



USER'S

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Excellent quality and faster response.**

MANUAL

**Supporting Intel Celeron®, Pentium III®, Socket 370 Processors,
UDMA33/66, 100MHz System Memory Bus.**

Integrated VGA Display Controller

Quality, Performance Mainboards

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Overview

Thank You for purchasing our High Performance Mainboard. Our advanced technology mainboard is designed for processing speeds of 66/100/133MHz FSB Processors.

The Intel Mainboard Utilizes Intel FW82810E and FW82801AA chipset provide an Integrated Bus Mastering IDE controller with two high performance IDE interfaces for up to four UDMA IDE devices (hard drives, or CD-ROM's). It's I/O controller integrates floppy drive interface, two FIFO serial ports, one parallel port and Consumer Infra Red compatible interface.

Intel FW82810E Chipset supports Intel Celeron®, Pentium III® Coppermine Processors on Socket 370 with 66/100/133MHz Processor Front-side Bus. Support 100MHz System Memory Bus.

Two DIMM slots support up to 512 MB Memory Capacity. Two USB ports support USB Devices.

Integrated AC97 2.1 Compliant Codec with 3D Stereo enhancement (optional). Award 2M or 4M bit BIOS, PC99/ACPI/DMI Compliant.

Integrated Onboard VGA

Micro ATX 245 x 170mm.

Fast Start Installation

This section will aid you in quickly setting up the Mainboard. Be sure to take caution to avoid personal injury or damage to wiring due to sharp pins on connectors, printed circuit assemblies, rough edges and corners and hot components.

Your Location Requirements are:

- A sturdy, level surface for placement
- Space allowance around mainboard
- A stable environment with no abrupt temperature or humidity changes
- No exposure to chemicals or direct sunlight
- Line voltage and frequency not varying more than + or -10% from the value stated on the package or nameplate (located on the back, opposite the power plug)

Checking The Package Contents

Remove the items from the box and make sure you have the following items before beginning. If any of the items below are missing, please contact the representative for part replacement.

Micro ATX Box Standard Package

- 1) Mainboard
- 2) Driver CD with Norton AntiVirus 2001 OEM Version
- 3) User Manual
- 4) IDE Hard Drive Ribbon Cable (ATA66)
Floppy Drive Ribbon Cable
- 5) COM Cable

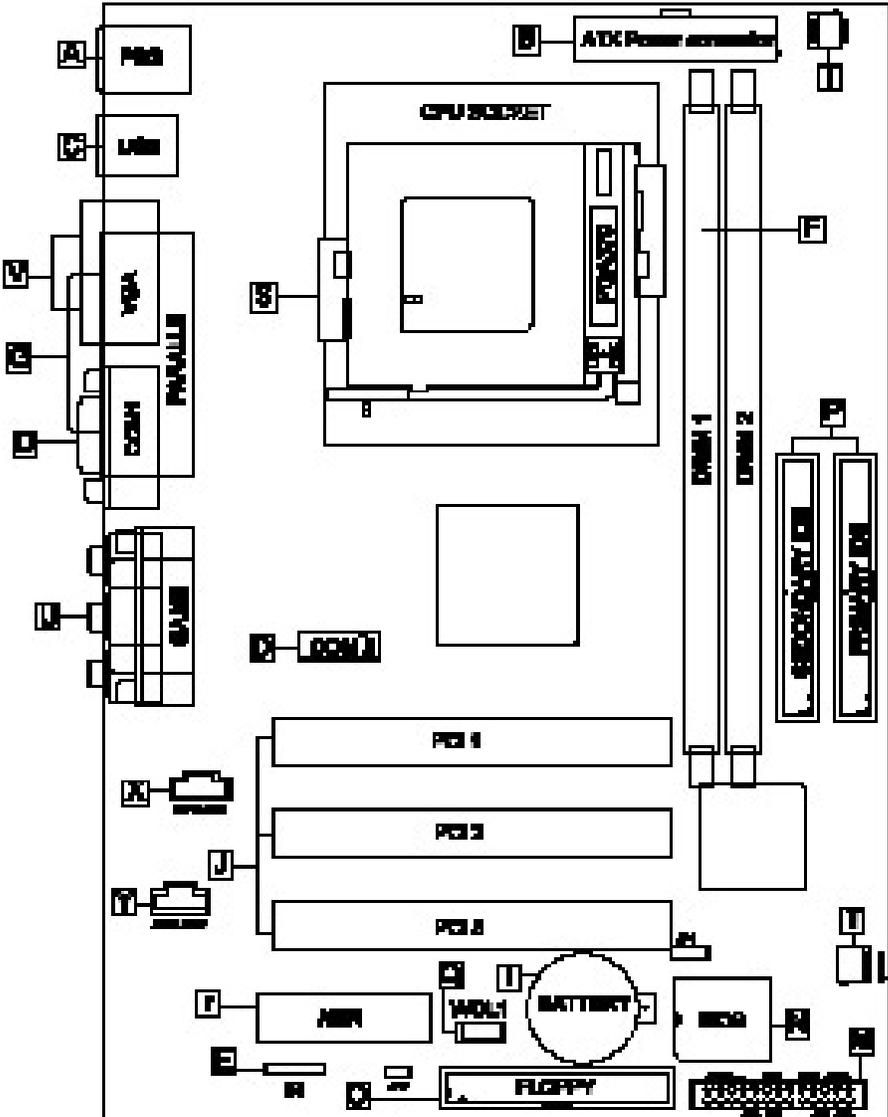
Before we begin installing your series Mainboard, we have provided you with a diagram of the Mainboard to help you locate the appropriate "connectors". The letters below describe the key Mainboard components. Page number in the right hand column will direct you to detailed description of the component.

P810E

Onboard

COMPONENT	PAGE
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B- ATX Power Supply Connector	41
C- Universal Serial Bus (USB) Connector	42
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V- VGA Connector	46
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Mainboard Diagram



Installation

Clear CMOS

Set the Jumper JP1 to [2-3] to clear CMOS.

Remember: Please set it back to normal [1-2] after clear CMOS.

AC97 CODEC

Short JP9 to Disable on board AC97 CODEC. Open JP9 Enable on board AC97 CODEC.

Frequency Selection

This mainboard can auto detect the CPU front side bus or use BIOS to change the CPU clock.

7 Quick Steps

Please follow these steps in order to assure that your series of Mainboard installation is successful. Please refer to the back chapters for further information regarding boot-up and configurations. An anti-static wrist band is recommended when handling electronic components, be sure your work area is static free before you begin this section.

1 Installing the Central Processing Unit

The Mainboard provides a 370 pins, CPU Socket. The CPU should have a fan attached to prevent overheating. If a fan is not present, user should purchase a fan prior to turning on the system. The recommended heatsinks for the Socket 370 processor are those with three-pin fans that can be connected to the fan connectors on the mainboard. It provides the +12 Volts DC for your CPU cooling fan.





CAUTION! Be sure that sufficient air circulation must be available across the processor's heatsink. Without sufficient circulation, the processor could overheat and damage both the processor and the mainboard. You may install an auxiliary fan if necessary.

2 Installing the Memory

Memory is installed in DIMM Sockets 1-2 (F in diagram) as follows :



After you have set the DIMM firmly into its socket, snap the white clip holders up to lock in the DIMM.

3

ATX Power Connector (20-pin ATXPWR)

The single 20-pin connector (B in diagram) incorporates standard +/-5V and +/-12V, with a standby 5V. With a power supply that supports remote power on/off, the mainboard can turn off the system power through the software control, such as the shutdown in Windows 95 / Windows 98 / Windows 2000 Start Menu. The BIOS system will turn the system power off when it receives the proper APM command from the OS. APM must be enabled in the BIOS and OS systems in order for the soft-off feature to work properly.



ATX Power Connector

4

Floppy Disk Drive Connector (34-pin FLOPPY).

This is a 34-pin connector that supports the provided floppy drive ribbon cable. After connecting the single end to the on-board “FLOPPY” connector, (O in diagram) connect the remaining plugs on the other end to the corresponding floppy drives.



Floppy connection



IDE connection

5

IDE Connector.

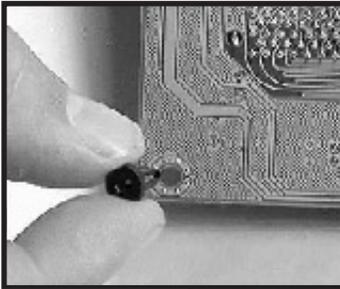
The on-board IDE connectors (P in diagram) support the provided 40/80-pin IDE hard disk ribbon cable. After connecting the single end to the mainboard, connect the remaining plugs at the other end of your hard disk(s). If you install hard disks, you must configure the drives to Master or Slave by setting the corresponding jumpers according to the documentation of your harddisk.

Also, you may connect the hard disk drives so that both become Masters, using one ribbon cable on the primary IDE-connector, and the other on the secondary IDE connector.

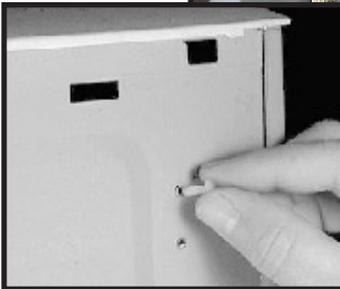
NOTE: For the flat ribbon cable connection, please make sure that the pin 1 of the ribbon cable (the red wire side of the cable) is correctly connected to the on-board connector's pin 1 as shown on the "mainboard diagram".

Installing the mainboard into your computer chassis

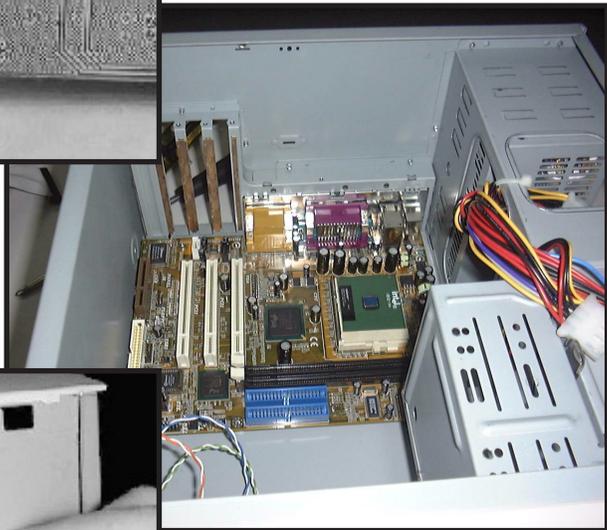
Snap black mounting pins onto the mainboard as shown. Carefully install the mainboard into the computer chassis and align the corresponding mounting holes on the mainboard with the holes on your chassis. While chassis design varies you may need to refer to the chassis manual for the mainboard mounting area. Insert white pins through the chassis and through the mounting holes on the mainboard into the black pin making sure they are snapped fully into place.



Black mounting pin



Insert White mounting pin



Insert into chassis

7

Installing PCI Add-on Boards

First read your expansion card documentation for hardware and software settings that may be required to set up your specific card. Set any necessary jumpers on your expansion card and remove the cover plate on your computer case at the slot you intend to use. Keep the plate for possible future use. Carefully align the card's connector (J in diagram) and press firmly. Secure the card on the slot with the screw you removed from the cover plate.



PCI Board Installation

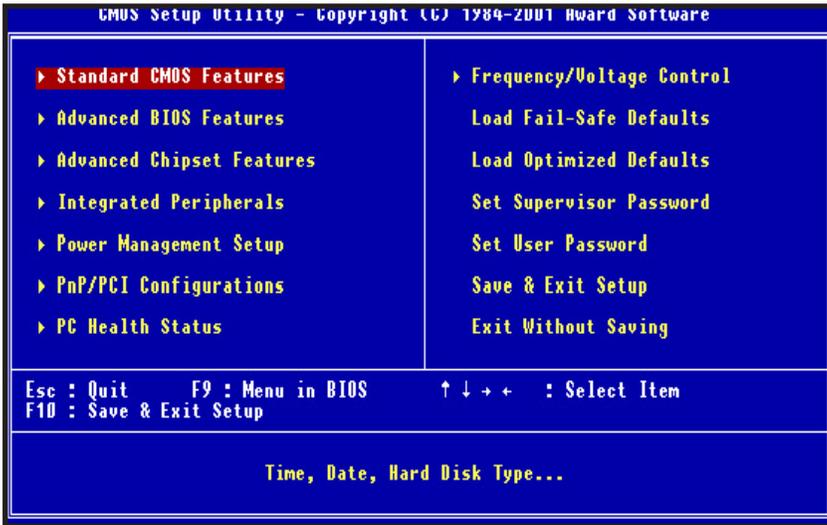
BIOS Setup

BIOS Setup is a program that allows you to configure the BIOS settings for your system. The BIOS settings are stored in a non-volatile memory (NVRAM) and are used by the BIOS to initialize the hardware and load the operating system.

The BIOS Setup program is typically accessed by pressing a key (usually **Del** or **F2**) during the system boot process. The BIOS Setup program displays a menu of options that you can use to configure the BIOS settings.

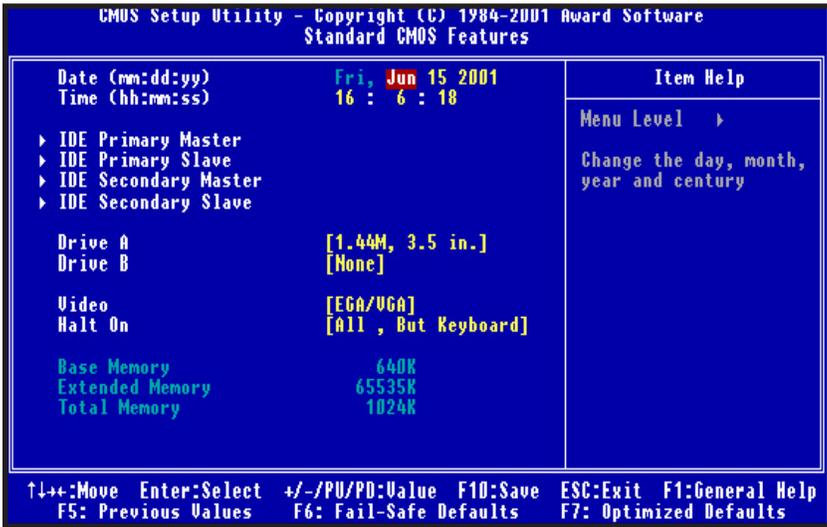
The BIOS Setup program is a powerful tool that allows you to customize your system to your needs. It is important to understand the BIOS settings and how to use the BIOS Setup program to avoid any system configuration problems.

For more information on BIOS Setup, please refer to the BIOS Setup manual that came with your system. The BIOS Setup manual contains detailed information on the BIOS settings and how to use the BIOS Setup program.



Award BIOS Setup

Standard CMOS Features	Sets time, date, hard disk type, types of floppy drive. Monitor type, and if keyboard is installed.
Advanced BIOS Features	Sets Typematic Rate and Delay, Above 1 MB Memory Test, Memory Test Tick Sound, Hit Message Display, System Boot Up Sequence, and many others.
Advanced Chipset Features	Sets chipset - specific options and features
Integrated Peripherals	Controls I/O Controller - related features
Power Management Setup	Controls power savings options
PnP/PCI Configurations	Sets options related to PCI bus and Plug and Play options.
PC Health Status	Display CPU or System Temperature, Fan Speed.
Frequency/Voltage Control	Control CPU's Clock
Load Fail-Safe Defaults	Load Fail-Safe Defaults
Load Optimized Defaults	Load Optimized Defaults
Set Supervisor Password	Change/Set/Disabled Password
Set User Password	Change/Set/Disabled Password
Save & Exit Setup	Save Data to CMOS
Exit Without Saving	Abandon all Saving



Standard CMOS Features

Select the BIOS Setup options by choosing Standard CMOS Features from the BIOS. Standard Setup options are described below.

Date (mm:dd:yy) - Setting for the system Date

Time (hh:mm:ss) - Setting for the system Time

IDE Primary Master

IDE Primary Slave

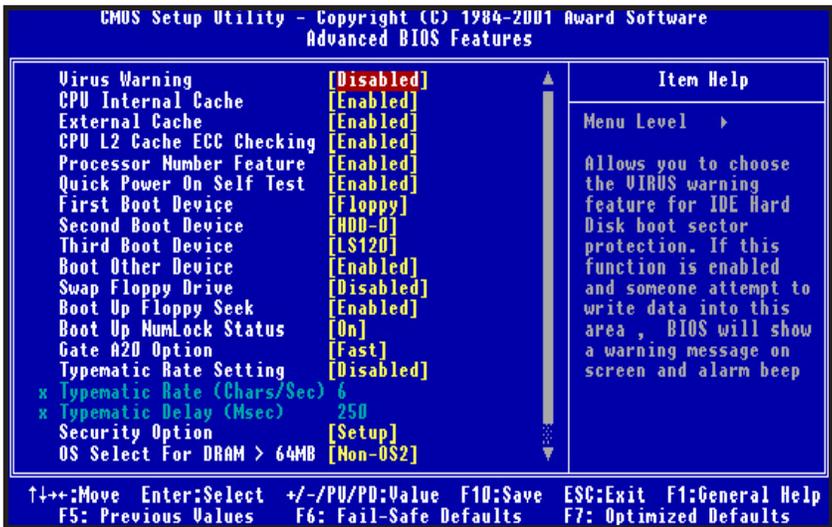
IDE Secondary Master

IDE Secondary Slave

Select these options to configure the drive named in the option. The BIOS automatically configure the drive. A screen with a list of drive parameters appears.

Floppy Drive A: and B:

Move the cursor to these fields and select the floppy type. The setting are 360 KB 5 1/4 inch, 1.2 MB 5 1/4 inch, 720 KB 3 1/2 inch, 1.44MB 3 1/2 inch or 2.88 MB 3 1/2 inch.



Advanced BIOS Features

Virus Warning

You can "Enable" or "Disable" this feature. When enabled, BIOS will activate automatically if anything attempt to access the boot sector or hard disk partition table during system boot-up. The default value is "Disabled".

CPU Internal Cache

This category enables or disables the CPU internal cache (L1) to speed up memory access. The default value is "Enabled".

External Cache

This category enables or disables the CPU secondary level (L2) cache to speed up memory access. The default value is "Enabled".

CPU L2 Cache ECC Checking

This category enables or disables the CPU L2 cache ECC Checking procedure. The default value is "Enabled".

Processor Number Feature

Set this option to "Enabled" to display the CPU Serial number. The settings are Enabled or Disabled. The Optimal and Fail-Safe default settings are Enabled.

Quick Power On Self Test

This category speeds up Power On Self Test (POST) after you power on the computer. If it is set to "Enabled", BIOS will shorten or skip some check items during POST. The default value is "Enabled".

First / Second / Third Boot Device

This feature allows you to select the system first boot device. The options are Floppy, LS120, HDD-0, SCSI, CD-ROM, HDD-1, HDD-2, HDD-3, ZIP100, LAN, Disabled.

Boot Other Device

This feature allows you to select other boot device automatically.

Swap Floppy Drive

This feature allows you to enable the system swap floppy function, the default is "Disabled". When this function enables, the system will assign the Drive A as Drive B, and vice versa.

Boot Up Floppy Seek

This default setting is "Enabled", so that the BIOS will search for floppy disk drive during boot up. If disabled, BIOS will not search for the type of floppy disk drive by track number. Note that there will be no warning message if the drive installed is 360K.

Boot Up NumLock Status

It determines the Num-Lock LED on keyboard is turned on/off. When the system is powered on so that the end user can use the arrow keys on both the numeric keypad and the keyboard. The default value is "On".

Gate A20 Option

This entry allows you to enable the A20 address line access. The default is "FAST".

Typematic Rate Setting

Typematic Rate sets the rate at which characters on the screen repeat. The default setting is "Disabled".

Typematic Rate (Chars/Sec)

Typematic rate sets the rate at which characters on the screen repeat when a key is pressed and held down. You can select 6-30 characters per second. The default setting is "6".

Typematic Delay (Msec)

When holding down a key, the time between the first and second character display, this option specifies the numbers of times of character repeat on the screen. The default setting is "250".

Security Option

This option limits the access to the system and Setup or just to Setup. When you select "System", the system will not boot and access to CMOS Setup. A correct password must be entered at the prompt. The default setting is "Setup".

OS Select For DRAM > 64MB

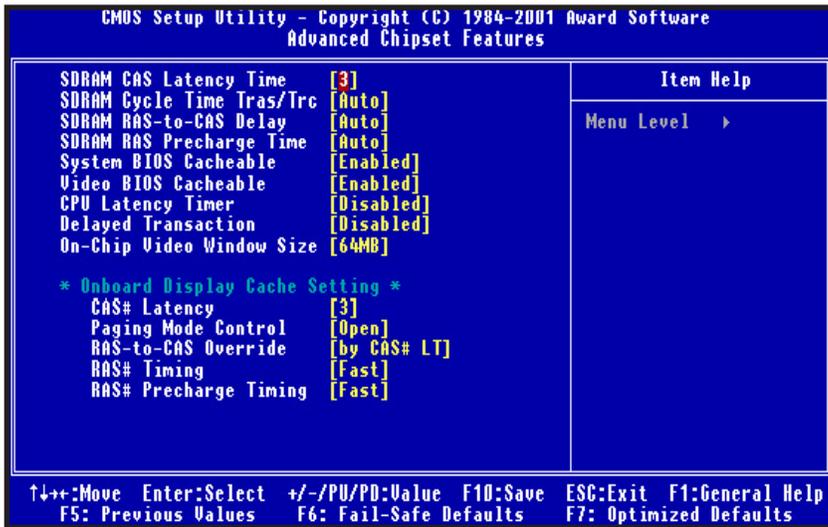
Some of the OS/2 application access the memory in different mode. Enable this option to allow the system use another mode to access the main memory for OS/2 applications.

Report No FDD For Win95

When setting this option to "YES", system can release the IRQ for other peripherals. This option should be "No", when the floppy driver is installed in the system.

Small Logo(EPA) show

You can "Enable" or "disable" this feature. When enabled, it appears a yellow Logo on the right corner. The default setting is "Enable".



Advanced Chipset Features

Choose Chipset Features Setup on the Setup main menu. All Chipset Setup options are then displayed.

SDRAM CAS Latency Time

This field sets CAS Latency timing,

The choices: 2,3.

SDRAM Cycle Time Tras/Trc

This option specifies the length of the SDRAM Tras/Trc Cycle Time. The settings are 5/7, 6/8 or Auto. The Optimal and Fail-Safe default setting is AUTO.

SDRAM RAS-to-CAS Delay

This field sets the RAS to CAS Delay timing.

The choices : 2, 3, Auto.

SDRAM RAS Precharge Time

This field sets the RAS Precharge timing.

The choices : 2, 3, Auto.

System BIOS Cacheable

Select "Enabled" allows caching of the System BIOS, resulting in better system performance.

The choices : Enabled, Disabled.

Video BIOS Cacheable

Select "Enabled" allows caching of the video BIOS, resulting in better system performance. However, if any program writes to this memory area, a system error may result.

CPU Latency Timer

This option specifies the latency for the Timer. The settings are Disabled or Enabled. The Optimal and Fail-Safe default settings are "Disabled".

Delayed Transaction

This option specifies the ICH Delay Transaction settings. The settings are Disabled or Enabled. The Optimal default setting is Enabled. The Fail-Safe default setting is Disabled.

On-Chip Video Window Size

This option specifies the Display Windows Size. The settings are 64MB or Disabled. The Optimal and Fail-Safe default settings are 64MB.



Integrated Peripherals

On-Chip Primary / Secondary PCI IDE

The chipset contains a PCI IDE interface with support for two IDE channels. Select "Enabled" to activate the primary IDE interface. Select "Disabled" to deactivate this interface. The choices : Enabled, Disabled.

IDE Primary / Secondary Master / Slave PIO

The four IDE PIO (Programmed Input / Output) fields let you set a PIO mode (0-4) for each of the four IDE devices that the onboard IDE interface supports. Modes 0 through 4 provide successively increased performance. In Auto mode, the system automatically determines the best mode for each device.

IDE Primary / Secondary Master / Slave UDMA

Ultra DMA33 implementation is possible only if your IDE hard drive supports it and the operating environment includes a DMA driver (Windows 95 OSR3 or a third-party IDE bus master driver). If your hard drive and your system software both support Ultra DMA33/DMA66, select Auto to enable BIOS support.

The choices : Auto, Disabled.

USB Controller

This should be enabled if your system has a USB installed on the system board and you want to use it. Even when so equipped, if you add a higher performance controller, you will need to disable this feature.

USB Keyboard Support

This option is enabled to support USB Keyboard.

Init Display First

This item allows you to decide to active PCI Slot or AGP first.

The choices : PCI Slot, Onboard.

AC97 Audio

This option allows you to control the onboard AC97 audio.

The choices : Auto, Disabled.

AC97 Modem

This option allows you to control the onboard AC97 Modem.

The choices : Auto, Disabled.

IDE HDD Block Mode

This item allows your hard disk controller to use the fast block mode to transfer data to and from your hard disk drive (HDD).

Enabled IDE controller uses block mode.

Disabled IDE controller uses standard mode.

Power On Function

Specifies the keyboard hot key, mouse button, power button to wakeup the computer from S₃-S₅ state. Available options are Button only: Password, Hot key, Mouse left, Mouse right, Any key, keyboard 98. Default setting is Button only.

KB Power On Password

Sets Keyboard Power on Password.

Hot Key Power On

Sets power on Hot key. Default setting is "Ctrl-F1".

Onboard FDC Controller

This should be enabled if your system has a floppy disk drive (FDD) installed on the system board and you wish to use it. Even when so equipped, if you add a higher performance controller, you will need to disable this feature.

The choices : Enabled, Disabled.

Onboard Serial Port 1 / Port 2

This item allows you to determine access onboard serial port 1 / port 2 controller with which I/O address.

The choices : 3F8/IRQ4, 2F8/IRQ3, 3E8/IRQ4, 2E8/IRQ3, Disabled, Auto.

UART Mode Select

This option specifies the mode of UART.

The choices : Normal, IrDA, ASKIR.

RxD, TxD Active

This option provides Hi,Hi; Hi,Lo (Default); L0,Hi; Lo,Lo.

IR Transmission Delay

This option specifies the type of transmission used by the infrared devices attached to serial port 3. This option only appears if the Onboard Serial Port2 option is not set to Auto or Disabled. The settings are Disabled or Enabled. The default settings are Enabled.

UR2 Duplex Mode

This option provides the mode in Full or Half duplex mode.

Use IR Pins

This option provides RxD2, TxD2; IR-Rx2Tx2. (Default)

Onboard Parallel Port

This option specifies the base I/O port address of the parallel port on the mainboard. The settings are Disabled, 378/IRQ7, 278/IRQ5, or 3BC/IRQ7. The Optimal default setting is "378/IRQ7".

Parallel Port Mode

This option specifies the parallel port mode. The Optimal and Fail-Safe default setting are SPP. The settings are SPP, EPP, ECP, ECP+EPP.

EPP Mode Select

This option specifies the Enhanced Parallel Port specification version number that is used in the system. This option only appears if the Parallel Port Mode option is set to EPP.

ECP Mode Use DMA

Select a DMA channel for the port. Choices are 3, 1.

PWRON After PWR-Fail

Resume the system to power on status after power fail.

Options : On, Off or Former-Sts.

Game Port Address

The settings are Disable, 201, 209.

Midi Port Address

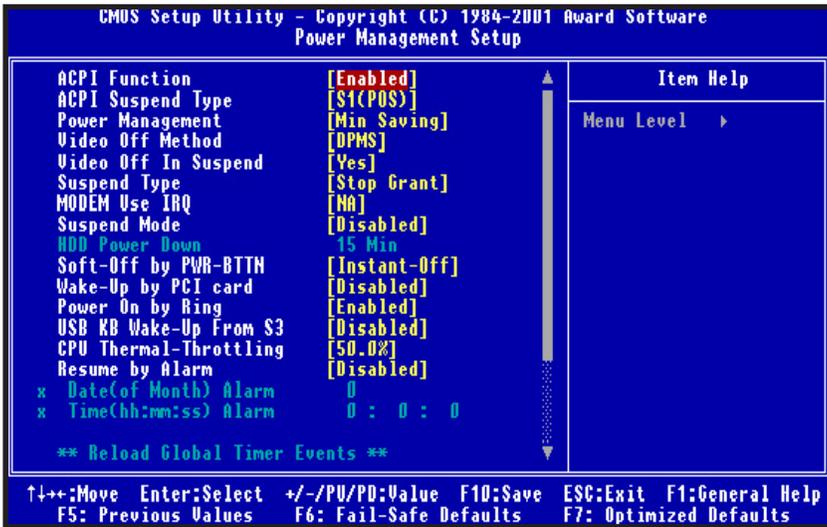
Select the Midi Port address.

Options : Disabled, 290, 300 & 330.

Midi Port IRQ

Select the Midi Port IRQ.

Options : 5 and 10.



Power Management Setup

ACPI Function

Enabled/disabled ACPI function. Default setting is "Enabled".

ACPI Suspend Type

Specifies ACPI Suspend type. Default setting is "S1(POS)".

Power Management

This option enables the chipset power management and APM (Advanced Power Management) features. The settings are User Define, Min Saving or Max Saving.

Video Off Method

This determines the manner in which the monitor is blanked.

V/H SYNC+Blank

This selection will cause the system to turn off the vertical and horizontal synchronization ports and write blanks to the video buffer.

Blank Screen	This option only writes blanks to the video buffer.
DPMS	Select this option if your monitor supports the Display Power Management Signaling (DPMS) standard of the Video Electronics Standards to select video power management values.

Video Off In Suspend

When enabled, this feature allows the VGA adapter to operate in a power saving mode. Options : Yes, No.

Suspend Type

This determines the suspend type.

Options : Stop Grant, and Pwr On Suspend.

MODEM Use IRQ

This determines the IRQ in which the MODEM can use.

The choices : 3, 4, 5, 7, 9, 10, 11, NA.

Suspend Mode

This option specifies the length of a period of system inactivity while in Full power on state. When this length of time expires, the computer enters Standby power state. The settings are Disabled, 1 min, 2 min, 4 min, up to 1 hour. The Optimized default settings are Disabled.

HDD Power Down

This option specifies the length of a period of hard disk drive inactivity. When this length of time expires, the computer enters power-conserving state specified in the Hard Disk Power Down Mode Option. The settings are Disabled, 1 min, 2 min, 3 min, 4 min, 5 min, 6 min, 7 min, 8,min, 9 min, 10 min, 11 min, 12 min, 13 min, 14 min, 15 min. The Optimal and Fail-Safe default settings are "Disabled"

Soft-Off by PWR-BTTN

Pressing the power button for more than 4 seconds forces the system to enter the Soft-OFF state when the system "hang". The choice : Delay. 4 Sec, Instant-Off.

Wake-Up by PCI card

When Enabled this option, any activity from one of the listed system peripheral devices wakes up the system.

Power On by Ring

An input signal on the serial Ring Indicator (RI) line (an incoming call from the modem) awakens the system from a soft-off state.

USB KB Wake-Up From S₃

Enable/Disable USB KB Wake-Up from S₃, Default setting is "Disable".

CPU Thermal-Throttling

This option specifies the throttle slow clock ratio. The settings are 87.5%, 75.0%, 62.5% 50.0%, 37.5%, 25.0%, 12.5%. The Optimal default settings is 50.0%.Fail-Safe default setting is 87.5%.

Resume by Alarm

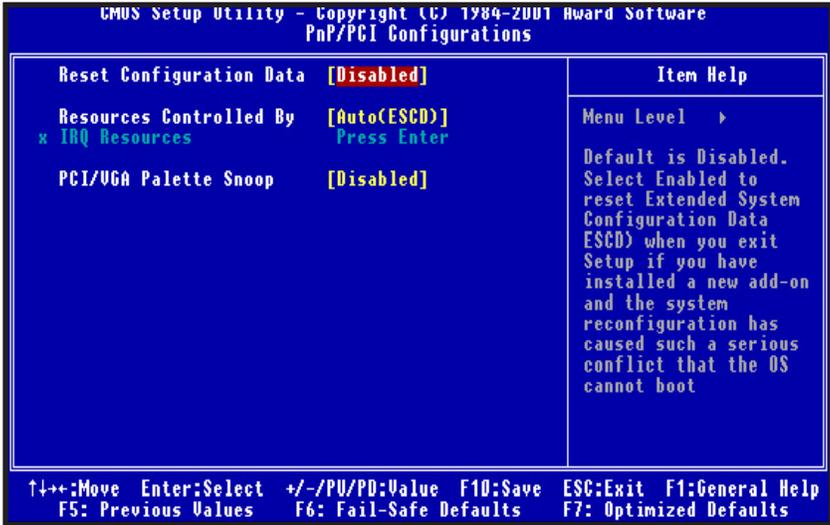
When Enabled, you can set the date and time at which the RTC (real-time clock) alarm awakens the system from Suspend mode.

Primary IDE 0/1 options : enabled, disabled

Secondary IDE 0/1 options : enabled, disabled

FDD, COM, LPT Port options : enabled, disabled

PCI PIRQ [A-D] # options : enabled, disabled



PnP/PCI Configurations

Reset Configuration Data

Normally, you leave this field 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 operating system cannot boot. The choices : Disabled, Enabled.

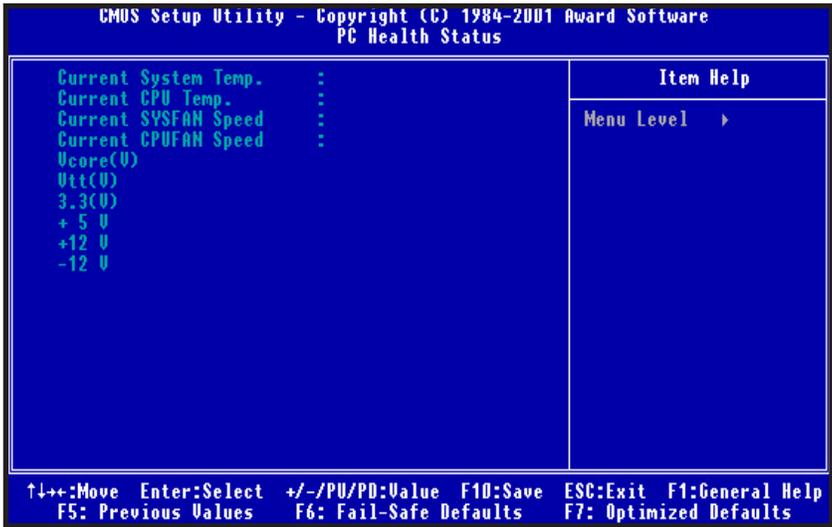
Resources Controlled By

The Award Plug and Play BIOS has the capacity to automatically configure all of the boot and Plug and Play compatible devices. However, this capability means absolutely nothing unless you are using a Plug and Play operating system such as Windows98. The choices : Auto (ESCD), Manual.

PCI / VGA Palette Snoop

Leave this field at Disabled.

Choices are Enabled, Disabled.



PC Health Status

Current System Temp.

Current CPU Temp.

Detect System and CPU temperature automatically.

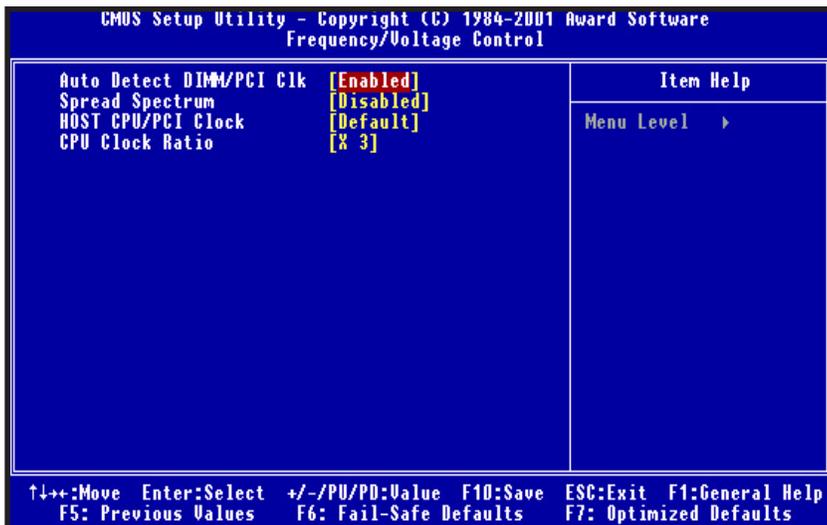
Current SYSFAN Speed

Current CPUFAN Speed

Detect Fan Speed Status automatically.

Vcore/Vtt/VCC3.3/+5V/+12V/-12V

Detect System's Voltage status automatically.



Frequency/Voltage Control

Auto Detect DIMM/PCI Clk

Options : Enabled / Disabled

Spread Spectrum

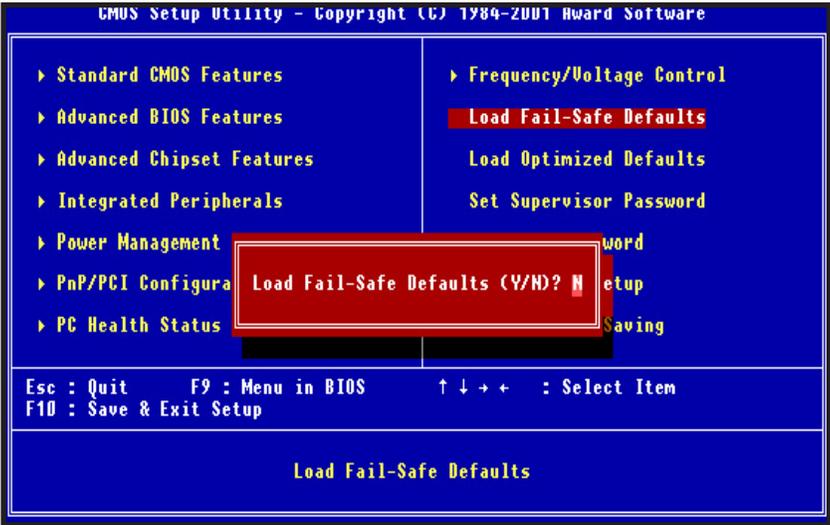
Options : Enabled / Disabled

HOST CPU/PCI Clock

Options : Default ,66/33MHz,68/34MHz,75/37MHz,100/33MHz,
 112/37MHz,117/39MHz,124/41MHz,129/43MHz,
 133/44MHz,138/46MHz,140/46MHz,133/33MHz,
 140/35MHz,150/50MHz,150/37MHz.

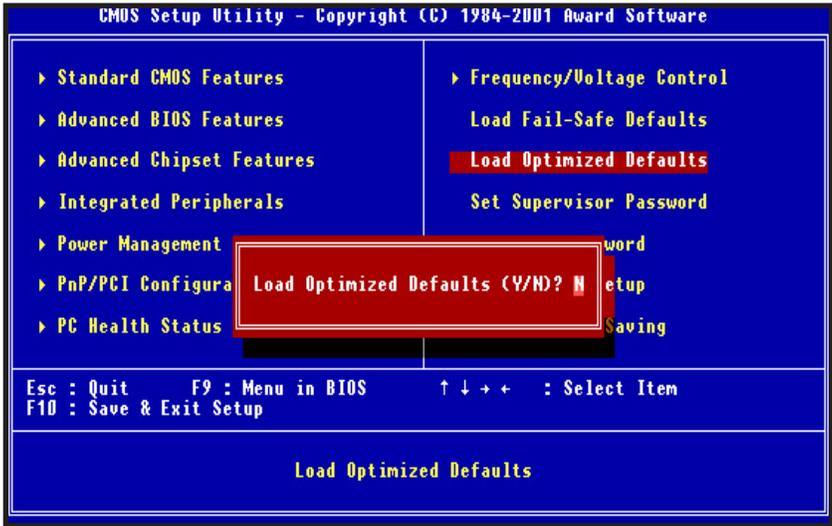
CPU Clock Ratio

Options : X3, X3.5, X4, up to X8.



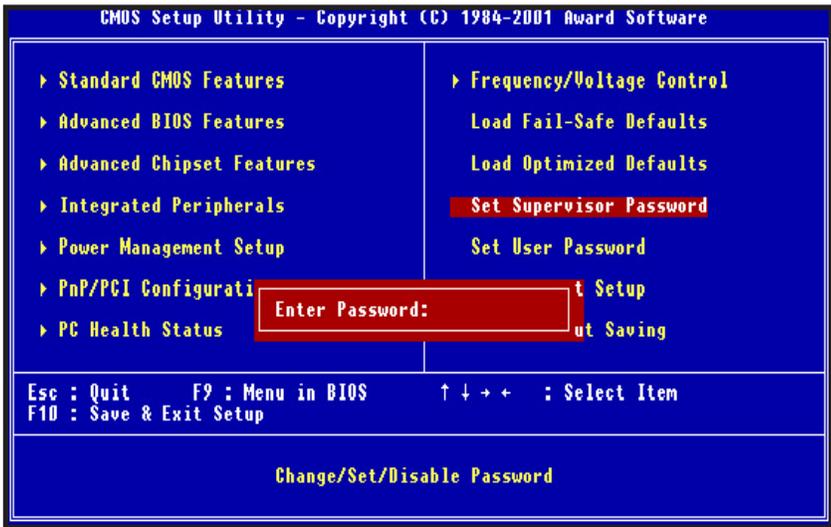
Load Fail-safe Defaults

Fail-safe defaults contain the most appropriate values of the system parameters that allow minimum system performance.



Load Optimized Defaults

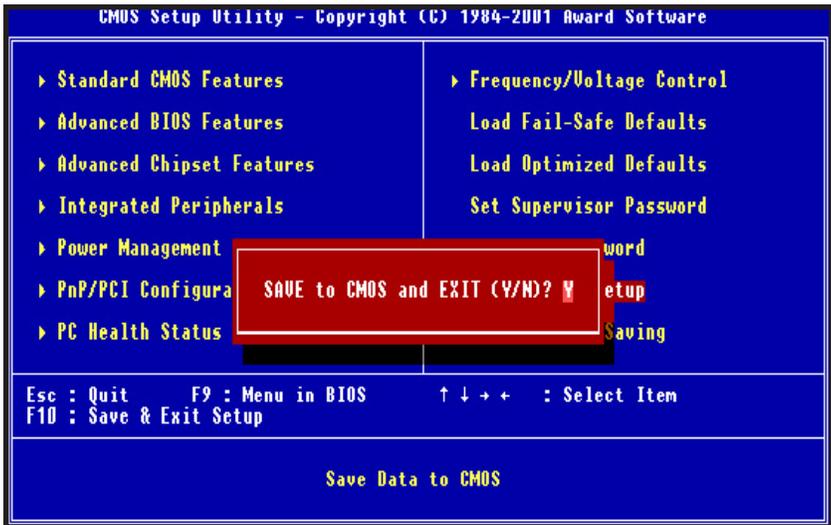
Selecting this field loads the factory defaults for BIOS and Chipset Features which the system automatically detects.



Set Supervisor / User password

When you select this function, the following message will appear at the center of the screen to assist you in creating a password.

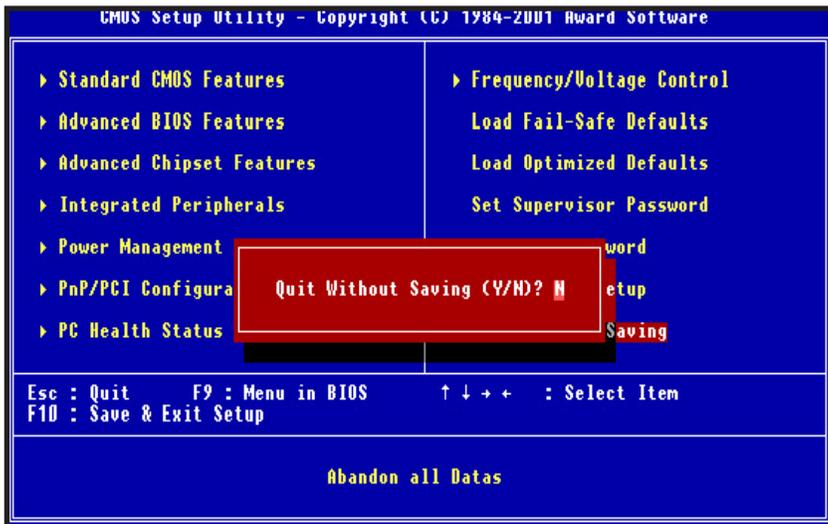
Type the password, up to eight characters and press<Enter>. The new password will clear the previously entered password from CMOS Memory, you will be asked to confirm the Password. Type the password again and press <Enter>.



Save & Exit Setup

Type "Y" will quit the Setup Utility and Save the user setup value to RTC CMOS.

Type "N" will return to Setup Utility.



Exit Without Saving

Type "Y" will quit the Setup Utility and Without Saving the User setup Value.

Type "N" will return to Setup Utility.

Glossary

Glossary



A **PS/2 Mouse & keyboard connector**

The Mainboard provides one PS/2 mouse & keyboard connector .



B **ATX Power Supply Connector**

The Mainboard provides a single 20-pin ATX power supply connector, which incorporates standard +5V and +12V, 3.3V and soft-on/off signals. With a power supply that supports remote power on/off, the mainboard can turn off the system power through software control, such as the shutdown command in the Windows 95 Start Menu. The BIOS system will turn the system power off when it receives the proper APM command from the OS. APM must be enabled in the BIOS and OS systems in order to set the soft-off feature working properly.

Pin	Signal Name	Pin	Signal Name
1	+3.3V	11	+3.3V
2	+3.3V	12	-12V
3	Ground	13	Ground
4	+5V	14	PW_ON
5	Ground	15	Ground
6	+5V	16	Ground
7	Ground	17	Ground
8	PWRGOOD	18	-5V
9	+5VSB	19	+5V
10	+12V	20	+5V



About the Soft Touch Power Button

In an ATX based system, the new soft touch power button replaces the main power switch that turns your system on and off. From an OFF state, you can switch the system ON by simply pressing the power button. From an ON state, the system can be turned OFF by pressing and holding the power button for four (4) seconds OR shut down instantly. The functions of the power button can also be altered in the Power Management section of the CMOS setup.

C Universal Serial Bus (USB) Connector

The Mainboard provides Two USB Connector.

D Serial Com1 Connector and Com2 Header

The Mainboard provides a 9-pins serial port connector and a 9-pins serial port header.

E Infra-Red (IR) Header

The Mainboard provides a 5-pin header interface, IR for connection to a Hewlett Packard HSDSL-1000 compatible infrared (IrDA) transmitter/receiver. Connect IR to the front panel I/O IrDA connector provided with your system. Once the module is connected to the front panel I/O IrDA connector, Serial port 2 can be re-directed to the IrDA module. When configured for IrDA, the user can transfer files to or from portable devices such as laptops, PDA's and printers using application software such as LapLink. The IrDA specification provides for data transfers at 115 kbps from a distance of 1-meter. Support for Consumer infrared (ASK-IR) is also included. Please refer to your IR equipment for more detailed information.

The header pin-out is as follows:

Pin	Signal Name
1	VCC, power source
2	No Connection
3	IRRX, infra-red receive
4	Ground
5	IRTX, infra-red transmit



F Memory Module Sockets

The Mainboard provides 168 pin standard DIMM sockets for installation of 3.3V unbuffered Single or Double Bank SDRAM modules.



G Parallel Port Connector

The Mainboard provides a 25-pins parallel port connector, This design makes the mainboard installation easier. The parallel port can be BIOS configured into standard (SPP) mode, Enhanced Parallel Port (EPP) mode, and a high speed Extended Capabilities Port (ECP) mode. EPP Mode requires a driver provided by the peripheral manufacturer in order to operate properly.

I LITHIUM BATTERY

A 3V, CR2032, Lithium battery is installed on the on-board battery socket. This battery is used to supply the CMOS RAM backup power during system powered-off. Danger of explosion if battery is incorrectly replaced. Therefore, if you have any difficulties, please consult the technical personnel.



J PCI Add-In Board Connector

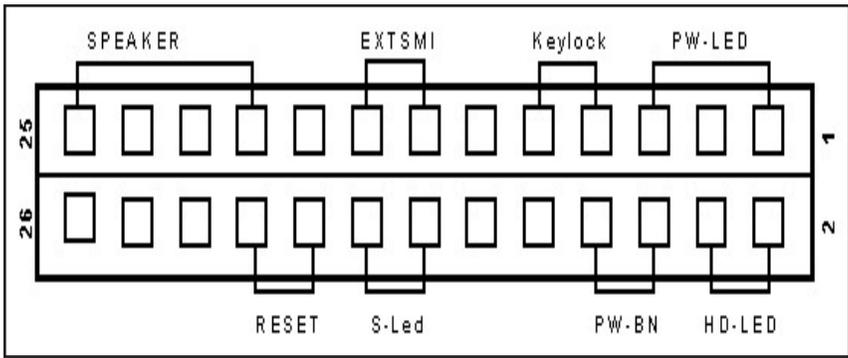
The Mainboard provides 3 PCI Connectors for the PCI cards.



M Front Panel Function Header

The Mainboard integrates all system front panel functions into a single on-board connector. These include connections for the following features:

Function	Connector Pin-Out Label
System Reset	RESET
Power LED / Keylock	PW-LED
Hard Drive Activity LED	HD-LED
Soft-Touch Button Power On/Off	PW-BN
Suspend LED	S-Led
External Power Saving Control (optional)	EXTSMI
Keylock	Keylock



N Flash BIOS

The Mainboard flash BIOS provides users with more flexibility in upgrading their mainboards. The flash BIOS can be easily reprogrammed via software.



O Floppy Drive Connector

The Mainboard provides a 34-pin connector that supports the included floppy drive ribbon cable. After connecting the single end to the on-board “FLOPPY” connector, connect the remaining plugs on the other end of the cable to the corresponding floppy drives.

NOTE: Pin 5 is removed to prevent inserting the connector in the wrong orientation.



P IDE Device Connector

The Mainboard provides (2) independent bus-mastering PCI IDE interfaces capable of supporting up to Mode 4 and Ultra DMA-33/66 devices. The system BIOS supports automatic detection of the IDE device data transfer rate and translation between different kinds of device modes such as Logical Block Addressing (LBA), Extended Cylinder Sector Head (ECSH) translation modes and ATAPI (e.g., CD-ROM) devices on both IDE interfaces.

The two on-board IDE connectors support the provided 40-pin / 80-pin IDE hard disk ribbon cables. After connecting the single end to the mainboard connector, connect the two remaining plugs at the other end of your hard disk(s) and/or CD-ROM drive(s). If you install two hard disks and/or CD-Rom drives, you must configure the two drives by setting their IDE master/slave jumpers according to the documentation for those devices.

Also, you may connect the two hard disk drives so that both become Masters, using one ribbon cable on the primary IDE connector and one on the secondary IDE connector.



Q Wakeup-Link Header

The Mainboard provides a WAKEUP-LINK header used to connect an add-in NIC (Network Interface card) which has Wake-on-Lan capability.



r Audio Modem Riser (AMR) Connector

The Mainboard provide a AMR Connector for the AMR cards.



S CPU SOCKET

The Mainboard provides a 370-pin Socket for Intel Celeron / Pentium III processor. The CPU should have a fan attached to it to prevent overheat. If a fan is not present, a fan should be installed prior to turning the system on.



T CPU Fan & System Fan Connector

The recommended heatsinks for the processor are those with 12 Volt three-conductor fans that can be connected to the fan connector on the mainboard. It provides +12 Volts DC to the CPU cooling fan as follows:

PIN	SIGNAL NAME
1	(FAN speed detect)
2	+12V
3	Ground



CAUTION! Be sure that sufficient air circulation is available across the processor's heatsink by regularly checking that your CPU fan is working. Without sufficient circulation, the processor could overheat and damage both the processor and the mainboard. You may install an auxiliary fan if necessary.

U  **Game Connector**

The Mainboard provides Game Connector.

V  **VGA Connector**

The Mainboard provides a VGA Connector for the Integrated Graphics Controller.

X  **CD Audio Connector**

CD Audio input (Right, Ground, Ground, Left)

Y  **Auxiliary Header**

Auxiliary input (Right, Ground, Ground, Left)

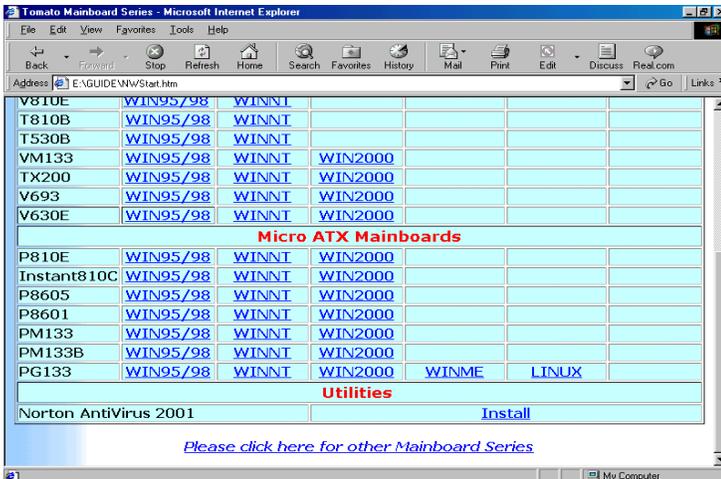
CD Driver & Software Installation Guide

Steps :

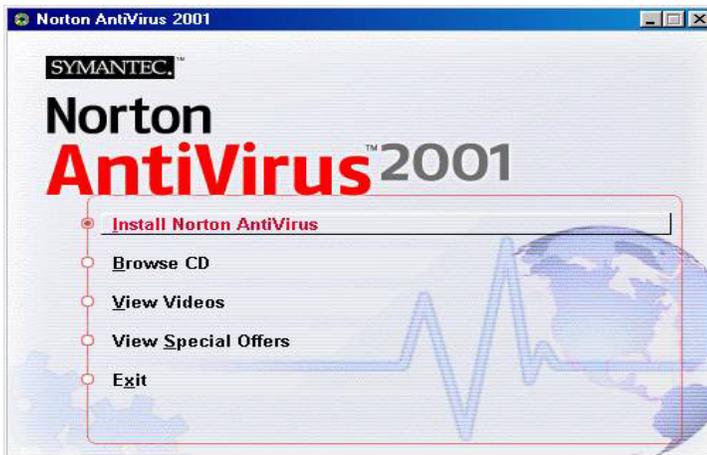
1. Boot up the Operating System (Windows 95/98/NT/2000/ME)
2. Put the CD Disc into the CD-ROM Drive and wait for Autorun
3. Select P810E and click your Operating System Type
4. Follow the instructions and install suitable drivers

Norton Anti-Virus OEM Version Setup Guide

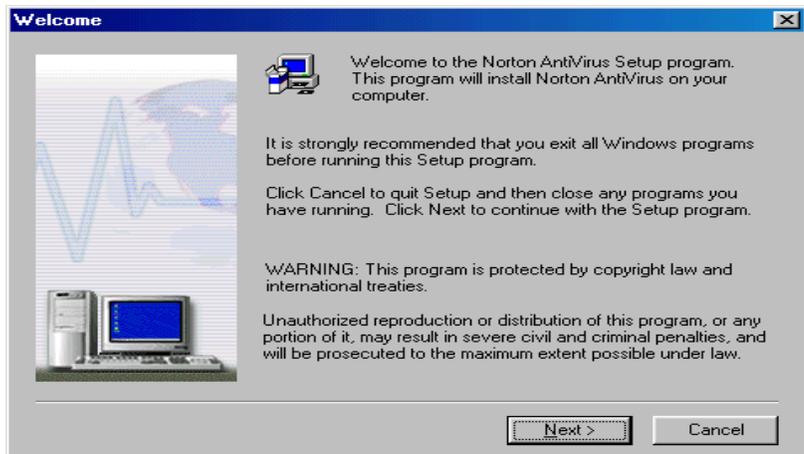
Step 1 : Load the Driver CD in CDROM and find the "Norton AntiVirus 2001 Install" Option.



Step 2 : When CD finishes loading, press "Install Norton AntiVirus" to install the software.



Step 3 : Follow the installation procedures on screen.



Step 4 : Select "Yes" and press "Finish" button to reboot computer.



Power Management Guide

1 How to put your system into Stand by mode ?

There are two ways :

1. Choose the “Stand by” item in the “Shut Down Windows” area.

A. Press the “Start” button and then select “Shut Down”

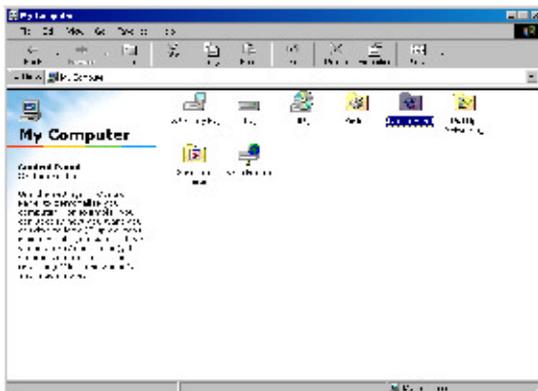


B. Choose the “Stand by” item and Click “OK”



2. Set the system "power on" button to initiate sleep mode:

- A. Double click
"My Computer"
and then
"Control Panel"



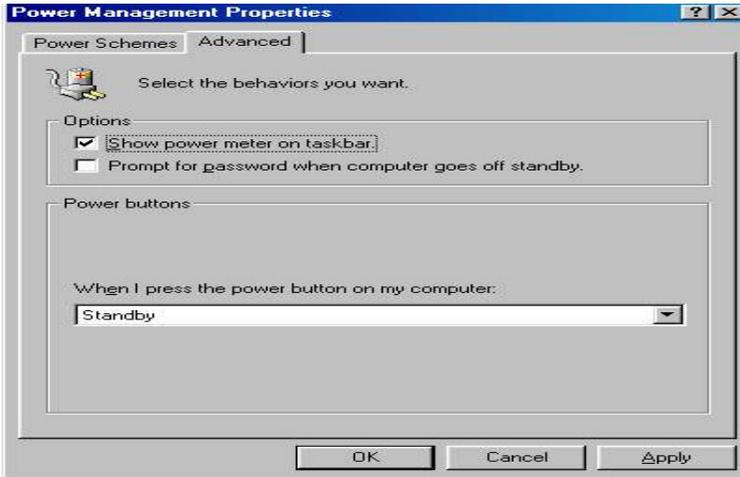
- B. Double click the "Power
Management" item.



- C. Select the “Advanced” tab and “Standby” mode in Power Buttons.

Restart your computer to complete setup.

Now when you want to enter sleep mode, just press the “Power on” button.



2

How to recover from the sleep mode?

There are four ways to “wake up” the system:

1. Press the “Power On” button.
2. Use the “Keyboard Power On” function.
3. Use the “Modem/Lan Resume” function.
4. Use the “Resume by Alarm” function.

Mechanical Specifications for Pentium III Heatsink

NOTICE

We recommend the end-user to buy the Intel® Pentium® III processor Heatsink for the PGA370 sockets at frequencies of 866MHz to 1GHz or above. The heatsink sizes are shown in following figure. All the dimensions are in inches unless otherwise noted.

Space Requirements for the Pentium® III processor from 866MHz to 1GHz or above.

