



USER'S

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MANUAL

Supporting Socket 370 CPU UDMA33, PC100 SDRAM

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 600MHz or above and is upgradeable for future processors.

The VIA Mainboard Utilizes VIA's VT82C693 and VT82C596A 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.

VIA VT82C693 Chipset supports Socket 370 Processors on 66/100MHz Processor Front-side Bus. Supports PC66/100 SDRAM DIMM.

Three DIMM slots support up to 768MB Memory Capacity. Four USB ports support USB Devices. WAKEUP-LINK Header supports Wake-On-LAN.

Integrated AC97 Compliant Codec with 3D Stereo enhancement (optional). AMI 2Mbit BIOS, PC99/ACPI/DMI Compliant.

BabyAT 220mm x 200mm.

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:

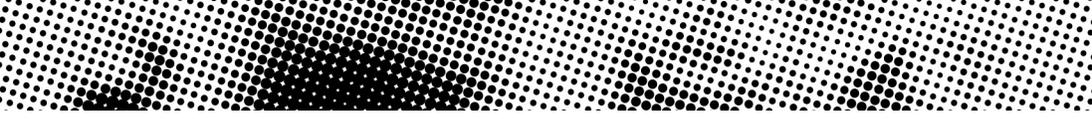
- A sturdy, level surface for placement
- Space allowance around mainboard
- A stable environment with no abrupt temperature or humidity changes
- No exposure to chemicals or direct sunlight
- Line voltage and frequency not varying more than + or -10% from the value stated on the package or nameplate (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 Guide
- 4) 4 in 1 Cable Pack
- 5) USB Cable for onboard **USB Header (Optional)**



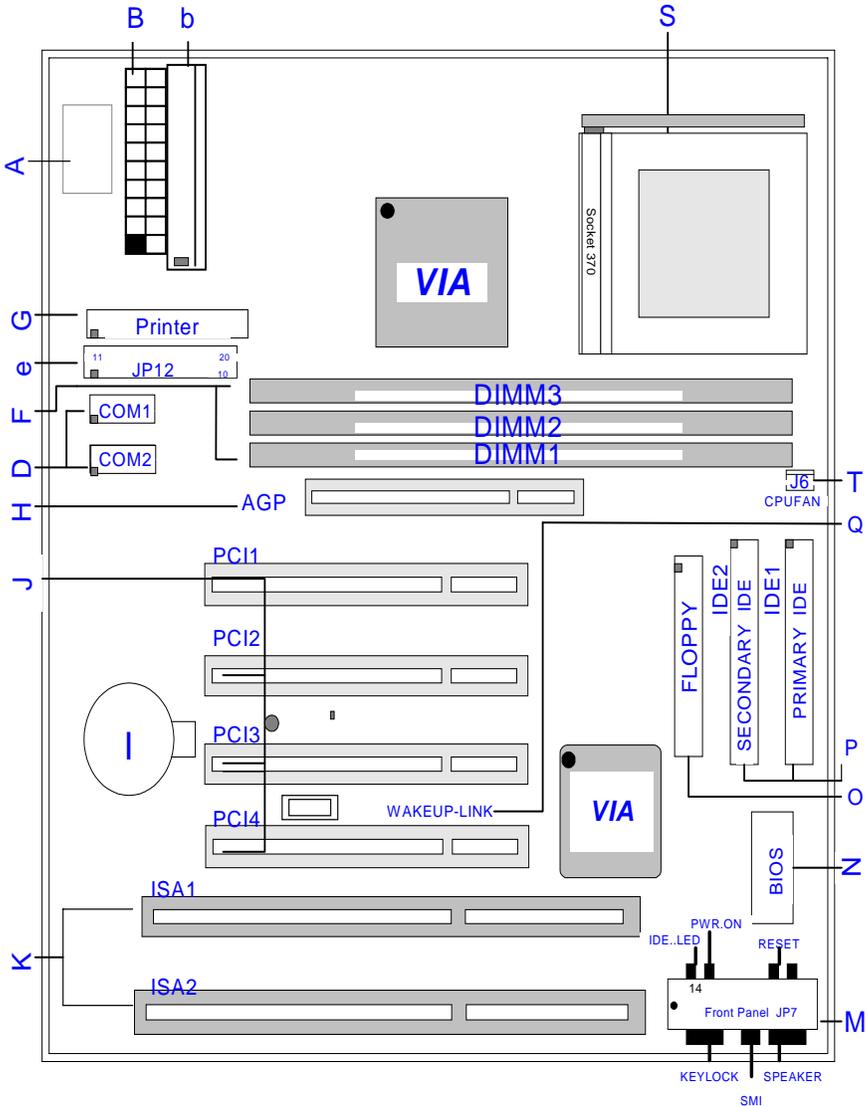
Before we begin installing your series Mainboard, we have provided you with a diagram of the Mainboard to help you locate the appropriate "connectors". The letters below describe the key Mainboard components. Page number in the right hand column will direct you to detailed description of the component.

V693 Option : **AC97 Compliant 3D Audio**

Onboard

COMPONENT	PAGE
A- Keyboard Connector	37
B- ATX Power Supply Connector	37
b- AT Power Supply Connector	38
D- COM1, COM2 Connector	38
e- Integrated Functional Connector	39
F- Memory Module Sockets	39
G- Parallel Port Connector	40
H- Accelerated Graphics Port (AGP) Connector	40
I- Lithium Battery	40
J- PCI Add-in Board Connector	40
K- ISA Slots	40
M- Front Panel Function Connector	41
N- Flash BIOS	41
O- Floppy Drive Connector	41
P- IDE Device Connector	42
Q- WAKEUP-LINK Header	42
S- CPU Socket	42
T- CPU Connector	43

Mainboard Diagram



Mainboard Diagram

Clear CMOS

The user may clear the CMOS content by pressing "F" key while switching on the system. If a wrong CPU speed is selected, the system may behave unstable, causing the user not being able to get into CMOS setup. Pressing the "J" key while switching on the system can make re-selection in this case.

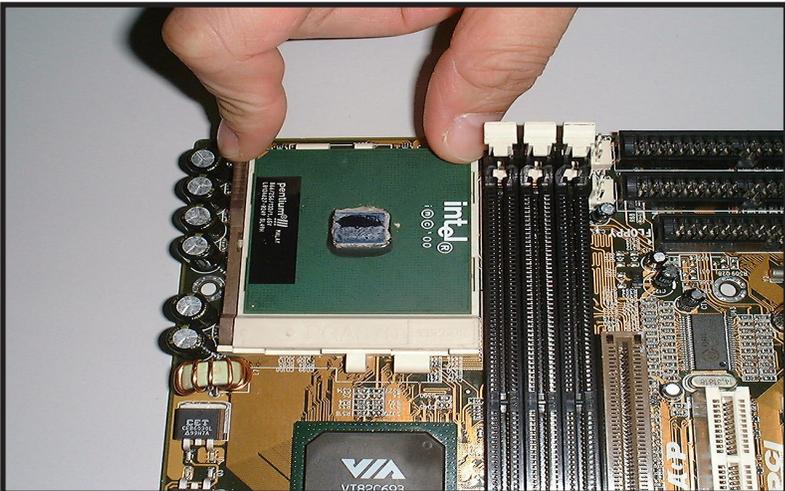
7 Quick Steps

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 (PGA CPU)

The Mainboard provides a 370 pins, 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.



7 Quick Steps

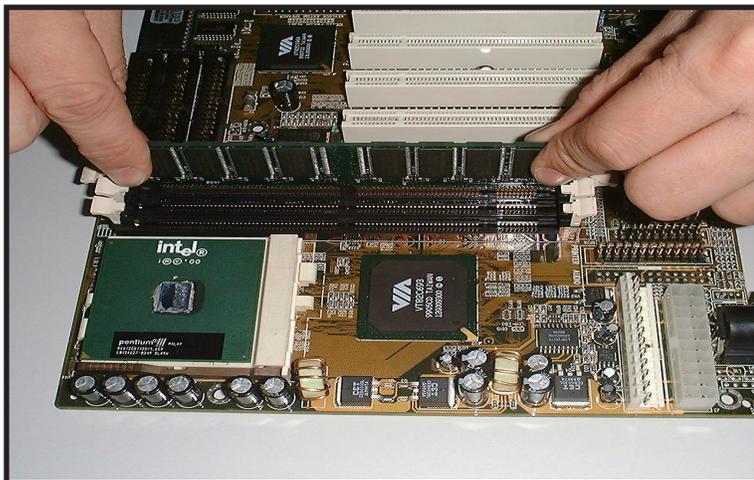


Set the suitable Jumper Settings according to the Jumper settings Table.

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 1-3 (F 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.

Attaching ATX/AT Power Connector.

ATX Power Supply Connector (B)

The power 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 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



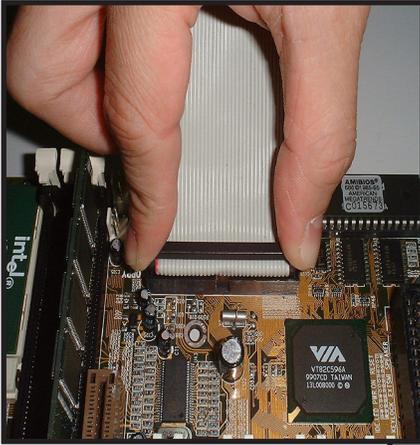
Attaching the power supply ribbon cable

IMPORTANT: Ribbon cables should always be connected with the red stripe on the Pin 1 side of the connector. The four corners of the connector's are labeled on the mainboard.

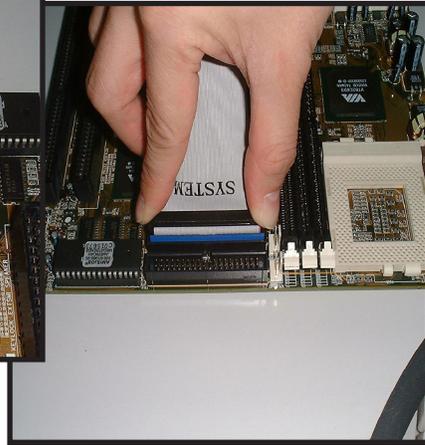
4

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 Device Connector.

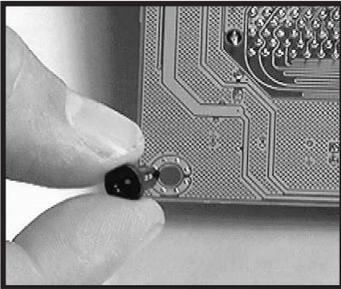
The on-board IDE connectors (P in diagram) support the provided 40-pin IDE hard disk ribbon cable. After connecting the single end to the mainboard, connect the remaining plugs at the other end of your hard disk(s). If you install hard disks, you must configure the drives by setting its jumpers according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

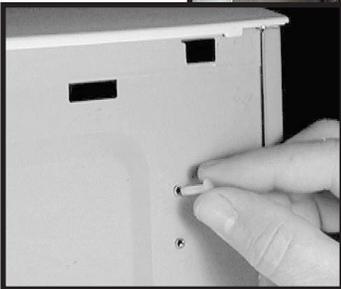
NOTE: For the flat ribbon cable connection, please make sure that the pin 1 of the ribbon cable (the red wire side of the cable) is correctly connected to the on-board connector's pin 1 as shown on the “ the mainboard diagram”.

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 the 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

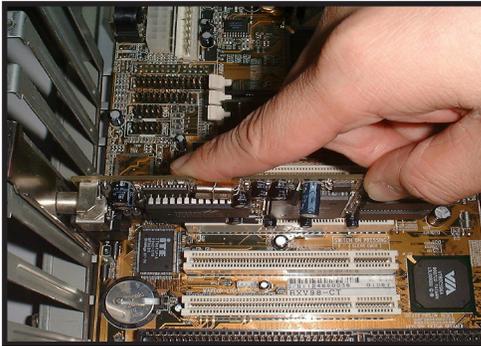


Insert into chassis

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 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

BIOS
Setup

BIOS
Setup

BIOS
Setup

BIOS
Setup

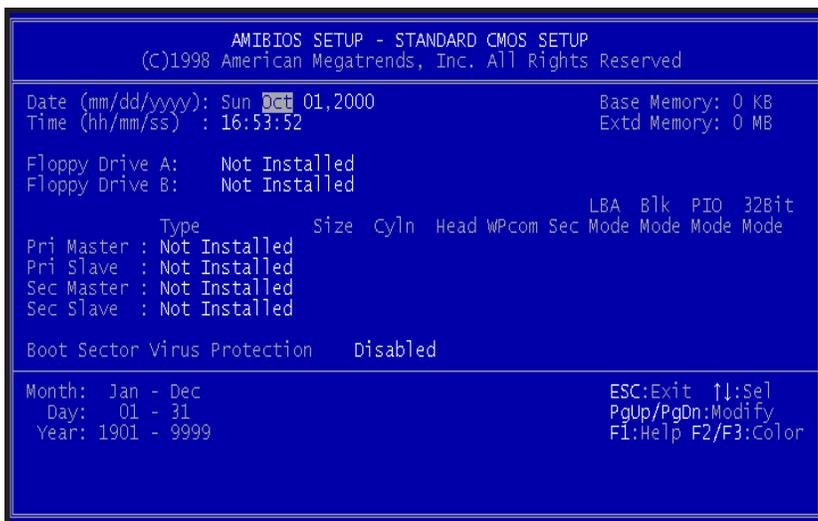
AMIBIOS HIFLEX SETUP UTILITY - VERSION 1.21
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Standard CMOS Setup
 Advanced CMOS Setup
 Advanced Chipset Setup
 Power Management Setup
 PCI / Plug and Play Setup
 Peripheral Setup
 CPU Configuration Setup
 Hardware Monitor Setup
 Auto-Detect Hard Disks
 Change User Password
 Change Supervisor Password
 Auto Configuration with Optimal Settings
 Save Settings and Exit
 Exit Without Saving

Standard CMOS setup for changing time, date, hard disk type, etc.
 ESC:Exit ↑↓:Sel F2/F3:Color F10:Save & Exit

AMI BIOS Setup

Standard CMOS Setup	Sets time, date, hard disk type, types of floppy drive. Monitor type, and if keyboard is installed.
Advanced CMOS Setup	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 Setup	Sets chipset-specific options and features.
Power Management Setup	Controls power conservation options.
PCI/Plug and Play Setup	Sets options related to PCI bus and Plug and Play
Peripheral Setup	Controls I/O Controller - related options.
CPU Configuration Setup	This option selects the type of CPU installed in the motherboard. The settings are Auto (AMIBIOS automatically determines the CPU type)
Hardware Monitor Setup	Display CPU or System Temperature, Fan Speed
Auto-Detect Hard Disks	BIOS auto-detect IDE Devices
Change User Password	Change / Set / Disable Password
Change Supervisor Password	Change / Set / Disable Password
Auto Configuration with Optimal Settings	BIOS Default Optimal Settings
Save Settings and Exit	Save Data to CMOS
Exit Without Saving	Abandon all Saving



Standard CMOS Setup

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.

Primary Master

Primary Slave

Secondary Master

Secondary Slave

Select these options to configure the drive named in the option. Select Auto Detect IDE to let 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 settings 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.

Memory

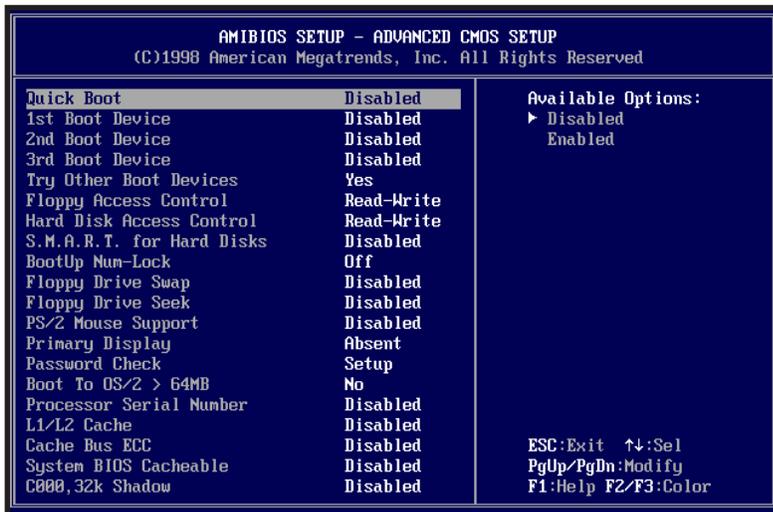
The category is display-only which is determined by POST (Power On Self Test) of the BIOS.

Base Memory The POST will determine the amount of base (or conventional) memory installed in the system.

Extended Memory The BIOS determines how much extended memory is present in the system.

Boot Sector Virus Protection

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”.



Advanced CMOS Setup

Quick Boot

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 “Disabled”.

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.

Try Other Boot Devices

Set this option to Yes to instruct AMIBIOS to attempt to boot from any other drive in the system if it cannot find a boot drive among the drives specified in the 1st Boot Device, 2nd Boot Device, 3rd Boot Device options.

Floppy Access Control

This option specifies the read/write access that is set when booting from a floppy drive.

Hard Disk Access Control

This option specifies the read/write access that is set when booting from a hard disk drive.

S.M.A.R.T. For Hard Disks

Set this option to Enabled to permit AMIBIOS to use the SMART (System Management and Reporting Technologies) protocol for reporting server system information over a network.

Boot Up NumLock

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".

PS/2 Mouse Support

Set this option to enable AMIBIOS support for a PS/2-type mouse. Pins 2-3 of the PS/2 mouse support. The settings are Enabled or Disabled. The Optimal and Fail-Safe default settings are Enabled.

Primary Display

This option configures the type of monitor attached to the computer. The settings are Mon, CGA 40x25, CGA 80x25, VGA/EGA or Absent. The Optimal and Fail-Safe default settings are VGA/EGA.

Password Check

This option enables password checking when system boots or run AMIBIOS setup. Settings: Setup or Always.

Boot To OS/2 > 64MB

Set this option to Enabled if running OS/2 operating system and using more than 64 MB of system memory on the motherboard. The settings are Enabled or Disabled. The Optimal and Fail-Safe default settings are Disabled.

Processor Serial Number

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 Disabled.

L1/L2 Cache

Set this option to Enable CPU L1/L2 Cache.

Cache Bus ECC

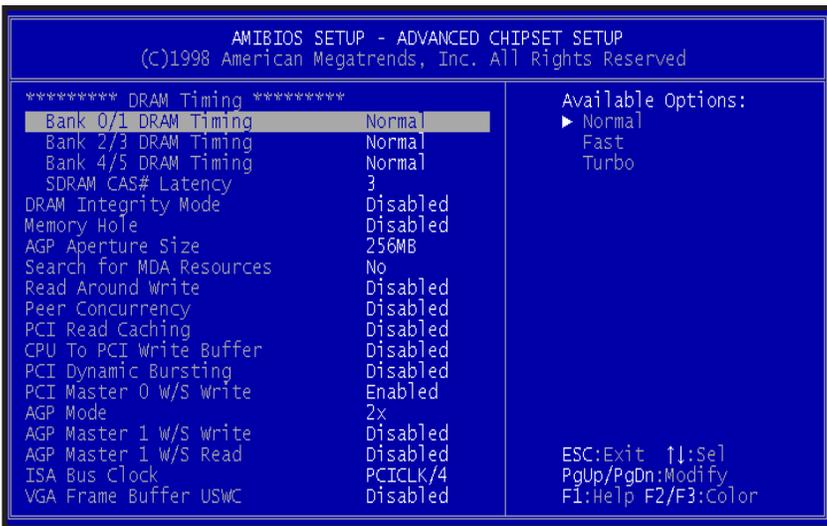
This option is to Enable Cache error correct and checking feature.

System BIOS Cacheable

When set to Enabled, the contents of the F0000h system memory segment can be read from or written to cache memory. The contents of this memory segment are always copied from the BIOS ROM to system RAM for faster execution. The settings are Enabled or Disabled. The Optimal default setting is Enabled. The Fail-Safe default setting is Disabled.

C4000, 32K Shadow

The option specifies how the 32 KB of video ROM at C0000h is treated.



Advanced Chipset Setup

Bank 0/1, 2/3, 4/5 DRAM Timing

This option is to set Bank 0/1 DIMM timing: Normal, Fast etc.

SDRAM CAS# Latency

This option sets the latency period for the CAS signal. The settings are 2 CLKs or d3 CLKs. The Optimal and Fail-Safe default settings are 3 CLKs.

DRAM Integrity Mode

This Option sets the type of system memory checking. The settings are : Disabled, ECC.

Memory Hole

This option specifies the location of an area of memory that cannot be addressed on the PCI bus. The settings are Disabled, 15 MB - 16 MB, 512KB-640KB, 14MB-16MB or Disable. The Optimal and Fail-Safe default settings are 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 Choice: 4M, 8M, 16M, 32M, 64M, 128M, 256M.

Search for MDA Resource

Read Around Write

This item controls the DRAM timing. It allows you to enable or disable the Fast-Read/Write turn around. The Choice : Enabled, Disabled.

Peer Concurrency

This item allows you to enable or disable the PCI to CPU, CPU to PCI concurrency. The Choice : Enabled, Disabled.

PCI Read Caching

This option is to Enable the PCI Read timing cacheable.

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 Choice : Enabled, Disabled.

PCI Dynamic Bursting

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

PCI Master 0 WS Write

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

AGP Mode

This item allows you to set the AGP Driving. The Choice : 2X, 4X.

AGP Master 1 WS Write

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

AGP Master 1 WS Read

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

ISA Bus Control

VGA Frame Buffer USWC

Set this option to Enabled to enable the VGA video frame buffer using USWC (Uncacheable, Speculatable, Write-Combined) memory. The settings are Enabled or Disabled. Older ISA VGA card drivers may not behave correctly if this option is not set to Disabled.



Peripheral Setup

USB Function

Set this option to Enabled to enable USB (Universal Serial Bus) support. The settings are Enabled or Disabled.

USB Keyboard Legacy Support

Set this option to Enabled to enable support for older keyboards if the USB Function option is set to Enabled. The settings are Enabled or Disabled.

Onboard FDC

Set this option to Enabled to enable the floppy drive controller on the motherboard. The settings are Auto (AMIBIOS automatically determines if the floppy controller should be enabled), Enabled, or Disabled.

Onboard Serial Port1

This option specifies the base I/O port address of serial port 1. The settings are Auto (AMIBIOS automatically determines the correct base I/O port address), Disabled, 3F8h/COM1, 2F8h/COM2, or 3E8h/COM4, 2E8/COM4.

Onboard Serial Port2

This option specifies the base I/O port address of serial port 2. The settings are Auto (AMIBIOS automatically determines the correct base I/O port address), Disabled, 3F8h/COM1, 2F8h/COM2, or 3E8h/COM4, 2E8/COM4.

Serial Port2 Mode

This option specifies the operating mode for serial port 2. This option only appears if the Onboard Serial Port2 option is not set to Auto or Disabled. The settings are IrDA ASKIR or Normal.

IR Duplex Mode

This option specifies type of infrared devices supported by the system. This option only appears if the Onboard Serial Port2 option is not set to Auto or Disabled. The settings are Full Duplex / Half Duplex. There are no default settings.

Onboard Parallel Port

This option specifies the base I/O port address of the parallel port on the motherboard. The settings are Disabled, 378h, 278h, or 3BCh. The Optimal default setting is 378h.

Parallel Port Mode

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

Onboard IDE

AMIBIOS SETUP - POWER MANAGEMENT SETUP
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```
<***** Wakeup Events *****>
Power Button Function           N/A
Wakeup on Modem Ring           Disabled
Wake-On LAN on WAKEUP-LINK     Disabled
RTC Alarm Resume From Soft Off Disabled
<<*** RTC Alarm Date ***>>
    Date                       Every Day
    Hour                       00
    Minute                     00
    Second                     00
***** Power Management *****
Power Management/APM           Disabled
Green PC Monitor Power State   Stand By
Video Power Down Mode          Disabled
Hard Disk Power Down Mode      Disabled
Standby Time Out (Minute)      Disabled
Suspend Time Out (Minute)      Disabled
Throttle Slow Clock Ratio      Reserved
Modem Use IRQ                  N/A
Display Activity                Ignore
```

```
ESC:Exit  ↑:Sel
PgUp/PgDn:Modify
F1:Help  F2/F3:Color
```

Power Management Setup

Power Button Function

This option specifies how the power button mounted externally on the computer chassis is used. The settings are On/Off, suspend.

Wakeup on Modem Ring

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

Wake-On-Lan on WAKEUP-link

An input signal on the Wake-On-Lan connector (in other words, an incoming call on the LAN) awakens the system from a soft-off state.

RTC Alarm Resume From Soft Off

Power Management/APM

Set this option to Enabled to enable the chipset power management and APM (Advanced Power Management) features. The settings are Enabled or Disabled.

Green PC Monitor Power State

This option specifies the power state that the green PC-compliant video monitor enters when AMIBIOS places it in a power saving state after the specified period of display inactivity has expired. The settings are Off, Standby, Suspend.

Video Power Down Mode

This option specifies the power state that the video subsystem enters when AMIBIOS places it in a power saving state after the specified period of display inactivity has expired. The settings are Standby, Suspend or Disabled.

Hard Disk Power Down Mode

This option specifies the power conserving state that the hard disk drive enters after the specified period of hard drive inactivity has expired. The settings are Disabled, Standby, or Suspend.

Standby Timeout / Suspend Timeout

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, 1,2,4,8,10,20,30,40,50,60.

Throttle Slow Clock Ratio

This option specifies the speed at which the system clock runs in the Standby Mode power saving state. The settings are expressed as a percentage between the normal CPU clock speed and the CPU clock speed when the computer is in the power-conserving state. The settings are 0-12.5%, 12.5-25%, 25-37.5%, 37.5-50%, 50-62.5%, 62.5-75% or 75-87.5%.

Modem Use IRQ

Display Activity



PCI / PLUG AND PLAY Setup

Plug and Play Aware O/S

Set this option to Yes to inform AMIBIOS that the operating system can handle Plug and Play (PnP) devices. The settings are No or Yes.

Clear NVRAM

PCI Latency Timer (PCI Clocks)

This option specifies the latency timing (in PCI clocks) for PCI devices installed in the PCI expansion slots. The settings are 32,64, 96,128,160,192, 224 or 248. The Optimal and Fail-safe default settings are 64.

Primary Graphics Adapter

This option is set to choose Onboard VGA or Add-On VGA.

PCI VGA Palette Snoop

When this option is set to Enabled, multiple VGA devices operating on different buses can handle data from the CPU on each set of palette registers on every video device. Bit 5 of the command register in the PCI device configuration space is the VGA Palette Snoop bit (0 is disabled).

PCI IDE Bus Master

Set this option to Enabled to specify that the IDE controller on the PCI bus has bus mastering capability. The settings are Disabled or Enabled.

Offboard PCI IDE Card

This option specifies if an offboard PCI IDE controller adapter card is used in the computer. You must also specify the PCI expansion slot on the motherboard where the offboard PCI IDE controller card is installed. If an offboard PCI IDE controller is used, the motherboard onboard IDE controller is automatically disabled. The settings are Disabled, Auto, Slot1, Slot2, Slot3, Slot4, Slot5 or Slot6. If Auto is selected, AMIBIOS automatically determines the correct setting. This is necessary to support non-compliant PCI IDE adapter cards.

Offboard PCI IDE Primary IRQ

This option specifies the PCI interrupt used by the primary IDE channel on the offboard PCI IDE controller. The settings are Disabled, Hardwired, INTA, INTB, INTC, or INTD.

Offboard PCI IDE Secondary IRQ

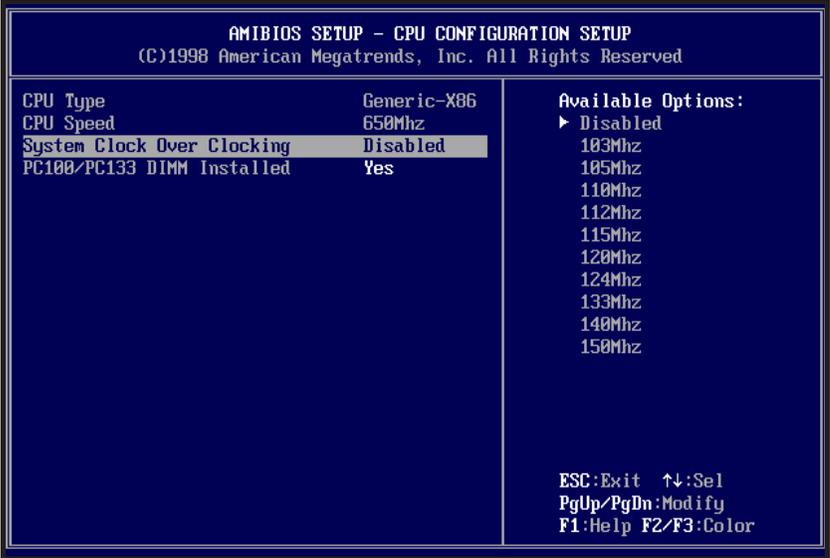
This option specifies the PCI interrupt used by the secondary IDE channel on the offboard PCI IDE controller. The settings are Disabled, Hardwired, INTA, INTB, INTC, or INTD. The Optimal and Fail-Safe settings are Disabled.

DMA Channel0 ~ 7

These options allow you to specify the bus type used by each DMA channel. The settings are PnP or ISA/EISA.

IRQ3 ~ 15

These options specify the bus that the specified IRQ line is used on. These options allow you to reserve IRQs for legacy ISA adapter cards. These options determine if AMIBIOS should remove an IRQ from the pool of available IRQs passed to devices that are configurable by the system BIOS. The available IRQ pool is determined by reading the ESCD NVRAM. If more IRQs must be removed from the pool, the end user can use these options to reserve the IRQ by assigning an ISA/EISA setting to it. Onboard I/O is configured by AMIBIOS. All IRQs used by onboard I/O are configured as PCI/PnP. IRQ12 only appears if the Mouse Support option in Advanced Setup is set to Disabled. IRQ14 and 15 will not be available if the onboard PCI IDE is enabled. If all IRQs are set to ISA/EISA and IRQ14 and 15 are allocated to the onboard PCI IDE, IRQ9 will still be available for PCI and PnP devices, because at least one IRQ must be available for PCI and PnP device. The settings are ISA/EISA or PCI/PnP.



CPU Configuration Setup

The system BIOS is capable of detecting the CPU type, say, Pentium III, Pentium II or Celeron. The user is only required to select the CPU speed. In addition, overclocking option is provided for advanced users who prefer to run the CPU over the specified clock frequency.

Glossary

Glossary

A



Keyboard Connector

The Mainboard provides one on-board AT connector for the keyboard. You simply plug the 5-pin keyboard into the corresponding connector. No jumper settings are necessary.

B



ATX Power Supply Connector

The Mainboard provides a 20-pin ATX power supply connector, which incorporates standard $\pm 5V$ and $\pm 12V$, 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.

b



AT Power Supply Connector

The Mainboard also provides a 12-pin AT power supply connector, which incorporates standard +/-5V, +/-12V.

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

D



COM1, COM2 Connector

The mainboard provides two high-speed 16550 compatible UART serial ports.

e



Integrated Functional Connector

The total of two USB device connectors, 1 PS/2 mouse, and an Infrared devices are all allocated at this connector.

Pin1 to Pin5 for USB1 connector

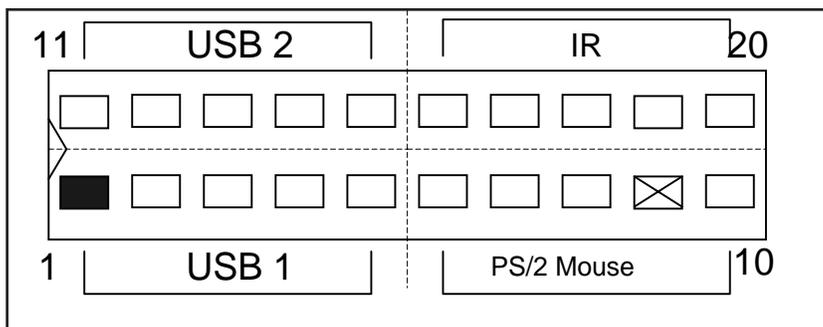
Pin11 to Pin15 for USB2 connector

Pin6 to Pin10 for PS/2 connector

Pin16 to Pin20 InfraRed connector

The connector pin out signal definitions are described as the Table below :

Pin	Signal Name	Pin	Signal Name
1 (USB1)	USB +5 Volt	11(USB2)	USB +5 Volt
2	USB Port 1-	12	USB Port 2-
3	USB Port 1+	13	USB Port 2+
4	Ground	14	Ground
5	No Connect	15	No Connect
6(PS/2 Mouse)	PS/2 Data	16(IR)	+5 Volt
7	PS/2 Clock	17	No Connect
8	Ground	18	Infrared Receive
9	No Connect	19	Ground
10	+5 Volt	20	Infrared Transmit



F



3.3V Memory Module Sockets (DIMM)

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 one parallel port connector. The parallel port can be 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.

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 266 MB/s in what is known as 'X1' mode. Using 'X2' mode, the peak transport rate can go as high as 532 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 4 PCI Connectors for the PCI cards.

K **ISA Slots Connector**

The Mainboard provides 2 ISA Connectors for the ISA cards.



M Front Panel Function Connector

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
External Power Saving Control (optional)	EXTSMI
Sleep Button	SLPBTN



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 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 IDE hard disk ribbon cables. After connect 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 two different WAKEUP-LINK headers (WOL & WOM) used to connect an add-in Network Interface Card and Modem Card which has Wakeup capability.



S CPU Socket

The Mainboard provides a CPU Socket for all 370-pin 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 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.*

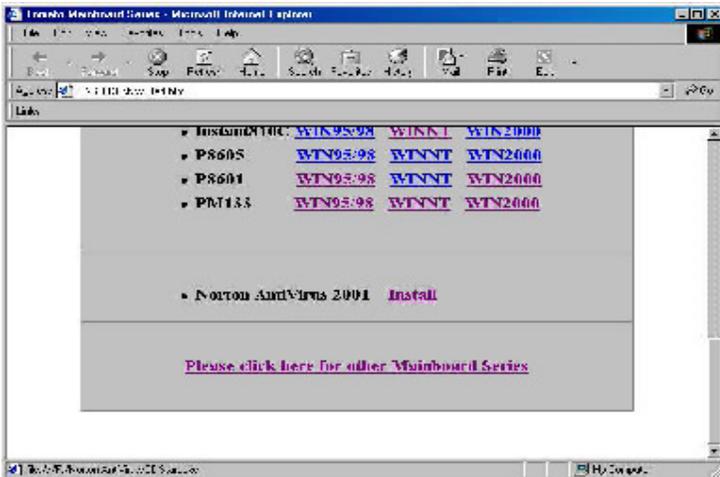
CD Driver & Software Installation Guide

Steps :

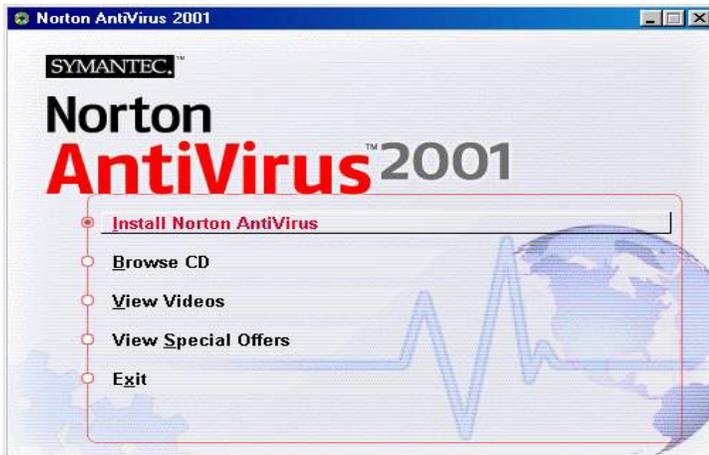
1. Boot up the Operating System (Windows 95/98/NT/2000)
2. Put the CD Disc into the CD-ROM Drive and wait for Autorun
3. Select V693 and click your Operating System Type
4. Follow the instructions and install suitable drivers

Norton Anti-Virus OEM Version Setup Guide

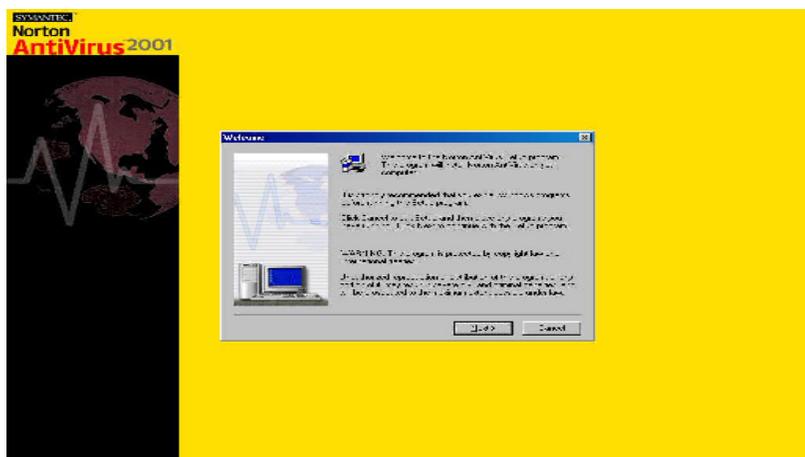
Step 1 : Load the Driver CD in CDROM and find the "Norton AntiVirus 2001 Install" Option.



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.

