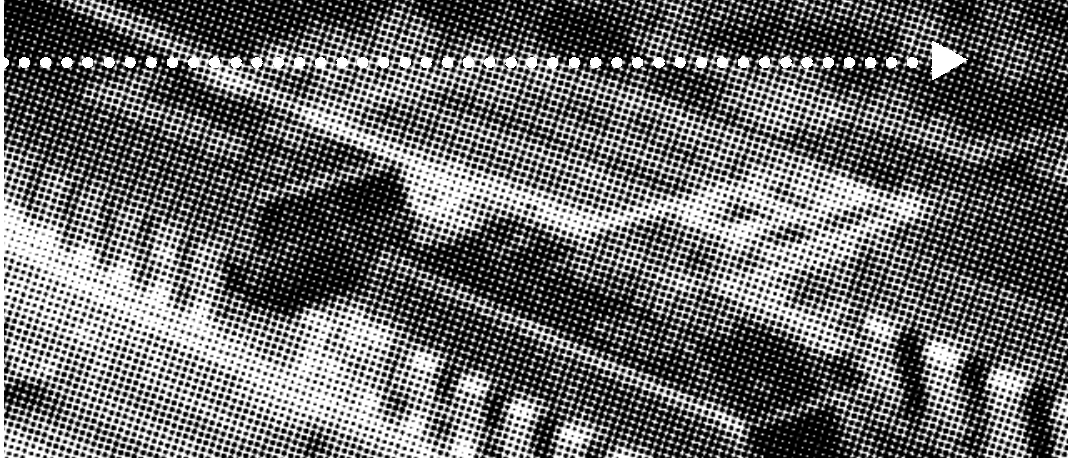

USER'S MANUAL

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

Supporting Intel PENTIUM III®, PENTIUM II® or Celeron®

Processors, Accelerated Graphics Port, Hardware Monitor

(Optional), Pd Bus Master IDE, SDRAM.

Quality, Performance Mainboards

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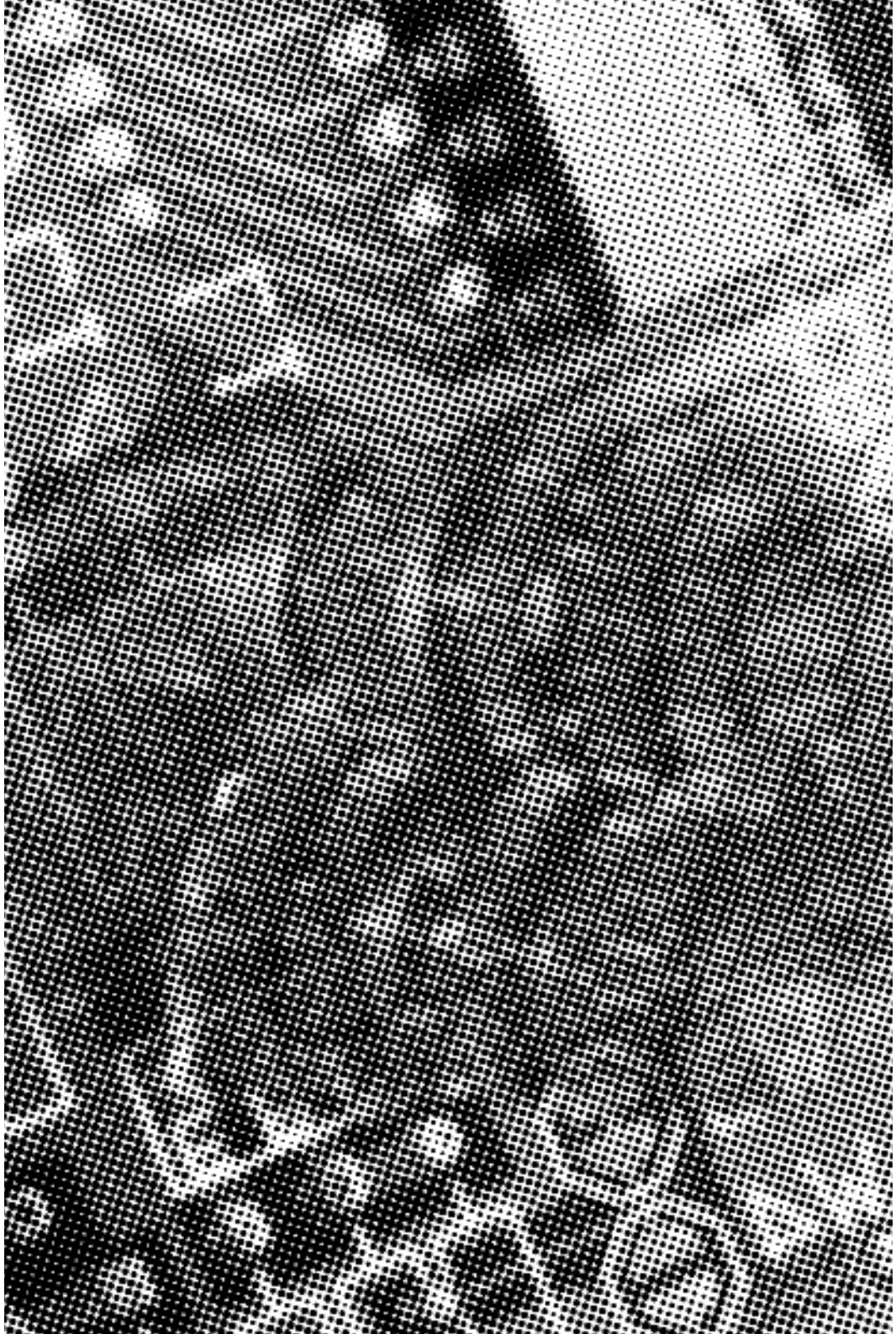


overview

Thank You for purchasing our High Performance PENTIUM III® PENTIUM II or CELERON® Mainboard. Our advanced technology mainboard is designed for processing speeds of 233MHz and 333MHz or above and is upgradeable for future processors.

The Intel Mainboard Utilizes Intel's PCI chipset and their IDE Xcelerator provides an integrated Bus Mastering IDE controller with two (2) high performance IDE interfaces for up to four (4)IDEdevices (hard drives, or CD-ROM's). It's I/O controller integrates floppy drive interface, two (2) FIFO serial ports, one (1) parallel port and Consumer Infra Red compatible interface.

The VIA Mainboard utilizes VIA's PCI chipset. The VIA's PCI/ISA IDE provides an integrated Bus Mastering IDE controller with two high performance IDE interfaces for up to four IDE devices (such as hard drives or CD-ROM). The integrated super I/O controller integrates the standard PC I/O functions: floppy interface, two FIFO serial ports, one EPP/ECP capable parallel port, and support for an IrDA and Consumer Infra Red compatible interface.

This mainboard is designed to support the new graphic interface standard, Accelerated Graphic Port (AGP), The AGP interface can reach a theoretical ~532Mbytes/sec transfer rate for 3D graphics data. On the other hand, the on-board 32-bit PCI local bus slots allow a high bandwidth data path, which serves as a super highway, for intensive data-movement such as networking. The BIOS support PCI bridge user configuration, which allows for further expansion of the system with PCI peripherals. Up to two 16-bit ISA slots allow this board to be backward compatible with the older expansion card. A total of six expansion slots may be populated with full length add-in cards, since one PCI and ISA slot share the same chassis I/O panel.

This Mainboard is among our “Auto Jumper” Series that eliminates the necessity for the user to be overwhelmed by jumper settings on the Mainboard. It is capable of detecting the CPU brand and core voltage, setting the appropriate CPU speed according to the instructions from the user through the CMOS setup.

fast start installation

This section will aid you in quickly setting up your series Mainboard, be sure to use caution to avoid personal injury and damage to wiring due to sharp pins on connector's and printed circuit assemblies, rough edges and corners and hot components. Adhere to warnings regarding accessibility into ares designated only for authorized Technicians.

Auto Jumper. This Mainboard is among our “Auto Jumper” Series that eliminates the necessity for the user to be Overwhelmed by jumper settings on the Mainboard. It is capable of detecting the CPU brand and core voltage setting the appropriate CPU speed according to the instructions from the user through the CMOS setup.

Your Location Requirements Are:

- A sturdy, level surface for placement
- Space allowance around mainboard
- Room temperature 50 to 90.5 F10 to 325 C Relative humidity 20/oc to 80
- 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 -1040 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 you are missing any of the items below please contact the representative for a replacement part.

ATX Box Standard Package

1) Mainboard
2) IDE Hard Drive ribbon cable
3) Floppy Drive Ribbon Cable
4) CD-ROM
5) Users Guide

AT Box Standard Package

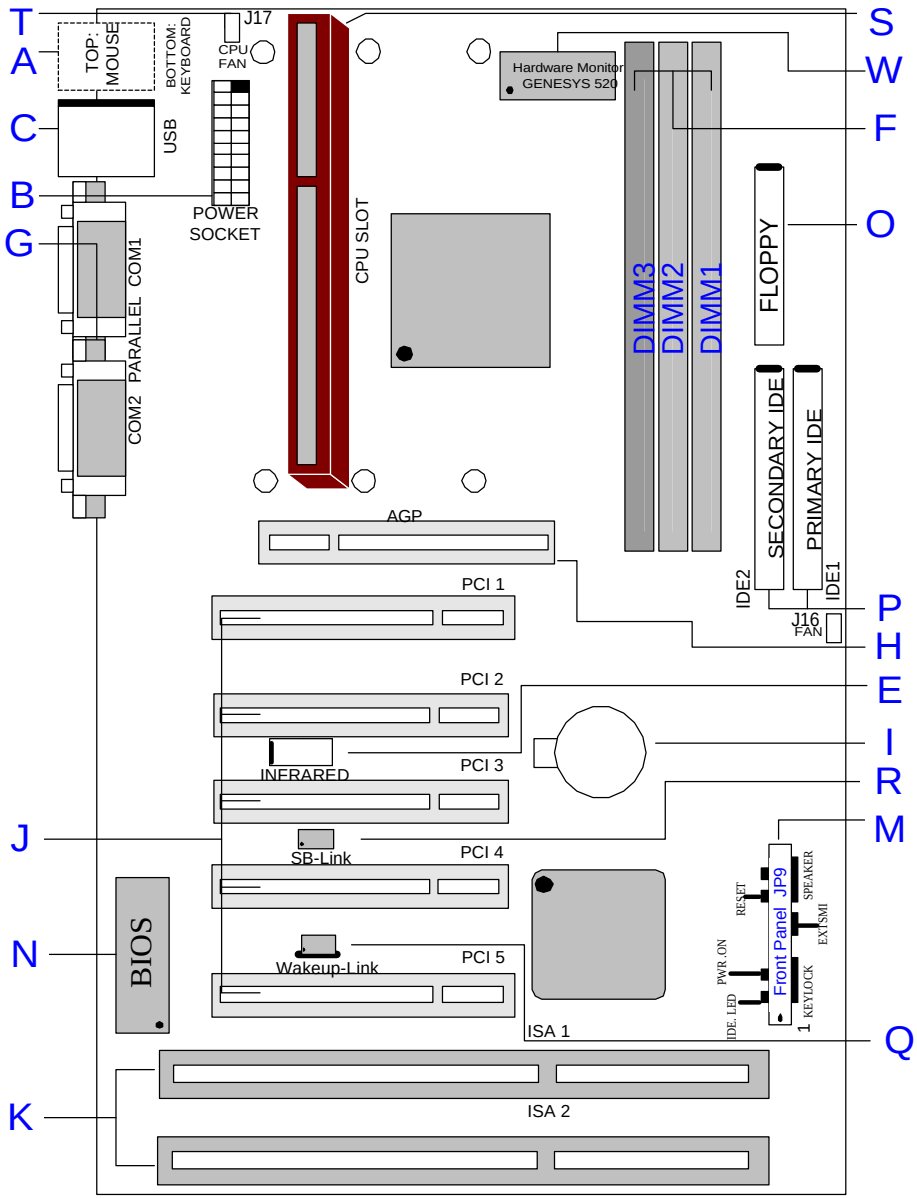
1) Mainboard
2) CD-ROM
3) Users Guide

Before we begin installing your series Mainboard we have provided you with a diagram of the Mainboard to help you locate the appropriate “connector's” we will make reference to on the Quick Step portion of this manual. The letters below describes the key Mainboard components. Page number in the right hand column will direct you to a detailed description of the component.

BXi98-ATX, BXe98-ATX, BXv98-ATX, BX133-ATX

COMPONENT	PAGE
A- PS/2 Keyboard / Mouse Connector's	.46
B- ATX Power Supply	.46
C- Universal Serial Bus (USB) Connector's	.47
E- Infra-Red (IR) connector	.47
F- 3.3v (Memory Module Sockets)	.48
G- Serial COM1, Serial COM2 and Parallel Port Connector's	.48
H- Accelerated Graphics Port (AGP) Connector	.48
I- 3V Lithium Battery	.48
J- PCI Add-in Board Connector's	.49
K- ISA Add-in Board Connector's	.49
M- Front Panel Function Connector's	.49
N- Flash BIOS	.50
O- Floppy Drive Connector	.50
P- IDE Device Connector's	.50
Q- WAKEUP-LINK Header	.51
R- SB-LINK and Creative PCI Header	.51
S- CPU Card Slot 1	.51
T- CPU FAN Connector	.51
W- GL520SM Hardware Monitor	.52

Mainboard diagram

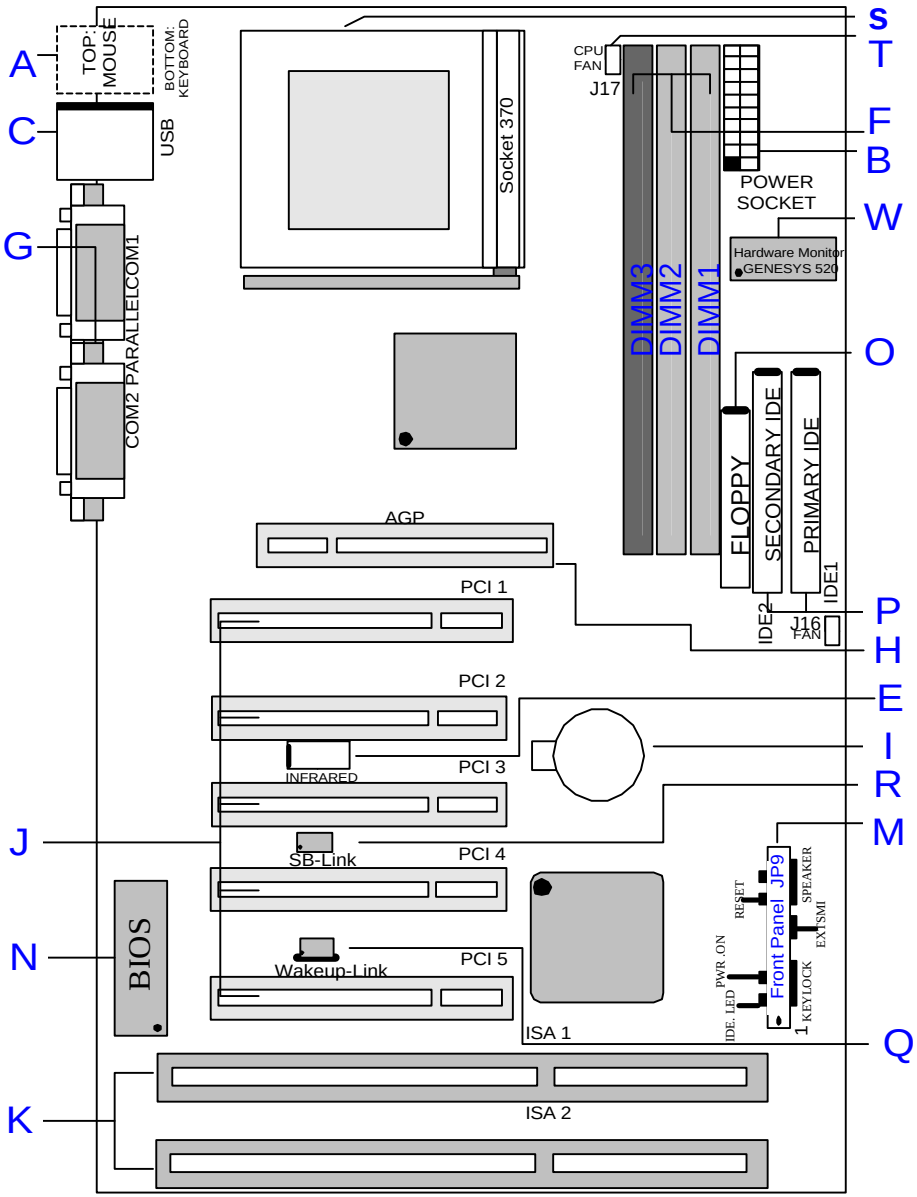


Mainboard diagram

Before we begin installing your series Mainboard we have provided you with a diagram of the Mainboard to help you locate the appropriate “connector's” we will make reference to on the Quick Step portion of this manual. The letters below describes the key Mainboard components. Page number in the right hand column will direct you to a detailed description of the component.

BXi98-CX, BXe98-CX, BXv98-CX, BX133-CX

COMPONENT	PAGE
A- PS/2 Keyboard / Mouse Connector's	.46
B- ATX Power Supply	.46
C- Universal Serial Bus (USB) Connector's	.47
E- Infra-Red (IR) connector	.47
F- 3.3v (Memory Module Sockets)	.48
G- Serial COM1, Serial COM2 and Parallel Port Connector's	.48
H- Accelerated Graphics Port (AGP) Connector	.48
I- 3V Lithium Battery	.48
J- PCI Add-in Board Connector's	.49
K- ISA Add-in Board Connector's	.49
M- Front Panel Function Connector's	.49
N- Flash BIOS	.50
O- Floppy Drive Connector	.50
P- IDE Device Connector's	.50
Q- WAKEUP-LINK Header	.51
R- SB-LINK and Creative PCI Header	.51
s- Socket 370 CPU Socket	.54
T- CPU FAN Connector	.51
W- GL520SM Hardware Monitor	.52

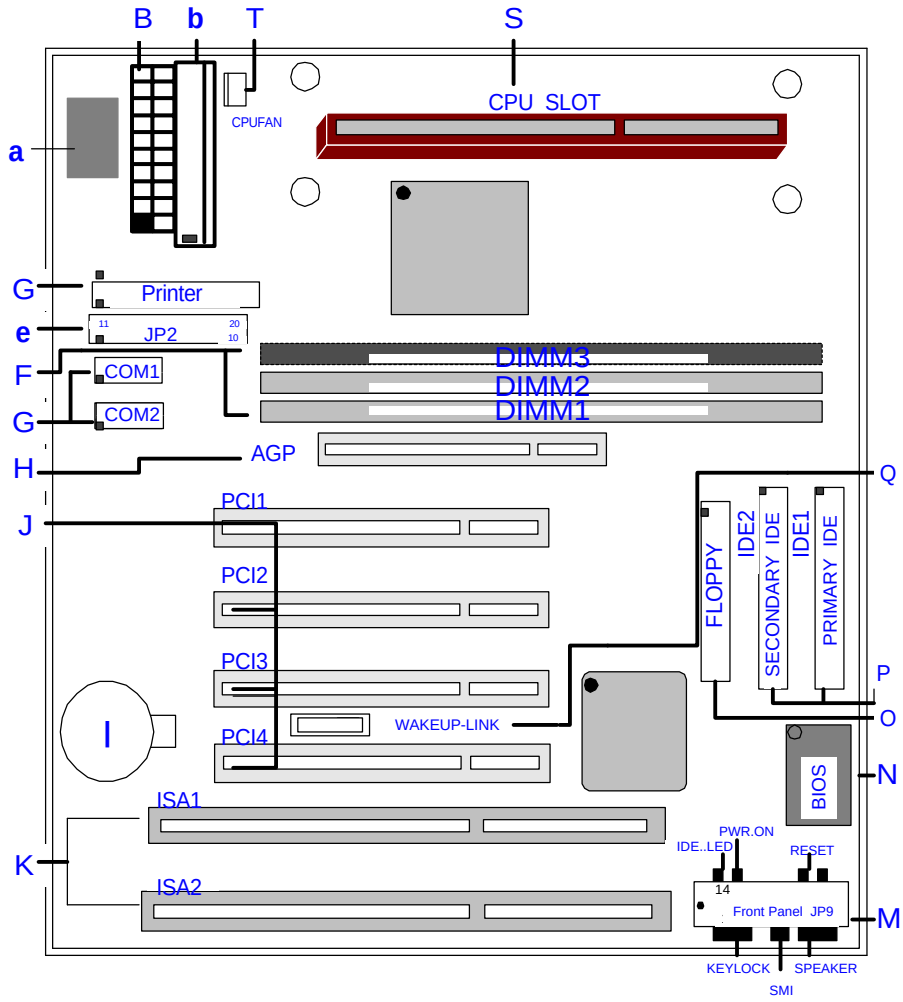


Before we begin installing your series Mainboard we have provided you with a diagram of the Mainboard to help you locate the appropriate “connector's” we will make reference to on the Quick Step portion of this manual. The letters below describes the key Mainboard components. Page number in the right hand column will direct you to a detailed description of the component.

BXi98-AT, ZX98-AT, BXv98-AT, BX133-AT

COMPONENT	PAGE
a- AT Keyboard Connector	.53
b- AT Power Supply	.53
B- ATX Power Supply	.46
e- Integrated Functional Connector	.53
F- 3.3v (Memory Module Sockets)	.48
G- AT Serial COM1, Serial COM2 and Parallel Port Cable Connector 's pin headers	.48
H- Accelerated Graphics Port (AGP) Connector	.48
I- 3V Lithium Battery	.48
J- PCI Add-in Board Connector's	.49
K- ISA Add-in Board Connector's	.49
M- Front Panel Function Connector's	.49
N- Flash BIOS	.50
O- Floppy Drive Connector	.50
P- IDE Device Connector's	.50
Q- WAKEUP-LINK Header	.51
S- CPU Card Slot 1	.51
T- CPU FAN Connector	.51

Mainboard diagram

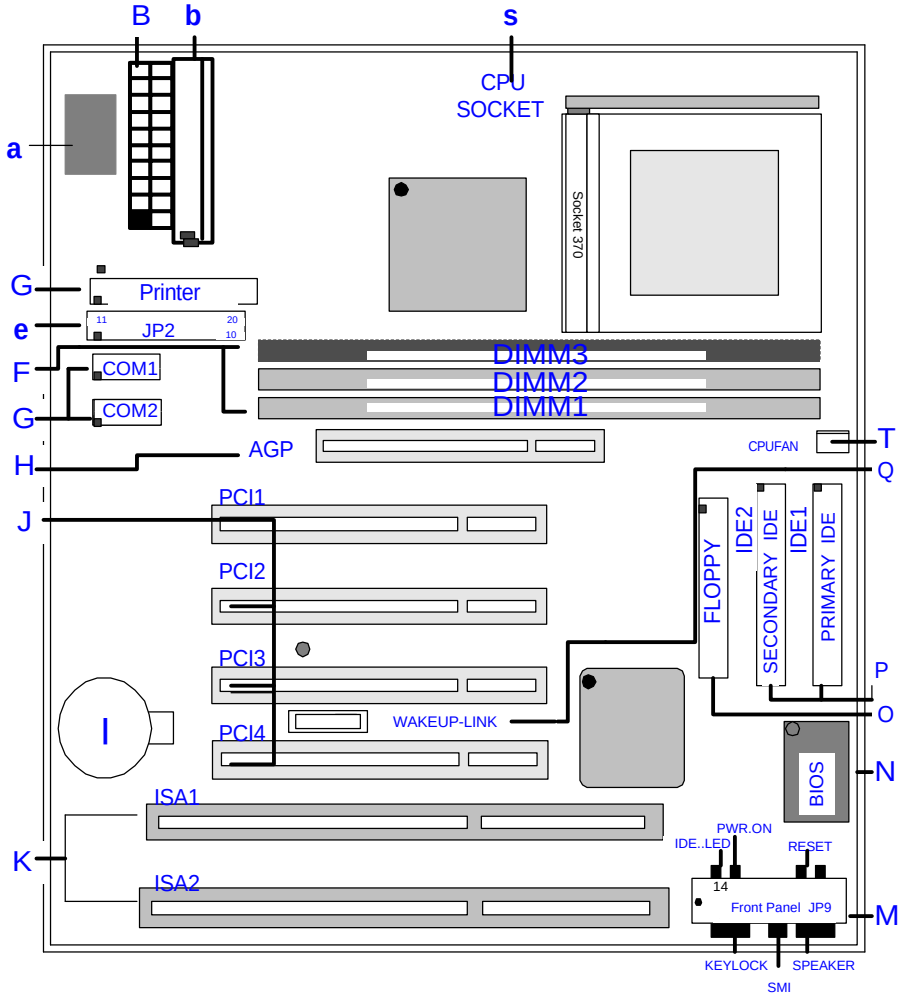


Before we begin installing your series Mainboard we have provided you with a diagram of the Mainboard to help you locate the appropriate “connector's” we will make reference to on the Quick Step portion of this manual. The letters below describes the key Mainboard components. Page number in the right hand column will direct you to a detailed description of the component.

BXi98-CT, ZX98-CT, BXv98-CT, BX133-CT

COMPONENT	PAGE
a- AT Keyboard Connector	.53
b- AT Power Supply	.53
B- ATX Power Supply	.46
e- Integrated Functional Connector	.53
F- 3.3v (Memory Module Sockets)	.48
G- AT Serial COM1, Serial COM2 and Parallel Port Cable Connector 's pin headers	.48
H- Accelerated Graphics Port (AGP) Connector	.48
I- 3V Lithium Battery	.48
J- PCI Add-in Board Connector's	.49
K- ISA Add-in Board Connector's	.49
M- Front Panel Function Connector's	.49
N- Flash BIOS	.50
O- Floppy Drive Connector	.50
P- IDE Device Connector's	.50
Q- WAKEUP-LINK Header	.51
s- Socket 370 CPU Socket	.54
T- CPU FAN Connector	.51

Mainboard diagram

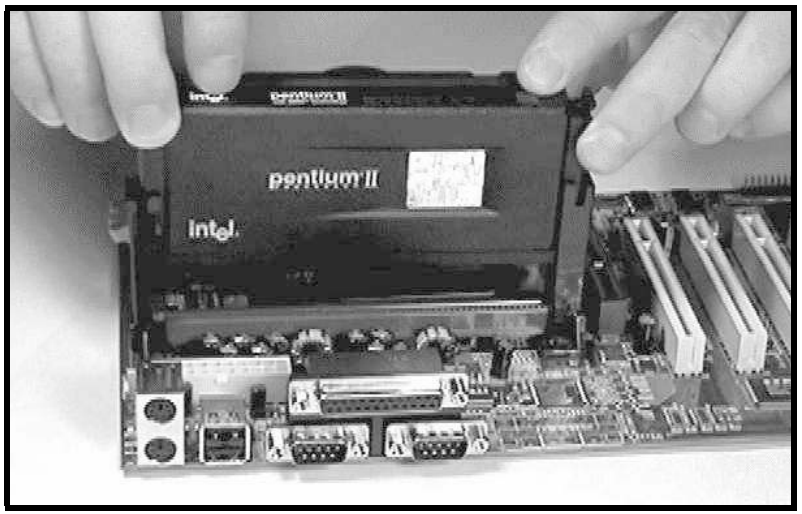


6 quick steps

Please follow these steps in order to assure your series Mainboard installation is successful. Please refer to the back chapters for further information regarding boot-up and configuration. An anti static rist 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 (CPU)

The Mainboard provides a 242-pin CPU card slot.(S in diagram). The CPU card should have a fan attached to it to prevent overheating. If a fan is not present, user should purchase a fan prior to turning on the system. The J17 fan power connector should be included.



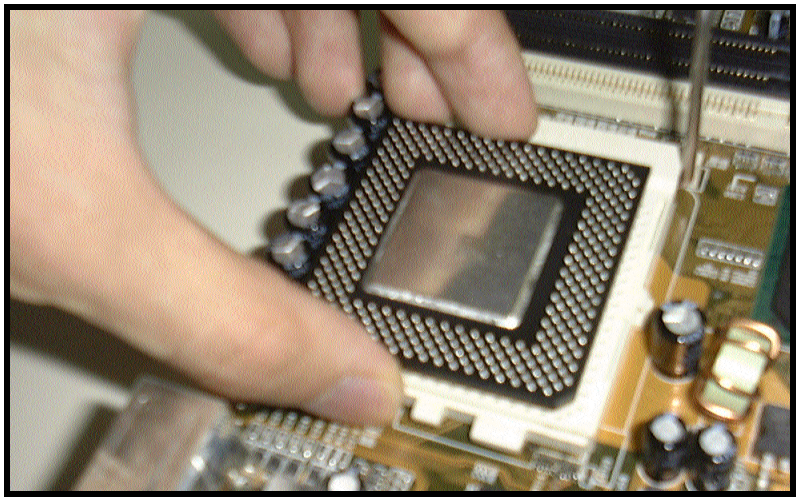
CPU Cooling Fan Installation Diagram The recommended heatsinks for the Pentium II processor are those with three-pin fans that can be connected to the fan connectors on the motherboard. J17 provides the +12 Volts D.C. for your CPU cooling fan.

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 motherboard. You may install an auxiliary fan. if necessary.

Insert the Cartridge: Push the SEC cartridge's two locks inward. With the heatsink facing the mainboard's chipset, press this cartridge gently but firmly until it is fully inserted.

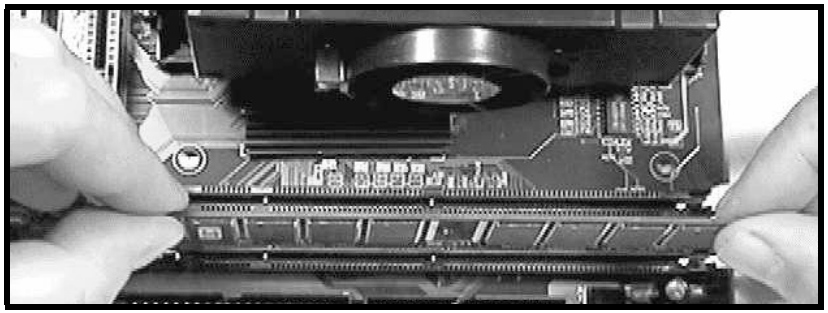
Installing the Central Processing Unit (CPU)

The motherboard provides a 370 pins, Socket 370. The CPU should have a fan attached to it 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 motherboard. J17 provides the +12 Volts D.C. for your CPU cooling fan.



2 Installing the memory

Memory is installed in DIMM Sockets 1-3 (F in diagram) as follows, using the chart on the following page.



After you have set the memory firmly into its slot snap the white chip holders up to lock in the memory chip. The chart below will help you determine what slot to use for the memory configuration you want.

The following table for mainboards with *WHITE DIMM 3* **Only**

DIMM module combination	DIMM SLOT 1	2	3
One (1) Single Bank	S	-	-
Two (2) Single Bank	S	S	-
Three (3) Single Bank	S	S	S
Two (2) Single Bank + One (1) Double Bank	S	S	D
	S	D	S
	D	S	S
Two (2) Double Bank	D	D	-

S= Single Bank DIMM module D= Double Bank DIMM module

3 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 motherboard. Pin 1 is the side closest to the power connector on hard drives and floppy drives.

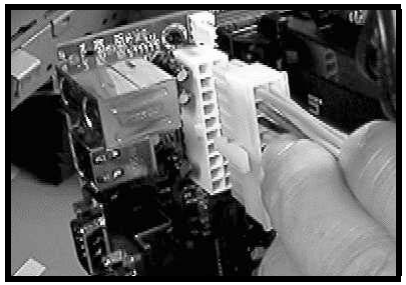
ATX Power Connector.

ATX Power Supply Connector (20-pin ATXPWR)

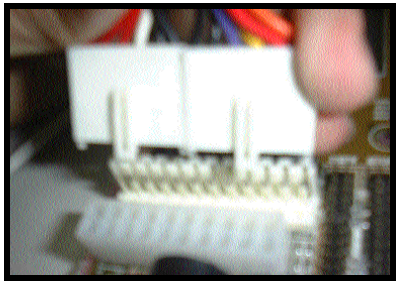
The single 20-pin connector (B in diagram) incorporates standard +5V and +12V, with 3n optional 3.3V ani soft-on/off signals. With a power supply that supports remote power on/off, the mainboard can turn off the system power through the software control, such as the shutdown in Windows 95 Start Menu. The BI0S system will turn the system power off when it receives the proper APM command from the OS. APM must be enabled in the BI0S and OS systems in order for the soft-off feature is to work properly.

AT Power Connector.

A 12-Pin power supplies provide two plugs incorporates standard ñ5V and ñ12V, each containing six wires, two of which are black. Orient the connectors so that the black wires are together.



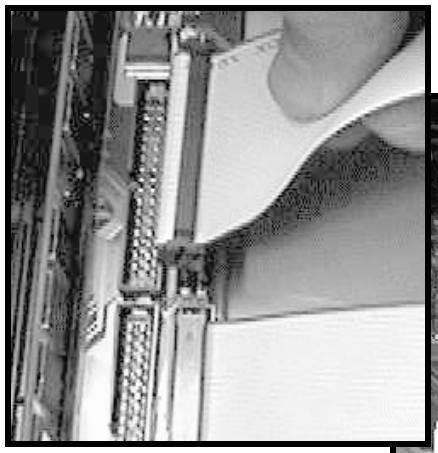
ATX Power Connector



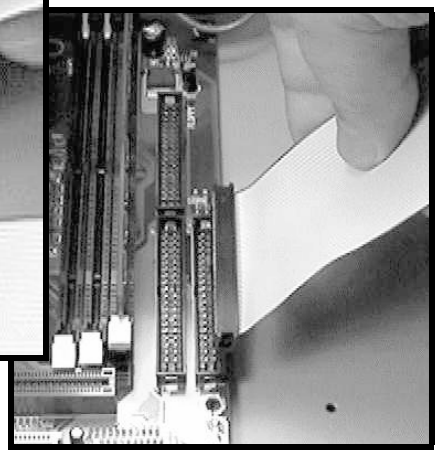
AT Power Connector

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

IDE Connector.

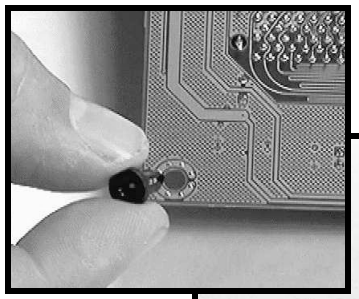
The (2) on-board IDE connector's (P in diagram)support the provIded 40-pin IDE hard disk ribbon cable. After connecting the single end to the mainboard, connect the (2) remaining plugs at the other end of your hard disk(s). If you install (2) hard disks, you must configure the (2) drives by setting its jumpers according to the documentation of your hard disk.

Also, you may connect the (2) hard disk drives so that both become Masters, using one ribbon cable on the primary ID-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 “diagram the mainboard”.

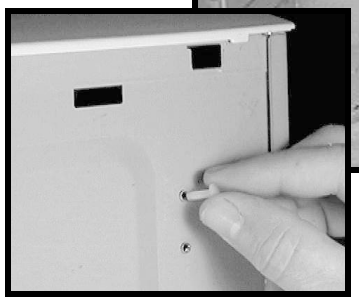
4 Installing the mainboard into your computer chassis

Snap black mounting pins onto the mainboard as shown. Carefully insert the mainboard into the computer chassis and align the corresponding mounting holes on the mainboard with the holes on you 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 have snapped fully into place.



Black mount pin

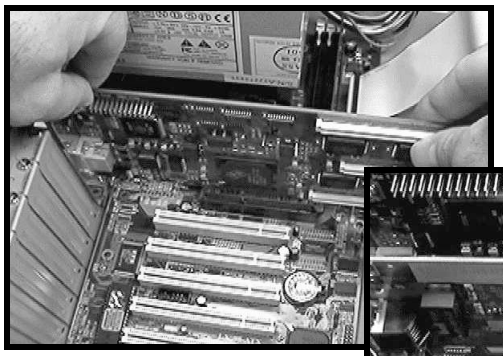
Insert into chassis



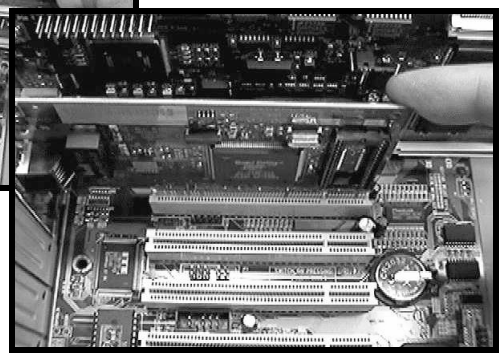
Insert White mount pin

5 Installing the AGP Video Card and Add-On Boards

First read your Video card documentation for hardware and software settings that may be required to set up your specific card. Remove the opening cover plate on your computer case at the slot aligned with the AGP port. Keep the plate for possible future use. Carefully align the card's connector's and press firmly. Secure the card on the slot with the screw you removed from the cover plate.



AGP Video Card



PCI Board Installation

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 opening 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's and press firmly. Secure the card on the slot with the screw you removed from the cover plate.

Make sure to align rear external I/O connector's with the corresponding openings in chassis shown below (A,C & G in diagram)

You can now attach the Front Panel Function Connector (M in diagram) wires and Keyboard, Mouse and Monitor cables to the appropriate serial ports. connect the main power cable and Boot your system.

Boot the system while pressing the key on your keyboard to detect CPU speed and Auto Configure Mainboard.

Press the DEL key when prompted and continue BIOS configurations discussed in the next chapter.

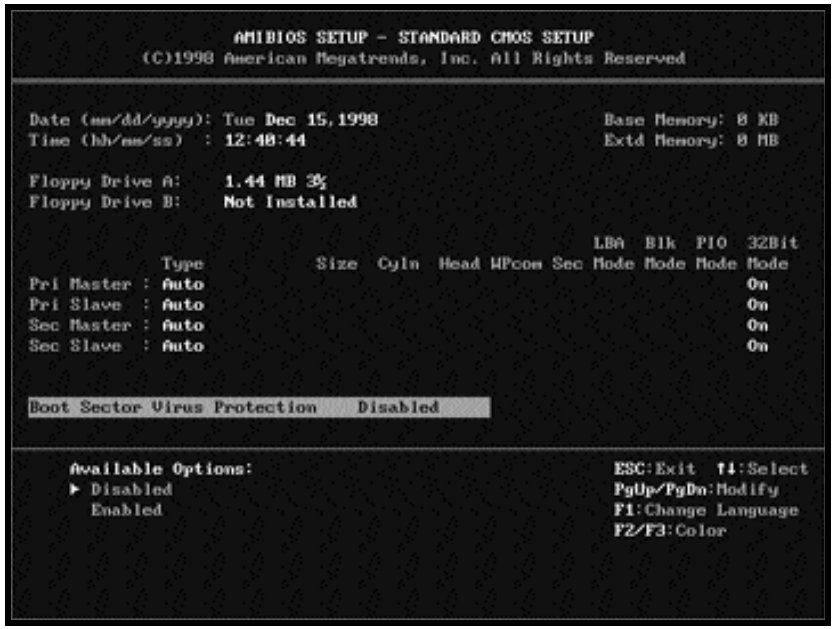
I/O connector's aligned with openings

REMEMBER! This Mainboard is among our “Auto Jumper” Series that eliminates the necessity for the user to be overwhelmed by jumper settings on the Mainboard. It is capable of detecting the CPU brand and core voltage setting the appropriate CPU speed according to the instructions from the user through the CMOS setup.

BIOS Set-Up

AMIBIOS 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 <Del> 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/PnP Setup	Sets options related to PCI bus and Plug and Play options.
Peripheral Setup	Controls I/O Controller- related options.
CPU Configuration Setup	This option selects the type of CPU install in the motherboard. The settings are Auot (AMBIOS auto-matically determines the CPU type.)



Standard CMOS Setup

Select the AMIBIOS Setup Setup options by choosing Standard Setup from the AMIBIOS. Setup main menu. Standard Setup options are described below.

Floppy Drive A: and B:

Move the cursor to these fields via and 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, or 2.88 MB 3 1/2 inch.

Primary Master
Primary Slave
Secondary Master
Secondary Slave

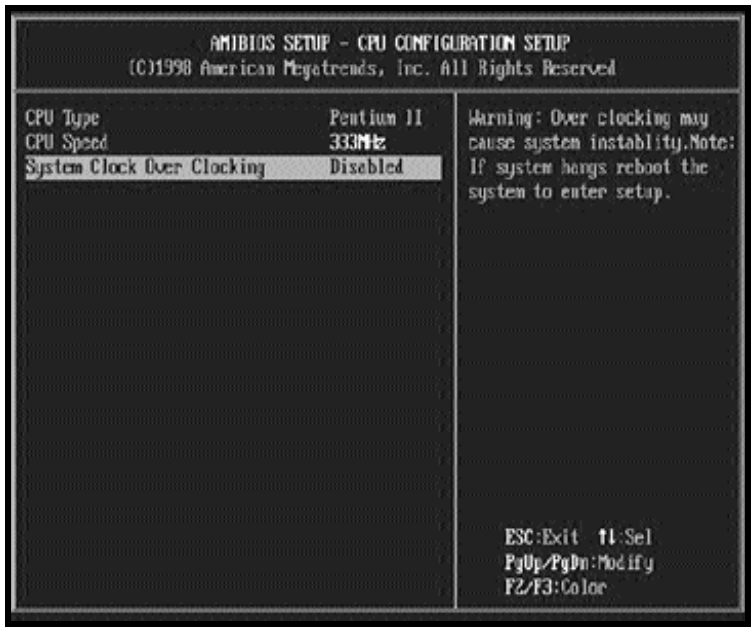
Select these options to configure the drive named in the option. Select Auto Detect IDE to let AMIBIOS automatically configure the drive. A screen with a list of drive parameters appears. Click on OK to configure the drive.

Type	How to Configure
SCSI	Select Type. Select Not Installed to the drive parameter screen. The SCSI drivers provided by the SCSI manufacturer should allow you to configure the SCSI drive.
IDE	Select Type. Select Auto to let AMIBIOS determine the parameters. Click on OK when AMIBIOS displays the drive parameters. Select LBA Mode. Select On if the drive has a capacity greater than 540 MB. Select Block Mode. Select On to allow block mode data transfers. Select 32-Bit Mode. Select On to allow 32-bit data transfers. Select the PIO Mode. It is best to select Auto to allow AMIBIOS to determine the PIO mode. If you select a PIO mode that is not supported by the IDE drive. The drive will not work properly. If you are absolutely certain that you know the drive's PIO mode. Select PIO mode 0-4, as appropriate.
CD-ROM	Select Type. Select CDROM. Click on OK when AMIBIOS displays the drive parameters.
Standard MFM	Select Type. You must know the drive parameters. Select the drive type that exactly matches your drive's parameters.
Non-Standard MFM	Select Type. If the drive parameters do not match the drive parameters listed for drive types 1 - 46. Select User and enter the correct hard disk drive parameters.

BIOS Setup

Entering Drive Parameters

Parameter	Description
Type	The number for a drive with certain identification parameters.
Cylinders	The number of cylinders in the disk drive.
Heads	The number of heads.
Write Precompensation	The actual physical size of a sector gets progressively smaller as the track diameter diminishes. Yet each sector must still hold 512 bytes. Write precompensation circuitry on the hard disk compensates for the physical difference in sector size by boosting the write current for sectors on inner tracks. This parameter is the track number on the disk surface where write precompensation begins.
Landing Zone	This number is the cylinder location where the heads normally park when the system is shut down.
Sectors	The number is the cylinder location where the heads normally park when the system is shut down.
Capacity	The formatted capacity of the drive is the number of heads times the number of cylinders times the number of sectors per track times 512 (bytes per sector).



CPU Configuration Setup

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

Advanced CMOS Setup

Quick Boot

Set this option to Enabled to instruct AMIBIOS to boot quickly when the computer is powered on. This option replaces the old Above 1 MB Memory Test Advanced Setup option. The settings are:

1st Boot Device

This option set the type of device for the first boot drives that the AMIBIOS attempts to boot from after AMIBIOS POST completes. The settings are Disabled, Network, Optical, SCSI, CDROM, IDE-0, IDE-1, IDE-2, or IDE-3. The Optimal and Fail-Safe default settings are IDE-0.

2nd Boot Device

This option sets the type of device for the second boot drives that the AMIBIOS attempts to boot from after AMIBIOS POST completes. The settings are Disabled, Floppy, or IDE-0. The Optimal and Fail-Safe default settings are Floppy.

3rd Boot Device

This option sets the type of device for the third boot drives that the AMIBIOS attempts to boot from after AMIBIOS POST completes. The settings are Disable, CD-ROM, or IDE-0. The Optimal and Fail-Safe default settings are CD-ROM.

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. The settings are Read/Write or Read-Only. The Optimal and Fail-Safe default settings and Read/Write.

Hard Disk Access Control

This option specifies the read/write access that is set when booting from a hard disk drive. The settings are Read/Write or Read-Only. The Optimal and Fail-Safe default settings are Read/Write.

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

Set this option to Enable to permit AMIBIOS to use the SMART (System Management System Management and Reporting Technologies) protocol for reporting server system information over a network. The settings are Enable/Disabled. The Optimal and Fail-Safe default settings are Disabled.

Boot Up Num Lock

Set the 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. The settings are On or Off. The default settings are 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 every time the system boots or when you run AMIBIOS Setup. If Always is chosen, a user password prompt appears every time the computer is turned on. If setup is chosen, the password prompt appears if AMIBIOS is executed. See Advanced Setup chapter for instructions on changing a password. The Optimal and Fail-Safe defaults are Setup.

Boot To OS/2

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.

CPU Microcode Update

Set this option to Enabled to permit the CPU to be updated online at any time. The settings are Enabled or Disabled. The Optimal and Fail-Safe default settings are Enabled.

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.

C000, 16K Shadow
C400, 16K Shadow

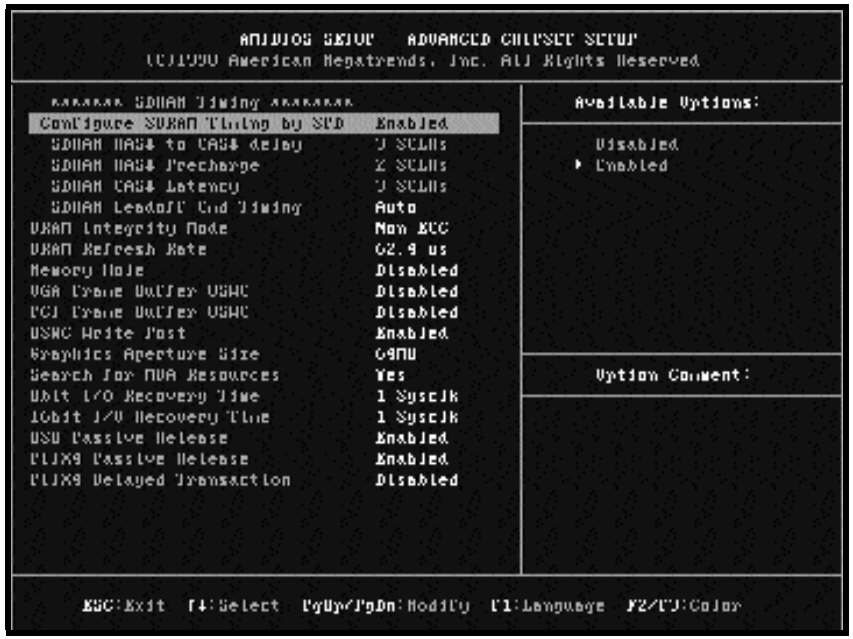
The options specify how the 32 KB of video ROM at C0000h is treated. The settings are:

Setting	Description
Disabled	The contents of the video ROM are not copied to RAM.
Enabled	The contents of the video ROM area from C0000h - C7FFFh are copied (shadowed) from ROM to RAM for faster execution.
Cached	The contents of the video ROM area from C0000h - C7FFFh are copied from ROM to RAM and an be written to or read from cache memory.

C800, 16K Shadow
CC00, 16K Shadow
D000, 16K Shadow
D400, 16K Shadow
D800, 16K Shadow
DC00, 16K Shadow

These options enable shadowing of the contents of the ROM area named in the option. the ROM area not used by ISA adapter cards is allocated to PCI adapter cards. The settings are:

Setting	Description
Disabled	The contents of the video ROM are not copied to RAM.
Cached	The contents of the video ROM area from C0000h - C7FFFh are copied from ROM to RAM and can be written to or read from cache memory.
Enabled	The contents of the video ROM area from C000h - C7FFFh are copied (shadowed) from ROM to RAM for faster execution.



Advanced Chipset Setup

Choose Chipset Setup on the AMIBIOS Setup main menu. All Chipset Setup options are then displayed. AMIBIOS Setup can be customized. AMIBIOS Setup can be customized. AMIBIOS Setup can be customized via AMIBCP. See the AMIBIOS Utilities Guide for additional information.

MA Wait State

This option specifies the length of the delay inserted between MA signals. The settings are Slow or Fast. The Optimal and Fail-Safe default settings are Slow.

SDRAM Timing Latency

This option specifies the latency for the Synchronous DRAM system memory signals. The settings are Auto (AMBIOS automatically determines the optimal delay) or Manual. The Optimal and Fail-Safe default settings are Auto.

RAS To CAS

This option specifies the length of the delay inserted between the RAS and CAS signals of the DRAM system memory access cycle. The settings are 2 CLKs ro 3 CLKs. The Optimal and Fail-Safe default settings are 3 CLKs.

CAS Lat.

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.

RAS Precharge

This option specifies the length of the RAS precharge part of the DRAM system memory access cycle when EDO DRAM system memory is installed in this computer. The settings are 3 CLKs or 4 CLKs. the Optimal and Fail-Safe default settings are 4 CLKs.

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 ro Disabled. Older ISA VGA card drivers may not behave correctly if this option is not set to Disabled. The Optimal and Fail-Safe default settings are Disabled.

PCI Frame Buffer USWC

Set this option to Enabled to enable the USWC memory attribute and improve video performance when a PCI video adapter is installed. However, VGA card drivers may not behave correctly when this option is set to Enabled. The settings are Disabled or Enabled. The Optimal and Fail-Safe defaults are Disabled.

DRAM Integrity Mode

This option sets the type of system memory checking. The settings are:

Setting	Description
Non ECC	No error checking or error reporting is done.
ECC Only	Multibit errors are detected and reported as parity errors. Single-bit errors are corrected by the chipset. Corrected bits of data from memory are not written back to DRAM system memory. If Level l is selected, the J25 External SMI software jumper on the Series 745 board is disabled.
ECC	Multibit errors aer detected and reported as parity errors. Single-bit errors are corrected by the chipset and are written back to DRAM system memory. If a soft (correctable) memory error occurs, writing the fixed data back to DRAM system memory will resolve the problem. Most DRAM errors are soft errors. If a hard (uncorrectable) error occurs, writing the fixed data back to DRAM system memory does not solve the problem. In this case, the second time the error occurs in the same location,m a Parity Error is reported, indicating an uncorrectable error. If ECCI is selected, AMIBIOS automatically enables the System Management Interface (SMI) is enabled. If you do not want to enable power management, set the Power Management/APM option to Disabled and set all Power Management/APM to Enabled and set the power management timeout options as desired.

Fixed Memory Hole

This option specifies the location of an area of memory that cannot be addressed on the ISA bus. The settings are Disabled, 15 MB -16 MB, or 512KB - 640 KB. The Optimal and Fail-Safe default settings are Disabled.

TypeF DMA Buffer Control1
TypeF DMA Buffer Control2

These options specify the DMA channel where TypeF buffer control is implemented. the settings are Disable, Channel-0, Channel-1, Channel-2, Channel-3, Channel-4, Channel-5, Channel-6, Channel-7. The Optimal and Fail-Safe default settings are Disabled.

DMA-0 Type
DMA-1 Type
DMA-2 Type
DMA-3 Type
DMA-5 Type
DMA-6 Type
DMA-7 Type

These options specify the bus that the specified DMA channel can be used on. The settings are PC/PCI, Distributed, or Normal ISA. The Optimal and Fail-Safe default settings are Normal ISA.

AGP Aperture Size

This option specifies the amount of system memory that can be used by the Accelerated Graphics Port (AGP). The settings are 4 MB, 8 MB, 16 MB, 32 MB, 64 MB, 128 MB, or 256 MB. The Optimal and Fail-Safe default settings are 256 MB.

System Type

This option sets the system type. The settings are Auto (AMIBIOS automatically determines the system type). DP, or UP. The Optimal and Fail-Safe default settings are Auto.

USWC Write I/O Post

This option sets the status of USWC posted write to I/O. The settings are:

Settings	Description
Enabled	USWC posted writes to I/O are enabled.
Disabled	USWC posted writes to I/O are disabled.
Auto	AMIBIOS automatically determines if USWC posted writes to I/O should be enabled and sets this option accordingly.

The Optimal and Fail-Safe default settings are Auto.

AGP Common SERR#

Set this option to Enabled to permit a common SERR# signal for AGP and the standard PC bus. The settings are Enabled or Disabled. The Optimal and Fail-Safe default settings are Enabled.

AGP System Error Forwarding

Set this option to Enabled to enable AGP system errors to be forwarded. The settings are Enabled or Disabled. the Optimal and Fail-Safe default settings are Enabled.

AGP Parity Error Response

Set this option to Enabled to enable AGP parity error response. The settings are Enabled or Disabled. The Optimal and Fail-Safe default settings are Enabled.

IRQ12

This option specifies how IRQ12 is used. The settings are:

Settings	Description
Auto	AMIBIOS automatically determines how IRQ12 should be allocated.
Standard	IRQ12 is made available for use on the ISA bus.
Mouse	IRQ12 is used by the PS/2 mouse.

The Optimal and Fail-Safe default settings are Auto.

PIIX4 SERR#

Set this option to Enabled to enable the SERR# signal for the Intel PIIX4 chip. The settings are Enabled or Disabled. The Optimal and Fail-Safe default settings are Disabled.

USB Passive Release Enable

Set this option to Enabled to enable passive release for USB. The settings are Enabled or Disabled. The Optimal and Fail-Safe default settings are Disabled.

PIIX4 Passive

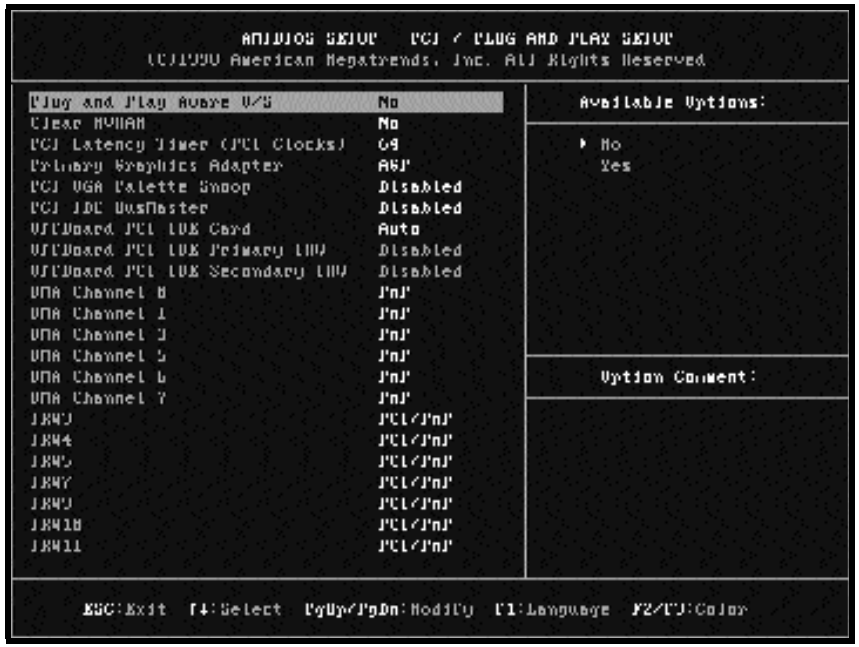
Set this option to Enabled to enable passive release for the Intel PIIX4 chip. the settings are Enabled or Disabled. The Optimal and Fail-Safe default settings are Enabled.

PIIX4 Delayed Transaction

Set this option to Enabled to enable delayed transactions for the Intel PIIX4 chip. The settings are Enabled or Disabled. The Optimal and Fail-Safe default settings are Enabled.

Master Lat. Timer

This option specifies the latency for the Timer. The settings are 00h through F8h in increments of 08h. The settings are 00h.



PCI/PnP Setup

Choose PCI/Plug and Play Setup from the AMIBIOS Setup screen to display the PCI and Plug and Play Setup options, described below.

Plug and Play Aware O/S

Set this option to Yes to inform AMIBIOS Setup that the operating system can handle plug and play (PnP) devices. The settings are No or Yes. The Optimal and Fail-Safe default settings are No.

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.

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). For example: if there are two VGA devices in the computer (one PCI and one ISA) and:

VGA Palette Snoop Bit	Description
Disabled	Data read and written by the CPU is only directed to the PCI VGA device's palette registers.
Enabled	Data read and written by the CPU is directed to the both the PCI VGA device's palette registers and ISA VGA device palette registers, permitting the palette registers of both devices to be identical.

Allocate IRQ To PCI VGA

Set this option to Yes to allocate an IRQ to the VGA device on the PCI bus. The settings are Yes or No. The Optimal and Fail-Safe default settings are Yes.

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. The Optimal and Fail-Safe default settings are Disabled.

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, Slo, Slot3, Slot4, Slot5, or Slot6. If Auto is selected, AMIBIOS automatically determines the correct setting. The Optimal and Fail-Safe default settings are Auto. This option forces IRQ 14 and 15 to a PCI slot on the PCI local bus. This is necessary to support non-compliant PCI IDE adapter cards.

Offboard PCI IDE Card

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

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.

PCI Slot1 IRQ Priority, PCI Slo IRQ Priority, PCI Slot3 IRQ Priority, PCI Slot4 IRQ Priority

These options specify the IRQ priority for PCI devices installed in the PCI expansion slots. The settings are Auto, (IRQ) 3, 4, 5, 7, 9, 10 and 11, in priority order. The Optimal and Fail-Safe default settings are Auto.

DMA Channel 0, DMA Channel 1, DMA Channel 3, DMA Channel 5, DMA Channel 6, DMA Channel 7

These options allow you to specify the bus type used by each DMA channel. The settings are PnP or ISA/EISA. The Optimal and Fail-Safe default settings are PnP.

IRQ3, IRQ4, IRQ5, IRQ7, IRQ9, IRQ10, IRQ11, IRQ12, IRQ14, IRQ15

These options specify the bus that the specified the 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 configureable by the system BIOS. The available IRQ pool is determined by reading the ESCD NVRAM. If more IRQs must be removed rom 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 devices. The settings are 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 devices. The settings are ISA/EISA or PCI/PnP. The Optimal and Fail-Safe default settings are PCI/PnP.

Reserved Memory Size

This option specifies the size of the memory area reserved for legacy ISA adapter cards. the settings are Disable, 16K, 32K, or 64K. The Optimal and Fail- Safe default settings are Disabled.

Reserved Memory Address

This option specifies the beginning address (in hex) of the reserved memory area. the specified ROM memory area is reserved for use by legacy ISA adapter cards.

This option does not appear if the Reserved Memory Size option is set to Disabled.

The settings are C0000, C4000, C8000, CC000, D000, D4000, D8000, or DC000. The Optimal and Fail-Safe settings are N/A.

Power Management Setup

The AMIBIOS Setup options described in this section are selected by choosing Power Management Setup from the AmIBIOS Setup main menu.

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. The Optimal and Fail-Safe default settings are Disabled.

Power Button Function

This option specifies how the power button mounted externally on the computer chassis is used. The settings are:

Setting	Description
On/Off	Pushing the power button turns the computer on or off.
Suspend	Pushing the Power button places the computer in Suspend mode or Full On power mode.

Instant On Support

Set this option to Enabled to enable AMIBIOS support for the Intel InstantON specification. The settings are Enabled or Disabled. The Optimal and Fail-Safe default settings are Disabled.

Green PC Monitor Power State

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

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. The Optimal and Fail-Safe default settings are 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. The Optimal and Fail-Safe default settings are Disabled.

Hard Disk Timeout

This option specifies the length of a period of hard disk drive inactivity. When this legth of time expires, the computer enters power-conserving state specified in the Hard Disk Power Down Mode Option (see previous page). The settings are Disable, 1 min. (minute), 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.

Standby/Suspend Timer Unit

This option specifies the unit of time used for the Standby and Suspend timeout periods. The settings are 4 msec., 4 sec, 32 sec, or 4 min. The Optimal and Fail-Safe default settings are 4 min.

Standby 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, 4 msec, 8 msec, 12 msec, 16 msec, up to 508 msec, in increments of 4 msec. The Optimal and Fail-Safe default settings are Disabled.

Suspend Timeout

This option specifies the length of a period of system inactivity while in Standby state. When this length of time expires, the computer enters Suspend power state. The settings are Disabled, 4 msec, 8 msec, 12 msec, 16 msec, up to 508 msec, in increments of 4 msec. The Optimal and Fail-Safe default settings are Disabled.

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%. The Optimal and Fail-Safe Default settings are 50- 62.5%.

Display Activity

When set to Monitor, this option enables event monitoring on the video display. If set to Monitor and the computer is in a power saving state, AMIBIOS watches for display activity. The computer enters the Full On state if any activity occurs. AMIBIOS reloads the Standby and Suspend timeout timers if display activity occurs. The settings are Monitor or Ignore. The Optimal and Fail-Safe default settings are Ignore.

Device 6 (Serial Port 1) Device 7 (Serial Port 2) Device 8 (Parallel Port)
Device 5 (Floppy Disk) Device 0 (Primary Master IDE)
Device 1 (Primary Slave IDE) Device 2 (Secondary Master IDE)
Device 3 (Secondary Slave IDE)

When set to Monitor, these options enable event monitoring on the specified hardware interrupt request line. If set to Monitor and the computer is in a power saving state, AMIBIOS watches for activity on the specified IRQ line. The computer enters the Full On state if any activity occurs. AMIBIOS reloads the Standby and Suspend timeout timers if activity occurs on the specified IRQ line.

The settings for each of these options are Monitor or Ignore. The Optimal and Fail-Safe default settings are Ignore.

Keyboard Wakeup & PS/2 Mouse Wakeup Guide

These features enable using Keyboard or PS/2 Mouse to wakeup the system

Keyboard Wake-Up Setup

1. Boot Up System
2. Press DEL to enter CMOS
3. Select Power Management Setup
4. Enable Keyboard Power On
5. Select Wakeup string & Press Enter

Wake-up String

The Screen shows ìEnter new keyboard wakeup string : _î

a. Press <Enter> <Enter> to set default as Right Shift Key (R Shift)
b. Enter a Wakeup String for Keyboard Wakeup { eg. apple }

PS/2 Mouse Wake-Up Setup

1. Boot Up System
2. Press DEL to enter CMOS
3. Select Power Management Setup
4. Enable PS/2 Power On

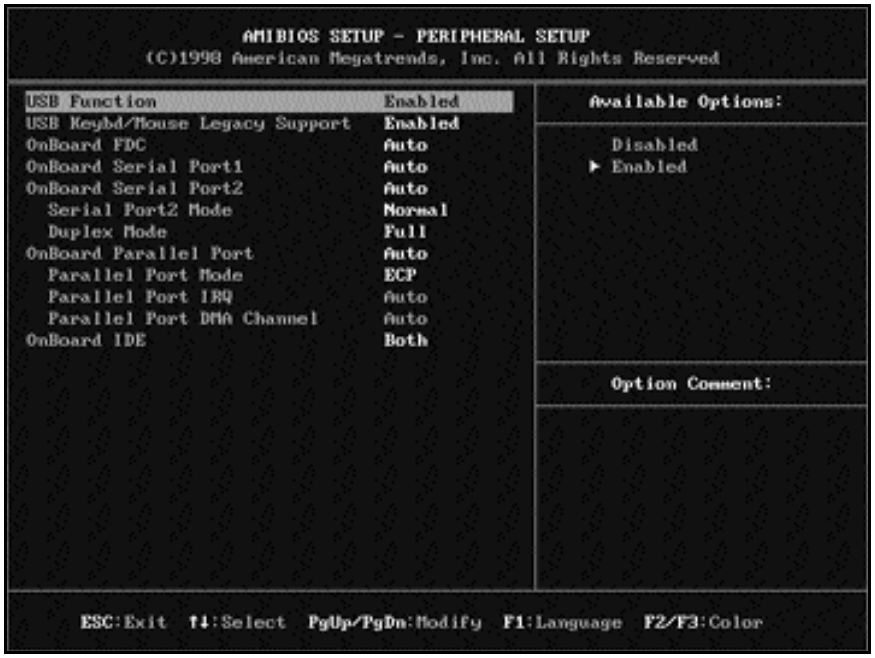
How to wakeup using Keyboard or PS/2 Mouse ?

Keyboard Wakeup

Shut down system -> Press “Right Shift” or Type the preset string {eg. apple} & Press “Enter”

Mouse Wakeup

Bootup OS with Mouse Driver eg. Win98 -> Shut Down -> Double Click Left Mouse Button



Peripheral Setup

Peripheral Setup options are displayed by choosing Peripheral Setup form the AMIBIOS Setup main menu. All Peripheral Setup options are described here.

USB Function

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

USB Keyboard/Mouse Legacy Support

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

Onboard IDE

This option specifies the IDE channel used by the onboard IDE controller. The settings are Disabled, Primary, or Secondary.

Onboard Floppy Controller

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 Port 1

This option specifies the base I/O port address fo serial port 1. The settings are Auto (AMIBIOS automatically determines the correct base I/O port address). Disabled, 3F8h, 2F8h, 2E8h, or 3E8h. The Optimal and Fail-Safe default settings are Auto.

Onboard Serial Port 2

This option specifies the base I/O port address fo serial port 2. The settings are Auto (AMIBIOS automatically determines the correct base I/O port address). Disabled, 3F8h, 2F8h, 2E8h, or 3E8h. The Optimal and Fail-Safe default settings are Auto.

IR Mode

This option specifies the type of infrared devices supported by the system. This option onlyl appears if the Onboard Serial Por option is not set to Auto or disabled. The settings are Encoded or Non-Encoded. There are no default settings.

IR Duplex Mode

This option specifies type of duplexing used for infrared on serial port 2. This option only appears if the Onboard Serial Por option is not set to Auto or Disabled. The settings are Half or Full. There are no default settings.

IR Transmitter

This option specifies the type of transmission used by the infrared devices attached to serial port 2. This option only appears if the Onboard Serial Por option is not set to Auto or Disabled. The settings are 1.6 uS or 3/16 Buad. There are no default settings.

Onboard Parallel Port

This option specifies the base I/O port address of th 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:

Setting	Description
Normal	The normal parallel port mode is used.
Bi-Dir	Use this setting to support Bidirectional transfers on the parallel port.
EPP	The parallel port can be used with devices that adhere in the Enhanced Parallel Port (EPP) specification. ECP uses the DMA protocol to achieve data transfer rates up to 2.5 Megabits per second. ECP provides symmetric bidirectional communication.

Epp Version

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.

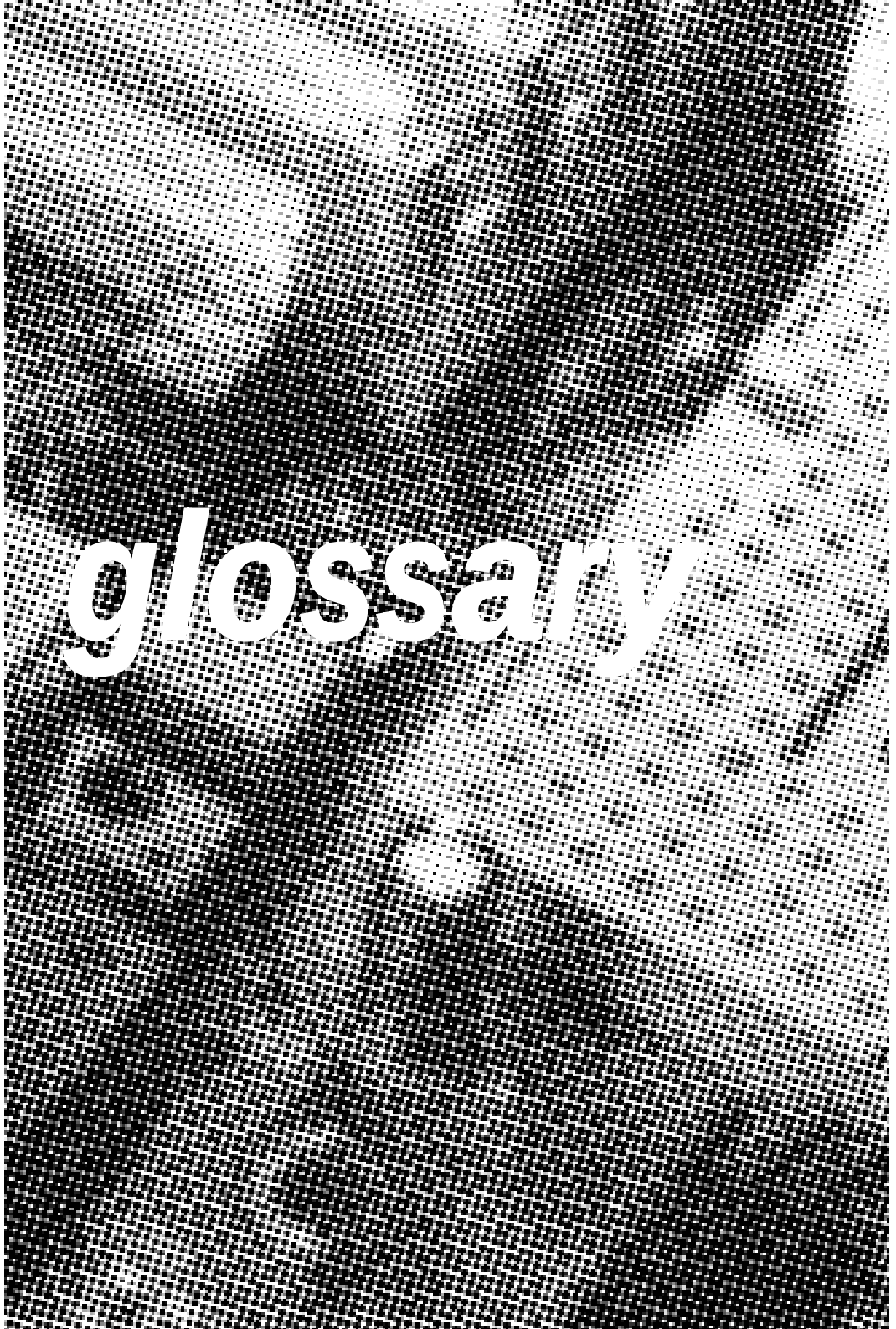
The settings are 1.7 or 1.9. There are no Optimal and Fail-Safe default settings because the default setting for the Parallel Port Mode option is not EPP.

Parallel Port DMA Channel

This option is only available if the setting for the Parallel Port Mode option is ECP. This option is ECP. This option sets the DMA channel used by the parallel port. The settings are (DMA Channel 0, 1, or 3. The Optimal and Fail-Safe default settings are not provided.

Parallel Port IRQ

This option specifies the IRQ used by the parallel port. The settings are Auto, (IRQ) 5, or (IRQ) 7. The Optimal and Fail-Safe default settings are auto.



glossary

A P S/2 Keyboard and Mouse Connector's

The Mainboard provides two on-board PS/2 connector's, one for the keyboard, and the other for a mouse. PS/2 devices all have a standard 6-pin round shape connector. If you are already using a PS/2 mouse or keyboard, simply plug them into the corresponding connector's. No jumper settings are necessary.

B ATX Power Supply Connector

The Mainboard provides a single 20-pin ATX power supply connector, J3 which incorporates standard (5V and (12V, with optional 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 BI0S system will turn the system power off when it receives the proper APM command from the OS. APM must be enabled in the BI0S and OS systems in order for the soft-off feature is to work 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. The functions of the power button can also be be altered in the Power Management section of the CMOS setup.

C Universal Serial Bus (USB) Connector's

The Mainboard provides two 4-pin Universal Serial Bus (USB) connector's. 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.

E Infra-Red (IR) Connector

The Mainboard provides a 5-pin header interface, JP15 for connection to a Hewlett Packard HSDSL-1000 compatible infrared (IrDA) transmitter/receiver. Connect JP15 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 JP15 header pin-out is as follows:
JP15 Pin . . . . . .Signal Name
1 . . . . . .VCC, power source
2 . . . . . .No Connection
3 . . . . . .IRRX, infra-red receive
4 . . . . . .No Connection
5 . . . . . .IRTX, infra-red transmit

F

3.3V Memory Module Sockets (DIMM)

The Mainboard provides three 168 pin standard DIMM sockets for installation of 3.3V unbuffered Single or Double Bank SDRAM modules. For ZX Series, two DIMM only.

G
Serial COM1, Serial COM2 and Parallel Port Connector's

The ***ATX*** Mainboard provides two serial port connector's and one parallel port connector. Based on the ATX standard, (2) 9-pin serial ports and (1) 25-pin parallel port are now built on the mainboard back panel. This design makes your mainboardts 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.

The ***AT*** Mainboard provides two 10-pin serial ports and one 26-pin parallel port pin Headers for Cable are now built on the mainboard.

H
Accelerated Graphics Port (AGP) Connector

The Mainboard provides an AGP slot compatible with the Accelerated Grahics 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 133 MB/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, CR-2030, Lithium battery is installed on the on-board battery socket. This battery is sued to supply the CMOS RAM backup power during system powered-off. Danger of explosion if battery is incorrectly replaced. Therefore, if you have any dif ficulties, please consult to the technical personnel.

J
PCI Add-In Board Connector's

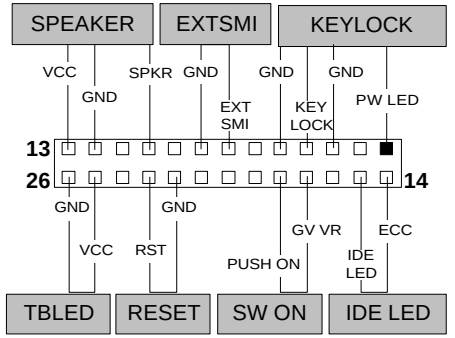
K
ISA Add-In Board Connector's

The Mainboard provides four 32-bit PCI 2 .1 compatible expansion slots and two 16-bit ISA expansion slots.

M
Front Panel Function Connector's

The Mainboard integrates all system front panel functions into a single on-board 26-pin connector, JP9. These include connections for the following features:

Function	Connector Pin-Out Label
System Reset	RESET
Power LED / Keylock	KEYLOCK
Hard Drive Activity LED	IDE LED
System Speaker	SPEAKER
Soft-Touch Button Power On/Off	SW ON
Turbo LED	TBLED
External Power Saving Control (optional)	EXTSMI



Glossary

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's

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 connector's support the provided 40-pin IDE hard disk ribbon cables. After connecting the single end to the mainboard connector's, 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 SB-LINK and Creative PCI Header

The Mainboard provides headers for PCI add-in cards that support the Creative SB-Link.

The Creative SB-LINK interface supports Sound Blaster AWE64D PCI compatible sound solutions. SB-LINK utilizes Intel’s PC-PCI technology that exists in Intel 440LX or newer corelogic chipsets.

S CPU Card Slot 1

The Mainboard provides a 242-pin CPU card slot for use with Intel Pentium II / III processor. The CPU card should have a fan attached to it to prevent overheating. 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 J17 on the mainboard. J17 provides +12 Volts DC to the CPU cooling fan as follows:

J17 PIN	SIGNAL NAME
1	(No Connection)
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 a auxiliary fan if necessary.

W GL520SM Hardware Monitor

The Mainboard provides sophisticated hardware monitoring via the on-board GL520SM integrated circuit. The GL520SM can be used to monitor temperatures, power supply voltages, and fan speeds and will generate interrupts and audible tones that allow the system speaker to sound an alarm if it detects an abnormal system situation. Through the SMBus software interface, the host can program the temperature trip points and query the GL520SM about system interrupt status, current temperature, voltage, and fan speed.

FOR BABY AT Mainboards ONLY

a AT Keyboard Connector

The Mainboard provides a on-board AT keyboard connector.

b AT Power Connector

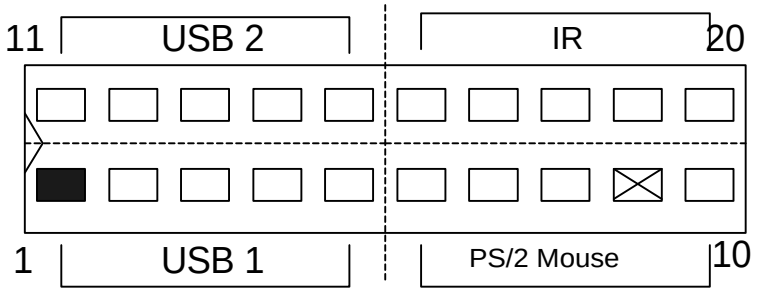
A 12-Pin power supplies provide two plugs incorpo rates standard +5V and +12V, each containing six wires, two of which are black. Orient the connectors so that the black wires are together.

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

e Integrated Function Connector

The total of two USB device connectors, a PS/2 mouse, and an Infrared devices are all allocated at this connector (JP2).

· Pin1 to Pin5 for USB1 connector
· Pin11 to Pin15 for USB2 connector
· Pin6 to Pin10 for PS/2 connector
· Pin16 to Pin20 InfraRed connector



Glossary

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)**	+5V
7	PS/2 Clock	**17**	No Connect
8	Ground	**18**	Infrared Receive
9	No Connect	**19**	Ground
10	+5V	**20**	Infrared Transmit

S 370 CPU SOCKET

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

For Software Installation, please refer to the CD-ROM.