

# Advanced/MN Switches, Jumpers and Connectors

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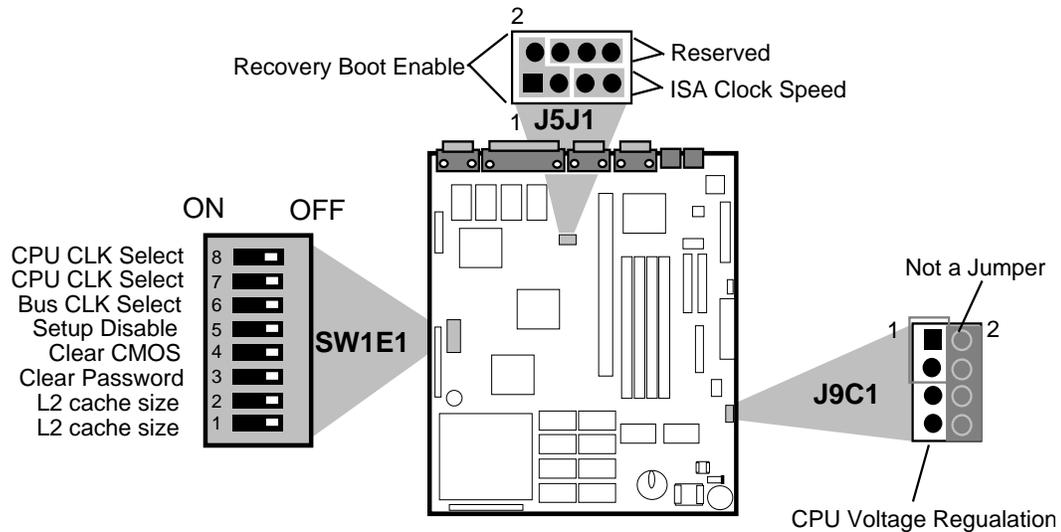


Figure B-1. Jumper/Switch locations and settings

## EXTERNAL CPU CLOCK SPEED (50/60/66 MHZ) - SWITCHES 7 & 8

These switches set the CPU's external operating frequency at 50, 60, or 66 MHz. Default setting depends on the specific product code, see the table below for specific Pentium processor configuration information.

## INTERNAL CPU CLOCK SPEED - SWITCH 6

This switch sets the internal CPU clock speed to either 3/2 (OFF) or twice (ON) the external CPU clock speed. Default setting is 3/2, (switch 6 = OFF).

Pentium Processor type	Switch 8	Switch 7	Switch 6	J9C1
50/75 MHz	OFF	OFF	OFF	The VR/VRE setting is dependent on the specific CPU type.
60/90 MHz	OFF	ON	OFF	
66/100 MHz	ON	OFF	OFF	
Reserved	ON	ON	NA	
Reserved	OFF	OFF	ON	
60/120 MHz	OFF	ON	ON	
66/133 MHz (not tested)	ON	OFF	ON	

## SETUP DISABLE - SWITCH 5

Allows access to CMOS Setup Utility to be disabled by setting switch 5 to the ON position. Default is for access to setup to be enabled (switch 5 = OFF)

## CLEAR CMOS - SWITCH 4

Allows CMOS settings to be reset to default values by moving switch 4 to the ON position and turning the system on. The system should then be turned off and switch 4 should be returned to the OFF position to restore normal operation. This procedure should be done whenever the system BIOS is updated. When this jumper is in the ON position, the system BIOS will display the message "CMOS cleared by jumper". The default is OFF.

### **PASSWORD CLEAR - SWITCH 3**

Allows system password to be cleared by moving switch 3 to the ON position and turning the system on. The system should then be turned off and switch 3 should be returned to the OFF position to restore normal operation. This procedure should only be done if the user or administrative password has been forgotten. Default is for this switch to be OFF.

### **L2 CACHE SIZE - SWITCHES 1 & 2**

These switch settings must match the amount of L2 cache installed on the baseboard for proper operation.

<i>L2 Cache Size</i>	<i>Switch 1</i>	<i>Switch 2</i>
0 kByte	ON	N/A
256 kBytes	OFF	OFF
512 kBytes	OFF	ON

### **J5J1 - RECOVERY BOOT ENABLE**

Allows the system to boot in the event the system BIOS has been corrupted by moving the jumper from the default position of 1-3 to the 1-2 position.

### **J5J1 - ISA BUS SPEED**

Sets the ISA bus speed as either 1/6 or 1/8 of the External CPU Bus clock speed. The default depends on the specific board configuration. By installing the jumper between pins 5-7 the ISA clock speed will be equal to 1/8 the External CPU Bus clock speed. Some ISA cards may not function correctly if the ISA bus clock speed is set above 8.33MHz.

<i>CPU External CLK Speed</i>	<i>ISA CLK Speed</i>	
	<i>1/6 speed 5-7 Not Installed</i>	<i>1/8 speed 5-7 Installed</i>
50 MHz	8.33 MHz	6.25 MHz
60 MHz	10 MHz	7.5 MHz
66 MHz	11 MHz	8.25 MHz

### **J5J1 - RESERVED**

The stake pins 4, 6, 8 are reserved and should not have a jumper installed between any of these pins.

### **J9C1 - CPU VOLTAGE REGULATION**

This jumper changes the output of the on-board voltage regulator: 1-3 = VR voltage level, 5-7 = VRE voltage level. The VR voltage range is specified as 3.3-3.465V, the VRE range is 3.45-3.6V. Pentium processors that do not require the VRE voltage specification should use the VR setting. When upgrading your processor, be sure to consult the documentation for the voltage requirements, an incorrect setting may damage the processor.

# Connectors

## POWER SUPPLY CONNECTORS

### PRIMARY POWER (J9E1)

Pin	Name	Function
1	PWRGD	Power Good
2	+5 V	+ 5 volts Vcc
3	+12 V	+ 12 volts
4	-12 V	- 12 volts
5	GND	Ground
6	GND	Ground
7	GND	Ground
8	GND	Ground
9	-5 V	-5 volts
10	+5 V	+ 5 volts Vcc
11	+5 V	+ 5 volts Vcc
12	+5 V	+ 5 volts Vcc

### AUX. (3.3V) PCI POWER (J7H1)

Pin	Name	Function
1	GND	Ground
2	GND	Ground
3	GND	Ground
4	+3.3 V	+ 3.3 volts
5	+3.3V	+ 3.3 volts
6	+3.3 V	+ 3.3 volts

### SOFT OFF/SLEEP (J9C1)

Pin	Signal Name
2	+5 V
4	Sleep
6	PS_ON
8	Ground

### SOFT POWER SUPPLY ON (J8C1)

Pin	Name	Function
1	PS_ON	Remote ON/OFF
2	N/C	Not connected
3	GND	Ground

## FRONT PANEL CONNECTORS

### J2A1

Pin	Signal Name	Function
1	+5 V	Sleep/Resume
2	Comatose	
3		
4	+5 V	Infra-Red
5	Key	
6	IR_RX	
7	Ground	
8	IR_TX	
9		
10	Ground	Aux. 12V Fan
11	+12 V (fused)	Power
12	Ground	
13		
14	Ground	Speaker
15	Key	
16	SPKR_DAT	
17	SPKR_DAT	

### J1D1

Pin	Signal Name	Function
1	PULL_UP_330	Turbo LED
2	LED_TURBO-	
3		
4		
5	PULL_UP_330	Hard Drive
6	Key	LED
7	HD ACTIVE	
8	PULL_UP_330	
9		
10	Ground	Key Lock/
11	KEY LOCK	Power LED
12	Ground	
13	Key	
14	LED_PWR	
15		
16	Ground	Reset
17	RESET	

## BACK PANEL I/O CONNECTORS

### PS/2 KEYBOARD & MOUSE PORTS (J8K1, J7K1)

Pin	Signal Name
1	Data
2	No Connect
3	Ground
4	Vcc
5	Clock

### VIDEO CONNECTOR (J1K1)

Pin	Signal Name
1	Analog Red
2	Analog Green
3	Analog Blue
4	NC
5	Ground
6	Ground
7	Ground
8	Ground
9	NC
10	Ground
11	NC
12	DCI Comm
13	HSYNC
14	VSYNC
15	NC

### SERIAL PORTS (J6K1, J5K1)

Pin	Signal Name
1	DCD
2	Serial In - (SIN)
3	Serial Out - (SOUT)
4	DTR
5	GND
6	DSR
7	RTS
8	CTS
9	RI

### PARALLEL PORT (J3K1)

Signal Name	Pin	Pin	Signal Name
STROBE-	1	14	AUTO FEED-
Data Bit 0	2	15	FAULT*
Data Bit 1	3	16	INIT*
Data Bit 2	4	17	SLCT IN*
Data Bit 3	5	18	Ground
Data Bit 4	6	19	Ground
Data Bit 5	7	20	Ground
Data Bit 6	8	21	Ground
Data Bit 7	9	22	Ground
ACK*	10	23	Ground
BUSY	11	24	Ground
PE (Paper End)	12	25	Ground
SLCT	13		

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## INTERNAL I/O CONNECTORS

### VESA FEATURE CONNECTOR (J1H1)

Signal Name	Pin	Pin	Signal Name
Ground	1	2	Data 0
Ground	3	4	Data 1
Ground	5	6	Data 2
Data enable	7	8	Data 3
Sync enable	9	10	Data 4
PCLK enable	11	12	Data 5
Vcc	13	14	Data 6
Ground	15	16	Data 7
Ground	17	18	PCLK
Ground	19	20	BLANK
Ground	21	22	HSYNC
Vcc	23	24	VSYNC
	25	26	Ground

### AUDIO I/O CONNECTOR (J9H1)

Signal Name	Pin	Pin	Signal Name
+5 V	1	2	+5 V
JoyStick But0	3	4	JoyStick But2
JoyStick X1	5	6	JoyStick X2
Ground	7	8	MIDI Out
Ground	9	10	JoyStick Y2
JoyStick Y1	11	12	JoyStick But3
JoyStick But1	13	14	MIDI In
+5 V	15	16	Key
Key	17	18	Key
Line Out Right	19	20	Ground
Right Speaker	21	22	Ground
Left Speaker	23	24	Key
Line Out Left	25	26	Ground
Line In Right	27	28	-12 V
Line In Left	29	30	Ground
Mic In	31	32	+12 V
Ground	33	34	Ground

### WAVE TABLE UPGRADE CONNECTOR (J8H1)

Pin	Signal Name
1	Wave Right
2	Ground
3	Wave Left
4	Ground
5	Key
6	Ground
7	MIDI_Write
8	Ground

### CD-ROM AUDIO INTERFACE (J9F1)

Pin	Signal Name
1	Ground
2	CD-Left
3	Ground
4	CD-Right

### IDE CONNECTORS (J9F2, J8F1)

Signal Name	Pin	Pin	Signal Name
Reset IDE	1	2	Ground
Host Data 7	3	4	Host Data 8
Host Data 6	5	6	Host Data 9
Host Data 5	7	8	Host Data 10
Host Data 4	9	10	Host Data 11
Host Data 3	11	12	Host Data 12
Host Data 2	13	14	Host Data 13
Host Data 1	15	16	Host Data 14
Host Data 0	17	18	Host Data 15
Ground	19	20	Key
DRQ3	21	22	Ground
I/O Write-	23	24	Ground
I/O Read-	25	26	Ground
IOCHRDY	27	28	BALE
DACK3-	29	30	Ground
IRQ14	31	32	IOCS16-
Addr 1	33	34	No Connect
Addr 0	35	32	Addr 2
Chip Select 0-	37	38	Chip Select 1-
Activity	39	40	Ground

### FLOPPY CONNECTOR (J9D1)

Signal Name	Pin	Pin	Signal Name
Ground	1	2	FDHDIN
Ground	3	4	Reserved
Key	5	6	FDEDIN
Ground	7	8	Index-
Ground	9	10	Motor Enable A-
Ground	11	12	Drive Select B-
Ground	13	14	Drive Select A-
Ground	15	16	Motor Enable B-
MSEN1	17	18	DIR-
Ground	19	20	STEP-
Ground	21	22	Write Data-
Ground	23	24	Write Gate-
Ground	25	26	Track 00-
MSEN0	27	28	Write Protect-
Ground	29	30	Read Data-
Ground	31	32	Side 1 Select-
Ground	33	34	Diskette Change-

### PCI RISER CONNECTOR (J6F1)

Signal Name	Pin	Pin	Signal Name
IOCHK-	A1	B1	GND
SD7	A2	B2	RSTDRV
SD6	A3	B3	Vcc
SD5	A4	B4	IRQ9
SD4	A5	B5	-5V
SD3	A6	B6	DRQ2
SD2	A7	B7	-12V
SD1	A8	B8	0WS-
SD0	A9	B9	+12V
IOCHRDY	A10	B10	GND
AEN	A11	B11	SMEMW-
SA19	A12	B12	SMEMR-
SA18	A13	B13	IOW-
SA17	A14	B14	IOR-
SA16	A15	B15	DACK3-
SA15	A16	B16	DRQ3
SA14	A17	B17	DACK1-
SA13	A18	B18	DRQ1
SA12	A19	B19	REFRESH-
SA11	A20	B20	SYSCLK
SA10	A21	B21	IRQ7
SA9	A22	B22	IRQ6
SA8	A23	B23	IRQ5
SA7	A24	B24	IRQ4
SA6	A25	B25	IRQ3
SA5	A26	B26	DACK2-
SA4	A27	B27	TC
SA3	A28	B28	BALE
SA2	A29	B29	Vcc
SA1	A30	B30	OSC
SA0	A31	B31	GND
SBHE-	C1	D1	MEMCS16-
LA23	C2	D2	IOCS16-
LA22	C3	D3	IRQ10
LA21	C4	D4	IRQ11
LA20	C5	D5	IRQ12
LA19	C6	D6	IRQ13
LA18	C7	D7	IRQ14
LA17	C8	D8	DACK0-
MEMR-	C9	D9	DRQ0
MEMW-	C10	D10	DACK5-
SD8	C11	D11	DRQ5
SD9	C12	D12	DACK6-
SD10	C13	D13	DRQ6
SD11	C14	D14	DACK7-
SD12	C15	D15	DRQ7
SD13	C16	D16	Vcc
SD14	C17	D17	MASTER-
SD15	C18	D18	GND

Signal Name	Pin	Pin	Signal Name
GND	E1	F1	GND
GND	E2	F2	GND
PCIINT1-	E3	F3	PCIINT3-
PCIINT2-	E4	F4	PCIINT4-
Vcc	E5	F5	Vcc
Key	E6	F6	Key
Vcc	E7	F7	Vcc
PCIRST-	E8	F8	PCLKF
GNT0-	E9	F9	GND
REQ0-	E10	F10	GNT1-
GND	E11	F11	GND
PCLKE	E12	F12	REQ1-
GND	E13	F13	AD31
AD30	E14	F14	AD29
3.3V	E15	F15	3.3V
Key	E16	F16	Key
3.3V	E17	F17	3.3V
AD28	E18	F18	AD27
AD26	E19	F19	AD25
AD24	E20	F20	CBE3-
AD22	E21	F21	AD23
AD20	E22	F22	AD21
AD18	E23	F23	AD19
3.3V	E24	F24	3.3V
Key	E25	F25	Key
3.3V	E26	F26	3.3V
AD16	E27	F27	AD17
FRAME-	E28	F28	IRDY-
CBE2-	E29	F29	DEVSEL-
TRDY-	E30	F30	PLOCK-
STOP-	E31	F31	PERR-
SDONE	G1	H1	SERR-
SBO-	G2	H2	AD15
CBE1-	G3	H3	AD14
PAR	G4	H4	AD12
GND	G5	H5	GND
Key	G6	H6	Key
GND	G7	H7	GND
AD13	G8	H8	AD10
AD11	G9	H9	AD8
AD9	G10	H10	AD7
CBE0-	G11	H11	AD5
AD6	G12	H12	AD3
AD4	G13	H13	AD1
AD2	G14	H14	AD0
Key	G15	H15	Key
Vcc	G16	H16	Vcc
Vcc	G17	H17	Vcc
GND	G18	H18	GND
GND	G19	H19	GND