

Mainboard User's Manual

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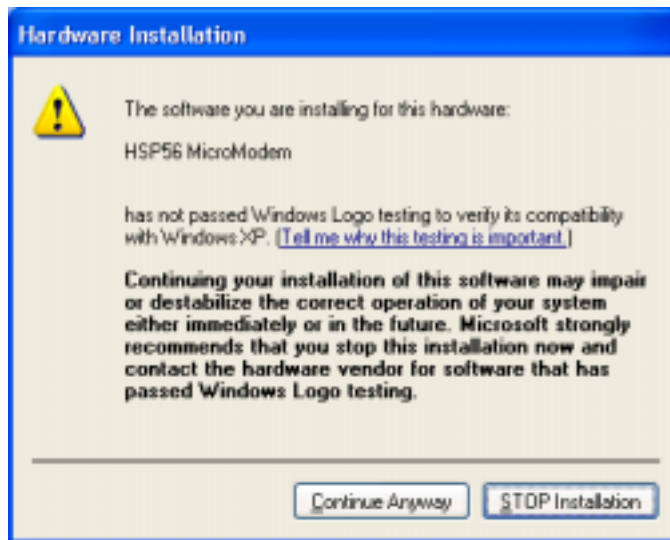
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P6VEM3 Series, V3.0
S630E/July 2002**

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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. Just click the "Continue Anyway" button and go ahead the installation.



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Chapter 1

Introduction

This mainboard supports VIA Samuel2 **1Giga Pro** processor with front-side bus speeds of **133MHz**.

This mainboard has the **SiS630E** chipset, and integrates a **3D Graphics Accelerator** and **Ultra DMA 33/66/100** function. The mainboard has a built-in **AC97 Codec**, provides an **AMR** (Audio Modem Riser) slot to support Audio and Modem application, and has a built-in **10BaseT/100BaseTX Network Interface**. In addition, the mainboard has an extended set of **ATX I/O Ports** including PS/2 keyboard and mouse ports, two USB ports, a parallel port, a VGA port, a serial port, a game port and audio ports. An extra USB header gives you the option of connecting two more USB ports.

This mainboard has all the features you need to develop a powerful multimedia workstation. The board is **Micro ATX** size and has a power connector for an **ATX** power supply.

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Key Features

The key features of this mainboard include:

1Giga Pro Processor

- ◆ Built-in 1Giga Pro CPU
- ◆ Supports up to 133MHz Front-Side Bus

Memory Support

- ◆ Two DIMM slots for 168-pin SDRAM memory modules
- ◆ Support for 100/133 MHz memory bus
- ◆ Maximum installed memory is 2 x 512MB = 1.0GB

Expansion Slots

- ◆ One AMR slot for a special audio/modem riser card
- ◆ Three 32-bit PCI slots for PCI 2.2-compliant bus interface.

Onboard IDE channels

- ◆ Primary and Secondary PCI IDE channels
- ◆ Support for PIO modes, Bus Mastering and Ultra DMA 33/66/100 modes

Power Supply and Power Management

- ◆ ATX power supply connector
- ◆ ACPI and previous PMU support, suspend switch
- ◆ Supports Wake on LAN and Wake on Alarm

Built-in Graphics System

- ◆ Onboard **64-bit 2D/3D** video/graphics accelerator
- ◆ Supports tightly coupled 64 bits 100Mhz host interface to VGA to speed up GUI performance and video playback frame rate
- ◆ Shared system memory area up to 64MB
- ◆ Supports up to 2048x2048 Texture Size

1: Introduction

AC'97 Codec: VT1612A

- ◆ Compliant with AC'97 2.1 specification
- ◆ Three Audio Jacks – Line-Out, Line-In and Microphone-In
- ◆ Sound Blaster, Sound Blaster Pro Compatible
- ◆ Digital I/O compatible with consumer mode S/PDIF
- ◆ Advanced power management support

Built-in Ethernet LAN (Optional)

- ◆ **10BaseT/100BaseTX Ethernet LAN**
- ◆ LAN controller integrates Fast Ethernet MAC and PHY compliant with IEEE802.3u 100BASE-TX, 10BASE-T and ANSI X3.263 TP-PMD standards
- ◆ Compliant with ACPI 1.0 and the Network Device Class Power Management 1.0
- ◆ High Performance provided by 100Mbps clock generator and data recovery circuit for 100Mbps receiver

Onboard I/O Ports

- ◆ Provides PC99 Color Connectors for easy peripheral device connections
- ◆ Floppy disk drive connector with 1Mb/s transfer rate
- ◆ One serial ports with 16550-compatible fast UART
- ◆ One parallel port with ECP and EPP support
- ◆ Two USB ports, and optional two USB ports module
- ◆ Two PS/2 ports for keyboard and mouse
- ◆ One infrared port connector for optional module

Hardware Monitoring

- ◆ Built-in hardware monitoring for CPU & System temperatures, fan speeds and mainboard voltages

Onboard Flash ROM

- ◆ Automatic board configuration support Plug and Play of peripheral devices and expansion cards

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Bundled Software

- ◆ **PC-Cillin2000** 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
- ◆ **Recovery Genius 21st V5.0** provides the function to recover, reserve and transfer hard disk data.
- ◆ **CD Ghost** is the software stimulating a real CD-ROM to perform equivalent function.
- ◆ **Language Genius 21st** is the software to provides learning tools of language and singing.
- ◆ **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

- ◆ Micro ATX form factor (24.4cm x 19cm)

1: Introduction

Package Contents

Your mainboard package ships with the following items:

- The mainboard
- This User's Guide
- 1 UDMA/66 IDE cable
- 1 Floppy disk drive cable
- Support software on CD-ROM disk

Optional Accessories

You can purchase the following optional accessories for this mainboard.

- Extended USB module
- AMR Fax/Modem card

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Static Electricity Precautions

Components on this mainboard can be damaged by static electricity. Take the following precautions when unpacking the mainboard and installing it in a system.

1. Keep the mainboard and other components in their original static-proof packaging until you are ready to install them.
2. During installation, 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. Handle the mainboard carefully by the edges. Avoid touching the components unless it is absolutely necessary. During installation put the mainboard on top of the static-protection packaging it came in with the component side facing up.

Pre-Installation Inspection

1. Inspect the mainboard for damage to the components and connectors on the board.
2. If you suspect that the mainboard has been damaged, do not connect power to the system. Contact your mainboard vendor and report the damage.

Chapter 2

Mainboard Installation

To install this mainboard in a system, follow the procedures in this chapter:

- ❑ Identify the mainboard components
- ❑ Install a CPU
- ❑ Install one or more system memory modules
- ❑ Verify that any jumpers or switches are set correctly
- ❑ Install the mainboard in a system chassis (case)
- ❑ Connect any extension brackets or cables to the mainboard connector headers
- ❑ Install any other devices and make the appropriate connections to the mainboard connector headers.

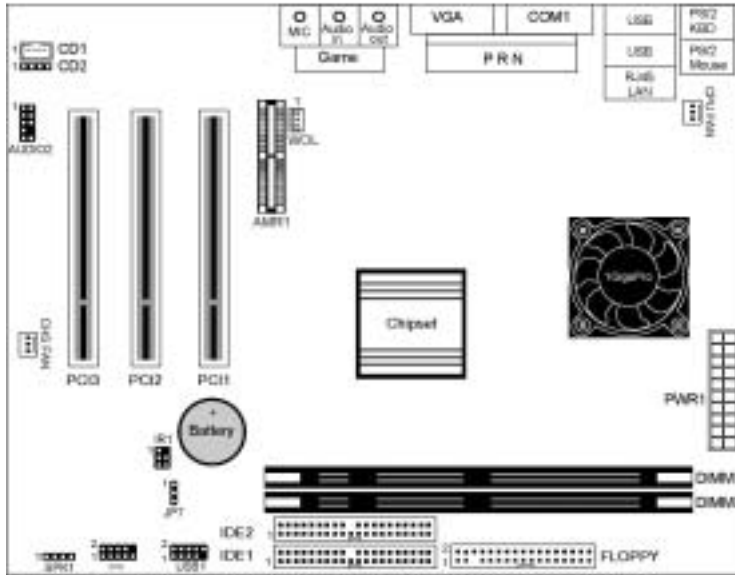
Note:

1. Before installing this mainboard, make sure jumper JP7 set to Normal setting. See this chapter for information on locating JP7 and the setting options.
2. Never connect power to the system during installation. Doing so may damage the mainboard.

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Mainboard Components

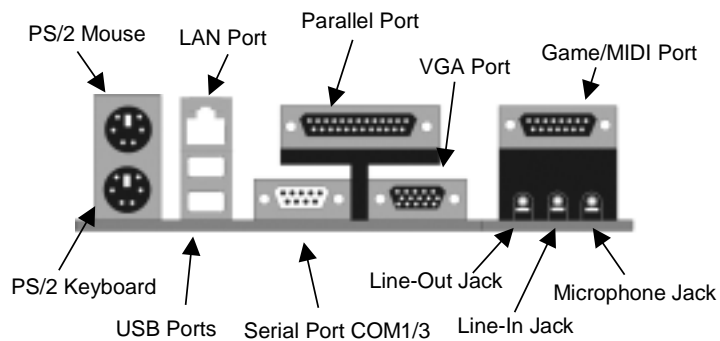
This diagram identifies major components on the mainboard.



Note: Any jumpers on your mainboard that do not appear in this illustration are for testing only.

I/O Ports

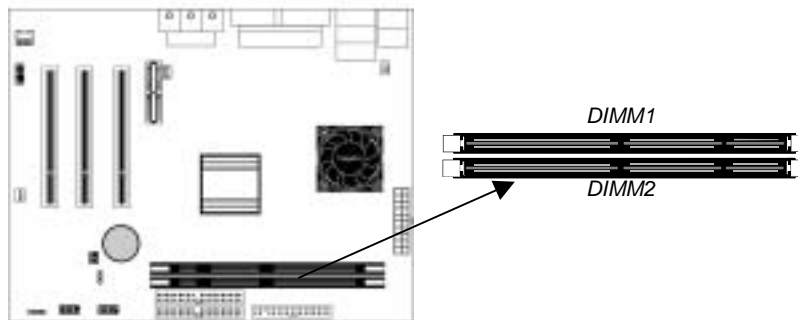
The illustration below shows a side view of the built-in I/O ports on the mainboard.



2: Mainboard Installation

Install Memory

The mainboard has two DIMM sockets for system memory modules. You must install at least one memory module in order to use the mainboard.



For this mainboard, you must use 168-pin, 3.3V unbuffered PC100 or PC133 SDRAM memory modules. You can install any size memory module from 32 MB to 512 MB, so the maximum memory size is $2 \times 512 \text{ MB} = 1 \text{ GB}$.

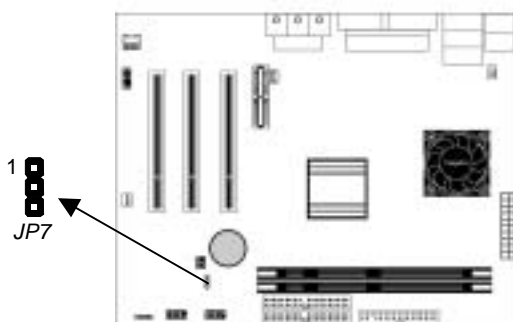
The edge connectors on the memory modules have cut outs, which coincide with spacers in the DIMM sockets so that memory modules can only be installed in the correct orientation.

To install a module, push the retaining latches at either end of the socket outwards. Position the memory module correctly and insert it into the DIMM socket. Press the module down into the socket so that the retaining latches rotate up and secure the module in place by fitting into notches on the edge of the module.

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Setting Jumper Switches

Jumpers set system configuration options. Jumper caps connect jumper pins and change the way of the mainboard's operation by changing the electronic circuits. Connecting two pins with a jumper cap makes SHORT pins; removing a jumper cap from two pins makes OPEN.



Jumper JP7: Clear CMOS Memory

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.

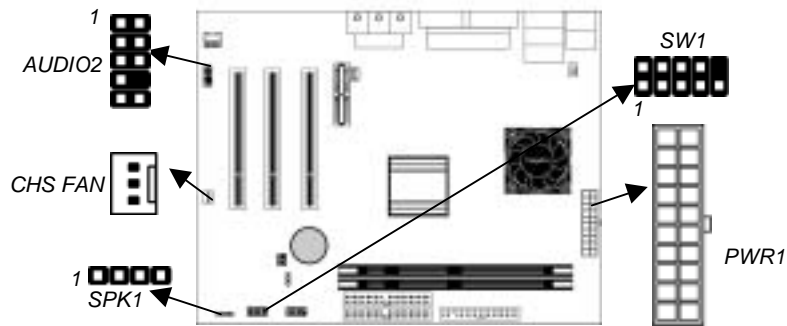
Function	Jumper Setting
Normal Operation	Short Pins 1-2
Clear CMOS Memory	Short Pins 2-3

2: Mainboard Installation

Install the Mainboard

Install the mainboard in a system chassis (case). The board is a micro ATX size mainboard with a twin-tier of I/O ports. Ensure that your case has an I/O cover plate that matches 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 **PWR1** connector on the mainboard.

If there is a cooling fan installed in the system chassis, connect the cable from the cooling fan to the **CHS FAN** fan power connector on the mainboard.

Connect the cable from the PC speaker to the **SPK1** header on the mainboard.

Pin	Signal	Pin	Signal
1	SPKR	2	NC
3	GND	4	+5V

Connect the case switches and indicator LEDs to the **SW1** header. Here is the list of SW1 pin assignment.

Pin	Signal	Pin	Signal
1	HDD LED	2	POWER(ACPI) LED
3	HDD LED	4	POWER(ACPI) LED
5	RESET SWITCH	6	POWER BUTTON
7	RESET SWITCH	8	POWER BUTTON
9	RSVD_DNU	10	KEY

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If there are a headphone jack or/and a microphone jack on the front panel, connect the cables to the **AUDIO2** header on the mainboard. Here is the list of AUDIO2 pin assignment.

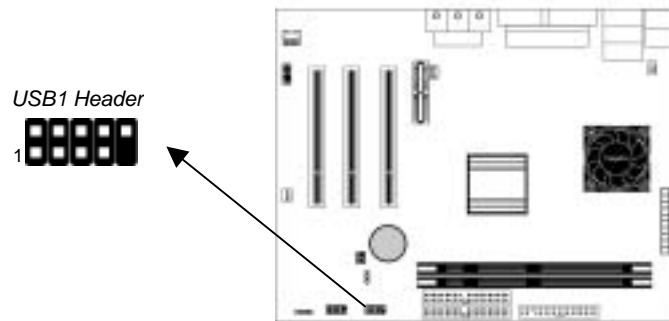
Pin	Signal	Pin	Signal
1	MIC	2	GND
3	MIC-P	4	VCC
5	FPOUT-R	6	RET-R
7	NC	8	KEY
9	FPOUT-L	10	RET-L

Optional Extension Brackets

For this mainboard, you can also obtain a USB module extension bracket. Install them by following the steps below.

Extended USB Module

This module bracket has two USB ports for more USB devices (USB port 3-4).



Pin	Signal	Pin	Signal
1	VERG_FP_USBPWR0	2	VERG_FP_USBPWR0
3	USB_FP_P0-	4	USB_FP_P1-
5	USB_FP_P0+	6	USB_FP_P1+
7	GROUND	8	GROUND
9	KEY	10	USB_FP_OC0

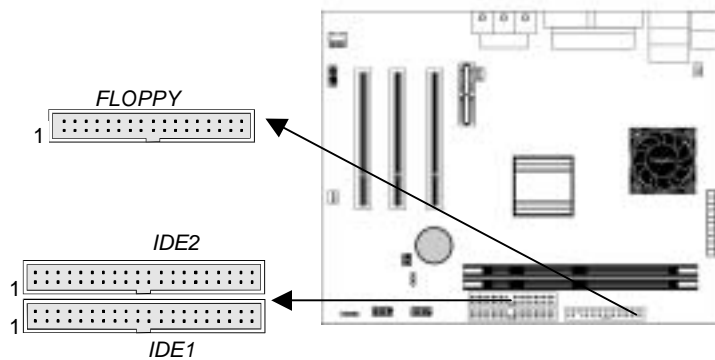
1. Locate the USB1 header on the mainboard.
2. Plug the bracket cable onto the header.

2: Mainboard Installation

3. In the system chassis, remove a slot cover from one of the expansion slots and install the extension bracket in the opening. Use the screw that held the slot cover in place to secure the extension bracket to the chassis.

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 header **FLOPPY**.

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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.

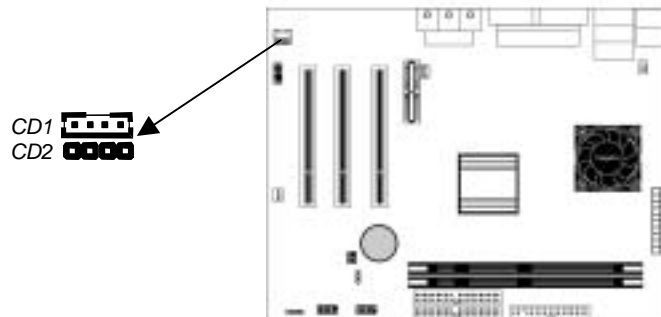
If you want to install more IDE devices, you can purchase a second IDE cable and connect one or two devices to the Secondary IDE channel connector **IDE2** on the mainboard. If you have two devices on the cable, one must be Master and one must be Slave.

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.

On the mainboard, locate the two 4-pin connectors CD1 and CD2. There are two kinds of connector because different brands of CD-ROM drive have different kinds of audio cable connectors.

Connect the cable to the appropriate connector.



2: Mainboard Installation

CD1

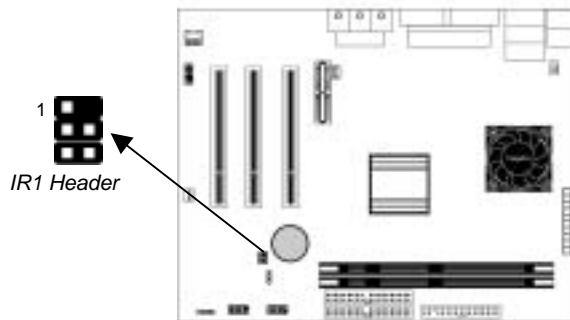
Pin	Signal
1	GND
2	CD IN R
3	GND
4	CD IN L

CD2

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

Infrared Port

You can connect an infrared port to the mainboard. You can purchase this option from third-party vendors.



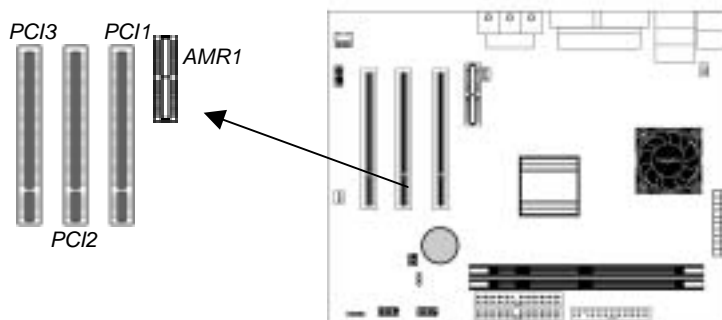
Pin	Signal	Pin	Signal
1	NC	2	KEY
3	+5V	4	GND
5	IRTX	6	IRRX

1. Locate the infrared port IR1 header on the mainboard.
2. If you are adding an infrared port, connect the ribbon cable from the port to the header and then secure the port to an appropriate place in your system chassis.

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Expansion Slots

This mainboard has one AMR and three 32-bit PCI expansion slots.



Follow the steps below to install a PCI/AMR expansion card.

1. Locate the AMR 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 using the screw that held the slot cover in place.

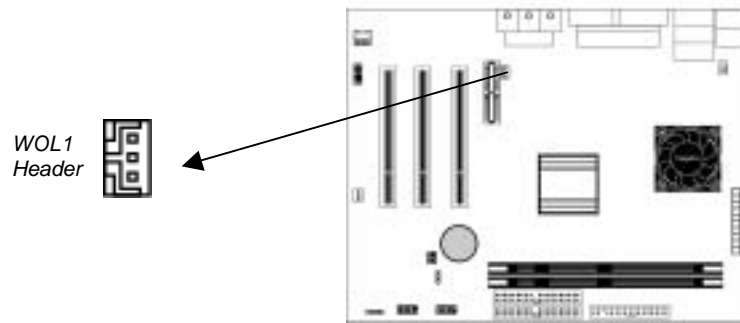
AMR Slot

The AMR (Audio Modem Riser) slot is an industry standard slot that allows for the installation of a special audio/modem riser card. Different territories have different regulations regarding the specifications of a modem card. You can purchase an AMR card that is approved in your area and install it directly into the AMR slot.

2: Mainboard Installation

Wake On LAN (WOL)

If you have installed a LAN adapter expansion card, connect the card to the Wake On LAN connector **WOL1**. This allows incoming traffic to resume the system from a software power down. You need to enable this feature in the system setup utility.



Pin	Signal
1	5VSB
2	GND
3	-RING

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Chapter 3

BIOS Setup Utility

Introduction

The BIOS Setup Utility records settings and information about your computer, such as date and time, the type of installed hardware and various configuration settings. Your computer applies the information to initialize all the components when booting up and basic functions of coordination between system components.

If the Setup Utility configuration is incorrect, it may cause the system to malfunction. It can even stop your computer booting properly. If it happens, you can use the clear CMOS jumper to clear the CMOS memory which has stored the configuration information, or you can hold down the **Page Up** key while rebooting your computer. Holding down the **Page Up** key also clears the setup information.

You can run the setup utility and manually change the configuration. You might need to do this to configure some hardware installed in or connected to the mainboard, such as the CPU, system memory, disk drives, etc.

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Running the Setup Utility

Each time you start your computer, a message appears on the screen before the operating system loading that prompts you to “Hit if you want to run SETUP”. Whenever you see this message, press the **Delete** key, and the Main menu page of the Setup Utility appears on your monitor.

AMIBIOS SIMPLE SETUP UTILITY – VERSION 1.21.06

(C) 2000 American Megatrends, Inc. All Rights Reserved

Standard CMOS Setup	Features Setup
Advanced Setup	CPU PnP Setup
Power Management Setup	Hardware Monitor
PCI / Plug and Play Setup	Change Password
Load Optimal Settings	Exit
Load Best Performance Settings	
Esc : Quit ↑ ↓ ← →: Select Item (Shift)F2 : Change Color F5 : Old Values F6 : Optimal values F7 : Best performance values F10 : Save&Exit	
Standards CMOS setup for changing time, date, hard disk type, etc.	

You can use the cursor arrow keys to highlight any of the options on the main menu page. Press **Enter** to select the highlighted option. To leave the setup utility, press the **Escape** key. To cycle through the Setup Utility's optional color schemes hold down the **Shift** key and press **F2**.

Some of the options on the main menu page lead to tables of items with installed values. In these pages, use the cursor arrow keys to highlight the items, and then use the **PgUp** and **PgDn** keys to cycle through the alternate values for each of the items. Other options on the main menu page lead to dialog boxes that require you to answer Yes or No by hitting the **Y** or **N** keys.

If you have already made changes to the setup utility, press **F10** to save those changes and exit the utility. Press **F5** to reset the changes to the original values. Press **F6** to install the setup utility with a set of default values. Press **F7** to install the setup utility with a set of high-performance values.

3: BIOS Setup Utility

Standard CMOS Setup Page

Use this page to set basic information such as the date, the time, the IDE devices, and the diskette drives. If you press the F3 key, the system will automatically detect and configure the hard disks on the IDE channels.

AMBIOS SETUP – STANDARD CMOS SETUP										
(C) 2000 American Megatrends, Inc. All Rights Reserved										
Date (mm/dd/yy) : Wed May 8, 2002										
Time (hh/mm/ss) : 11:01:00										
	Type	Size	Cyln	Head	WPcom	Sec	Mode	Mode	Mode	32Bit Mode
Pri Master	: Auto									On
Pri Slave	: Auto									On
Sec Master	: Auto									On
Sec Slave	: Auto									On
Floppy Drive A : 1.44 MB 3 1/2										
Floppy Drive B : Not Installed										
Month : Jan – Dec							ESC : Exit			
Day : 01 – 31							↑↓ : Select Item			
Year : 1901 – 2099							PU/PD/+/- : Modify			
							(Shift)F2 : Color			
							F3 : Detect All HDD			

Date & Time	Use these items to set the system date and time
Pri Master	Use these items to configure devices connected to the Primary and Secondary IDE channels. To configure an IDE hard disk drive, choose <i>Auto</i> . If the <i>Auto</i> setting fails to find a hard disk drive, set it to <i>User</i> , and then fill in the hard disk characteristics (Size, Cyls, etc.) manually. If you have a CD-ROM drive, select the setting <i>CDROM</i> . If you have an ATAPI device with removable media (e.g. a ZIP drive or an LS-120) select <i>Floptical</i> .
Pri Slave	
Sec Master	
Sec Slave	
Floppy Drive A	Use these items to set the size and capacity of the floppy diskette drive(s) installed in the system.
Floppy Drive B	

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Advanced Setup Page

Use this page to set more advanced information about your system. Take some care with this page. Making changes can affect the operation of your computer.

AMIBIOS SETUP – ADVANCED SETUP	
(C) 2000 American Megatrends, Inc. All Rights Reserved	
Share Memory Size	16MB
1 st Boot Device	Floppy
2 nd Boot Device	IDE-0
3 rd Boot Device	CDROM
Try Other Boot Devices	Yes
S.M.A.R.T. for Hard Disks	Disabled
BootUp Num-Lock	On
Floppy Drive Swap	Disabled
Floppy Drive Seek	Disabled
PS/2 Mouse Support	Enabled
Password Check	Setup
Boot To OS/2 > 64MB	No
Internal Cache	Enabled
System BIOS Cacheable	Disabled
CAS Latency	3T
ESC : Quit ↑↓←→ : Select Item F1 : Help PU/PD/+/- : Modify F5 : Old Values (Shift)F2 : Color F6 : Load Optimal values F7 : Load Best performance values	

Share Memory Size	This item lets you allocate a portion of the main memory for use by the onboard VGA display.
1st Boot Device	Use these items to determine the device order the computer uses to look for an operating system to load at start-up time.
2nd Boot Device	
3rd Boot Device	
Try Other Boot Device	If you enable this item, the system will also search for other boot devices if it fails to find an operating system from the first two locations.
S.M.A.R.T. for Hard Disks	Enable this item if any IDE hard disks support the S.M.A.R.T. (Self-Monitoring, Analysis and Reporting Technology) feature.
BootUp Num-Lock	This item determines if the Num Lock key is active or inactive at system start-up time.
Floppy Drive Swap	If you have two diskette drives installed and you enable this item, drive A becomes drive B and drive B becomes drive A.

3: BIOS Setup Utility

Floppy Drive Seek	If you enable this item, your system will check all floppy disk drives at start up. Disable this item unless you are using an old 360KB drive.
PS/2 Mouse Support	If this item is set to Enabled, the onboard PS/2 Mouse port will work. Setting this to Disable turns off the port.
Password Check	If you have entered a password for the system, use this item to determine, if the password is required to enter the Setup Utility (<i>Setup</i>) or required both at start-up and to enter the Setup Utility (<i>Always</i>).
Boot to OS/2 > 64MB	Enable this item if you are booting the OS/2 operating system and you have more than 64MB of system memory installed.
Internal Cache	Leave these items enabled since all the processors that can be installed on this board have internal cache memory.
System BIOS Cacheable	If you enable this item, a segment of the system BIOS will be cached to main memory for faster execution.
CAS Latency	This item determines the operation of the SDRAM memory CAS (column address strobe). We recommend that you leave this item at the default value. The 2T setting requires faster memory that specifically supports this mode.

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Power Management Setup Page

This page sets some of the parameters for system power management operation.

AMBIOS SETUP – POWER MANAGEMENT SETUP (C) 2000 American Megatrends, Inc. All Rights Reserved		
Power Management/APM	APM/ACPI	
Standby Time Out<Minute>	Disabled	
Suspend Time Out<Minute>	Disabled	
Hot Key Power On	Disabled	
Onboard LAN Power On	Disabled	
Ring On Power On	Disabled	
RTC Alarm Power On	Disabled	
RTC Alarm Date	15	ESC : Quit ↑↓←→ : Select Item
RTC Alarm Hour	12	F1 : Help PU/PD/+/- : Modify
RTC Alarm Minute	30	F5 : Old Values (Shift)F2 : Color
RTC Alarm Second	00	F6 : Load Optimal values
		F7 : Load Best performance values

Power Management	Use this item to enable or disable a power management scheme. If you enable power management, you can use the items below to set the power management operation. Both APM and ACPI are supported.
Standby Time Out	This sets the timeout for Standby mode in minutes. If the time selected passes without any system activity, the computer will enter power-saving Standby mode.
Suspend Time Out	This sets the timeout for Suspend mode in minutes. If the time selected passes without any system activity, the computer will enter power-saving Suspend mode.
Hot Key Power On	If you enable this item, you can turn the system on by pressing hot keys (Ctrl+Alt+BackSpace) on the keyboard. You must connect an ATX power supply and enable the jumper in order to use this feature.
OnBoard LAN Power On	The system can be turned off with a software command. If you enable this item, the system can automatically resume if there is traffic on the network adapter. You must use an ATX power supply in order to use this feature.

3: BIOS Setup Utility

Ring On Power On	The system can be turned off with a software command. If you enable this item, the system can automatically resume if there is an incoming call on the Fax/Modem. You must use an ATX power supply in order to use this feature.
RTC Alarm Power On	The system can be turned off with a software command. If you enable this item, the system can automatically resume at a fixed time based on the system's RTC (realtime clock). Use the items below this one to set the date and time of the wake-up alarm. You must use an ATX power supply in order to use this feature.

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PCI / Plug and Play Setup Page

This page sets some of the parameters for devices installed on the PCI bus and devices that use the system plug and play capability.

AMIBIOS SETUP – PCI / PLUG AND PLAY SETUP (C) 2000 American Megatrends, Inc. All Rights Reserved	
Plug and Play Aware O/S	Yes
Primary Graphics Adapter	PCI
Allocate IRQ for PCI VGA	Yes
Reserved Memory Size	Disabled
Reserved Memory Address	C8000
ESC : Quit ↑↓←→ : Select Item F1 : Help PU/PD/+/- : Modify F5 : Old Values (Shift)F2 : Color F6 : Load BIOS Defaults F7 : Load Setup Defaults	

Plug and Play Aware O/S	Enable this item if you are using an O/S that supports Plug and Play such as Windows 95 or 98.
Primary Graphics Adapter	This item indicates if the primary graphics adapter uses the PCI or AGP bus. The default PCI setting still lets the onboard display work and allows the use of a second display card installed in a PCI slot.
Allocate IRQ to PCI VGA	If this item is enabled, an IRQ will be assigned to the PCI VGA graphics system. You set this value to No to free up an IRQ.
Reserved Memory Size	This item lets you reserve a block of memory for any device that requires it.
Reserved Memory Address	This item lets you set the address for any block of memory that has been reserved.

3: BIOS Setup Utility

Load Optimal Settings

If you select this item and press **Enter** a dialog box appears. If you press **Y**, and then **Enter**, the Setup Utility loads a set of fail-safe default values. These default values are not very demanding and they should allow your system to function with most kinds of hardware and memory chips.

Load Best Performance Settings

If you select this item and press **Enter** a dialog box appears. If you press **Y**, and then **Enter**, the Setup Utility loads a set of fail-safe default values. These default values are not very demanding and they should allow your system to function with most kinds of hardware and memory chips.

Note: It is highly recommended that users enter this option to load optimal values for accessing the best performance.

Features Setup Page

This page sets some of the parameters for peripheral devices connected to the system.

AMIBIOS SETUP – PERIPHERAL SETUP (C) 2000 American Megatrends, Inc. All Rights Reserved		
OnBoard FDC	Enabled	
OnBoard Serial PortA	3F8h/COM1	
OnBoard IR Port	Disabled	
OnBoard Parallel Port	378h	
Parallel Port Mode	EPP+ECP	
Parallel Port IRQ	7	
Parallel Port DMA	3	
OnBoard Game Port	Auto	
OnBoard MIDI Port	300h	
MIDI Port IRQ	10	
OnBoard PCI IDE	Both	ESC : Quit ↑↓←→ : Select Item
Ultra DMA Support	Disabled	F1 : Help PU/PD/+/- : Modify
On Chip Audio	Enabled	F5 : Old Values (Shift)F2 : Color
On Chip Modem	Enabled	F6 : Load Optimal values
OnBoard LAN	Enabled	F7 : Load Best performance values
USB Function	Enabled	
USB Function for DOS	Disabled	

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OnBoard FDC	Use this item to enable or disable the onboard floppy disk drive interface.
OnBoard Serial PortA	Use this item to enable or disable the onboard COM1 serial port, and to assign a port address
OnBoard IR Port	Use this item to define the protocol for an infrared port if you have installed an optional IR port. The choices are IrDA and ASKIR.
Onboard Parallel Port	Use this item to enable or disable the onboard LPT1 parallel port, and to assign a port address. The Auto setting will detect and available address.
Parallel Port Mode	Use this item to set the parallel port mode. You can select SPP (Standard Parallel Port), ECP (Extended Capabilities Port), EPP (Enhanced Parallel Port), or ECP + EPP.
Parallel Port IRQ	Use this item to assign either IRQ 5 or 7 to the parallel port.
Parallel Port DMA	Use this item to assign a DMA channel to the parallel port. The options are 0, 1 and 3.
Onboard PCI IDE	Use this item to enable or disable either or both of the onboard Primary and Secondary IDE channels.
Ultra DMA Support	Use this item to set Ultra DMA support for IDE devices on the Primary or Secondary IDE channels. You must enable this or UDMA devices will not work at their intended speed.
On Chip Audio	This item enables or disables the onboard audio chip.
On Chip Modem	This item enables or disables the onboard modem chip.
OnBoard LAN	This item enables or disables the onboard network interface.
USB Function	Enable this item if you plan to use the USB ports on this mainboard.
USB Function for DOS	Enable this item if you plan to use the USB ports on this mainboard in a DOS environment.

3: BIOS Setup Utility

CPU PnP Setup Page

This page lets you manually configure the mainboard for the CPU. The system will automatically detect the kind of CPU that you have installed and make the appropriate adjustments to the items on this page.

AMIBIOS SETUP - CPU PnP SETUP	
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CPU Type	VIA C3
ESC : Quit ↑↓←→ : Select Item F1 : Help PU/PD/+/- : Modify F5 : Old Values (Shift)F2 : Color F6 : Load Optimal values F7 : Load Best performance values	

CPU Type	This item shows the type of CPU that has installed in your system.
----------	--

Note: If you manually set the wrong speed and the system won't run properly, press the **Page Up** key while the system is booting and a default setting will replace the incorrect CPU setting.

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Hardware Monitor Page

This page sets some of the parameters for the hardware monitoring function of this mainboard.

AMIBIOS SETUP – HARDWARE MONITOR (C) 2000 American Megatrends, Inc. All Rights Reserved		
--- Hardware Monitor ---		
SYSTEM Temperature	38°C/100°F	
Fan#1 Speed	5314 RPM	
Fan#2 Speed	0 RPM	
Vcore	1.616 V	
+1.800V	2.496 V	
Vcc3	3.296 V	
Vcc	4.972 V	
+12V	11.968 V	ESC : Quit ↑↓←→ : Select Item
SB5V	5.053 V	F1 : Help PU/PD/+/- : Modify
		F5 : Old Values (Shift)F2 : Color
		F6 : Load Optimal values
		F7 : Load Best performance values

CPU Temperature	These items display CPU and the system temperature measurement. The system will alert you if a safe temperature is exceeded.
-----------------	--

FAN#1, 2 Speed & Voltage Measurements	These items indicate cooling fan speeds in RPM and the various system voltage measurements. If the values deviate beyond certain limits, the hardware monitoring feature will alert you with a warning.
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Change Password

If you highlight this item and press **Enter**, a dialog box appears which lets you enter a Supervisor password. You can enter no more than six letters or numbers. Press **Enter** after you have typed in the password. A second dialog box asks you to retype the password for confirmation. Press **Enter** after you have retyped it correctly. The password is then required to access the Setup Utility or for that and at start-up, depending on the setting of the Password Check item in Advanced Setup.

3: BIOS Setup Utility

Change or Remove the Password

Highlight this item, press **Enter** and type in the current password. At the next dialog box, type in the new password, or just press **Enter** to disable password protection.

Exit

Highlight this item and press **Enter** to save the changes that you have made in the Setup Utility configuration and exit the program. When the Save and Exit dialog box appears, press **Y** to save and exit, or press **N** to exit without saving.

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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.

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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.

4: Software & Applications

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.

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Installing under Windows NT or Manual Installation

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

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.