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Notice:

Owing to Microsoft's certifying schedule is various to every
supplier, we might have some drivers not certified yet by
Microsoft. Therefore, it might happen under Windows XP that a
dialogue box (shown as below) pop out warning you this
software has not passed Windows Logo testing to verify its
compatibility with Windows XP. Please rest assured that our RD
department has already tested and verified these drivers. Click
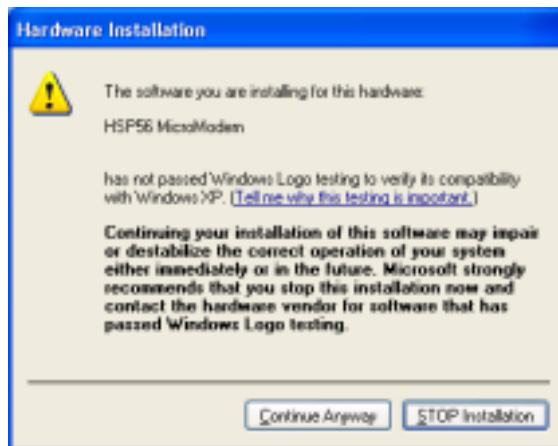the "Continue Anyway" button and go ahead the installation.

Table of Contents

Chapter 1

Introduction

Thank you for choosing this mainboard. It is a high performance and high quality mainboard which is built around the latest and fastest VIA KT266A + VT8235 chipset providing superior performance between the CPU, DRAM, AGP bus, and V-Link bus with pipelined, burst and concurrent operation. This mainboard supports Socket 462 that accommodates AMD Athlon processors with a frontside bus (FSB) speeds up to 133MHz.

The KT266A supports two banks of DDR Synchronous DRAMs up to 2GB for unbuffered modules. It also fully supports full AGP v2.0 capability for maximum bus utilization including 1x, 2x and 4x mode transfers, SBA (SideBand Addressing), Flush/Fence commands and pipelined grants.

The VT8235 Southbridge supports standard intelligent peripheral controllers such as USB v2.0/1.1 and Universal HCI v2.0/1.1 compliant, real time clock with 256 byte extended CMOS, integrated bus-mastering dual full-duplex direct-sound AC97 link compatible sound system and full System Management Bus (SMBus) interface.

Sufficient expansion is provided for with one AGP slot, five 32-bit PCI slot and an optional CNR slot. It also comes with a built-in Enhanced PCI Bus Master PCI IDE controller that provides high-speed connections to full range of IDE devices such as HDD and CD-ROM. This mainboard is designed in a standard ATX form factor using a 4-layer printed circuit board and measures 305 mm x 190 mm.

Key Features

This mainboard has these key features:

Processor

This mainboard uses an AMD 462-pin Socket A that has the following features:

- ♦ Supports 100/133 MHz frontside bus (FSB)
- ♦ Accommodates **AMD Athlon/Duron** processors

Chipset

The **KT266A Northbridge** and **VT8235 Southbridge** chipsets are based on cost-effective and energy efficient chipset architecture for implementing AGP/PCI desktop personal computer systems with proven reliability and performance.

- ♦ Supports Socket-A (Socket-462) AMD Athlon processors
- ♦ 100/133 MHz DDR (Double Data Rate) transfer on Athlon CPU address and data buses
- ♦ Provides full featured Accelerated Graphics Port (AGP) controller which is v2.0 compliant and supports 66 MHz 1x, 2x and 4x modes delivering vivid 3D graphics and high quality video performance
- ♦ Supports 66 MHz V-Link Host interface with a peak bandwidth of 266 MB/s and an intelligent V-Link transaction protocol to eliminate data wait-state/throttle transfer latency
- ♦ Advanced high-performance DDR SDRAM memory types
- ♦ Integrated USB 2.0 Controller with three root hubs and six function ports
- ♦ Dual Channel Ultra DMA 33/66/100/133 master mode EIDE controller

Additional key features include support for six USB ports, an AC 97 link for audio and modem and hardware monitoring.

Graphics

♦ The mainboard includes an AGP slot that provides four times the bandwidth of the original AGP specification. AGP technology provides a direct connection between the graphics sub-system and the processor so that the graphics do not have to compete for processor time with other devices on the PCI bus.

Memory Support

♦ Accommodates two unbuffered 2.5V 184-pin slots
♦ Supports the following memory speeds: DDR SDRAM: PC2100/ PC1600
♦ Each slot supports up to 1 GB with a total maximum capacity of 2 GB

Audio

The VIA VT1612A Audio Codec conforms to the AC'97 2.2 specification providing 18-bit resolution performance. With 2 channel outputs the VIA VT1612A provides high-performance stereo quality for headphones or speaker connections.

♦ AC'97 2.2 S/PDIF extension compliant codec
♦ 18-bit stereo full duplex
♦ 3D stereo expansion for simulated surround
♦ 2 stereo, 2 mono analog line-level inputs.

Onboard LAN (optional)

♦ The VT6103 is a Physical Layer device for Ethernet 10BASE-T and 100BASE-TX using category 5 Unshielded, Type 1 Shielded, and Fiber Optic cables.
♦ Dual Speed – 100/10 Mbps
♦ Half And Full Duplex
♦ Meet All Applicable IEEE 802.3, 10Base-T and 100Base-Tx Standards
♦ Adaptive Equalizer

Integrated I/O

The mainboard has a full set of I/O ports and connectors:

3

- ♦ Two PS/2 ports for mouse and keyboard
- ♦ One serial port
- ♦ One parallel port
- ♦ Four USB ports
- ♦ One LAN port
- ♦ Audio jacks for microphone, line-in and line-out

USB 2.0
- ♦ Compliant with Universal Serial Bus Specification Revision 2.0
- ♦ Supports data transfer rates up to 480Mb/sec for high-speed devices and specifies a microframe that will be $1/8^{th}$ of a 1msec frame
- ♦ Compliant with Enhanced Host Controller Interface (EHCI) Specification Revision 0.95 and Universal Host Controller Interface (UHCI) Specification Revision 1.1
- ♦ PCI multi-function device consists of two UHCI Host Controllers for full/low-speed signaling and one EHCI Host Controller core for high-speed signaling
- ♦ Supports PCI-Bus Power Management Interface Specification release 1.1
- ♦ Legacy support for all downstream facing ports

BIOS Firmware

This mainboard uses Award BIOS that enables users to configure many system features including the following:
- ♦ Power management
- ♦ Wake-up alarms
- ♦ CPU parameters
- ♦ CPU and memory timing

The firmware can also be used to set parameters for different processor clock speeds.

Bundled Software
- ♦ **PC-Cillin 2002** provides automatic virus protection under Windows 98/ME/NT/2000/XP

- ♦ **MediaRing Talk** provides PC to PC or PC to Phone internet phone communication
- ♦ **3Deep** delivers the precise imagery and displays accurate color in your monitor
- ♦ **PC DJ** is a dual-MP3 player that enables users to actually mix music right on their own personal computers.
- ♦ **Adobe Acrobat Reader V5.0** is the software to help users read .PDF files.

Dimensions
- ♦ ATX form factor of 305 x 190mm

Package Contents

Attention: This mainboard serial has two models, M811LU (LAN, USB2.0) and M811U (USB2.0). Please contact your local supplier for more information about your purchased model. Each model will support different specification listed as below:

Model	Specification
M811LU	Onboard VT6103 LAN chipset, and USB2.0+RJ-45 LAN connector
M811U	USB2.0

Your mainboard package contains the following items:
- ❑ The mainboard
- ❑ The User's Manual
- ❑ One diskette drive ribbon cable (optional)
- ❑ One IDE drive ribbon cable
- ❑ Software support CD

Optional Accessories
You can purchase the following optional accessories for this mainboard.
- ❑ Extended USB module
- ❑ CNR v.90 56K Fax/Modem card
- ❑ Card Reader (You can buy your own Card Reader from the third party, but please contact your local Card Reader vendor on any issues of the specification and compatibility.)

Note: Hardware specifications and software items are subject to change without notification.

Static Electricity Precautions

Static electricity could damage components on this mainboard. Take the following precautions while unpacking this mainboard and installing it in a system.

1. Don't take this mainboard and components out of their original static-proof package until you are ready to install them.
2. While installing, please wear a grounded wrist strap if possible. If you don't have a wrist strap, discharge static electricity by touching the bare metal of the system chassis.
3. Carefully hold this mainboard by its edges. Do not touch those components unless it is absolutely necessary. Put this mainboard on the top of static-protection package with component side facing up while installing.

Pre-Installation Inspection

1. Inspect this mainboard whether there are any damages to components and connectors on the board.
2. If you suspect this mainboard has been damaged, do not connect power to the system. Contact your mainboard vendor about those damages.

Chapter 2

Mainboard Installation

To install this mainboard in a system, please follow these instructions in this chapter:

- ❑ Identify the mainboard components
- ❑ Install a CPU
- ❑ Install one or more system memory modules
- ❑ Make sure all jumpers and switches are set correctly
- ❑ Install this mainboard in a system chassis (case)
- ❑ Connect any extension brackets or cables to connecting headers on the mainboard
- ❑ Install other devices and make the appropriate connections to the mainboard connecting headers

Note:
1. Before installing this mainboard, make sure jumper JP1 is under Normal setting. See this chapter for information about locating JP1 and the setting options.
2. Never connect power to the system during installation; otherwise, it may damage the mainboard.

Mainboard Components

Identify major components on the mainboard via this diagram underneath.
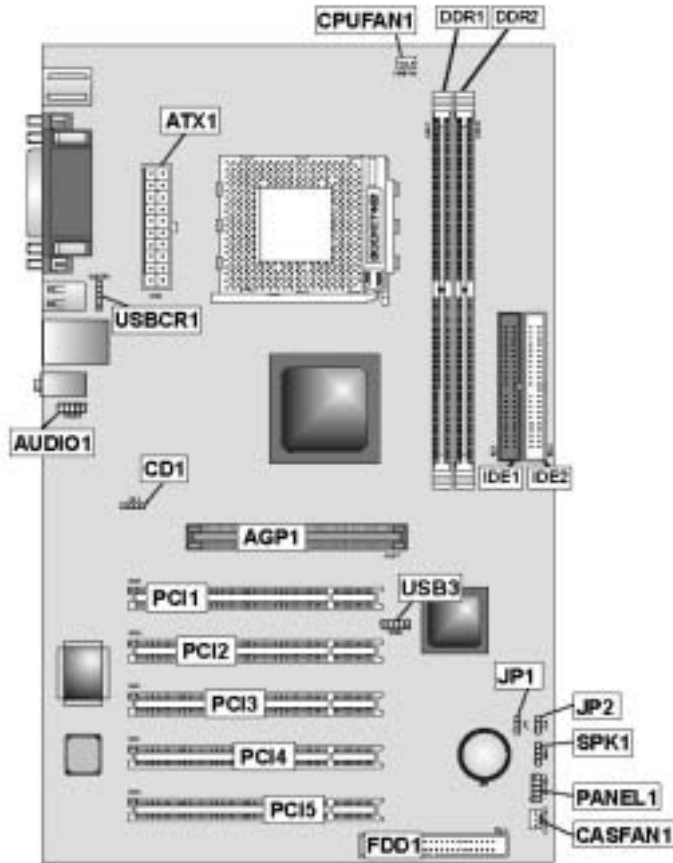
Note: Any jumpers on your mainboard not appearing in this illustration are for testing only.

I/O Ports

The illustration below shows a side view of the built-in I/O ports on the mainboard.

PS/2 Mouse	Use the upper PS/2 port to connect a PS/2 pointing device.
PS/2 Keyboard	Use the lower PS/2 port to connect a PS/2 keyboard.
LPT1	Use LPT1 to connect printers or other parallel communications devices.
COM1	Use the COM ports to connect serial devices such as mice or fax/modems. COM1 is identified by the system as COM1/3.
Audio Ports	Use the three audio ports to connect audio devices. The first jack is for stereo line-in signal. The second jack is for stereo line-out signal. The third jack is for microphone.

Note: The line-in port can be set as another line-out port when the 4-channel function is enabled.

LAN Port (optional)	Connect an RJ-45 jack to the LAN port to connect your computer to the Network.
USB Ports	Use the USB ports to connect USB devices.

Note: One of the USB ports is shared with the USBCR1 connector.

Installing the Processor

This mainboard has a Socket 462 processor socket. When choosing a processor, consider the performance requirements of the system. Performance is based on the processor design, the clock speed and system bus frequency of the processor, and the quantity of internal cache memory and external cache memory.

CPU Installation Procedure
Follow these instructions to install the CPU:

1. Unhook the CPU socket's locking lever by pulling it away from socket and raising it to the upright position.
2. Match the pin1 corner on the CPU (the beveled edge) with the pin1 corner on the socket (at the base of the locking lever). Insert the CPU into the socket. Do not use force.
3. Push the locking lever down and hook it under the latch on the edge of socket.
4. Apply thermal grease to the top of the CPU.
5. Lower the CPU fan/heatsink unit onto the CPU.
6. Secure two retention clips on either side of the fan/heatsink unit onto the socket base.
7. Connect the CPU fan power cable to the CPU fan connector on the mainboard.

Installing Memory Modules

This mainboard accommodates two 184-pin 2.5V unbuffered Double Data Rate (DDR) SDRAM memory modules. Each module can be installed with 32 MB to 1 GB of memory; total memory capacity is 2GB.

Note: Double Data Rate SDRAM (DDR SDRAM) doubles the rate to 1.6 GBps and 2.1 GBps. DDR SDRAM uses additional power and ground lines and requires 184-pin DIMM modules rather than the 168-pin DIMMs used by SDRAM.

Do not remove any memory module from its antistatic packaging until you are ready to install it on the mainboard. Handle the modules only by their edges. Do not touch the components or metal parts. Always wear a grounding strap when you handle the modules.

DDR1   **DDR2**
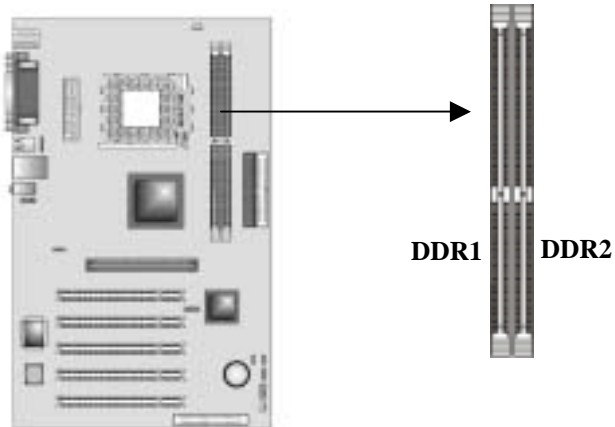
Installation Procedure
These modules can be installed with up to 2 GB system memory. Refer to the following to install the memory module.

1. Push the latches on each side of the DIMM socket down.
2. Align the memory module with the socket. The DIMM sockets are keyed with notches and the DIMMs are keyed with cutouts so that they can only be installed correctly.
3. Check that the cutouts on the DIMM module edge connector match the notches in the DIMM socket.
4. Install the DIMM module into the socket and press it firmly down until it is seated correctly. The socket latches are levered upwards and latch on to the edges of the DIMM.
5. Install any remaining DIMM modules.

11

Jumper Settings

Connecting two pins with a jumper cap is SHORT; removing a
jumper cap from these pins, OPEN.
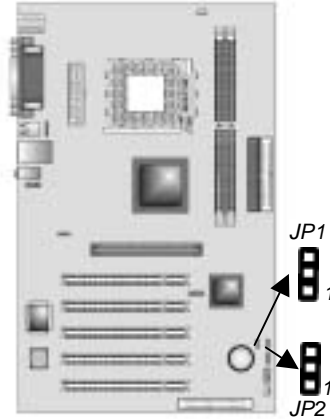
JP1: Clear CMOS Jumper
Use this jumper to clear the contents of the CMOS memory. You
may need to clear the CMOS memory if the settings in the Setup
Utility are incorrect and prevent your mainboard from operating.
To clear the CMOS memory, disconnect all the power cables from
the mainboard and then move the jumper cap into the CLEAR
setting for a few seconds.

Function	Jumper Setting
Normal	Short Pins 1-2
Clear CMOS	Short Pins 2-3

JP2: CPU Frequency Select Jumper
Set the CPU frequency (100MHz or 133MHz) according to the
CPU.

Function	Jumper Setting
100 MHz	Short Pins 1-2
133 MHz	Short Pins 2-3

Install the Mainboard

Install the mainboard in a system chassis (case). The board is an ATX size mainboard. You can install this mainboard in an ATX case. Make sure your case has an I/O cover plate matching the ports on this mainboard.

Install the mainboard in a case. Follow the instructions provided by the case manufacturer using the hardware and internal mounting points on the chassis.
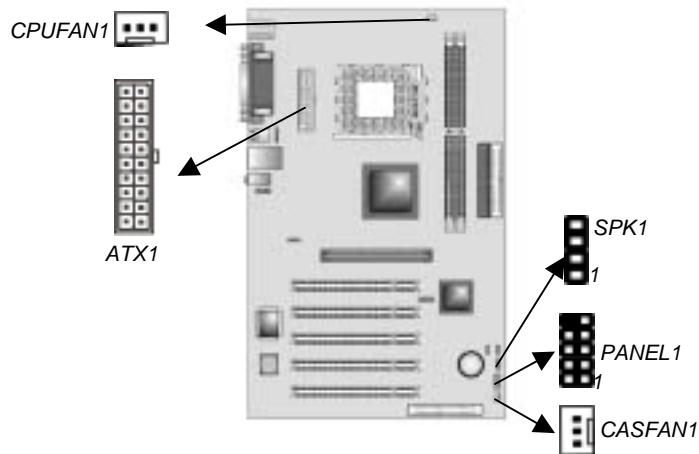
Connect the power connector from the power supply to the **ATX1** connector on the mainboard. Connect the CPU cooling fan cable to **CPUFAN1**, and the case cooling fan connector to **CASFAN1**. Connect the case speaker cable to **SPK1.**

Pin	Signal
1	Signal
2	NC
3	Ground
4	VCC

Front Panel Connector

The front panel connector (PANEL1) provides a standard set of switch and LED connectors commonly found on ATX or micro-ATX cases. Refer to the table below for information:

PANEL1
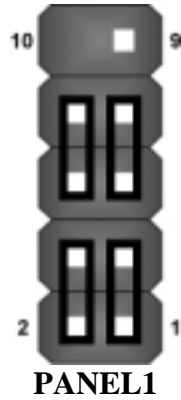
Pin	Function	Pin	Function
1	Hard disk LED (positive)	2	MSG LED [dual color or single color (-)]
3	Hard disk active LED (negative)	4	MSG LED [dual color or single color (+)]
5	Reset Switch	6	Power Switch
7	Reset Switch	8	Power Switch
9	Reserved	10	No Pin

Connecting Optional Devices

Refer to the following for information on connecting the mainboard's optional devices:
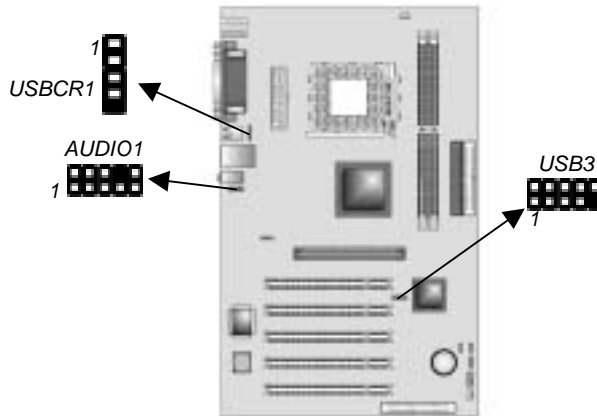
AUDIO1: Front Panel Audio header

This header allows the user to install auxiliary front-oriented microphone and line-out ports for easier access.

Pin	Signal	Pin	Signal
1	AUD_MIC	2	AUD_GND
3	AUD_MIC_BIAS	4	AUD_VCC
5	AUD_FPOUT_R	6	AUD_RET_R
7	NC	8	KEY
9	AUD_FPOUT_L	10	AUD_RET_L

USB3: Front panel USB connectors

The mainboard has four USB ports installed on the rear edge I/O port array. Additionally, some computer cases have USB ports at the front of the case. If you have this kind of case, use auxiliary USB connectors USB3 to connect the front-mounted ports to the mainboard.

Pin	Signal	Pin	Signal
1	VREG_FP_USBPWR0	2	VREG_FP_USBPWR0
3	USB_FP_P0-	4	USB_FP_P1-
5	USB_FP_P0+	6	USB_FP_P1+
7	GND	8	GND
9	KEY	10	USB_FP_OC0

Note: Please make sure that the USB cable has the same pin assignment as indicated above. A different pin assignment may cause damage or system hang-up.

USBCR1: USB Card Reader connector (optional)

This connector is for connecting internal USB card reader. You can use a card reader to read or transfer files and digital images to your computer.

Pin	Signal
1	USBVCC2
2	USB2-
3	USB2+
4	GND
5	KEY

Note: The USBCR1 is shared with one of the USB ports of the I/O back panel. The USB port is located beside the serial port connectors. See "Connecting I/O Devices" for more information.

Please check the pin assignment of the cable and the USB header on the mainboard. Make sure the pin assignment will match before plugging in. Any incorrect usage may cause unexpected damage to the system.

Install Other Devices

Install and connect any other devices in the system following the steps below.
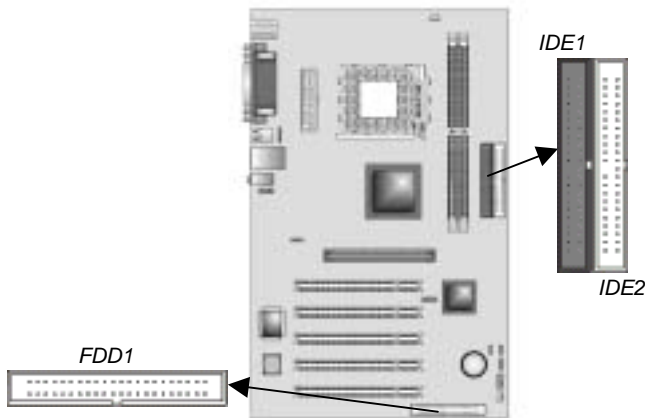
Floppy Disk Drive
The mainboard ships with a floppy disk drive cable that can support one or two drives. Drives can be 3.5" or 5.25" wide, with capacities of 360K, 720K, 1.2MB, 1.44MB, or 2.88MB.
Install your drives and connect power from the system power supply. Use the cable provided to connect the drives to the floppy disk drive connector **FDD1**.

IDE Devices
IDE devices include hard disk drives, high-density diskette drives, and CD-ROM or DVD-ROM drives, among others.
The mainboard ships with an IDE cable that can support one or two IDE devices. If you connect two devices to a single cable, you must configure one of the drives as Master and one of the drives as Slave. The documentation of the IDE device will tell you how to configure the device as a Master or Slave device. The Master device connects to the end of the cable.
Install the device(s) and connect power from the system power supply. Use the cable provided to connect the device(s) to the Primary IDE channel connector **IDE1** on the mainboard.

17

If you want to install more IDE devices, you can purchase a second IDE cable and connect one or two devices to the Secondary IDE channel connector **IDE2** on the mainboard. If you have two devices on the cable, one must be Master and one must be Slave.

Internal Sound Connections

If you have installed a CD-ROM drive or DVD-ROM drive, you can connect the drive audio cable to the onboard sound system.
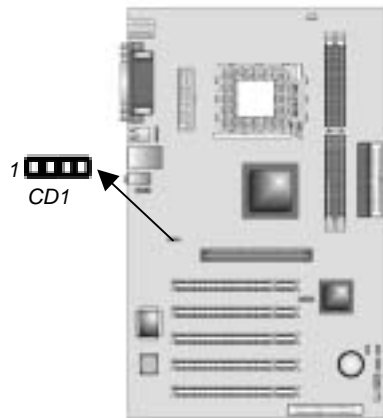
When you first start up your system, the BIOS should automatically detect your CD-ROM/DVD drive. If it doesn't, enter the Setup Utility and configure the CD-ROM/DVD drive that you have installed. On the mainboard, locate the 4-pin connector **CD1**.

CD1: Primary CD-in Connector

Pin	Signal
1	CD IN L
2	GND
3	GND
4	CD IN R

Expansion Slots

This mainboard has one AGP and five 32-bit PCI slots.
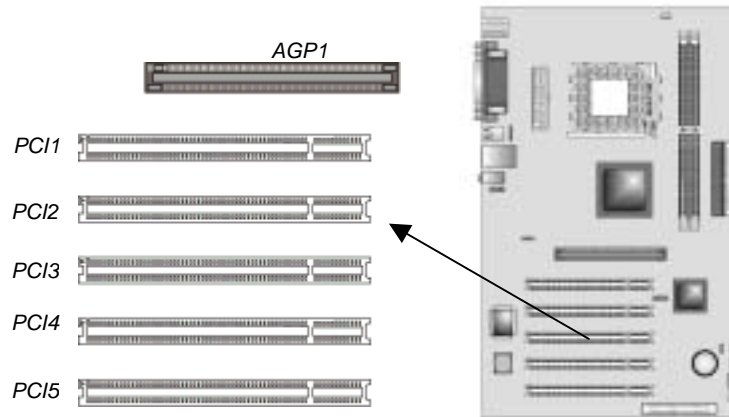
Follow the steps below to install the AGP/PCI expansion card.
1. Locate the AGP or PCI slots on the mainboard.
2. Remove the slot cover for this slot from the system chassis.
3. Insert the expansion card edge connector into the slot and press it firmly down into it so that it is fully inserted.
4. Secure the expansion card bracket to the system chassis with a screw.

4 x AGP (Accelerated Graphics Port) Slot
You can install a graphics adapter supporting 4xAGP specification in the AGP slot. This slot has one 4xAGP edge connector.

PCI (Peripheral Components Interconnect) Slots
You can install the 32-bit PCI interface expansion cards in the slots. PCI stands for peripheral Component Interconnect and is a bus standard for expansion cards.

Chapter 3

Using BIOS

About The Setup Utility

The computer uses the latest Award BIOS with support for Windows Plug and Play. The CMOS chip on the mainboard contains the ROM setup instructions for configuring the mainboard BIOS.

The BIOS (Basic Input and Output System) Setup Utility displays the system's configuration status and provides you with options to set system parameters. The parameters are stored in battery-backed-up CMOS RAM that saves this information when the power is turned off. When the system is turned back on, the system is configured with the values you stored in CMOS.

The BIOS Setup Utility enables you to configure:

- Hard drives, diskette drives, and peripherals
- Video display type and display options
- Password protection from unauthorized use
- Power management features

The settings made in the Setup Utility affect how the computer performs. Before using the Setup Utility, ensure that you understand the Setup Utility options.

This chapter provides explanations for Setup Utility options.

The Standard Configuration

A standard configuration has already been set in the Setup Utility. However, we recommend that you read this chapter in case you need to make any changes in the future.

This Setup Utility should be used:

- when changing the system configuration
- when a configuration error is detected and you are prompted to make changes to the Setup Utility
- when trying to resolve IRQ conflicts
- when making changes to the Power Management configuration

- when changing the password or making other changes to the Security Setup

Starting Setup

The BIOS is immediately activated when you first turn on the computer. The BIOS reads system configuration in CMOS RAM and begins the process of checking out the system and configuring it through the power-on self test (POST).

When these preliminaries are finished, the BIOS seeks an operating system on one of the data storage devices (hard drive, floppy drive, etc.). The BIOS launches the operating system and hands control of system operations to it.

During POST, you can start the Setup program in one on two ways:

1. By pressing Del immediately after switching the system on, or
2. By pressing Del or pressing Ctrl+Alt+Esc when the following message appears briefly at the bottom of the screen during POST:

TO ENTER SETUP BEFORE BOOT PRESS DEL KEY

If the message disappears before you respond and you still wish to enter Setup, restart the system to try again by turning it OFF then ON or pressing the RESET button on the system case. You may also restart by simultaneously pressing Ctrl+Alt+Del. If you do not press the keys at the correct time and the system does not boot, an error message appears and you are again asked to:

PRESS F1 TO CONTINUE, DEL TO ENTER SETUP

Phoenix – AwardBIOS CMOS Setup Utility		
►Standard CMOS Features	►Frequency/Voltage Control
►Advanced BIOS Features	Load Fail-Safe Defaults
►Advanced Chipset Features	Load Optimized Defaults
►Integrated Peripherals	Set Supervisor Password
►Power Management Setup	Set User Password
►PnP/PCI Configurations	Save & Exit Setup
►PC Health Status	Exit Without Saving
Esc : Quit F10 : Save & Exit Setup	↑ ↓ → ← : Select Item
Time, Date, Hard Disk Type . . .	

BIOS Navigation Keys

The BIOS navigation keys are listed below:

Key	Function
Esc	Exits the current menu
←↑↓→	Scrolls through the items on a menu
+/–/PU/PD	Modifies the selected field's values
F10	Saves the current configuration and exits setup
F1	Displays a screen that describes all key functions
F5	Loads previously saved values to CMOS
F6	Loads a minimum configuration for troubleshooting.
F7	Loads an optimum set of values for peak performance

Standard CMOS Features

In the Standard CMOS menu you can set the system clock and calendar, record disk drive parameters and the video subsystem type, and select the type of errors that stop the BIOS POST.

```
                   Phoenix – AwardBIOS CMOS Setup Utility
                          Standard CMOS Features
┌────────────────────────────────────────────────┬─────────────────────┐
│  Date (mm:dd:yy)              Tue, July 11 2001 │       Item Help     │
│  Time (hh:mm:ss)              12 : 8 : 59       │                     │
│ ► IDE Primary Master                            │  Menu Level    ►    │
│ ► IDE Primary Slave                             │  Change the day, month, │
│ ► IDE Secondary Master                          │  year and century.  │
│ ► IDE Secondary Slave                           │                     │
│  Drive A                      [1.44M, 3.5 in.]  │                     │
│  Drive B                      [None]            │                     │
│  Video                        [EGA/VGA]         │                     │
│  Halt On                      [All errors]      │                     │
│  Base Memory                     640K           │                     │
│  Extended Memory                31744K          │                     │
│  Total Memory                   32768K          │                     │
└────────────────────────────────────────────────┴─────────────────────┘
↑↓→←: Move     Enter : Select     +/-/PU/PD:Value:    F10: Save   ESC: Exit   F1:General Help
          F5:Previous Values        F6:Fail-Safe Defaults     F7:Optimized Defaults
```

Date and Time

The Date and Time items show the current date and time on the computer. If you are running a Windows OS, these items are automatically updated.

IDE Devices (None)

Your computer has two IDE channels (Primary and Secondary) and each channel can be installed with one or two devices (Master and Slave). Use these items to configure each device on the IDE channel. Here are these sub-items:

IDE HDD Auto-Detection

Press <Enter> while this item is highlighted to prompt the Setup Utility to automatically detect and configure an IDE device on the IDE channel.

Note: If you are setting up a new hard disk drive that supports LBA mode, more than one line will appear in the parameter box. Choose the line that lists LBA for an LBA drive.

IDE Primary/Secondary Master/Slave (Auto)

Leave this item at Auto to enable the system to automatically detect and configure IDE devices on the channel. If it fails to find a device, change the value to Manual and then manually configure the drive by entering the characteristics of the drive in the items described below.

Refer to your drive's documentation or look on the drive casing if you need to obtain this information. If no device is installed, change the value to None.

Note: Before attempting to configure a hard disk drive, ensure that you have the configuration information supplied by the manufacturer of your hard drive. Incorrect settings can result in your system not recognizing the installed hard disk.

Access Mode

This item defines ways that can be used to access IDE hard disks such as LBA (Large Block Addressing). Leave this value at Auto and the system will automatically decide the fastest way to access the hard disk drive.

Press <Esc> to return to the Standard CMOS Features screen.

Drive A/Drive B (1.44M, 3.5 in./None)

These items define the characteristics of any diskette drive attached to the system. You can connect one or two diskette drives.

Video (EGA/VGA)

This item defines the video mode of the system; you must leave this item at the default value.

Halt On (All, But keyboard)

This item defines the operation of the system POST (Power On Self Test) routine. You can use this item to select which types of errors in the POST are sufficient to halt the system.

Base Memory, Extended Memory, and Total Memory

These items are automatically detected by the system at start up time. These are display-only fields. You cannot make changes to these fields.

Advanced BIOS Setup

This screen contains industry-standard options additional to the core PC AT BIOS.

```
                    Phoenix – AwardBIOS CMOS Setup Utility
                            Advanced BIOS Setup
┌────────────────────────────────────────────────┬──────────────────────┐
│  CPU Internal Cache          [Enabled]      ▲   │      Item Help       │
│  External Cache              [Enabled]      │   ├──────────────────────┤
│  CPU L2 Cache ECC Checking   [Enabled]      │   │ Menu Level   ►       │
│  Quick Power On Self Test    [Enabled]      │   │ Allows you to choose │
│  First Boot Device           [Floppy]       │   │ the VIRUS warning    │
│  Second Boot Device          [HDD-0]        │   │ feature for IDE Hard │
│  Third Boot Device           [CD-ROM]       │   │ Disk boot sector     │
│  Boot Other Device           [Enabled]      │   │ protection. If this  │
│  Swap Floppy Drive           [Disabled]     │   │ function is enabled  │
│  Boot Up Floppy Seek         [Enabled]      │   │ and someone attempts │
│  Boot Up NumLock Status      [On]           │   │ to write data into this│
│  Gate A20 Option             [Fast]         │   │ area, BIOS will show a│
│  ATA 66/100 IDE Cable Msg    [Enabled]      │   │ warning message on   │
│  Typematic Rate Setting      [Disabled]     │   │ screen and alarm beep│
│ x Typematic Rate (Chars/Sec)  6             │   │                      │
│ x Typematic Delay (Msec)      250           │   │                      │
│  Security Option             [Setup]        │   │                      │
│  OS Select for DRAM>64MB     [Non-OS2]      ▼   │                      │
└────────────────────────────────────────────────┴──────────────────────┘
 ↑↓→← : Move    Enter : Select    +/-/PU/PD:Value:   F10: Save   ESC: Exit   F1:General Help
        F5:Previous Values            F6:Fail-Safe Defaults        F7:Optimized Defaults
```

CPU Internal Cache CPU Internal Cache (Enabled)

All processors that can be installed in this mainboard use internal level 1 (L1) cache memory to improve performance. Leave this item at the default value for better performance.

External Cache (Enabled)

Most processors that can be installed in this system use external level 2 (L2) cache memory to improve performance. Leave this item at the default value for better performance.

CPU L2 Cache ECC Checking (Enabled)

This item enables or disables ECC (Error Correction Code) error checking on the CPU cache memory. We recommend that you leave this item at the default value.

Quick Power On Self Test (Enabled)

Enable this item to shorten the power on testing (POST) and have your system start up faster. You might like to enable this item after you are confident that your system hardware is operating smoothly.

First/Second/Third Boot Device (Floppy/HDD-0/CD-ROM)

Use these three items to select the priority and order of the devices that your system searches for an operating system at start-up time.

Boot Other Device (Enabled)

When enabled, the system searches all other possible locations for an operating system if it fails to find one in the devices specified under the First, Second, and Third boot devices.

Swap Floppy Drive (Disabled)

If you have two floppy diskette drives in your system, this item allows you to swap the assigned drive letters so that drive A becomes drive B, and drive B becomes drive A.

Boot Up Floppy Seek (Enabled)

If this item is enabled, it checks the size of the floppy disk drives at start-up time. You don't need to enable this item unless you have a legacy diskette drive with 360K capacity.

Boot Up NumLock Status (On)

This item defines if the keyboard Num Lock key is active when your system is started.

Gate A20 Option (Fast)

This item defines how the system handles legacy software that was written for an earlier generation of processors. Leave this item at the default value.

ATA 66/100 IDE Cable Msg (Enabled)

Enables or disables the ATA 66/100 IDE Cable Msg. This message will appear during reboot when you use 40-pin cable on your 66/100 hard disks.

Typematic Rate Setting (Disabled)

If this item is enabled, you can use the following two items to set the typematic rate and the typematic delay settings for your keyboard.

- **Typematic Rate (Chars/Sec):** Use this item to define how many characters per second are generated by a held-down key.
- **Typematic Delay (Msec):** Use this item to define how many milliseconds must elapse before a held-down key begins generating repeat characters.

Security Option (Setup)

If you have installed password protection, this item defines if the password is required at system start up, or if it is only required when a user tries to enter the Setup Utility.

OS Select For DRAM > 64 MB (Non-OS2)

This item is only required if you have installed more than 64 MB of memory and you are running the OS/2 operating system. Otherwise, leave this item at the default.

Video BIOS Shadow (Enabled)

This function, when enabled allows VGA BIOS to be copied to the system DRAM for enhanced performance.

Small Logo (EPA) Show (Disabled)

Determines whether or not the EPA logo appears during boot up.

Advanced Chipset Setup

The parameters in this screen are for system designers, service personnel, and technically competent users only. Do not reset these values unless you understand the consequences of your changes.

```
                    Phoenix – AwardBIOS CMOS Setup Utility
                           Advanced Chipset Setup
┌──────────────────────────────────────────────┬────────────────────────┐
│  ► DRAM Clock/Drive Control    [Press Enter]  │      Item Help         │
│  ► AGP & P2P Bridge Control     [Press Enter] ├────────────────────────┤
│  ► CPU & PCI Bus Control        [Press Enter] │  Menu Level    ►       │
│    BIOS Flash PROTECT           [Disabled]    │                        │
│    System BIOS Cacheable        [Disabled]    │                        │
│    Video RAM Cacheable          [Disabled]    │                        │
│                                               │                        │
│                                               │                        │
│                                               │                        │
│                                               │                        │
│                                               │                        │
└──────────────────────────────────────────────┴────────────────────────┘
 ↑↓→← : Move    Enter : Select   +/-/PU/PD:Value:   F10: Save  ESC: Exit  F1:General Help
          F5:Previous Values      F6:Fail-Safe Defaults     F7:Optimized Defaults
```

DRAM Clock/Drive Control

This item has several sub-items:
Current FSB Frequency
This item displays the frontside bus (FSB) frequency. This is a display-only item. You cannot make changes to this field.

Current DRAM Frequency

This item displays the memory (DRAM) frequency. This is a display-only item. You cannot make changes to this field.

DRAM Clock (100 MHz)

This item enables you to manually set the DRAM Clock. We recommend that you leave this item at the default value.

DRAM Timing (Manual)

Set this to the default value to enable the system to automatically set the SDRAM timing by SPD (Serial Presence Detect). SPD is an EEPROM chip on the DIMM module that stores information about the memory chips it contains, including size, speed, voltage, row and column addresses, and manufacturer. If you disable this item, you can use the following three items to manually set the timing parameters for the system memory

DRAM CAS Latency (2.5)

Enables you to select the CAS latency time in HCLKs of 2/2 or 3/3. The value is set at the factory depending on the DRAM installed. Do not change the values in this field unless you change specifications of the installed DRAM or the installed CPU. The options are "2" and "2.5" default.

Bank Interleave (Disabled)

Enable this item to increase memory speed. When enabled, separate memory banks are set for odd and even addresses and the next byte of memory can be accessed while the current byte is being refreshed.

Precharge to Active (3T/4T)

This item is used to designate the minimum Row Precharge time of the SDRAM devices on the module.

DRAM must continually be refreshed or it will lose its data. Normally, DRAM is refreshed entirely as the result of a single request. This option allows you to determine the number of CPU clocks allocated for the Row Address Strobe (RAS) to accumulate its charge before the DRAM is refreshed. If insufficient time is allowed, refresh may be incomplete and data lost.

Active to Precharge (6T/10T)

This item specifies the number of clock cycles needed after a bank active command before a precharge can occur.

Active to CMD (3T)
This item specifies the minimum required delay between activation of different rows.
DRAM Burst Length (4)
This item describes which burst lengths are supported by the devices on the mainboard. 1 level can provide faster performance but may result in instability whereas 8 level gives the most stable but slowest performance.
DRAM Queue Depth (4 level)
This item sets the depth of the DRAM queue used for CPU's cache.
DRAM Command Rate (2T Command)
This item enables you to specify the waiting time for the CPU to issue the next command after issuing the command to the DDR memory. We recommend that you leave this item at the default value.

Press <Esc> to return to the Advanced Chipset Setup screen.

AGP & P2P Bridge Control

This item has several sub-items:
AGP Aperture Size (128 MB)
This item defines the size of the aperture if you use an AGP graphics adapter. The AGP aperture refers to a section of the PCI memory address range used for graphics memory. We recommend that you leave this item at the default value.
AGP Mode (4X)
This item allows you to enable or disable the caching of display data for the processor video memory. Enabling AGP-4X Mode can greatly improve the display speed. Disable this item if your graphics display card does not support this feature.
AGP Driving Control (Auto)
This item is used to signal driving current on AGP cards to auto or manual. Some AGP cards need stronger than normal driving current in order to operate. We recommend that you set this item to the default.

- **AGP Driving Value:** When AGP Driving Control is set to Manual, use this item to set the AGP current driving value.

Press <Esc> to return to the Advanced Chipset Setup screen.

29

CPU & PCI Bus Control

This item has several sub-items:
PCI 1/2 Master 0 WS Write (Enabled)
When enabled, writes to the PCI bus are executed with zero wait states, providing faster data transfer.
PCI 1/2 Post Write (Enabled)
When enabled, writes from the CPU to PCU bus are buffered, to compensate for the speed differences between the CPU and PCI bus. When disabled, the writes are not buffered and the CPU must wait until the write is complete before starting another write cycle.
PCI Delay Transaction (Disabled)
The mainboard's chipset has an embedded 32-bit post write buffer to support delay transactions cycles. Select Enabled to support compliance with PCI specification version 2.1.
Press <Esc> to return to the Advanced Chipset Setup screen.

BIOS Write Protect (Disabled)

Use this item to enable or disable the BIOS Write Protect.

System BIOS/Video RAM Cacheable (Disabled)

These items allow the video and system to be cached in memory for faster execution. Leave these items at the default value for better performance.

Integrated Peripherals

These options display items that define the operation of peripheral components on the system's input/output ports.

USB 2.0 Support	[Enabled]	Item Help
► OnChip IDE Device	[Press Enter]	
► OnChip PCI Device	[Press Enter]	Menu Level ►
► Super I/O Device	[Press Enter]	
Init Display First	[PCI Slot]	
OnChip USB Controller	[All Enabled]	
USB Keyboard Support	[Disabled]	
USB Mouse Support	[Disabled]	
IDE HDD Block Mode	[Enabled]	

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

USB 2.0 Support (Enabled)

Select enabled if your system support the USB 2.0 function.

OnChip IDE Device

This item has several sub-items:
On-Chip IDE Channel 0/1 (Enabled)
Use these items to enable or disable the PCI IDE channels that are integrated on the mainboard.
IDE Prefetch Mode (Enabled)
The onboard IDE drive interfaces supports IDE prefetching, for faster drive access. If you install a primary and secondary add-in IDE interface, set this field to Disabled if the interface does not support prefetching.
IDE Primary/Secondary Master/Slave PIO (Auto)
Each IDE channel supports a master device and a slave device. These four items let you assign which kind of PIO (Programmed Input/Output) is used by IDE devices. Choose Auto to let the system auto detect which PIO mode is best, or select a PIO mode from 0-4.

31

IDE Primary/Secondary Master/Slave UDMA (Auto)
Each IDE channel supports a master device and a slave device.
This mainboard supports UltraDMA technology, which provides
faster access to IDE devices.
If you install a device that supports UltraDMA, change the
appropriate item on this list to Auto. You may have to install the
UltraDMA driver supplied with this mainboard in order to use an
UltraDMA device.
Press <Esc> to return to the Integrated Peripherals screen.

OnChip PCI Device

This item has several sub-items:
VIA-3Q58 OnChip AC97 Audio (Auto)
Enables and disables the onboard audio chip. Disable this item if
you are going to install a PCI audio add-in card.
Press <Esc> to return to the Integrated Peripherals screen.

Super IO Device

This item has several sub-items:
Onboard FDC Controller (Enabled)
This option enables the onboard floppy disk drive controller.
Onboard Serial Port 1 (3F8/IRQ4)
This option is used to assign the I/O address and interrupt request
(IRQ) for the onboard serial port 1 (COM1).
Onboard Parallel Port (378/IRQ7)
This option is used to assign the I/O address and interrupt request
(IRQ) for the onboard parallel port.
Parallel Port Mode (ECP)
Enables you to set the data transfer protocol for your parallel port.
There are four options: SPP (Standard Parallel Port), EPP
(Enhanced Parallel Port), ECP (Extended Capabilities Port) and
ECP+EPP.
SPP allows data output only. Extended Capabilities Port (ECP) and
Enhanced Parallel Port (EPP) are bi-directional modes, allowing both
data input and output. ECP and EPP modes are only supported with
EPP- and ECP-aware peripherals.

ECP Mode Use DMA (3)
When the onboard parallel port is set to ECP mode, the parallel
port can use DMA 3 or DMA 1.
Press <Esc> to return to the Integrated Peripherals screen.

Init Display First (PCI Slot)

Use this item to specify whether your graphics adapter is installed
in one of the PCI slots or is integrated on the mainboard.

OnChip USB Controller (All Enabled)

Enable this item if you plan to use the Universal Serial Bus ports
on this mainboard.

USB Keyboard Support (Disabled)

Enable this item if you plan to use a keyboard connected through
the USB port in a legacy operating system (such as DOS) that does
not support Plug and Play.

USB Mouse Support (Disabled)

Enable this item if you plan to use a USB mouse.

IDE HDD Block Mode (Enabled)

Enable this field if your IDE hard drive supports block mode.
Block mode enables BIOS to automatically detect the optimal
number of block read and writes per sector that the drive can
support and improves the speed of access to IDE devices.

Power Management Setup

The Power Management Setup Menu option is used to change the values of the chipset registers for system power management.

Phoenix – AwardBIOS CMOS Setup Utility
Power Management Setup

		Item Help
ACPI function	[Enabled]	
Power Management Option	[User Define]	Menu Level ►
HDD Power Down	[Disable]	
Suspend Mode	[Disable]	
Video Off Option	[Suspend --> Off]	
Video Off Method	[DPMS Support]	
MODEM Use IRQ	[3]	
Soft-Off by PWRBTN	[Instant-Off]	
State After Power Failure	[Off]	
► IRQ/Event Activity Detect	[Press Enter]	

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

ACPI Function (Enabled)

This mainboard supports ACPI (Advanced Configuration and Power management Interface). Use this item to enable or disable the ACPI feature.

Note: ACPI is a power management specification that makes hardware status information available to the operating system. ACPI enables a PC to turn its peripherals on and off for improved power management. It also allows the PC to be turned on and off by external devices, so that mouse or keyboard activity wakes up the computer.

Power Management Option (User Define)

This item acts like a master switch for the power-saving modes and hard disk timeouts. If this item is set to Max Saving, power-saving modes occur after a short timeout. If this item is set to Min Saving, power-saving modes occur after a longer timeout. If the item is set

to User Define, you can insert your own timeouts for the power-saving modes.

HDD Power Down (Disable)

The IDE hard drive will spin down if it is not accessed within a specified length of time. Options are from 1 Min to 15 Min and Disable.

Suspend Mode (Disable)

The CPU clock will be stopped and the video signal will be suspended if no Power Management events occur for a specified length of time. Full power function will return when a Power Management event is detected. Options are from 1 Min to 1 Hour and Disable.

Video Off Option (Suspend --> Off)

This option defines if the video is powered down when the system is put into suspend mode.

Video Off Method (DPMS Support)

This item defines how the video is powered down to save power. This item is set to DPMS (Display Power Management Software) by default.

MODEM Use IRQ (3)

If you want an incoming call on a modem to automatically resume the system from a power-saving mode, use this item to specify the interrupt request line (IRQ) that is used by the modem. You might have to connect the fax/modem to the mainboard Wake On Modem connector for this feature to work.

Soft-Off by PWRBTN (Instant-Off)

Under ACPI (Advanced Configuration and Power management Interface) you can create a software power down. In a software power down, the system can be resumed by Wake Up Alarms. This item lets you install a software power down that is controlled by the power button on your system. If the item is set to Instant-Off, then the power button causes a software power down. If the

35

item is set to Delay 4 Sec. then you have to hold the power button down for four seconds to cause a software power down.

State After PWR-Fail (Off)

This item enables your computer to automatically restart or return to its last operating status after power returns from a power failure.

IRQ/Event Activity Detect

This item has several sub-items:
VGA (Off)
When set to On, the system power will resume the system from a power saving mode if there is any VGA activity.
LPT & COM (LPT/COM)
When this item is enabled, the system will restart the power-saving timeout counters when any activity is detected on the serial ports, or the parallel port.
HDD & FDD (ON)
When this item is enabled, the system will restart the power-saving timeout counters when any activity is detected on the hard disk drive or the floppy diskette drive.
PCI Master (OFF)
When set to Off, any PCI device set as the Master will not power on the system.
PowerOn by PCI Card (Enabled)
Use this item to enable PCI activity to wakeup the system from a power saving mode.
Modem Ring Resume (Disabled)
Enable Modem Ring-in to resume the system.
RTC Alarm Resume (Disabled)
When set to Enabled, additional fields become available and you can set the date (day of the month), hour, minute and second to turn on your system. When set to 0 (zero) for the day of the month, the alarm will power on your system every day at the specified time.

PNP/PCI Configurations

This section describes configuring the PCI bus system. PCI (Peripheral Component Interconnect) is a system, which allows I/O devices to operate at speeds nearing CPU's when they communicate with own special components.

All the options describes in this section are important and technical and it is strongly recommended that only experienced users should make any changes to the default settings.

```
          Phoenix  - AwardBIOS CMOS Setup Utility
                    PnP/PCI Configurations
```

PNP OS Installed	[No]	Item Help
Reset Configuration Data	[Disabled]	
Resources Controlled by	[Auto(ESCD)]	Menu Level ►
x IRQ Resources	Press Enter	Default is Disabled. Select Enabled to reset Extended System Configuration Data (ESCD) when you exit Setup if you have installed a new add-on and the system reconfiguration has caused such a serious conflict that the OS cannot boot
PCI/VGA Palette Snoop	[Disabled]	
Assign IRQ For VGA	[Enabled]	
Assign IRQ For USB	[Enabled]	

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

PNP OS Installed (No)

Setting this option to Yes allows the PnP OS (instead of BIOS) to assign the system resources such as IRQ and I/O address to the ISA PnP device. The default setting is No.

Reset Configuration Data (Disabled)

If you enable this item and restart the system, any Plug and Play configuration data stored in the BIOS setup is cleared from memory. New updated data is created.

37

Resources Controlled By (Auto(ESCD))

You should leave this item at the default Auto(ESCD). Under this setting, the system dynamically allocates resources to plug and play devices as they are required.
If you cannot get a legacy ISA (Industry Standard Architecture) expansion card to work properly, you might be able to solve the problem by changing this item to Manual, and then opening up the IRQ Resources and Memory Resources sub-menus.
In the IRQ Resources sub-menu, if you change any of the IRQ assignations to Legacy ISA, then that Interrupt Request Line is reserved for a legacy ISA expansion card. Press <Esc> to close the IRQ Resources sub-menu.
In the Memory Resources sub menu, use the first item Reserved Memory Base to set the start address of the memory you want to reserve for the ISA expansion card. Use the second item Reserved Memory Length to set the amount of reserved memory. Press <Esc> to close the Memory Resources sub-menu.

PCI/VGA Palette Snoop (Disabled)

This item is designed to overcome some problems that can be caused by some non-standard VGA cards. This board includes a built-in VGA system that does not require palette snooping so you must leave this item disabled.

Assign IRQ for VGA/USB (Enabled)

Names the interrupt request (IRQ) line assigned to the USB/VGA (if any) on your system. Activity of the selected IRQ always awakens the system.

PC Health Status

On mainboards that support hardware monitoring, this item lets you monitor the parameters for critical voltages, critical temperatures, and fan speeds.

Phoenix – AwardBIOS CMOS Setup Utility
PC Health Status

Target Temperature	[Disabled]	Item Help
Shutdown Temperature	[Disabled]	
Vcore		Menu Level ►
+ 2.5V		
CPU Temperature		
CPU FAN speed		
System Fan Speed		

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

Target Temperature (Disabled)

This item is for CPU Throttling switch. When the CPU reached it's target temperature, the CPU Throttling will be activated. Enabling this item will protect your CPU not to overheat, but it will reduce the CPU performance.

Shutdown Temperature (Disabled)

Enables you to set the maximum temperature the system can reach before powering down.

System Component Characteristics

These fields provide you with information about the systems current operating status. You cannot make changes to these fields.

Frequency/Voltage Control

This item enables you to set the clock speed and system bus for your system. The clock speed and system bus are determined by the kind of processor you have installed in your system.

```
                Phoenix – AwardBIOS CMOS Setup Utility
                        Frequency Control
┌─────────────────────────────────────────────────────┬──────────────────────┐
│  Auto Detect DIMM/PCI Clk          [Enabled]         │      Item Help       │
│  Spread Spectrum Modulated         [Enabled]         ├──────────────────────┤
│  CPU Clock                         [Default]         │  Menu Level    ►     │
│                                                      │                      │
│                                                      │                      │
│                                                      │                      │
│                                                      │                      │
│                                                      │                      │
│                                                      │                      │
│                                                      │                      │
└─────────────────────────────────────────────────────┴──────────────────────┘
↑↓→←: Move    Enter : Select    +/-/PU/PD:Value:   F10: Save   ESC: Exit   F1:General Help
              F5:Previous Values      F6:Fail-Safe Defaults     F7:Optimized Defaults
```

Auto Detect DIMM/PCI Clk (Enabled)

When this item is enabled, BIOS will disable the clock signal of free DIMM and PCI slots.

Spread Spectrum (Enabled)

If you enable spread spectrum, it can significantly reduce the EMI (Electro-Magnetic Interference) generated by the system.

CPU Host Clock (Default)

This item is used for overclocking only.

Load Fail-Safe Defaults

This option opens a dialog box that lets you install fail-safe defaults for all appropriate items in the Setup Utility:
Press <Y> and then <Enter> to install the defaults. Press <N> and then <Enter> to not install the defaults. The fail-safe defaults place no great demands on the system and are generally stable. If your system is not functioning correctly, try installing the fail-safe defaults as a first step in getting your system working properly

again. If you only want to install fail-safe defaults for a specific option, select and display that option, and then press <F6>.

Load Optimized Defaults

This option opens a dialog box that lets you install optimized defaults for all appropriate items in the Setup Utility. Press <Y> and then <Enter> to install the defaults. Press <N> and then <Enter> to not install the defaults. The optimized defaults place demands on the system that may be greater than the performance level of the components, such as the CPU and the memory. You can cause fatal errors or instability if you install the optimized defaults when your hardware does not support them. If you only want to install setup defaults for a specific option, select and display that option, and then press <F7>.

Set Password Option

This item can be used to install a password. To install a password, follow these steps:

1. Highlight the item Set Password on the main menu and press <Enter>.
2. The password dialog box appears.

> Enter Password:

3. If you are installing a new password, type in the password. You cannot use more than eight characters or numbers. The Set Password item differentiates between upper and lower case characters. Press <Enter> after you have typed in the password. If you are deleting a password that is already installed press <Enter> when the password dialog box appears. You see a message that indicates that the password has been disabled.

> PASSWORD DISABLED !!!
> Press any key to continue . . .

4. Press any key. You are prompted to confirm the password:

41

> Confirm Password:

5. Type the password again and press <Enter>, or press <Enter> if you are deleting a password that is already installed.
6. If you typed the password correctly, the password will be installed.

Save & Exit Setup Option

Highlight this item and press <Enter> to save the changes that you have made in the Setup Utility and exit the Setup Utility. When the Save and Exit dialog box appears, press <Y> to save and exit, or press <N> to return to the main menu:

Exit Without Saving

Highlight this item and press <Enter> to discard any changes that you have made in the Setup Utility and exit the Setup Utility. When the Exit Without Saving dialog box appears, press <Y> to discard changes and exit, or press <N> to return to the main menu.

Note: If you have made settings that you do not want to save, use the "Exit Without Saving" item and press <Y> to discard any changes you have made.

Chapter 4

Software & Applications

Introduction

This chapter describes the contents of the support CD-ROM that comes with the mainboard package.

The support CD-ROM contains all useful software, necessary drivers and utility programs to properly run our products. More program information is available in a README file, located in the same directory as the software.

To run the support CD, simply insert the CD into your CD-ROM drive. An Auto Setup screen automatically pops out, and then you can go on the auto-installing or manual installation depending on your operating system.

If your operating system is Windows 98/ME/2000/XP, it will automatically install all the drivers and utilities for your mainboard; if Windows NT or manual installation, please follow the instructions described as the Installing under Windows NT or Manual Installation section.

Installing Support Software

1. Insert the support CD-ROM disc in the CD-ROM drive.
2. When you insert the CD-ROM disc in the system CD-ROM drive, the CD automatically displays an Auto Setup screen.
3. The screen displays three buttons of **Setup**, **Browse CD** and **Exit** on the right side, and three others **Setup**, **Application** and **ReadMe** at the bottom. Please see the following illustration.

The **Setup** button runs the software auto-installing program as explained in next section.

The **Browse CD** button is a standard Windows command that you can check the contents of the disc with the Windows 98 file browsing interface.

The **Exit** button closes the Auto Setup window. To run the program again, reinsert the CD-ROM disc in the drive; or click the CD-ROM driver from the Windows Explorer, and click the Setup icon.

The **Application** button brings up a software menu. It shows the bundled software that this mainboard supports.

The **ReadMe** brings you to the Install Path where you can find out path names of software driver.

Auto-Installing under Windows 98/ME/2000/XP

If you are under Windows 98/ME/2000/XP, please click the **Setup** button to run the software auto-installing program while the Auto Setup screen pops out after inserting the support CD-ROM:

1. The installation program loads and displays the following screen. Click the **Next** button.

2. Select the items that you want to setup by clicking on it (the default options are recommended). Click the **Next** button to proceed.

3. The support software will automatically install.

Once any of the installation procedures start, software is automatically installed in sequence. You need to follow the onscreen instructions, confirm commands and allow the computer to restart as few times as needed to complete installing whatever software you selected. When the process is finished, all the support software will be installed and start working.

Installing under Windows NT or Manual Installation
If you are under Windows NT, the auto-installing program doesn't work out; or you have to do the manual installation, please follow this procedure while the Auto Setup screen pops out after inserting the support CD-ROM:

1. Click the **ReadMe** to bring up a screen, and then click the Install Path at the bottom of the screen.
2. Find out your mainboard model name and click on it to obtain its correct driver directory.
3. Install each software in accordance with the corresponding driver path.

Bundled Software Installation

All bundled software available on the CD-ROM is for users' convenience. You can install bundled software as follows:
1. Click the **Application** button while the Auto Setup screen pops out after inserting the support CD-ROM.
2. A software menu appears. Click the software you want to install.
3. Follow onscreen instructions to install the software program step by step until finished.