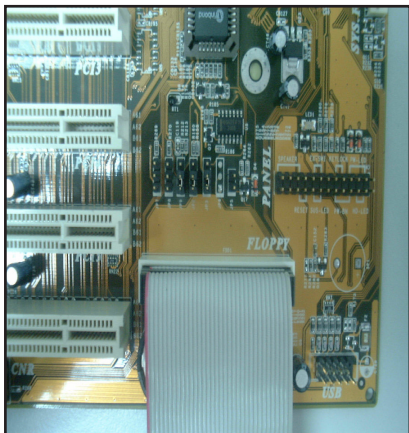


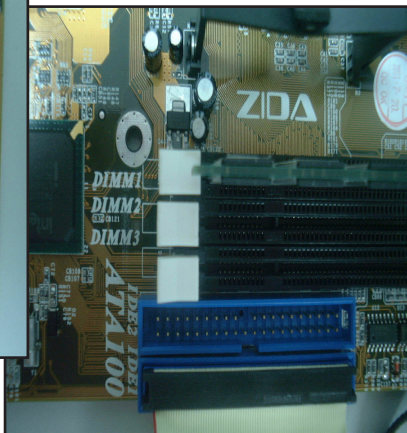
4

Floppy Disk Drive Header (34-pin FLOPPY).

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



Floppy connection



IDE connection

5

IDE Device Headers

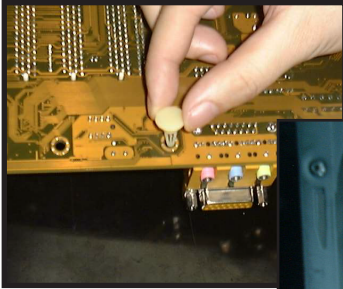
The on-board IDE headers (P in Mainboard Diagram) support the provided 40/80-pin IDE hard disk ribbon cable. After connecting the single end to the mainboard, connect the remaining plugs at the other end of your hard disk(s). When installing hard disks, you must configure the drives by setting their jumpers according to the documentation of your hard disk.

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

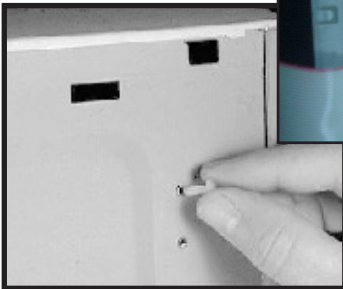
NOTE: Please make sure that the pin 1 of the ribbon cable (the red wire side of the cable) is correctly connected to the on-board header pin 1 as shown on the “mainboard diagram”.

6 Mounting Mainboard to chassis

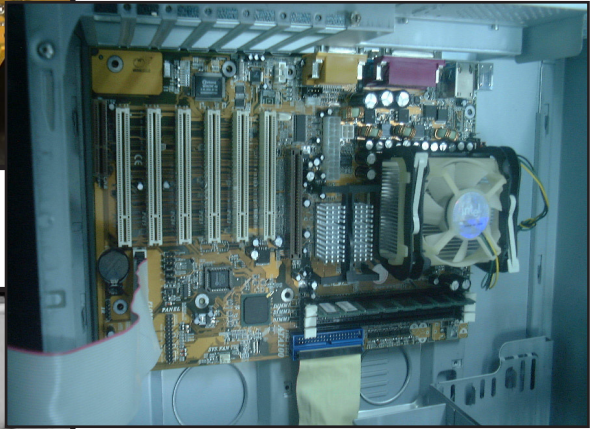
Snap the black mounting pins onto the mainboard as shown. Carefully install the mainboard into the computer chassis and align the corresponding mounting holes on the mainboard with the holes on your chassis. While chassis design varies you may need to refer to the chassis manual for the mainboard mounting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



Insert black mounting pin



Insert white mounting pin



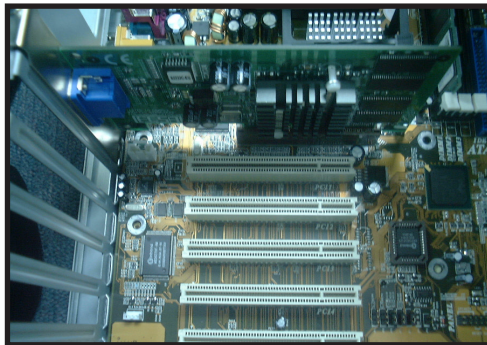
Insert into chassis



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



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.

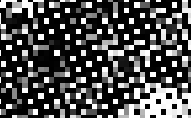


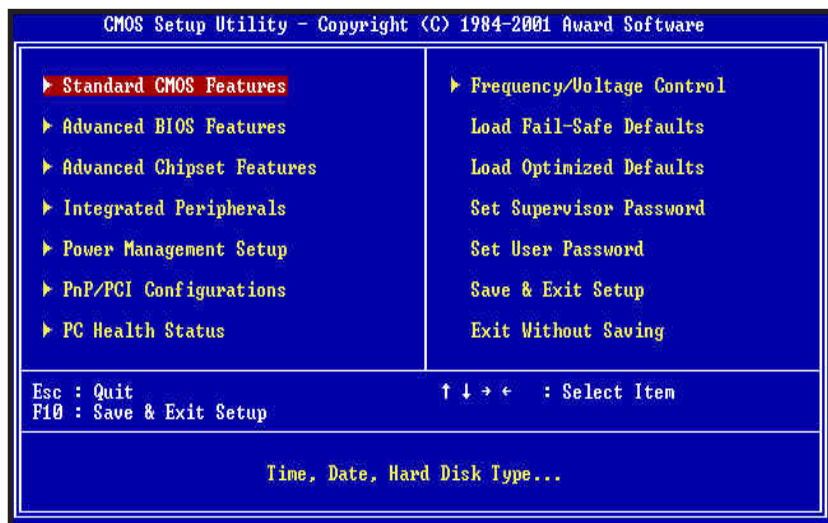
PCI Board Installation

You can now attach the appropriate wires for the switches, LEDs and speaker to the Front Panel Function header (M in Mainboard Diagram). Then, connect the I/O devices (such as keyboard, mouse and monitor) to the appropriate rear external I/O connectors. Connect the main power cable and ready to boot your system.

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

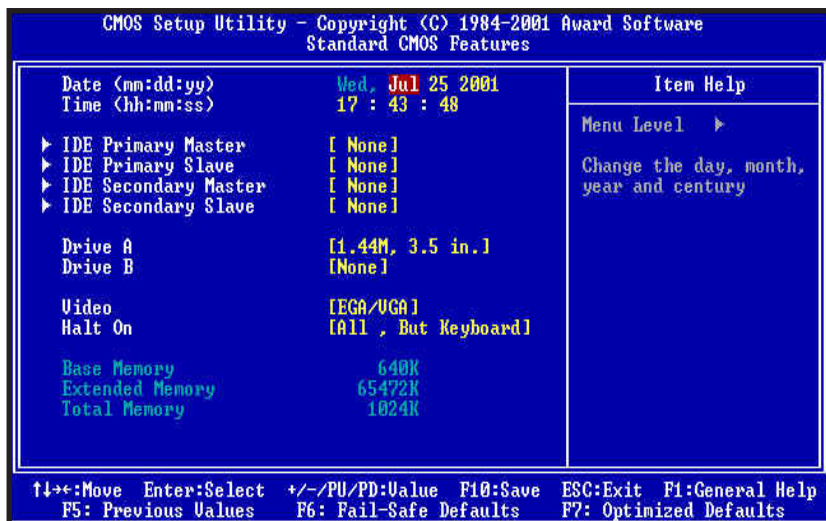
BIOS Setup





Award BIOS Setup

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



Standard CMOS Features

Date / Time

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

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

These options enter another menu for hard disk detection.

Floppy Drive A, Floppy Drive B

These options select the type of floppy drives installed. The options are : "None", "360K, 5.25in", "1.2M, 5.25in", "720K, 3.5in", "1.44M, 3.5in", "2.88M, 3.5in".

Video

This field allows you to select monitor type. Options are : "MONO", "CGA40", "CGA80" and "EGA/VGA".

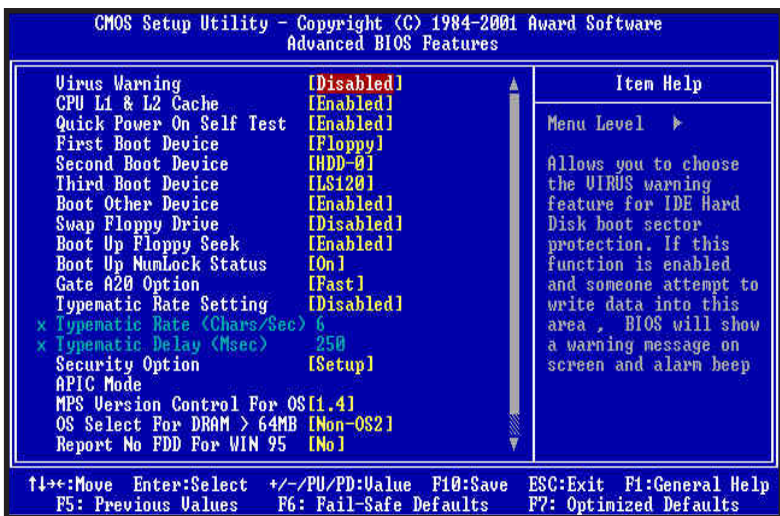
Halt On

Allow the system to halt during BIOS boot up when error occurs.

Options are "All, But keyboard", "All, But Diskette", "All, But Disk / Key", "No errors", "All Errors".

Base Memory, Extended Memory, Total Memory

Display the current size of memory installed.



Advanced BIOS Features

Virus Warning

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

CPU L1 & L2 Cache

Enabled / Disabled CPU internal L1 & L2 cache. Default setting is "Enabled".

Quick Power On Self Test

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

First / Second / Third Boot Device

Assign the priority of each storage device to be the boot-up drive. Supported devices are IDE, Floppy, LS-120, ZIP100, CDROM, SCSI, LAN or Disabled. Default boot sequence is Floppy -> IDE-0 -> LS-120.

Boot Other Device

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

Swap Floppy Drive

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

Boot Up Floppy Seek

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

Boot Up NumLock Status

Sets this option "OFF" to turn the Num Lock key off when the computer is booted such that you can use the arrow keys on both the numeric keypad and the keyboard. Set this option to "ON" to enable the numeric pad when the system is turned on. Default is "ON".

Gate A20 Option

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

Typematic Rate Setting

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

Security Option

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

APIC Mode

Enable / Disable APIC (Advanced Programmable Interrupt Controller) functions. Default setting is "Enabled".

MPS Version Control For OS

Options are 1.1 and 1.4

OS Select For DRAM > 64MB

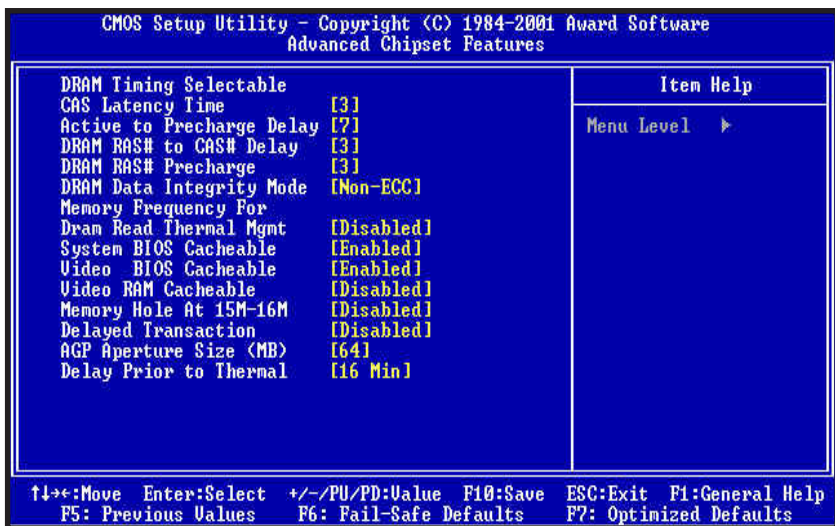
Sets to "OS2" if running OS/2 operating system and using more than 64MB system memory. Default setting is "Non-OS2".

Report No FPP for WIN 95

Selects "Yes" when the system is running Windows 95 and no floppy driver is installed. Otherwise, leave it as default "No".

Small Logo (EPA) Show

Enable / Disable EPA logo to be shown during boot up.



Advanced Chipset Features

DRAM Timing Selectable

Manual / By SPD. Select "By SPD" to allow BIOS to get the optimized timing data from the data stored on the DIMM modules. Otherwise, select "Manual" to configure the following timing constraints.

CAS Latency Time

Specifies the number of SCLKs between the time when the Read command is sampled by DRAM and the Whitney Sample reads data from DRAM. Available settings are 2, 3. Default setting is "3".

Active to Precharge Delay

Specifies the active to precharge delay : The settings are 7, 6, 5. Default setting is "7".

DRAM RAS-to-CAS Delay

Specifies the length of the delay inserted between the RAS and CAS signals of the DRAM system memory access cycle. The settings are 2 SCLKs or 3 SCLKs. Default setting is "3".

DRAM RAS Precharge

Specifies the length of the RAS precharge part of the DRAM system memory access. Available settings: 2 SCLKs, or 3 SCLKs. Default setting is "3".

DRAM Data Integrity Mode

Display Integrity mode of the DIMM modules. Options are Non-ECC/ECC. Defaults setting is "Non-ECC".

Memory Frequency For

Sets frequency of DIMM memory. Default is "AUTO".

Dram Read Thermal Mgmt

Select "Enabled" to allow Dram Read Thermal Mgmt to manage DRAM speed according to it's temperature. Once the DRAM temperature increases to a specific level, Thermal Mgmt will slow down DRAM speed for a certain period of time (can be specific in "Delay Prior to Thermal") in order to cool down the DRAM. After the delay time is up, Thermal Mgmt will check for the DRAM temperature to determine whether to change DRAM speed back to its normal operation speed or not.

Default setting is "Disabled".

System BIOS Cacheable

Enabled / Disabled System BIOS cache. Default setting is "Enabled".

Video BIOS Cacheable

Enabled / Disabled Video BIOS cache. Default setting is "Enabled".

Video RAM Cacheable

Enabled / Disabled Video RAM cache. Default setting is "Disabled".

Memory Hole At 15M-16M

Enabled / Disabled Memory Hole at 15M-16M. Default setting is "Disabled".

Delayed Transaction

Enables / Disables ICH2 (I/O Controller Hub 2) delayed transactions for internal register, Firmware Hub (FWH) and Low Pin Count (LPC) interface accesses. Default setting is "Disabled".

AGP Aperture Size

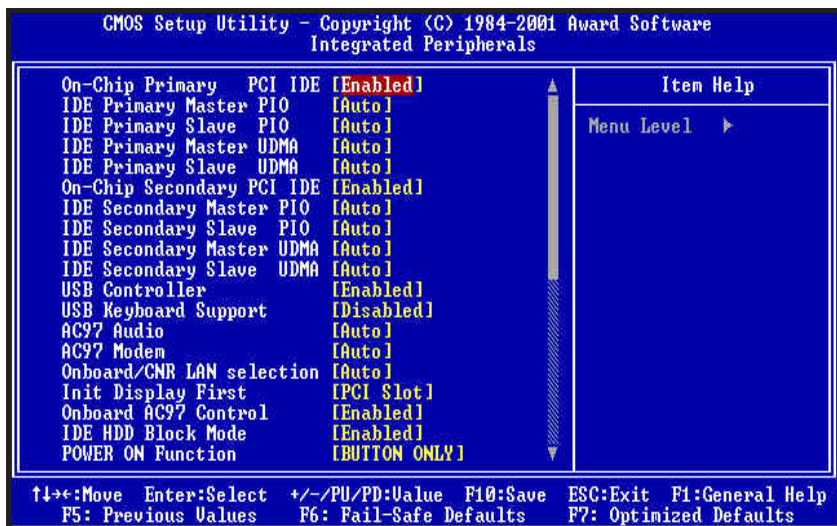
Sets maximum memory aperture for onboard AGP port. Available settings are 4MB, 8MB, 16MB, 32MB, 64MB, 128MB and 256MB. Default setting is "64MB".

Delay Prior to Thermal

You must have "Dram Read Thermal Mgmt" option enabled in order for this option to be meaningful. This option sets the time between each DRAM Thermal detections once the Thermal Mgmt activates. Options are 4min / 8min / 16min / 32min. Default setting is "16 Min".

System BIOS Protect

Enabled to protect system BIOS from overwritten.



Integrated Peripherals

On-Chip Primary PCI IDE

Enabled / Disabled on-chip primary PCI IDE. Default setting is "Enabled".

On-Chip Secondary PCI IDE

Enabled / Disabled on-chip Secondary PCI IDE. Default setting is "Enabled".

IDE Primary Master / Slave PIO

IDE Secondary Master / Slave PIO

Specify the IDE mode for the system.

IDE Primary Master / Slave UDMA

IDE Secondary Master / Slave UDMA

Auto / Disabled IDE UDMA function feature. Default setting is "Auto", which lets BIOS determine.

USB Controller

Enabled / Disabled USB Controller. Default setting is "Enabled".

USB Keyboard Support

Enabled / Disabled USB Keyboard Support. Default setting is "Disabled".

AC97 Audio

Default setting is "Auto", BIOS will automatically detect onboard AC97 Audio.

AC97 Modem

Default setting is "Auto", BIOS will automatically detect onboard AC97 Modem.

Init Display First

Default setting is "PCI Slot", sets Init Display First to PCI Slot or AGP Slot.

Onboard / CNR LAN Selection

Selects "onboard" to enable the optional onboard LAN function. Selects "Ext. CNR" to disable onboard LAN function and uses LAN function on CNR card.

Onboard AC97 Control

Enabled / Disabled the onboard AC97 audio controller. Default setting is "Enabled".

IDE HDD Block Mode

Enabled / Disabled IDE HDD Block Mode. Default setting is "Enabled".

Power ON Function

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

KB Power ON Password

Sets Keyboard Power on Password.

Hot Key Power On

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

On-board FDC Controller

Enabled / Disabled on-board FDC controller. Default setting is "Enabled".

Onboard Serial Port 1 & 2

Specify the I/O port addresses of serial port 1 and 2. Available settings are Auto, Disabled, 3F8h, 2F8h, 3E8h and 2E8h. Default setting is "Auto".

UART Mode Select

Specifies the operation mode of onboard Serial Port 2. The onboard Serial Port 2 can be configured as an Infrared(IR) port or an ordinary RS-232 serial port. Available settings are Normal, IrDA and ASKIR. Default is "Normal".

RxD, TxD Active

Options are "Hi,Hi", "Hi,Lo" / "Lo,Hi" and "Lo,Lo".

IR Transmission Delay