# **50LTEK**®

# SL-75KV+/75KV2/75JV/75JV2

**USER MANUAL V1.1** 

### **USER NOTICE**

Product Model : SL-75KV+/KV2/JV/JV2

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his Users Guide & Technical Reference is for assisting system manufacturers and end-users in setting up and installing the mainboard.

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### CONTENT

Chapter 1	C	ha	pter	1
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INTRODUCTION	7
1-1 ITEM LIST CHECKUP	7
1-2 PROCESSOR	7
1-3 CHIPSET	7
1-4 ADVANCED HIGH PERFORMANCE DRAM CONTROLLER	7
1-5 FULL FEATURED ACCELERATED GRAPHICS PORTS (A	(GP)
CONTROLLER	8
1-6 MULTI-I/O FUNCTION	8
1-7 EXTENSION SLOTS	8
1-8 BIOS	
1-9 SOUND CONTROLLER (FOR 75KV+ & 75KV2 ONLY)	9
1-10 POWER MANAGEMENT	9
1-11 FROM FACTOR	
1-12 HARDWARE MONITORING	
1-13 OTHERS	
1-14.1 MOTHERBOARD LAYOUT 75KV+/75KV2	
1-14.2 MOTHERBOARD LAYOUT 75JV/75JV2	
1-15.1 CHIPSET DIAGRAM 75KV+/75KV2	
1-15.2 CHIPSET DIAGRAM 75JV/75JV2	
1-16 MOTHERBOARD SPECIFICATION TABLE	14
Chapter 2	
HARDWARE SETUP	15
2-1 CPU INSTALLATION	15
2-2 AMD SOCKET A (SOCKET 462) PROCESSOR	16
2-3 MEMORY INSTALLATION	17
2-4 ACCELERATED GRAPHICS PORT(AGP) PRO INSTALLATION	18
2-5 HDD / FDD INSTALLATION	19

2-6 CPU FREQUENCY	20
2-7 BUS RATIO SELECT	21
2-8 JUMPER DEFINITIONS	23
2-8.1 ONBOARD FAN CONNECTOR (FAN1/FAN2)	23
2-8.2 USB PORT SELECT (JP1/JP2)	24
2-8.3 FACTORY (JP3)	
2-8.4 POWER LOST RESUME (JP7)	24
2-8.5 USB WAKE UP (JP9)	24
2-8.6 MEMORY MODULE VOLTAGE SELECT (JP10/JP11)	25
2-8.7 CLEAR CMOS DATA (JBAT1)	
2-8.8 WAKE ON LAN FUNCTION (WOL1)	26
2-8.9 CD-ROM AUDIO CONNECTOR (CD-IN1/CD-IN2)	26
2-8.10 THERMAL SENSOR CONNECTOR (RT2)	26
2-9 CONNECTORS	28
2-9.1 J3 AND J4	
2-9.2 CHASSIS PANEL CONNECTOR	31
2-9.3 ATX POWER SUPPLY CONNECTOR	32
2-9.4 SERIAL PORT CONNECTORS	33
2-9.5 SECOND USB CONNECTOR	34
2-9.6 PS/2 MOUSE AND PS/2 KEYBOARD	
2-9.7 IRQ DESCRIPTION	
2-9.8 VOICE DIAGNOSTIC FUNCTIONONLY FOR 75KV+->	(/KV2-
X/JV-X/JV2-X	37
Chapter 3	
SOFTWARE SETUP	39
3-1 ABOUT SUPPORT CD	39
3-2 VIA CHIPSET DRIVER INSTALLATION (4-IN-1 DRIVER)	
3-3 HARDWARE MONITOR INSTALLATION	
3-4 AC 97 AUDIO CODEC INSTALLATION	

# Chapter 4

BIOS Setup	46
4-1 INTRODUCE THE BIOS	46
4-2 WHAT IS BIOS SETUP	46
4-3 HOW TO RUN BIOS SETUP	46
4-4 WHAT IS CMOS	46
4-5 WHAT IS POST	47
4-6 BIOS UPGRADE	47
4-6.1 BEFORE UPGRADE BIOS	47
4-6.2 UPGRADE PROCESS	47
4-7 CMOS SETUP UTILITY	
4-8 STANDARD CMOS SETUP	51
4-9 ADVANCED BIOS FEATURES	53
4-10 ADVANCED CHIPSET FEATURES	
4-11 INTEGRATED PERIPHERALS	62
4-12 POWER MANAGEMENT SETUP	67
4-13 PNP / PCI CONFIGURATION	
4-14 PC HEALTH STATUS	
4-15 FREQUENCY/VOLTAGE CONTROL	77
4-16 LOAD FAIL-SAFE DEFAULTS	
4-17 LOAD OPTIMIZED DEFAULTS	
4-18 SET SUPERVISOR / USER PASSWORD	
4-19 SAVE & EXIT SETUP	80
4.20 EXIT WITHOUT SAVING	90

# CHAPTER 1 INTRODUCTION

### 1-1 ITEM LIST CHECKUP

- Motherboard
- Support CD
- User's Manual
- · Bundle Bonus Pack CD
- · Bundle Bonus Pack Manual
- Temperature Sensor Cable
- ATA 66/100 IDE Cable
- Temperature Sensor Cable
- RS232 Cable
- FDD Cable

### 1-2 PROCESSOR

- Supports AMD Athlon Thunderbird processors up to 1.0GHz or higher
- Supports AMD Athlon Duron processors up to 750MHz or higher
- 200MHz AMD Athlon system bus.
- Supports processor VID (voltage ID) and FID (frequency ID) auto detection

### 1-3 CHIPSET

- North Bridge VIA VT8363 (KT-133) system controller High Performance Athlon CPU Interface
- South bridge VIA VT82C686A or VIA VT82C686B

# 1-4 ADVANCED HIGH PERFORMANCE DRAM CONTROLLER

- Supports PC133 and PC100 SDRAM and Virtual Channel Memory (VCM) SDRAM up to 3 DIMMs
- · 64-bit data width and 3.3V DRAM interface
- Supports up to 1.5 GB memory space
- Different DRAM types may be used in mixed combinations
- PCI-2.2 compliant, 32 bit 3.3V PCI interface with 5V tolerant inputs

# 1-5 FULL FEATURED ACCELERATED GRAPHICS PORTS (AGP) CONTROLLER

- Synchronous and pseudo-synchronous with the host CPU bus with optimal skew control PCI AGP Mode 33MHz/66MHz/100MHz DDR 3x synchronous
- Supports 66MHz 1x, 2x and 4x modes for AD and SBA signaling
- AGP v2.0 compliant

### 1-6 MULTI-I/O FUNCTION

- Two UltraDMA 33/66 Master Mode PCI EIDE ports (for 75KV+ and 75JV only)
- Two UltraDMA 33/66/100 Master Mode PCI EIDE ports (for 75KV2 and 75JV2 only)
- Two UARTs for complete Serial Ports
- · One dedicated IR connector:
  - --Third serial port dedicated to IR function either through the two complete serial ports or the third delicated port Infrared-IrDA (HPSIR) and ASK( Amplitude Shift Keyed) IR
- · Multi-mode parallel connector:
  - --Standard mode, ECP and EPP support
- Floppy Disk connector:
  - -- Two FDDs with drive swap support
- · Universal Serial Bus connector:
  - -- USB v1.1 and Intel Universal HCI v1.1 compatible
  - --Provides 2 build-in USB ports (another 2 internal USB ports for extensible purpose require an optional USB connect cable)
- · PS/2 keyboard connector
- PS/2 Mouse connector

### 1-7 EXTENSION SLOTS

- Five PCI bus Master slots
- One ISA slot
- One AGP Pro 4x mode slot
- Three DIMM slots

### **1-8 BIOS**

- Award BIOS V6.0
- Supports Plug & Play V1.0
- · Flash Memory for easy upgrade
- · Year 2000 compliant
- · Supports BIOS writing protection

### 1-9 SOUND CONTROLLER (FOR 75KV+ & 75KV2 ONLY)

 SoundBlaster Pro Hardware and Direct Sound Ready AC97 Digital Audio Controller with Codec onboard

### 1-10 POWER MANAGEMENT

- ACPI 1.0 compliant (Advanced Configuration and Power Interface)
- APM V1.2 compliant (legacy power management)
- Supports ACPI suspend STR mode (Suspend To DRAM) and POS mode (Power On Suspend)
- · Supports Wake On LAN (WOL) & Wale On Modem
- Supports real time clock (RTC) with date alarm, month alarm, and century field
- Supports USB boot-up Function

### 1-11 FROM FACTOR

- ATX from factor, 4 layers PCB
- Motherboard size 22.0cm x 30.5cm

### 1-12 HARDWARE MONITORING

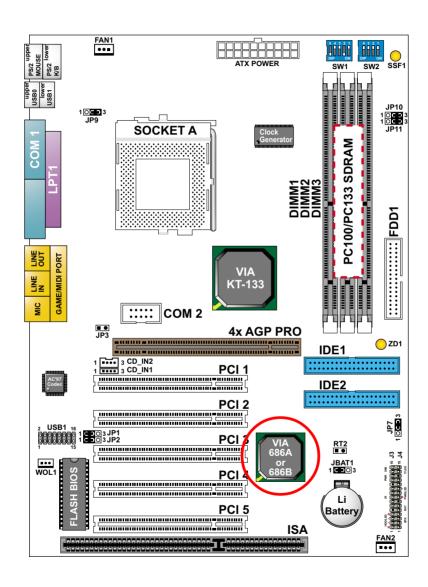
- Programmable control, status, monitor and alarm for flexible desktop management (software include)
- Five-positive voltage monitoring
- Two-temperature monitoring
- 2 Fan-speed monitoring

### **1-13 OTHERS**

- Clock generator supports 1 MHz linear clock setting
- Supports DRAM Voltage select Function

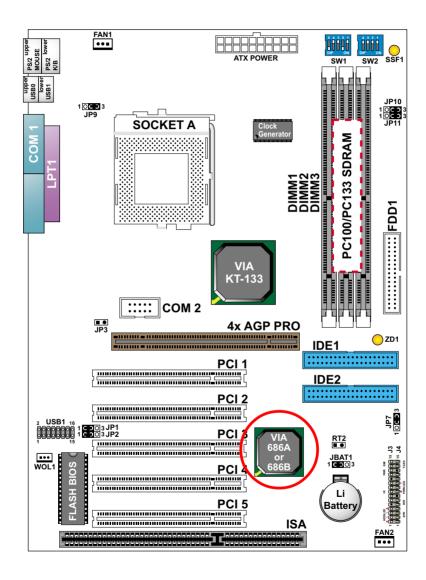
### 1-14.1 MOTHERBOARD LAYOUT --- 75KV+/75KV2

Default Setting: AMD Athlon Thunderbird™ 100MHz.



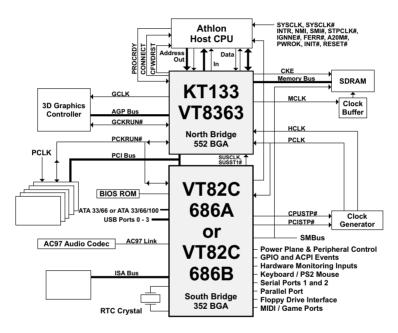
### 1-14.2 MOTHERBOARD LAYOUT --- 75JV/75JV2

Default Setting: AMD Athlon Thunderbird™ 100MHz.



### 1-15.1 CHIPSET DIAGRAM--- 75KV+/75KV2

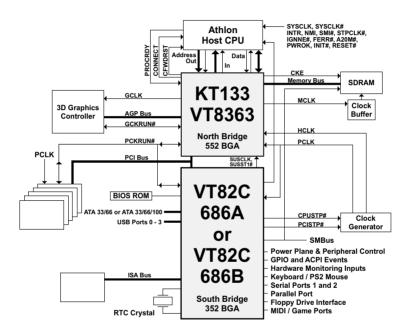
 The KT-133 / VT8363 and VT82C686A(or 686B) chipset is a high performance, cost-effective and energy efficient system controller for the implementation of AGP / PCI / ISA desktop personal computer system based on 64-bit Socket-A (AMD Athlon) processors.



KT133 System Block Diagram Using the VT82C686A or VT82C686B South Bridge

### 1-15.2 CHIPSET DIAGRAM --- 75JV/75JV2

 The KT-133 / VT8363 and VT82C686A (or 686B) chipset is a high performance, cost-effective and energy efficient system controller for the implementation of AGP / PCI / ISA desktop personal computer system based on 64-bit Socket-A (AMD Athlon) processors.



KT133 System Block Diagram Using the VT82C686A or VT82C686B South Bridge

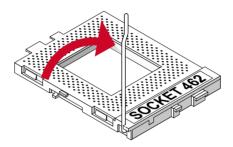
### 1-16 MOTHERBOARD SPECIFICATION TABLE

			ı	
Model	75KV+	75KV2	75JV	75JV2
North bridge	VIA KT133 (for Socket A based on Athlon CPUs)			
Sorth bridge	VIA686A VIA686B VIA686A VIA686B			VIA686B
Memory	Supports PC	Supports PC133 and PC100 SDRAM and Virtual Channel Memory (VCM) up to 1.5GB 3 DIMM Slots		
AGP Interface		AGP Pro 4	X Mode	
Audio	Build-in A	C97 codec	No	one
IDE	2 x Ultra 33/66 33/66/100 2 x Ultra 33/66 33/66/		2 x Ultra 33/66/100 IDE ports	
I/O	4 x USB ports, 1 x FDD port, 2 x COM ports, 1 x LPT port, IrDA, PS/2 Mouse, PS/1 K/B			
PCI slot	5 x PCI Master Slots			
ISA slot	1 x ISA slot			
Hardware Monitoring	yes			
BIOS writing Protection	yes			
FID select Function	yes			
VD tech	optional			

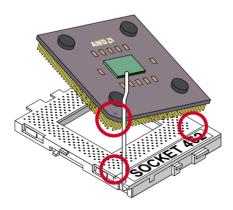
## CHAPTER 2 HARDWARE SETUP

### 2-1 CPU INSTALLATION

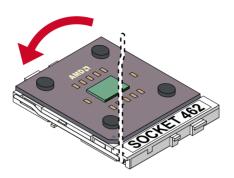
1. Pull the lever sideways away from the socket, and then raise the lever up to a 90-degree angle.



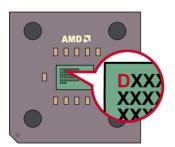
2. Take note of the red circle as below picture. While inserting the CPU into the socket, you can find out there is a definite pin orientation for CPU and socket.

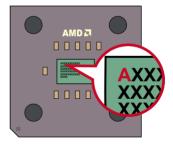


3. Make sure that the CPU position in the socket tightly, and then put the lever down to complete the CPU installation.



### 2-2 AMD SOCKET A (SOCKET 462) PROCESSOR

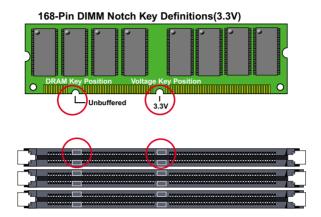




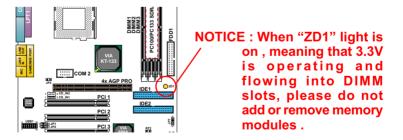
75KV/75KV-X motherboard works with AMD Athlon Thunderbird<sup>™</sup> and Duron<sup>™</sup> processor series. There is a simply way for user to distinguish between these two kinds of CPU. As the demonstration, you can see some little descriptions on the center of processor. Please pay attention to the first alphabet: the "D" represents AMD Athlon Duron<sup>™</sup> processor, and the "A" represents AMD Athlon Thunderbird<sup>™</sup> processor.

### 2-3 MEMORY INSTALLATION

 Insert the module(s) as shown. DIMMs have 168-pins and two notches that will match with the onboard DIMM socket.

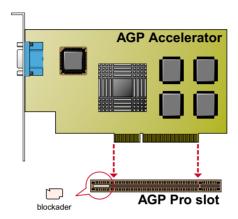


 WARNING:Make sure that you unplug your power supply when adding or removing memory modules or other system components. Failure to do so may cause severe damage to both your mainboard and expansion cards.



### 2-4 ACCELERATED GRAPHICS PORT(AGP) PRO INSTALLATION

• The AGP Pro connector is an extension of the existing AGP connector and it accepts existing AGP cards.

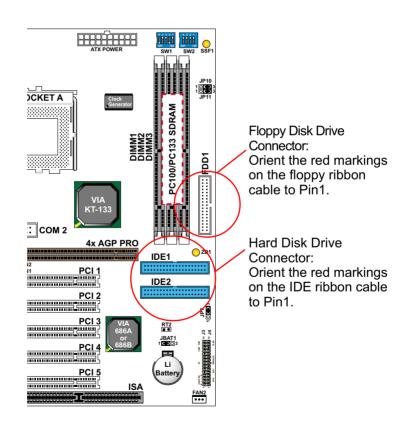


### **CAUTION!!**

The AGP Pro slot is shipped with a warning label over the 20-pin bay.Do not remove this label and the safety tab underneath it if you will be using an AGP card without a retention notch.Removing may cause the card to shift and may cause damage to your card , slot , and motherboard. Remove ONLY when you will be using an AGP Pro card.

### 2-5 HDD / FDD INSTALLATION

- To install HDD (Hard Disk Drive), you may connect the cable's blue connector to the motherboard's primary (IDE1) or secondary IDE connector, and then connect the gray connector to your slave device and the black connector to your master device. If you install two hard disks, you must configure the second drive to Slave mode by setting its jumper accordingly. Please refer to your hard disk documentation for the jumper settings.
- To install FDD (Floppy Disk Drive), you may connect the single end to the board, and connect two plugs on the other end to the floppy drives.



### 2-6 CPU FREQUENCY

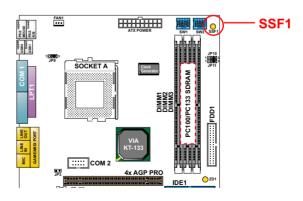
SW1	CPU CLOCK	PCI CLOCK
0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	100MHz (default)	33.3MHz
ON 5 4 3 2 1	103MHz	34.3MHz
	105MHz	35.0MHz
0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	110MHz	36.7MHz
© 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	112MHz	37.3MHz
	115MHz	38.3MHz
	120MHz	40.0MHz
00 17 17 17 17 17 17 17 17 17 17 17 17 17	124MHz	31.0MHz
0000000 111111111111111111111111111111	133.3MHz	33.3MHz
0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	140MHz	35.0MHz
O O O O O O O O O O O O O O O O O O O	150MHz	37.5MHz

Premature wearing of the processor may result when overclocking. Be sure that the DIMM you use can handle the specified SDRAM MHz or else boot up will not be possible.

- The CPU's "CPU CLOCK RATIO" and "CPU HOST/PCI CLOCK" settings are automatically detected to be default value by BIOS in the "Frequency/ Voltage Control" section.
- We do not suggest and assume the responsibility for any action that changes the CPU default setting such as overclocking. Uncorrect CLOCK RATIO and HOST/PCI CLOCK settings may cause damage to your CPU.

### 2-7 BUS RATIO SELECT

- The AMD Athlon and Duron processor provides four frequency ID signals (FID) to the system controller to indicate the SYSTCLK multiplier at which the processor core operates, This mechanism is automatic. The board maker does not guarantee "Bus Ratio" can be selected if the processor dose not support it.
- When LED "SSF1" light is on, meaning that Bus Ratio Select Function is enabled



	SW2 DIP1 ~ [	DIP4 SE	ETTING
5.0x	ON 4 3 2 1	5.5x	ON 4 3 2 1
6.0x	ON 4 3 2 1	6.5x	0000 H H H H Q 2 0N
7.0x	00000 4 3 2 1	7.5x	ON 4 3 2 1
8.0x	ON 4 3 2 1	8.5x	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
9.0x	00 00 00 00 00 00 00 00 00 00 00	9.5x	0 0 0 T T T ON 4 3 2 1
10.0x	9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	10.5x	0000 77777 1 0N
11.0x	<u> </u>	11.5x	00000 4 3 2 1
12.0x	Q Q Q Q Q Q Q Q Q Q Q Q Q Q Q Q Q Q Q	12.5x	ON 4 3 2 1

### 2-8 JUMPER DEFINITIONS

• The figure below shows the location for the motherboard's jumper blocks.

### **CAUTION**

• Do not move the jumper with the power on. Always turn off the power and unplug the power cord from the computer before changing the jumper. Otherwise, the motherboard could be damaged.

### 2-8.1 ONBOARD FAN CONNECTOR (FAN1/FAN2)

FAN1/FAN2: ONBOARD FAN CONNECTOR (12V)		
CPU FAN	FAN1	
SYSTEM FAN	FAN2	

Those connectors support processor/system cooling fan with +12V. Those support three pin head connector. When connecting the wire to FAN connectors, user should give attention that the red wire is the positive and should be connected to the +12V, the black wire is Ground and should be connected to GND. If your motherboard has Hardware Monitor chipset on-board, you must use a specially designed fan with speed sensor to take advantage of this function. For fans with fan speed sensor, every rotation of the fan will send out 2 pulses. System Hardware Monitor will count and report the fan rotation speed.



NOTE 1: Always consult vendor for proper CPU cooling fan.

NOTE 2: CPU FAN supports the FAN control. You can install PC Alert utility. This will automatically control the CPU FAN speed according to the actual CPU temperature.

### 2-8.2 USB PORT SELECT (JP1/JP2)

JP1/JP2: USB PORT SELECT	
Redirect USB port 3 to USB 2 connector (default)	JP1 COO JP2 COO
Redirect USB port 3 to AGP	JP1 1 3 JP2 1 3

### 2-8.3 FACTORY (JP3)

JP3: FACTORY TEST	
Only for factory test.	JP3 <b>■●</b>

### 2-8.4 POWER LOST RESUME (JP7)

JP7: POWER LOST RESUME	
Normal (default)	JP7
Enabled	JP7 0 10

This jumper allows you to use the switch of ATX power supply to control ON/OFF switch directly instead of using the power switch on the motherboard.

### 2-8.5 USB WAKE UP (JP9)

JP9: USB Wake up	
Disabled (default)	JP9 OCD
Enabled	JP9 [3]

This function allows you to use USB mouse or keyboard to wake up the system.

### 2-8.6 MEMORY MODULE VOLTAGE SELECT (JP10/JP11)

JP10/JP11: MEMORY MODULE VOLTAGE SELECT		
3.3V (default)	JP10 1 3 JP11 1 3	
3.4V	JP10 1 3 JP11 1 3	
3.5V	JP10 1 3 JP11 1 3 JP1	
3.6V	JP10 1 3 JP11 1 3	

This function allows you to select the voltage supplied to the DRAM. The default voltage (3.3V) should be used unless processor overclocking requires a higher voltage.

NOTE! Using a higher voltage may help when overclocking but may result in the shortening of your computer components's life. It is strongly recommended that you leave this setting on its default.

### 2-8.7 CLEAR CMOS DATA (JBAT1)

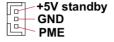
JBAT1: CLEAR CMOS DATA	
Clear CMOS Data	JBAT1 DEE
Retain Data (default)	JBAT1 COO

A battery must be used to retain the motherboard configuration in CMOS RAM.

NOTE: You can clear CMOS by shorting 2-3 pin when the system is POWER OFF. Then, return to 1-2 pin position (default). It may damage the motherboard if clearing the CMOS in POWER ON status. Unplug the power cord from power supply before clearing CMOS will be a best bet for user.

### 2-8.8 WAKE ON LAN FUNCTION (WOL1)

# WOL1 : WAKE ON LAN (WOL) FUNCTION Connect the Wake On LAN signal from LAN card to WOL1 WOL1



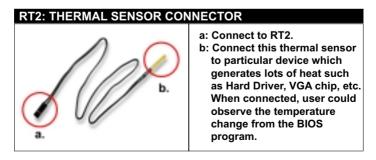
This connector connects to a LAN card with a Wake On LAN output. The connector powers up the system when a wake-up packet or signal is received through the LAN card.

This feature requires that Wake On LAN feature is enabled at the BIOS "Power Management Setup" and that your system has an ATX power supply with at least 720mA/+5V standby power.

### 2-8.9 CD-ROM AUDIO CONNECTOR (CD-IN1/CD-IN2)

CD_IN1/CD_IN2: CD-ROM AUDIO CONNECTOR				
PIN NO.	PIN NO. CD_IN1 CD_IN2			
PIN 1	Left Channel	Left Channel		
PIN 2	GND	GND		
PIN 3	GND	Right Channel		
PIN 4	Right Channel	GND		

### 2-8.10 THERMAL SENSOR CONNECTOR (RT2)



**USB1: 2nd USB Port** 

GAME/MIDI PORT

MIC port: Microphone Jack

Line In port: Audio In Jack

Line Out / Speaker Out port: Audio Out Jack

### 2-9 CONNECTORS

• In this section we list all external connectors that user will use them.

### 2-9.1 J3 AND J4



HDD LED CONNECTOR		
PIN 1	Logic High (+)	
PIN 2	HDD LED SIGNAL	
PIN 3	HDD LED SIGNAL	
PIN 4	Logic High (+)	
DESCRIPTION	This connector supplies power to the cabinet's IDE activity LED. Read and write activity by devices connected to the Primary or SecondaryIDE connector will cause the LED to light up.	



INFRARED CONNECTOR		
PIN 6	INFRARED TRANSMIT SIGNAL	
PIN 7	GND	
PIN 8	INFRARED RECEIVE SIGNAL	
PIN 9	NONE	
PIN 10	Vcc	
DESCRIPTION	This connector supports an optional wireless transmitting and receiving infrared module. This module mounts to a small opening on system cases that support this feature.  User must also configure the setting through BIOS program "Peripheral Setup" to select whether UART2 is directed for use with COM2 or IrDA. Use the five pins and connect a ribbon cable from the module to the motherboard's IR connector according to the pin definitions.	



ATX POWER SWITCH		
PIN 12	ATX POWER SWITCH	
PIN 13	GND	
DESCRIPTION	The system power is controlled by a momentary switch connected to this lead. Pressing the button once will switch the system between ON and SOFT OFF. Pushing the switch while in the ON mode for more 4 seconds will turn the system off. The system power LED shows the status of the system's power.	



SPEAKER CONNECTOR		
PIN 1	SPEAKER SIGNAL	
PIN 2	NONE	
PIN 3	GND	
PIN 4	Vcc	
DESCRIPTION	This SPEAKER connector connects to the case- mounted speaker. Two sources (LINE OUT and SPEAKER) allow you to hear system beeps and warnings. Only SPEAKER allows you to hear system beeps before the integrated audio has been properly initialized.	



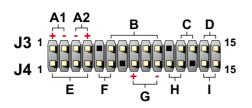
RESET SWITCH CONNECTOR		
PIN 5	RESET SIGNAL	
PIN 6	GND	
DESCRIPTION	RESET SWITCH connector connects to the case- mounted reset switch for rebooting your system without having to turn off your power switch. This is a preferred method of reboot to prolong the life of the system's power supply.	



POWER LED CONNECTOR		
PIN 8¤	Vcc	
PIN 9¤	NONE	
PIN 10¤	GND	
DESCRIPTION	This Power LED connector connects the system ¤ power LED, which lights when the system is¤ powered on and blinks when it is in sleep mode.	



SUSPEND LE	D
PIN 14	SUSPEND LED SIGNAL
PIN 15	GND
DESCRIPTION	Connect to Suspend indicator light.



A1: 1st HDD LED
A2: 2nd HDD LED
B: INFRARED (IR)

C : POWER SWITCH

D : None

E : SPEAKER

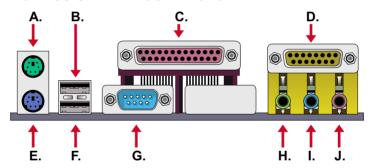
F : RESET SWITCH

G: POWER LED

H: NONE

I: SUSPEND LED

### 2-9.2 CHASSIS PANEL CONNECTOR



A : PS/2 MOUSE PORT

B: USB O PORT C: LPT 1 PORT

D: GAME/MIDI PORT

E: PS/2 KEYBOARD PORT

F: USB 1 PORT G: COM 1 PORT

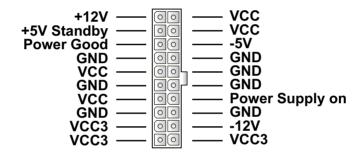
H: LINE OUT/SPEAK OUT PORT

I : LINE IN

J : MICROPHONE

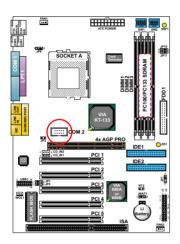
### 2-9.3 ATX POWER SUPPLY CONNECTOR

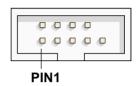
- This connector connects to an ATX power supply. The plug from the power supply only inserts in an orientation because of the different hole sizes.
   Find the proper orientation and push down firmly making sure that all pins are aligned.
- Reminding that your power supply should support at least 10mA on the 5V standby voltage. It may cause an difficulty to power on the system if the power supply can't support the load.
- For Wake On LAN function, the power supply should support at least 720mA current.



### 2-9.4 SERIAL PORT CONNECTORS

One serial port is ready for a mouse or other serial devices. A second serial
port is available using a serial port bracket connected from the motherboard
to an expansion slot opening.



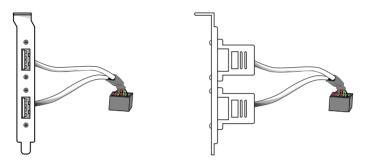


Serial Port Connectors: Orient the red markings on the floppy ribbon cable to PIN1.

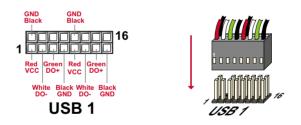


### 2-9.5 SECOND USB CONNECTOR

- This motherboard provides 4 sets of USB port. Besides 2 sets of them can be connected directly by USB devices, the others are built-in onboard for user to extend the USB function.
- **NOTE**: User can order the 2nd USB connector from your motherboard dealer and vendor only.



2nd USB Connector (Optional)



• When plugging the USB connector to USB2 port, user can see each color of wires to determine which is first pin.

### 2-9.6 PS/2 MOUSE AND PS/2 KEYBOARD

PIN 6 : None
PIN 5 : Mouse Clock
PIN 4 : Vcc

PIN 3 : GND PIN 2 : None

PIN 2 : None PIN 1 : Mouse Data PIN 6 : None

-PIN 5 : Keyboard Clock -PIN 4 : Vcc

PIN 3 : GND PIN 2 : None

PIN 1 : Keyboard Data

**PS/2 MOUSE** 

**PS/2 KEYBOARD** 

### 2-9.7 IRQ DESCRIPTION

IRQ	Function Description	Priority
IRQ 0	System Timer	1
IRQ 1	Keyboard Controller	2
IRQ 2	Programmable Interrupt	N/A
IRQ 3	Serial Port (COM 2)	11
IRQ 4	Serial Port (COM 1)	12
IRQ 5		13
IRQ 6	Floppy Disk Controller	14
IRQ 7	Parallel Port (LPT1)	15
IRQ 8	Real Time Clock (RTC)	3
IRQ 9		4
IRQ 10		5
IRQ 11		6
IRQ 12	PS/2 Mouse Port	7
IRQ 13	Coprocessor	8
IRQ 14	Primary IDE Channel	9
IRQ 15	Secondary IDE Channel	10

- Both ISA and PCI expansion cards may require IRQs. System IRQs are available to cards installed in the ISA expansion bus first, then any remaining IRQs are available to PCI cards. Currently, there are two types of ISA cards.
- The original ISA expansion card design, now referred to as "Legacy" ISA card, requires that you configure the card's jumpers manually and then install it in any available slot on the ISA bus. To see a map of your used and free IRQs in Windows 98, the *Control Panel* in *My Computer*, contains a *System* icon, which gives you a *Device Manager* tab. Double-Clicking on a specific hardware device gives you a *Resources* tab which shows the Interrupt number and address. Double-Clicking *Computers* to see all the interrupts and addresses for your system. Make sure that no two devices use the same IRQ or your computer will experience problems when those two devices are in use at the same time.

### 2-9.8 VOICE DIAGNOSTIC FUNCTION----ONLY FOR 75KV+-X/ KV2-X/JV-X/JV2-X

- The Voice Diagnostic Function provides user an indispensable assistance on troubleshooting while assembling your computer components. If there is any conflict or other latent problem triggers a boot-up failure, this new VD-TECH technology will voice you realistically where the conflict/problem is, then user can remove the malfunction quickly.
- This function mainly provides 4 languages and their contents as following table:

#### **English Voice Content**

- 1. No memory module
- 2. Please check memory module
- 3. Please clear CMOS setting
- 4. Please check the Video adapter
- 5. Please check hard disk cable or setting

### 國語語音內容

- 1. 未安裝記憶體
- 2. 請檢查記憶體
- 3. 請清除 CMOS 設定
- 4. 請檢查顯示卡
- 5. 請檢查硬碟接線及設定

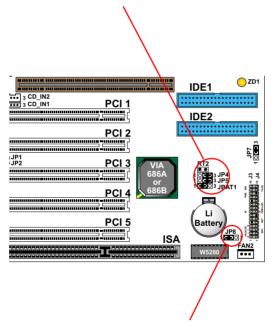
#### El Contenido Español de la Voz

- 1. No hay modulo de memoria
- 2. Por favor, chequea el modulo de memoria
- 3. Por favor, borra CMOS setting
- 4. Por favor, chequea la tarjeta de video
- 5. Por favor, chequea el cable o la instalacion del disco duro

### 日本語音內容

- 1.メモリーないじゃん (メモリーがありません)
- 2.メモリーだめだめ (メモリーをチュックして下さい)
- 3.CMOS だめっす? (CMOSの内容をクリアして下さい)
- 4.VGA どう? (ビデオカードをチュックして下さい)
- 5.ハードディスクつながってる? (HDDケーブル又は設定をチュックして下さい)

JP4/JP5: VOICE DIAGNOSTIC LANGUAGE SELECT			
Chinese Language	JP4 (CO) JP5 (CO)		
English Language (default)	JP4 0 3 JP5 1 3		
Japanese Language	JP4 CO JP5 CO		
Spanish Language	JP4		



JP8: VD-TECH CONTROLLER CHIP			
Enabled (default)	JP8 COÖ		
Disabled	JP8 DEE		

## CHAPTER 3 SOFTWARE SETUP

#### 3-1 ABOUT SUPPORT CD

 In support CD, it contains most informations for user's requirement, such as Acrobat Reader, BIOS, User's full version Manual, Driver, Hardware Monitor(if motherboard supports this function), Patch, and Utilities etc,. User can browse the CD and get further details in regard of our motherboard. Of course, welcome to vendor's website for the newest release.

### 3-2 VIA CHIPSET DRIVER INSTALLATION (4-IN-1 DRIVER)

#### Step 1:

- Please put the support CD attached to motherboard into the CD-ROM drive.
- When appears a welcome window as left screen, then user should choose "Install Driver"

#### Step 2:

· Click on the "VIA Chipset Driver".

#### Step 3:

· Click on the "4-in-1 driver".

#### Step 4:

 Click on the "Install via 4-in-1 driver" to continue.



### Step 5:

• Press **Next** button to continue.



### Step 6:

· Click "Yes" to continue.



#### Step 7:

- Press select the checkbox as below:
  - Bus Master PCI IDE Driver
  - AGP VxD Driver
  - VIA Chipset Function's Registry
  - IRQ Routing Miniport Driver

Note: For user who are upgrading VIA Drivers. We recommend installing the 4-in-1 as it will automatically detect and update the necessary drivers.



### Step 8:

 Click "Install" and press Next button to continue.



### Step 9:

 We recommend user to leave "Enable/ Disable [Ultra] DMA" checkbox empty.

NOTE: Whether select this item or not, user needs to enable the Hard Disk DMA function in Control Panel manually. (For further details, please refer to next page)



#### Step 10:

 The default setup destination is C: \VIADMATOOL, press Next button to continue.



### Step 11:

• Press Next button to continue.



### Step 12:

• Select "Install VIA AGP VxD" in turbo mode and press Next button to continue.



#### Step 13:

 After all the setup process is finished, please restart your computer by clicking on Finish.



### **bout Hard Disk DMA Function**

Last but not least, user must enable the Hard Disk DMA function. The process is below:

- 1. [Start] --> [Setting] --> [Control Panel] --> [System] --> [Device Manager].
- 2. In Device Manager, select [Disk Drivers] --> [GENERIC IDE TYPEXX].
- 3. Select [Properties] for GENERIC IDE TYPEXX.
- 4. In Properties, select [Settings].
- 5. In Option item, select the DMA checkbox.
- 6. Restart your computer.

### 3-3 HARDWARE MONITOR INSTALLATION

#### Step 1:

- Please put the support CD attached to motherboard into the CD-ROM drive.
- When appears a welcome window as left screen, then user should choose "Install Driver"

### Step 2:

• Click on the "VIA Chipset Driver".

### Step 3:

• Click on the "Hardware Monitor Utility".



### Step 4:

• Press **Next** button to continue.



#### Step 5:

• The default destination is C:\VIAhm, then press **Next** button to continue.



#### Step 6:

 Press **Next** button to finish the Hardware Monitor setup process.

### 3-4 AC 97 AUDIO CODEC INSTALLATION

#### Step 1:

- Please put the support CD attached to motherboard into the CD-ROM drive.
- When appears a welcome window as left screen, then user should choose "Install Driver"

#### Step 2:

• Click on the "VIA Chipset Driver".

#### Step 3:

· Click on the "AC'97 driver".



### Step 4:

• Press Next button to continue.



### Step 5:

 When asking you install or remove the audio driver, please select "Install" and press Next button to continue.



### Step 6:

• It's recommended for user to restart the computer after the audio driver is finished. Please select "Yes, I want to restart my computer now".

# CHAPTER 4 BIOS SETUP

#### 4-1 INTRODUCE THE BIOS

- BIOS stands for Basic Input Output System. It is sometimes called ROM BIOS because it is stored in a Read-Only Memory(ROM) chip on the motherboard. BIOS is the first program to run when you turn on your computer.
- BIOS performs the following functions:
- 1. Initializing and testing hardware in your computer(a process called "POST", for Power On Self Test).
- 2. Loading and running your operating system.
- 3. Helping your operating system and application programs to manage your PC hardware by means of a set of routines called BIOS Run-Time Service.

### 4-2 WHAT IS BIOS SETUP

- Setup is an interactive BIOS program that you need to run when:
- 1. Changing the hardware on your system. (for example: installing a new Hard Disk etc,.)
- 2. Modifying the behavior of your computer. (for example: changing the system time or date, or turning special features on or off etc,.)
- 3. Enhancing your computer's behavior. (for example: speeding up performance by turning on shadowing or caching)

#### 4-3 HOW TO RUN BIOS SETUP

 One way of running SETUP is to press a special function key or key combination during POST, before the operating system is loaded during POST, the BIOS usually displays a prompt such as:

Press DEL to enter SETUP

#### 4-4 WHAT IS CMOS

 CMOS is a special kind of memory maintained by a battery after you turn your computer off. The BIOS uses CMOS to store the settings you selected in SETUP. The CMOS also maintains the internal clock. Every time you turn on your computer, the BIOS Looks in CMOS for the settings you selected and configures your computer accordingly. If the battery charge runs too low, the CMOS content will be lost and POST will issue a "CMOS invalid" or "CMOS checksum invalid" message. If this happens, you may have to replace the battery. After the battery is replaced, the proper settings will need to be stored in SETUP.

#### 4-5 WHAT IS POST

 POST is an acronym for Power On Self Test. It's a traditional name for the routines that the BIOS uses to test and initializes the devices on your system when the PC is powered on. Its meanings has grown to include anything the BIOS does before the operating system is started. Each of POST routines is assigned a POST code, an unique number which is sent to I/O port 080h before the routine is executed.

#### 4-6 BIOS UPGRADE

- Motherboards incorporate the system BIOS in a Flash memory component.
   Flash BIOS allows user upgrades without the need to replace an EPROM component.
- The upgrade utility fits on a floppy diskette and provides the capability to save, verify, and update the system BIOS. The upgrade utility can be run from a hard disk drive or a network drive, but no memory managers can be installed during upgrades.

#### 4-6.1 BEFORE UPGRADE BIOS

 It is recommended that you save a copy of the original motherboard BIOS along with a Flash EPROM Programming utility(AWDFLASH.EXE) to a bootable floppy disk in case you need to reinstall the BIOS later.

#### 4-6.2 UPGRADE PROCESS

"AWDFLASH.EXE" is a Flash EPROM Programming utility that updates
the BIOS by uploading a new BIOS file to the programmable flash ROM on
the motherboard. This file only works in DOS mode. To determine the BIOS
version, check the release date displayed on the top of your screen during
bootup. Newer dates represents a newer BIOS file.

Create a Boot Floppy (using a DOS system to create the bootable floppy)

• Place an unformatted floppy diskette in the floppy drive and format the floppy using the /S option.

Example: format a: /s

 Alternatively, place a formatted floppy in the floppy drive and use the "sys" command.

Example: sys a:

#### Create the BIOS Upgrade Floppy Diskette

- Download both the newest BIOS file and AWDFLASH.EXE file via motherboard maker's website.
- The BIOS file you downloaded will be a \*.bin format.
- Copy those two indispensable files to a bootable formatted floppy diskette.

Example: copy awdflash.exe a:

Example: copy \*.bin a:

#### Upgrading the system BIOS

- Place the bootable floppy containing the BIOS into Drive A: of the system that you want ot upgrade and boot the system while thefloppy diskette is in the drive.
- When booting is finished, type awdflash \*.bin /sn/py/cc/r and then press <Enter> to run BIOS upgrade program. (\*.bin depends on your motherboard model and version code)

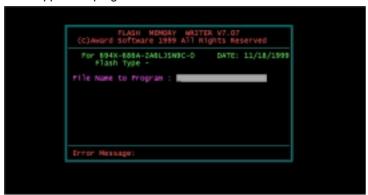
#### The parameters of AWDFLASH.EXE

/sn: No original BIOS backup /py: Program flash memory

/cc: Clear CMOS data after programming /r : Reset system after programming

NOTE: User can type AWDFLASH /? to get further details about parameters. Wrong usage of parameter will damage the BIOS information, so that we strongly recommend user to leave parameters away unless you realize their function.

• Then appears a program window as below:



- After upgraded, the system will reboot itself automatically.
- NOTE: You will see a message "CMOS checksum error Default loaded" during booting the system. Please press <Del> to run BIOS program, then reload "LOAD SETUP DEFAULTS" and save this change.

#### 4-7 CMOS SETUP UTILITY

- This VIA KT-133 motherboard comes with the AWARD BIOS from AWARD Software Inc. Enter the Award BIOS program Main Menu by:
- 1. Turn on or reboot your system. After a series of diagnostic checks, the following message will appear:

#### PRESS <DEL> TO ENTER SETUP

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

CMOS Setup Utility - Copyright (C) 1984 - 2000 Award Software

➤ Standard CMOS Features	▶ Frequency/Voltage Control	
→ Advanced BIOS Features	Load Optimized Defaults	
► Advanced Chipset Features	Set Supervisor Password	
→ Integrated Peripherals	Set User Password	
▶ Power Management Setup	SAVE & EXIT SETUP	
➤ PnP/PCI Configurations	EXIT WITHOUT SAVING	
▶ PC Health Status		
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>.
- 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.

#### 4-8 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 following:

1. Choose "STAND CMOS SETUP" from the Main Menu and a screen with a list of option will appear:

CMOS Setup Utility - Copyright (C) 1984-2000 Award Software Standard CMOS Features

Date (mm:dd:yy)	Thu, Dec 30 1999	Item Help
Time (hh:mm:ss)	9 : 52 : 15	Menu Level →
<ul> <li>IDE Primary Master</li> <li>IDE Primary Slave</li> <li>IDE Secondary Master</li> <li>IDE Secondary Slave</li> </ul>	Press Enter 13022 MB Press Enter None Press Enter None Press Enter None	
Drive A Drive B	1.44M, 3.5 in. None	
Video Halt On	EGA/VGA All,But Keyboard	
Base Memory Extended Memory Total Memory	640K 31744K 32768K	

<sup>↑↓→ ←:</sup>Move Enter:Select +/-/PU/PD:Value F10:Save ESC:Exit F1:General Help F5:Previous Values F6:Fail-Safe Defaults F7:Optimized Defaults

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

Date (mm:dd:yy) Set the current date and time.

Time (hh:mm:ss)

Primary / Secondary This field records the specifications for all non-SCSI Master / Slave hard disk drives installed in your system. Refer to the respective documentation on how to install the drives.

Drive A / Drive B Set this field to the type(s) of floppy disk drive(s) installed in your system. The choices are:

360KB, 5,25in..

1.2MB, 5.25in.,

720KB, 3.5in.,

1.44MB, 3.5in.,

2.88MB, 3.5in.,

None.

Video Set this field to the type of video display card installed in the system. The choices are:

Monochrome.

Color 40x25.

VGA / EGA.

Color 80x25.

Halt On Set this warning feature for the type of errors that will cause the system to halt. The choices are:

No Errors.

All, But Keyboard,

All. But Diskette.

All. But Disk / Kev.

3. Press <ESC> to return to the Main Menu when you finish setting up all items.

#### 4-9 ADVANCED BIOS FEATURES

ADVANCED BIOS FEATURS allows you to improve your system performance or set up sysem features according to your preference.

Run the ADVANCED BIOS FEATURES as following:

- 1. Choose "ADVANCED BIOS FEATURES" from the Main Menu and a screen with a list of option will appear:
- 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 <F> keys follows:
- <F1>: "Help" gives oions 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.

### CMOS Setup Utility - Copyright (C) 1984-2000 Award Software Advanced BIOS Features

		1 14 11 1
Virus Warning	Disabled	Item Help
CPU Internal Cache	Enabled	Menu Level →
External Cache	Enabled	
CPU L2 Cache ECC Checking	Enabled	
Quick Power On Self Test	Enabled	
First Boot Device	Floppy	
Second Boot Device	HDD-0	
Third Boot Device	CDROM	
Boot Other Device	Enabled	
Swap Floppy Drive	Disabled	
Boot Up Floppy Seek	Disabled	
Boot Up NumLock Status	On	
Gate A20 Option	Fast	
Typematic Rate Setting	Disabled	
× Typematic Rate (Chars/Sec)	6	
× Typematic Delay (Msec)	250	
Security Option	Setup	
OS Select For DRAM > 64MB	Non-OS2	
Video BIOS Shadow	Enabled	
C8000-CBFFF Shadow	Disabled	
CC000-CFFFF Shadow	Disabled	
D0000-D3FFF Shadow	Disabled	
D4000-D7FFF Shadow	Disabled	
D8000-DBFFF Shadow	Disabled	
DC000-DFFFF Shadow	Disabled	

<sup>↑↓ → ←:</sup>Move Enter:Select +/-/PU/PD:Value F10:Save ESC:Exit F1:General Help F5:Previous Values F6:Fail-Safe Defaults F7:Optimized Defaults

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 or Disabled. This option allows you to enable or disable the CPU's internal cache.

**External Cache** Choose Enabled or Disabled. This option allows you to enable or disable the external cache.

CPU L2 Cache ECC This item allows you to enable/disable CPU L2 Cache
Checking ECC checking.
The chairs: Enabled Disabled

The choice: Enabled, Disabled.

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

**First/Second/Third/** The BIOS attempts to load the operating system from **Other Boot Device** the devices in the sequence selected in these items. The choice: Floppy, LS/ZIP, HDD, SCSI, CDROM, Disabled.

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

**Boot Up Floppy Seek** Enabled : 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 Choose ON or OFF. THis option lets user activates

Status the NumLock function at boot-up.

Gate A20 Option Choose Normal or Fast. This option allows the RAM

to access the memory above 1MB by using the fast

gate A20 line.

Typematic Rate Setting Choose Enabled or Disabled. Enable this option to

adjust the keystroke repeat rate.

**Typematic Rate (Chars** Range between 6 and 30 characters per second. This

/ Sec) option controls the speed of repeating keystrokes.

Typematic Delay Choose 250, 500, 750 and 1000. This option sets

(Msec) the time interval for displaying the first and the sec-

ond characters.

Security Option Choose System or Setup. This option prevents un-

authorized system boot-up or use of BIOS setup.

OS Select For DRAM > Non-OS/2 : For Non-OS/2 system.

**64MB** OS: For OS/2 operating system.

Video BIOS Shadow Enabled copies Video BIOS to shadow RAM for im-

proving performance.

The choice: Enabled, Disabled,

**C8000-CBFFF to** These options are used to shadow other expansion

DC000-DFFFF Shadow card ROMs.

Press <ESC> to return to the Main Menu when you finish setting up all items.

#### 4-10 ADVANCED CHIPSET FEATURES

 ADVANCED CHIPSET FEATURES allows you to change the values of chipset registers. These registers control the system options.

Run the ADVANCED CHIPSET FEATURES as following:

- 1. Choose "ADVANCED CHIPSET FEATURES" from the Main Menu and a screen with a list of option will appear:
- 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 <F> keys follows:
- <F1>: "Help" gives oions 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.

### CMOS Setup Utility - Copyright (C) 1984-2000 Award Software Advanced Chipset Features

	ca Ginpoot i catalos	
Bank 0/1 DRAM Timing	SDRAM 8/10ns	Item Help
Bank 2/3 DRAM Timing	SDRAM 8/10ns	Menu Level →
Bank 4/5 DRAM Timing		
SDRAM Cycle Length	3 SDIVAIN 0/10115	
DRAM Clock	100MHZ	
DRAM Drive Strength	Auto	
×DRAM Drive Value	2F	
Memory Hole	Disabled	
PCI Master Pipeline Req		
P2C/C2P Concurrency	Enabled	
Fast R-W Turn Around	Disabled	
System BIOS Cacheable		
Video RAM Cacheable	Disabled	
AGP Aperture Size	64M	
AGP 4X Mode	Enabled	
AGP Driving Control	Auto	
×AGP Driving Value	DA	
AGP Fast Write	Disabled	
K7 CLK_CTL Select	Optimal	
OnChip USB	Enabled	
OnChip USB 2	Enabled	
USB Keyboard Support	Disabled	
OnChip Sound	Auto	
CPU to PCI Write Buffer	Enabled	
PCI Dynamic Bursting	Disabled	
PCI Master 0 WS Write	Enabled	
PCI Delay Transaction	Enabled	
PCI#2 Access #1 Retry	Enabled	
AGP Master 1 WS Write	Disabled	
AGP Master 1 WS Read	Disabled	
Memory Parity/ECC Check	Disabled	

<sup>↑↓→ ←:</sup>Move Enter:Select +/-/PU/PD:Value F10:Save ESC:Exit F1:General Help F5:Previous Values F6:Fail-Safe Defaults F7:Optimized Defaults

Bank 0/1 2/3 4/5 DRAM This item allows you to select the value in this field, **Timing** depending on whether the board has paged DRAMs

or EDO (Extended Data Output) DRAMs.

The choice: SDRAM 8/10ns.

Slow. Medium.

Fast. Turbo

**SDRAM Cycle Length** You can select CAS latency time in HCLKs of 2 or 3. **Time** The system board designer should have set the val-

ues 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

**DRAM Clock** This item allows you to control the DRAM speed.

The choice: Host Clock, HCLK+33M.

**DRAM Drive Strength** Leave this item with Auto mode.

The choice: Auto. Manual.

**DRAM Drive Value** When "DRAM Drive Strength" is set to "Auto". this

item will be unable to be selected. We don't recom-

mend user to adjust this item.

**Memory Hole** In order to improve performance, certain space in

memory is reserved for ISA cards. This memory must be mapped into the memory space below 16MB.

The choice: 15M-16M, Disabled.

PCI Master Pipeline Use default setting.

Req

**P2C/C2P Concurrency** This item allows you to enable/disable the PCI to CPU,

CPU to PCI concurrency.

The choice: Enabled, Disabled.

Fast R-W Turn Around This item controls the DRAM timing. It allows you to

enable / disable the fast read / write turn around.

The choice: Enabled, Disabled,

System BIOS Choose Enabled or Disabled. When enabled, the Cacheable access to the system BIOS ROM addressed at F0000H - FFFFFH is cached.

Video RAM Cacheable Choose Enabled or Disabled. When enabled, the access to the VGA RAM addressed is cached.

AGP Aperture Size Choose 4, 8, 16, 32, 64, 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.

AGP Driving Control This item allows you to adjust the AGP driving force.

Choose Manual to key in a AGP Driving Value in the next selection. This field is recommended to set in Auto for avoiding any error in your system.

The choice: Manual, Auto.

**AGP Driving Value** This item allows you to adjust the AGP driving force. The choice: Min=0000 ~ Max=00FF.

**AGP Fast Write** This item will enable the AGP model into fast write mode.

K7 CLK\_CTL Select Use this item to specify the clock control for ramp rate. Select default for a defaulted time value, and optimal for optimum time value which depends on different CPU ratio.

The choice: Enabled. Disabled.

OnChip USB/USB2 This should be enabled if our system has a USB installed on the system board and you wish to use it. Even when so wquipped, if you add a higher performance controller, you will need to disable this feature. The choice: Enabled, Disabled.

USB Keyboard Enabled: Enable function when the USB keyboard is Support being used.

Disabled: When the AT keyboard is being used, choose disabled.

#### 75KV+/75KV2/75.IV/75.IV2

**OnChip Sound** Enabled: Turn on AC'97 codec chip controller.

Disabled: Turn off AC'97 codec chip controller or user

can plug external add-on sound card.

CPU to PCI Write When this field is Enabled, writes from the CPU to **Buffer** the PCI bus are buffered, to compensate for the speed defferences between the CPU and the PCI bus. When Disabled, the writes are not buffered and the CPU must wait until the write is complete before starting another write cycle.

The choice: Enabled, Disabled,

PCI Dynamic Bursting When Enabled, every write transaction goes to the

write buffer. Burstable transactions then burst on the PCI bus and nonburstable transactions don't.

The choice: Enabled, Disabled,

PCI Master 0 WS Write When Enabled, writes to the PCI bus are executed

with zero wait states.

The choice: Enabled, Disabled,

Memory Parity/ECC This item enabled to detect the memory parity and

Check Error Checking & Correcting.

The choice: Enabled, Disabled,

PCI Delay Transaction Leave this field at default

PCI #2 Access #1 Retry Leave this field at default

AGP Master 1 ws write Leave this field at default

AGP Master 1 ws read Leave this field at default

3. Press <ESC> to return to the Main Menu when you finish setting up all items.

### 4-11 INTEGRATED PERIPHERALS

• INTEGRATED PERIPHERALS option allows you to get some informations inside your system when it is working.

Run the INTEGRATED PERIPHERALS as following:

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

CMOS Setup Utility - Copyright (C) 1984-2000 Award Software Integrated Peripherals

On-Chip Primary PCI IDE On-Chip Secondary PCI IDE IDE Prefetch Mode Primary Master PIO Primary Slave PIO Secondary Master PIO Secondary Master PIO Secondary Master PIO Auto Primary Master PIO Auto Secondary Slave PIO Auto Primary Slave UDMA Primary Slave UDMA Auto Secondary Master UDMA Secondary Master UDMA Auto Init Display First IDE HDD Block Mode Onboard FDD Controller Onboard Serial Port 1 Onboard Serial Port 2 UART 2 Mode  X IR Function Duplex X TX, RX inverting enable Onboard Parallel Port Onboard Parallel Mode X ECP Mode Use DMA X Parallel Port EPP Type Onboard Legacy Audio Sound Blaster SB I/O Base Address SB IRQ Select IRQ 5 SB DMA Select MPU-401 MPU-401 Init Disabled MPU-401 I/O Address Game Port (200-207H)  Item Help Menu Level ➤  Menu Level		ed i eliplierais	
IDE Prefetch Mode Primary Master PIO Primary Slave PIO Secondary Master PIO Secondary Slave PIO Auto Secondary Slave PIO Auto Primary Slave UDMA Primary Slave UDMA Auto Primary Slave UDMA Auto Secondary Master UDMA Secondary Master UDMA Auto Secondary Slave UDMA Init Display First IDE HDD Block Mode Onboard FDD Controller Onboard Serial Port 1 Onboard Serial Port 2 UART 2 Mode XIR Function Duplex XIX, RX inverting enable Onboard Parallel Port Onboard Parallel Mode XECP Mode Use DMA X Parallel Port EPP Type Onboard Legacy Audio Sound Blaster SB I/O Base Address SB IRQ Select IRQ 5 SB DMA Select MPU-401 MPU-401 I/O Address  Auto Auto Auto Auto Auto Auto Auto Aut	On-Chip Primary PCI IDE	Enabled	Item Help
Primary Master PIO Auto Primary Slave PIO Auto Secondary Master PIO Auto Secondary Slave PIO Auto Primary Master UDMA Auto Primary Slave UDMA Auto Secondary Master UDMA Auto Secondary Master UDMA Auto Secondary Slave UDMA Auto Init Display First PCI Slot IDE HDD Block Mode Enabled Onboard FDD Controller Enabled Onboard Serial Port 1 Auto Onboard Serial Port 2 Auto UART 2 Mode Standard  × IR Function Duplex Half  × TX, RX inverting enable No, Yes Onboard Parallel Port 378/IRQ7 Onboard Parallel Mode Normal  × ECP Mode Use DMA 3  × Parallel Port EPP Type EPP1.9 Onboard Legacy Audio Enabled Sound Blaster Disabled Sound Blaster Disabled SB I/O Base Address 220H SB IRQ Select IRQ 5 SB DMA Select DMA 1 MPU-401 Disabled MPU-401 I/O Address 330-333H	· · · · ·	Enabled	Menu Level ▶
Primary Slave PIO Secondary Master PIO Secondary Master PIO Auto Primary Master UDMA Auto Primary Slave UDMA Auto Secondary Master UDMA Secondary Master UDMA Auto Secondary Slave UDMA Auto Init Display First IDE HDD Block Mode Onboard FDD Controller Onboard Serial Port 1 Onboard Serial Port 2 UART 2 Mode Standard  IR Function Duplex Half  X TX, RX inverting enable Onboard Parallel Port Onboard Parallel Mode SECP Mode Use DMA X Parallel Port EPP Type Onboard Legacy Audio Sound Blaster SB I/O Base Address SB IRQ Select IRQ 5 SB DMA Select MPU-401 MPU-401 MPU-401 I/O Address  Auto Auto Enabled Auto Enabled No, Yes No, Yes Onboard Parallel Mode Normal FEPP1.9 Normal SEPP1.9 Normal Normal SEPP1.9 Normal SEP	IDE Prefetch Mode	Enabled	
Secondary Master PIO Secondary Slave PIO Auto Primary Master UDMA Auto Primary Slave UDMA Secondary Master UDMA Auto Secondary Master UDMA Auto Init Display First IDE HDD Block Mode Onboard FDD Controller Onboard Serial Port 1 Onboard Serial Port 2 UART 2 Mode  IR Function Duplex  TX, RX inverting enable Onboard Parallel Port Onboard Parallel Mode  ECP Mode Use DMA  Parallel Port EPP Type Onboard Legacy Audio Sound Blaster SB I/O Base Address SB DMA Select MPU-401 MPU-401 MPU-401 Into Muto Auto ECD Auto Enabled Auto Auto Enabled Standard No, Yes Onboard Normal  378/IRQ7 Onboard FPP1.9	Primary Master PIO	Auto	
Secondary Slave PIO Primary Master UDMA Auto Primary Slave UDMA Secondary Master UDMA Auto Secondary Slave UDMA Auto Init Display First IDE HDD Block Mode Onboard FDD Controller Onboard Serial Port 1 Onboard Serial Port 2 UART 2 Mode XIR Function Duplex XIX, RX inverting enable Onboard Parallel Port Onboard Parallel Mode XECP Mode Use DMA XParallel Port EPP Type Onboard Legacy Audio Sound Blaster SB I/O Base Address SB DMA Select MPU-401 MPU-401 MPU-401 Init Disabled Auto Auto Enabled Enabled Auto Enabled Standard X tandard X tand	III -	Auto	
Primary Master UDMA Primary Slave UDMA Auto Secondary Master UDMA Auto Secondary Slave UDMA Init Display First IDE HDD Block Mode Onboard FDD Controller Onboard Serial Port 1 Onboard Serial Port 2 UART 2 Mode XIR Function Duplex YIX, RX inverting enable Onboard Parallel Port Onboard Parallel Mode X ECP Mode Use DMA X Parallel Port EPP Type Onboard Legacy Audio Sound Blaster SB I/O Base Address SB DMA Select MPU-401 MPU-401 MPU-401 Init Disabled Auto Auto Enabled Enabled Auto Auto Auto Auto Auto Auto Auto Auto	Secondary Master PIO	Auto	
Primary Slave UDMA Secondary Master UDMA Auto Secondary Slave UDMA Auto Init Display First IDE HDD Block Mode Onboard FDD Controller Onboard Serial Port 1 Onboard Serial Port 2 UART 2 Mode  **IR Function Duplex **IR Function Duplex Onboard Parallel Port Onboard Parallel Mode  **ECP Mode Use DMA **Parallel Port EPP Type Onboard Legacy Audio Sound Blaster SB I/O Base Address SB DMA Select MPU-401 MPU-401 Initial Auto Auto Enabled Enabled Sund Auto Enabled Sound Blaster Disabled MPU-401 MPU-401 MPU-401 Initial Auto Auto Auto Enabled Enabled Sound Blaster Disabled MPU-401 Disabled MPU-401 Initial Control Initial Contro	Secondary Slave PIO	Auto	
Secondary Master UDMA Secondary Slave UDMA Auto Init Display First IDE HDD Block Mode Onboard FDD Controller Onboard Serial Port 1 Onboard Serial Port 2 UART 2 Mode XIR Function Duplex Auto Onboard Parallel Port Onboard Parallel Mode XECP Mode Use DMA X Parallel Port EPP Type Onboard Legacy Audio Sound Blaster SB I/O Base Address SB DMA Select MPU-401 MPU-401 Init Disabled Auto Enabled Enabled Enabled Enabled Sound Blaster Disabled MPU-401 MPU-401 IDisabled MPU-401 Init Disabled Auto Auto Auto Auto Auto Auto Auto Auto	Primary Master UDMA	Auto	
Secondary Slave UDMA Init Display First IDE HDD Block Mode Onboard FDD Controller Onboard Serial Port 1 Onboard Serial Port 2 UART 2 Mode XIR Function Duplex Onboard Parallel Port Onboard Parallel Mode XIR FUNCTION ONDOARD XIR FUNCTION ONDO	Primary Slave UDMA	Auto	
Init Display First PCI Slot IDE HDD Block Mode Enabled Onboard FDD Controller Enabled Onboard Serial Port 1 Auto Onboard Serial Port 2 Auto UART 2 Mode Standard  * IR Function Duplex Half  * TX, RX inverting enable No, Yes Onboard Parallel Port 378/IRQ7 Onboard Parallel Mode Normal  * ECP Mode Use DMA 3  * Parallel Port EPP Type EPP1.9 Onboard Legacy Audio Enabled Sound Blaster Disabled Sound Blaster Disabled SB I/O Base Address 220H SB IRQ Select IRQ 5 SB DMA Select DMA 1 MPU-401 Disabled MPU-401 I/O Address 330-333H	Secondary Master UDMA	Auto	
IDE HDD Block Mode Onboard FDD Controller Onboard Serial Port 1 Onboard Serial Port 2 UART 2 Mode  X IR Function Duplex  X IR Function Duplex  Y IR Function Duplex  Half  X TX, RX inverting enable  No, Yes  Onboard Parallel Port  X 378/IRQ7  Onboard Parallel Mode  Normal  X ECP Mode Use DMA  X Parallel Port EPP Type  Onboard Legacy Audio Sound Blaster  SB I/O Base Address  SB I/O Base Address  SB IRQ Select  IRQ 5  SB DMA Select  DMA 1  MPU-401  Disabled  MPU-401 I/O Address  330-333H	Secondary Slave UDMA	Auto	
Onboard FDD Controller Onboard Serial Port 1 Onboard Serial Port 2 UART 2 Mode  × IR Function Duplex  × TX, RX inverting enable Onboard Parallel Port Onboard Parallel Mode  × ECP Mode Use DMA  × Parallel Port EPP Type Onboard Legacy Audio Sound Blaster SB I/O Base Address SB IRQ Select MPU-401 MPU-401 Insabled MPU-401 I/O Address  Auto Auto Auto Auto Auto Auto Auto Aut	Init Display First	PCI Slot	
Onboard Serial Port 1 Onboard Serial Port 2 UART 2 Mode  × IR Function Duplex  × TX, RX inverting enable Onboard Parallel Port Onboard Parallel Mode  × ECP Mode Use DMA  × Parallel Port EPP Type Onboard Legacy Audio Sound Blaster SB I/O Base Address SB IRQ Select SB DMA Select MPU-401 MPU-401 In Standard  Auto Auto Auto Auto Auto Auto Auto Aut	IDE HDD Block Mode	Enabled	
Onboard Serial Port 2 UART 2 Mode  XIR Function Duplex  Half  XTX, RX inverting enable Onboard Parallel Port Onboard Parallel Mode  XECP Mode Use DMA XParallel Port EPP Type Onboard Legacy Audio Sound Blaster SB I/O Base Address SB IRQ Select SB DMA Select MPU-401 MPU-401 In Standard  Auto Auto Auto Auto Auto Auto Auto Aut	Onboard FDD Controller	Enabled	
UART 2 Mode  × IR Function Duplex  × TX, RX inverting enable Onboard Parallel Port Onboard Parallel Mode  × ECP Mode Use DMA  × Parallel Port EPP Type Onboard Legacy Audio Sound Blaster SB I/O Base Address SB IRQ Select SB DMA Select MPU-401 MPU-401 I/O Address  STAN STAN STAN STAN STAN STAN STAN STAN	Onboard Serial Port 1	Auto	
× IR Function Duplex  × TX, RX inverting enable Onboard Parallel Port Onboard Parallel Mode × ECP Mode Use DMA × Parallel Port EPP Type Onboard Legacy Audio Sound Blaster SB I/O Base Address SB IRQ Select SB DMA Select MPU-401 MPU-401 I/O Address  No, Yes SPIRQ To SPB/IRQ To SPB/IRQ To SPB DMA 1 Disabled MPU-401 I/O Address  No, Yes SPB/IRQ To SPB/IRQ To SPB IRQ To SPB DMA 1 Disabled MPU-401 I/O Address	Onboard Serial Port 2	Auto	
× TX, RX inverting enable Onboard Parallel Port Onboard Parallel Mode Normal  × ECP Mode Use DMA X Parallel Port EPP Type Onboard Legacy Audio Sound Blaster SB I/O Base Address SB IRQ Select SB DMA Select MPU-401 MPU-401 I/O Address Disabled MPU-401 I/O Address Disabled MSB I/O Address	UART 2 Mode	Standard	
Onboard Parallel Port 378/IRQ7 Onboard Parallel Mode Normal  × ECP Mode Use DMA 3  × Parallel Port EPP Type EPP1.9 Onboard Legacy Audio Enabled Sound Blaster Disabled SB I/O Base Address 220H SB IRQ Select IRQ 5 SB DMA Select DMA 1 MPU-401 Disabled MPU-401 I/O Address 330-333H	× IR Function Duplex	Half	
Onboard Parallel Mode  × ECP Mode Use DMA  × Parallel Port EPP Type Onboard Legacy Audio Sound Blaster SB I/O Base Address SB IRQ Select SB DMA Select MPU-401 MPU-401 Disabled MPU-401 I/O Address  Normal  RPP EPP1.9  EPP1.	<sub>II</sub> ,	,	
× ECP Mode Use DMA 3 × Parallel Port EPP Type EPP1.9 Onboard Legacy Audio Enabled Sound Blaster Disabled SB I/O Base Address 220H SB IRQ Select IRQ 5 SB DMA Select DMA 1 MPU-401 Disabled MPU-401 I/O Address 330-333H	Onboard Parallel Port	378/IRQ7	
× Parallel Port EPP Type Onboard Legacy Audio Sound Blaster SB I/O Base Address SB IRQ Select SB DMA Select MPU-401 MPU-401 I/O Address DISABLED EPP1.9 EPP1.9 EPP1.9 EPP1.9 ERP1.9 ENDING ENDI	Onboard Parallel Mode	Normal	
Onboard Legacy Audio Enabled Sound Blaster Disabled SB I/O Base Address 220H SB IRQ Select IRQ 5 SB DMA Select DMA 1 MPU-401 Disabled MPU-401 I/O Address 330-333H	× ECP Mode Use DMA	•	
Sound Blaster Disabled SB I/O Base Address 220H SB IRQ Select IRQ 5 SB DMA Select DMA 1 MPU-401 Disabled MPU-401 I/O Address 330-333H	× Parallel Port EPP Type	EPP1.9	
SB I/O Base Address       220H         SB IRQ Select       IRQ 5         SB DMA Select       DMA 1         MPU-401       Disabled         MPU-401 I/O Address       330-333H	II	Enabled	
SB IRQ Select IRQ 5 SB DMA Select DMA 1 MPU-401 Disabled MPU-401 I/O Address 330-333H	Sound Blaster	Disabled	
SB DMA Select DMA 1 MPU-401 Disabled MPU-401 I/O Address 330-333H	SB I/O Base Address	220H	
MPU-401 Disabled MPU-401 I/O Address 330-333H	SB IRQ Select	IRQ 5	
MPU-401 I/O Address 330-333H			
Game Port (200-207H) Enabled	MPU-401 I/O Address	330-333H	
, , ,	Game Port (200-207H)	Enabled	

<sup>↑↓→ ←:</sup>Move Enter:Select +/-/PU/PD:Value F10:Save ESC:Exit F1:General Help F5:Previous Values F6:Fail-Safe Defaults F7:Optimized Defaults

- 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 <F> keys follows:
- <F1>: "Help" gives oions 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.

#### 75KV+/75KV2/75.IV/75.IV2

On-Chip Primary/ The chipset contains a PCI IDE interface with sup-Secondary PCI IDE port from two IDE channels. Select Enabled to activate the first and/or the second IDF interface. Select Disabled to deactivate an interface if you install a primary and/or second add-on IDE interface.

The choice: Enabled, Disabled.

IDE Prefetch Mode The onboard IDE drive interfaces supports IDE prefetching for faster drive accesses. If you install a primary and/or secondary add-in IDE interfaces, set this field to Disabled if the interface does not support prefetching.

The choice: Enabled, Disabled,

Primary Choose Auto or Mode 0~4. The BIOS will detect the Master / Slave PIO HDD mode type automatically when you choose Auto. **Secondary** You need to set to a lower mode than Auto when your Master / Slave PIO hard disk becomes unstable.

> The choice: Auto, Mode 0, Mode 1, Mode 2, Mode 3, Mode 4.

Primary Ultra DMA/66 implementation is possible only if your Master / Slave UDMA IDE hard drive supports it and the operating environ-**Secondary** ment includes a DMA drive and your system software Master / Slave UDMA both support Ultra DMA/66, select Auto to enable BIOS support.

The choice: Auto. Disabled.

Init Display First This option allows you to decide to activate PCI Slot or AGP first

The choice: PCI Slot. AGP.

IDE HDD Block Mode Block mode is also called block transfer, multiple commands, or multiple sector read/write. If your IDE hard drive supports block mode (most new drives do). select Enabled for automatic detection of the optimal number of block read/write per sector the drive can support.

The choice: Enabled, Disabled.

**Onboard FDC** Select Enabled if your system has a floppy drive con-Controller troller (FDC) installed on the system board and you want to use it. If you install add-in FDC or the system has no floppy drive, select Disabled in this field.

The choice: Enabled. Disabled.

Onboard Serial Select an address and corresponding interrupt for the Port 1 / Port2 first and second serial ports.

> The choice: 3F8/IRQ4, 2E8/IRQ3, 3E8/IRQ4, 2F8/ IRQ3. Disabled. Auto.

**UART 2 Mode** This item allows you to select which mode for the Onboard Serial Port 2.

The choice: Standard, HPSIR, ASKIR

IR Function Duplex This item allows you to select the IR half / full duplex function.

The choice: Half, Full.

**TX, RX inverting** This item allows you to enable the TX, RX inverting enabld which depends on different H/W requirement. This field is not recommended to change its default setting for avoiding any error in your system.

The choice: "No, No", "No, Yes", "Yes, No", "Yes, Yes".

Onboard Parallel Port This item allows you to determine onboard parallel port controller I/O address setting.

> The choice: 378H/IRQ7, 278H/IRQ5, 3BC/IRQ7, Disabled

Parallel Port Mode Select an operating mode for the onboard parallel (printer) port. Select Normal, Compatible, or SPP unless you are certain your hardware and software both support one of the other available modes.

The choice: SPP, EPP, ECP, ECP + EPP.

ECP Mode Use DMA Select a DMA channel for the parallel port for use during ECP mode.

The choice: 3. 1.

Parallel Port EPP Type Select EPP port type 1.7 or 1.9

The choice: EPP1.7, 1.9.

Onboard Legacy Audio This field controls the onboard audio.

Sound Blaster

- SB I/O Base Address
- SB IRQ Select
- SB DMA Select
- MPU-401
- MPU-401 I/O Address
- Game Port (200-207H)

Press <ESC> to return to the Main Menu when you finish setting up all items.

#### 4-12 POWER MANAGEMENT SETUP

 POWER MANAGEMENT SETUP allows you to set the system's power saving functions.

Run the POWER MANAGEMENT SETUP as following:

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

### CMOS Setup Utility - Copyright (C) 1984-2000 Award Software Power Management Setup

	i management octup	
ACPI Function	Enabled	Item Help
▶ Power Management	Press Enter	Menu Level →
ACPI Suspend Type	S1(POS)	
PM Control by APM	Yes	
Video Off Option	Suspend -> Off	
Video Off Method	V/H SYNC+Blank	
MODEM Use IRQ	3	
Soft-Off by PWRBTN	Instant-Off	
State After Power Failure	Auto	
→ Wake Up Events	Press Enter	

- ↑↓→←:Move Enter:Select +/-/PU/PD:Value F10:Save ESC:Exit F1:General Help F5:Previous Values F6:Fail-Safe Defaults F7:Optimized Defaults
- Use one of the arrow keys to move between options and modify the selected options by using PgUp / PgDn / + / keys. An explanation of the <F> keys follows:
- <F1>: "Help" gives oions 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.

ACPI Function Enabled: Turn on ACPI function.

Disabled: Turn off ACPI function.

 Press <Enter> on the Power Management item, then there is a list of it appears for you to choose further setting.

CMOS Setup Utility - Copyright (C) 1984-2000 Award Software
Power Management

Power Management HDD Power Down Doze Mode	User Define Disable Disable	Item Help Menu Level ▶
Suspend Mode	Disable	

↑↓→←:Move Enter:Select +/-/PU/PD:Value F10:Save ESC:Exit F1:General Help F5:Previous Values F6:Fail-Safe Defaults F7:Optimized Defaults

**Power Management** This category allows you to select the type (or degree) of power saving and is directly related to the following modes:

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.

**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.

ACPI Suspend Type This item will allow you to select the ACPI suspend type. You can select S3(STR) for suspending to DRAM or S1(POS) for power on suspend under Windows 98 ACPI mode.

The choice: S1(POS), S3(STR),

PM Control by APM When enabled, an Advanced Power Management device will be activated to enhance the Max. Power Saving mode and stop the CPU internal clock, If Advanced Power Management (APM) is installed on your system, selecting Yes gives better power savings. If the Max. Saving is not enabled, this will be present to No.

Video Off Option When enabled, this feature allows the VGA adapter to operate in a power saving mode.

Always On	Monitor will remain on during power saving modes.
Suspend> Off	Monitor blanked when the systems enters the Suspend mode.
Susp, Stby> Off	Monitor blanked when the system enters either Suspend or Standby modes.

### 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.

MODEM Use IRQ This determines the IRQ in which the MODEM can use.

The choice: 3, 4, 5, 7, 9, 10, 11, NA.

Soft-Off by PWRBTN Instant-Off: Turn off the system poer at once after pushing the power button.

> Delay 4 Sec: Turn off the system power 4 seconds after pushing the power button. (to meet PC97/98 spec)

• Press <Enter> on the Wake Up Events item, then there is a list of it appears for you to choose further setting.

CMOS Setup Utility - Copyright (C) 1984-2000 Award Software Wake Up Events

VGA	OFF	Item Help
LPT & COM	LPT/COM	Menu Level ▶
HDD & FDD	ON	
PCI Master	OFF	
Wake Up On LAN/Ring	Disabled	
RTC Alarm Resume	Disabled	
× Date (of Month)	0	
× Resume Time (hh:mm:ss)	0 0 0	
Primary INTR	ON	
IRQ Activity Monitoring	Press Enter	

↑ ↓ → ←: Move Enter: Select +/-/PU/PD: Value F10: Save ESC: Exit F1: General Help F5:Previous Values F6:Fail-Safe Defaults F7:Optimized Defaults

> VGA When Enabled, you can set the VGA 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.

PCI Master When On of PCI Master, any activity from one of the listed system peripheral devices wakes up the system.

Wake Up On LAN/Ring 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.

The choice: Enabled, Disabled,

RTC Alarm Resume When Enabled, you can set the data and time at the which the RTC (Real Time Clock) alarm awakens the

system from suspend mode.

The choice: Disabled (default), Enabled.

**Date (of Month)** Set a certain date when RTC Alarm Resume option is Enabled to awaken the system. THis option is concurrent with Resume TIme option.

Resume Time (hh:mm: Set a certain time when RTC Alarm Resume option is ss) Enabled to awaken the system. This option is con-

current with Date option.

Primary INTR Leave this field at default

IRQS Activity Monitor- The following is a list of IRQ's (Interrupt ing 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.

## CMOS Setup Utility - Copyright (C) 1984-2000 Award Software IRQ Activity Monitoring

IRQ 3 (COM2)	Enabled	Item Help
IRQ 4 (COM1)	Enabled	Menu Level ▶
IRQ 5 (LPT2)	Enabled	
IRQ 6 (Floppy Disk)	Enabled	
IRQ 7 (LPT1)	Enabled	
IRQ 8 (RTC Alarm)	Disabled	
IRQ 9 (IRQ2 Redir)	Disabled	
IRQ 10 (Reserved)	Disabled	
IRQ 11 (Reserved)	Disabled	
IRQ 12 (PS/2 Mouse)	Enabled	
IRQ 13 (Coprocessor)	Disabled	
IRQ 14 (Hard Disk)	Enabled	
IRQ 15 (Reserved)	Disabled	

<sup>↑↓→ ←:</sup>Move Enter:Select +/-/PU/PD:Value F10:Save ESC:Exit F1:General Help F5:Previous Values F6:Fail-Safe Defaults F7:Optimized Defaults

Press <ESC> to return to the Main Menu when you finish setting up all items.

#### 4-13 PNP / PCI CONFIGURATION

 PNP/PCI CONFIGURATION allows you to set the system's power saving functions.

Run the PNP/PCI CONFIGURATION as following:

1. Choose "PNP/PCI CONFIGURATION" from the Main Menu and a screen with a list of option will appear:

CMOS Setup Utility - Copyright (C) 1984-2000 Award Software PnP/PCI Configurations

PNP OS Installed	No	Item Help
Reset Configuration Data	Disabled	Menu Level ▶
Resources Controlled By	Auto(ESCD)	
×IRQ Resources	Press Enter	
×DMA Resources	Press Enter	
PCI/VGA Palette Snoop	Disabled	
Assign IRQ For VGA	Enabled	
Assign IRQ For USB	Enabled	

- ↑↓→ ←:Move Enter:Select +/-/PU/PD:Value F10:Save ESC:Exit F1:General Help F5:Previous Values F6:Fail-Safe Defaults F7:Optimized Defaults
- Use one of the arrow keys to move between options and modify the selected options by using PgUp / PgDn / + / keys. An explanation of the <F> keys follows:
- <F1>: "Help" gives oions 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.

PNP OS Installed Yes: OS supports Plug and Play function.

No: 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 operating system.

Reset Configuration Choose Enabled or Disabled. Disabled retains PnP

Data configuration data in BIOS and Enabled resets the

PnP configuration data in BIOS.

Resource Controlled Choose Manual or Auto. The BIOS checks the IRQ /

**By** 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.

IRQ Resources Press Enter. Please refer to the below list.

## CMOS Setup Utility - Copyright (C) 1984-2000 Award Software IRQ Resources

IRQ-3	assigned to	PCI/ISA PnP	Item Help
IRQ-4	assigned to	PCI/ISA PnP	Menu Level ▶
IRQ-5	assigned to	PCI/ISA PnP	
IRQ-7	assigned to	PCI/ISA PnP	
IRQ-9	assigned to	PCI/ISA PnP	
IRQ-10	assigned to	PCI/ISA PnP	
IRQ-11	assigned to	PCI/ISA PnP	
IRQ-12	assigned to	PCI/ISA PnP	
IRQ-14	assigned to	PCI/ISA PnP	
IRQ-15	assigned to	PCI/ISA PnP	

↑↓→ ←:Move Enter:Select +/-/PU/PD:Value F10:Save ESC:Exit F1:General Help F5:Previous Values F6:Fail-Safe Defaults F7:Optimized Defaults

**DMA Resources** Press Enter. Please refer to the below list.

#### CMOS Setup Utility - Copyright (C) 1984-2000 Award Software **DMA Resources**

DMA-0 assign	ed to PCI/ISA F	PnP	Item Help
DMA-1 assign	ed to PCI/ISA F	'nΡ	Menu Level →
DMA-3 assign	ed to PCI/ISA F	'nΡ	
DMA-5 assign	ed to PCI/ISA F	'nΡ	
DMA-6 assign	ed to PCI/ISA F	'nΡ	
DMA-7 assign	ed to PCI/ISA F	nP	

↑↓→←:Move Enter:Select +/-/PU/PD:Value F10:Save ESC:Exit F1:General Help F5:Previous Values F6:Fail-Safe Defaults F7:Optimized Defaults

PCI/VGA Palette Snoop Leave this field at Disabled.

The choice: Enabled, Disabled.

Assign IRQ for VGA Enabled: Add one IRQ to VGA controller.

Disabled: Remove IRQ from USB controller. The system will have extra IRQ for other devices but the VGA controller will still not be disabled. (only IRQ was

removed)

Assign IRQ for USB 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)

3. Press <ESC> to return to the Main Menu when you finish setting up all items.

#### 4-14 PC HEALTH STATUS

 This section helps you to get more information about your system including CPU temperature, FAN speed and voltage. It is recommended that you contact with your motherboard supplier to get proper value about your setting of the CPU temperature.

CMOS Setup Utility - Copyright (C) 1984-2000 Award Software PC Health Status

Current CPU Temp.	36°C/96°F	Item Help
Current System Temp. Current CPUFAN1 Speed Current CPUFAN2 Speed Vcore VDD 3.3V 5V 12V	°C/32°F	Menu Level ➤

<sup>↑↓→←:</sup> Move Enter: Select +/-/PU/PD: Value F10: Save ESC: Exit F1: General Help F5: Previous Values F6: Fail-Safe Defaults F7: Optimized Defaults

**Current CPU Temp.** Shows current CPU temperature.

**Current System Temp.** Shows current system temperature.

**Current CPUFAN1** Shows current CPUFAN1 speed. The fan must pro- **Speed** vide rotary pulse. (Normally these types of fan have a three-wire connector)

**Current CPUFAN2** Shows current CPUFAN2 speed. The fan must provide rotary pulse. (Normally these types of fan have a three-wire connector)

**Voltage** Shows power supply actual voltage value.

 Press <ESC> to return to the Main Menu when you finish setting up all items

#### 4-15 FREQUENCY/VOLTAGE CONTROL

## CMOS Setup Utility - Copyright (C) 1984-2000 Award Software Frequency Control

Auto Detect DIMM/DCI CII	Fuebled	Item Help
Auto Detect DIMM/PCI CIk Spread Spectrum Modulated CPU Host Clock (CPU/PCI) Method In Linear Funct. CPU HOST By Linear Funct. CPU Voltage Regulator	Enabled Disabled Default Increase 0 Default	Menu Level >

↑↓→ ←:Move Enter:Select +/-/PU/PD:Value F10:Save ESC:Exit F1:General Help F5:Previous Values F6:Fail-Safe Defaults F7:Optimized Defaults

Auto Detect This item allows you to enable/disable detect DIMM/ DIMM/PCI CLK PCI Clock.

The choice: Enabled, Disabled.

**Spread Spec-** This item allows you to enable/disable the spread **trum Modulated** spectrum modulate.

The choice: Enabled, Disabled.

CPU Host Clock This item allows you to select CPU/PCI frequency.
(CPU/PCI) The choice: Default, 100/33MHz, 103/34MHz, 105/35MHz, 112/37MHz, 115/38MHz, 120/40MHz, 124/41MHz.

**CPU HOST By** The choice: 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, **Linear Funct.** 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28.

#### **CPU Voltage Regulator** This item allows user to adjust the CPU Vcore voltage.

The instant damage of CPU is due to the wrong Vcore voltage setting, so that we recommend that user should leave this item with Default setting unless you know how to adjust it.

The choice: Default, 1.5V~1.85V

 Press <ESC> to return to the Main Menu when you finish setting up all items.

#### 4-16 LOAD FAIL-SAFE DEFAULTS

· When you press <Enter> on this item you get a confirmation dialog box with a message similar to:

Load Fail-Safe Defaults (Y / N) N

Pressing "Y" loads the BIOS default values for the most stable, minimalperformance system operations.

#### 4-17 LOAD OPTIMIZED DEFAULTS

 When you press <Enter> on this item you get a confirmation dialog box with a message similar to:

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

Pressing "Y" loads the BIOS default values that are factory settings for optimal performance system operations.

#### 4-18 SET SUPERVISOR / USER PASSWORD

- These two options allow you to set your sysem 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 : '

- The first time you run this option, enter your password up to 8 characters and press <Enter>. The screen does not display the enterd 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.
- If you need to delete the password ou entered before, choose the Supervisor Password and press <Enter>. It will delete the password that you had before
- 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 system on.
- 8. Press <Enter> 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. All setup informations will be lost and you need to run the BIOS setup program again.

#### 4-19 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.

#### 4-20 EXIT WITHOUT SAVING

• EXIT WITHOUT SAVING option 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:

"Ouit Without Saving (Y/N) ? N "

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