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### FCC Compliance Statement

This equipment has been tested and found to comply with the limits of a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense. However, there is no guarantee that interference will not occur in a particular installation.

### CE Mark

The device is in accordance with 89/336 ECC-ENC Directive.

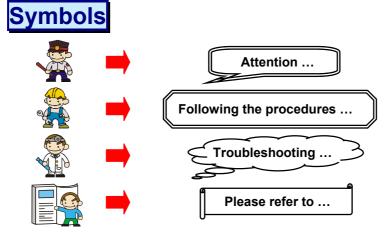
120410088M1N

# You have to know !!!

- The images and pictures in this manual are for reference only and may vary slightly from actual product installation depending on specific hardware models, third party components and software versions.
- Unplug your computer when installing components and configuring switches and pins.
- This mainboard contains very delicate IC chips. Use a grounded wrist strap when working with the system.
- Do not touch the IC chips, leads, connectors or other components.
- Unplug the AC power when you install or remove any device on the mainboard.

# Package Contents

- ♦ KM400TA Series mainboard
- IDE Cable
- FDC Cable
- USB Bracket (optional)
- Installation and Setup Driver CD
- ♦ KM400TA Series User Manual



**VIA<sup>®</sup> KT400A & VT8235** Supports Socket 462 AMD<sup>®</sup> Athlon XP<sup>TM</sup>/ Athlon<sup>TM</sup> /Duron<sup>TM</sup> /Barton<sup>TM</sup> Processor

# **USER Manual**

### Dimensions (Micro ATX form-factor):

• 200 mm x 243 mm (WxL)

### **Operating System:**

• Supports most popular operating systems: Windows<sup>®</sup> 9X/ME/2000/XP etc.

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# Chapter 1. Getting Started Introduction

Congratulations on choosing the KM400TA Series mainboards! The series include KM400TA PRO and KM400TA. These are based on VIA<sup>®</sup> KT400A and VIA<sup>®</sup> VT8235 chipsets. It also supports AMD<sup>®</sup> Athlon XP<sup>TM</sup>/ Athlon<sup>TM</sup>/ Duron<sup>TM</sup>/ Barton<sup>TM</sup> Processors with a FSB (Front Side Bus) frequency of 200/ 266/ 333 MHz.

The KM400TA Series provide 2 sockets using 184 pin DDR SDRAM with a total capacity of up to 2GB. You can install unbuffered & non-ECC DDR400/ 333/ 266/ 200 (PC3200/ 2700/ 2100/ 1600) SDRAM. They support 64 bit single channel memory bus with a total capacity of up to 2 GB.

The KM400TA Series provide one AGP Slot for 4X/8X (1.5V only) AGP cards.

The KM400TA Series include built in IDE facilities that support Ultra ATA 33/66/100/133. The KM400TA Series also come with an Audio Codec (VIA VT1616) which supports high quality 6 channel audio (**Super 5.1 Channel Audio Effect**).

The KM400TA Series also include CPU Over Temperature Protection (OTP). When CPU temperature rises above normal values, the system will automatically shut down to protect your system from overheating. But the OTP is only functional when using an Athlon XP<sup>TM</sup> or Barton<sup>TM</sup> CPU.

The KM400TA Series also comes with 6 USB 2.0 ports.

The KM400TA PRO also comes with a LAN Chip (VIA VT6103) and provides a back panel LAN port. More information in the section of Back Panel Configuration.

The company's 3 Year Limited Warranty for this product covers both labor costs and replacement parts during the 1st year. Only labor costs are covered during the 2nd and 3rd years (replacement parts will be charged during the 2nd and 3rd years).

All of the information in this manual only for reference. This specification is subject to change without notice.

# **Specification**

### CPU:

- Supports Socket 462
- Supports AMD<sup>®</sup> Athlon XP<sup>TM</sup>, Athlon<sup>TM</sup>, Duron<sup>TM</sup>, Barton<sup>TM</sup> processors

### Speed:

- 200/ 266/ 333 MHz Front Side Bus frequency
- 33 MHz, 32 bit PCI interface (PCI 2.2 compliant)
- 66 MHz AGP 2.0 compliant interface that supports 4X data transfer modes
- 66 MHz AGP 3.0 compliant interface that supports 8X data transfer modes

### Chipset:

- Northbridge Chip VIA<sup>®</sup> KT400A
- Southbridge Chip VIA<sup>®</sup> VT8235
- I/O Controller Winbond Super I/O W83697HF
- AC'97 Audio Codec VIA<sup>®</sup> VT1616
- Ethernet LAN Chip VIA<sup>®</sup> VT6103 (only for KM400TA PRO)

### **DRAM Memory:**

- Supports DDR400 (PC3200)/ DDR333 (PC2700)/ DDR266 (PC2100)/ DDR200 (PC1600) SDRAM
- Supports 64 MB/ 128 MB/ 256 MB/ 512 MB/ 1 GB unbuffered non-ECC DIMM modules
- Supports up to two double-sided memory modules with a total capacity of 2 GB
- Supports x8, x16 DRAMs DDR DIMMs (more details in memory installation section)

### **Green Functionality:**

- Supports Phoenix-Award BIOS <sup>TM</sup> power management functionality
- Wakes from power saving sleep mode with any keyboard or mouse activity

### Shadow RAM:

• This mainboard is equipped with a memory controller providing shadow RAM and support for ROM BIOS

### **BUS Slots:**

- Provides one AGP slot (1.5V only)
- Provides three PCI bus slots

### Flash Memory:

- Supports flash memory functionality
- Supports ESCD functionality

### Hardware Monitor Function:

- Monitors CPU Fan/ Chassis Fan Speed
- Monitors CPU & system Temperature
- Monitors System Voltage

### **Universal Serial Bus:**

• Supports six USB 1.1/2.0 ports for USB interface devices

### I/O facilities:

- One multi-mode Parallel Port capable of supporting the following specifications:
  - 1. Standard & Bi-direction Parallel Port
  - 2. Enhanced Parallel Port (EPP)
  - 3. Extended Capabilities Port (ECP)
- Supports two serial ports, 16550 UART
- Supports PS/2 mouse and PS/2 keyboard
- Supports 360 KB, 720 KB, 1.2 MB, 1.44 MB, and 2.88 MB floppy disk drives
- MIDI compatible
- Game port compatible

### Audio Sound Codec Onboard:

- AC-LINK protocol compliance
- Compliant with AC'97 2.1 specification
- 6-channel playback capability (Super 5.1 Channel Audio Effect)
- Supports Sony/ Philips Digital Interface (S/PDIF) for output only

### LAN Controller on board: (only for KM400TA PRO)

- 10/ 100 MHz full and half duplex operation
- Independent 2K byte FIFOs for receive and transmit
- Magic packet and wake-on-address filtering
- Software controllable power down

### **IDE Facilities:**

- Supports Ultra ATA 33, Ultra ATA 66, Ultra ATA 100, Ultra ATA 133
- Supports IDE interface with CD-ROM
- Supports high capacity hard disk drives
- Supports installation of up to 4 drives, with separate IDE connections for Primary and Secondary connectors

### **BIOS:**

- Phoenix-Award<sup>™</sup> BIOS
- Supports APM1.2
- Supports USB Legacy function
- Supports ACPI power management

### Sophisticated OTP (Over Temperature Protection):

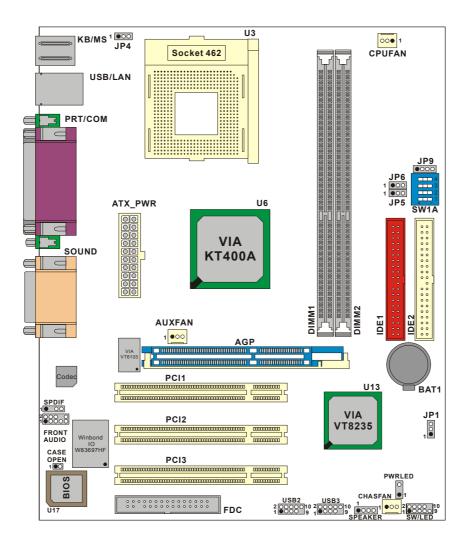
- Special design for CPU Over Temperature Protection.
- OTP is functional when using an Athlon XP<sup>TM</sup> or Barton<sup>TM</sup> CPU.

### Watch Dog Timer:

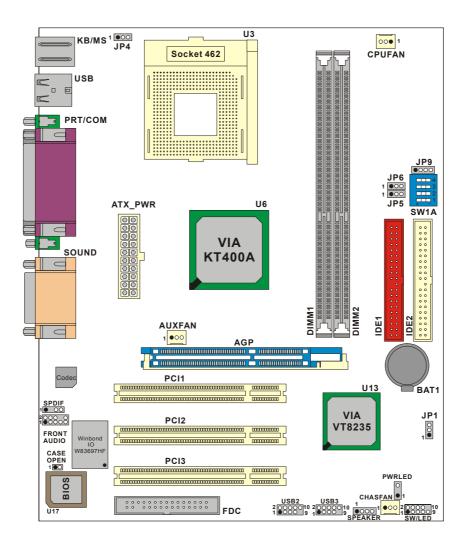
The mainboard contains a special feature called the "Watch Dog Timer" which is used to detect when the system is unable to handle over-clocking configurations during POST stage. Once detected the system will reset the configurations and reboot the system after five seconds. On most systems you would need to remove the cover of your system and re-jumper the clear CMOS switches on the mainboard when your system encounters over-clocking problems. With the "Watch Dog Timer", overclocking settings will be automatically cleared and reset.

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# Configuration Layout of KM400TA PRO



# Layout of KM400TA



# **Hardware Installation**

This section will assist you in quickly installing your system hardware. Wear a wrist ground strap before handling components. Electrostatic discharge may damage your system components.

# **CPU Processor Installation**

This mainboard supports AMD<sup>®</sup> Athlon XP<sup>TM</sup>/ Athlon<sup>TM</sup>/ Duron<sup>TM</sup>/ Barton<sup>TM</sup> processors using a Socket A (Socket 462 Pin package). Before building your system, we suggest you visit the AMD website and review the processor installation procedures. <u>http://www.amd.com</u>

### **CPU Socket A Configuration Steps:**

- 1. Locate the CPU socket on your mainboard and nudge the lever away from the socket. Then lift the lever to a 90-degree angle.
- 2. On the socket, locate the corner that has the pin-1 receptor. This corner will be near to the end of the lever. Match the corner on the CPU with the pin-1 receptor on the socket and lower the CPU onto the socket. The bottom of the CPU should be flush with the face of the socket.



3. Lower the lever until it snaps back into position. This will lock down the CPU.



4. Smear thermal grease on top of the CPU. Lower the CPU fan onto the CPU and use the clasps on the fan to attach it to the socket. Finally, extend the power cable from the fan and insert it onto the CPUFAN adapter.



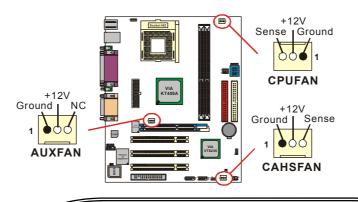


#### Attention

Overheating may damage the CPU and other sensitive components. Please check the installation completely before starting the system. Make sure the heatsink and the CPU fan are properly installed.

### **FAN Headers**

Three power headers are available for cooling fans, which play an important role in maintaining the ambient temperature in your system.

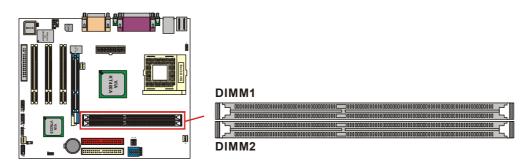


### Attention

This system has a BIOS configuration feature that issues a warning (during POST) when the CPU fan is not plugged in or is not functioning. In order to make use of this feature. You must make sure that the CPU power cable is attached specifically to the "CPUFAN" header. The BIOS configuration option is described in the "Hardware Monitor" section of the BIOS Setup Utility Chapter.

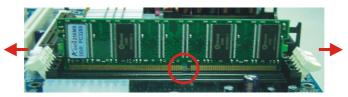
# **Memory Installation**

The KM400TA Series contain 2 sockets, which use 184- pin DDR SDRAM with a total memory capacity of up to 2 GB. You can install unbuffered non-ECC DDR400/ 333/ 266/ 200 (PC3200/ 2700/ 2100/ 1600) SDRAM.



### **RAM Module Installation:**

- 1. Pull the white plastic tabs on each side of the slot away from the slot.
- 2. Match the notch on the button of the RAM module with the corresponding pattern in the DIMM slot. This ensures that the module is inserted properly.



3. Lower the RAM module into the DIMM Slot and press firmly using both thumbs until the module snaps into place.



4. Repeat steps 1, 2 and 3 for the remaining RAM modules.

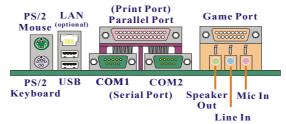
\* The pictures above are for reference only and may vary slightly for your mainboard.



#### **Before Overclocking**

Please make sure your system components are capable of overclocking. If you are not familiar with the overclocking, we strongly recommend that you to set the clock to the default settings.

# **Back Panel Configuration**



### PS/2 Mouse & PS/2 Keyboard Connectors: KB/MS

This mainboard provides a standard PS/2 mouse connector and PS/2 Keyboard connector. The pin assignments are described below:



Pin	Assignment	Pin	Assignment
1	Data	4	+5 V (fused)
2	No connect	5	Clock
3	Ground	6	No connect

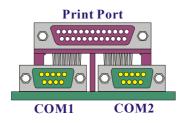
# USB & LAN Connectors: USB/ (LAN=>only for KM400TA PRO )

There are two USB connectors on the back panel. These USB connectors are used to attach to USB devices such as: keyboards, mice and other USB devices. You can plug the USB devices directly into this connector. The KM400TA Series also provides two USB headers on the board allowing for 4 more USB ports. These attach to USB connectors embedded into the computer case or connected to a USB connector bracket (optional). The KM400TA PRO also provides a LAN port. You can plug LAN devices directly into this connector.

LAN	Pin	Assignment	Pin	Assignment
(optional)	1	TX+	5	NC
	2	TX-	6	RX-
	3	RX+	7	NC
	4	NC	8	NC
USB	Pin	Assignment	Pin	Assignment
	1/5	+5 V (fused)	3/7	USBP0+/P1+
	2/6	USBP0-/P1-	4/8	Ground

### **Serial and Parallel Interface Ports**

The KM400TA Series come equipped with two serial ports and one parallel port.



### The Serial Interface: COM1/ COM2

The serial interface port is sometimes referred to as a RS-232 port or an asynchronous communication port. Mice, modems and other peripheral devices can be connected to a serial port.

### Parallel Interface Port: PRT

The parallel port on your system has a 25-pin, DB25 connector and is used to interface with parallel printers and other devices using a parallel interface.

### **Game Port Connector: SOUND**

This connector allows you to connect a joystick or game pad for playing computer games. This port can also be used to connect to MIDI devices.

### **Audio Port Connectors**



Out Line In

**Speaker Out** is used to connect to speakers or headphones. If the Super 5.1 driver is installed the Speaker Out becomes the Front Speaker.

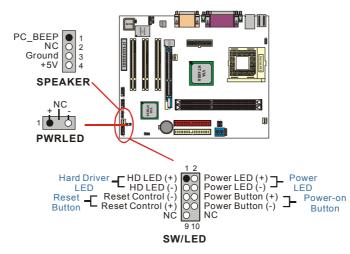
**Line In** can be connected to an external CD player, Tape player or other audio devices for audio input. If the Super 5.1 driver is installed Line In becomes the Rear Speaker.

**Mic In** is used to connect to a microphone. If the Super 5.1 driver is installed the Mic In becomes the Subwoofer/ Center out.



This mainboard supports Super 5.1 Channel Audio effects which turns your standard Speaker Out, Lin In, Mic In audio connectors into a 6 channel audio system. See Appendix I for more information.

## Front Panel Indicator: SW/LED PWRLED SPEAKER



#### HD LED (Hard Drive LED Connector)

This connector can be attached to an LED on the front panel of a computer case. The LED will flicker during disk activity. This disk activity only applies to those IDE drives directly attached to the system board.

#### **RST (Reset Button)**

This connector can be attached to a momentary SPST switch. This switch is normally left open. When closed it will cause the mainboard to reset and run the POST (Power On Self Test).

#### PWR-LED (2-Pin Power LED Connector)

This connector can be attached to an LED on the front panel of a computer case. The LED will illuminate while the computer is powered on.

#### **PWR ON (Power Button)**

This connector can be attached to a front panel power switch. The switch must pull the Power Button pin to ground for at least 50 ms to signal the power supply to switch on or off (the time required is due to internal debounce circuitry on the system board). At least two seconds must pass before the power supply will recognize another on/off signal.

#### PWRLED (3-Pin Power LED connector)

If there is a 3-pin power LED cable on the front panel of a computer case. You can attach it to the 3-pin power LED connector.

#### SPEAKER (Speaker Header)

A front panel speaker can be connected to this connector. When you boot your computer, the speaker sounds a short "beep". If there is something wrong during the Power On Self-Test, the speaker sounds "irregular beep" to warning you.

# Connectors

### Floppy Disk Connector: FDC

The mainboard provides a standard floppy disk connector (FDC) that supports 360K, 720K, 1.2M, 1.44M and 2.88M floppy diskettes. This connector supports the floppy drive ribbon cables provided in the packaging.

### Hard Disk Connectors: IDE1/ IDE2

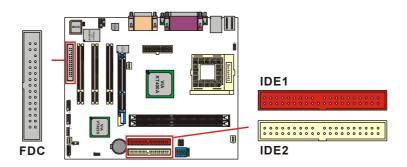
The mainboard has a 32-bit Enhanced PCI IDE Controller that supports Ultra ATA / 33, Ultra ATA / 66, Ultra ATA / 100 and Ultra ATA / 133. It has two HDD connectors, IDE1 and IDE2.

### **IDE1 (Primary IDE Connector)**

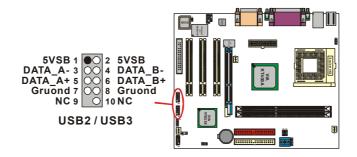
You can connect up to two hard drives to IDE1. If you attach two drives, you must use a ribbon cable with three connectors. You must also configure one drive as the master and one drive as the slave, using the jumpers located on each drive.

### IDE2 (Secondary IDE Connector)

The IDE2 controller can also support a Master and a Slave drive. The configuration is similar to IDE1.



## Headers & Jumpers Front USB Headers: USB2 / USB3



#### **USB bracket (optional)**

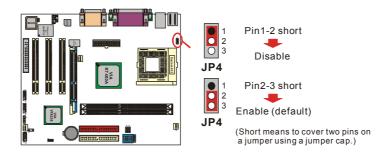
An optional USB bracket may be included with your board. The bracket is typical secured to the back side of your computer and has standard USB ports that you can connect to external USB devices. The bracket will also have cables that you can extend to the USB2, USB3 headers.

\* If you are using USB 2.0 devices with Windows<sup>®</sup> 2000/ XP, you will need to install the USB 2.0 driver from the Microsoft<sup>®</sup> website.

### **OTP (Over Temperature Protection) Jumper: JP4**

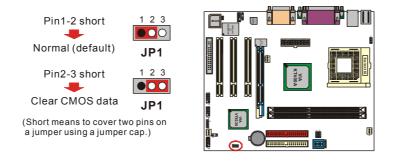
The mainboard supports a special design for CPU Over Temperature Protection. If this function is "Enabled" and the CPU temperature rises above the normal range, the system will automatically shut down and you have to unplug the ATX\_PWR connector. Remove and reinstall the CPU heat sink also check to make sure the CPU fan is working properly.

\*OTP is only functional when using an Athlon XP<sup>TM</sup> or Barton<sup>TM</sup> CPU.



### **Clear CMOS Jumper: JP1**

The "Clear CMOS" jumper is used when you cannot boot your system due to some CMOS configuration such as a password that is forgotten. This jumper allows you to reset the CMOS configurations, and then reconfigure.



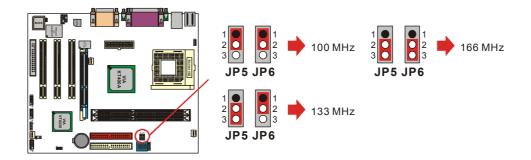


The following procedures are for resetting the BIOS password. It is important to follow these instructions closely.

- 1. Turn off your system and disconnect the AC power cable.
- Set JP1 pin 2-3 closed.
- 2. 3. 4. Wait several seconds.
- Set JP1 pin 1-2 closed.
- 5. Connect the AC power cable and turn on your system.
- 6. If you need to reconfigure the BIOS configuration data, you can do so by accessing the BIOS Setup Utility.

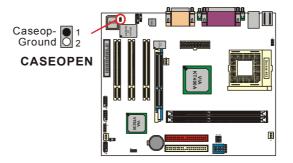
### CPU Clock select Jumper: JP5 \ JP6

Use the jumpers "JP5" and "JP6" to select the CPU Clock. Refer the pictures below for details.

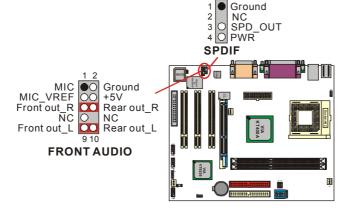


### **Case Open Warning Header: CASE OPEN**

This connector is used to notify the user when the computer case has been previously opened. To configure this functionality, your computer case must be equipped with a "case open" cable which you need to attach to the CASE OPEN header. Also, you must enable the CASE OPEN warning functionality in the BIOS Setup Utility. When your computer case is opened, your system will display alert messages upon boot up.



# **Audio Connectors**



### Front Panel Audio Header: FRONT AUDIO

If your computer case has been designed with embedded audio equipment or you are using an audio bracket (optional). You can attach these components to the FRONT\_AUDIO header of the mainboard. First remove the jumper caps covering the FRONT\_AUDIO pins. Use pins 1, 3 to connect to the case microphone. Use pins 9,5 to connect to the earphone. If you do not intend to use the FRONT\_AUDIO panel, do not remove the jumper caps.



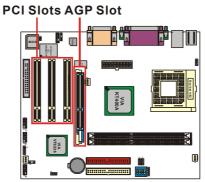
If the jumper caps are in place, jumper cap 1 is on pin 5, pin 6 and jumper cap 2 is on pin 9, pin 10. If you do not intend to use the FRONT\_AUDIO panel, do not remove the jumper caps. Attention : The front panel audio & the back panel audio can not use simultaneously.

### S/PDIF Connector: SPDIF

S/PDIF (Sony/Philips Digital Interface) is an audio transfer file format, which provides high quality audio using optical fiber and digital signal. This mainboard is capable of delivering audio output through the SPDIF header. The SPDIF devices that are sending information from this header must be compliant for optimal effect.

## **Slots**

The slots in this mainboard are designed for expansion cards used to complement and enhance the functionality of the mainboard.



### **AGP Slot**

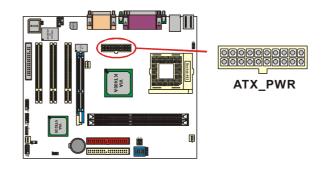
The mainboard is equipped with a 4X/8X & 1.5V only Accelerated Graphics Port (AGP) to support video cards.

### **PCI Slots**

This mainboard is equipped with 3 standard PCI slots. PCI stands for Peripheral Component Interconnect and is a bus standard for expansion cards, which has, for the most part, supplanted the older ISA bus standard. This PCI slot is designated as 32 bits.

# Power Supply Attachments ATX Power Connector: ATX\_PWR

This ATX power supply uses a 20-pin connector. Make sure the connector is properly inserted before applying power.



# Chapter 2. BIOS Setup Introduction

This section describes PHOENIX-AWARD<sup>™</sup> BIOS Setup program which resides in the ROM BIOS firmware. The Setup program allows users to modify the basic system configuration. The configuration information is then saved to CMOS RAM where the data is sustained by Li-battery after power-down.

The BIOS provides critical low-level support for standard devices such as disk drives, serial ports and parallel ports. As well, the BIOS controls the first stage of the boot process, loading and executing the operating system.

The PHOENIX-AWARD<sup>TM</sup> BIOS installed in Flash ROM is a custom version of an industry standard BIOS. This means that it supports the BIOS of AMD<sup>®</sup> based processors.

This version of the PHOENIX-AWARD<sup>™</sup> BIOS includes additional features such as virus and password protection as well as special configurations for fine-tuning the system chipset. The defaults for the BIOS values contained in this document may vary slightly with the version installed in your system. (When you boot up the computer, the BIOS version will appear at up-left of the POST screen.)

### **Plug and Play Support**

This PHOENIX-AWARD<sup>™</sup> BIOS supports the Plug and Play Version 1.0A specification as well as ESCD (Extended System Configuration Data) write.

### **APM Support**

This PHOENIX-AWARD<sup>™</sup> BIOS supports Version 1.1 & 1.2 of the Advanced Power Management (APM) specification. These features include system sleep and suspend modes in addition to hard disk and monitor sleep modes. Power management features are implemented using the System Management Interrupt (SMI).

### **PCI Bus Support**

This PHOENIX-AWARD<sup>™</sup> BIOS also supports Version 2.2 of the Intel PCI (Peripheral Component Interconnect) local bus specification.

### **Supported CPUs**

This PHOENIX-AWARD<sup>TM</sup> BIOS supports the AMD<sup>®</sup> Athlon  $XP^{TM}$ , Athlon<sup>TM</sup>, Duron<sup>TM</sup>, and Barton<sup>TM</sup> CPUs.

### **Key Function**

In general, you can use the arrow keys to highlight items, press <Enter> to select, use the <PgUp> and <PgDn> keys to change entries, press <F1> for help and press <Esc> to quit. The following table provides more detail about how to navigate within the BIOS Setup program.

Keystroke	Function
Up arrow	Move to previous item
Down arrow	Move to next item
Left arrow	Move to the item on the left (menu bar)
Right arrow	Move to the item on the right (menu bar)
Esc	Main Menu: Quit without saving changes Submenus: Exit Current page to the next higher level menu
Move Enter	Move to the item you desire
PgUp key	Increase the numeric value or enter changes
PgDn key	Decrease the numeric value or enter changes
+ Key	Increase the numeric value or enter changes
- Key	Decrease the numeric value or enter changes
F1 key	General help on Setup navigation keys
F5 key	Load previous values from CMOS
F6 key	Load the fail-safe defaults from BIOS default table
F7 key	Load the optimized defaults
F10 key	Save all the CMOS changes and exit

# Main Menu

When you enter the PHOENIX-AWARD<sup>TM</sup> BIOS Utility, the Main Menu will appear on the screen. The Main menu allows you to select from several configuration options. Use the left/right arrow keys to select a particular configuration screen from the top menu bar or use the down arrow key to access and configure the information below.

OS Setup Utility Main Advanced Peripher	als Power HW Monitor Def	aults Exit
Date (mm:dd:yy) Time (hh:mm:ss)	Thu, <mark>Sep</mark> 19 2002 9 : 30 : 25	Item Help
<ul> <li>IDE Primary Master</li> <li>IDE Primary Slave</li> <li>IDE Secondary Master</li> <li>IDE Secondary Slave</li> </ul>	[ None] [ None] [ None] [ None]	Menu Level ► <tab> : <enter> : to select field</enter></tab>
Drive A Drive B	[1.44M, 3.5 in.] [None]	<-> : <+> : <pqup> :</pqup>
Video Halt On ► Security	[EGA/VGA] [All Errors]	<pgdn> : &lt;0-9&gt; : to set date</pgdn>
Base Memory Extended Memory Total Memory	640K 65472K 1024K	
↑↓→+:Move Enter:Select F5:Previous Values	+/-/PU/PD:Value F10:Save F6:Default Settings	ESC:Exit F1:General Help F7:Turbo Settings

ltem	Options	Description	
Date	mm dd yyyy	Set the system date. Note that the 'Day' automatically changes when you set the date.	
Time	Hh: mm: ss	Set the current time of the system.	
IDE Primary Master	Options contained in sub menu.	Press <enter> to enter the sub menu.</enter>	
IDE Primary Slave	Options contained in sub menu.	Press <enter> to enter the sub menu.</enter>	
IDE Secondary Master	Options contained in sub menu.	Press <enter> to enter the sub menu.</enter>	
IDE Secondary Slave	Options contained in sub menu.	Press <enter> to enter the sub menu.</enter>	
Drive A	360K, 5.25 in 1.2M, 5.25 in 720K, 3.5 in 1.44M, 3.5in 2.88M, 3.5 in	Select the type of floppy disk drive installed in your system.	
Drive B	None		
Video	EGA/VGA CGA 40 CGA 80 MONO	Select the default video device.	
Halt On	All Errors No Errors All, but Keyboard All, but Diskette All, but Disk/ Key	Select the situation in which you want the BIOS to stop th POST process and notify you.	
Security	Options contained in sub menu.	Press <enter> to enter the sub menu.</enter>	
Base Memory	N/A	Displays the amount of conventional memory detected during boot up.	
Extended Memory	N/A	Displays the amount of extended memory detected during boot up.	
Total Memory	N/A	Displays the total memory available in the system.	

# Main Menu Setup Configuration Options

# **Advanced BIOS Features**

Main Advanced Peripherals		IOS CMOS Setup Utility aults Exit
First Boot Device Second Boot Device Third Boot Device Boot Other Device Boot Up Floppy Seek • Advanced BIOS Features • Advanced Chipset Features • PnP/PCI Configurations • Frequency/Voltage Control	(Floppy) [CDROM] [HDD-0] [Enabled] [Disabled]	Item Help Menu Level ► Select Your Boot Device Priority
		ESC:Exit F1:General Help F7:Turbo Settings

### First /Second/Third/ Boot Device

Select the order in which devices will be searched in order to find a boot device.

Options: Floppy  $LS120 \times HDD-0 \times SCSI \times CDROM \times HDD-1 \times HDD-2 \times HDD-3 \times ZIP100 \times USB-FDD \times USB-ZIP \times USB-CDROM \times USB-HDD \times LAN \times Disabled$ 

### **Boot Other Device**

Set to "Enabled" allows the system to try to boot from other devices if the system fails to boot from the 1st/ 2nd/ 3rd boot devices. Options: Enabled (default) > Disabled

### **Boot Up Floppy Seek**

When Enabled, the BIOS tests (seeks) floppy drives to determine whether they have 40 or 80 tracks. Only 360-KB floppy drives have 40 tracks. Drives with 720KB, 1.2MB, and 1.44MB capacity all have 80 tracks. Because very few modern PCs have 40-track floppy drives, we recommend that you set this field to "Disabled".

### **Advanced BIOS Features**

#### Virus Warning

This item allows you to choose the VIRUS warning feature for IDE Hard Disk boot sector protection. If this function is enabled and someone attempts to write data into this area, BIOS will display a warning message on the screen and sound an audio alarm (beep). Options: Disabled (default) > Enabled

**CPU Internal Cache** 

Make CPU internal cache active or inactive. System performance may degrade if you disable this item. Options: Enabled (default) > Disable.

#### **External Cache**

This option allows you to enable or disable "Level 2" secondary cache on the CPU to enhance performance. Options: Enabled (default) \ Disabled

#### CPU L2 Cache ECC Checking

Make CPU L2 cache ECC function active or inactive. Options: Disabled \ Enabled (default)

#### **Quick Power On Self Test**

Allow the system to skip certain tests while booting. This will speed up the boot process. Options: Enabled (default) > Disabled.

#### **Swap Floppy Drive**

If the system has two floppy drives, choose "Enabled" to assign physical drive B to logical drive A and vice-versa. Options: Disabled (default) > Enabled.

#### Boot Up NumLock Status

Selects the power on state for NumLock.

Options: On (default) Numpad keys are number keys. Off Numpad keys are arrow keys.

#### **Typematic Rate Setting**

When "Enabled", the "typematic rate" and "typematic delay" can be configured. Typematic Rate determines the keystroke repeat rate used by the keyboard controller.. Options: Disabled (default) > Enabled

#### Typematic Rate (Chars/Sec)

The rate at which a character repeats when you hold down a key. (If only you choose "Enable" in Typematic Rate Setting, you can adjust this function.) Options: 6 (default) \$ \$ 10 \$ 12 \$ 15 \$ 20 \$ 24 \$ 30

### **Typematic Delay (Msec)**

The delay before keystrokes begin to repeat. (If only you choose "Enable" in Typematic Rate Setting, you can adjust this function.) Options: 250 (default) \$\$ 500 \$\$ 750 \$\$ 1000

### **APIC Mode**

By enabling this option, "MPS version control for OS" can be configured. Options: Disabled 

Enabled (default)

#### MPS Version Control For OS

The 1.1 version is the older version that supports 8 more IRQs in the Windows NT environment. Choose the new 1.4 version for Windows 2000 and Windows XP. Options: 1.4 (default) \$ 1.1

#### OS Select For DRAM > 64MB

Select "OS2" only if you are running the OS/2 operating system with greater than 64 MB of RAM. Options: Non-OS2 (default) > OS2

#### HDD S.M.A.R.T. Capability

Self Monitoring Analysis and Reporting Technology is a technology that enables a PC to attempt to predict the possible failure of storage drives. Options: Disabled (default) . Enabled

#### Small LOGO (EPA) Show

This item allows you to show or hide the small LOGO EPA. Options: Disabled (default) . Enabled

### **Advanced Chipset Features**

### **DRAM Clock/ Drive Control**

Press <Enter> to enter next page for DRAM Clock/ Drive Control settings.

#### **DRAM CAS Latency Time**

This item determines CAS Latency. When synchronous DRAM is installed, the number of clock cycles of CAS latency depends on the DRAM timing. Do not reset this field from the default value specified by the system designer. Options:  $1.5 \cdot 2 \cdot 2.5$  (default)  $\cdot 3$ 

#### **DRAM** Timing

This item determines DRAM clock/ timing using the manual configuration. Options: Manual 
Auto (default) (If only you choose Manual, you can adjust Trp, Tras, Trcd)

#### Precharge to Active (Trp)

You can set the time to precharge. Options: 5T (default) \$\$\cdot 2T \$\$\cdot 3T \$\$\$\cdot 4T\$

#### Active to Precharge (Tras)

This item allows you to select DRAM Active to Precharge Delay. Options:  $6T \cdot 7T(default) \cdot 8T \cdot 9T$ 

#### Active to CMD (Trcd)

Select the DRAM delay time when being read. Options: 5T (default) \$2T \$3T \$4T

#### **DRAM** Command Rate

This item determines DRAM Command Rate. Options: 2T Command (default) \ 1T Command

### AGP & P2P Bridge Control

Press <Enter> to enter next page for AGP & P2P Bridge Control.

#### **AGP Aperture Size**

Select the size of the Accelerated Graphics Port (AGP) aperture. The aperture is a portion of the PCI memory address range dedicated for graphics memory address space. Host cycles that hit the aperture range are forwarded to the AGP without any translation. Options:  $1G \\ 512M \\ 256M \\ 128M(default) \\ 64M \\ 32M \\ 16M \\ 8M \\ 4M$  (The 1G and 512M options only appear when you install 8X AGP card.)

#### **AGP Mode**

This item allows you to select the AGP Mode. Options:  $1X \cdot 2X \cdot 4X \cdot 8X$  (\*If you install the 8X AGP card, then the item will be lock in 8X option.)

#### **AGP Driving Control**

By choosing "Auto" the system BIOS will automatically set the AGP output buffer drive strength. By choosing "Manual", it allows user to set the AGP output buffer driver strength.

#### **AGP Driving Value**

While the AGP Driving Control option is set to "Manual", it allows the user to set AGP Driving Value. Options: DA (default)  $\circ$  00~FF

#### **AGP Fast Write**

The AGP Fast Write technology allows the CPU to write directly to the graphics card bypassing the system AGP 4X speed. Choose "Enable" only when you used with AGP card support. Options: Disabled (default) > Enabled

#### **AGP Master 1 WS Write**

When enabled, writes to the AGP (Accelerated Graphics Port) are executed with one wait state. Options: Disabled (default) • Enabled

#### AGP Master 1 WS Read

When enabled, reads from AGP (Accelerated Graphics Port) are executed with one wait state. Options: Disabled (default) < Enabled

#### AGP3.0 Calibration cycle

This item will appear when you install the 8X VGA card. Options: Enabled (default) . Disabled

#### **CPU & PCI Bus Control**

Press <Enter> to enter the next page for CPU & PCI Bus Control

#### PCI 1/2 Master 0 WS Write

When enabled, writes to the PCI bus are executed with zero-wait states. Options: Enabled (default) > Disabled

#### **PCI Delay Transaction**

The chipset has an embedded 32-bit post write buffer to support delay transactions cycles. Select Enabled to comply with PCI specifications. Options: Disabled \ Enabled (default)

#### Memory Hole

When enabled, you can reserve an area of system memory for ISA adapter ROM. When this area is reserved, it cannot be cached. Refer to the user documentation of the peripheral you are installing for more information. Options: Disabled (default) > 15M-16M

#### System BIOS Cacheable

When enabled, accesses to system BIOS ROM addressed at F0000H-FFFFFH are cached, provided that the cache controller is enabled. Options: Enabled \ Disabled (default)

### Video RAM Cacheable

Select "Enabled" to allow caching of the video RAM which may improve performance. If any other program writes to this memory area, a system error may result. Options: Enabled \ Disabled (default)

### **PnP/PCI** Configurations

#### **PNP OS Installed**

When set to "YES", BIOS will only initialize the PnP cards used for the boot sequence (VGA, IDE, SCSI). The rest of the cards will be initialized by the PnP operating system like Windows<sup>®</sup> 95. When set to "NO", BIOS will initialize all the PnP cards. For non-PnP operating systems (DOS, Netware), this option must be set to "NO".

Options: No (default) · Yes

#### **Reset Configuration Data**

Select "Enabled" to reset the Extended System Configuration Data (ESCD) if you have installed a new add-on card and the system reconfiguration has caused such a serious conflict that the OS cannot boot. Options: Disabled (default) > Enabled

#### **Resources Controlled By**

BIOS can automatically configure all the boot and Plug and Play compatible devices. If you choose Auto, you will not be able to manually assign IRQ DMA and memory base address fields, since BIOS automatically assigns them. Options: Auto <ESCD> (default) \ Manual

#### **IRQ** Resources

When resources are controlled manually, you can assign each system interrupt a type, depending on the type of device using the interrupt. This is only configurable when "Resources Controlled By" is set to "Manual".

IRQ-3	assigned to: PCI device
IRQ-4	assigned to: PCI device
IRQ-5	assigned to: PCI device
IRQ-7	assigned to: PCI device
IRQ-9	assigned to: PCI device
IRQ-10	assigned to: PCI device
IRQ-11	assigned to: PCI device
IRQ-12	assigned to: PCI device
IRQ-14	assigned to: PCI device
IRQ-15	assigned to: PCI device

### PCI / VGA Palette Snoop

Some graphic controllers that are not VGA compatible take the output from a VGA controller and map it to their display as a way to provide boot information and VGA compatibility. Options: Disabled (default) • Enabled

### PCI Latency Timer (CLK)

This item allows you to set up the PCI Latency Time (0-255). If you select the "32" it will optimize PCI speeds. Options: 0-255 \ 32 (default)

#### PCI 1-3 IRQ Assignmen

This item allows you to select an IRQ address for your PCI slot 1-5. Options: Auto (default)  $\times$  3  $\times$  4  $\times$  5  $\times$  7  $\times$  9  $\times$  10  $\times$  11  $\times$  12  $\times$  14  $\times$  15

# Frequency/Voltage Control

### **CPU Speed Detected**

This item displays the CPU speed information detected by the system.

#### **Spread Spectrum**

The Spread Spectrum function can reduce the EMI (Electromagnetic Interference) generated. Options: +/-0.50% (default)  $\sim$  Disabled  $\sim$  -1.50%  $\sim$  -1.00%  $\sim$  -0.70%  $\sim$  +/-0.75%  $\sim$  +/-0.55%  $\sim$  +/-0.25%

### **CPU Clock**

This item displays the CPU Clock. Or you can select the CPU Clock by manually. You can set it from XXX~233. The default depends on your CPU Clock.

### **AGP/PCI Frequency (MHz)**

This item displays the AGP/PCI Frequency.

### **DDR:CPU Ratio**

This item allows you to adjust the DDR: CPU Clock Ratio. You can adjust this option to match the DDR module you have installed.

If the CPU host frequency is 100 → Options: By SPD 、 2.66X (default) 、 3.33X

If the CPU host frequency is 133 → Options: By SPD > 2.00X (default) > 2.50X > 3.00X

If the CPU host frequency is 166 → Options: By SPD 2.00X (default) 2.40X

(\*You can only install the DDR 333 SDRAM if the CPU which is configuration 166 MHz host frequency)  $% \left( \mathcal{M}_{\mathrm{T}}^{2}\right) =0$ 

### DDR Speed (strobe/sec)

This item displays the DDR Speed. (CPU Host frequency \* DDR:CPU Ratio)

# **Integrated Peripherals**

	<mark>OS CMOS Setup Utility</mark> aults Exit
Init Display First [ACP]	Item Help
<ul> <li>VIA OnChip IDE Device</li> <li>VIA OnChip PCI Device</li> <li>SuperIO Device</li> </ul>	Menu Leve1 ►
	ESC:Exit F1:General Help F7:Turbo Settings

### **Init Display First**

With systems that have multiple video cards, this option determines whether the primary display uses a PCI slot or an AGP slot. Options: AGP (default) > PIC Slot

### **VIA OnChip IDE Device**

If you highlight the "VIA OnChip IDE Device" label and then press the enter key, it will take you to a submenu with the following options:

### **IDE Channel 0/1**

The mainboard chipset contains a PCI IDE interface with support for two IDE channels. Select "Enabled" to activate the first and/or second IDE interface. Select "Disabled" to deactivate an interface if you are going to install a primary and/or secondary add-in IDE interface. Options: Enabled (default) > Disabled

#### **IDE Prefetch Mode**

The "onboard" IDE drive interfaces supports IDE prefetching for faster drive access. If you install a primary and/or secondary add-in IDE interface, set this option to "Disabled" if the interface does not support prefetching. Options: Enabled (default) > Disabled

### Primary/Secondary/Master/Slave PIO

The IDE PIO (Programmed Input / Output) fields let you set a PIO mode (0-4) for each of the IDE devices that the onboard IDE interface supports. Modes 0 to 4 will increase performance incrementally. In Auto mode, the system automatically determines the best mode for each device. Options: Auto (default)  $\cdot$  Mode0  $\cdot$  Mode1  $\cdot$  Mode2  $\cdot$  Mode3  $\cdot$  Mode4.

### Primary / Secondary /Master / Slave UDMA

Ultra DMA/133 functionality can be implemented if it is supported by the IDE hard drives in your system. As well, your operating environment requires 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/133, select "Auto" to enable BIOS support. Options: Auto (default) > Disabled

### **IDE HDD Block Mode**

Block mode is otherwise known as block transfer, multiple commands, or multiple sector read/write. Select the "Enabled" option if your IDE hard drive supports block mode (most new drives do). The system will automatically determine the optimal number of blocks to read and write per sector. Options: Enabled (default) • Disabled

### VIA OnChip PCI Device

If you highlight the "VIA OnChip PCI Device" label and then press the enter key, it will take you a submenu with the following options:

### AC97 Audio

This option allows you to control the onboard AC'97 audio. Options: Enabled (default) 

Disabled

### Onboard LAN Device (only for KM400TA Pro)

This option allows you to control the onboard LAN device. Options: Enabled (default) > Disabled

### **Onboard Lan Boot ROM**

This item allows you to invoke the boot ROM of the onboard LAN chip. Options: Disabled (default) • Enabled

### **USB** Controller

This option should be enabled if your system has a USB port installed on the system board. You will need to disable this feature if you add a higher performance controller. Options: Enabled (default) > Disabled

### **USB 2.0 Controller**

This option should be enabled if your system has a USB 2.0 device installed on the system board. You will need to disable this feature if you install a USB 1.1 device. Options: Enabled (default) • Disabled

### **UBS 2.0 Driving**

This item allows you to control the transmission single to drive the USB 2.0 devices. Options: The range is 00-FF, and the default is 11.

### **USB Device Support**

Enables support for USB attached devices. Options: Disabled (default) . Enabled

## Super IO Device

If you highlight the literal "Press Enter" next to the "Super IO Device" label and then press the enter key, it will take you a submenu with the following options:

### **Onboard FDC Controller**

Select Enabled if your system has a floppy disk controller (FDC) installed on the system board and you wish to use it. If you install an add-in FDC or the system has no floppy drive, select "Disabled" in this field. Options: Enabled (default) > Disabled

### **Onboard Serial Port 1**

Select an address and corresponding interrupt for the first serial port. Options: Disabled 、 3F8/IRQ4 (default) 、 2F8/IRQ3 、 3E8/IRQ4 、 2E8/IRQ3 、 Auto

### **Onboard Serial Port 2**

Select an address and corresponding interrupt for the second serial port. Options: Disabled \$\$\circ\$2F8/IRQ3 (default) \$\$\circ\$3F8/IRQ4 \$\$\circ\$2E8/IRQ3 \$\$\circ\$Auto.

### **Onboard Parallel Port**

This item allows you to determine the parallel port interrupt and address. Options: 378/IRQ7 (default) \$\$ 278/IRQ5 \$\$ 3BC/IRQ7 \$\$ Disabled

### **Parallel Port Mode**

This option allows you to select an operating mode for the on board parallel port. (If only you choose ECP, you can adjust ECP Mode Use DMA ; if only you choose EPP, you can adjust EPP Mode Select)

Options: ECP(default) Extended Capabilities Port. EPP Enhanced Parallel Port. SPP Standard Printer Port. ECP+EPP ECP & ECP & EPP mode. Normal

### **EPP Mode Select**

Select EPP port type 1.7 or 1.9. Options: EPP 1.7, EPP1.9(default).

### ECP Mode Use DMA

Select a DMA Channel for the port. Options: 3 (default) > 1

### **Game Port Address**

Game Port I/O Address. Options: 201 (default) \$ 209 \$ Disabled

### **Midi Port Address**

Midi Port Base I/O Address. Options: 330 (default) \$\$\sigma 300 \$\$\$\sigma 290 \$\$\$ Disabled

### Midi Port IRQ

This determines the IRQ that Midi Port will use. Options: 5 (default)  $\sim7$ 

# **Power Management**

Phoenix - Main Advanced Peripherals Power HW Mo	AwardBIOS CMOS Setup Utility nitor Defaults Exit
ACPI Suspend Type [SI(POS)]	Item Help
Power Management Option [User Define] HDD Power Down [Disable] Suspend Mode [Disable] Video Off Option [Suspend -> O Video Off Method [V/H SVNC+Bla MODEM Use IRQ [3] Soft-Off by PWRBTN [Instant-Off] Run VGABIOS if S3 Resume [Auto] ► Wake Up Control	
↑↓++:Move Enter:Select +/-/PU/PD:Value F5:Previous Values F6:Default Settin	

The Power Management Setup Menu allows you to configure your system to utilize energy conservation features as well as power-up/ power-down options.

# **ACPI Suspend Type**

The item allows you to select the suspend type using the ACPI operating system.

Options: S1 (POS) (default)	Power on Suspend
S3 (STR)	Suspend to RAM
S1 & S3	POS and STR

# **Power Management Option**

There are three options of Power Management: 1. Min. Saving Minimum power management Suspend Mode = 1hour HDD Power Down = 30 minutes 2. Max. Saving Maximum power management (only available for sl CPUs). Suspend Mode = 1 min. HDD Power Down = 6 min.

3. User Defined (default)

Allows you to set each mode individually.

When this option is enabled, the "suspend mode" time is configurable from 1 minute to 1 hour. The HDD Power Down, which ranges from 1 min. to 15 min. and includes a "disable" option.

Note: If you select Min. or Max. Power Saving modes, the "HDD Power Down" value and the "Suspend Mode" value are both fixed.

## **HDD Power Down**

When enabled, the hard disk drive will power down after a certain configurable period of system inactivity. All other devices remain active.

Options: Disabled (default) × 1 Min × 2 Min × 3 Min × 4 Min × 5 Min × 6 Min × 7 Min × 8 Min × 9 Min × 10 Min × 11 Min × 12 Min × 13 Min × 14 Min × 15 Min

## **Suspend Mode**

This item allows you to select the period of inactivity before the system is suspended or put into suspend mode. Options: Disabled(default) \ 1Min \ 2Min \ 4Min \ 6Min \ 8Min \ 10Min \ 20Min \ 30Min \ 40Min \ 1Hour

# **Video Off Option**

This field determines when to activate the video off feature for monitor power management. Options: Suspend $\rightarrow$ Off (default), Always On.

## Video Off Method

This option determines the manner in which the monitor goes blank.

Options:

V/H SYNC+Blank(default)	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 Support	Initial display power management signaling.

# Modem Use IRQ

This determines the modem's IRQ. Options: 3 (default)  $\cdot 4 \cdot 5 \cdot 7 \cdot 9 \cdot 10 \cdot 11 \cdot NA$ .

## Soft-Off by PWRBTN

Pressing the power button for more than 4 seconds forces the system to enter the Soft-Off state when the system has "hung." Options: Delay 4 Sec, Instant-Off (default).

### **Run VGABIOS if S3 Resume**

Select whether you want to run VGABIOS when the system wakes up from the S3 resume function. Options: Auto (default) \ Yes \ No

### Wake Up Control

If you highlight the "Wake Up Control" label and then press the enter key, it will display a submenu with the following options:

### **PWRON After PWR-Fail**

This option determines whether you want to restart the system after a power failure. Select "On", to boot the system whether or not the system was on before power failure. Choose Former-Sts, to restore the system to the status before the power failure.

Options: Off (default) 

On

### **PS2KB Wake Up Select**

Use this option to configure the PS2 keyboard Wake Up feature.

- "Password" Use this selection to force the user to enter a password after the system awakens from PS2 keyboard activity.
- "Hot Key" Use PS2KB key to awake the system. See "PS2KB Wake Up from S3-S5" to configure the hotkey.

### PS2KB Wake Up from S3/S4/S5

This option is used when "PS2KB Wake Up Select" is configured as "HOT KEY". Options: Disable (default), Ctrl+F1(to F12), Power, Wake, Anykey.

### **Power Button Lock**

This item allows you to lock the power button. Options: Enabled (default) > Disabled

### **USB Wake Up**

This item allows you to select USB devices to awaken the system from suspend mode. Options: Disabled (default) > Enabled

### VGA

When set to "On", any event occurring at a VGA Port will awaken a system which had been previously powered down. Options: OFF (default) • On.

### LPT & COM

When this option is set to On, any event occurring at a COM(serial)/LPT (printer) port will awaken a system which has been suspended.

Options: LPT/COM (default) 、 COM 、 LPT 、 NONE

### HDD & FDD

When set to "On", any event occurring on a hard drive activity or a floppy drive activity will awaken the system which had been previously suspended. Options:  $ON \circ OFF$  (default)

### **PCI Master**

When set to "On", you need a LAN add-on card which supports the power on function. It should also support the wake-up on LAN jumper. Options: OFF (default) > ON

### PCI PME Wake Up

When you select "Enabled", a PME signal from any PCI card will awaken the system from suspend mode. Options: Disabled (default) < Enabled

### Ring Wake Up

This option allows you to awaken the system upon receiving an incoming call to a modem device. Option: Disabled (default) • Enabled

### **RTC Wake Up**

When "Enabled", you can set the date and time at which the RTC (real-time clock) alarm awakens the system from Suspend mode. Options: Enabled 
< Disabled (default)</p>

### Date (of Month)

You can choose which month the system will boot up. This field is only configurable when "RTC Wake Up" is set to "Enabled"

### Resume Time (hh: mm: ss)

You can choose the hour, minute and second the system will boot up. This field is only configurable when "RTC Wake Up" is set to "Enabled"

# **IRQs Activity Monitoring**

Press Enter to access a sub menu used to configure the different wake up events (i.e. wake on LPT & COMM activity).

Primary INTR	On
IRQ3 (COM2)	Enabled
IRQ4 (COM1)	Enabled
IRQ5 (LPT2)	Enabled
IRQ6 (Floppy Disk)	Enabled
IRQ7 (LPT1)	Enabled
IRQ8 (RTC Alarm)	Disabled
IRQ9 (IRQ2 Redir)	Disabled
IRQ10 (Reserved)	Disabled
IRQ11 (Reserved)	Disabled
RQ12 (PS/2 Mouse)	Enabled
IRQ13 (Coprocessor)	Disabled
IRQ14 (Hard Disk)	Enabled
IRQ15 (Reserved)	Disabled

# **Hardware Monitor**

Phoe Main Advanced Peripherals Power	nix - AwardBIOS CMOS Setup Utility HW Monitor Defaults Exit
CPU FAN Warning [Enable Case Open Warning [Disab] CPU Warning Temperature [Disab] System Temperature CPU Temperature CPU Fan Speed(CPUFAN) Chassis Fan Speed(CHASFAN)	ed] ed] Menu Level ► This item is used to monitor CPU FAN status or not. If you use
Vcore(V) + 3.3 V + 5 V +12 V -12 V VBHT(V) 5VSB(V)	other method to cool your CPU instead of using on board's CPUFAN header, you should disable this function.
↑↓→+:Move Enter:Select +/-/PU/PD:V F5:Previous Values F6:Default	

## **CPU FAN Warning**

This item is used to monitor the "CPUFAN" header on the mainboard and warn the user (during POST) if the CPU fan is not operational or not plugged in. If you are not using the "CPUFAN" power header to supply power to your CPU fan, you must disable this feature. Options: Disabled  $\$  Enabled (default)

# **Case Open Warning**

If this function is set to "Enabled" and the case had been previously opened, the system will automatically display alert messages on the screen when you power on your computer. If this function is set to "Disabled", the system will not show alert messages when you power on your computer even if the case is opened by others.

Options: Disabled (default) . Enabled

## **CPU Warning Temperature**

When the CPU temperature is higher than this setting, the warning mechanism will be activated. Options: Disabled (default)  $\circ$  50°C/122°F  $\circ$  53°C/127°F  $\circ$  56°C/133°F  $\circ$  60°C/140°F  $\circ$  63°C/145°F  $\circ$  66°C/151°F  $\circ$  70°C/158°F  $\circ$ 

# **Load Defaults**

Phoenix - AwardBIOS CM Main Advanced Peripherals Power HW Monitor Defa	DS Setup Utility aults Exit
Load System Default Settings Load System Turbo Settings	Item Help
Load CMOS From BIOS Save CMOS To BIOS	Menu Level 🕨
0000 TO DIO	Load System Default Settings
↓ ↓↓++:Move Enter:Select +/-/PU/PD:Value F10:Save	SC:Exit F1:General Help
	7:Turbo Settings

# Load System Default Settings

Load System Default Settings.

# Load System Turbo Settings

Load System Turbo Settings.

# Load CMOS From BIOS

Load defaults from flash ROM for systems without batteries.

# Save CMOS To BIOS

Save defaults to flash ROM for systems without batteries.

# **Exit Menu**

Main Advanced Peripher	Phoenix - AwardBIOS CMO als Power HW Monitor Def	S Setup Utility aults Exit
Save & Exit Setup		Item Help
Exit Without Saving		Menu Level 🕨
		Save Data to CMOS
↑↓++:Move Enter:Select F5:Previous Values		ESC:Exit F1:General Help F7:Turbo Settings

# Save & Exit Setup

Save all configuration changes to CMOS (memory) and exit setup. A confirmation message will be displayed before proceeding.

# **Exit Without Saving**

Abandon all changes made during the current session and exit setup. A confirmation message will be displayed before proceeding.

# Chapter 3: Software Setup Software List

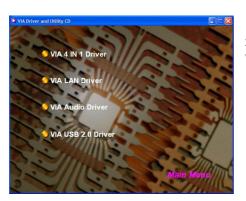
Category	Platform
VIA 4 IN 1 Driver	Windows 9X/ ME/ 2000/ XP
VIA LAN Driver	Windows 9X/ ME/ 2000/ XP
VIA Audio Driver	Windows 9X/ ME/ 2000/ XP
VIA USB 2.0 Driver	Windows 9X/ ME
Trend PC-Cillin 2002	Windows 9X/ ME/ 2000/ XP
Microsoft DirectX 9.0	Windows 9X/ ME/ 2000/ XP
Adobe Acrobat Reader	Windows 9X/ ME/ 2000/ XP

# **Software Installation**

Place the Driver CD into the CD-ROM drive and the Installation Utility will auto-run. You can also launch the Driver CD Installation Utility manually. Follow the steps below:

1. The first screen (Main Screen) will display several buttons. Click "KM400TA / KM400TA PRO".





2. On the next screen, click the drivers that you want to install.



3. If you click the "VIA USB2.0 Driver" from the screen in step 2, it will display the screen as left.



4. Back to the main screen, click the "Tool Page" button, you can choose the software to install.

Note: If you click the "Browse CD" button from the screen in step 1, you can browse all the files in the Driver CD.

# **Chapter 4: Troubleshooting**

### Problem 1:

No power to the system. Power light does not illuminate. Fan inside power supply does not turn on. Indicator lights on keyboard are not lit.

Causes:

- 1. Power cable is unplugged.
- 2. Defective power cable.
- 3. Power supply failure.

4. Faulty wall outlet; circuit breaker or fuse blown.

- Solutions:
- 1. Make sure power cable is securely plugged in.
- 2. Replace cable.
- 3.Contact technical support.

4.Use different socket, repair outlet, reset circuit breaker or replace fuse.

### Problem 2:

System inoperative. Keyboard lights are on, power indicator lights are lit, hard drive is active but system seems "hung"

Causes: Memory DIMM is partially dislodged from the slot on the mainboard.

Solutions:

1. Power Down

2. Using even pressure on both ends of the DIMM, press down firmly until the module snaps into place.

### Problem 3:

System does not boot from the hard disk drive but can be booted from the CD-ROM drive. Causes:

1. Connector between hard drive and system board unplugged.

- 2. Damaged hard disk or disk controller.
- 3. Hard disk directory or FAT is corrupted.

Solutions:

1. Check the cable running from the disk to the disk controller board. Make sure both ends are securely attached. Check the drive type in the standard CMOS setup.

2. Contact technical support.

3. Backing up the hard drive is extremely important. Make sure you periodically perform backups to avoid untimely disk crashes.



#### **Problem 4:**

System only boots from the CD-ROM. The hard disk can be read and applications can be used but booting from the hard disk is impossible.

Causes: Hard Disk boot sector has been corrupted.

Solutions: Back up data and applications files. Reformat the hard drive. Re-install applications and data using backup disks.

#### Problem 5:

Error message reading "SECTOR NOT FOUND" displays and the system does not allow certain data to be accessed.

Causes: There are many reasons for this such as virus intrusion or disk failure.

Solutions: Back up any salvageable data. Then perform low level format, partition, and then a high level format the hard drive. Re-install all saved data when completed.

#### Problem 6:

Screen message says "Invalid Configuration" or "CMOS Failure." Causes: Incorrect information entered into the BIOS setup program. Solutions: Review system's equipment. Reconfigure the system.

### Problem 7:

The Screen is blank. Causes: No power to monitor. Solutions: Check the power connectors to the monitor and to the system.

### Problem 8:

Blank screen.

Causes:

1. Memory problem.

2. Computer virus.

Solutions:

1. Reboot computer. Reinstall memory. Make sure that all memory modules are securely installed.

2. Use anti-virus programs to detect and clean viruses.

#### Problem 9:

Screen goes blank periodically. Causes: Screen saver is enabled. Solutions: Disable screen saver.



#### Problem 10:

Keyboard failure. Causes: Keyboard is disconnected. Solutions: Reconnect keyboard. Replace keyboard if you continue to experience problems.

### Problem 11:

No color on screen. Causes: 1. Faulty Monitor. 2. CMOS incorrectly set up. Solutions: 1. If possible, connect monitor to another system. If no color appears, replace monitor. 2. Call technical support.

### Problem 12:

The screen displays "C: drive failure." Causes: Hard drive cable not connected properly. Solutions: Check hard drive cable.

### Problem 13:

Cannot boot the system after installing a second hard drive. Causes:

1. Master/slave jumpers not set correctly.

2. Hard drives are not compatible / different manufacturers.

Solutions:

1. Set master/slave jumpers correctly.

2. Run SETUP program and select the correct drive types. Call drive manufacturers for possible compatibility problems with other drives.

### Problem 14:

Missing operating system on hard drive. Causes: CMOS setup has been changed. Solutions: Run setup and select the correct drive type.

### Problem 15:

Certain keys do not function. Causes: Keys jammed or defective. Solutions: Replace keyboard.



# **Appendix I: Super 5.1 Channel Setup**

This appendix describes the installation procedures for 5.1 Channel Setup. Note that if your operating system is Windows 98/ ME/ 2000, go directly to step 3.

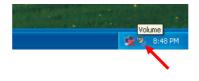
1. Beginning with the "Start" button, select Setting  $\rightarrow$  Control Panel  $\rightarrow$  Sounds, Speech, and Audio Devices  $\rightarrow$  Sounds and Audio Devices. The screen below will display. First check the "Place volume icon in the taskbar" in the Device volume block. Then press the "Advanced..." button to configure the speaker settings.

Sounds and	1 Audio Dev	rices Prope	erties	?	×	
Volume	Sounds	Audio	Voice	Hardware		
VIA AC'97 Audio (WAVE)						
Device	volume					
Low High						
			Adv	anced		
Speaker	settings					
	speaker	settings belo volume and ker Volume	w to change i other settings Adv	ndividual anced		
		ОК	Cancel	Apply		

2. At the "Advanced Audio Properties" screen use the drop-down box to select the "5.1 surround sound speakers". Click "Apply" to enable the 5.1 channel audio effect.

-	Performance	
O,	elect the speaker setup that is most like the setup you have a your computer.	
	Speaker setup:	
	Desktop stereo speakers	
	Desktop stereo speakers  No Speakers Stereo headphones	
	Desktop stereo speakers V No Speakers Stereo headphones Desktop stereo speakers	
	Desktop stereo speakers  No Speakers Stereo headphones Desktop stereo speakers Laptop mono speakers Laptop meno speakers	
	Desktop stereo speakers V No Speakers Desktop stereo speakers Laptop moro speakers Laptop intero speakers Monitor stereo speakers	
	Desktop stereo speakers  No Speakers Stereo headphones Desktop stereo speakers Laptop mono speakers Laptop meno speakers	

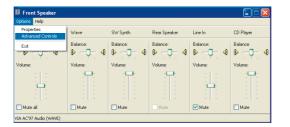
3. On your desktop, double click the volume icon that is on the desk bar. (Note: As described earlier, begin with this step if your system has Windows 98/ ME/ 2000)



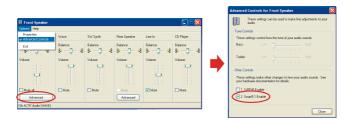
4. On the "Front Speaker" screen, select "Options  $\rightarrow$  Properties", then check "Rear Speaker" item and click OK.

Front Speaker					Adjust volume for
roperties advanced Controls	Wave	SW Synth	Line In	CD Player	ORecording
Ext	Balance:	Balance:	Balance:	Balance:	O Other
ume:	Volume:	Volume:	Volume:	Volume:	Show the following volume cor
					Fiont Speaker     Wave     SW Synth     3D Depth     Subwoofer
Mute all	Mute	Mute	Mute Mute	Mute	Rear Speaker
AC'97 Audio (WAVE)					Mite Ar Speaker

5. Also on the "Front Speaker" screen, select "Options  $\rightarrow$  Advanced Controls".

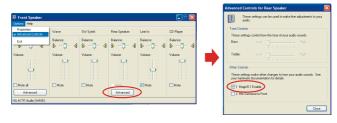


6. Next, click the "Advanced" button of the Front Speaker, then check the "Smart5.1 Enable".



7. Finally, click the "Advanced" button of the Rear Speaker, then check the "Magic5.1 Enable". This is the final step in configuring "Super 5.1 Channel Audio Effect".

(If you broadcast a DVD with a DVD-ROM, please skip this step.)



# Appendix II: Digital CD Audio Setup

This section will describe how to enable Digital CD Audio for CD-ROM devices installed on systems using Windows<sup>®</sup> ME/2000/XP. The pictures below are for your reference and may vary slightly with actual screens. Follow the steps below:

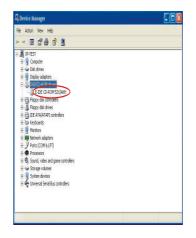
## Digital CD Audio Setup for Windows® ME/ 2000/ XP

1. Beginning with the "Start" button, select Setting  $\rightarrow$  Control Panel . The screen below will display. Using the left mouse button, double click on the "System" icon.



2. After the "Device Manager" screen displays (below-left), click "DVD/CD-ROM drives". The next screen will display as shown (below-right). Select the CD-ROM that you want to configure and then double-click on it using the left mouse button.

File Action View Help	
+ + 🗷 😰	
E 📕 XP-TEST	
🗄 🌏 Computer	
🕀 🥪 Disk drives	
🛞 📳 Display adapters	
① (Chol)CD-ROM drives)	
🗄 😁 Floppy disk controllers	
🕀 👃 Floppy disk drives	
🗄 🚭 IDE ATA(ATAPI controlers	
🕑 🦢 Keyboards	
🛞 😼 Monitors	
🗈 🜉 Network adapters	
🗄 🖉 Ports (COM & LPT)	
🗈 🏶 Processors	
🗄 🌒 Sound, video and game controllers	
🗄 🥪 Storage volumes	
🖲 🦉 System devices	
🗄 💏 Universal Serial Bus controllers	



3. On the next screen (below-left), click on the "Properties" tab. The "Properties" tab information will display as shown (below-right). Check the "Enable digital CD audio for this CD-ROM device" box and then press "OK" to enable the Digital CD Audio feature.

~	Properties Volu		
	E-IDE CD-ROM 52X/AKH		
	Device type:	DVD/CD-ROM drives	
	Manufacturer:	(Standard CD-ROM drives)	
	Location:	Location 0 (0)	
Devic	ce status		
This	dente a la madrice a		
lf yo	device is working proble u are having proble the troubleshooter.	ms with this device, click Troubleshoot to	
lf yo	u are having proble	ms with this device, click Troubleshoot to	
If yo start	u are having proble	ms with this device, click Troubleshoot to	



# Digital CD Audio Setup for Windows<sup>®</sup> 98

Beginning with the "Start" button, select Setting  $\rightarrow$  Control Panel  $\rightarrow$  Multimedia. The screen will display (below left). Select the "CD Music" tab and check the " $\Box$  Enable digital CD audio for this CD ROM device" (Shown as below right).

Multimedia Properties	Multimedia Properties
Audio Video MIDI CD Music Devices	Audio Video MIDI CD Music Devices
Playback Freferred gevice: NVIDIA(R) nForce(TM) Audio	These settings determine the way in which Windows uses your CD-ROM for playing CD music.
To select advanced options, click: Advanced Properties	If you have more than one CD-ROM drive, select the CD-ROM drive you want Windows to use for playing CD music.
Recording Preferred device: NVIDIA(R) nForce(TM) Audio	
To select advanced options, click: Advanced Properties	You can have Windows use digital instead of analog playback of CD audio. This feature may not work with all CD RDM devices, disable if you are having problems with CD audio.
□ Use only preferred devices.	✓ Enable digital CD audio for this CD-ROM device.
Show volume control on the taskbar.	
OK Cancel Apply	OK Cancel Apply