



# USER'S

**More compatible, more functional and more competitive.  
Excellent quality and faster response.**

# MANUAL

Supporting Intel Pentium III ® FCPGA, Celeron ® PPGA/FCPGA or VIA  
Cyrix ® III

Socket 370 Processors, UDMA33/66, PC100/133 SDRAM

**Quality, Performance Mainboards**

No part of this manual, including the products and software described in it, may be reproduced, transmitted, transcribed, stored in a retrieval system, or translated into any language in any form or by any means, except documentation kept by the purchaser for backup purposes, without the express written permission of MANUFACTURER.

MANUFACTURER PROVIDES THIS MANUAL "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE IMPLIED WARRANTIES OR CONDITIONS OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

IN NO EVENT SHALL MANUFACTURER, ITS DIRECTORS, OFFICERS, EMPLOYEES OR AGENTS BE LIABLE FOR ANY INDIRECT, SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES (INCLUDING DAMAGES FOR LOSS OF PROFITS, LOSS OF BUSINESS, LOSS OF USE OR DATA, INTERRUPTION OF BUSINESS AND THE LIKE), EVEN IF MANUFACTURER HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES ARISING FROM ANY DEFECT OR ERROR IN THIS MANUAL OR PRODUCT.

Products and corporate names appearing in this manual may or may not be registered trademarks or copyrights of their respective companies, and are used only for identification or explanation and to the owners benefit, without intent to infringe.

AMD, Duron, Thunderbird are registered trademark of AMD Corporation.

VIA is a registered trademark of VIA Technologies, Incorporated.

IBM, IBM PC, IBM PC/AT, PC-DOS, OS/2 and OS/2 WARP are registered trademarks of International Business Machines Corporation.

Ms-DOS, Windows, Windows NT, Windows 95, Windows 98, Windows 2000 and WindowsME are registered trademarks of Microsoft Corporation.

AMI BIOS is a product of American Megatrends, Inc.

AWARD BIOS is a product of Award Software Inc.

Third-party brands and names mentioned in this User's Manual are the property of their respective owners.

The product name and revision number are both printed on the board itself. Manual revisions are released for each board design represented by the digit before and after the period of the manual revision number. Manual updates are represented by the third digit in the manual revision number.

SPECIFICATIONS AND INFORMATION CONTAINED IN THIS MANUAL ARE FURNISHED FOR INFORMATION USE ONLY, AND ARE SUBJECT TO CHANGE AT ANY TIME WITHOUT NOTICE, AND SHOULD NOT BE CONSTRUED AS A COMMITMENT BY MANUFACTURER. MANUFACTURER ASSUMES NO RESPONSIBILITY OR LIABILITY FOR ANY ERRORS OR INACCURACIES THAT MAY APPEAR IN THIS MANUAL, INCLUDING THE PRODUCTS AND SOFTWARE DESCRIBED IN IT.

Copyright © 2001 Manufacturer All Rights Reserved.

Manual Revision: 1.00                      Release Date: February 2001

Part No: 90-T69401-00-00

# Contents

## Table Of Contents

Overview .....	5
Fast Start Installation .....	6
Checking the Package Contents .....	7
Mainboard Diagram .....	8
Jumper Settings .....	10
7 Quick Steps .....	11
Installing the CPU .....	11
Installing the Memory .....	13
Attaching the Power Supply Wire .....	14
Floppy Disk Drive Connector .....	15
IDE Device Connector .....	15
Mounting Mainboard to chassis .....	16
Installing PCI Add-in Boards .....	17
BIOS Setup .....	19
Glossary .....	44
CD Driver & Software Installation Guide .....	52
Norton AntiVirus OEM Version Setup Guide .....	53





# Overview

Thank You for purchasing our High Performance Mainboard. Our advanced technology mainboard is designed for processing speeds of 933MHz or above and is upgradeable for future processors.

The VIA Mainboard Utilizes VIA's VT82C694X and VT82C686A 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 a floppy drive interface, two FIFO serial ports, one parallel port and one consumer infra red compatible interface.

VIA VT82C694X chipset support Intel Pentium III® FCPGA, Celeron® PPGA/FCPGA or VIA Cyrix® III processors on socket 370 with 66/100/133MHz processor Front-side Bus. Support PC100 SDRAM DIMM & PC133 SDRAM DIMM.

The AGP controller supports full AGP V2.0 Capability for maximum bus utilization including 2X and 4X mode transfers, SBA, Flush/Fence commands, and pipelined grants. Both Windows-95 VXD and Windows-98/NT5 miniport drivers are supported for interoperability with major AGP-based 3D and DVD-capable multimedia accelerators.

Two DIMM slots support up to 1GB Memory Capacity. Four USB ports support USB Devices. WAKEUP-LINK Header supports Intel Wake-On-LAN.

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

Baby AT 220mm 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)

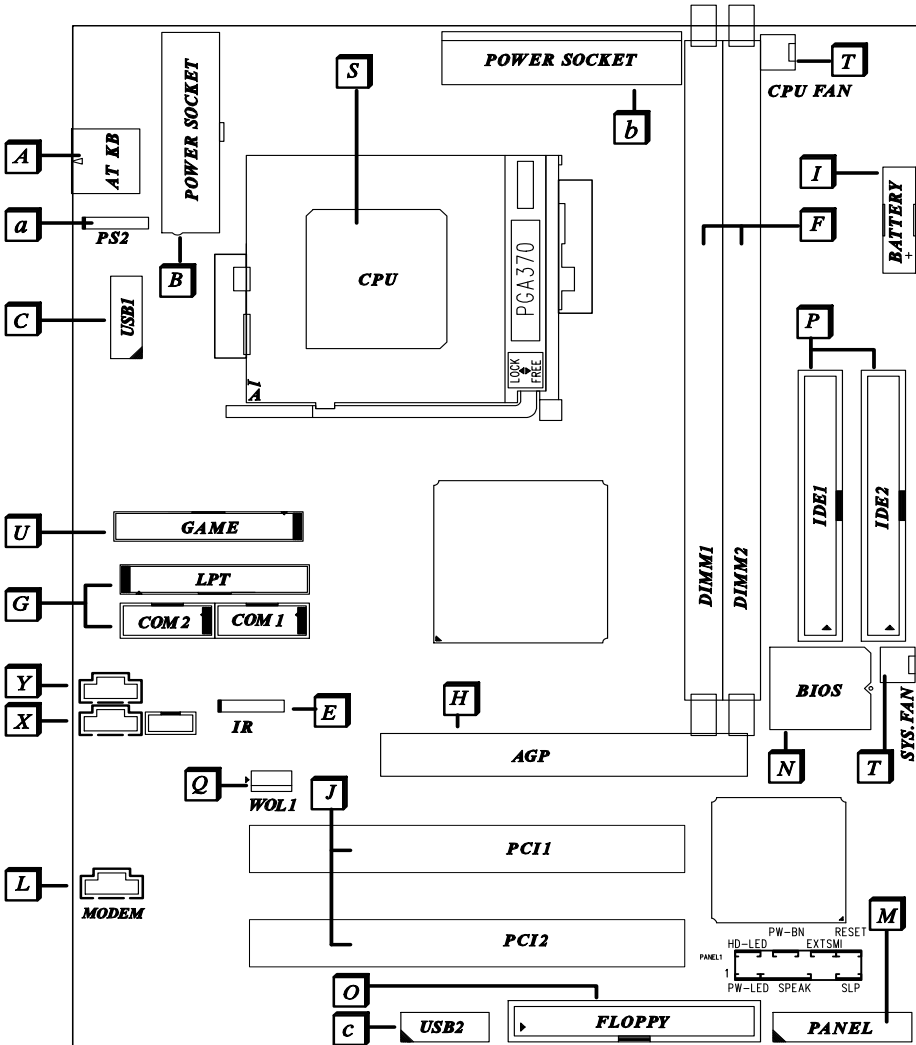
# Checking The Package Contents

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.

## **Baby AT** Box Standard Package

- 1) Mainboard
- 2) Driver CD with Norton AntiVirus 2001 OEM Version
- 3) User Manual
- 4) IDE Hard Drive Ribbon Cable
- 5) Floppy Drive Ribbon Cable
- 6) Audio/Game Cable

# Mainboard Diagram





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.

# **TX694X**    Option : AC97 2.1 Compliant 3D Audio

## **Onboard**

COMPONENT	PAGE
A- AT Keyboard Connector	44
a- PS/2 Mouse Connector	44
B- ATX Power Supply	44
b- AT Power Connector	45
C- Universal Serial Bus (USB) Header 1	45
c- Universal Serial Bus (USB) Header 2	46
E- Infra-Red (IR) Header	46
F- Memory Module Sockets	47
G- Serial COM1, COM2 & Parallel Port Header	47
H- Accelerated Graphics Port (AGP) Connector	47
I- Lithium Battery	48
J- PCI Add-in Board Connector	48
L- Modem Header (Optional)	48
M- Front Panel Function Header	48
N- Flash BIOS	49
O- Floppy Drive Header	49
P- IDE Device Header	49
Q- WAKEUP-LINK Header	50
S- CPU Socket	50
T- CPU / SYSTEM FAN Connector	50
U- Audio / Game Header	51
X- CD Audio Header	51
Y- Auxiliary Header	51

**Installation**

# Jumper Settings

## Clear CMOS

Set the Jumper JBAT1 to [2-3] to clear CMOS

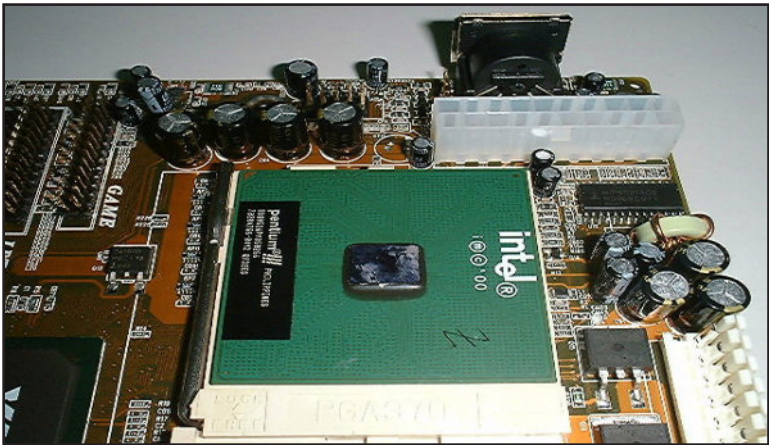
Remember: Please set it back to normal [1-2] after clear CMOS

# 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 CPU

The mainboard provides a 370 pins, Socket 370. 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 D.C. for your CPU cooling fan.



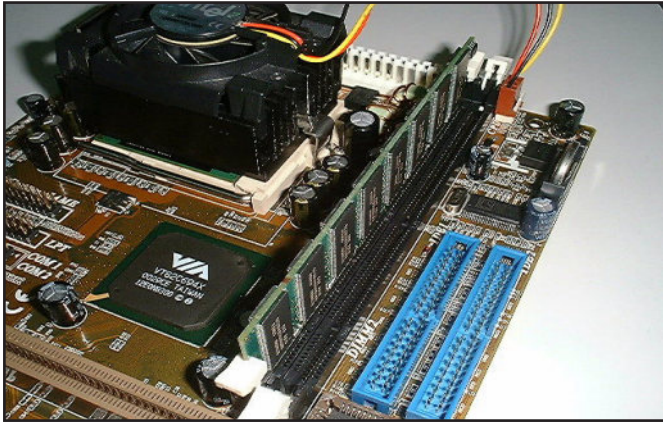


### **CAUTION!**

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 Mainboard in diagram) as follows :



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



**IMPORTANT:** Wire should always be connected with the red stripe on the Pin 1 side of the connector. The four corners of the connectors are labeled on the mainboard.

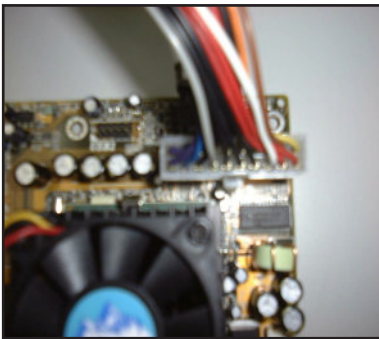
### ATX Power Connector

ATX Power Supply Connector (20-pin ATXPWR)

The single 20-pin connector (B in mainboard 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 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.

### AT Power Connector

A 12-Pin power supplies provide two plugs incorporates standard +5V and +12V, each containing six wires, two of which are black. Orient the connectors so that the black wires are together.



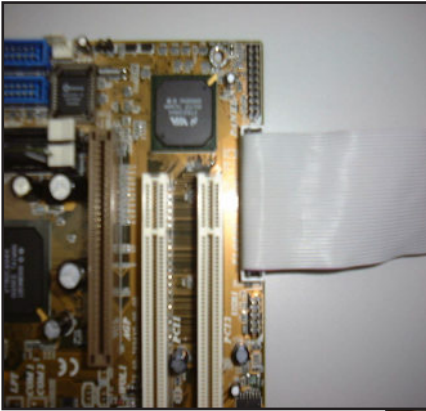
**ATX Power Connector**



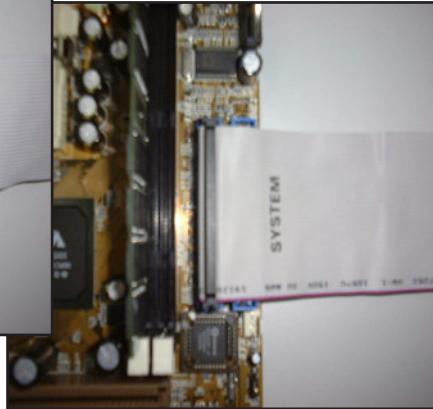
**AT Power Connector**

#### 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 mainboard diagram) connect the remaining plugs on the other end to the corresponding floppy drives.



*Floppy connection*



*IDE connection*

#### 5 IDE Device Connector.

The on-board IDE connectors (P in mainboard 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 by setting its jumpers according to the documentation of your hard disk.

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.

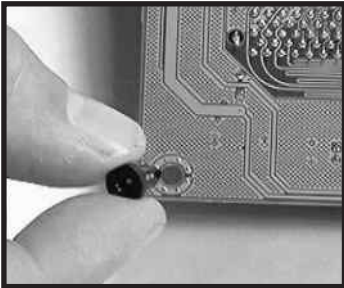
NOTE: For the flat ribbon cable connection, please make sure that the pin 1 of the ribbon cable (the red wire side of the cable) is correctly connected to the on-board connector's pin 1 as shown on the “mainboard diagram”.



**6**

## Mounting Mainboard to 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 into chassis

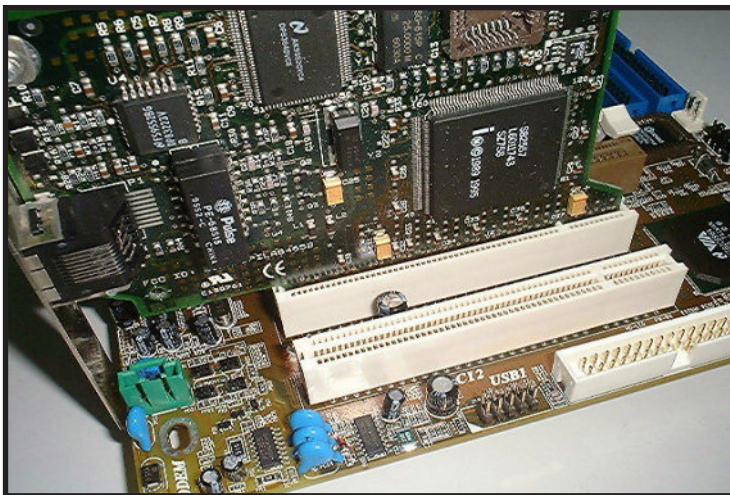


Insert white mounting pin

**7**

## Installing PCI Add-in 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 and press firmly. Secure the card on the slot with the screw you removed from the cover plate.



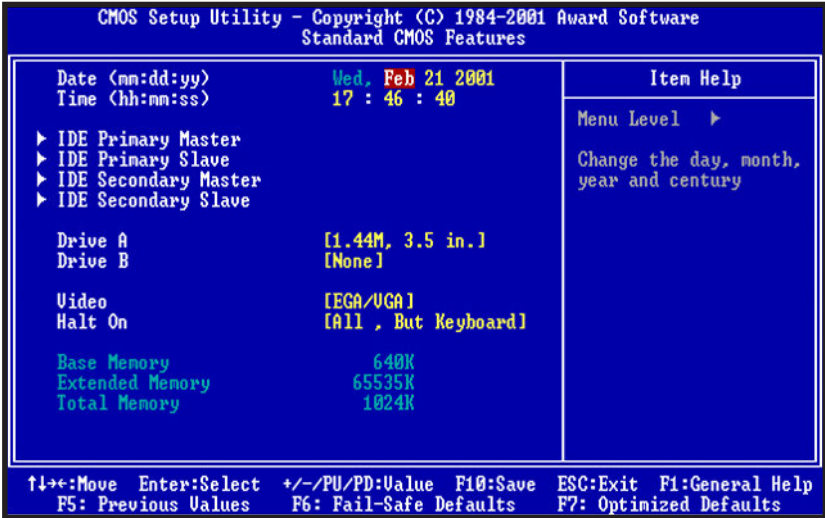
PCI Board Installation





## Award BIOS Setup

Standard CMOS Features	Set time & date, hard disk drive type, type of floppy drive, Monitor type.
Advanced BIOS Features	Select system boot sequence, floppy control, CPU cache settings, Shadow RAM.
Advanced Chipset Features	Configure chipset specific options and features.
Integrated Peripherals	Configure onboard I/O device addresses and operating modes.
Power Management Setup	Select various power conservation options.
PnP/PCI Configurations	Set PCI bus and Plug and Play device options.
PC Health Status	Report system / CPU temperature and cooling fans status.
Frquence/Voltage Control	Select CPU's Front Side Bus (FSB) frequency and core/bus frequency ratio.
Load Fail-Safe Defaults	Load settings that are more likely to configure a workable computer when something is wrong. If you cannot boot the computer successfully, select the Fail-Safe option and try to diagnose the problem after the computer boots. These settings do not provide optimal performance.
Load Optimized Defaults	Load settings that provide best performance characteristic. (Default factory settings)
Set Supervisor Password	Change / Add / Remove supervisor password.
Set User Password	Change / Add / Remove user password.
Save & Exit Setup	Save Data to CMOS
Exit Without Saving	Abandon all Saving



## Standard CMOS Features

### Time / Date

These fields provide you with the current date and time. Note that the hour is displayed as a 24-hour clock. For example, 1:00 PM is 13:00:00.

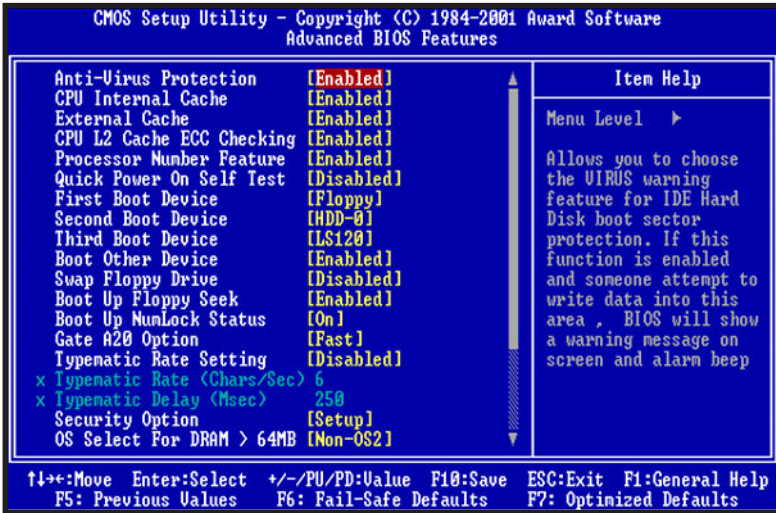
### Drive A, Drive B

This option selects the type of floppy drives installed.

### IDE Primary Master, IDE Primary Slave, IDE Secondary Master, IDE Secondary Slave

These items allow you to identify IDE devices attached to the onboard IDE controller. Default is AUTO letting BIOS determines the device type automatically. Available options are NONE, AUTO and Manual.





## Advanced CMOS Features

### Virus Warning

Enabled / Disabled Virus Warning function. Default setting is "Disabled".

### CPU Internal Cache

Enables processor on-chip L1 cache memory.

### External Cache

Enables processor on-chip L2 cache memory. Available settings are WriteBack, Write-Thru and Disabled. Default is "WriteBack".

### CPU L2 Cache ECC Checking

This option enables Error Checking and Correction (ECC) on the processor's L2 cache bus. Default is "Disabled".

### Processor Number Feature

Enables / Disables CPU serial number feature. The processor serial number can be used by software applications to identify a system. Default is "Enabled".

### Quick Power on Self Test

When enabled, BIOS will skip certain power-on self-test (POST) procedures (such as memory test above 1MB) to speed up the boot process. Default setting is "Disabled".

### **First / Second /Third Boot Device**

Assign the priority of each storage device to be the boot-up drive. Supported devices are IDE, Floppy, LS-120, ATAPI ZIP, CDROM, SCSI, NETWORK, and USB FDD. Default boot sequence is Floppy -> IDE-0 -> LS120.

### **Boot Other Devices**

Specifies whether AwardBIOS to boot from other device not listed in the 1st/2nd/3rd Boot Device options when BIOS fail to boot from those devices. Default setting is "Yes".

### **Swap Floppy Drive**

Set this option to "Enabled" to permit drives A: and B: to be swapped. Default is "Disabled".

### **Boot Up Floppy Seek**

Specify whether floppy drive A: will perform a Seek operation at system boot. Default setting is "Disabled".

### **Boot Up NumLock Status**

Set this option to "OFF" to turn the Num Lock key off when the computer is booted, so you can use the arrow keys on both the numeric keypad and the keyboard. Default is "On".

### **Gate A20 Option**

Sets "Fast", lets chipset control Gate A20 ; Sets "Normal", lets a pin in the keyboard controller control Gate A20. Default setting is "Fast".

### **Typematic Rate Setting**

Enabled / Disabled Typematic Rate setting, when Enabled, the typematic rate and typematic delay can be selected. Default setting is "Disabled".

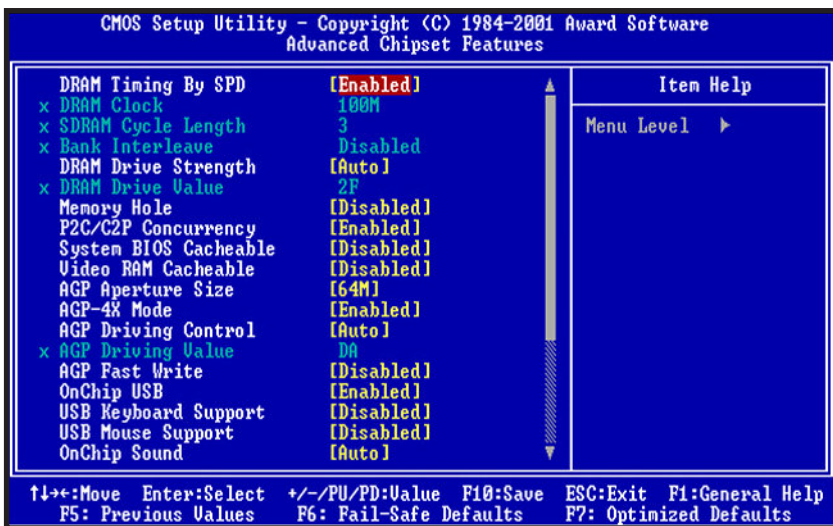
### **Security Option**

Enables password checking every time the computer is powered on or every time BIOS Setup is executed. If System is chosen, a user password prompt appears every time the computer is turned on. If "SETUP" is chosen, the password prompt appears if BIOS Setup is executed. Default is "Setup".

### **OS Select For DRAM > 64MB**

Set to "Enabled" if running OS/2 operating system and using more than 64MB system memory. Default is "Disabled".





## Advanced Chipset Features

### DRAM Timing By SPD

This item controls the DRAM timing, it allows you to enable/disable the DRAM timing by SPD. The choices : Enabled, Disabled.

### DRAM Clock

This item allows you to control the DRAM speed.  
The choices: Host CLK, HCLK-33M.

### SDRAM Cycle Length

When synchronous DRAM is installed, the number of clock cycles of CAS latency depends on the DRAM timing. Do not reset this field from the default value specified by the system designer.  
The choices: 2, 3.

### Bank Interleave

This item allows you to control the bank interleave. The choices: Disabled, 2 bank, 4 bank.

### DRAM Drive Strength

This item allows you to auto / manual the DRAM Drive Strength.  
The choices : auto, manual.

### **DRAM Drive Value**

This item allows you to 00-FF the DRAM Drive Value.

The choices : 00-FF.

### **Memory Hole**

In order to improve performance, certain space in memory is reserved for ISA cards. This memory must be mapped into the memory space below 16MB.

The choices: 15M-16M, Disabled.

### **P2C/C2P Concurrency**

This item allows you to enable/disable the PCI to CPU, CPU to PCI concurrency.

The choices: Enabled, Disabled.

### **System BIOS Cacheable**

Selecting Enabled allows caching of the system BIOS ROM at F0000h-FFFFFh, resulting in better system performance. However, if any program writes to this memory area, a system error may result.

The choices: Enabled, Disabled.

### **Video RAM Cacheable**

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

The choices: Enabled, Disabled.

### **AGP Aperture Size**

Select the size of Accelerated Graphics Port (AGP) aperture. The aperture is a portion of the PCI memory address range dedicated for graphics memory address space. Host cycles that hit the aperture range are forwarded to the AGP without any translation.

The choices: 4M, 8M, 16M, 32M, 64M, 128M.

### **AGP-4X Mode**

This item allows you to enable / disable the AGP-4X Mode.

The choices : Enabled, Disabled.

### **AGP Driving Control**

This item allows you to Auto / manual the AGP Driving Control.

The choices : Auto, Manual.

### **AGP Driving Value**

This item allows you to 00-FF the AGP Driving Value.  
The choices : 00-FF

### **AGP Fast Write**

The choices : Disabled , Enabled.

### **OnChip USB**

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.

### **USB Mouse Support**

This option is enabled to support USB Mouse.

### **OnChip Sound**

This option allows you to control the onboard AC 97 audio.  
The choices: Auto, Disabled.

### **OnChip Modem**

This item allows you to control the onboard MC 97 Modem.  
The choices: Auto, Disabled.

### **CPU to PCI Write Buffer**

When this field is Enabled, writes from the CPU to the PCI bus are buffered, to compensate for the speed differences between the CPU and the PCI bus. When Disabled, the writes are not buffered and the CPU must wait until the write is completed before starting another write cycle. The choices: Enabled, Disabled.

### **PCI Dynamic Bursting**

This item allows you to enable / disable the PCI dynamic bursting function. The choices: Enabled, Disabled.

**PCI Master 0 WS Write**

When Enabled, writes to the PCI bus are executed with zero wait states. The choices: Enabled, Disabled.

**PCI Delay Transaction**

The chipset has an embedded 32-bit posted write buffer to support delay transactions cycles. Select Enabled to support compliance with PCI specification version 2.1. The choices: Enabled, Disabled.

**PCI#2 Access #1 Retry**

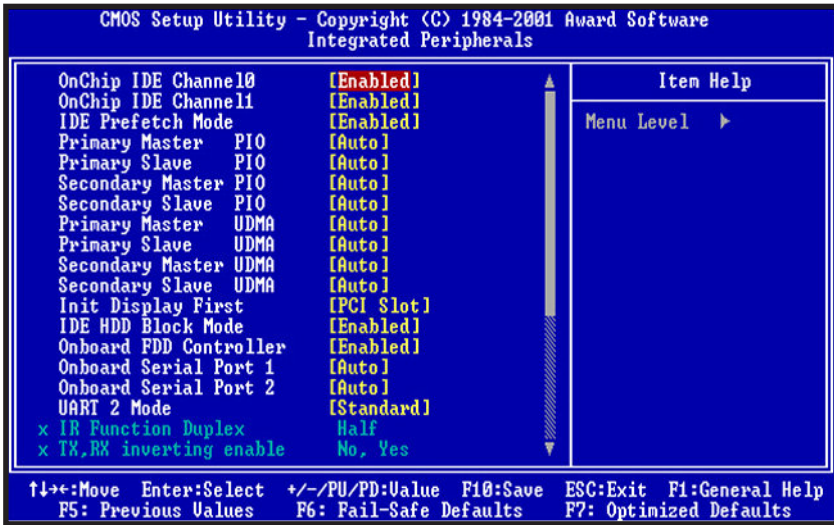
When Disabled, PCI#2 will not be disconnected until access finishes (default). When enabled, PCI#2 will be disconnected retries are attempted without success. The choices: Enabled, Disabled.

**AGP Master 1 WS Write**

When Enabled, writes to the AGP(Accelerated Graphics Port) are executed with one wait states. The choices: Enabled, Disabled.

**AGP Master 1 WS Read**

When Enabled, read to the AGP(Accelerated Graphics Port) are executed with one wait states. The choices: Enabled, Disabled.



## Integrated Peripherals

### OnChip IDE Channel0

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.

### OnChip IDE Channel1

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

### IDE Prefect Mode

The onboard IDE drive interfaces supports IDE prefetching for faster drive accesses. If you install a primary and/or secondary add-in IDE interface, set this field to "Disabled" if the interface does not support prefetching. 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 DMA/33 implementation is possible only if your IDE hard drive supports it and the operating environment includes a DMA driver (Windows 95 OSR2 or a third-party IDE bus master driver). If your hard drive and your system software both support Ultra DMA/33, select Auto to enable BIOS support.

The choices: Auto, Disabled

### **Init Display First**

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

The choices: PCI Slot, AGP.

### **IDE HDD Block Mode**

This 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.

### **Onboard FDD 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.

### **IR Function Duplex**

### **TX,RX inverting enable**

### **Onboard Parallel Port**

Select a logical LPT port name and matching address for the physical parallel (printer) port.

The choice: 378H/IRQ7, 278H/IRQ5, 3BCH/IRQ7, Disabled.

### **Onboard Parallel Port Mode**

Select an operating mode for the onboard parallel (printer) port. Normal EPP (Extended Parallel Port) ECP (Extended Capabilities Port) ECP+EPP PC AT parallel port Bidirectional port Fast, buffered port Fast, buffered, bidirectional port. Select Normal unless you are certain your hardware and software both support these modes.

Choices are Normal, EPP, ECP, ECP/EPP.

### **ECP Mode Use DMA**

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

### **Parallel Port EPP Type**

Select EPP port type 1.7 or 1.9. Choices are EPP1.7, EPP1.9.

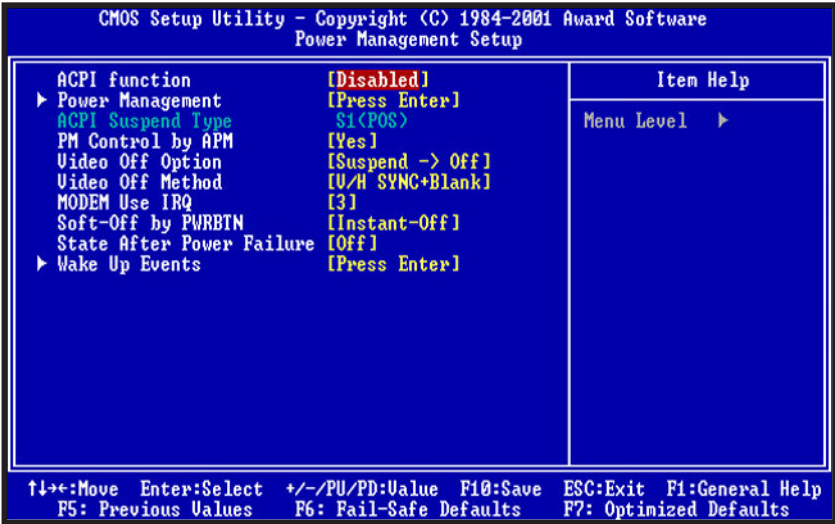
### **Onboard Legacy Audio**

Set this option to "Enabled" to enable the onboard Legacy Audio. The settings are Enable or Disabled.

### **Game Port (220-207)**

Set this option to "Enabled" to enable the onboard Game Port. The settings are Enable or Disabled.





## Power Management Setup

### ACPI function

This item allows you to enable / disable the Advanced Configuration and Power Management (ACPI).

The choices: Enabled, Disabled.

### Power Management/APM

This category allows you to select the type (or degree) of power saving and is directly related to the following modes:

1. HDD Power Down
2. Doze Mode
3. Suspend Mode

There are four selections for Power Management, three of which have fixed mode settings.

Min. Power Saving	Minimum power management. Doze Mode = 1 hr. Standby Mode = 1 hr., Suspend Mode = 1 hr., and Power Down = 15 min.
HDD	
Max. Power Saving	Maximum power management – ONLY AVAILABLE FOR SL CPU'S. Doze Mode = 1 min., Standby Mode = 1 min., Suspend Mode = 1 min., and HDD Power Down = 1 min.

User Defined Allows you to set each mode individually. When not disabled, each of the ranges are from 1 min. to 1 hr. except for HDD Power Down which ranges from 1 min. to 15 min. and disable.

### ACPI Suspend Type

This item allows you to choose the Advanced Power Management (ACPI) Suspend Type.

The choices: S1(POS), S3(STR).

### PM Control by APM

When enabled, an Advanced Power Management device will be activated to enhance the Max. Power Saving mode and stop the CPU internal clock. If Advance Power Management (APM) is installed on your system, selecting Yes gives better power savings.

If the Max. Power Saving is not enabled, this will be preset to No.

### Video off Option

When enabled, this feature allows the VGA adapter to operate in a power saving mode.

Always On Monitor will remain on during power saving modes.

Suspend -> Off Monitor blanked when the system enters the Suspend mode.

All Modes -> Off Monitor blanked when the system enters any power saving mode.

### 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.

### **MODEM Use IRQ**

This determines the IRQ in which the MODEM can use.

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

### **Soft-Off by PWRBTN**

Pressing the power button for more than 4 seconds forces the system to enter the Soft-Off state when the system "hung".

The choices: Delay 4 Sec, Instant-Off.

### **Wake Up Events**

Wake Up are I/O events whose occurrence can prevent the system from entering a power saving mode or can awaken the system from such a mode. In effect, the system remains alert for anything which occurs to a device which is configured as On, even when the system is in a power down mode.

### **VGA**

When Enabled, you can set the VGA awakens the system.

### **LPT & COM**

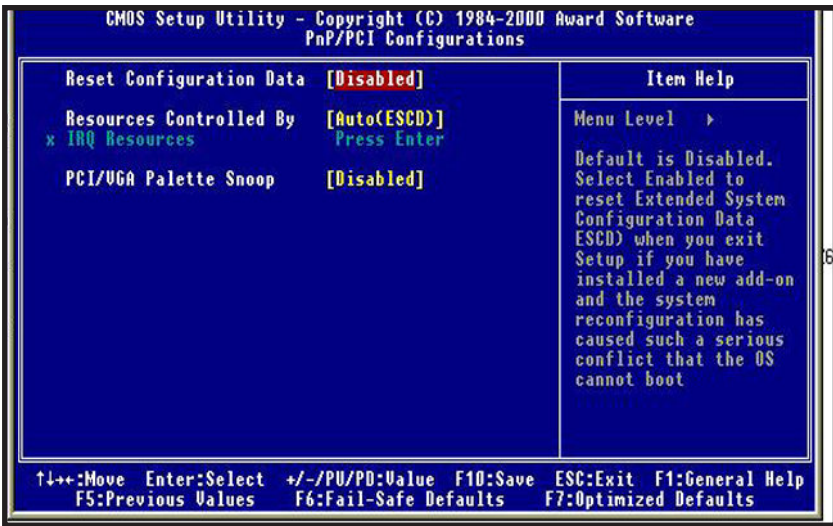
When On of LPT & COM, any activity from one of the listed system peripheral devices or IRQs wakes up the system.

### **HDD & FDD**

When On of HDD & FDD, any activity from one of the listed system peripheral devices wakes up the system.

### **PCI Master**

When On of PCI Master, any activity from one of the listed system peripheral devices wakes up the system.



## PnP/PCI Configurations

### PNP O/S Installed

This item allows you to determine PnP OS is installed or not. The choices: Yes, No.

### 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: Enabled, Disabled .

### Resources Controlled By

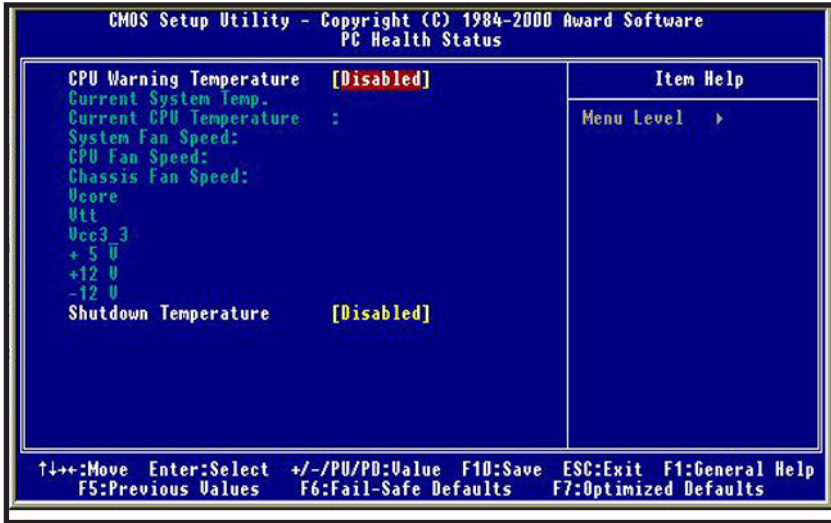
The Award Plug and Play BIOS has the capacity to automatically configure all of the boot and Plug and Play compatible devices. However, this capability means absolutely nothing unless you are using a Plug and Play operating system such as Windows98. The choices: Auto, Manual.

### PCI / VGA Palette Snoop

Leave this field at Disabled. Choices are Enabled, Disabled.

### Assign IRQ For USB / VGA

Enable / Disable to assign IRQ for USB / VGA. Choices are Enabled, Disabled.



## PC Health Status

### Current System Temp. / Current CPU Temp.

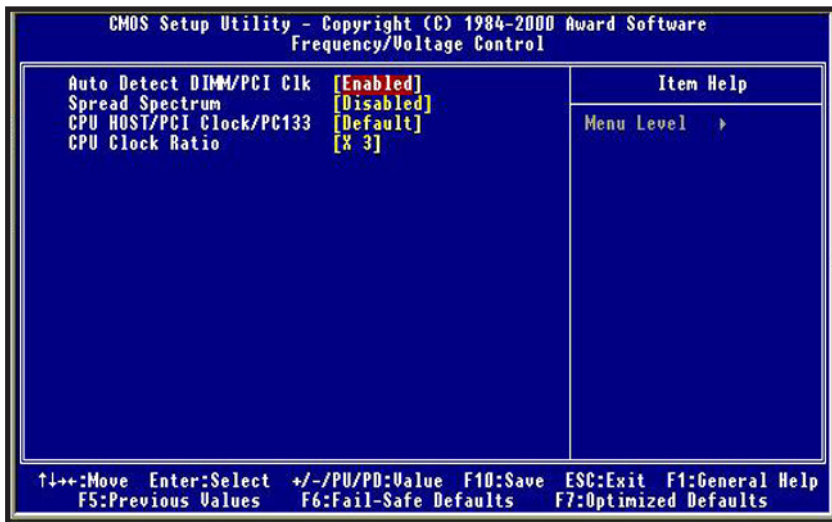
Detect System and CPU temperature automatically.

### System FAN Speed / CPU FAN Speed

Detect Fan Speed Status automatically.

### Vcore / Vtt / VCC3\_3 / +5V / +12V / -12V

Detect System Voltages status automatically.



## Frequency / Voltage Control

### Auto Detect DIMM/PCI CLK

Enabled \ Disabled Auto detect DIMM/PCI CLOCK. Default Setting is "Enabled".

### Spread Spectrum

This option turns on/off the clock generator's Spread Spectrum feature to reduce Electromagnetic Interference (EMI) generated by high speed clock signals. Default setting is DISABLED.

### CPU/PCI Clock (MHz)

Select the clock generator's Front Side Bus frequency for CPU over-clocking. Default setting is DEFAULT.

### CPU Clock Ratio

Select CPU's core/bus frequency ratio. This setting has no effect on processors with frequency ratio locked. Available settings are between 2x and 8x of the CPU BUS Speed. The ratio increases with 0.5 step. Default setting is 3x(Safe).

## **MODEM Use IRQ**

This determines the IRQ in which the MODEM can use.

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

## **Soft-Off by PWRBTN (For ATX Power Supply Only)**

Pressing the power button for more than 4 seconds forces the system to enter the Soft-Off state when the system “hung”.

The choices: Delay 4 Sec, Instant-Off.

## **Wake Up Events**

Wake Up are I/O events whose occurrence can prevent the system from entering a power saving mode or can awaken the system from such a mode. In effect, the system remains alert for anything which occurs to a device which is configured as On, even when the system is in a power down mode.

## **VGA**

When Enabled, you can set the VGA awakens the system.

## **LPT & COM**

When On of LPT & COM, any activity from one of the listed system peripheral devices or IRQs wakes up the system.

## **HDD & FDD**

When On of HDD & FDD, any activity from one of the listed system peripheral devices wakes up the system.

## **PCI Master**

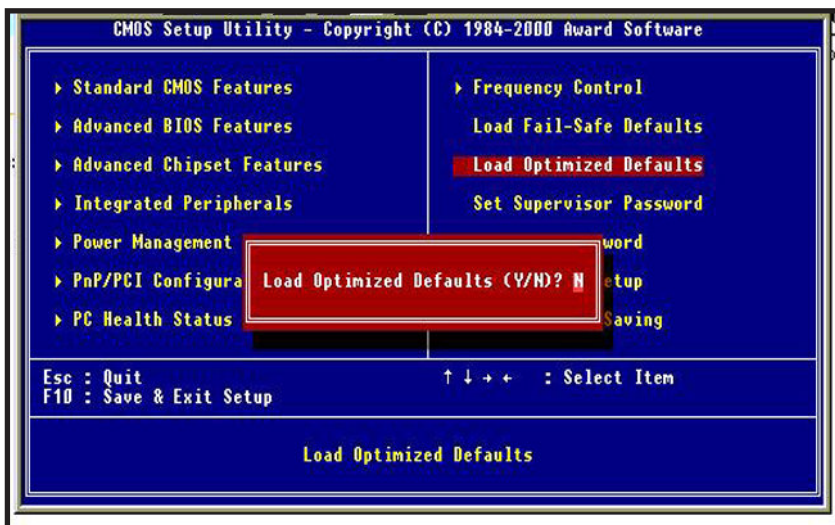
When On of PCI Master, any activity from one of the listed system peripheral devices wakes up the system.





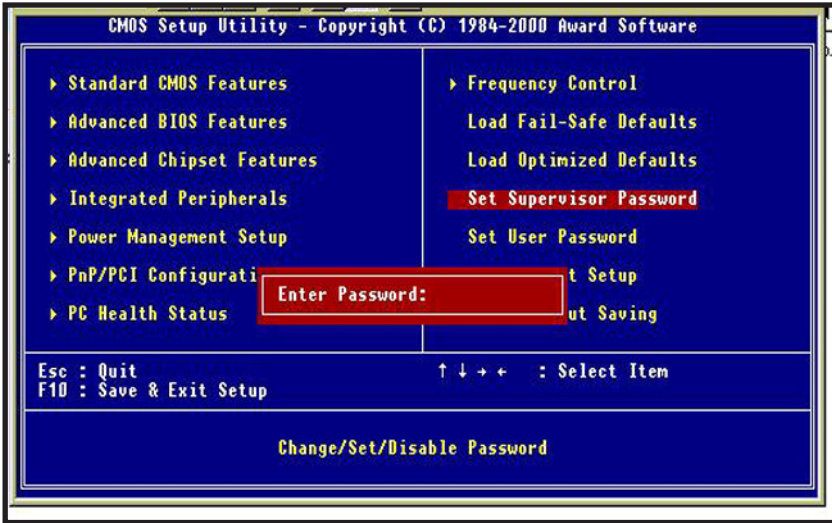
## ***Load Fail-Safe Defaults***

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



## ***Load Optimized Defaults***

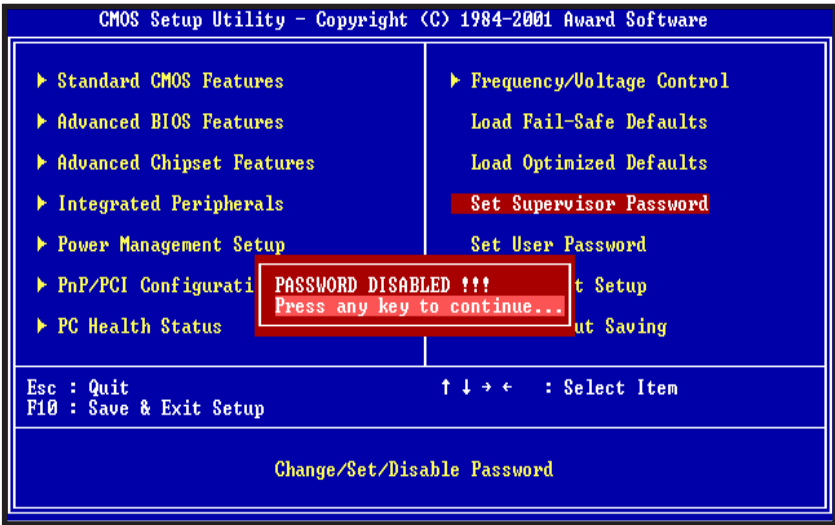
Selecting this field loads the factory defaults for BIOS and Chipset Features which the system automatically detects.



## Set Supervisor / User password

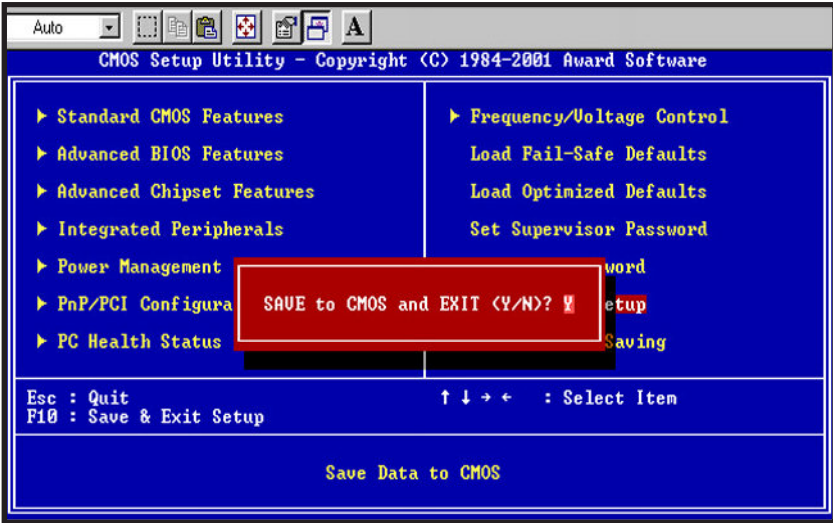
When you select this function, the following message will appear at the center of the screen to assist you in creating a password.

Type the password, up to eight characters, and press <Enter>. The password typed new will clear the previously entered password from CMOS Memory, you will be asked to confirm the Password. Type the password again and press <Enter>, you may also press <ESC> to about the selection and not enter a password.



To disable password, just press <Enter> when you are prompted to enter password. A Message <<PASSWORD DISABLED!!!>> will appear to confirm the password being disabled. Once the password is "Disabled", the system will boot and you can enter setup freely.

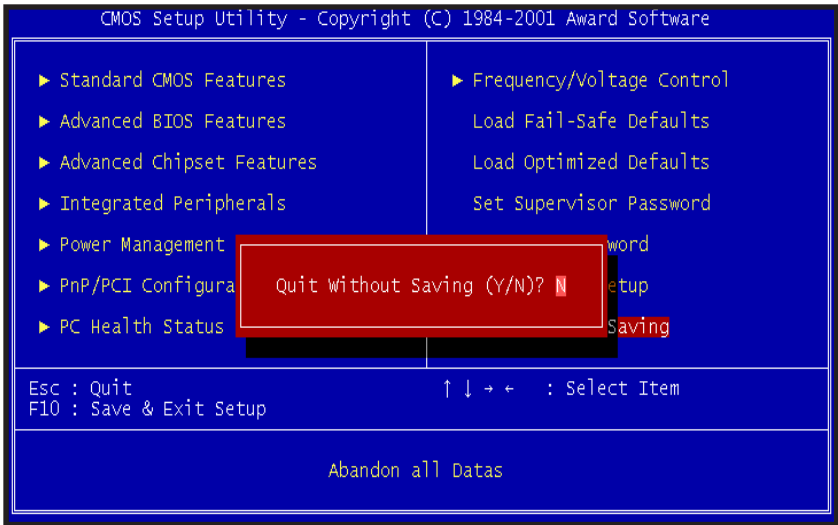
If you select "System" at "Security Option" in BIOS Features setup Menu, you will be prompted for the password every time the system is rebooted or any time you try to enter Setup Menu. If you select "Setup" at "Security option" in BIOS Features setup Menu, you will be prompted only when you try to enter "Setup".



## 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**



## **AT Keyboard Connector**

The Mainboard provides one on-board AT connectors for the keyboard. If you are already using a AT keyboard, simply plug them into the corresponding connector. No jumper settings are necessary.

**a**



## **PS/2 Mouse Connector**

The Mainboard provides a on-board PS/2 connector for the PS/2 mouse.

**B**



## **ATX Power Supply**

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



## b **AT Power Connector**

A 12-Pin power supplies provide two plugs incorporates standard +5V and +12V,each containing six wires,two of which are black. Orient the connectors so that the black wires are together.



## **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) Header<sup>1</sup>**




The Mainboard provides four 4-pin Universal Serial Bus (USB) headers. USB is a new interface standard for adding external Plug-and-Play (PnP) devices to the computer system. Peripherals that support USB PnP capabilities can operate at up to a 12Mb/sec data transfer rate. Eventually, all external devices connected to your computer will be standardized to USB.

Pin	Signal Name	Pin	Signal Name
1	PWRGOOD	7	Ground
2	+5V	8	Ground
3	+12V	9	-5V
4	-12V	10	+5V
5	Ground	11	+5V
6	Ground	12	+5V

**c**  **Universal Serial Bus Header 2**

Connect this header to the optional USB extension cable for a USB port.

**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



## 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 **Serial COM1, COM2 & Parallel Port Header**

The Mainboard provides two serial port headers and one parallel port header.

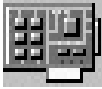


## H **Accelerated Graphics Port [AGP] Connector**

The Mainboard provides an AGP slot compatible with the Accelerated Graphics Port specification. AGP compliant video cards offer a much higher throughput than equivalent PCI bus video cards. PCI currently only supports a 33 MHz bandwidth, and can transport at peak rates up to 133MB/s over its 32 bit data bus. AGP operates at a 66 MHz bandwidth which enables a peak rate of 512MB/s in what is known as 'X2' mode. Using 'X4' mode, the peak transfer rate can go as high as 1024 MB/s.

## 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 2 PCI Connectors for the PCI cards.



## L Modem Header (Optional)

The Mainboard provides a 4-pins headers interface. Connect this header from Modem Cable to back panel of your system. Once the cable is connected, you can access to 56K AC97 on-board modem.



## M Front Panel Function Header

The Mainboard integrates all system front panel functions into a single on-board header. These include header 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
External Power Saving Control (optional)	EXTSMI
Sleep Button	SLP
External speaker	Speaker

**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 Header**

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.

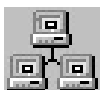
**P**



### **IDE Device Header**

The Mainboard provides 2 independent bus-mastering PCI IDE interfaces capable of supporting up to Mode 4 and Ultra DMA-33/66 devices (VT82C686A) or Ultra DMA-33/55/100 devices (VT82C686B). 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 headers support the provided 80-pin IDE hard disk ribbon cables. After connect the single end to the mainboard headers, 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 header and one on the secondary IDE header.



**Q WAKEUP-LINK Header**

The Mainboard provides on WAKEUP-LINK header (WOL) used to connect an add-in Network Interface Card which has Wakeup capability.



**S CPU SOCKET**

The Mainboard provides a 370-pin CPU Socket for Intel Celeron, PIII or Cyrix 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 / 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 D.C. 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. The SYSTEM and AUXILIARY fan connectors are provided for optional cooling fans.

**U**  **Audio / Game Header**

The Mainboard provides Audio headers.

Audio Connectors      Black : Line Output  
                                  Green : Line Input  
                                  Red : Microphone Input

**X**  **CD Audio Header**

CD Audio input ( 1:Right, 2,3: Ground, 4:Left )

CD Audio input (1,3:Groud, 2:Right, 4:Left)

**Y**  **Auxiliary Header**

Auxiliary input (1:Left, 2,3:Ground, 4:Right)

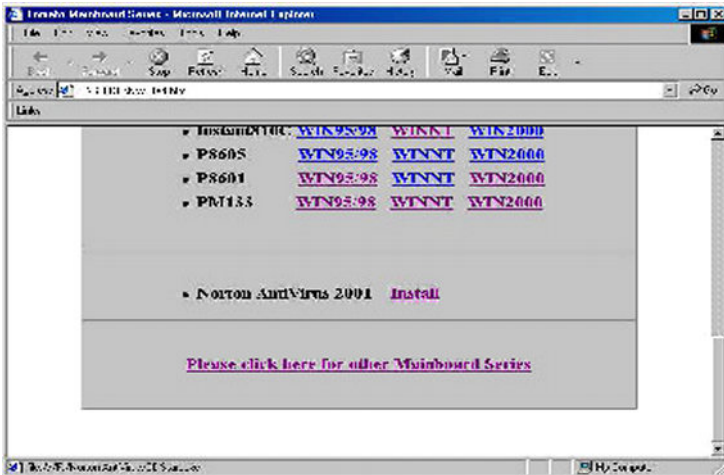
## **CD Driver & Software Installation Guide**

Steps :

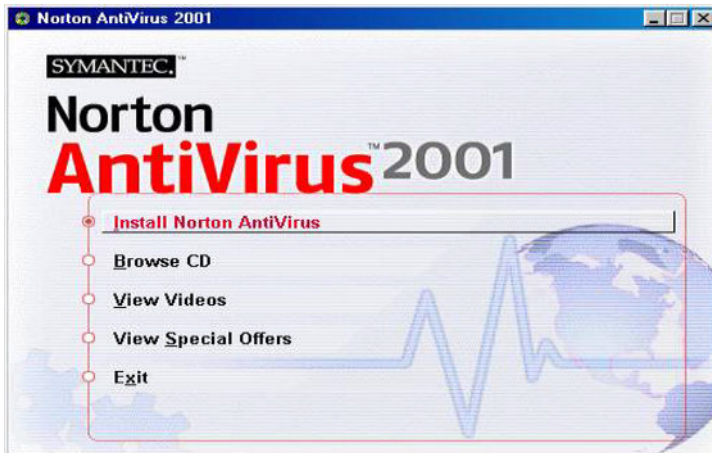
1. Boot up the Operating System ( Windows 95/98/NT/2000 )
2. Put the CD Disc into the CD-ROM Drive and wait for Autorun
3. Select TX694 and click your Operating System Type
4. Follow the instructions and install suitable drivers

## Norton Anti-Virus OEM Version Setup Guide

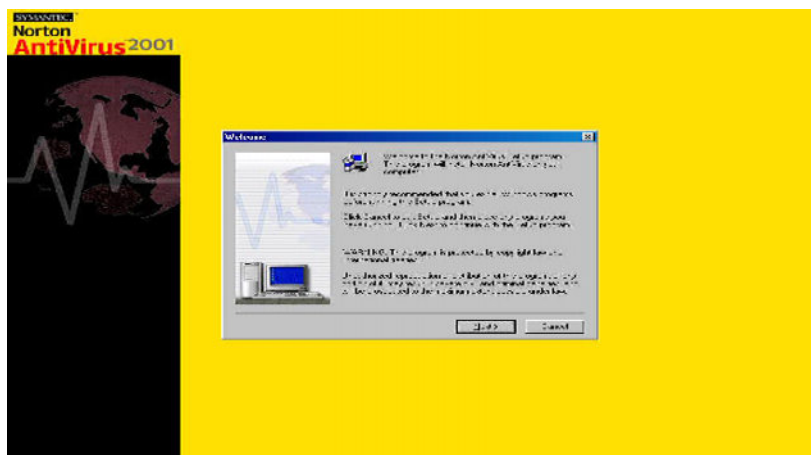
Step 1 : Load the Driver CD in CDROM and find the "Norton AntiVirus 2001 Install" Option.



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.

