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EVEm Series, V1.1
VT133/August 2001

Table of Contents

Chapter 1

Introduction

This mainboard has onboard VIA C3 Samuel2 **1Giga Pro** processor with front-side bus speeds up to **133MHz**.

This mainboard uses the **VIA VT133** chipset, integrates a **3D Graphics Accelerator** with an optional Composite Video/S-Video TV-Out interface, has a built-in PCI 3D 4 channel speaker-out sound system, and supports **Ultra DMA** 33/66 modes. The mainboard has a built-in **10BaseT/ 100BaseTX Network Interface**, a V.90 56K Fax/Modem DAA module, and an optional 8/16/32MB Flash Disk Module. In addition, this 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, an audio port, and a RJ45 LAN port.

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

Key Features

The key features of this mainboard include:

1Giga Pro Processor

- Built-in VIA C3 Samuel2 1Giga Pro CPU
- Supports up to 133MHz Front-Side Bus

Memory Support

- One DIMM slot for 168-pin SDRAM memory modules
- Support for 100/133 MHz memory bus
- Maximum installed memory is 256MB

Expansion Slots

- One 32-bit PCI slot

Onboard IDE channels

- Support for PIO modes, Bus Mastering and Ultra DMA 33/66 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** graphic engine and Video Accelerator with advanced DVD video
- 2 to 8 MB frame buffer use system memory
- Supports high resolutions up to 1600x1200
- Optional TV encoder supports NTSC and PAL Composite Video/S-Video TV-Out.

3D Sound System

- Complies with the PC98 audio specification
- 16-bit CODEC for full-duplex playback and recording
- HRTF 3D professional audio support both Direct Sound 3D® and A3D®-compatible interfaces plus support for **4-channel speakers**
- Driver support for MS-DOS, Microsoft Windows 95/98/2000/NT 4.0
- Built-in 32ohm earphone buffer and 3D surround sound
- Legacy Sound Blaster 16 support
- Downloadable Wave-table Synthesizer support Direct Music®
- Stereo Mixer support analog mixing from CD-Audio, Line-In

Built-in Ethernet LAN

- **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

Fax/Modem DAA Module

- 56 Kbps Fax/Modem DAA module
- Supports V.90, V.34, V.32bis, V.32, V.22bis, V.22
- Supports Auto Fallback and MNP 5, V.42bis data compression with 115,200-compatible Virtual UART
- Requires 16MB RAM and Microsoft Windows 95/98/NT

8/16/32MB Flash Disk Module Option

- This optional Flash Disk module provides 8/16/32MB disk space for small operating system.

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
- 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
- Built-in virus protection using **Trend's ChipAwayVirus** provides boot process virus protection.

Bundled Software

- **PC-Cillin2000** provides automatic virus protection under Windows 98/ME/NT/2000
- **SuperVoice** is data, fax and voice communication software
- **MediaRing Talk** provides PC to PC or PC to Phone internet phone communication
- **3Deep** delivers the precise images and displays accurate colors in your monitor

Dimensions

- Mini Micro ATX form factor (17 cm x 19 cm)

Package Contents

Your mainboard package contains the following items:

- The mainboard
- The User's Manual
- 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.

- 8/16/32MB Flash Disk module
- AV/S-Video output extension module.

Static Electricity Precautions

Static electricity may damage this mainboard's components. Take the following precautions while 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, you can 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 that comes in with the component side facing up.

Pre-Installation Inspection

1. Inspect the mainboard whether there are any damanges to the components and connectors on the board.
2. If the mainboard seems damaged to you, please do not connect power to the system. Contact your mainboard vendor and show where the damages are.

Chapter 2

Mainboard Installation

To install this mainboard in a system, follow these procedures:

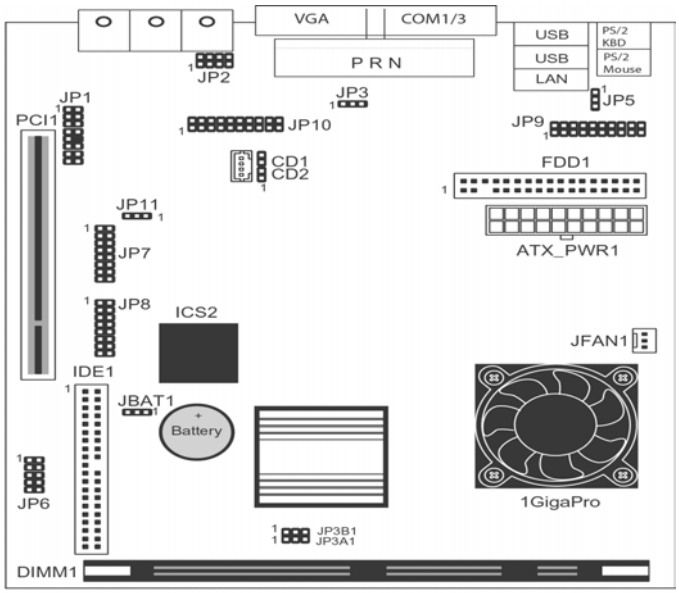
- Identify the mainboard components
- Install a CPU
- Install one system memory modules
- Verify that any jumpers or switches are set correctly
- Install the mainboard in a system chassis (case)
- Connect any extension brackets or cables to connecting headers on the mainboard
- Install other devices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

Note:

1. Before installing this mainboard, make sure jumper JBAT1 is under Normal setting. See this chapter for information about locating JBAT1 and the setting options.
2. Never connect power to the system during installation; otherwise, it may damage the mainboard.

Mainboard Components

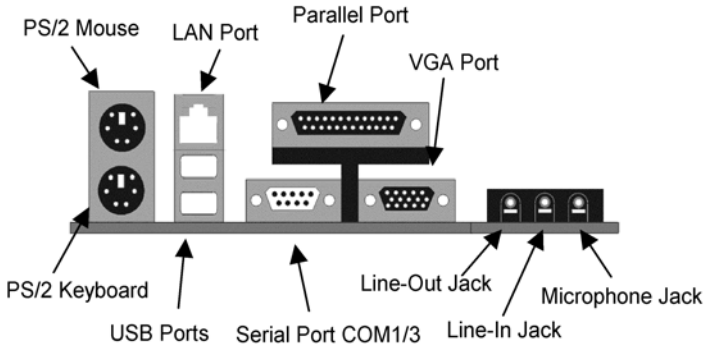
The following diagram helps you to identify mainboard's major components.



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

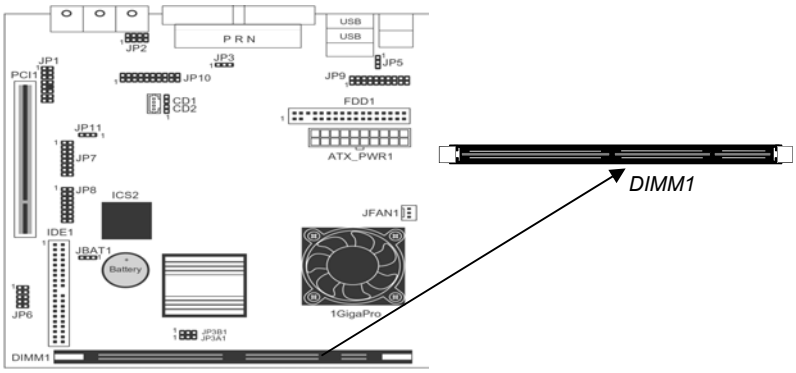
I/O Ports

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



Install Memory

The mainboard has one DIMM socket for system memory modules.



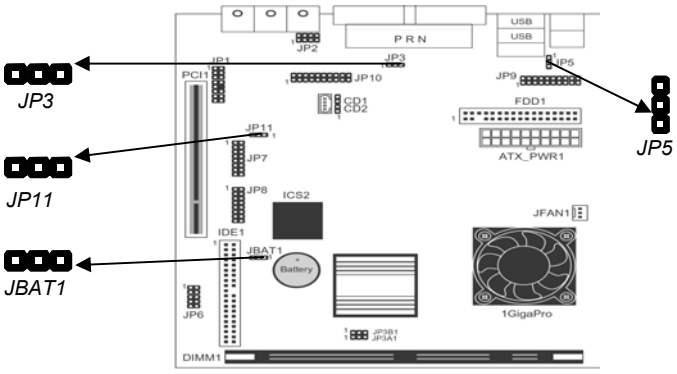
For this mainboard, you must use 168-pin, 3.3V unbuffered PC100 or PC133 SDRAM memory modules. You can install any size memory module from 8 MB to 256 MB, and the maximum memory size is 256 MB.

The edge connectors on the memory modules have cut outs, which coincide with spacers in the DIMM socket 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.

Setting Jumper Switches

Jumpers are sets of pins which can be connected together with jumper caps. The jumper caps change the mainboard's operating way by changing the electronic circuits on the mainboard. If a jumper cap connects two pins, we say the pins are SHORT. If a jumper cap is removed from two pins, the pins are OPEN.



Jumper JBAT1: Clear CMOS Memory

Use this jumper to clear the contents of the CMOS memory. You may need to clear the CMOS memory if incorrect settings in the Setup Utility and preventing your mainboard from operation. 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

Jumper JP3: Enable/Disable Onboard LAN

The mainboard has a built-in 10BaseT/100BaseTX network adapter. If you plan on using an alternative network adapter, you must use this 3-pin jumper to disable the onboard network adapter.

Function	Jumper Setting
Disable Onboard LAN	Short Pins 1-2
Enable Onboard LAN	Short Pins 2-3

Jumper JP5: Keyboard Power On Selector

If you enable the keyboard power on feature, you can use hot keys on your keyboard as a power on/off switch for the system.

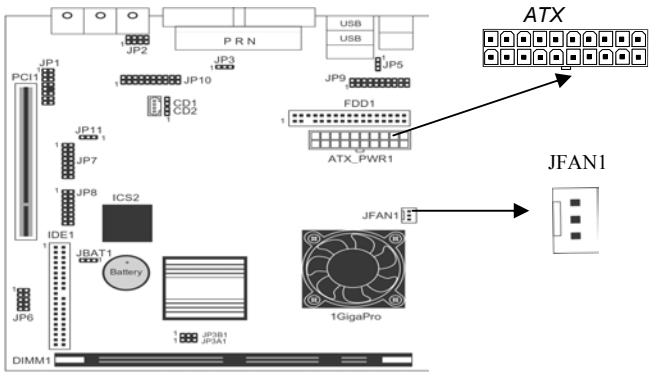
Function	Jumper Setting
Disable Keyboard Power On	Short Pins 1-2
Enable Keyboard Power On	Short Pins 2-3

Jumper JP11: Audio Chip

Function	Jumper Setting
Disable	Short Pins 1-2
Enable	Short Pins 2-3

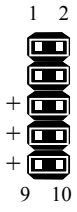
Install the Mainboard

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 case manufacturer's instructions to use hardware and internal mounting points on the chassis.



Connect the power connector from the power supply to the **ATX** connector on the mainboard.
If there is a cooling fan installed in the system chassis, connect the cable from the cooling fan to the **JFAN1** fan power connector on the mainboard.

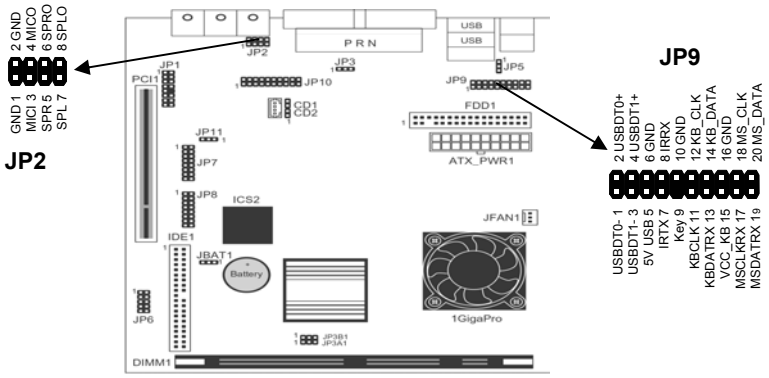
Connect the case switches and indicator LEDs to the **JP6** switch and LED connector header. See the illustration right for a guide to the JP6 connector pin assignments.



Power Switch Pins 1-2
Reset Switch Pins 3-4
Power LED Pins 5-6
HDD LED Pins 7-8
Suspend LED Pins 9-10

JP9: Front USB/IR/keyboard/mouse header

This mainboard provides an USB/infrared/keyboard and mouse header, giving the second option of installing USB, keyboard and mouse ports on the front panel. If you want to use the rear-mounted PS/2 ports (default settings), you have to short pins11-12; short pins 13-14 for the keyboard port, short pins 17-18 and 19-20 for the mouse port.



JP2: Front MIC/line-out header

This header allows the user to install front-oriented microphone and line-out ports for easier access. If you want to use the rear-mounted jacks (default settings), you have to short pins 3-4 for the Microphone jack, short pins 5-6 and 7-8 for the Line-Out jack.

Function	Jumper Setting
Microphone Jack	Short Pins 3-4
Line-Out Jack	Short Pins 5-6 & 7-8

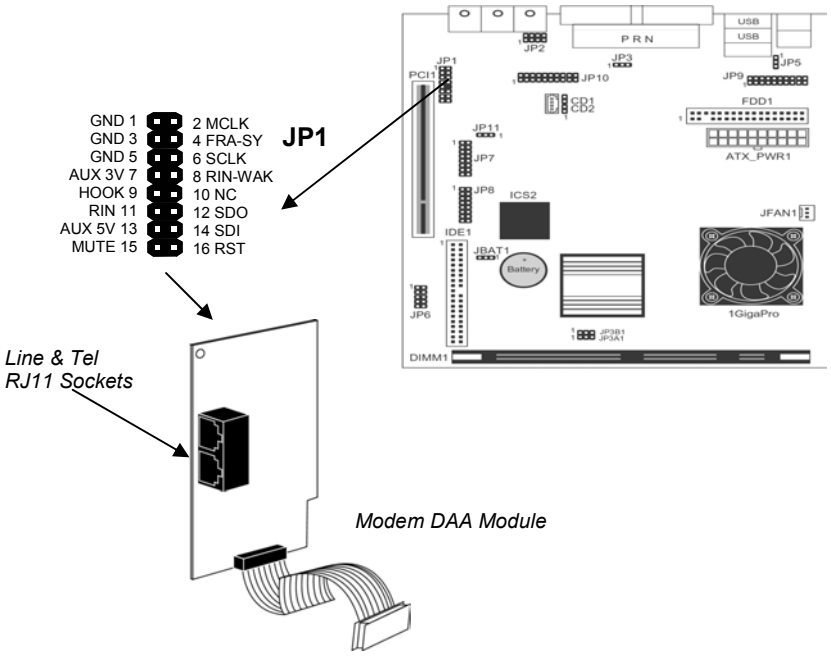
Install the Extensions

The extensions are used to connect features on the mainboard to external connectors that can be attached to the system chassis. Follow the steps below to install the extensions.

Note: *All the ribbon cables used on the extension brackets have a red stripe on the Pin-1 side of the cable.*

Fax/Modem Module

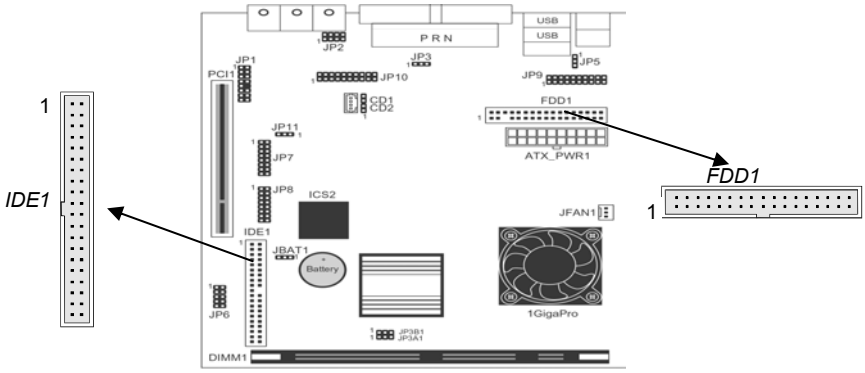
You can access the LINE and TEL RJ11 connectors on the metal edge of the Fax/Modem DAA module.



1. Locate the modem header **JP1** on the mainboard.
2. Plug the cable from the Fax/Modem DAA module into the modem header.
3. In the system chassis, use the screw that held the blanking plate in place to secure the module.

Install Other Devices

Install and connect any other devices in the system following the steps below.



Floppy Disk Drive

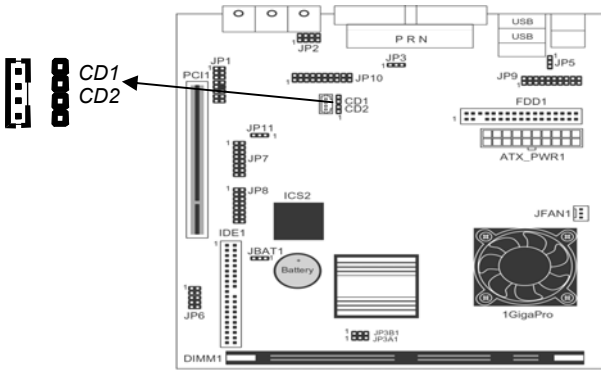
The mainboard ships with a floppy disk drive cable that can support one or two drives. Drives can be 3.5” or 5.25” wide, with capacities of 360K, 720K, 1.2MB, 1.44MB, or 2.88MB.
Install your drives and connect power from the system power supply. Use the available cable to connect the drives to the floppy disk drive header **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 available cable to connect the device(s) to the IDE channel connector **IDE1** on the mainboard.

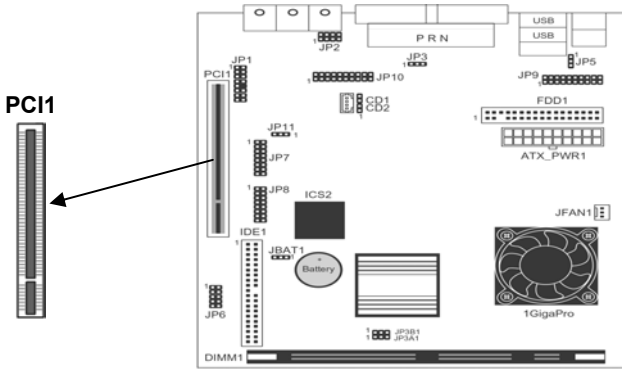
Internal Sound Connections

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.



Expansion Slots

This mainboard has one 32-bit PCI expansion slot.



Use the PCI slot to install 32-bit PCI expansion cards.

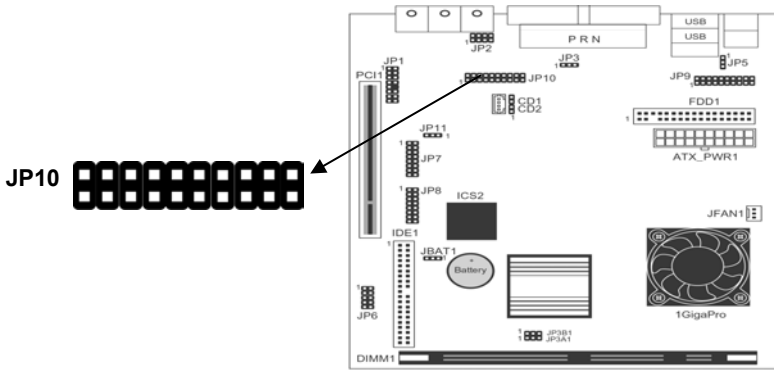
1. Select the PCI slot.
2. Remove the expansion slot cover from the system chassis.
3. Insert the expansion card edge connector into the slot and press it firmly down until fully inserted.
4. Secure the expansion card bracket in the system chassis by using the screw that holds slot cover in place.

Optional Extension Brackets

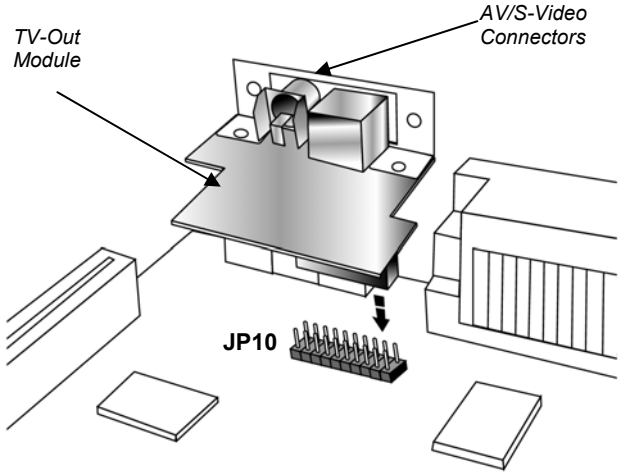
For this mainboard, you can also obtain an AV/S-Video output module and a Flash Disk module. Install the extension by following the steps below.

AV/S-Video Output Module

This module has an AV jack and a S-Video jack for the television out.

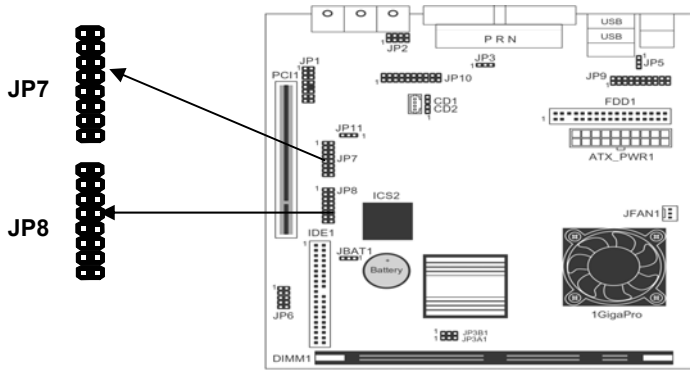


1. On the mainboard, locate the TV header **JP10** for this module.
2. Plug directly the module into the TV header.
3. In the system chassis, use the screw that holds blanking plate to secure the module.

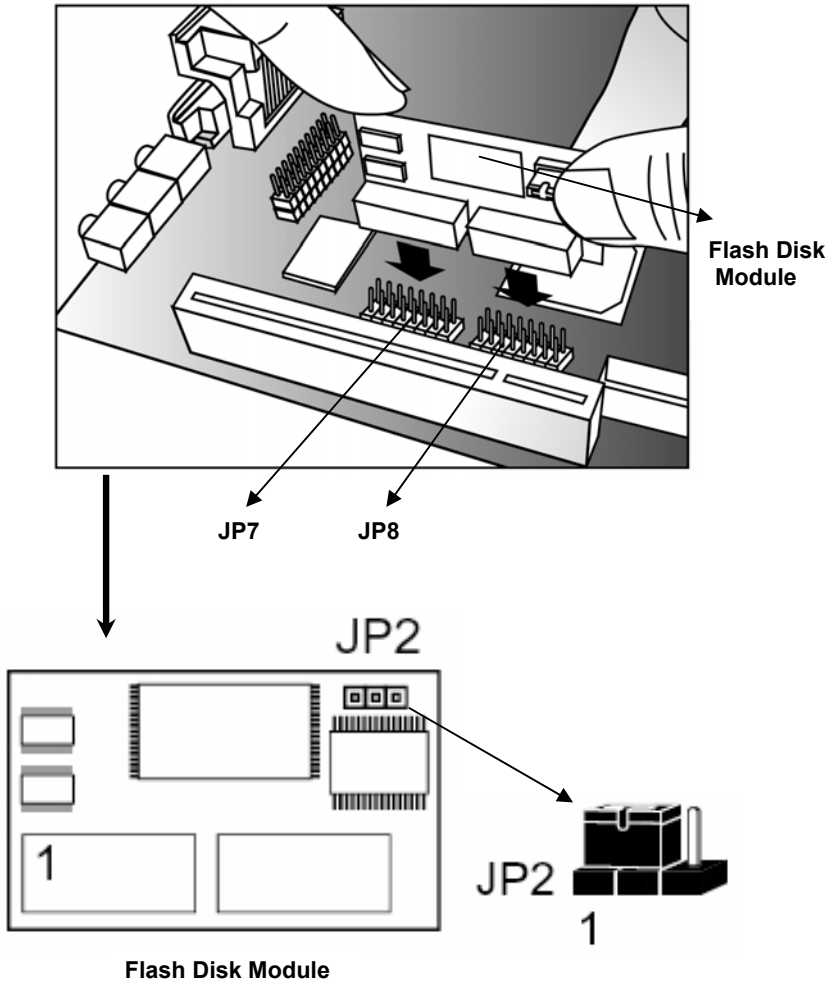


Flash Disk Module

This module provides the system with 8/16/32 MB flash disk space.



1. On the mainboard, locate the Flash Disk header **JP7** and **JP8** for this module.
2. Plug directly the module into the Flash Disk header as follows.



Flash Disk Module

Jumper JP2: Use this jumper to enable or disable the function of write protection.

Function	Jumper Setting
Disable	Short Pins 1-2
Enable	Short Pins 2-3

Chapter 3

BIOS Setup Utility

Introduction

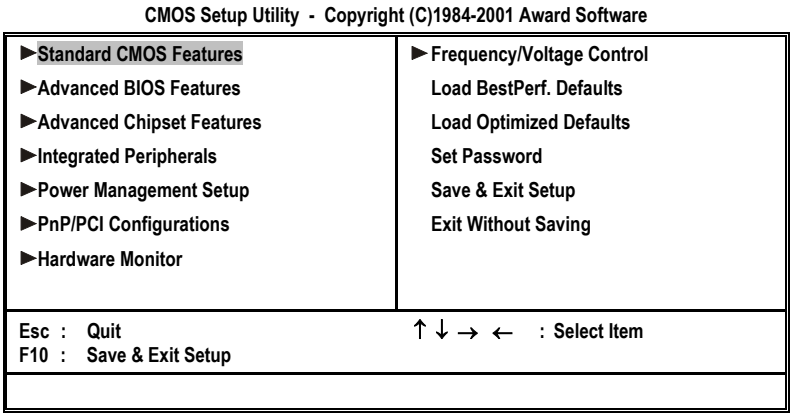
The BIOS Setup Utility records settings and information about your computer such as the date and time, the type of installed hardware, and various configuration settings. Your computer applies the information to initialize all the components when booting up, and basic functions of overall coordination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

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

You can run the setup utility and manually make changes to the configuration. You might need to do this to configure some of the hardware that you install on or connect to the mainboard, such as the CPU, system memory, disk drives, etc.

Running the Setup Utility

Every time you start your computer, a message appears on the screen before the operating system loading that prompts you to "*Hit <DEL>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.



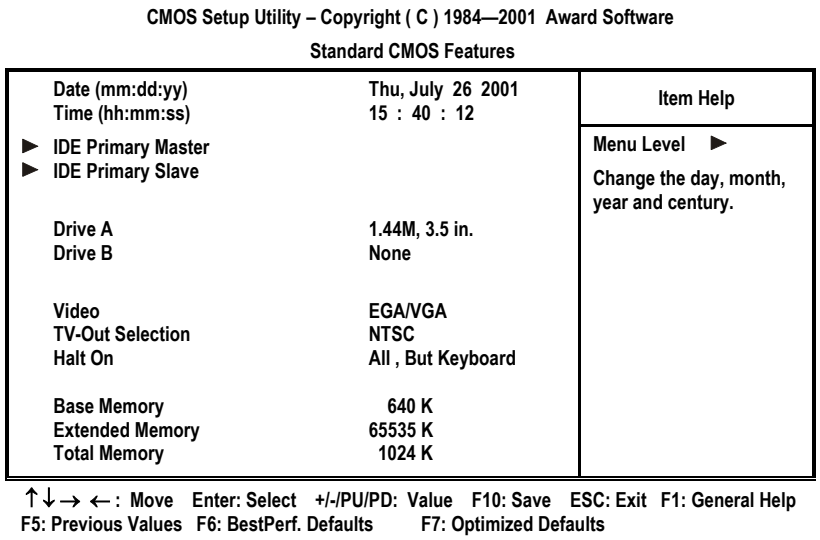
You can use the cursor arrow keys to highlight any of the options on the main menu page. Press **Enter** to select the highlighted option. To leave the setup utility, press the **Escape** key. To cycle through the Setup Utility's optional color schemes, hold down the **Shift** key and press **F2**.

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 alternative values for each item. 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.

Standard CMOS Features Page

Use this page to set basic information such as the date and time, the IDE devices, and the diskette drives.

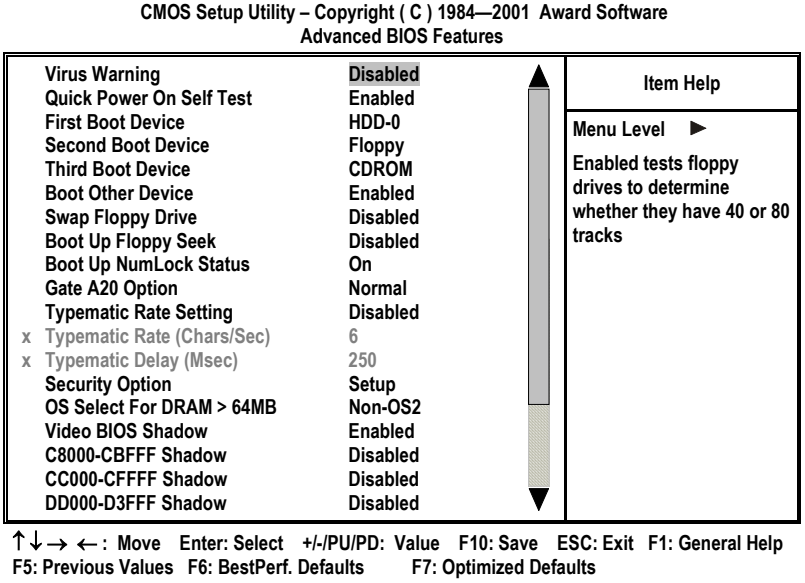


Date & Time	Use these items to set the system date and time
IDE Devices	Your computer has two IDE channels (Primary and Secondary) and each channel can be installed with one or two devices (Master and Slave). Use these items to configure each device on the IDE channel. Press **Enter** to display the IDE sub-menu. Press **Esc** to close the IDE device sub-menu and return to the Standard CMOS Features page.
Floppy Drive A **Floppy Drive B**	Use these items to set the size and capacity of the floppy diskette drive(s) installed in the system.
Video	This item defines the video mode of the system. This mainboard has a built-in VGA graphics system; you must leave this item at the default value.

TV-Out Selection	This item selects either NTSC or PAL TV-Out mode of the system.
Halt On	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/Extended/ 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 Features 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.



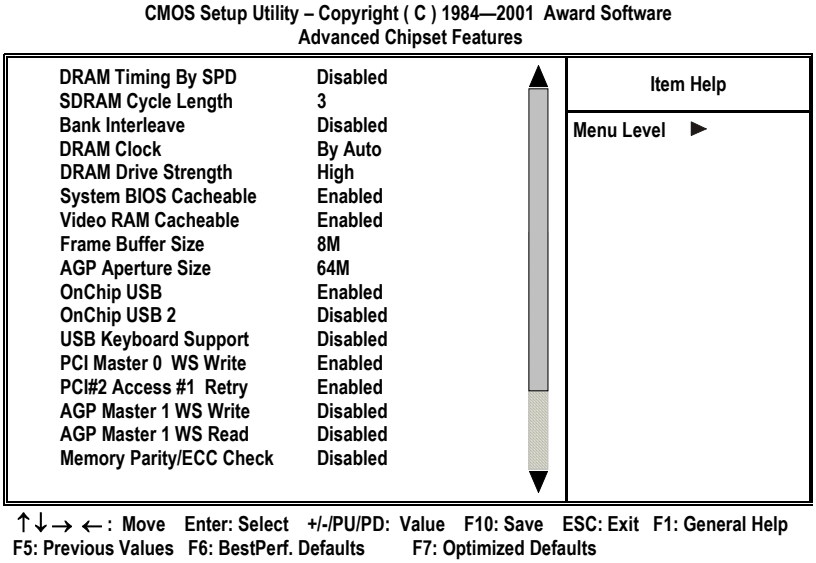
Virus Warning	This mainboard has built-in virus protection in the firmware. Use this item to enable or disable the built-in virus protection.

Quick Power On Self Test	You can enable this item to shorten the power on testing (POST) and have your system start up a little faster. You might like to enable this item after you are confident that your system hardware is operating smoothly.
1st/2nd/3rd Boot Device	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	If you enable this item, the system will search 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	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	If this item is enabled, it checks the geometry of the floppy disk drives at start-up time. You don't need to enable this item unless you have an old diskette drive with 360K capacity.
Boot Up NumLock Status	This item defines if the keyboard Num Lock key is active when your system is started.
Gate A20 Option	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.
Typematic Rate Setting	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)/ Delay (Msec)	If the item Typematic Rate Setting is enabled, you can use these items to define how many characters per second are generated by a held-down key and how many milliseconds must elapse before a held-down key begins generating repeat characters.

Security Option	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	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 Non-OS2.
Video BIOS Shadow	When enabled this item copies the VGA BIOS into system DRAM.
C8000-CBFFF to DD000-D3FFF Shadow	When enabled, the ROM with the specified address is copied into system DRAM. It will also reduce the size of memory available to the system.

Advanced Chipset Features Page

This page sets some of the parameters of the mainboard components including the memory, and the system logic.



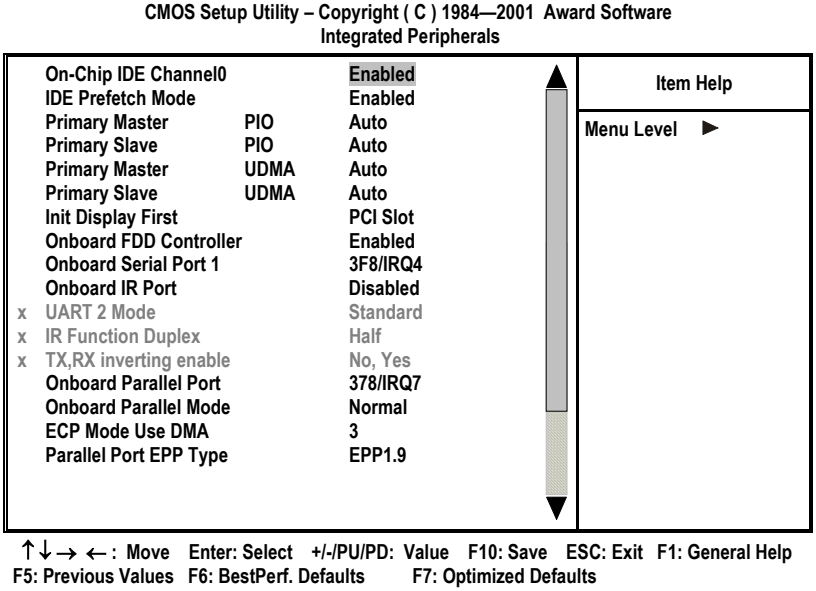
DRAM Timing By SPD	This item allows you to enable or disable the DRAM timing defined by the Serial Presence Detect electrical.
SDRAM Cycle Length	This field enables you to set the CAS latency time in HCLKs of 2/2 or 3/3. The system board designer should have set the values in this field, depending on the DRAM installed. Do not change the values in this field unless you change specifications of the installed DRAM or the installed CPU.
Bank Interleave	This item allows you to enable or disable the Bank Interleave function with 2 banks or 4 banks.
DRAM Clock	Enables the user to select the DRAM Clock.

DRAM Drive Strength	This option determines the signal strength from the mainboard for the installed DRAM.
System BIOS Cacheable	When enabled, the System BIOS will be cached for faster execution.
Video RAM Cacheable	When enabled, the graphics card's local memory will be cached for faster execution. However, if any program writes to this memory area, a system error may result.
Frame Buffer Size	This option determines the frame buffer size shared from the main memory for use by the onboard VGA display.
AGP Aperture Size	This option determines the effective size of the AGP Graphic *Aperture*, where memory-mapped graphic data structures are located.
OnChip USB	This item allows you to enable the USB port, if you have installed a USB device on the system board.
OnChip USB 2	This item allows you to enable the USB 2 port, if you have installed more USB device on the system board.
USB Keyboard Support	Enables function when the USB keyboard is being used. Disabled (default) when an AT keyboard is used.
PCI Master 0 WS Write	When enabled, writes to the PCI bus are executed with zero wait states.
PCI#2 Access #1 Retry	When enabled, the AGP Bus (PCI#1) access to PCI Bus (PCI#2) is executed with the error retry feature.
AGP Master 1 WS Write	This implements a single delay when writing to the AGP Bus. By default, two-wait states are used by the system, allowing for greater stability.
AGP Master 1 WS Read	This implements a single delay when reading to the AGP Bus. By default, two-wait states are used by the system, allowing for greater stability.

Memory Parity/ECC Check	If this item is enabled it allows the system to use parity checking and ECC (Error Correcting Code) to catch errors in the system memory. Enabling this item might have an impact on overall system performance.

Integrated Peripherals Page

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



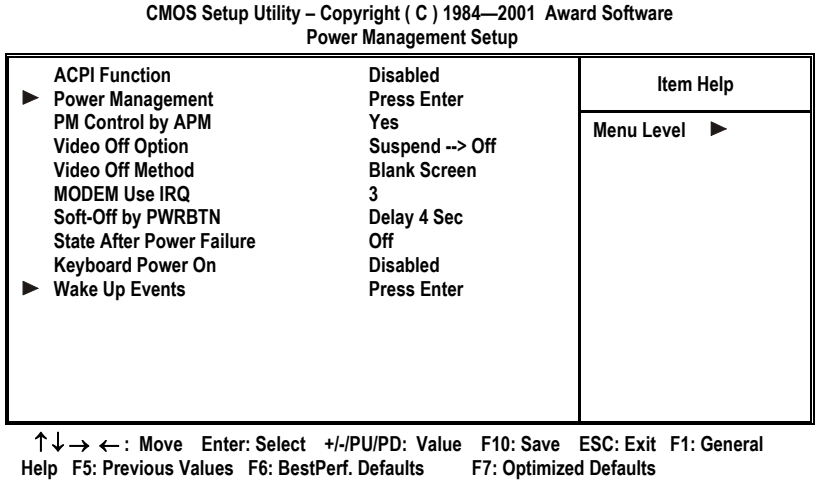
On-Chip IDE Channel 0	Use this item to enable or disable the PCI IDE channels that are integrated on the mainboard.

IDE Prefetch Mode	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.
Primary Master/ Slave PIO	Each channel supports a master device and a slave device. These items let you assign which kind of PIO (Programmed Input/Output) is used by IDE devices. You can choose Auto, to let the system auto detect which PIO mode is best, or you can install a PIO mode.
Primary Master/ Slave UDMA	Each channel supports a master device and a slave device. This motherboard supports UltraDMA and 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.
Init Display First	Use this item to define if your graphics adapter is installed in one of the PCI slots or select Onboard if you have a graphics system integrated on the mainboard.
Onboard FDD Controller	This option enables the onboard floppy disk drive controller.
Onboard Serial Port 1	This option is used to assign the I/O address for the onboard serial port.
Onboard IR Port	This option is used to assign the I/O address for the onboard IR port or disabled.
UART2 Mode	This field is available if the Onboard Serial Port 2 field is set to any option but "Disabled." UART Mode enables you to select the infrared communication protocol—Standard (default), HPSIR or ASKIR. HPSIR is Hewlett Packard's infrared communication protocol with a maximum baud rate up to 115.2 Kbps. ASKIR is Sharp's infrared communication protocol with a maximum baud rate up to 57.6 Kbps.

IR Function Duplex	This field is available when UART 2 Mode is set to either ASKIR or HPSIR. This item determines the infrared (IR) function of the onboard infrared chip. Full-duplex means that you can transmit and send information simultaneously. Half duplex is the transmission of data in both directions, but only one direction at a time.
TX, RX inverting enable	Defines the voltage level for Infrared module RxD (receive) mode and TxD (transmit) mode. This setting has to match the requirements of the infrared module used in the system.
Onboard Parallel Port	This option is used to assign the I/O address for the onboard parallel port.
Onboard Parallel Mode	This feature enables you to set the data transfer protocol for your parallel port. Normal 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	When the onboard parallel port is set to ECP mode, the parallel port has the option to use DMA “3” or DMA “1.”
Parallel Port EPP Type	This option sets the Enhanced Parallel Port (EPP) specification.

Power Management Setup Page

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

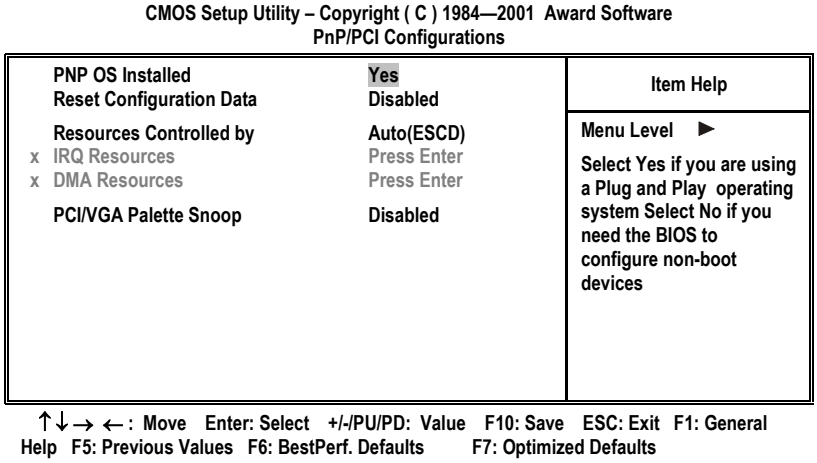


ACPI Function	Use this item to enable or disable the ACPI function.
Power Management	This item acts like a master switch for the power-saving modes and hard disk timeouts. If this item is set to Max Saving, power-saving modes occur after a short timeout. If this item is set to Min Saving, power-saving 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.
PM Control by APM	This field allows you to control the PC Monitor's power management features via Intel-Microsoft Advanced Power Management software. Once you have enabled the APM interface, some settings made in the BIOS Setup program may be overridden by APM.

Video Off Option	This option defines if the video is powered down when the system is put into suspend mode.
Video Off Method	This item defines how the video is powered down to save power.
MODEM Use IRQ	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	Under ACPI (Advanced Configuration and Power management Interface) you can create a software power down. In a software power down, Wake Up Alarms can resume the system. This item lets you install a software power down that is controlled by the normal power button on your system. If the item is set to Instant-Off, then the power button causes a software power down. If the 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 Power Failure	Use this item to set a system power state when power restores after sudden AC power loss.
Keyboard Power On	Use this item to enable or disable the keyboard power on function.
Wake Up Events	This item opens a submenu that enables you to set events that will resume the system from a power saving mode. Select Wake Up Events and press **Enter** to display the following items: VGA, LPT & COM, HDD & FDD, PCI Master, PowerOn by PCI Card, Wake Up On LAN/Ring, RTC Alarm Resume, Primary INTR, and IRQs Activity Monitoring.

PnP/PCI Configurations 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.

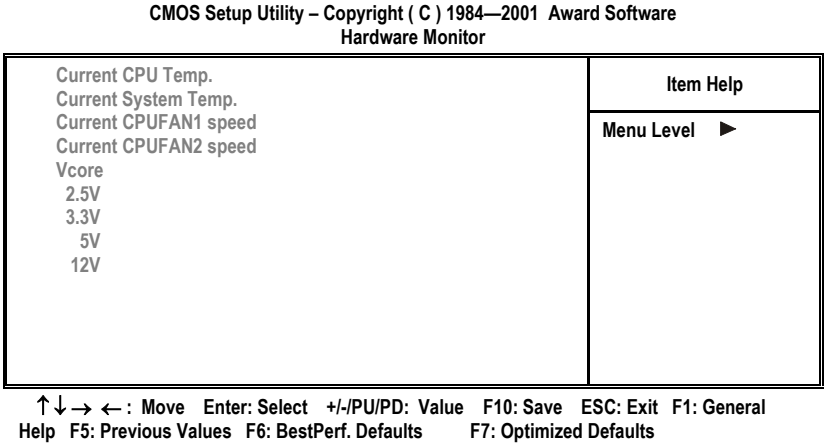


PNP OS Installed	Setting this option to "Yes" allows the PnP OS (instead of BIOS) to assign the system resources such as IRQ and I/O address to the ISA PnP device.
Reset Configuration Data	If you enable this item and restart the system, any PnP configuration data stored in the BIOS setup is cleared from memory. New updated data is created.

Resources Controlled By IRQ Resources/ DMA Resources	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.
PCI/VGA Palette Snoop	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.

Hardware Monitor Page

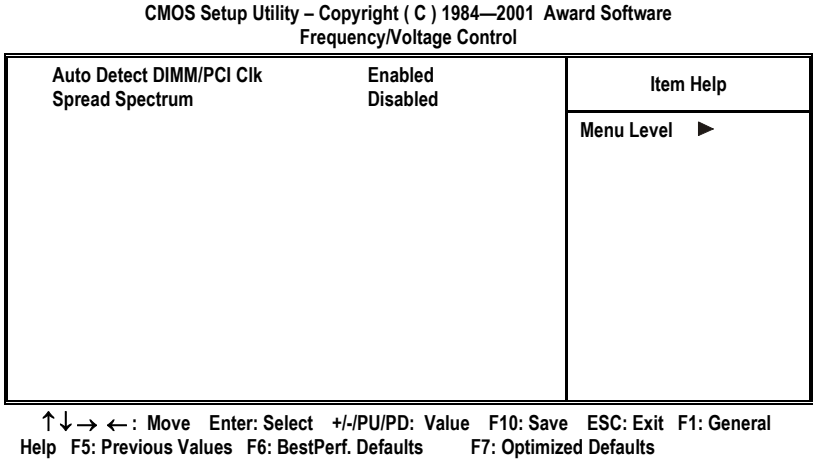
This page sets some of the parameters for the hardware monitoring function of this mainboard.



System Component Characteristics	These fields provide you with information about the systems current operating status. You cannot make changes to these fields. The following information is displayed: CPU Temperature System Temperature CPU FAN (in RPMs) System FAN (in RPMs) Vcore (CPU Core voltage) 2.5V (onboard 2.5 volt) 3.3V (onboard 3.3 volt) 5V (power supply's 5 volt) 12V (power supply's 12 volt).

Frequency/Voltage Control Page

This page sets some of the parameters for frequency and voltage control.



Auto Detect DIMM/PCI Clk	When this item is enabled, BIOS will disabled the clock signal of free DIMM and PCI slots.
Spread Spectrum	Use this item to set the system bus spread spectrum for the installed processor.

Load BestPerf. Defaults

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 best-performance default values. These defaults are quite demanding and your system might not function properly if you are using slower memory chips or other low-performance components.

Load Optimized Defaults

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.

Set Password

If you highlight this item and press **Enter**, a dialog box appears which lets you enter a password. You can enter no more than eight 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.

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.

Save & Exit Setup

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.

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 program. When the Exit Without Saving dialog box appears, press **Y** to discard changes and exit, or press **N** to return to the setup main menu.

Chapter 4

Software & Applications

Introduction

The support software CD-ROM that is included in the mainboard package contains all the drivers and utility programs needed to properly run our products. Below you can find a brief description of each software program, and the location for your mainboard version. More information on some programs is available in a README file, located in the same directory as the software.
If the operating system used in your system is Windows 98, it will automatically install all the drivers and utilities for your board. See the Auto-Installing under Windows 98 section.

Installing Support Software

The software on the support CD-ROM is for Windows 95/NT/2000 and Windows 98. The installation procedure differs depending on which Operating System you have, but the automatic installation is now for Win98 only.

Installing under Windows 95/NT/2000

To install support software for Windows 95/NT/2000 follow this general procedure:

1. Insert the support CD-ROM disc in the CD-ROM drive.

(The system might get an error message from the PnP function. Don't care the message. You don't really need that file to install the drivers)

2. Use My Computer or Windows Explorer to look at the directory structure. You must use the Open command in the right-button menu. Double-clicking on the drive icon will result in an error message because the disc's AutoRun feature doesn't work in Windows 95/NT/2000.
3. Execute the EXE file name given in the description below.

*Note: The correct path name for each software driver is provided, where **D:** identifies the CD-ROM drive letter – modify if necessary.*

Bus Master IDE Driver

The IDE Bus Master Drivers allows the system to properly manage the IDE channels on the mainboard. You need to install the driver if you are running Windows 9x.

- Windows 9x – D:\IDE\EVEm\

Display Drivers and Software

Find the Display drivers and software here:

- D:\VGA\ EVEm\

Audio Driver

The Audio driver allows the system to use the onboard audio circuitry. Find the driver and audio application here:

- D:\SOUND\ EVEm\

FAX/ Modem Driver

Find the driver here:

- D:\Modem\Driver\ EVEm\

USB Driver

The USB Driver allows the system to recognize the USB ports on the mainboard. You need to install this driver if you are running Windows 95. Windows 95 OSR2 does not require this driver. This driver is available for:

- Win95 – D:\USB\EUSBSUPP\USBSUPP.EXE
- Win95 (Chinese) – D:\USB\CUSBSUPP\CUSBSUPP.EXE

3Deep Software

Find the software here:

- D:\3Deep\3Deep 3.3\Setup.EXE

BIOS Update Utility

The BIOS Update utility allows you to update the BIOS file on the mainboard to a newer version. You can download the latest version of the BIOS setup available for your mainboard from the website.

- D:\UTILITY\AWDFLxxx.EXE

Network Adapter Driver

Find the network interface driver here:

- D:\LAN\RealTek\

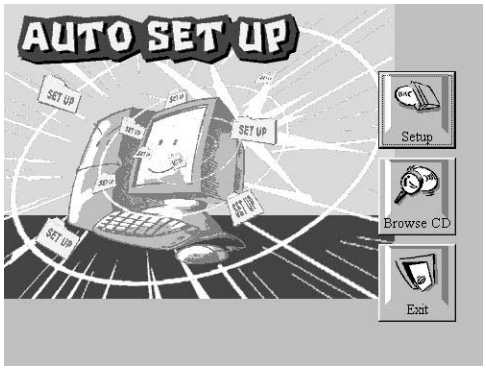
PC-Cillin Software

The PC-cillin software program provides anti-virus protection for your system. Find the software here:

- D:\PC-CILLIN\

Auto-installing under Windows 98

The support software CD-ROM disc loads automatically under Windows 98. When you insert the CD-ROM disc in the system CD-ROM drive the Autorun feature will automatically bring up the



install screen. The screen has three buttons on it, Setup, Browse CD and Exit. See the following screen illustration.

When you click on the **Setup** button the software installation program will run and you can select what kind of installation you want to do, as explained later in this section.

The **Browse CD** button is the standard Windows command that allows you to examine the contents of the disc using the Windows 98 file browsing interface.

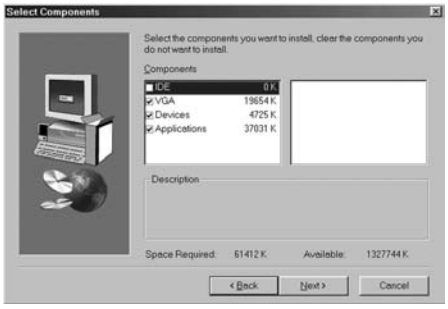
The **Exit** button closes the Auto Setup window. To run the program again, reinsert the CD-ROM disc in the drive or click on AutoRun in the context sensitive menu for the CD-ROM drive icon in a file browser window.

Installing Software with Auto Setup

To install support software for the system board follow this procedure:

1. Click on the **Setup** button. The install program will load and display 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 will need to follow the onscreen instructions, confirm commands and allow the computer to restart as few times as is needed to complete installing whatever software you selected to install. When the process is finished, all the support software will be installed and working.

There are some utilities that you have to manually install if you need, check to the above section.