MB by installing two 512KB, 40-pin, SOJ flat pack video DRAM chips.

Resolution	Memory require-ments	Color	Refresh rates (Hz)	Remarks
640 × 480	1MB	256	60/72/75	8 bits/pixel
	1MB	32K/64K	60/72/75	16 bits/pixel
	2MB	16.8M (True Color)	60/72/75	24 bits/pixel
800 × 600	1MB	256	56/60/72/75	8 bits/pixel
	1MB	32K/64K	60/72/75	16 bits/pixel
	2MB	16.8M (True Color)	60/72/75	24 bits/pixel
1024 × 768	1MB	256	43.5/60/70/75	8 bits/pixel*
	2MB	64K	43.5/60/70/75	16 bits/pixel**
1280 × 1024	1MB	16	43.5/60/72/75	4 bit planes*
	2MB	256	43.5/60/72/75	8 bits/pixel**
1600 × 1200	2MB	256	43.5	8 bits/pixel**

* Non-interlaced and interlaced

** Interlaced

Processor Upgrades

You can upgrade your processor with a faster one to improve system performance. If you upgrade the processor, you may want to lay the computer on its side to make the process easier. If you are upgrading to a 100 MHz processor, make sure you use a standard 3.3 V processor.

Hard Disk Drive Types

The computer comes with a hard disk auto-sensing feature. To use it, select one of the drives you have installed from the Fixed Disk Setup screen. On the screen that appears for that drive, press Enter to select the **`Autotype Fixed Disk`** option. The system detects the type of hard disk drive, fills in the drive's parameters, and sets the remaining options on the screen.

Hard Disk Drive Information

The IDE hard disk drives listed in the tables below are qualified for use in your computer.

IDE hard disk drive parameters

	Conner®				NEC®		Seagate®		
Parameters	CFS1275A	CFS850A	CFS635A	CFS541A	D3747	D3745	ST31640A	ST51270A	ST3630A
Formatted capacity (MB)	1275	850	635	540	1620	1080	1625	1282	631
Size,width × height (in)	4 × 1	4 × 1	4 × 1	4 × 1	4 × 1	4 × 1	4 × 1	4 × .75	4 × 1
Weight (lb)	1.25	1.25	1.25	1.25	1.25	1.25	1.5	.75	1.3
Cylinders	3640	3640	3640	3924	3678	3678	4708	5414	3164
Disks	3	2	2	1	3	2	3	2	2
Heads	6	4	3	2	6	4	6	4	4
Sectors per track	77 - 143	78 - 143	78 - 144	90 - 170			76 - 142		66 - 115
Rotational speed (RPM)	3600	3600	3600	3600	4500	4500	5400	5400	3811
Buffer size (KB)	64	64	64	64	256	256	256	128	120
Average seek time (ms)	14	14	14	14	11	11	10.5	10.5	14
Encoding method	RLL 1,7	RLL 1,7	RLL 1,7	RLL 1,7	PRML	PRML	RLL 1,7	RLL 1,7	RLL 1,7
Power dissipation (seek)	3.5 W	3.5 W	3.5 W	3.9 W	4.0 W	4.0W	8.41 W	6.4W	5.2 W
Logical parameters									
Cylinders	2477	1651	1238	1048	3144	2096	3150	2485	1223
Heads	16	16	16	16	16	16	16	16	16
Precomp zone	0	0	0	0	0	0	0	0	0
Landing zone	2477	1651	1238	1048	3144	2096	4726	5376	3164
Sectors	63	63	63	63	63	63	63	63	63

IDE hard disk drive settings

Model number	Single drive	Master drive	Slave drive
Conner CFS1275A	C/D jumpered	C/D jumpered	No jumpers
Conner CFS850A	C/D jumpered	C/D jumpered	No jumpers
Conner CFS635A	C/D jumpered	C/D jumpered	No jumpers
Conner CFS541A	C/D jumpered	C/D jumpered	No jumpers
NEC D3747	SW1 on, SW2–SW4 off	SW1 on, SW2–SW4 off	SW1–SW4 off
NEC D3745	SW1 on, SW2–SW4 off	SW1 on, SW2–SW4 off	SW1–SW4 off
Seagate ST31640A	No jumpers	3-4 jumpered	1-2 jumpered
Seagate ST51270A	No jumpers	3-4 jumpered	1-2 jumpered
Seagate ST3630A	No jumpers	No jumpers	7-8 jumpered

DMA Assignments

Level	Assigned device
DMA0	Reserved
DMA1	Available
DMA2	Diskette drive controller
DMA3	Available
DMA4	Cascade from DMA1
DMA5	Spare
DMA6	Spare
DMA7	Spare

Hardware Interrupts

IRQ no.	Function
IRQ0	Internal timer
IRQ1	Keyboard
IRQ2	Cascade to IRQ9
IRQ3	Serial port 2
IRQ4	Serial port 1
IRQ5	LPT2
IRQ6	Diskette drive controller
IRQ7	Parallel port 1
IRQ8	Real-time clock
IRQ9	Cascaded from IRQ2
IRQ10	Available
IRQ11	Available
IRQ12	PS/2 mouse
IRQ13	Math coprocessor
IRQ14	Primary IDE controller
IRQ15	Secondary IDE controller

System I/O Address Map

Hex address	Assigned device
000 - 01F	DMA controller 1, 8237
020 - 03F	Interrupt controller 1, 8259
022 - 024	Reserved
040 - 05F	Timer, 8254
060 - 06F	Keyboard controller, 8242PE
070 - 07F	Real-time clock NMI (non-maskable interrupt)
080 - 09F	DMA page register, 74LS612
0A0 - 0BF	Interrupt controller 2, 8259
0C0 - 0DF	DMA controller 2, 8237
0F0	Clear math coprocessor
0F1	Reset math coprocessor
0F8 - 0FF	Math coprocessor
1F0 - 1F8	Primary hard disk interface
1E0 - 1E7	Secondary hard disk interface
200 - 207	Game I/O
278 - 27F	Parallel printer port 2
2B0 - 2DF	Alternate enhanced graphics adapter
2E1	GPIB (adapter 0)
2E2, 2E3	Data acquisition (adapter 0)
2F8 - 2FF	Serial port 2
300 - 31F	Prototype card
360 - 363	Available
368 - 36B	Available
378 - 37A	Parallel printer port 1
380 - 38F	Available
390 - 393	Available
3A0 - 3AF	Available
3B0 - 3BF	Available
3C0 - 3CF	VGA adapter
3D0 - 3DF	VGA adapter
3F0 - 3F5	Diskette drive controller
3F8 - 3FF	Serial port 1
6E2, 6E3	Available
790 - 793	Available
AE2, AE3	Available
B90, B93	Available
EE2, EE3	Available
1390 - 1393	Available
22E1	Available
2390 - 2393	Available
42E1	Available
63E1	Available
82E1	Available
A2E1	Available
C2E1	Available
E2E1	Available

Connector Pin Assignments

Parallel port connector pin assignments (J7)

Pin	Signal	Pin	Signal	Pin	Signal
1	Strobe*	10	ACK *	19	Signal ground
2	Data 0	11	Busy	20	Signal ground
3	Data 1	12	PE	21	Signal ground
4	Data 2	13	Select	22	Signal ground
5	Data 3	14	AFD *	23	Signal ground
6	Data 4	15	Error *	24	Signal ground
7	Data 5	16	Init *	25	Signal ground
8	Data 6	17	Selectin *	—	—
9	Data 7	18	Signal ground	—	—

* Active LOW logic

Serial port connector pin assignments (J5 and J6)

Pin	Signal	Pin	Signal
1	Data carrier detect	6	Data set ready
2	Receive data	7	Request to send
3	Transmit data	8	Clear to send
4	Data terminal ready	9	Ring indicator
5	Ground	—	—

Mouse and keyboard connector pin assignments (J1 and J3)

Pin	Signal	Pin	Signal
1	Data	4	VCC
2	NC	5	Clock
3	Ground	6	NC

VGA port connector pin assignments (J8)

Pin	Signal	Pin	Signal	Pin	Signal
1	Red	6	Red ground	11	NC
2	Green	7	Green ground	12	Monitor detect
3	Blue	8	Blue ground	13	Horizontal sync
4	NC	9	NC	14	Vertical sync
5	Ground	10	Ground	15	NC

LED connector pin assignments (J21)

Pin	Signal	Pin	Signal
1	NC	11	Power LED (yellow)
2	Turbo LED (yellow)	12	NC
3	Turbo LED (white)	13	Power LED (white)
4	NC	14	NC
5	NC	15	NC
6	NC	16	NC
7	NC	17	Speaker (red)
8	NC	18	NC
9	Hardware reset (white)	19	NC
10	Hardware reset (yellow)	20	Speaker (black)

HDD LED connector pin assignments (J22)

Pin	Signal	Pin	Signal
1	Red	2	White

Power supply connector pin assignments (PS1)

Pin	Signal	Pin	Signal
1	Power good	7	Ground
2	+5 VDC	8	Ground
3	+12 VDC	9	-5 VDC
4	-12 VDC	10	+5 VDC
5	Ground	11	+5 VDC
6	Ground	12	+5 VDC

Diskette drive connector pin assignments (J13)

Pin*	Signal	Pin*	Signal
2	NC	20	Step
4	NC	22	Write data
6	NC	24	Write enable
8	Index	26	Track 0
10	Motor A	28	Write protect
12	Drive B	30	Read data
14	Drive A	32	Select header 0
16	Motor B	34	Disk change
18	Direction		

* All odd-numbered pins are grounds

IDE drive connector pin assignments (J14 and J15)

Pin	Signal	Pin	Signal	Pin	Signal
1	RESET*	15	D1	29	NC
2	Ground	16	D14	30	Ground
3	D7	17	D0	31	IRQ14
4	D8	18	D15	32	IOCS16*
5	D6	19	Ground	33	A1
6	D9	20	NC	34	NC
7	D5	21	NC	35	A0
8	D10	22	Ground	36	A2
9	D4	23	IOW*	37	CS0*
10	D11	24	Ground	38	CS1*
11	D3	25	IOR*	39	Active*
12	D12	26	Ground	40	Ground
13	D2	27	IOCHRDY*		
14	D13	28	BALE		

*Active low logic

Option card riser board connector pin assignments

Pin	Signal	Pin	Signal	Pin	Signal	Pin	Signal
A1	+12 VDC	A31	SA3	B1	+12 VDC	B31	BALE
A2	Ground	A32	SA2	B2	+5 VDC	B32	+5 VDC
A3	Ground	A33	SA1	B3	Ground	B33	OSC
A4	IOCHCK*	A34	SA0	B4	Ground	B34	Ground
A5	SD7	A35	Ground	B5	RESETDRV	B35	Ground
A6	SD6	A36	Ground	B6	+5 VDC	B36	+5 VDC
A7	SD5	A37	+5 VDC	B7	IRQ9	B37	+5 VDC
A8	SD4	A38	SBHE*	B8	5 VDC	B38	MEMCS16*
A9	SD3	A39	LA23	B9	DRQ2	B39	IOCS16*
A10	SD2	A40	LA22	B10	12 VDC	B40	IRQ10
A11	SD1	A41	LA21	B11	OWS*	B41	IRQ11
A12	SD0	A42	LA20	B12	+12 VDC	B42	IRQ12
A13	IOCHRDY	A43	LA19	B13	Ground	B43	IRQ15
A14	AEN	A44	LA18	B14	SMEMW*	B44	IRQ14
A15	SA19	A45	LA17	B15	SMEMR*	B45	DACK0*
A16	SA18	A46	MEMR*	B16	IOW*	B46	DRQ0
A17	SA17	A47	MEMW*	B17	IOR*	B47	DACK5*
A18	SA16	A48	SD8	B18	DACK3*	B48	DRQ5
A19	SA15	A49	SD9	B19	DRQ3	B49	DACK6*
A20	SA14	A50	SD10	B20	DACK1*	B50	DRQ6
A21	SA13	A51	SD11	B21	DRQ1	B51	DACK7*
A22	SA12	A52	SD12	B22	REFRESH*	B52	DRQ7
A23	SA11	A53	SD13	B23	SYSCLK	B53	+5 VDC
A24	SA10	A54	SD14	B24	IRQ7	B54	MASTER*
A25	SA9	A55	SD15	B25	IRQ6	B55	Ground
A26	SA8	A56	Ground	B26	IRQ5	B56	Ground
A27	SA7	A57	Ground	B27	IRQ4	B57	Ground
A28	SA6	A58	Ground	B28	IRQ3	B58	+5 VDC
A29	SA5	A59	+5 VDC	B29	DACK2*	B59	+5 VDC
A30	SA4	A60	+5 VDC	B30	TC	B60	+5 VDC

* Active low logic

ISA option slot connector pin assignments

Pin	Signal	Pin	Signal	Pin	Signal	Pin	Signal
A1	IOCHCK*	A26	SA5	B20	SYSCLK	C14	SD11
A2	SD7	A27	SA4	B21	IRQ7	C15	SD12
A3	SD6	A28	SA3	B22	IRQ6	C16	SD13
A4	SD5	A29	SA2	B23	IRQ5	C17	SD14
A5	SD4	A30	SA1	B24	IRQ4	C18	SD15
A6	SD3	A31	SA0	B25	IRQ3	D1	Memcs16*
A7	SD2	B1	Ground	B26	DACK2*	D2	IOCS16*
A8	SD1	B2	RESETDRV	B27	T/C	D3	IRQ10
A9	SD0	B3	+5 VDC	B28	BALE	D4	IRQ11
A10	IORDY	B4	IRQ9	B29	+5 VDC	D5	IRQ12
A11	AEN	B5	5 VDC	B30	OSC	D6	IRQ15
A12	SA19	B6	DRQ2	B31	Ground	D7	IRQ14
A13	SA18	B7	12 VDC	C1	SBHE*	D8	DACK0*
A14	SA17	B8	OWS*	C2	SA23	D9	DREQ0
A15	SA16	B9	+12 VDC	C3	SA22	D10	DACK5*
A16	SA15	B10	Ground	C4	SA21	D11	DREQ5
A17	SA14	B11	SMEMW*	C5	SA20	D12	DACK6*
A18	SA13	B12	SMEMR*	C6	SA19	D13	DRQ6
A19	SA12	B13	IOW*	C7	SA18	D14	DACK7*
A20	SA11	B14	IOR*	C8	SA17	D15	DREQ7
A21	SA10	B15	DACK3*	C9	MEMR*	D16	+5 VDC
A22	SA9	B16	DREQ3	C10	MEMW*	D17	MASTER*
A23	SA8	B17	DACK1*	C11	SD8	D18	Ground
A24	SA7	B18	DREQ1	C12	SD9		
A25	SA6	B19	REF*	C13	SD10		

* Active low logic

SIMM socket connector pin assignments

Pin	Signal	Pin	Signal	Pin	Signal	Pin	Signal
1	Ground	19	NC	37	DP1	55	DQ11
2	DQ0	20	DQ4	38	DP3	56	DQ27
3	DQ16	21	DQ20	39	Ground	57	DQ12
4	DQ1	22	DQ5	40	CAS0*	58	DQ28
5	DQ17	23	DQ21	41	CAS2*	59	VCC
6	DQ2	24	DQ6	42	CAS3*	60	DQ29
7	DQ18	25	DQ22	43	CAS1*	61	DQ13
8	DQ3	26	DQ7	44	RAS0*	62	DQ30
9	DQ19	27	DQ23	45	RAS1*	63	DQ14
10	VCC	28	A7	46	A10A	64	DQ31
11	NC	29	NC	47	WE*	65	DQ15
12	A0	30	VCC	48	A10B	66	NC
13	A1	31	A8	49	DQ8	67	PD1
14	A2	32	A9	50	DQ24	68	PD2
15	A3	33	RAS3*	51	DQ9	69	PD3
16	A4	34	RAS2*	52	DQ25	70	PD4
17	A5	35	DP2	53	DQ10	71	NC
18	A6	36	DP0	54	DQ26	72	Ground

* Active low logic

Tested Operating Environments

Although your system will run most software applications, the following operating environments have been tested for compatibility with your system.

Microsoft® MS-DOS 3.3 and later
Novell NetWare* 3.12 and 4.1
Novell Personal NetWare
IBM® OS/2; including version 3.0 (Warp)
SCO®UNIX
SCO Open Desktop
Microsoft Windows 3.1 and later
Microsoft Windows 95
Microsoft Windows for WorkGroups
Microsoft Windows NT™; including version 3.5

* Certified as workstation and file server in certain configurations

As new environments become available, these also will be tested.

Installation/Support Tips

Installing Diskette Drives

- ❑ Make sure that the drive type has been correctly selected in the SETUP program.
- ❑ Make sure jumper JP22 is set to position 1-2 to enable the diskette drive controller. Also make sure that the Diskette Controller option is enabled in the BIOS SETUP program.

Installing Hard Disk Drives

- ❑ If you are installing a drive that cannot use the embedded IDE interface (such as an ESDI drive), it is recommended that you use a 16-bit, AT-type hard disk controller and a PCI hard disk controller for higher performance. If you install a non-IDE hard disk drive and controller card, you must disable the built-in IDE hard disk drive interface (use the Local Bus IDE Adapter option in the BIOS SETUP program). Also, remove the hard disk drive ribbon connector from the system board.
- ❑ When installing an IDE hard disk drive, use the auto-sensing feature in SETUP to select the correct type for the drive. If the auto-sensing feature does not produce a match for the drive, you can define your own drive type by selecting User as the type and entering the drive's parameters.

Installing Option Cards

If you are installing a video adapter card, make sure you disable the built-in VGA controller by setting jumper JP21 to 2-3.

Booting Sequence

If you cannot boot the computer from the hard disk, make sure the booting sequence in SETUP is set to **`A: then C:`**. Then boot the computer from a system diskette in drive A.

Password

If you forget your password, you must discharge your CMOS memory as follows:

1. Turn off the computer and remove the cover.
2. Disable the password by setting jumper JP1 on the system board to position 1-2.
3. Turn the computer on, leave it on for a few seconds, then turn it off again.
4. Set jumper JP1 back to the Open position (remove jumper) to enable the password function.
5. Run SETUP to enter a new password, if desired.

Information Reference List

Engineering Change Notices

None.

Technical Information Bulletins

None.

Product Support Bulletins

None.

Related Documentation

TM-	EPSON ActionPC 8600, ActionTower 8600 Service Manual
PL-	EPSON ActionPC 8600, ActionTower 8600 Parts Price List
400537700	EPSON ActionPC 8600, ActionTower 8600 User's Guide