



Notice to End Users

This User's Guide & Technical Reference is for assisting system manufacturers and end users in setting up and installing the mainboard.

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Edition :June 1999
Version :2.0

Model: SL – 55F5 / 55F1

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Chapter 1

Introduction

Features

■ **CPU**

1. Supports Intel Pentium P54C/MMX (P55C) CPUs at 133 ~ 233 MHz
2. Supports Cyrix/IBM 6x86(L) CPUs at PR133+ ~ PR250+MHz and 6x86MX/MII CPUs at PR166+ ~ PR350+ MHz
3. Supports AMD K6-2 250 ~ 500Mhz and K6-III CPUs.
4. Supports IDT C6/C6-2 200 ~ 266MHz
5. Provides SOCKET 7 ZIF Socket
6. Supports 66/75/83/95/100/105/110/115/120/124 MHz CPU clock

■ **Chipset**

1. VIA VT8501 Apollo MVP4 chipset
2. PCI Rev 2.2, 5V, 33MHz interface compliant
3. AGP V2.0 compliant for 66(1X)/133(2X)MHz transfer modes
4. Onboard built-in AC97 Digital Controller
5. Onboard built-in VGA controller (share system memory)

■ **L2 Cache**

- Onboard supports 512K(55F5)/1MB(55F1) write back cache with Pipelined Burst SRAMs

■ **Main Memory**

1. Memory range from 8MB (minimum) to 768MB(SDRAM) (maximum) with DRAM Table Free configurations
2. Up to 256MB/Row support 16Mb, 64Mb, 128Mb, 256Mb SDRAM technology
3. Supports SDRAM with 12/10/8ns speed
4. Supports 3 pcs 168pin DIMM sockets (3.3V Unbuffered and 4 clock type)

■ BIOS

1. AWARD Plug and Play BIOS
2. Support APM V1.2 and ACPI V1.0 spec
3. Flash Memory for easy upgrade

■ Super I/O Function

1. Integrated USB V1.1 and Intel Universal HCI V1.1 controller with three USB ports. Provide 3 USB connectors.
2. Supports 2 IDE channels with 4IDE devices (including ZIP/LS-120 devices)
3. Provides PCI IDE Bus Master function and supports Ultra ATA33/66 function
4. One floppy port
5. Two high speed 16550 FIFO UART ports
6. One parallel port with EPP/ECP/SPP capabilities
7. Support Legacy keyboard and PS/2 mouse connector
8. Built-in RTC, CMOS, keyboard controller on single I/O chip
9. Peripherals boot function (with ATX power)

■ Onboard built-in AC97 Digital Audio Controller

1. Integrated sound controller compatible with Sound Blaster Pro™ for Windows DOS box and real-mode DOS legacy compatibility
2. Standard V1.0 or V2.0 AC97 Codec interface
3. Plug and Play with 4 IRQ, 4DMA and 4 I/O space options for 4. SoundBlaster Pro and MIDI hardware
5. Hardware assisted FM synthesis for legacy compatibility

■ Onboard built-in VGA Controller

1. Supports 2 to 8 MB of frame buffer located in system memory
2. Real time DVD MPEG-2 and AC-3 playback Video processor
3. Integrated 24-bits 230MHz true color DAC
4. Extended screen resolutions up to 1600 * 1200
5. DirectX6 and OpenGL ICD API

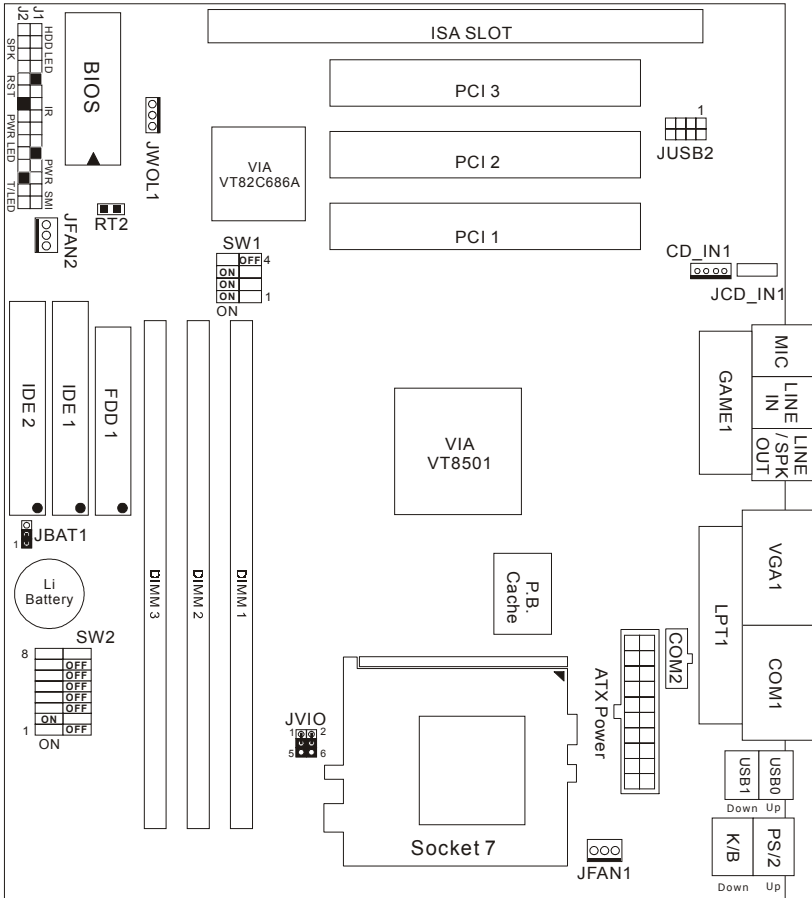
■ Other Functions

1. Micro ATX size 21.1cm x 24.4cm.
2. 3 PCI Master slots, 1 ISA slot.
3. Supports SCSI/CD-ROM Boot function.
4. Supports jumperless setting.
5. Supports Wake On Lan (WOL) function. **
6. Onboard built-in hardware monitor feature.

**** For support WOL, the ATX power supply has to have at least 5V/720mA standby current. ****

Mainboard Layout

Mainboard default setting for AMD K6-2 350/100MHz CPU



55F5 layout

NOTE: 1. Adjust SW2 DIP1 ~ DIP4 for selecting Vcore Voltage.
 2. Adjust SW2 DIP5 ~ DIP7 for selecting CPU Ratio.
 3. SW2 DIP8 is unused. So user can ignore its position.

Chapter 2

Hardware Setup

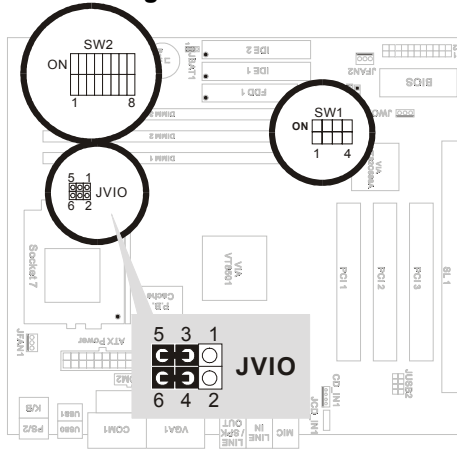
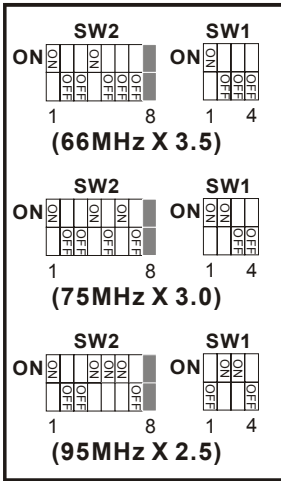
CPU Settings

■ AMD K6-2 / K6-III CPUs Settings

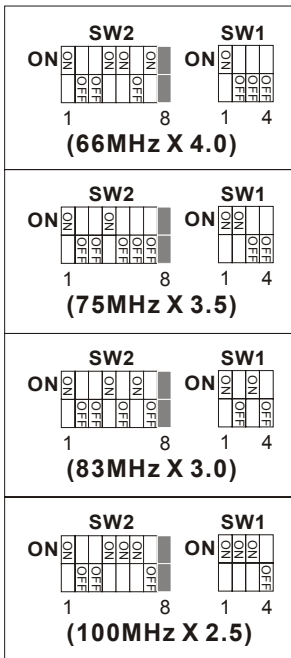
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<p>K6-2 333/95</p> <p>SW2 SW1</p> <p>ON OFF ON OFF</p> <p>1 8 1 4</p>	
<p>K6-2 350/100</p> <p>SW2 SW1</p> <p>ON OFF ON OFF</p> <p>1 8 1 4</p>	
<p>K6-2 380/95</p> <p>SW2 SW1</p> <p>ON OFF ON OFF</p> <p>1 8 1 4</p>	
<p>K6-2 400/100</p> <p>SW2 SW1</p> <p>ON OFF ON OFF</p> <p>1 8 1 4</p>	
<p>K6-2 450/100</p> <p>SW2 SW1</p> <p>ON OFF ON OFF</p> <p>1 8 1 4</p>	
<p>K6-III 400/100</p> <p>SW2 SW1</p> <p>ON OFF ON OFF</p> <p>1 8 1 4</p>	<p>K6-2 475/95 K6-III 475/95</p> <p>SW2 SW1</p> <p>ON OFF ON OFF</p> <p>1 8 1 4</p>
<p>K6-III 450/100</p> <p>SW2 SW1</p> <p>ON OFF ON OFF</p> <p>1 8 1 4</p>	<p>K6-2 500/100 K6-III 500/100</p> <p>SW2 SW1</p> <p>ON OFF ON OFF</p> <p>1 8 1 4</p>

■ Cyrix / IBM 6x86MX, MII CPUs Settings

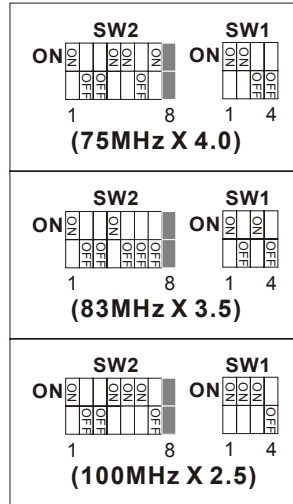
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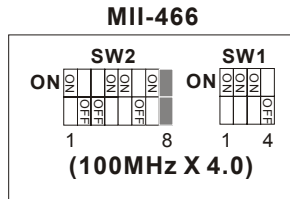
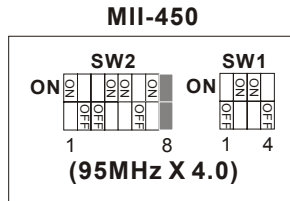
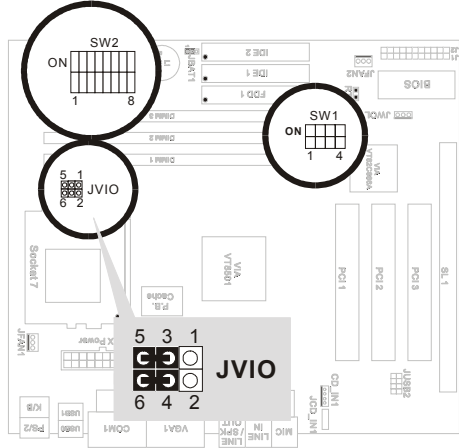
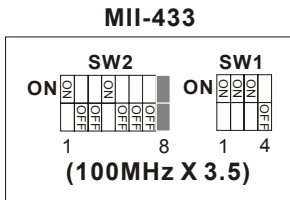
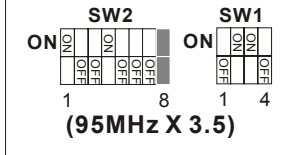
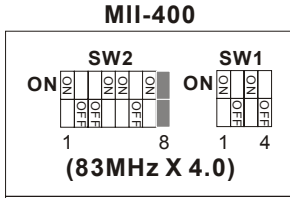
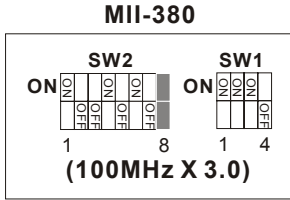
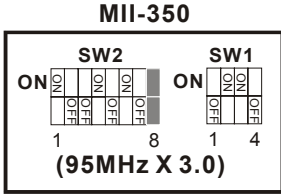
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MII-366



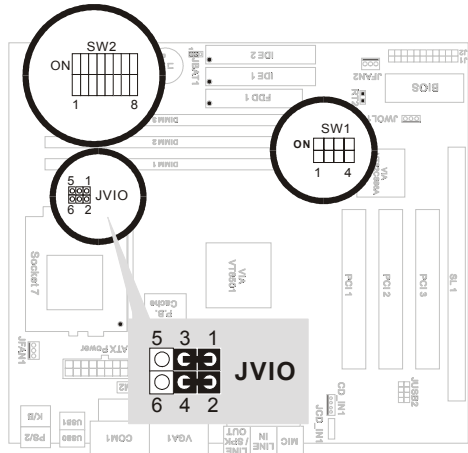
Cyrix / IBM -1



Cyrix / IBM -2

■ IDT WinChip C6 /C6-2 CPUs Settings

<p>C6-225(75MHz X 3)</p> <p>SW2 SW1</p> <table border="0"> <tr> <td>ON</td><td>ON</td><td>ON</td><td>ON</td><td>ON</td><td>ON</td><td>ON</td><td>ON</td><td>OFF</td><td>OFF</td> <td>ON</td><td>ON</td><td>ON</td><td>ON</td><td>ON</td><td>ON</td><td>ON</td><td>ON</td><td>OFF</td><td>OFF</td> </tr> <tr> <td>1</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>8</td><td></td> <td>1</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>4</td><td></td> </tr> </table>	ON	ON	ON	ON	ON	ON	ON	ON	OFF	OFF	ON	ON	ON	ON	ON	ON	ON	ON	OFF	OFF	1								8		1								4	
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<p>C6-233(66MHz X 3.5)</p> <p>SW2 SW1</p> <table border="0"> <tr> <td>ON</td><td>ON</td><td>ON</td><td>ON</td><td>ON</td><td>ON</td><td>ON</td><td>ON</td><td>OFF</td><td>OFF</td> <td>ON</td><td>ON</td><td>ON</td><td>ON</td><td>ON</td><td>ON</td><td>ON</td><td>ON</td><td>OFF</td><td>OFF</td> </tr> <tr> <td>1</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>8</td><td></td> <td>1</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>4</td><td></td> </tr> </table>	ON	ON	ON	ON	ON	ON	ON	ON	OFF	OFF	ON	ON	ON	ON	ON	ON	ON	ON	OFF	OFF	1								8		1								4	
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<p>C6-240(60MHz X 4.0)</p> <p>SW2 SW1</p> <table border="0"> <tr> <td>ON</td><td>ON</td><td>ON</td><td>ON</td><td>ON</td><td>ON</td><td>ON</td><td>ON</td><td>OFF</td><td>OFF</td> <td>ON</td><td>ON</td><td>ON</td><td>ON</td><td>ON</td><td>ON</td><td>ON</td><td>ON</td><td>OFF</td><td>OFF</td> </tr> <tr> <td>1</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>8</td><td></td> <td>1</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>4</td><td></td> </tr> </table>	ON	ON	ON	ON	ON	ON	ON	ON	OFF	OFF	ON	ON	ON	ON	ON	ON	ON	ON	OFF	OFF	1								8		1								4	
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<p>C6-2 266(100MHz X 5.0)</p> <p>SW2 SW1</p> <table border="0"> <tr> <td>ON</td><td>ON</td><td>ON</td><td>ON</td><td>ON</td><td>ON</td><td>ON</td><td>ON</td><td>OFF</td><td>OFF</td> <td>ON</td><td>ON</td><td>ON</td><td>ON</td><td>ON</td><td>ON</td><td>ON</td><td>ON</td><td>OFF</td><td>OFF</td> </tr> <tr> <td>1</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>8</td><td></td> <td>1</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>4</td><td></td> </tr> </table>	ON	ON	ON	ON	ON	ON	ON	ON	OFF	OFF	ON	ON	ON	ON	ON	ON	ON	ON	OFF	OFF	1								8		1								4	
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■ Intel Pentium / AMD K5 CPUs Settings

**Pentium-166
K5-PR166**

SW2 **SW1**

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**Pentium-200
K5-PR200**

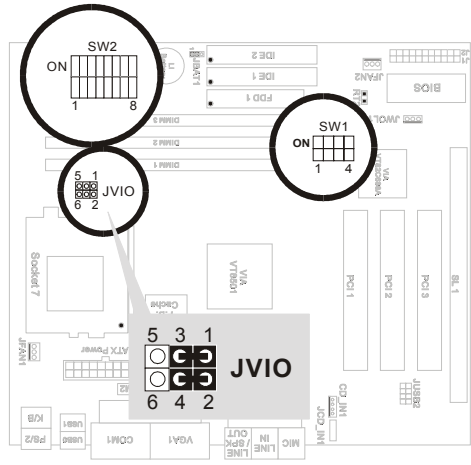
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**Pentium-133
K5-PR133**

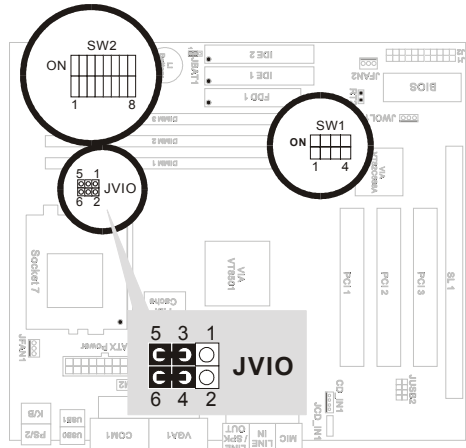
SW2 **SW1**

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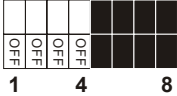
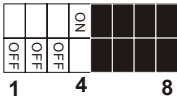
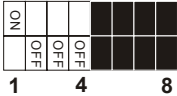
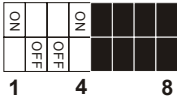
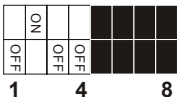
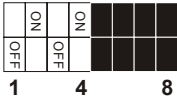
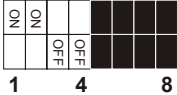
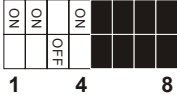





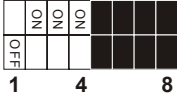
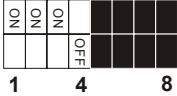
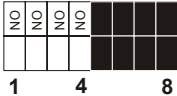


■ Intel Pentium MMX CPUs Settings

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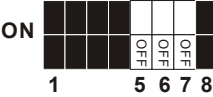
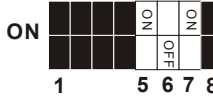


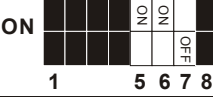

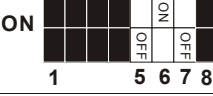

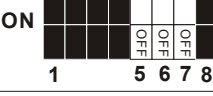


Vcore Voltage Settings - SW2

Vcore	SW2 DIP1 ~ DIP4	Vcore	SW2 DIP1 ~ DIP4
2.0V	ON 	2.8V	ON 
2.1V	ON 	2.9V	ON 
2.2V	ON 	3.0V	ON 
2.3V	ON 	3.1V	ON 
2.4V	ON 	3.2V	ON 
2.5V	ON 	3.3V	ON 
2.6V	ON 	3.4V	ON 
2.7V	ON 	3.5V	ON 

- NOTE: 1. Adjust SW2 DIP1 ~ DIP4 for selecting Vcore Voltage.
 2. Adjust SW2 DIP5 ~ DIP7 for selecting CPU Ratio.
 3. SW2 DIP8 is unused. So user can ignore its position.

CPU Ratio Settings – SW2

Ratio	SW2 DIP5 ~ DIP7	Ratio	SW2 DIP5 ~ DIP7
1.5x	ON  1 5 6 7 8	4.0x	ON  1 5 6 7 8
2.0x	ON  1 5 6 7 8	4.5x	ON  1 5 6 7 8
2.5x	ON  1 5 6 7 8	5.0x	ON  1 5 6 7 8
3.0x	ON  1 5 6 7 8	5.5x	ON  1 5 6 7 8
3.5x	ON  1 5 6 7 8		

- NOTE: 1. Adjust SW2 DIP1 ~ DIP4 for selecting Vcore Voltage.
 2. Adjust SW2 DIP5 ~ DIP7 for selecting CPU Ratio.
 3. SW2 DIP8 is unused. So user can ignore its position.

CPU Clock Settings – SW1

CPU Clock	PCI Clock	SW1												
60	30 (CPU Clock / 2)	ON <table border="1" style="display: inline-table; vertical-align: middle;"> <tr><td></td><td></td><td></td><td></td></tr> <tr><td>OFF</td><td>OFF</td><td>OFF</td><td>OFF</td></tr> <tr><td>1</td><td></td><td></td><td>4</td></tr> </table>					OFF	OFF	OFF	OFF	1			4
OFF	OFF	OFF	OFF											
1			4											
66.8	33.4 (CPU Clock / 2)	ON <table border="1" style="display: inline-table; vertical-align: middle;"> <tr><td>ON</td><td></td><td></td><td></td></tr> <tr><td></td><td>OFF</td><td>OFF</td><td>OFF</td></tr> <tr><td>1</td><td></td><td></td><td>4</td></tr> </table>	ON					OFF	OFF	OFF	1			4
ON														
	OFF	OFF	OFF											
1			4											
70	35 (CPU Clock / 2)	ON <table border="1" style="display: inline-table; vertical-align: middle;"> <tr><td></td><td>ON</td><td></td><td></td></tr> <tr><td>OFF</td><td></td><td>OFF</td><td>OFF</td></tr> <tr><td>1</td><td></td><td></td><td>4</td></tr> </table>		ON			OFF		OFF	OFF	1			4
	ON													
OFF		OFF	OFF											
1			4											
75	25 (CPU Clock / 2)	ON <table border="1" style="display: inline-table; vertical-align: middle;"> <tr><td>ON</td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td>OFF</td><td>OFF</td></tr> <tr><td>1</td><td></td><td></td><td>4</td></tr> </table>	ON						OFF	OFF	1			4
ON														
		OFF	OFF											
1			4											
80	26.6 (CPU Clock / 3)	ON <table border="1" style="display: inline-table; vertical-align: middle;"> <tr><td></td><td></td><td>ON</td><td></td></tr> <tr><td>OFF</td><td>OFF</td><td></td><td>OFF</td></tr> <tr><td>1</td><td></td><td></td><td>4</td></tr> </table>			ON		OFF	OFF		OFF	1			4
		ON												
OFF	OFF		OFF											
1			4											
83.3	27.7 (CPU Clock / 3)	ON <table border="1" style="display: inline-table; vertical-align: middle;"> <tr><td></td><td></td><td>ON</td><td></td></tr> <tr><td>ON</td><td></td><td>OFF</td><td></td></tr> <tr><td>1</td><td></td><td></td><td>4</td></tr> </table>			ON		ON		OFF		1			4
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ON		OFF												
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95	31.7 (CPU Clock / 3)	ON <table border="1" style="display: inline-table; vertical-align: middle;"> <tr><td></td><td>ON</td><td>ON</td><td></td></tr> <tr><td></td><td></td><td></td><td>OFF</td></tr> <tr><td>1</td><td></td><td></td><td>4</td></tr> </table>		ON	ON					OFF	1			4
	ON	ON												
			OFF											
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100	33.3 (CPU Clock / 3)	ON <table border="1" style="display: inline-table; vertical-align: middle;"> <tr><td>ON</td><td>ON</td><td>ON</td><td></td></tr> <tr><td></td><td></td><td></td><td>OFF</td></tr> <tr><td>1</td><td></td><td></td><td>4</td></tr> </table>	ON	ON	ON					OFF	1			4
ON	ON	ON												
			OFF											
1			4											

SW1-1

CPU Clock	PCI Clock	SW1												
75	37.5 (CPU Clock / 2)	ON <table border="1" style="display: inline-table; vertical-align: middle;"> <tr><td></td><td></td><td></td><td>ON</td></tr> <tr><td>OFF</td><td>OFF</td><td>OFF</td><td></td></tr> <tr><td>OFF</td><td></td><td></td><td></td></tr> </table> 1 4				ON	OFF	OFF	OFF		OFF			
			ON											
OFF	OFF	OFF												
OFF														
80	40 (CPU Clock / 2)	ON <table border="1" style="display: inline-table; vertical-align: middle;"> <tr><td></td><td></td><td></td><td>ON</td></tr> <tr><td></td><td>OFF</td><td>OFF</td><td></td></tr> <tr><td></td><td></td><td></td><td></td></tr> </table> 1 4				ON		OFF	OFF					
			ON											
	OFF	OFF												
83.3	41.6 (CPU Clock / 2)	ON <table border="1" style="display: inline-table; vertical-align: middle;"> <tr><td></td><td>ON</td><td></td><td>ON</td></tr> <tr><td>OFF</td><td></td><td>OFF</td><td></td></tr> <tr><td></td><td></td><td></td><td></td></tr> </table> 1 4		ON		ON	OFF		OFF					
	ON		ON											
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105	35 (CPU Clock / 2)	ON <table border="1" style="display: inline-table; vertical-align: middle;"> <tr><td></td><td>ON</td><td></td><td>ON</td></tr> <tr><td></td><td>ON</td><td></td><td>OFF</td></tr> <tr><td></td><td></td><td></td><td></td></tr> </table> 1 4		ON		ON		ON		OFF				
	ON		ON											
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110	36.6 (CPU Clock / 3)	ON <table border="1" style="display: inline-table; vertical-align: middle;"> <tr><td></td><td></td><td>ON</td><td>ON</td></tr> <tr><td>OFF</td><td>OFF</td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td></tr> </table> 1 4			ON	ON	OFF	OFF						
		ON	ON											
OFF	OFF													
115	38.3 (CPU Clock / 3)	ON <table border="1" style="display: inline-table; vertical-align: middle;"> <tr><td></td><td>ON</td><td>ON</td><td>ON</td></tr> <tr><td></td><td>OFF</td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td></tr> </table> 1 4		ON	ON	ON		OFF						
	ON	ON	ON											
	OFF													
120	40 (CPU Clock / 3)	ON <table border="1" style="display: inline-table; vertical-align: middle;"> <tr><td></td><td>ON</td><td>ON</td><td>ON</td></tr> <tr><td>OFF</td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td></tr> </table> 1 4		ON	ON	ON	OFF							
	ON	ON	ON											
OFF														
124	41.3 (CPU Clock / 3)	ON <table border="1" style="display: inline-table; vertical-align: middle;"> <tr><td></td><td>ON</td><td>ON</td><td>ON</td></tr> <tr><td>ON</td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td></tr> </table> 1 4		ON	ON	ON	ON							
	ON	ON	ON											
ON														



SW1-2

Jumper Settings

■ JFAN 1~2: Onboard FAN (12V) Connector

FAN#	Function
JFAN1	CPU FAN
JFAN2	System FAN

■ JVIO: Single / Dual Voltage Select

Status	JVIO
Single Voltage For P54C / K5 / 6x86 CPUs	5 3 1  6 4 2
Dual Voltage For MMX / 6x86L / MII / K6 / K6-2 / K6-III CPUs	5 3 1  6 4 2

■ JBAT1: Clear CMOS Data

Status	JBAT1
Hold CMOS Data (Default)	1  3
Clear CMOS Data	1  3

■ JWOL1: Wake On LAN

connect the network card to WOL signal connector.

■ JCD_IN1: CD-ROM Audio connector

Connect JCD_IN1 to the CD-ROM Audio Connector.

■ CD_IN1: CD-ROM Audio connector

Connect CD_IN1 to the CD-ROM Audio Connector.

■ GAME / MIDI Port:

Connect Joystick or MIDI device to this port.

- ***MIC: Microphone Jack***
- ***LINE IN: Audio in Jack***
- ***LINE / SPEAKER OUT: Audio out Jack***
- ***RT2: Reserved***

■ **J1 Switch Signal Summary**

J1	Pin	Signal Description
HDD LED Connector	1	+5V
	2	HDD LED Signal
	3	HDD LED Signal
	4	+5V
N.C.	5	No Connection
Infrared Connector	6	Infrared Transmit Signal
	7	GND
	8	Infrared Receive Signal (low speed)
	9	Infrared Receive Signal (high speed)
	10	+5V
N.C.	11	No Connection
PWR	12	5V Standby
	13	Power Switch
SLEEP	14	SMI Signal
	15	GND

J1 pin1 ~ pin4: IDE LED Activity Light

This connector connects to the hard disk activity indicator light on the case.

J1 pin6 ~ pin10: Infrared Port Module Connector

The system board provides a 5-pin infrared connector-R1 for an optional wireless transmitting and receiving module. Pin 6 through pin 10 are Transmit, GND, Receive (low speed), Receive (high speed), and Vcc, Respectively.

J1 pin12, pin13: ATX Power Switch

Toggle this pin for turning on/off the ATX Power Supply.

J1 pin14, pin15: Sleep Switch

Toggle this jumper force the system to sleep and the system won't wake up until the hardware event is coming. (the BIOS Power Management setting must be Enabled.)

■ J2 Switch Signal Summary

J2	Pin	Signal Description
Speaker Connector	1	Speaker Signal
	2	No Connection
	3	Ground
	4	+5V
Reset Switch	5	Reset Signal
	6	Ground
N.C.	7	No Connection
Power LED Connector	8	+5V
	9	No Connection
	10	Ground
N.C.	11	No Connection
	12	No Connection
N.C.	13	No Connection
Turbo LED Connector	14	Turbo LED Connector
	15	Ground

J2 pin1 ~ pin4: Speaker Connector

The speaker connector is a 4-pin connector for connecting the system and the speaker.

J2 pin5, pin6: Reset Switch

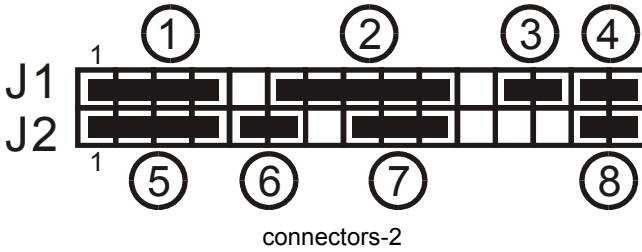
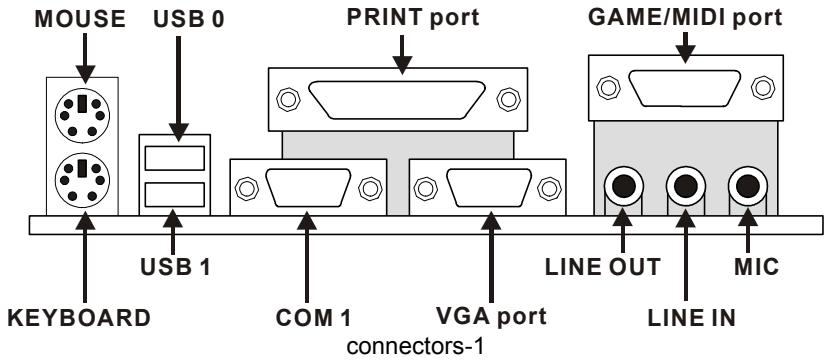
The system board has a 2-pin connector for rebooting your computer without having to turn off your power switch. This prolongs the life of the system's power supply.

J2 pin8 ~ pin10: Power LED

See the following drawing for jumper position, and pin8 ~ pin10 is connected to power LED.

J2 pin14 ~ pin15: Turbo LED

Connectors



- | | |
|------------------|-------------------|
| ① : HDD LED | ② : INFRARED (IR) |
| ③ : POWER SWITCH | ④ : SLEEP SWITCH |
| ⑤ : SPEAKER | ⑥ : RESET SWITCH |
| ⑦ : POWER LED | ⑧ : TURBO LED |

Software setup

■ Onboard AC97 Audio Codec Driver Installation

For Windows95/98:

1. Enter Control Panel ->Device Manager -> Sound,video and game controller -> VIA AC97 PCI AUDIO Device [WDM Driver]
2. Press Mouse right button (or double click this item).
3. Select "Update Driver" and change the directory to CD\Driver\Audio\VIA AC97\Win9X\VIAAUDIO.INF (Win9X depend on user's O.S.: Win95 or Win98).
4. Reboot the system.

For Windows NT4.0:

1. Enter Control Panel ->Multimedia ->Device ->Add ->select "Unlist or Updated Driver"
2. Change the directory to CD:\Driver\Audio\VIA\AC97\WINNT40\OEMSETUP.INF
3. Reboot the system.

NOTE: If user want to use external sound card, then user must "disabled" "OnChip Sound" option in the BIOS "CHIPSET FEATURE SETUP".

■ Onboard VGA Driver Installation

For Win95/98, NT4.0:

1. Enter Control Panel ->Device Manager -> Display adapters
2. Press Mouse right button (or double click this item). Select "Change..." and there will appear a window asks you to continue, press "Next".
3. Then select "Display a list of drivers in a specific location, so you can select the driver you want." dialog box and press "Next".
4. Press "Have Disk" and press "Next".
5. Press "Browse...", change the directory to CD-ROM location, if the CD-ROM is D, change to **D:\Driver\MVP4\VGA\Win9x\Trident.inf** and press "OK".
6. Select "**Trident 8400 PCI/AGP(v6.50.5474)**", and press "OK".
7. Press "Yes" and finish the process.

Chapter 3

Award BIOS Setup

This motherboard comes with the AWARD BIOS from AWARD Software Inc. Enter the Award BIOS program Main Menu by:

1. Turn on or reboot the system. After a series of diagnostic checks, the following message will appear:

PRESS TO ENTER SETUP

2. Press the key and the main program screen will appear as follows.

ROM PCI/ISA BIOS
CMOS SETUP UTILITY
AWARD SOFTWARE, INC.

STANDARD CMOS SETUP	CPU SPEED SETTING
BIOS FEATURES SETUP	INTEGRATED PERIPHERALS
CHIPSET FEATURES SETUP	SUPERVISOR PASSWORD
POWER MANAGEMENT SETUP	USER PASSWORD
PNP/PCI CONFIGURATION	IDE HDD AUTO DETECTION
LOAD SETUP DEFAULTS	SAVE & EXIT SETUP
	EXIT WITHOUT SAVING
Esc : Quit	↑ ↓ → ← :Select Item
F10 : Save & Exit Setup	(Shift) F2 : Change Color
Time, Date,Hard Disk Type...	

3. Using the arrows on your keyboard, select an option, and press <Enter>. Modify the system parameters to reflect the options installed in your system.
4. You may return to the Main Menu anytime by pressing <ESC> .
5. In the Main Menu, "SAVE AND EXIT SETUP" saves your changes and reboots the system, and "EXIT WITHOUT SAVING" ignores your changes and exits the program.

Standard CMOS Setup

Standard CMOS Setup allows you to record some basic system hardware configuration and set the system clock and error handling. You only need to modify the configuration values of this option when you change your system hardware configuration or the configuration stored in the CMOS memory gets lost or damaged.

Run the Standard CMOS Setup as follows:

1. Choose "STANDARD CMOS SETUP" from the Main Menu and a screen with a list of options will appear.

ROM PCI/ISA BIOS								
STANDARD CMOS SETUP								
AWARD SOFTWARE, INC.								
Date (mm:dd:yy) : Thu, May 9 1996								
Time (hh:mm:ss) : 15 : 45 : 10								
HARD DISKS	TYPE	SIZE	CYLS	HEAD	PRECOMP	LANDZ	SECTOR	MODE
Primary Master	: Auto	0	0	0	0	0	0	Auto
Primary Slave	: Auto	0	0	0	0	0	0	Auto
Secondary Master	: Auto	0	0	0	0	0	0	Auto
Secondary Slave	: Auto	0	0	0	0	0	0	Auto
Drive A: 1.44M, 3.5 in.					Base Memory: 640K Extended Memory: 15360K Other Memory: 384K <hr/> Total Memory: 16384K			
Drive B: None								
Video : EGA/VGA								
Halt On : All Errors								
Esc : Quit			↑ ↓ → ← : Select Item			PU/PD/+/- : Modify		
F1 : Help			(Shift) F2 : Change Color					

2. Use one of the arrow keys to move between options and modify the selected options by using PgUp/PgDn/+/- keys.

A short description of the screen options is as follows:

Date (mm:dd:yy) Time (hh:mm:ss)	Set the current date and time.
Primary (Secondary)	This field records the specifications for all non-SCSI hard disk drives
Master/Slave	installed in your system. Refer to the respective documentation on how to install the drives.
Drive A/B	Set this field to the type(s) of floppy disk drive(s) installed in your system. The choices are: 360KB, 5.25 in., 1.2MB, 5.25 in., 720KB, 3.5 in., 1.44M, 3.5 in. (default), 2.88MB, 3.5 in., or None
Video	Set this field to the type of video display card installed in the system. The choices are: Monochrome; Color 40x25; VGA/EGA (default); Color 80x25
Halt On	Set this warning feature for the type of errors that will cause the system to halt. The choices are: All Errors (default); No Errors; All, But Keyboard; All, But Diskette; or All, But Disk/Key

3. Press <ESC> to return to the Main Menu when you finish setting up the “Standard CMOS Setup”

BIOS Features Setup

BIOS Features Setup allows you to improve your system performance or set up system features according to your preference.

Run the BIOS Features Setup as follows:

1. Choose "BIOS FEATURES SETUP" from the Main Menu and a screen with a list of options will appear.

ROM PCI/ISA BIOS
BIOS FEATURES SETUP
AWARD SOFTWARE, INC.

Virus Warning	: Disabled	Video BIOS Shadow	: Enabled
CPU Internal Cache	: Enabled	C8000-CBFFF Shadow	: Disabled
External Cache	: Enabled	CC000-CFFFF Shadow	: Disabled
CPU L2 Cache ECC Checking	: Enabled	D0000-D3FFF Shadow	: Disabled
Quick Power on Self Test	: Enabled	D4000-D7FFF Shadow	: Disabled
Boot Sequence	: A,C,SCSI	D8000-DBFFF Shadow	: Disabled
Swap Floppy Drive	: Disabled	DC000-DFFFF Shadow	: Disabled
Boot Up Floppy Seek	: Disabled		
Boot Up NumLock Status	: On		
IDE HDD Block MODE	: Enabled		
Gate A20 Option	: Fast		
Memory Parity/ECC Check	: Disabled	ESC :Quit	↑ ↓ → ←: Select Item
Typematic Rate Setting	: Disabled	F1 :Help	PU/PD/+/-: Modify
Typematic Rate (Chars/Sec)	: 6	F5 :Old Values(Shift)	F2 : Color
Typematic Delay (Msec)	: 250	F6 :Load BIOS Defaults	
Security Option	: Setup	F7 :Load Setup Defaults	
PCI/VGA Palette Snoop	: Disabled		
OS Select for DRAM > 64MB	: Non-OS/2		
Report No FDD For WIN 95	: No		

2. Use one of the arrow keys to move between options and modify the selected options by using PgUp/PgDn/+/- keys. An explanation of the <Fx> keys follows:
 - <F1>: "Help" gives options available for each item.
 - Shift <F2>: Change color.
 - <F5>: Get the previous values. These values are the values with which the user started in the current session.
 - <F6>: Load all options with the BIOS default values.
 - <F7>: Load all options with the Setup default values.

A short description of screen options follows:

Virus Warning Enabled: Activates automatically when the system boots up causing a warning message to appear if there is anything attempting to access the boot sector or hard disk partition table.
Disabled: No warning message will appear when there is something attempting to access the boot sector or hard disk partition table

Note: *Many diagnostic (or boot manager) programs which attempt to access the boot sector table can cause the above warning message. If you will be running such a program, we recommend that you disable the virus protection first.*

CPU Internal Cache Choose Enabled (default) or Disabled. This option allows you to enable or disable the CPU's internal cache.

External Cache Choose Enabled (default) or Disabled. This option allows you to enable or disable the external cache memory.

Quick Power On Self Test Choose Enabled (default) or Disabled. This option allows you to speed up the Power-On Self-Test routine.

Boot Sequence Default is "A, C, SCSI" This option determines which drive to look at first for an operating system.

Swap Floppy Drive Choose Enabled or Disabled(default). This option swaps floppy drive assignments when it is enabled.

Boot Up Floppy Seek Enabled (default): During POST, BIOS checks the track number of the floppy disk drive to see whether it is 40 or 80 tracks.
Disabled: During POST, BIOS will not check the track number of the floppy disk drive.

Boot Up NumLock Status	Choose On (default) or Off. This option lets user activate the NumLock function at boot-up.
Gate A20 Option	Choose Normal or Fast (default). This option allows the RAM to access the memory above 1MB by using the fast gate A20 line.
Memory Parity /ECC Check	Choose Enabled or Disabled
Typematic Rate Setting	Choose Enabled or Disabled(default). Enable this option to adjust the keystroke repeat rate.
Typematic Rate (Chars/Sec)	Range between 6 (default) and 30 characters per second. This option controls the speed of repeating keystrokes.
Typematic Delay (Msec)	Choose 250 (default), 500, 750, and 1000. This option sets the time interval for displaying the first and the second characters.
Security Option	Choose System or Setup (default). This option prevents unauthorized system boot-up or use of BIOS Setup.
PCI/VGA palette Snoop	Choose Enabled or Disabled(default). It determines whether or not the MPEG ISA cards can work with PCI/VGA.
OS Select for DRAM > 64MB	Non-OS2 (default): For Non-OS/2 system. OS/2: For OS/2 system.
Report No FDD For WIN95	Yes: BIOS reports "NO FDD" to Win95. No (default): BIOS will not report "NO FDD" to Win95.
Video BIOS RAM. Shadow	Enabled (default): Map the VGA BIOS to system RAM. Disabled: Will not map the VGA BIOS to system RAM.

**C8000-CBFFF to
DC000-DFFF
Shadow**

These options are used to shadow other expansion card ROMs.

3. Press <ESC> and follow the screen instructions to save or disregard your settings.

Chipset Features Setup

Chipset Features Setup changes the values of the chipset registers. These registers control the system options.

Run the Chipset Features Setup as follows:

1. Choose "CHIPSET FEATURES SETUP" from the Main Menu and a screen with a list of options will appear.

ROM PCI/ISA BIOS
CHIPSET FEATURES SETUP
AWARD SOFTWARE, INC.

Bank 0/1 DRAM Timing	: SDRAM 10ns	
Bank 2/3 DRAM Timing	: SDRAM 10ns	
Bank 4/5 DRAM Timing	: SDRAM 10ns	
SDRAM Cycle Length	: 3	
DRAM Read Pipeline	: Disabled	
Sustained 3T Write	: Enabled	
Cache R/CPU W Pipeline	: Enabled	
Cache Timing	: Fast	
System BIOS Cacheable	: Enabled	
Video BIOS Cacheable	: Enabled	
Memory Hole	: Disabled	
Init Display First	: PCI Slot	
Frame Buffer Size	: 8M	
AGP Aperture Size	: 64M	
OnChip USB	: Enabled	ESC: Quit ↑ ↓ → ←: Select Item
Onchip USB 2	: Enabled	F1 : Help PU/PD/+/-: Modify
USB Keyboard Support	: Disabled	F5 : Old Values (Shift)F2 : Color
Onchip Sound	: Enabled	F6 : Load BIOS Defaults
Onchip Modem	: Disabled	F7 : Load Setup Defaults

2. Use one of the arrow keys to move between options and modify the selected options by using PgUp/PgDn/+/- keys.

A short description of screen options follows:

Bank 0/1 2/3 4/5 DRAM Timing

This item allows you to select the value in this field, depending on whether the board has paged DRAMs or EDO (extended data output) DRAMs. The Choice: EDO 50ns, EDO 60ns, Slow, Medium, Fast, Turbo.

SDRAM Cycle Length Time

You can select CAS latency time in HCLKs of 2/2 or 3/3. The system board designer should have set the values in this field, depending on the DRAM installed. Do not change the values in this field unless you change specifications of the installed DRAM or

the installed CPU.

**System BIOS
Cacheable**

Choose Enabled or Disabled(default). When Enabled, the access to the system BIOS ROM addressed at F0000H-FFFFFH is cached.

**Video BIOS
Cacheable**

Choose Enabled or Disabled(default). When Enabled, the access to the VGA BIOS addressed is cached.

Memory Hole

Choose Enabled or Disabled (default). In order to improve performance, certain space in memory can be reserved for ISA cards. This memory must be mapped into the memory's space below 16MB.

Init Display First

This item allows you to decide to active whether PCI Slot or AGP first. The choice: PCI Slot, AGP.

**AGP Aperture Size
(MB)**

Choose 4 , 8, 16, 32, 64 (default), 128, or 256 MB. Memory mapped and graphics data structures can reside in a Graphics Aperture. This area is like a linear buffer. BIOS will automatically report the starting address of this buffer to the O.S.

**OnChip USB
OnChip USB2**

This should be enabled if your system has a USB installed on the system board and you wish to use it. Even when so equipped, if you add a higher performance controller, you will need to disable this feature.
The choice: Enabled, Disabled.

**USB Keyboard
Support**

Enabled: Enables function when the USB keyboard is being used.
Disabled: (default) When the AT keyboard is being used.

OnChip Sound

Enabled (default): Turn on AC97 chip Controller.
Disabled: Turn off AC97 chip controller or User can external add-on sound card

OnChip Modem

Enabled :Turn on MC99 feature.

Disabled(default):Disabled AC97 chip controller or
User can external add-on modem

3. Press <ESC> and follow the screen instructions to save or disregard your settings.

Power Management Setup

Power Management Setup sets the system's power saving functions.

1. Choose "POWER MANAGEMENT SETUP" from the Main Menu and a screen with a list of options will appear.

ROM PCI/ISA BIOS
POWER MANAGEMENT SETUP
AWARD SOFTWARE, INC.

ACPI Function	:Disabled	Primary INTR	: ON
Power Management	:User Define	IRQ3 (COM2)	: Primary
PM Control by APM	:Yes	IRQ4 (COM1)	: Primary
Video Off Method	:V/H SYNC+Blank	IRQ5 (LPT2)	: Primary
Video Off After	:Suspend	IRQ6 (Floppy Disk)	: Primary
Modem Use IRQ	:3	IRQ7 (LPT 1)	: Primary
HDD Power Down	:Disabled	IRQ8 (RTC Alarm)	: Disabled
Doze Mode	:Disabled	IRQ9 (IRQ2 Redir)	: Secondary
Suspend Mode	:Disabled	IRQ10 (Reserved)	: Secondary
Soft-Off by PWRBTN	:Instant-Off	IRQ11 (Reserved)	: Secondary
PWON After PW-Fail	:Former-Sts	IRQ12 (RS/2 Mouse)	: Primary
PM Events		IRQ13 (Coprocessor)	: Primary
VGA	:OFF	IRQ14 (Hard Disk)	: Primary
LPT&COM	:LPT/COM	IRQ15 (Reserved)	: Disabled
HDD&FDD	:ON	ESC : Quit ↑ ↓ → ← : Select Item	
DMA/master	:OFF	F1 : Help PU/PD/+/- : Modify	
RTC Alarm Resume	:Enabled	F5 : Old Values (Shift)F2 : Color	
Date(of Month)	: 0	F6 : Load BIOS Defaults	
Timer(hh:mm:ss)	: 0: 0: 0	F7 : Load Setup Defaults	
Modem Ring Resume	:Disabled		

2. Use one of the arrow keys to move between options and modify the selected options by using PgUp/PgDn/+/- keys.

A short description of screen options follows:

ACPI Function	Enabled: Turn on ACPI Function. Disabled(default): Turn off ACPI Function.
Power Management	Choose Max. Saving, User Define(default), Disabled, or Min. Saving.
PM Control by APM	Choose Yes (default) or No. You need to choose Yes when the operating system has the APM functions, otherwise choose No.

Video Off Method This determines the manner in which the monitor is blanked.

V/H SYNC+Blank	This selection will cause the system to turn off the vertical and horizontal synchronization ports and write blanks to the video buffer.
Blank Screen	This option only writes blanks to the video buffer.
DPMS	Select this option if your monitor supports the Display Power Management Signaling (DPMS) standard of the Video Electronics Standards to select video power management values.

Video Off After Choose NA, Suspend, Standby(default), or Doze.

MODEM Use IRQ This determines the IRQ in which the MODEM can use. The choices: 3, 4, 5, 7, 9, 10, 11, NA.

Soft-Off by PWR-BTTN Pressing the power button for more than 4 seconds forces the system to enter the Soft-Off state when the system has "hung". The choices: Delay 4 Sec, Instant-Off.

Doze Mode When enabled and after the set time of system inactivity, the CPU clock will run at slower speed while all other devices still operate at full speed.

Suspend Mode When enabled and after the set time of system inactivity, all devices except the CPU will be shut off.

HDD Power Down When enabled and after the set time of system inactivity, the hard disk drive will be powered down while all other devices remain active.

PM Events

PM events are I/O events whose occurrence can prevent the system from entering a power saving mode or can awaken the system from such a mode. In effect, the system remains alert for anything which occurs to a device which is configured as On, even when the system is in a power down mode.

VGA When Enabled, your can set the LAN awakens the system.

LPT & COM When On of LPT & COM, any activity from one of the

	listed system peripheral devices or IRQs wakes up the system.
HDD & FDD	When On of HDD & FDD, any activity from one of the listed system peripheral devices wakes up the system.
DMA / master	When you are On of DMA / ISA Master, any activity from one of the list system peripheral devices wakes up the system.
Modem Ring Resume	An input signal on the serial Ring Indicator (RI) line (in other words, an incoming call on the modem) awakens the system from a soft off state.
RTC Alarm Function	When Enabled, your can set the date and time at which the RTC (real-time clock) alarm awakens the system from Suspend mode.
Primary INTR	When set to On, any event occurring at will awaken a system which has been powered down.

The following is a list of IRQ's, Interrupt ReQuests, which can be exempted much as the COM ports and LPT ports above can. When an I/O device wants to gain the attention of the operating system, it signals this by causing an IRQ to occur. When the operating system is ready to respond to the request, it interrupts itself and performs the service. When set On, activity will neither prevent the system from going into a power management mode nor awaken it.

- IRQ3 (COM 2)
- IRQ4 (COM 1)
- IRQ5 (LPT 2)
- IRQ6 (Floppy Disk)
- IRQ7 (LPT 1)
- IRQ8 (RTC Alarm)
- IRQ9 (IRQ2 Redir)
- IRQ10 (Reserved)
- IRQ11 (Reserved)
- IRQ12 (PS / 2 Mouse)
- IRQ13 (Coprocessor)
- IRQ14 (Hard Disk)
- IRQ15 (Reserved).

Note: These functions can only be activated when the power management option is Enabled

3. Press <ESC> and follow the screen instructions to save or disregard your settings.

PnP/PCI Configuration Setup

PnP/PCI Configuration Setup configures the PCI bus slots. Run the Chipset Features Setup as follows:

1. Choose "PnP/PCI CONFIGURATION SETUP" from the Main Menu and a screen with a list of options will appear.

ROM PCI/ISA BIOS
PNP/PCI CONFIGURATION
AWARD SOFTWARE, INC.

PNP OS Installed : No	CPU to PCI Write Buffer : Enabled
Resources Controlled By : Auto	PCI Dynamic Bursting : Enabled
Reset Configuration Data: Disabled	PCI Master 0 WS Write : Enabled
IRQ-3 assigned to : PCI/ISA PnP	PCI Delay Transaction : Enabled
IRQ-4 assigned to : PCI/ISA PnP	PCI#2 Access #1 Retry : Disabled
IRQ-5 assigned to: PCI/ISA PnP	AGP Master 1 WS Write : Enabled
IRQ-7 assigned to: PCI/ISA PnP	AGP Master 1 WS Read : Disabled
IRQ-9 assigned to: PCI/ISA PnP	PCI IRQ Activated By : Level
IRQ-10 assigned to: PCI/ISA PnP	Assign IRQ For USB : Enabled
IRQ-11 assigned to: PCI/ISA PnP	Assign IRQ For VGA : Enabled
IRQ-12 assigned to: PCI/ISA PnP	
IRQ-14 assigned to: PCI/ISA PnP	
IRQ-15 assigned to: PCI/ISA PnP	
DMA-0 assigned to: PCI/ISA PnP	
DMA-1 assigned to: PCI/ISA PnP	ESC : Quit ↑ ↓ → ←: Select Item
DMA-3 assigned to: PCI/ISA PnP	F1 : Help PU/PD/+/- : Modify
DMA-5 assigned to: PCI/ISA PnP	F5 : Old Values (Shift) F2 : Color
DMA-6 assigned to: PCI/ISA PnP	F6 : Load BIOS Defaults
DMA-7 assigned to : PCI/ISA PnP	F7 : Load Setup Defaults

2. Use one of the arrow keys to move between options and modify the selected options by using PgUp/PgDn/+/- keys.

A short description of screen options follows:

PNP OS Installed Yes: OS supports Plug and Play function.
No (default): OS doesn't support Plug and Play function.

Note: BIOS will automatically disable all PnP resources except the boot device card when you select Yes on Non-PnP OS..

Resources Controlled By Choose Manual (default) or Auto. The BIOS checks the IRQ/DMA channel number on the ISA and PCI card manually if you choose Manual and the IRQ/DMA channel number will be checked automatically if you choose Auto.

Reset Choose Enabled or Disabled(default). Disabled retains

Configuration Data	PnP configuration data in BIOS and Enabled resets the PnP configuration data in the BIOS.
IRQ-x assigned to DMA-x assigned to	Legacy ISA: Manually assigns IRQ/DMA to device. PCI/ISA PnP: BIOS assigns IRQ/DMA to device automatically.
Assign IRQ for USB	Choose Enabled (default) or Disabled. Enabled: Add one IRQ to USB controller. Disabled: Remove IRQ from USB controller. The system will have extra IRQ for other devices but the USB controller will still not be disabled (only IRQ was removed.)
Assign IRQ for VGA	Choose Enabled (default) or Disabled. Enabled: Add one IRQ to VGA controller. Disabled: Remove IRQ from VGA controller. The system will have extra IRQ for other devices but the VGA controller will still not be disabled (only IRQ will be removed.)

3. Press <ESC> and follow the screen instructions to save or disregard your settings.

Load Setup Defaults

Load Setup Defaults option loads the default system values to the system configuration fields. If the CMOS is corrupted the defaults are loaded automatically. Choose this option and the following message will appear:

"Load Setup Defaults (Y/N)? N"

To use the Setup defaults, change the prompt to "Y" and press <Enter>.

CPU SPEED SETTING

ROM PCI/ISA BIOS
PNP/PCI CONFIGURATION
AWARD SOFTWARE, INC.

Current cpu Temp.	:33 C / 91 F
Current System Temp.	:26 C / 78 F
Current CPUFAN1 Speed	: 3810 RPM
Current CPUFAN2 Speed	: 0 RPM
Vcore: 1.96V	2.5V : 2.46 V
3.3V: 3.36V	5V : 5.02 V
12V: 12.00V	

ESC : Quit		↑ ↓ → ← : Select Item
F1 : Help	PU/PD/+/-	: Modify
F5 : Old Values (Shift)	F2	: Color
F6	: Load BIOS Defaults	
F7	: Load Setup Defaults	

Integrated Peripherals

Integrated Peripherals option changes the values of the chipset registers. These registers control system options in the computer.

1. Choose "INTEGRATED PERIPHERALS" from the Main Menu and a screen with a list of options will appear.

ROM PCI/ISA BIOS INTEGRATED PERIPHERALS AWARD SOFTWARE, INC.			
Onchip IDE Channel0	: Enabled	Onboard Parallel Mode	: ECP/EPP
Onchip IDE Channel1	: Enabled	ECP Mode Use DMA	: 3
IDE Prefetch Mode	: Enabled	Parallel Port EPP Type	: EPP1.7
IDE HDD Block Mode	: Enabled	Onboard Legacy Audio	: Enabled
Primary Master PIO	: Auto	Sound Blaster	: Enabled
Secondary Master PIO	: Auto	SB I/O Base Address	: 220H
Secondary Slave PIO	: Auto	SB IRQ Select	: IRQ 5
Primary Master UDMA	: Auto	SB DMA Select	: DMA 1
Primary Slave UDMA	: Auto	MPU-401	: Disabled
Secondary Master UDMA	: Auto	MPU-401 I/O Address	: 330-333H
Secondary Slave UDMA	: Auto	FM Port (388-38BH)	: Disabled
Onboard FDC Controller	: Enabled	Game Port (200-207H)	: Enabled
Onboard Serial Port 1	: 3F8/IRQ4		
Onboard Serial Port 2	:		
2F8/IRQ3			
UART 2 Mode	: HPSIR	ESC : Quit	↑ ↓ → ← : Select Item
IR Function Duplex	: Half	F1 : Help	PU/PD/+/- : Modify
TX,RX, inverting enable	: No,No	F5 : Old Values (Shift)	F2: Color
Onboard Parallel Port	: 378/IRQ7	F6 : Load BIOS Defaults	
		F7 : Load Setup Defaults	

2. Use one of the arrow keys to move between options and modify the selected options by using PgUp/PgDn/+/- keys.

A short description of screen options is as follows:

On-Chip IDE Channel 0/1	Enabled (default): Turn on the onboard IDE function. Disabled: Turn off the onboard IDE function.
IDE Prefetch Mod	The onboard IDE drive interfaces supports IDE prefetching, for faster drive accesses. If you install a primary and/or secondary add-in IDE interface, set this field to Disabled if the interface does not support prefetching. The choice: Enabled, Disabled.
IDE HDD Block Mode	Choose Enabled (default) or Disabled. If your hard disk size is larger than 540MB, choose Enabled, and, if you are using the IDE HDD Auto Detection option, the BIOS will choose this option automatically.

Note: Some older model HDDs don't provide this feature.

Primary Master/Slave PIO Secondary Master/Slave PIO	Choose Auto (default) or Mode 0~4. The BIOS will detect the HDD Mode type automatically when you choose Auto. You need to set to a lower mode than Auto when your hard disk becomes unstable.
Primary Master/Slave UDMA Secondary Master/Slave UDMA	Ultra DMA/33 implementation is possible only if your IDE hard drive supports it and the operating environment includes a DMA driver (Windows 95 OSR2 or a third-party IDE bus master driver). If your hard drive and your system software both support Ultra DMA/33, select Auto to enable BIOS support. The Choice: Auto, Mode 0, Mode 1, Mode 2.
Onboard FDC Controller	Choose Enabled (default) or Disabled. Choose Disabled when you use an ISA card with FDD function, or , choose Enabled to use the onboard FDD connector.
Onboard Serial Port 1	Choose Auto (default), 3F8/IRQ4, 2F8/IRQ3, 3E8/IRQ4, 2E8/IRQ3, or Disabled. Do not set port 1 & 2 to the same value, except when setting at Disabled.
Onboard Serial Port 2	Choose Auto (default), 3F8/IRQ4 , 2F8/IRQ3, 3E8/IRQ4, 2E8/IRQ3, or Disabled.
UART 2 Mode	Choose Standard (default), HPSIR, or ASKIR.
IR Function Duplex	Choose Half or Full.
Onboard Parallel Port	Choose the printer I/O address: 378H/IRQ7 (default), 3BCH/IRQ7, 278H/IRQ5, Disabled
Onboard Parallel Mode	Choose Normal (default), ECP/EPP EPP, or ECP mode. The mode depends on the external device connected to this port.
ECP Mode Use DMA	Choose DMA3 (default) or DMA1. Most sound cards use DMA1. Check with your sound card configuration to make sure that there is no conflict with this function.

***: This option will not be displayed unless the EPP/ECP function is selected..**

**Parallel Port
EPP Type**

Choose EPP1.7 (default) or EPP1.9. EPP1.9 supports hardware handshake. This setting is dependent upon your EPP device.

Note: *The above 2 options will not be displayed unless the EPP/ECP function is selected.*

3. Press <ESC> and follow the screen instructions to save or disregard your settings.

Supervisor/User Password

These two options allow you to set your system passwords. Normally, the supervisor has a higher ability to change the CMOS setup option than the user. The way to set up the passwords for both Supervisor and User are as follows:

1. Choose "Change Password" in the Main Menu and press <Enter>. The following message appears:

"Enter Password:"

2. The first time you run this option, enter your password up to 8 characters and press <Enter>. The screen does not display the entered characters.
3. After you enter the password, the following message appears prompting you to confirm the password:

"Confirm Password:"

4. Enter the same password "exactly" as you just typed again to confirm the password and press <Enter>.
5. Move the cursor to Save & Exit Setup to save the password.
6. If you need to delete the password you entered before, choose the Supervisor Password and press <Enter>. It will delete the password that you had before.
7. Move the cursor to Save & Exit Setup to save the option you did, otherwise the old password will still be there the next time you turn your machine on.
8. Press <ESC> to exit to the Main Menu.

Note: If you forget or lose the password, the only way to access the system is to clear the CMOS RAM by setting JBAT1. All setup information will be lost and you need to run the BIOS setup program again.

IDE HDD Auto Detection

IDE HDD Auto Detection detects the parameters of an IDE hard disk drive and automatically enters them to the Standard CMOS Setup screen.

The screen will ask you to select a specific hard disk for Primary Master after you select this option. If you accept a hard disk detected by the BIOS, you can enter "Y" to confirm and then press <Enter> to check next hard disk. This function allows you to check four hard disks and you may press the <ESC> after the <Enter> to skip this function and go back to the Main Menu.

Save & Exit Setup

Save & Exit Setup allows you to save all modifications you have specified into the CMOS memory. Highlight this option on the Main Menu and the following message appears:

```
SAVE to CMOS and EXIT (Y/N)? Y
```

Press <Enter> key to save the configuration changes.

Exit Without Saving

Exit Without Saving allows you to exit the Setup utility without saving the modifications that you have specified. Highlight this option on the Main Menu and the following message appears:

```
Quit Without Saving (Y/N)? N
```

You may change the prompt to "Y" and press the <Enter> key to leave this option.