PM266A PRO/ PM266A

Copyright

Disclaimer

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.

120410043M1N

PM266A PRO/ PM266A

VIA® P4M266A & VT8235

Supports Socket 478 Intel® Pentium® 4 Processor

USER Mnaual

Package Contents:

- PM266A PRO/ PM266A mainboard
- IDE ATA Cable
- FDC Cable
- USB Bracket (optional)
- Installation and Setup Driver CD
- PM266A PRO/ PM266A User Manual

Dimensions (Micro - ATX form factor):

- 225mm x 244mm (WxL)

Operating System

- Windows® 98/ ME/ XP/ 2000

Contents

Chapter 1. Getting Started

Introduction

Congratulations on choosing the PM266A PRO/ PM266A mainboard! These are based on the VIA P4M266A Northbridge chipset and the VT8235 Southbridge chipset. It supports Intel® Pentium® 4 Processors with a FSB (Front Side Bus) frequency of 400/ 533 MHz.

The PM266A PRO/ PM266A provide 2 DIMM sockets using 184 pin DDR SDRAM with a total capacity of up to 2GB. You can install unbuffered & non-ECC DDR266/ DDR200 (PC2100/ PC1600) SDRAM.

The PM266A PRO/ PM266A provide one 4X/ 2X (AGP 2.0) AGP slot.

The PM266A PRO/ PM266A include built in IDE facilities that support Ultra DMA 66/100/133 and PIO Modes.

The PM266A PRO/ PM266A also come with a AC'97 Sound Codec (VT1616) which supports high quality 6 channel audio (Super 5.1 Channel Audio Effect). It also supports Sony/ Philips Digital Interface (output only).

The PM266A PRO/ PM266A also support six USB 2.0 ports. The PM266A PRO/ PM266A also include an infrared header.

The PM266A PRO also comes with a LAN Chip (VIA VT6103) and provides a back panel LAN port capable of 10/ 100 Mbit/s transmission speeds.

Specification

CPU:
- Supports Socket 478 Pentium® 4 processor (Willamette/ Northwood)
- Supports Hyper-Threading Technology

Speed:
- 400/ 533 MHz Front Side Bus frequencies
- 33 MHz, 32 bit PCI interface (PCI 2.2 compliant)
- 66 MHz AGP 2.0 compliant interface that supports 4X/2X data transfer modes

Chipset:
- Northbridge Chipset – VIA P4M266A
- Southbridge Chipset – VIA VT8235
- I/O Controller – Winbond W83697HF
- AC'97 Codec – VIA VT1616
- LAN Controller – VIA VT6103 (Only for PM266A PRO)

DRAM Memory:
- Supports DDR266 (PC2100)/ DDR200 (PC1600) SDRAM
- Supports 64 MB/ 128 MB/ 256 MB/ 512 MB/ 1 GB unbuffered & non-ECC DIMM
- Supports memory modules with a total capacity of 2 GB (see memory installation section for more details)
- Supports only x8, x16, DDR devices

Green Functionality:
- Supports Phoenix-Award BIOS ™ 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:
- AGP slot (AGP2.0, 4X/2X) x 1
- PCI bus slot x 3

Flash Memory:
- Supports flash memory functionality
- Supports ESCD functionality

Hardware Monitor Function:
- Monitors CPUFAN/ CHASFAN Speeds
- Monitors System Voltage

Infrared:
- Supports IrDA Version 1.0 SIR Protocol with a maximum baud rate of up to 115.2 Kbps
- Supports SHARP ASK-IR Protocol with maximum baud rate of up to 57600 bps

AC'97 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

Universal Serial Bus:
- Supports up to six USB ports for USB interface devices
- Supports USB 2.0 Enhanced Host Controller Interface (EHCI) and dual USB 1.1 Universal Host Controller Interface (UHC1)

BIOS:
- Phoenix-Award™ BIOS
- Supports APM1.2
- Supports ACPI2.0 power management

VIA VT6103 LAN Controller on board:
- 1/10/100 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

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 (one on back panel and one on front panel)
- Supports Infrared Data Transmission using IrDA
- Supports one VGA port
- 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

IDE Facilities:
- Supports Ultra ATA 66/ 100/ 133, DMA and PIO modes
- 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

Watch Dog Timer:
- This 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 the POST stage. Once a problem is detected the system will reset the configurations and reboot the system after five seconds.

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Configuration
Layout of PM266A PRO
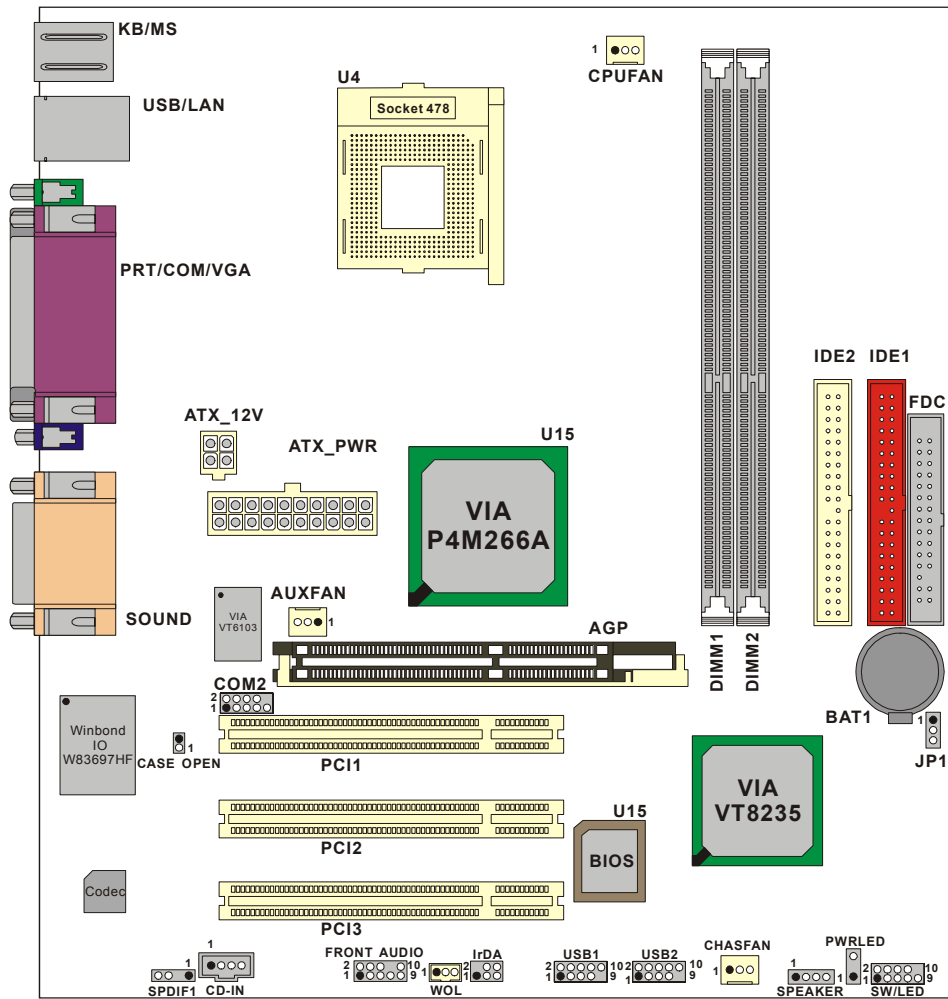
Layout of PM266A
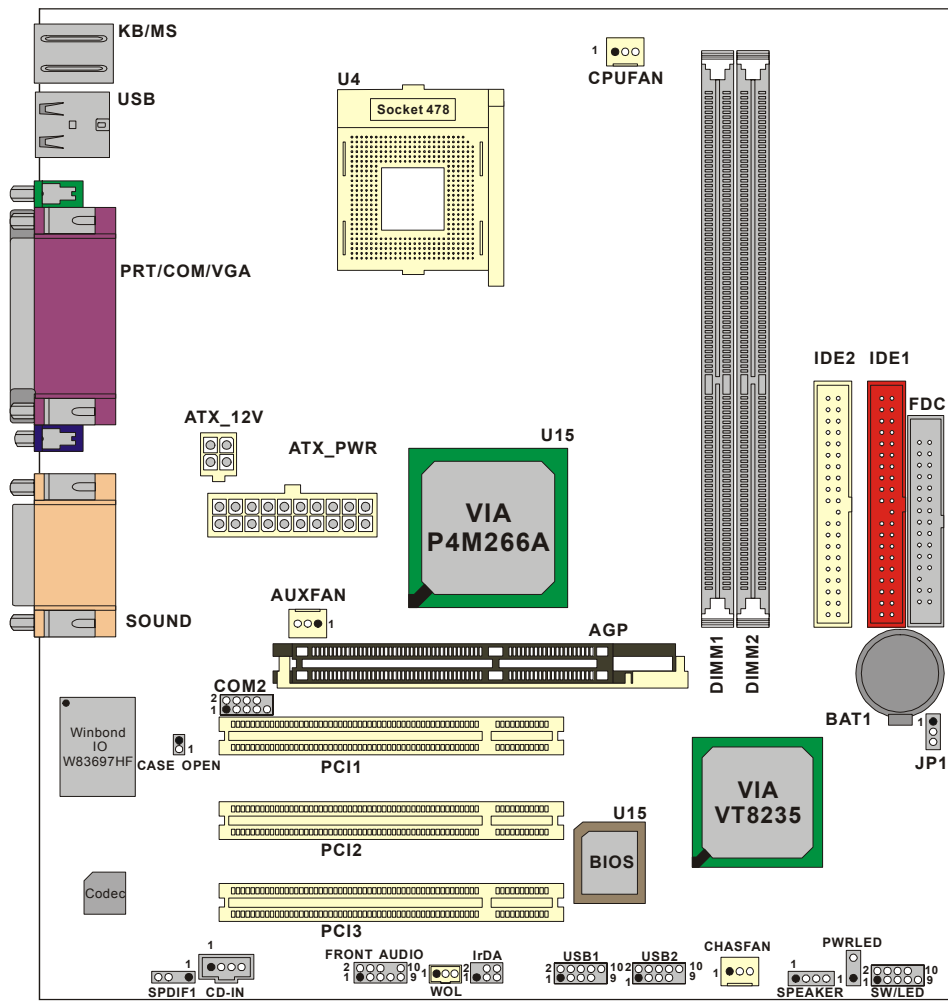
Hardware Installation

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 Intel® Pentium® 4 processors using a Socket 478. Before building your system, we suggest you visit the Intel website http://www.intel.com and review the processor installation procedures.

CPU Socket 478 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 dot 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.

Pin1 Receptor **Dot**

3. Lower the lever until it snaps back into position. This will lock down the CPU.
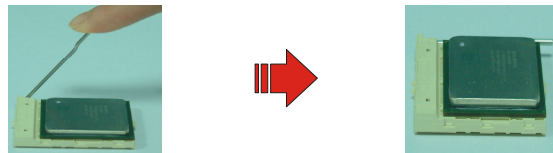
4. Smear thermal grease on top of the CPU. Lower the CPU fan onto the CPU and use the clasps on the fan to attach it to the socket. Finally, extend the power cable from the fan and insert it onto the CPUFAN adapter.
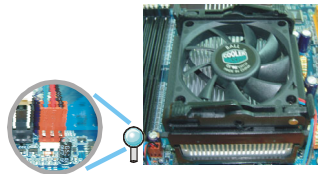
Attention: Before starting the system
Please recheck the installation procedures completely before starting the system. Verify that the heatsink is properly installed and make sure the CPU fan is working. Overheating can damage the CPU and other sensitive components.

FAN Headers

Three power headers are available for cooling fans, which play an important role in maintaining the ambient temperature in your system.
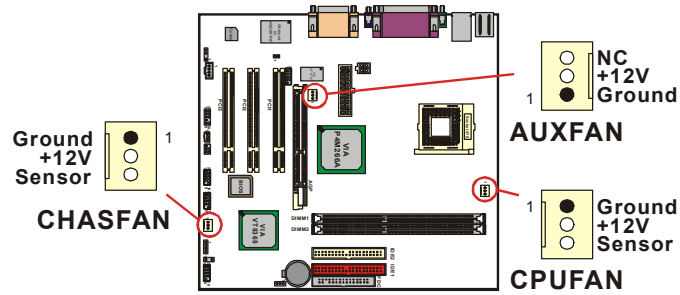
Attention
We strongly recommend that you use a CPU fan sink with your CPU. You can attach the CPU fan sink to the CPUFAN Header.

Memory Installation

This mainboard contains 2 memory slots which use 184 pin DDR SDRAM with a total memory capacity of up to 2 GB. You can install unbuffered & non-ECC DDR DIMMs. It supports DDR266/ DDR200 when installed with CPUs that have clock speed of 100 MHz. It supports DDR266 when installed with CPUs that have clock speed of 133 MHz.
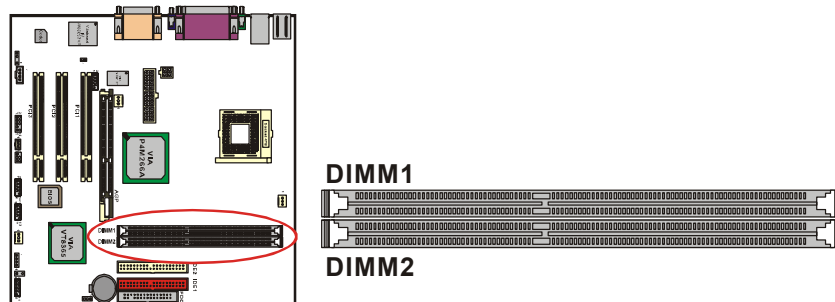
RAM Module Installation:

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.
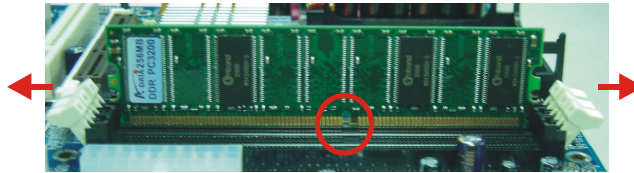
3. Lower the RAM module into the DIMM Slot and press firmly using both thumbs until the module snaps into place.
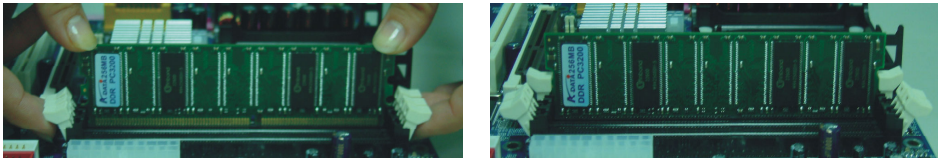
4. Repeat steps 1-3 for the remaining RAM modules.

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

Back Panel Configuration
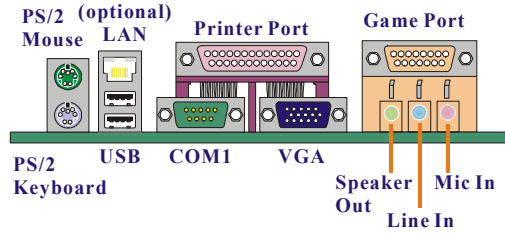
PS/2 Mouse & PS/2 Keyboard Connectors: KB/MS

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

PS/2 Mouse
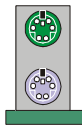
PS/2 Keyboard

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 for PM266A 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 these connectors. The PM266A PRO also provides a LAN port. You can plug LAN devices directly into this connector.

(Optional)
LAN

USB

Pin	Assignment	Pin	Assignment
1	TDP	7	NC
2	TDN	8	NC
3	RDP	9	VCC3 SBY
4	NC	10	ACT LED
5	NC	11	VCC3 SBY
6	RDN	12	Speed LED

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 mainboard comes equipped with one serial port , one VGA port and one parallel port on the back panel. These interface ports will be explained below.

Print Port

COM1   **VGA**
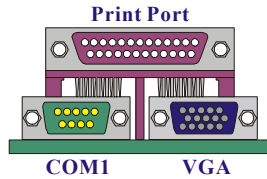
Parallel Interface Port: PRT

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.

The Serial Interface: COM1

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

Video Graphics Array Conn.: VGA

The PM266A PRO/ PM266A has built in video facilities. Your monitor attaches directly to the VGA connector on this mainboard.

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

Game Port

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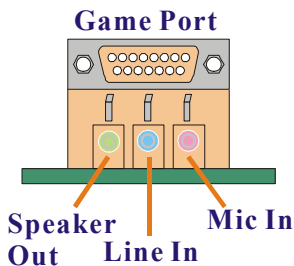
1. **Speaker Out** is used to connect to speakers or headphones. If the Super 5.1 driver is installed the Speaker Out becomes the Front Speaker.

2. **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.

3. **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

These headers are used to attach to indicators on the front panel of your computer.
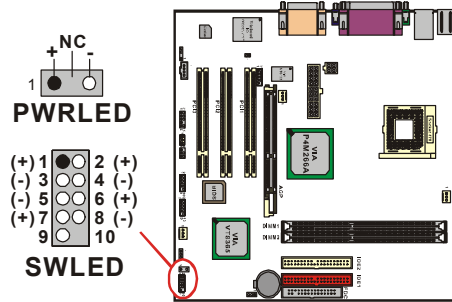
Pin	Assignment	Function	Pin	Assignment	Function
1	HD LED (+)	Hard Drive	**2**	Power LED (+)	POWER
3	HD LED (-)	LED	**4**	Power LED (-)	LED
5	Reset Control (-)	Reset	**6**	Power Button(+)	Power-on
7	Reset Control(+)	Button	**8**	Power Button(-)	Button
9	NC	NC	**10**	NC	NC

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)
The mainboard provides two power LED connector.If there is a 2-pin power LED cable on the front panel of a computer case. You can attach it to the 2-pin power LED connector. 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)
The mainboard provides two 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.

Connectors

Floppy Disk Connector: FDC

This 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: IDE1-2

This mainboard has a 32-bit Enhanced PCI IDE Controller that supports PIO Mode 4, DMA mode, Ultra ATA 66/ 100/ 133. This mainboard provides two IDE connectors, IDE1 (primary) and IDE2 (secondary).

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 connector can also support a Master and a Slave drive. The configuration is similar to IDE1. The second drive on this controller must be set to slave mode.
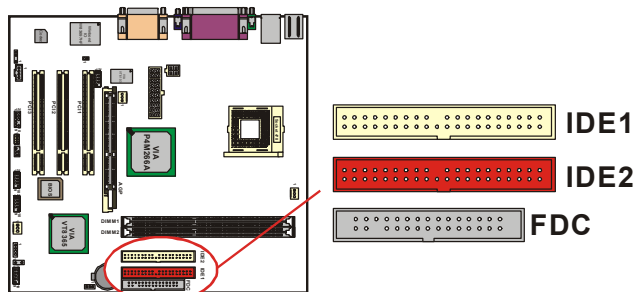
Headers & Jumpers

Front USB Headers: USB2/ USB3

You can connect the USB Bracket to the USB2/ USB3 header. The mainboard supports up to six USB devices including two on the back panel.
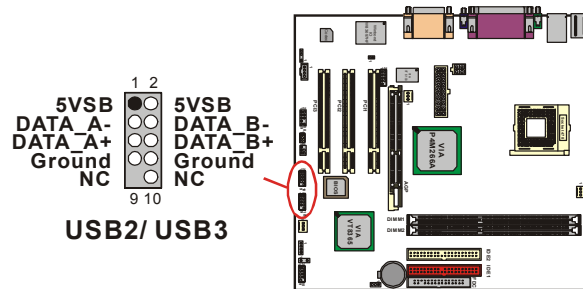
USB Bracket (optional)

You can connect the USB bracket to the USB2/ USB3 headers.

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

Speaker Header: SPEAKER

A front panel speaker can be connected to this connector. When you boot your computer, the speaker sounds a short "beep" under normal circumstances. If there is a problem during the Power On Self-Test, the speaker will sound an "irregular beep".
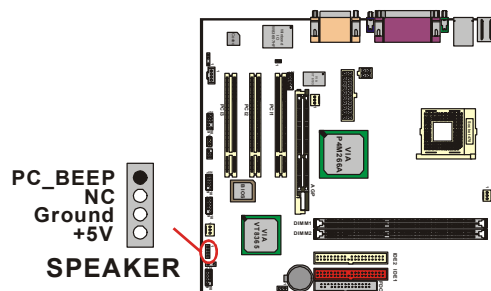
Infrared Header: IrDA

This IrDA connector can be configured to support wireless infrared and is used to attach to an infrared sensing device. After the IrDA interface is configured, you can use this connector for connectionless data transfer to and from portable devices such as laptops and PDAs.
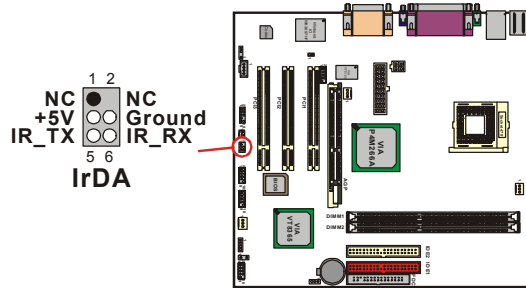
Case Open Warning Header: CASE OPEN

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.
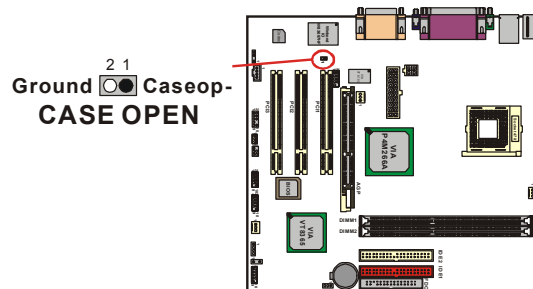
Serial Port Header: COM2

This mainboard supports a front serial port header. To use this header, you can install a COM port bracket (optional) with a COM port wire extending to this header. You can then attach your serial device to the serial port on the bracket.


```
          1 2
 DCD-  ●○  SIN-
 SOUT  ○○  DTR-
 Ground ○○ DSR-
 RTS-  ○○  CTS-
 RINGW ○   NC
          9 10
        COM2
```
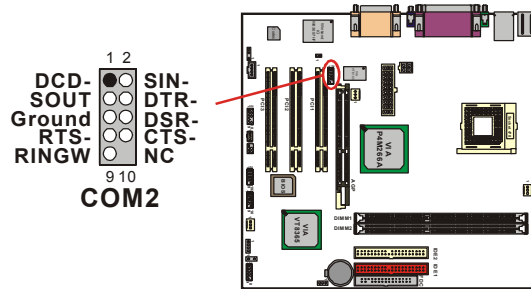
Clear CMOS Jumper: JP1

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

Pin1-2 short
↓
Normal (default)   **JP1**
3 2 1

Pin2-3 short
↓
Clear CMOS data   **JP1**
3 2 1

(Short means to cover two pins on a jumper using a jumper cap.)
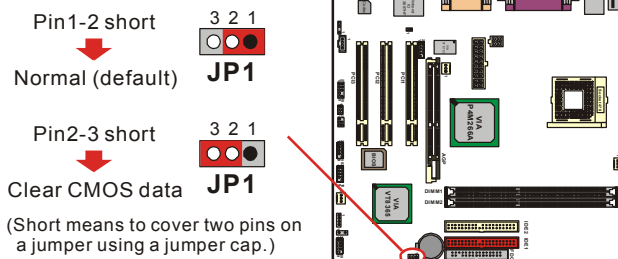
> The following procedures are for resetting the BIOS password. It is important to follow these instructions closely.

1. Turn off your system and disconnect the AC power cable.
2. Set JP1 to OFF (2-3 Closed).
3. Wait several seconds.
4. Set JP1 to ON (1-2 closed).
5. Connect the AC power cable and turn on your system.
6. Reset your desired password.

Audio Connectors

This mainboard provides three connectors as part of its audio Subsystem.
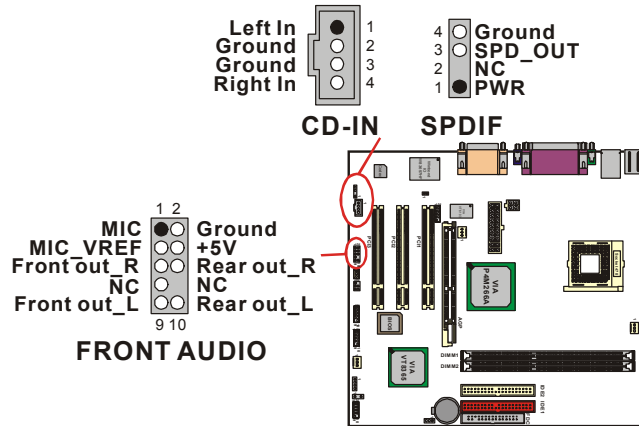
CD-ROM Audio-In Header: CD-IN

This header is used to connect to a CD-ROM / DVD audio cable.

Front Panel Audio Header: FRONT AUDIO

If your computer case has been designed with embedded audio equipment. 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.

> **Attention**
> If the jumper caps are in place, jumper cap 1 is on pin 5, pin 6 and jumper cap2 is on pin 9, pin 10.

S/PDIF Header: SPDIF

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

PCI Slots AGP Slot
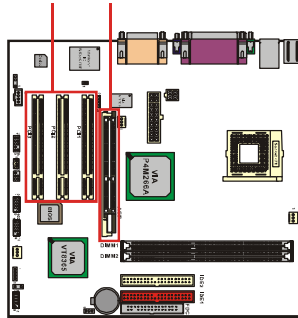
AGP Slot: AGP

This mainboard is equipped with an Accelerated Graphics Port (AGP) that supports AGP 2.0 (4X/2X) AGP cards.

PCI Slots: PCI1-3

This mainboard is equipped with 3 standard PCI slots. PCI stands for Peripheral Component Interconnect and is a bus standard for expansion cards. This PCI slot is designated as 32 bit.

Power Supply Attachments

ATX Power Connector: ATX_12V & ATX_PWR

This mainboard has two ATX power connections; a 20-pin connector and a 4-pin connector. You can connect power supply to the ATX_PWR connector only or connect to both of the ATX_PWR and ATX_12V connectors. Make sure the connectors are secure before applying power.

ATX_12V

ATX_PWR
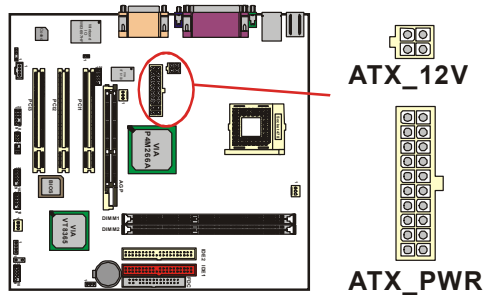
Chapter 2. BIOS Setup

Introduction

This section describes PHOENIX-AWARD™ BIOS Setup program which resides in the 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 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™ BIOS installed in your computer system's ROM is a custom version of an industry standard BIOS. This means that it supports the BIOS of Intel® based processors.

This version of the PHOENIX-AWARD™ 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. (Note: When you boot up the computer, the BIOS version will appear at upper-left portion of the POST screen.)

Plug and Play Support

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

EPA Green PC Support

This PHOENIX-AWARD™ BIOS supports Version 1.03 of the EPA Green PC specification.

APM Support

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

DRAM Support

DDR (Double Data Rate) SDRAM (Synchronous DRAM) is supported.

Supported CPUs

This PHOENIX-AWARD™ BIOS supports the Intel® Pentium® 4 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
Esc key	Main Menu – Quit and do not save changes into CMOS
	Status Page Setup Menu and Option Page Setup Menu – Exit
	Current page and return to Main Menu
F1 key	General help on Setup navigation keys
F5 key	Load previous values from CMOS
F6 key	Load the defaults from BIOS default table
F7 key	Load the turbo defaults
F10 key	Save all the CMOS changes and exit

Main Menu

When you enter the PHOENIX-AWARD™ 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  Peripherals  Power  HW Monitor  Defaults  Exit

   Date (mm:dd:yy)           Thu, Sep 19 2002          Item Help
   Time (hh:mm:ss)            9 : 30 : 25
                                                  Menu Level    ►
 ► IDE Primary Master       [ None]
 ► IDE Primary Slave        [ None]               <Tab> :
 ► IDE Secondary Master     [ None]               <Enter> :
 ► IDE Secondary Slave      [ None]                 to select field

   Drive A                   [1.44M, 3.5 in.]     <-> :
   Drive B                   [None]               <+> :
                                                  <PgUp> :
   Video                     [EGA/VGA]            <PgDn> :
   Halt On                   [All Errors]         <0-9> :
 ► Security                                         to set date

   Base Memory                   640K
   Extended Memory             65472K
   Total Memory                 1024K

 ↑↓→←:Move  Enter:Select  +/-/PU/PD:Value  F10:Save  ESC:Exit  F1:General Help
 F5:Previous Values       F6:Default Settings       F7:Turbo Settings
```

Main Menu Setup Configuration Options

Item	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.
IDE Primary Slave	Options contained in sub menu.	Press <Enter> to enter the sub menu.
IDE Secondary Master	Options contained in sub menu.	Press <Enter> to enter the sub menu.
IDE Secondary Slave	Options contained in sub menu.	Press <Enter> to enter the sub menu.
Drive A **Drive B**	360K, 5.25 in 1.2M, 5.25 in 720K, 3.5 in 1.44M, 3.5in 2.88M, 3.5 in None	Select the type of floppy disk drive installed in your system.
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 the POST process and notify you.
Security	Options contained in sub menu.	Press <Enter> to enter the sub menu.
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.

Advanced BIOS Features

```
                        Phoenix - AwardBIOS CMOS Setup Utility
  Main  Advanced  Peripherals  Power  HW Monitor  Defaults  Exit
┌──────────────────────────────────────────┬────────────────────────┐
│  First Boot Device         [Floppy]       │      Item Help         │
│  Second Boot Device        [CDROM]        ├────────────────────────┤
│  Third Boot Device         [HDD-0]        │  Menu Level    ▶       │
│  Boot Other Device         [Enabled]      │                        │
│  Boot Up Floppy Seek       [Disabled]     │  Select Your Boot      │
│                                           │  Device Priority       │
│ ▶ Advanced BIOS Features                  │                        │
│ ▶ Advanced Chipset Features               │                        │
│ ▶ PnP/PCI Configurations                  │                        │
│ ▶ Frequency/Voltage Control               │                        │
│                                           │                        │
│                                           │                        │
│                                           │                        │
│                                           │                        │
│                                           │                        │
├───────────────────────────────────────────────────────────────────┤
│ ↑↓→←:Move  Enter:Select  +/-/PU/PD:Value  F10:Save  ESC:Exit  F1:General Help │
│ F5:Previous Values        F6:Default Settings        F7:Turbo Settings         │
└───────────────────────────────────────────────────────────────────┘
```
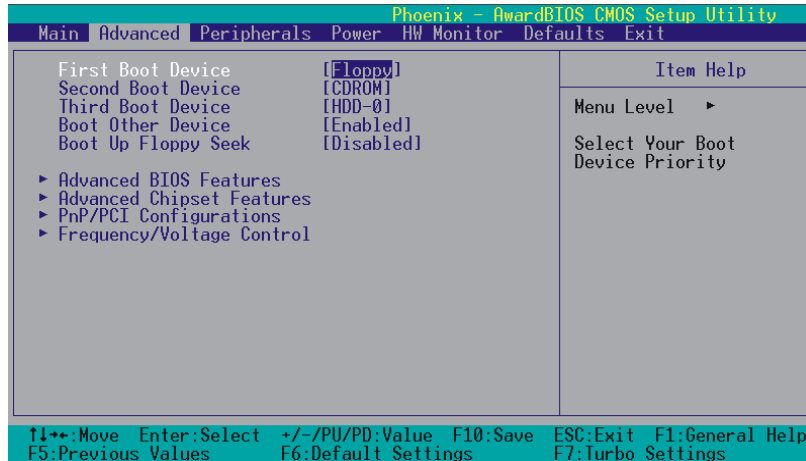
First /Second/Third/ Boot Device

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

Options: Floppy (default for first boot device)、LS120、HDD-0 (default for third boot device)、SCSI、CDROM (default for second boot device)、HDD-1、HDD-2、HDD-3、ZIP100、USB-FDD、USB-ZIP、USB-CDROM、USB-HDD、LAN、Disabled

Boot Other Device

Setting 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". Options: Enabled、Disabled (default)

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 L1 & L2 Cache

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

Hyper-Threading Technology

This option allows you to enable/disable Hyper-Threading functionality. This item only applies when the CPU installed supports Hyper-Threading Technology. Options: Enabled、Disabled (default)

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.

Options: 6 (default) 、 8 、 10 、 12 、 15 、 20 、 24 、 30

Typematic Delay (Msec)

The delay before keystrokes begin to repeat. 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 Timing

This item determines DRAM clock/ timing using the manual configuration.

Options: Manual 、 By SPD (default)

DRAM CAS Latency

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 default value specified by the system designer. Options:2 (default)、2.5

Precharge to Active (Trp)

You can set the time to precharge. Options: 3T (default)、2T

Active to Precharge (Tras)

This item allows you to select DRAM Active to Precharge Delay. Options: 6T (default)、5T

Active to CMD (Trcd)

Select the DRAM delay time when being read. Options:3T (default)、2T

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: 256M、128M、64M (default)、32M、16M、8M、4M

AGP Mode

This item allows you to select the AGP Mode when you install an external VGA card.

Options: 1X、2X、4X

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)、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、Enabled (default)

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

VGA Share Memory Size

Select the size of the onboard VGA port. Options: Disabled、8M、16M、32M (default)

CPU & PCI Bus Control

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

CPU to PCI Write Buffer

This item allows you to enable or disable the CPU to PCI write buffer.
Options: Enabled (default)、Disabled

PCI 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 (default)、Enabled

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)

Booting OS Selection

This item allows you to select the OS which you want to booting with.

Options: Novell Netware、MS Windows (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® 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-3/4/5/7/9/10/11/12/14/15   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 IRQ Assignment

This item allows you to select an IRQ address for your PCI slot 1-3.

Options: Auto (default)、3、4、5、7、9、10、11、12、14、15

Frequency/Voltage Control
CPU Clock Ratio

This field will only display if the CPU has not been set to a locked state by the CPU manufactory. If your CPU is locked, you will not be able to adjust the "CPU Clock Ratio". Options: depends on CPU.

Spread Spectrum

The Spread Spectrum function can reduce the EMI (Electromagnetic Interference) generated.

Options: Enabled (default)、Disabled

## CPU Host Frequency (MHz)

This item displays the CPU Host Clock. You can set it from 100 to 233. The default depends on your CPU frequency. Default: By CPU speed

DRAM Clock

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

Options: By SPD (default)、DDR200、DDR266

(Note: When you install a CPU that have clock speed is 133 MHz, it will only show one option of DDR266.)

Integrated Peripherals
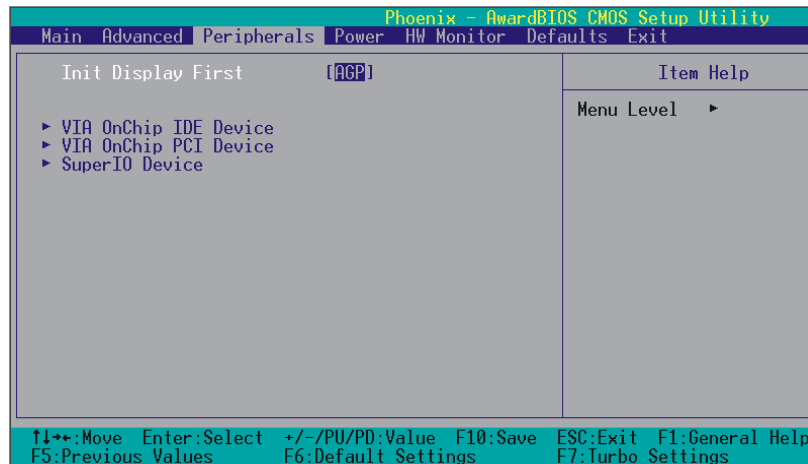
Init Display First

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

OnChip IDE Device

If you highlight the "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)、Mode0、Mode1、Mode2、Mode3、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

Onboard PCI Device

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

AC'97 Audio

This option allows you to control the onboard AC'97 audio.

Options: Auto (default)、Disabled

Onboard LAN Device

This option allows you to control the onboard LAN device.

Options: Enabled (default)、Disabled

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: All Enabled (default)、All Disabled、1&2 USB Port、2&3 USB Port、1&3 USB Port、1 USB Port、2 USB Port、3 USB Port

USB 2.0 Support

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

USB Keyboard Support

Enables support for USB attached keyboard. 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、2F8/IRQ3 (default)、3F8/IRQ4、3E8/IRQ4、2E8/IRQ3、Auto.

UART Mode Select

This item allows you to select the Infra Red (IR) standard to be used.

Option: Normal (default)、IrDA、ASKIR。

RxD, TxD Active

This item determines the RxD and TxD frequencies. This field only configurable if "UART Mode Select" is set to "ASKIR" or "IrDA". Options: Hi/ Lo (default)、Hi/ Hi、Lo/ Hi、Lo/ Lo

IR Transmission Delay

This item allows you to enable/ disable IR transmission delay. This field only configurable if "UART Mode Select" is set to "ASKIR" or "IrDA". Options: Enabled (default)、Disabled

UR2 Duplex Mode

Select the transmission mode used by the IR interface. Full-duplex mode permits simultaneous bi-directional transmission. Half-duplex mode permits transmission in only one direction at a time. This field only configurable if "UART Mode Select" is set to "ASKIR" or "IrDA".

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.

Options: ECP(default)   Extended Capabilities Port.

   EPP   Enhanced Parallel Port.

   SPP   Standard Printer Port.

   ECP+EPP   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
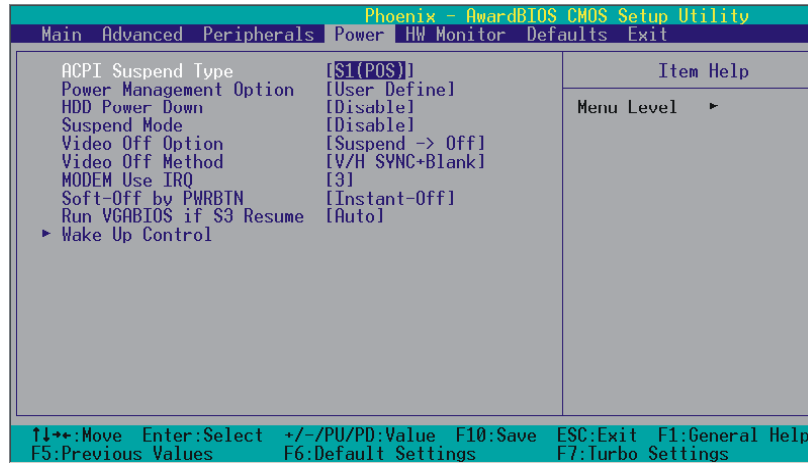
Game Port I/O Address. Options: 201 (default)、209、Disabled

Midi Port Address

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

Midi Port IRQ

This determines the IRQ that Midi Port will use. Options: 5 (default)、7

Power Management

```
                    Phoenix - AwardBIOS CMOS Setup Utility
    Main  Advanced  Peripherals  Power  HW Monitor  Defaults  Exit
    ACPI Suspend Type          [S1(POS)]              Item Help
    Power Management Option    [User Define]
    HDD Power Down             [Disable]          Menu Level    ►
    Suspend Mode               [Disable]
    Video Off Option           [Suspend -> Off]
    Video Off Method           [V/H SYNC+Blank]
    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  F10:Save  ESC:Exit  F1:General Help
    F5:Previous Values       F6:Default Settings        F7:Turbo Settings
```

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、15Min

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→Off (default), Always On.

Video Off Method

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

Options:

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 (default)	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)、4、5、7、9、10、11、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, Former-Sts.

PS2KB Wakeup 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、Disabled (default)

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 (default)、OFF

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.

Wake Up On Ring

This option allows you to awaken the system upon receiving an incoming call a modem device.

Options: 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)

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"
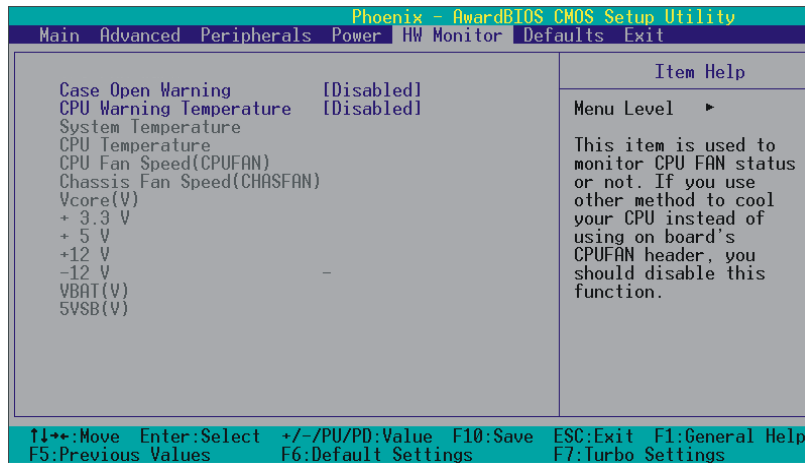
Resume Time (hh: mm: ss)

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	IRQ9 (IRQ2 Redir)	Disabled
IRQ3 (COM2)	Enabled	IRQ10 (Reserved)	Disabled
IRQ4 (COM1)	Enabled	IRQ11 (Reserved)	Disabled
IRQ5 (LPT2)	Enabled	IRQ12 (PS/2 Mouse)	Enabled
IRQ6 (Floppy Disk)	Enabled	IRQ13 (Coprocessor)	Enabled
IRQ7 (LPT1)	Enabled	IRQ14 (Hard Disk)	Enabled
IRQ8 (RTC Alarm)	Disabled	IRQ15 (Reserved)	Disabled

Hardware Monitor

```
              Phoenix - AwardBIOS CMOS Setup Utility
   Main  Advanced  Peripherals  Power  HW Monitor  Defaults  Exit
  ┌─────────────────────────────────────────┬──────────────────────┐
  │ Case Open Warning         [Disabled]     │      Item Help        │
  │ CPU Warning Temperature   [Disabled]     ├──────────────────────┤
  │ System Temperature                       │ Menu Level    ▶       │
  │ CPU Temperature                          │                       │
  │ CPU Fan Speed(CPUFAN)                     │ This item is used to  │
  │ Chassis Fan Speed(CHASFAN)               │ monitor CPU FAN status│
  │ Vcore(V)                                  │ or not. If you use    │
  │ + 3.3 V                                   │ other method to cool  │
  │ + 5 V                                     │ your CPU instead of   │
  │ +12 V                                     │ using on board's      │
  │ -12 V                        -            │ CPUFAN header, you    │
  │ VBAT(V)                                   │ should disable this   │
  │ 5VSB(V)                                   │ function.             │
  │                                           │                       │
  └─────────────────────────────────────────┴──────────────────────┘
   ↑↓→←:Move  Enter:Select  +/-/PU/PD:Value  F10:Save  ESC:Exit  F1:General Help
   F5:Previous Values       F6:Default Settings       F7:Turbo Settings
```

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)、50℃/120℉、53℃/127℉、56℃/133℉、60℃/140℉、63℃/145℉、66℃/151℉、70℃/158℉。
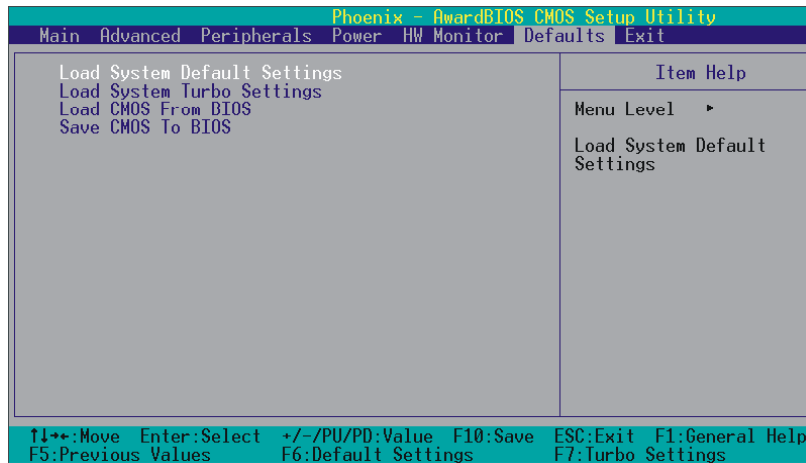
Load Defaults

Load System Default Settings

Load System Default Settings.

Load System turbo Settings
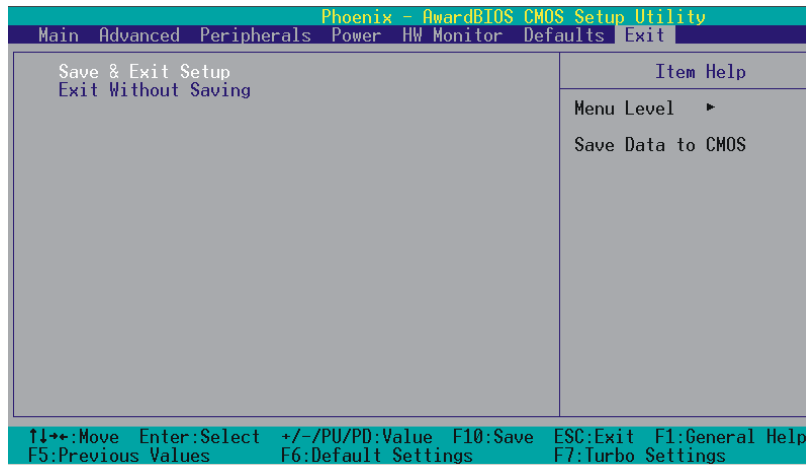
Load System Turbo Settings.

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

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 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 by executing the **via.exe** program located on the Driver CD. The pictures below are for reference only and the Driver CD may vary slightly from your package. (For more details, please refer to the Readme.txt files that in each folder of the Driver CD.)
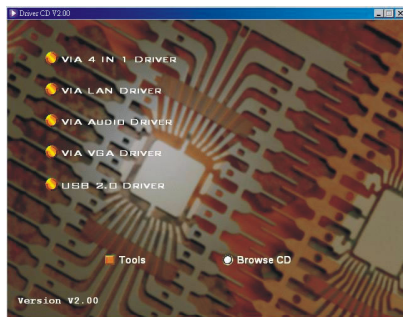
1. The first screen (Main Screen) will display several buttons. Click the drivers that you want to install.

2. On the main screen, click the "tools" button, you can choose the software to install.
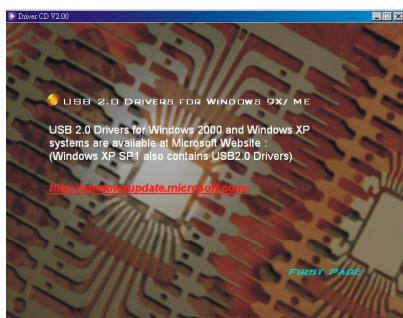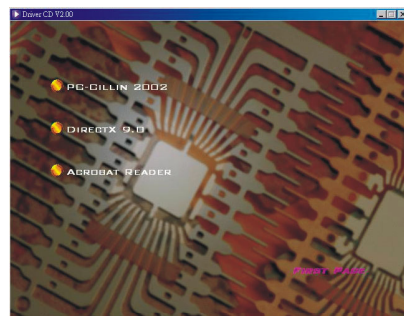
3. On the main screen, click "USB 2.0 DRIVER" and the left screen will display. According to the description of the screen to install "USB 2.0 DRIVER".

4. On the main screen, click the "Browse CD" and you can browse the files on 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 performs 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 → Control Panel → Sounds, Speech, and Audio Devices → 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.
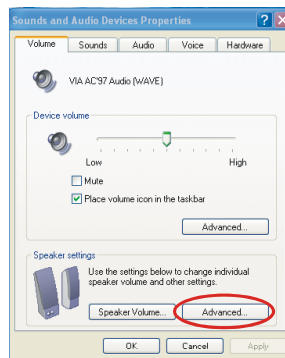
2. At the "Advanced Audio Properties" screen use the drop-down box to select the "5.1 surround sound speakers". Click "Apply" to enable the 5.1 channel audio effect.
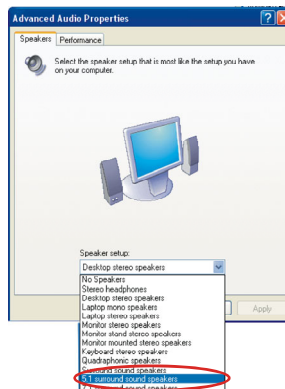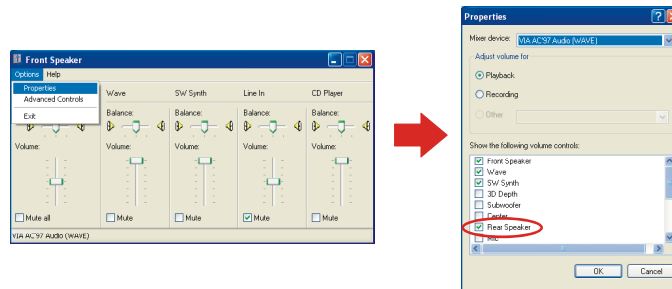

3. On your desktop, double click the volume icon that is on the desk bar.

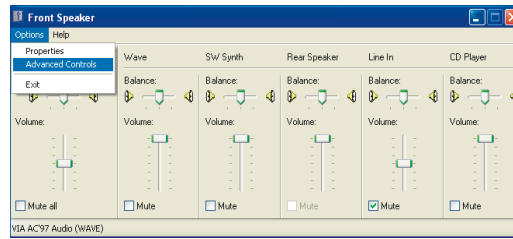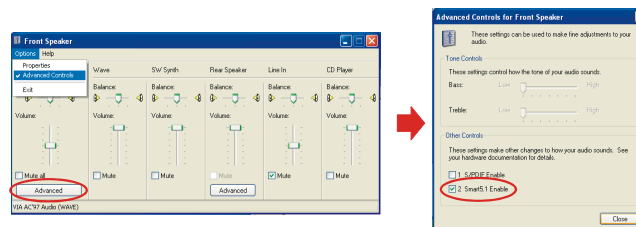(Note: As described earlier, begin with this step if your system has Windows 98/ ME/ 2000)

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

5. Also on the "Front Speaker" screen, select "Options → 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".