TS-AAP32
Intel Celeron 333MHz~466MHz
USER'S MANUAL

Transcend

Your Supplier, Your Partner,
Your Friend.

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Product Model: TS-AAP32
Manual Version: 1.0
Release Date: February,1999

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CHAPTER 1 INTRODUCTION

1.1 Package Contents

This mainboard package contains the following items. If you discover damaged or missing items, please contact us (web site http://www.transcend.com.tw)

1 - The TS-AAP32 Mainboard.

2 - CD-ROM

3 - One Floppy Cable, one IDE Cable .

4 - The Retention Mechanism of Celeron CPU.

1.2 Specifications and Features

· CPU

- Support INTEL Celeron 333MHZ~466MHZ

· CHIPSET

- VIA Apollo Pro Plus Chipset.

· DRAM MEMORY

- Support Synchronous DRAM.
- 3pcs of 168-pin DIMM module socket on board.
- 8 ~ 768 MB memory size.
- 8/16/32/64/128/256MB SDRAM.
- Support ECC.

· I/O BUS SLOT

-1 AGP slot.

-4 Master / Slave PCI-BUS slots (PCI 2.1 compliant).

-2 ISA BUS slots.(One PCI/ISA shared)

· I/O FUNCTIONS

- Support PIO Mode 3,4 ATAPI devices and ULTRA DMA/33.
- Support 2 high speed UART 16550 COM Ports.
- Support EPP/ECP LPT Port.
- Support 1.44/2.88 MB Floppy Drive.
- Support PS/2 Mouse and PS/2 Keyboard.

- Support IrDA function.
- Support 2 Universal Serial Bus Ports.

· **Award BIOS**

- Support Plug-and-Play.
- Support ACPI,DMI,Green Feature.

· **Feature**

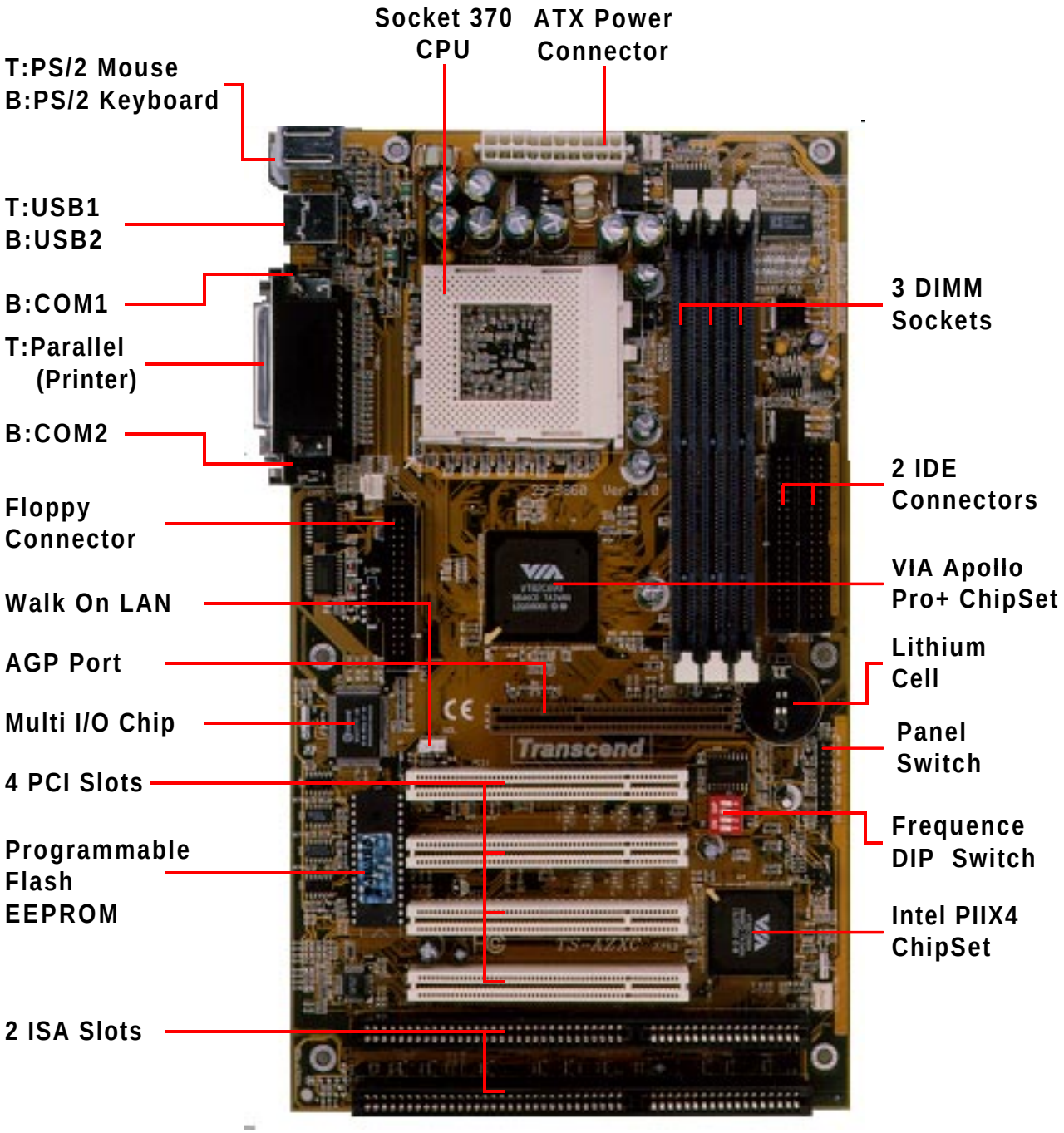
- Support Wake On LAN function.
- Remote Ring Wake Up.

· **PCB DIMENSIONS**

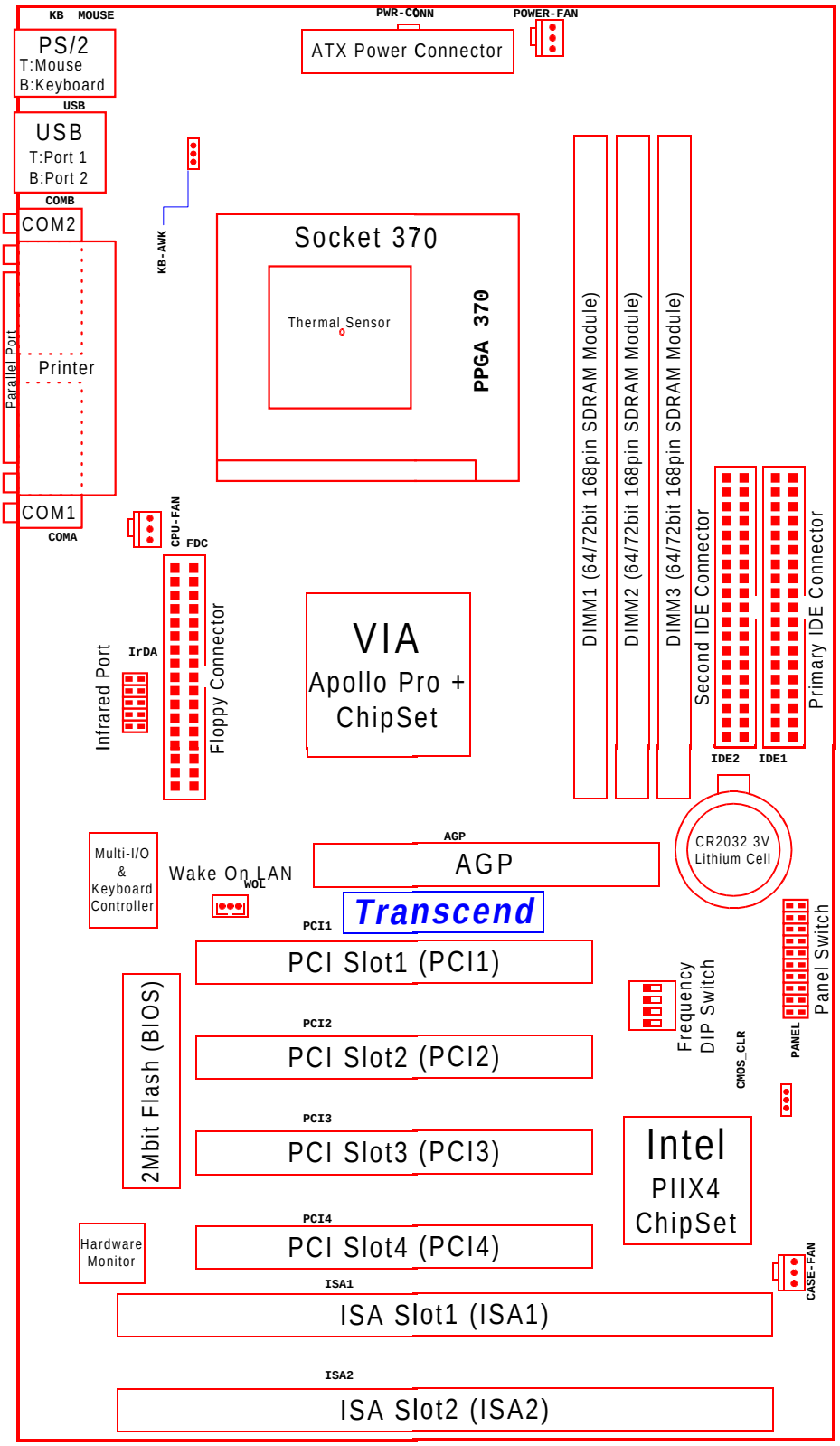
- ATX form factor, 4 -layer PCB (17.3cm X 30.5cm)(6.8inchx12.0inch).

CHAPTER 2 HARDWARE SETTING

2.1 Part of the Transcend TS-AAP32 Motherboard



2.2 Transcend TS-AAP32 Motherboard Layout



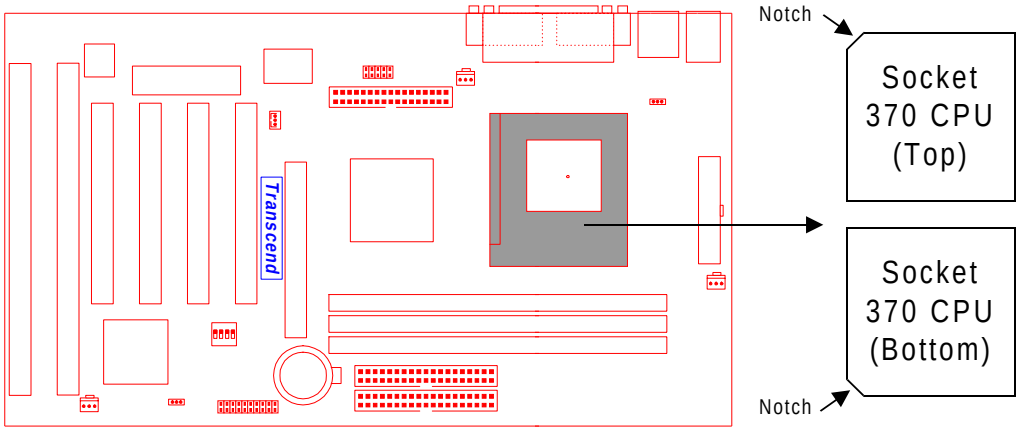
2.3 CPU Installation

The motherboard provides a ZIF Socket 370. The CPU taht came with the motherboard should have a fan attached to it to prevent overheating. If this is not the case then purchase a fan before you turn on your system.

WARNING! Be sure that there is sufficient air circulation 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.

The install a CPU, first turn off your system and remove its cover. Locate the ZIF socket and open it by first pulling the lever sideways away from the socket then upwards to a 90-degree right angle. Insert the CPU with the correct orientation as show. The picture is for reference only; you should have a CPU fan that will cover the face of the CPU. With the added weight of the CPU fan, no force is required to insert the CPU. Once completely inserted, close the socket's lever while holding down the CPU.

NOTE : Set the bus frequency and multiple for your Socket 370 processor.

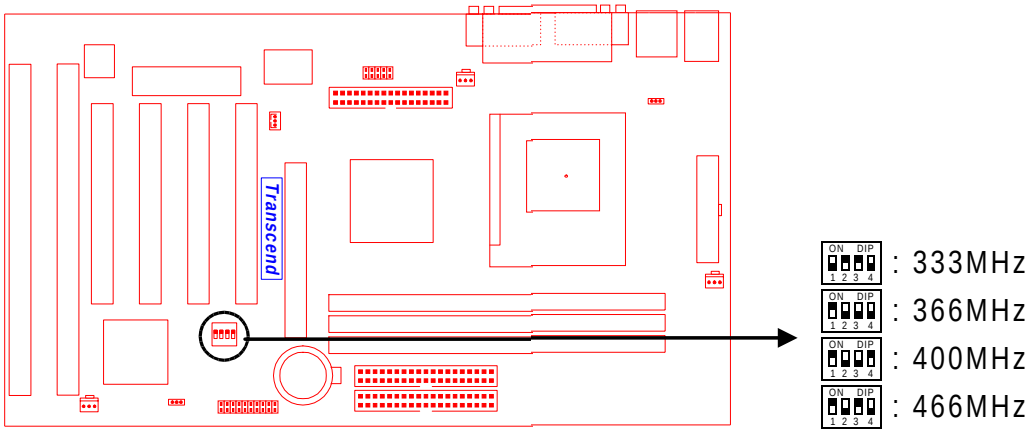


TS-AAP32 Socket 370

2.4 CPU Jumper Setup

To make the CPU work properly, you must set the frequency ratio of the CPU by adjusting the SW1 switch. The following is the table of the frequency ratio:

CPU Frequency	BIOS Setup	SW1 Freq-Ratio	1	2	3	4
333MHz	66MHz	x 5	ON	OFF	OFF	ON
366MHz	66MHz	x 6	OFF	ON	ON	ON
400MHz	66MHz	x 6.5	OFF	ON	ON	OFF
466MHz	66MHz	x7.0	OFF	ON	OFF	ON



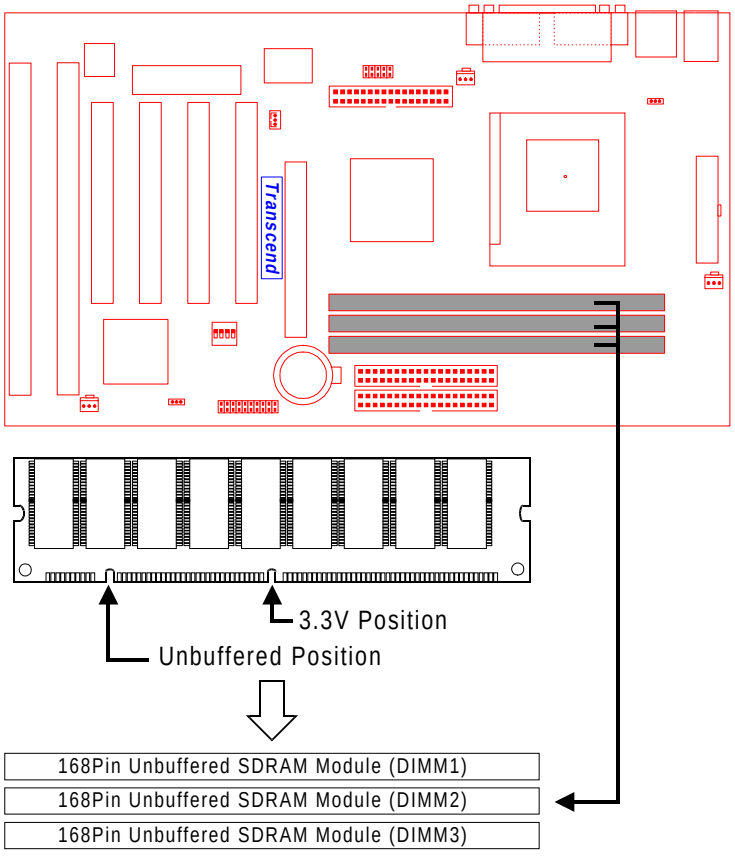
TS-AAP32 CPU DIP Switch Setup

2.5 Memory Installation

This mainboard must to be installed Dual Inline Memory Module (DIMM). The sockets of memory are available for 3.3Volt (power level) unbuffered Synchronous Dynamic Random Access Memory (SDRAM) of 8,16,32,64,128MB, or 256MB.

To utilize the chipset's Error Checking and Correction (ECC) feature, you must use a DIMM module with 9 chips per side for 72bits data bus and make the proper setting in the BIOS Chipset Features Setup of BIOS SOFTWARE.

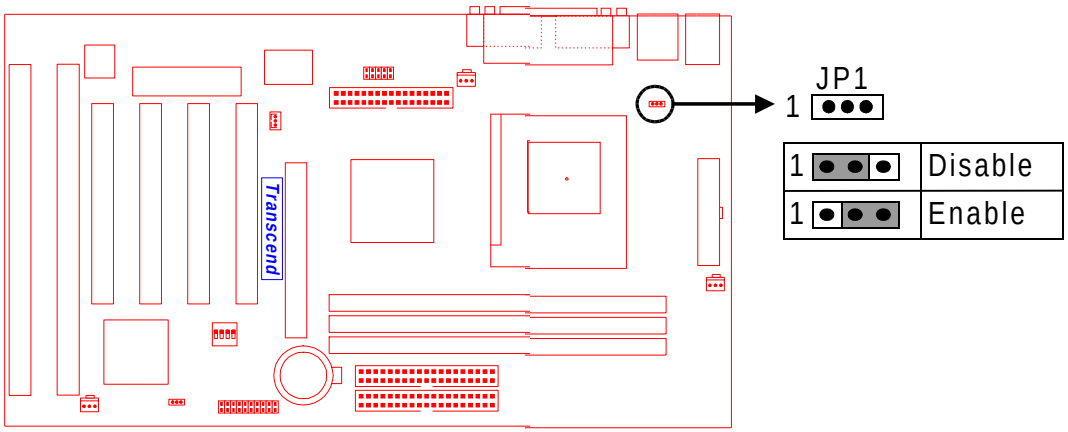
DIMM Location	168-pin DIMM
DIMM1	SDRAM 8,16,32,64,128,256MB
DIMM2	SDRAM 8,16,32,64,128,256MB
DIMM3	SDRAM 8,16,32,64,128,256MB
	Total System Memory (Max. 768MB)



TS-AAP32 168Pin DIMM Sockets

2.6 Keyboard Wake Up (3-pin KBPWR)

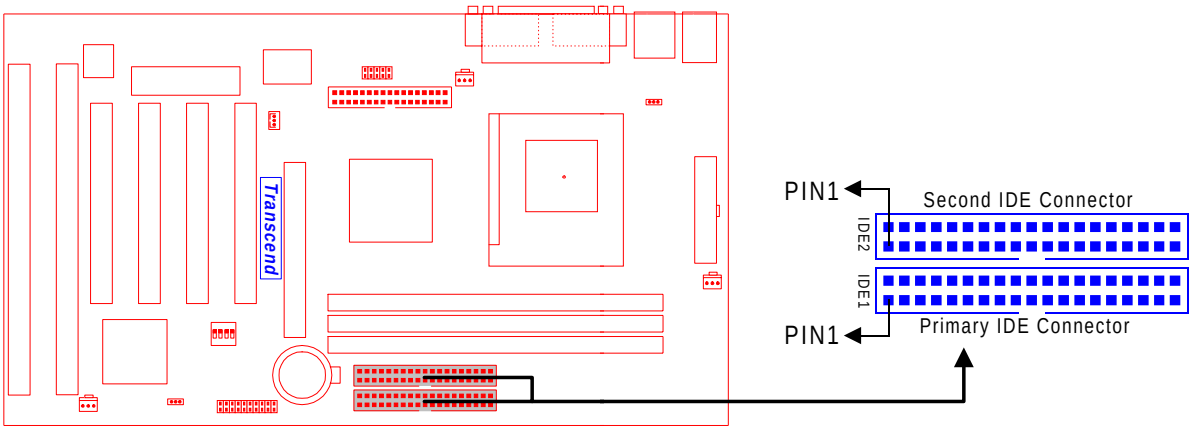
This allows you to disable or enable the keyboard power up function. Set this jumper to Enable if you wish to use your keyboard to power up your computer.



TS-AAP32 Keyboard Wake Up

2.7 Primay / Secondary IDE Connectors (Two 20x2pin IDE)

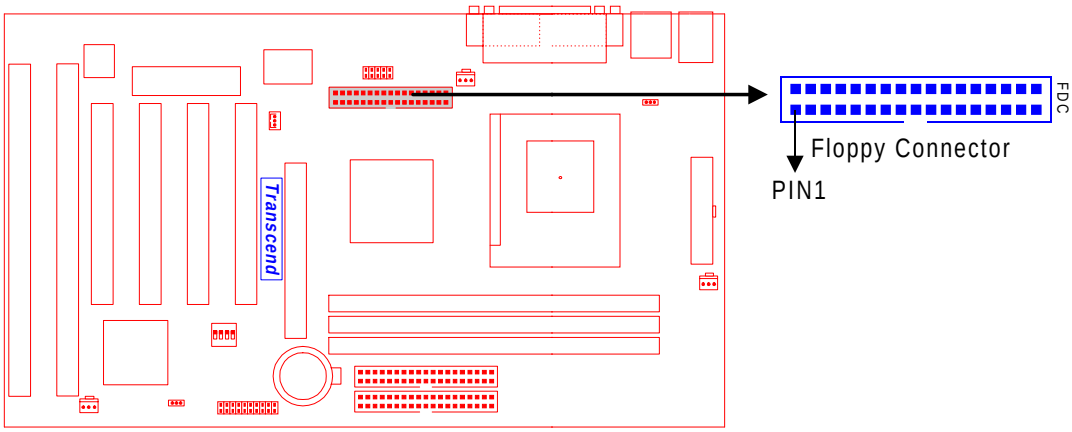
These connectors support the provid IDE hard disk ribbon cable. After connecting the single end to the board, connect the two plugs at the other end to your hard disk(s). If you install two hard disk, you must configure the documentation of your hard disk for the jumper settings.



TS-AAP32 IDE Connectors

2.8 Floppy Disk Driver Connector (17x2pin Floppy)

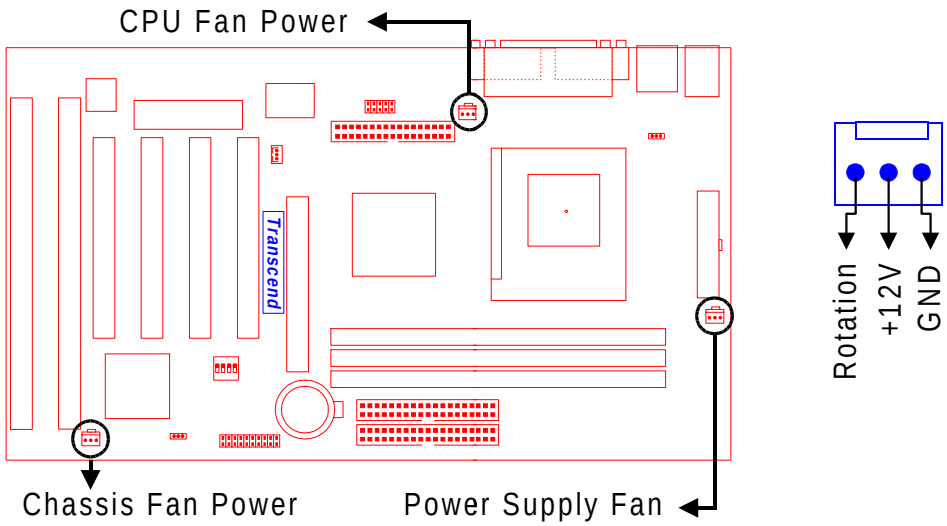
These connectors support the provid floppy driver ribbon cable. After connecting the single end to the board, connect the two plugs at the other end to your floppy drivers.



TS-AAP32 Floppy Disk Driver Connector

2.9 Fan Power Connectors

There are three fan power connectors on the mainboard: CPU _FAN, POWER_FAN, and CASE_FAN. Each connector provides +12V power. Make sure it is in the right direction or it may cause damages.

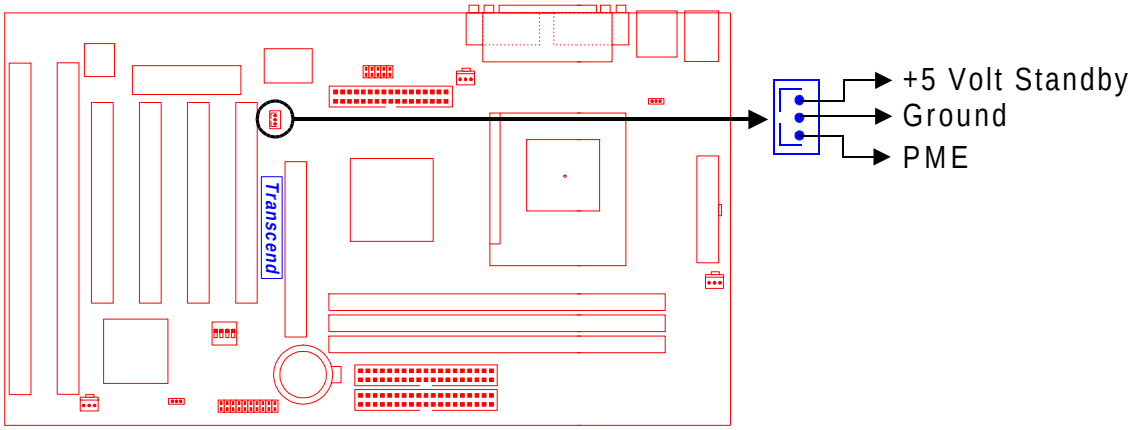


TS-AAP32 Fan Power Connectors

2.10 Wake-On-LAN Connector (3-pin WOL)

These connector connects to LAN cards with a Wake-On-LAN output. The connector power up the system when a wakeup packet or signal is received through the LAN card.

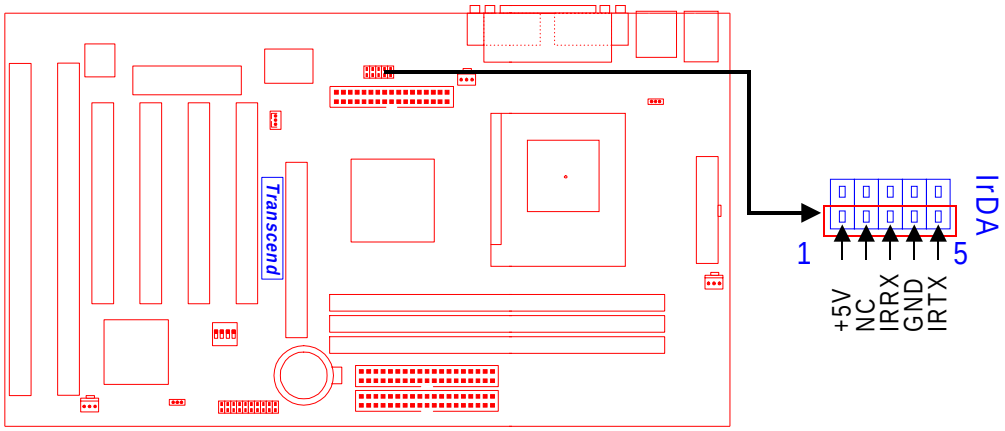
NOTE : This function requires that the WAKE On LAN Power Up Control is set to Enabled and that your system has an ATX power supply with standby power.



TS-AAP32 Wake-On-LAN Connector

2.11 IrDA-Compliant Infrared Module Connector (5-pin IrDA)

This connector is for the infrared device. After it is connected, you must set the ASKIR/HPSIR specification in the BIOS setup menu.



TS-AAP32 IrDA Connector

2.12 Keylock & Power LED Lead (5-pin KEYLOCK)

This keylock can enable or disable the keyboard and it also attaches to the power LED. Note that Pin4&5 is for keylock and Pin1&3 is for power LED.

Pin1 : +5V
Pin2 : NC
Pin3 : GND
Pin4 : Keylock
Pin5 : GND

2.13 Speaker Lead (4-pin SPEAKER)

This 4-pin connector connects to the case-mounted speaker.

Pin7 : +5
Pin8 : GND
Pin9 : NC
Pin10 : Data

2.14 Suspend Mode LED Lead (2-pin S_LED)

The S_LED will light when the suspend mode works.

Pin11 : +5V
Pin12 : GND

2.15 Harddisk LED Lead (2-pin HDD_LED)

This 2-pin connetor connects to LEDs of harddisk. The LED lights when an HDD is active.

Pin13 : +5V
Pin14 : GND

2.16 Reset Switch Lead (2-pin RESET)

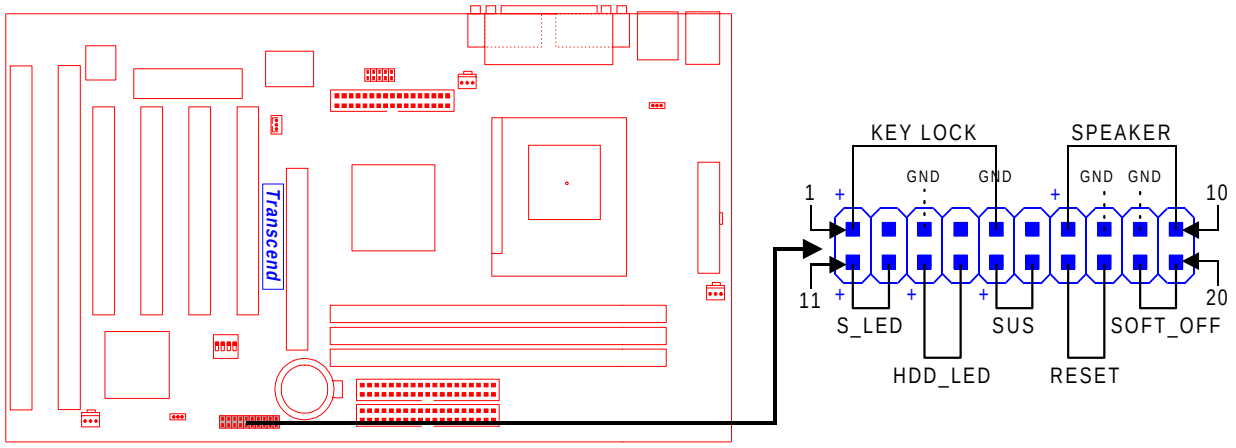
This 2-pin connector connects to the case-mounted reset switch for rebooting your computer without having to turn off your power switch.

Pin17 & Pin18

2.17 Software Power-Off Lead (2-pin SOFF_OFF)

Attach the Soft Power Switch of the panel to this connector.

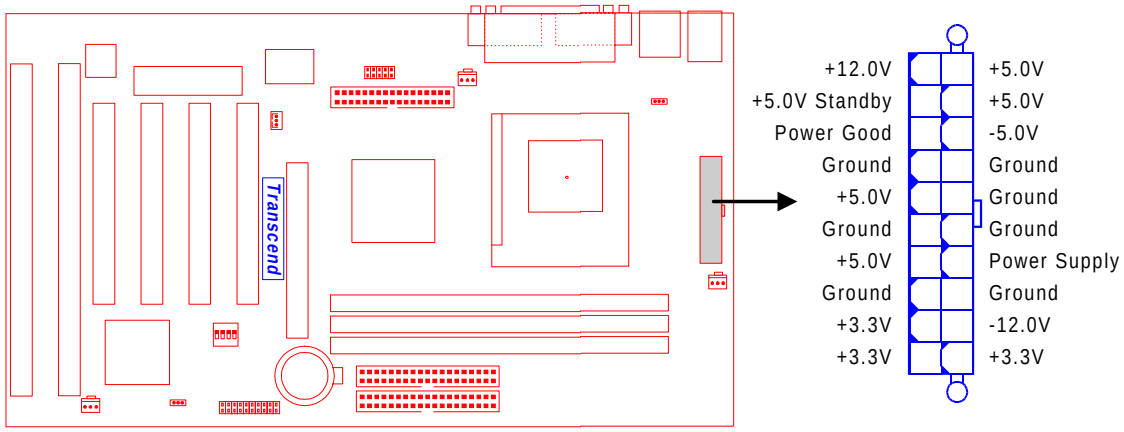
Pin19 & Pin20:



TS-AAP32 Front Panel Connectors

2.18 Power Connector (10x2-pin PWR_CONN)

Plug the ATX power supply connector to the right direction. The pin definition is shown below.

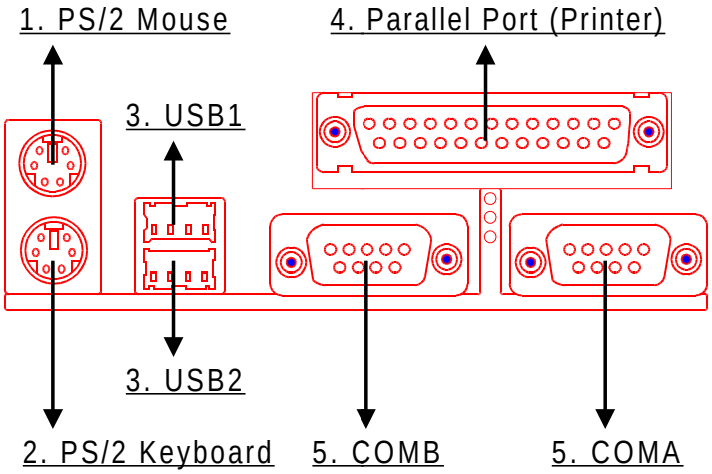


TS-AAP32 Power Connectors

2.19 External Connectors

There are 5 kinds of external connectors on the mainboard.

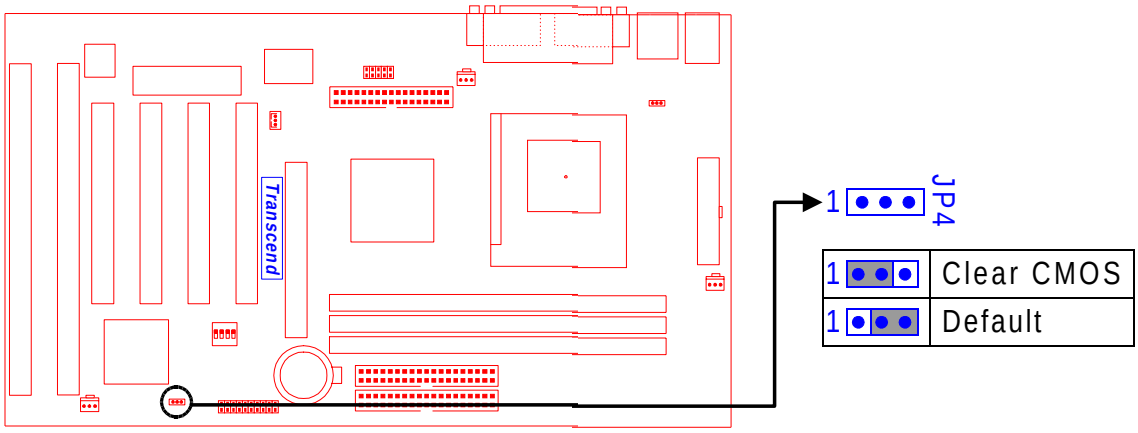
1. PS/2 Mouse Connector (6-pin MOUSE)
2. PS/2 Keyboard Connector (6-pin KB)
3. Universal Serial USB Ports 1 & 2. (Two 4-pin USB)
4. Parallel Port Connector (25-pin PRN)
5. Serial Port Connectors (Two 9-pin COMA/COMB)



TS-AAP32 External Connectors

2.20 Clear CMOS Jumper (3-pin JP4)

The clear the RTC data, you could turn off your computer power and short the pin1 and pin2 of JP4.



TS-AAP32 Clear CMOS Jumper

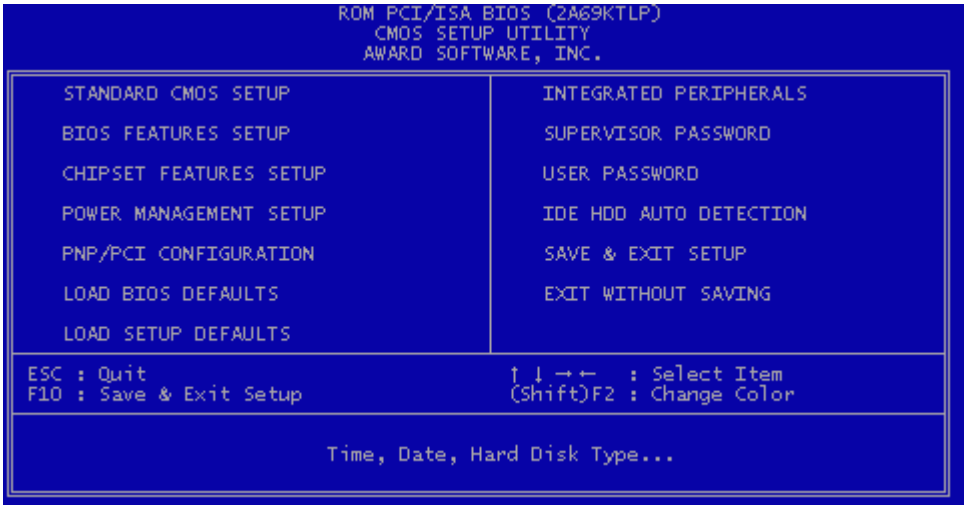
CHAPTER 3 BIOS SETUP

3.1 BIOS Setup

Award BIOS has a built-in Setup program that allows users to modify the basic system configuration. This information is stored in CMOS RAM, so it can retain the Setup information when the power is turned off. When the battery of CMOS fails, it will cause the data lost. When it happens, you should set up your configuration parameters again after replacing the battery.

3.2 The Main Menu

As you turn on (or reboot) the system, the BIOS is immediately activated. It will read the system configuration information, and check the system through Power On Self Test (POST). During the POST process, press the [DEL] key, and you can enter the Award BIOS configuration system.



In the Award BIOS System, you can use the arrows **(- ¯ ® ¬)** to highlight the item. And press the Enter to enter the sub-menu. The following keys help you navigate in Setup:

Esc	Main Menu: Quit and not save changes into CMOS RAM.
	Other pages: Exit current page and return to Main Menu.
PgUp	Increase the numeric value or make changes.
PgDn	Decrease the numeric value or make changes.
+	Increase the numeric value or make changes.
-	Decrease the numeric value or make changes.

F1 General help, only for Status Page Setup Menu and Option Page Setup Menu.

F2 Change color from total 16 colors.

F2 to select color forward.

Shift + F2 to select color backward

F3 Calendar, only for Status Page Setup Menu

F5 Restore the previous CMOS value from CMOS, only for Option Page Setup Menu

F6 Load the default CMOS RAM value from BIOS default table, only for Option Page Setup Menu

F7 Load the default

F10 Save all the CMOS changes, only for Main Menu

The Following is a brief summary of each setup category.

- **STANDARD CMOS SETUP**

  Options in the original PC AT-compatible BIOS.

- **BIOS FEATURES SETUP**

  Award enhanced BIOS options.

- **CHIPSET SETUP**

  Options specific to your system chipset.

- **POWER MANAGEMENT SETUP**

  Advanced Power Management (APM) options.

- **PnP/PCI CONFIGURATION**

  Plug and Play standard and PCI Local Bus configuration options.

- **LOAD BIOS DEFAULTS**

  BIOS defaults are factory settings for the most stable, minimal-performance system operations.

- **LOAD SETUP DEFAULTS**

  Setup defaults are factory settings for optimal-performance system operations.

· **INTEGRATED PERIPHERALS**

I/O subsystems that depend on the integrated peripherals controller in your system.

· **SUPERVISOR/USER PASSWORD**

Change, set, or disable a password. In some BIOS versions that allow separate user and supervisor passwords, only the supervisor password permits access to Setup. The user password generally allows only power-on access.

· **IDE HDD AUTO DETECTION**

Automatically detect and configure IDE hard disk parameters.

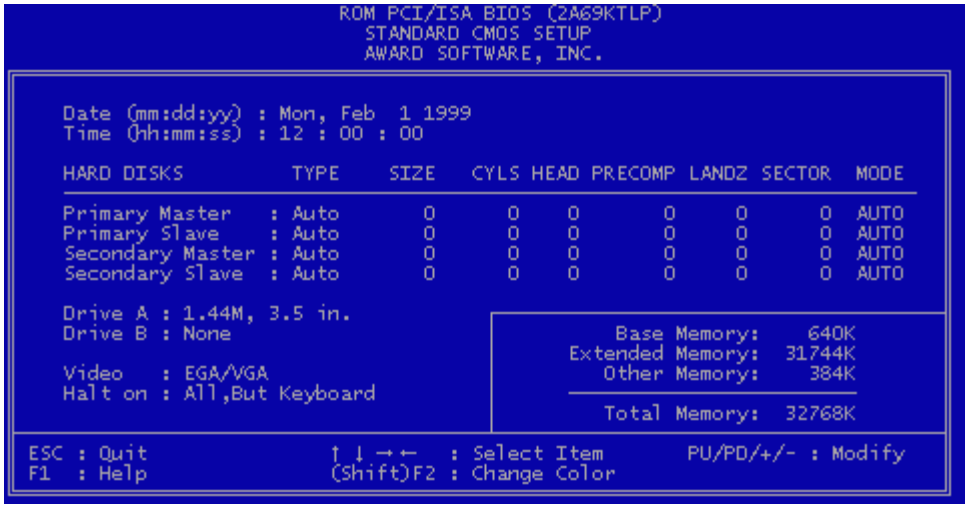
· **SAVE & EXIT SETUP**

Save settings in nonvolatile CMOS RAM and exit Setup.

· **EXIT WITHOUT SAVING**

Abandon all changes and exit Setup.

3.3 Standard CMOS Setup



· **Date (mm:dd:yy) / Time (hh:mm:ss)**

Highlight the items and use PageUp/PageDown to change the value of Date/Time.

· **Primary Master/ Primary Slave/ Secondary Master/ Secondary Slave**

This mainboard can support four IDE devices. We recommend that you select type AUTO for all drives. The BIOS can automatically detect the specifications and optimal operating mode of almost all IDE hard drives. When you select type AUTO for a hard drive, the BIOS detects its specifications during POST, every time the system boots. If you do not want to select drive type AUTO, other methods of selecting the drive type are also available:

1. Match the specifications of your installed IDE hard drive(s) with the preprogrammed values for drive type 1 through 45.
2. Select USER and enter values into each drive parameter field.
3. Use the IDE HDD AUTO DECTECTION function in Setup.

Here is a brief explanation of drive specifications:

* TYPE : The BIOS contains a table of pre-defined drive types. Each defined drive type has a specified number of cylinders, number of heads, write precompensation factor, landing zone, and number of sectors. Drives whose specifications do not accommodate any pre-defined type are classified as type USER.

* SIZE : Disk drive capacity (approximately). Note that this size is usually slightly greater than the size of a formatted disk given by a disk-checking program.
* CYLS : Number of cylinders
* HEAD : Number of heads
* PRECOMP : Write precompensation cylinder
* LANDZ : Landing zone
* SECTOR : Number of sectors
* MODE : AUTO, NORMAL, LARGE, or LBA
  - AUTO : The BIOS automatically determines the optimal mode.
  - NORMAL : Maximum number of cylinders, heads, and sectors supported are 1024, 16, and 63, respectively.
  - LARGE : For drives that do not support LBA and have more than 1024 cylinders.
  - LBA (Logical Block Addressing) : During drive access, the IDE controller transforms the data address described by sector, head, and cylinder number into a physical block address, significantly improving data transfer rates. For drives with greater than 1024 cylinders.

· Drive A / Drive B

Select the correct specifications for the diskette drive(s) installed in the computer.

- None : No diskette drive installed
- 360K, 5.25 in : 5-1/4 inch PC-type standard drive; 360 kilobyte capacity
- 1.2M, 5.25 in : 5-1/4 inch AT-type high-density drive; 1.2 megabyte capacity.
- 720K, 3.5 in : 3-1/2 inch double-sided drive; 720 kilobyte capacity.
- 1.44M, 3.5 in : 3-1/2 inch double-sided drive; 1.44 megabyte capacity.
- 2.88M, 3.5 in : 3-1/2 inch double-sided drive; 2.88 megabyte capacity

· Video

Select the type of primary video subsystem in your computer. The BIOS usually detects the correct video type automatically. The BIOS supports a secondary video subsystem, but do not select it in this Setup.

- EGA/VGA : Enhanced Graphics Adapter/Video Graphics Array. For EGA, VGA, SEGA, SVGA or PGA monitor adapters.
- CGA 40 : Color Graphics Adapter, powers up in 40-column mode.
- CGA 80 : Color Graphics Adapter, powers up in 80-column mode.
- MONO : Monochrome adapter, includes high resolution monochrome adapters.

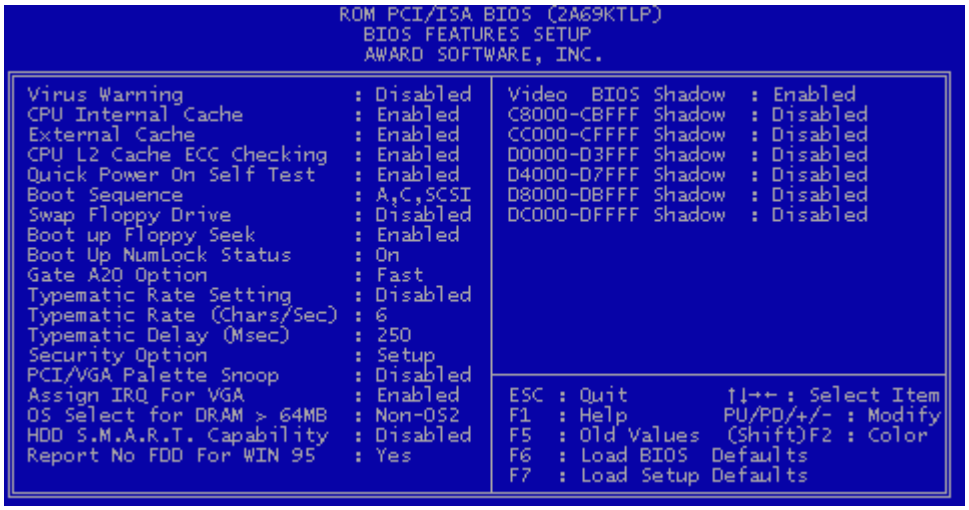
· Halt On

During the power-on self-test (POST), the computer stops if the BIOS detects a hardware error. You can tell the BIOS to ignore certain errors during POST and continue the boot-up process. The following are the selections.

- No Errors : POST does not stop for any error.
- All Errors : If the BIOS detects any non-fatal error, POST stops and prompts you to takecorrective action.
- All, But Keyboard: If the BIOS detects any non-fatal error except keyboard, POST stops and prompts you to take corrective action.
- All, But Diskette : If the BIOS detects any non-fatal error except floppy disk drive, POST stops and prompts you to take corrective action.
- All, But Disk /Key: If the BIOS detects any non-fatal error except floppy disk drive or keyboard, POST stops and prompts you to take corrective action.

3.4 BIOS Features Setup

This BIOS FEATURES SETUP" option allows you to improve your system performance and set up some system features according to your preference.



· Virus Warning

When enabled, you receive a warning message if a program (specifically, a virus) attempts to write to the boot sector or the partition table of the hard disk drive. You should then run an anti-virus program. Keep in mind that this feature protects only the boot sector, not the entire hard drive.

NOTE: Many disk diagnostic programs that access the boot sector table can trigger the virus warning message. If you plan to run such a program, we recommend that you first disable the virus warning.

· CPU Internal Cache / External Cache

Cache memory is additional memory that is much faster than conventional DRAM (system memory). CPUs from 486-type on up contain internal cache memory, and most, but not all, modern PCs have additional (external) cache memory. When the CPU requests data, the system transfers the requested data from the main DRAM into cache memory for even faster access by the CPU. The External Cache field may not appear if your system does not have external cache memory.

- **CPU L2 Cache ECC Checking**

  Select L2 Cache ECC Checking Enabled to make sure the data accuracy.

- **Quick Power On Self Test**

  Select Enabled to reduce the amount of time required to run the power-on self-test (POST). A quick POST skips certain steps. We recommend that you normally disable quick POST. Better to find a problem during POST than lose data during your work.

- **Boot Sequence**

  The original IBM PCs load the DOS operating system from drive A (floppy disk), so IBM PC-compatible systems are designed to search for an operating system first on drive A, and then on drive C (hard disk). However, the BIOS now offers 11 different boot sequence options. In addition to the traditional drives A and C, options include IDE hard drives D, E, and F; plus a SCSI hard drive,a LS/ZIP drive and a CD-ROM drive.

- **Swap Floppy Drive**

  This field is effective only in systems with two floppy drives. Selecting Enabled assigns physical drive B to logical drive A, and physical drive A to logical drive B.

- **Boot Up Floppy Seek**

  Disable ¡÷ Default

  Enable ¡÷ Enable Option Boot Up Floppy Seek.

- **Boot Up NumLock Status**

  Toggle between On and Off to control the state of the NumLock key when the system boots. When toggled On, the numeric keypad generates numbers nstead of controlling cursor operations.

- **Gate A20 Option**

  Choose Fast (default) or Normal. Fast allows RAM access above 1MB using the fast gate A20 line.

- **Memory Parity/ECC Check**

  This item can define the memory with Parity or ECC function.

- **Typematic Rate Setting**

  When Disabled, the following two items (Typematic Rate and Typematic Delay) are irrelevant. Keystrokes repeat at a rate determined by the keyboard controller in your system.When Enabled, you can select a typematic rate and typematic delay.

· Typematic Rate (Chars/Sec)

When the typematic rate setting is enabled, you can select a typematic rate (the rate at which character repeats) when you hold down a key of 6, 8, 10,12, 15, 20, 24 or 30 characters per second.

· Typematic Delay (Msec)

When the typematic rate setting is enabled, you can select a typematic delay (the delay before key strokes begin to repeat) of 250, 500, 750 or 1000 milliseconds.

· Security Option

If you have set a password, select whether the password is required every time the system boots, or only when you enter Setup.

· PCI/VGA Palette Snoop

This function is used to prevent conflict when a MPEG card or some capture cards use the same palette address. Enable this to make the cards work normally.

· OS Select for DRAM > 64MB

Select OS2 only if you are running OS/2 operating system with greater than 64 MB of RAM on your system.

· HDD S.M.A.R.T capability

S.M.A.R.T. (Self-Monitoring Analysis and Reporting)

If your hard disk supports this function, select Enabled.

· REPORT NO FDD FOR WIN95

Select Yes to report when there is no floppy disk drive under win95 operating system

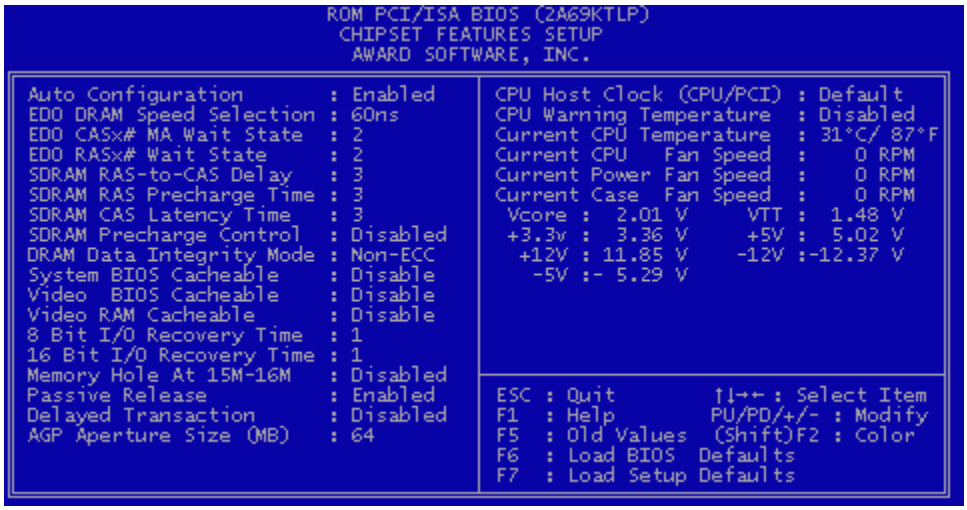
· Video BIOS Shadow

Software that resides in a read-only memory (ROM) chip on a device is called firmware. The Award BIOS permits shadowing of firmware such as the system BIOS, video BIOS, and similar operating instructions that come with some expansion peripherals, for example, a SCSI adapter. Shadowing copies firmware from ROM into system RAM, where the CPU can

read it through the 64-bit DRAM bus. Firmware not shadowed must be read by the system through the 8-bit or 16-bit X-bus. Shadowing improves the performance of the system BIOS and similar ROM firmware for expansion peripherals, but it also reduces the amount of high memory (640 KB to 1 MB) available for loading device drivers, etc. Enable shadowing into each section of memory separately. Many system designers hardwire shadowing of the system BIOS and eliminate a System BIOS Shadow option.Video BIOS shadows into memory area C0000-C7FFF. The remaining areas shown on the BIOS Features Setup screen may be occupied by other expansion card firmware. If an expansion peripheral in your system contains ROM-based firmware, you need to know the address range the ROM occupies to shadow it into the correct area of RAM.

3.5 Chipset Features Setup

This option will change the values of the chipset registers and the system setting will alter. Do not change any values if you are not familiar with the chipset.



· Bank 0/1,2/3,4/5 DRAM Timing

The DRAM timing of Bank 0/1, 2/3, 4/5, in this field is set by the system board manufacturer, depending on whether the board has fast paged DRAMs or EDO (extended data output) DRAMs.

The Choice: Normal, Medium, Fast, Turbo, SDRAM 10ns, SDRAM 8ns.

· SDRAM Cycle Length

This controls the SDRAM performance, default is 3 clocks. If your SDRAM DIMM specification is 2 CAS latency, change 3 to 2 for better performance.

· DRAM Clock

The default is Host CLK.

· Memory Hole

In order to improve performance,certain space in memory can be reserved for ISA cards. This memory must be mapped into the memory space below 16MB , this function default is 15M-16M.

· Read Around Write

DRAM optimization feature: if a memory read a addressed to loction whose Latest write is being held in a buffer before being written to memory. the read Is satisfied through the buffer contents,and the read is not sent to the DRAM. This function default is disabled

· Concurrent PCI/Host

The default is Disabled.

· System BIOS Cacheable

This item means the memory reserved one area mapped to system BIOS cachabled ,default is disabled.

· Video RAM Cacheable

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

Choose enabled Video RAM cached,dieabled is default.

· AGP Aperture Size

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

· AGP-2X Mode

This item choose enabled can support AGP-2x Mode, disabled is default.

· CPU Host Clock (CPU/PCI)

Set the clock frequency of the CPU and PCI. The default setting is 66MHz.

· **CPU Warning Temperature**

Enable this item to protect the CPU from overheating.

· **Current CPU FAN Speed**

This item will show the fan speed of CPU by RPM.

· **Current Power FAN Speed**

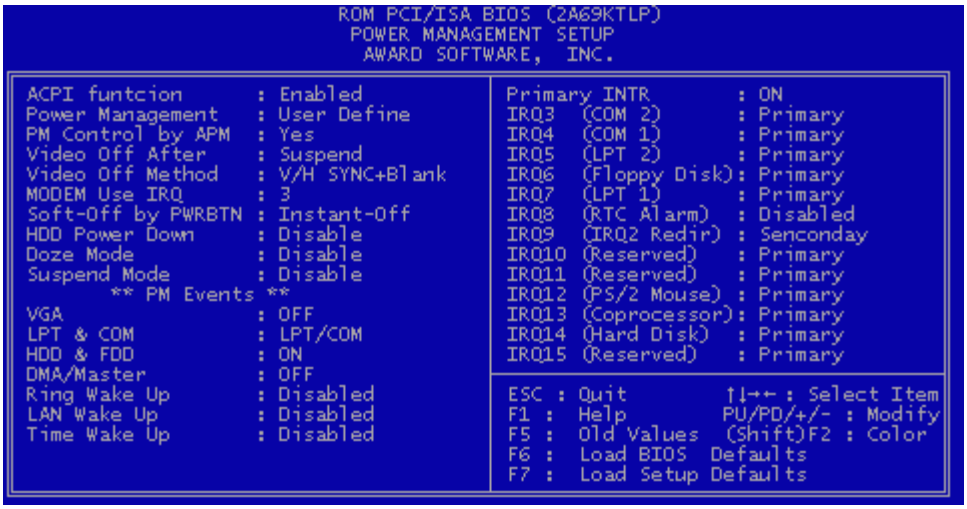
This item will show the fan speed of power by RPM.

· **Current CASE FAN Speed**

This item will show the fan speed of case by RPM.

3.6 Power Management Setup

The Power Management Setup allows you to configure you system to most effectively save energy while operating in a manner consistent with your own style of computer use.



· **ACPI function**

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

The choice: Enabled, Disabled.

· **Power Management**

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

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

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

1. Min. Power Saving : Minimum power management.
   Doze Mode = 1 hr.
   Standby Mode = 1 hr.
   Suspend Mode = 1 hr.
   HDD Power Down = 15 min.
2. Max. Power Saving : Maximum power management
   ----- ONLY AVAILABLE FOR SL CPUS. -----
   Doze Mode = 1 min.
   Standby Mode = 1 min.
   Suspend Mode = 1 min.
   HDD Power Down = 1 min.
3. User Defined : Allows you to set each mode individually. When not disabled, each of

· PM Control by APM

When Yes, an Advanced Power Management device will be activated to enhance the Max. Power Saving mode and stop the CPU internal clock.

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

· Video Off After

Selects the power-saving modes during which the monitor goes blank:

Doze - Monitor remains blanked during Doze modes.

Suspend - Monitor blanked when system enters Suspend mode.

N/A - It is default, when system enter power-saving, cannot do any action.

· Video Off Method

The default is V/H SYNC+Blank.

· MODEN Use IRQ

This item can make MODEN use IRQ (3.4.5.7.9.10.11)

· **Soft-Off by PWR-BTTN**

When enabled,turning the system off with the On/Off button places the system in a very low-power-usage stage,with only enough circuit receiving power to detect activity or Resume by Ring activity.

· **HDD Power Down**

When Enabled and after the set time of system inactivity, the hard disk drive will be powered down while all other device remain active.

· **Doze Mode**

When Enabled and after the set time of system in activity, the CPU clock will run at slower speed w hile all device still operate at full speed.

· **Suspend Mode**

When Enabled and after the set time of system in activity, all devices except the CPU will be shut off.

The Choice : Disable, 10Sec, 20Sec, 30Sec, 40Sec, 1Min, 2Min, 4Min, 6Min, 8Min, 10Min, 20Min, 30Min, 40Min, 1Hour.

**** PM Events ****

· **VGA**

When set to On (default), any event occurring at a VGA port will awaken a system which has been powered down.

· **LPT & COM**

When set to LPT/COM (default), any event occurring at a COM(serial)/LPT (printer) port will awaken a system which has been powered down.

· **HDD & FDD**

When set to On (default), any event occurring at a hard or floppy drive port will awaken a system which has been powered down.

· **DMA/Master**

When set to On (default), any event occurring at will awaken a system which has been powered down.

· **Ring Wake Up**

· LAN Wake Up

This item choose Enable can use LAN wake up. the function often used system administator in mainboard find a while 3 pin socket but enthernet card also must be support this function.

· Time Wake Up

This item can power on your computer anytime. Frist you must set up Date(of month) and Timer(hh:mm:ss).

· Primary INTR

When set to On (default), any event occurring at will awaken a system which has been powered down.

The following is a list of IRQ's, Interrupt ReQuests, which can be exempted much as the COM ports and LPT ports above can. When an I/O device wants to gain the attention of the operating system, it signals this by causing an IRQ to occur. When the operating system is ready to respond to the request, it interrupts itself and performs the service. As above, the choices are On and Off. Off is the default. When set On, activity will neither prevent the system from going into a power management mode nor awaken it.

IRQ3 (COM 2)

„h IRQ4 (COM 1)

„h IRQ5 (LPT 2)

„h IRQ6 (Floppy Disk)

„h IRQ7 (LPT 1)

„h IRQ8 (RTC Alarm)

„h IRQ9 (IRQ2 Redir)

„h IRQ10 (Reserved)

„h IRQ11 (Reserved)

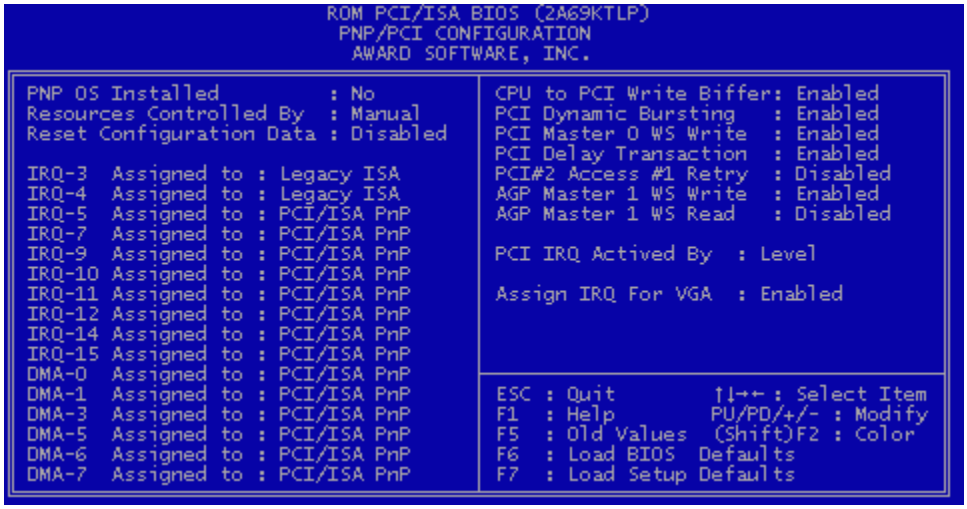
„h IRQ12 (PS / 2 Mouse)

„h IRQ13 (Coprocessor)

„h IRQ14 (Reserved)

3.7 PnP/PCI Configuration Setup

This section describes configuring the PCI bus system. PCI, or Personal Computer Interconnect, is a system which allows I/O devices to operate at speeds nearing the speed the CPU itself uses when communicating with its own special components. This section covers some very technical items and it is strongly recommended that only experienced users should make any changes to the default settings.



· PNP OS Installed

Select Yes if the system operating environment is support Plug-and-Play function choose YES

· Resource Controlled by

The Award Plug and Play BIOS can automatically configure all the boot and Plug and Play-compatible devices. If you select Auto, all the interrupt request (IRQ) and DMA assignment fields disappear, as the BIOS automatically assigns them.

The choice: Auto and Manual.

· Reset Configuration Data

Normally, you leave this field Disabled Select Enabled to reset Extended System Configuration Data(ESCD)when you exit Setup if you have installed a new add-on and the system reconfiguration has caused such a serious conflict that the operating system cannot boot, you can choose Enabled and disabled

· IRQ-n Assigned to

When resources are controlled manually, assign each system interrupt as one of the following types, depending on the type of device using the interrupt.

- Legacy ISA Devices compliant with the original PC AT bus specification,requiring a specific interrupt (such as IRQ4 for serial port1).
- PCI/ISA PnP devices compliant with the Plug and Play standard,whether designed for PCI or ISA bus architecture.

· DMA n Assigned to

When resources are controlled manually, assign each system DMA channel as one of the following types, depending on the type of device using the interrupt:

- Legacy ISA Devices compliant with the original PC AT bus specification,requiring a specific DMA channel.
- PCI/ISA PnP devices compliant with the Plug and Play standard,whether designed for PCI or ISA bus architecture.

· CPU to PCI Wrtie Buffer

When enabled, up to four words of data can be written to the PCI bus without interrupting the CPU. When disabled, a write buffer is not used and the CPU read cycle will not be completed until the PCI bus signals that it is ready to receive the data.

· PCI Dynamic Bursting

When Enabled,every write transaction goes to the write buffer.Burstable transaction then burst on the PCI bus and nonburstable transactions you can choose enabled and disabled.

· PCI Master 0 WS Write

When Enabled,write to the PCI bus are executed with zero wait stages disabled is default.

· PCI Delay transaction

The chipset has an embedded 32-bit posted write buffer to support delay transactions cycles. Select enabled to support compliance with PCI specification version2.1.

· PCI #2 Access #1 Retry

This item allows you enable/disable the PCI #2 Access #1 Retry.

The choice: Enabled, Disabled.

- **AGP Master 1 WS Write**

  This implements a single delay when writing to the AGP Bus. By default, two-wait stages are used by the system, allowing for greater stability.

  The choice: Enabled, Disabled.

- **AGP Master 1 WS Read**

  This implements a single delay when reading to the AGP Bus. By default, two-wait stages are used by the system, allowing for greater stability.

  The choice: Enabled, Disabled.

- **PCI IRQ Activated by**

  This sets the method by which the PCI bus recognizes that an IRQ service is being requested by a device. Under all circumstances, you should retain the default configuration unless advised otherwise by your system's manufacturer.

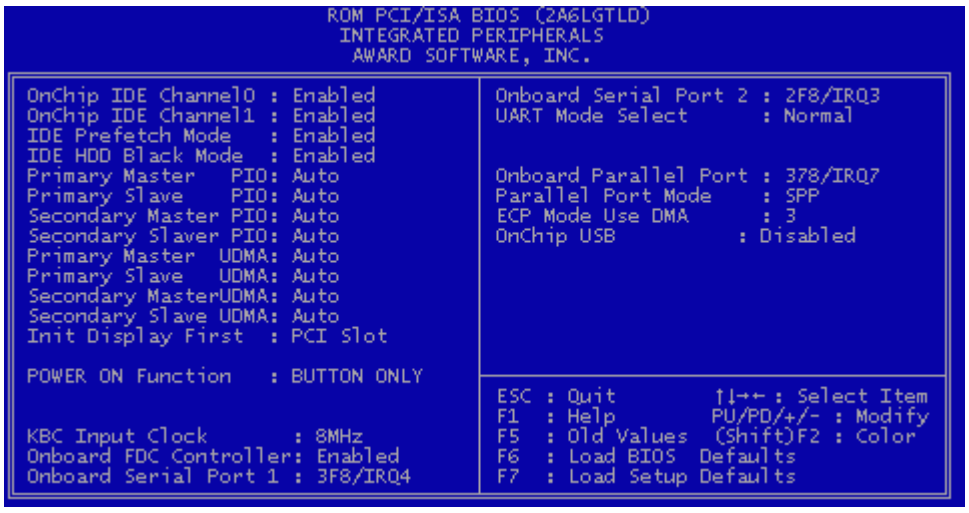
  Choices are Level (default) and Edge.

- **Assign IRQ For VGA**

  Name the interrupt request (IRQ) line assigned to the VGA (if any) on your system. Activity of the selected IRQ always awakens the system.

3.8 Intrgrated Peripherals

This option will load the default BIOS values.Choose the option and the following message appears.



- **On Chip IDE Channel 0,1**

  The chipset contains a PCI IDE interface with support for two IDE channels. Select Enabled to activate the first and/or second IDE interface. Select Disabled to deactivate an interface, if you install a primary and/or secondary add-in IDE interface.

  The choice: Enabled, Disabled.

- **IDE Prefetch Mode**

  The onboard IDE drive interfaces supports IDE prefetching, for faster drive accesses. If you install a primary and/or secondary add-in IDE interface, set this field to Disabled if the interface does not support prefetching.

  The choice: Enabled, Disabled.

- **IDE HDD Block Mode**

  The item means HDD access uses over one cycle methods for improve HDD performance. IF the HDD support this function choose Enabled

- **IDE Primary/Secondary Master/Slave PIO**

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

- **IDE Primary/Secondary Master/Slave UDMA**

  Ultra DMA/33 implementation is possible only if your IDE hard drive supports it and the operating environment includes a DMA driver (Windows 95 OSR2 or a third-party IDE bus master driver). If your hard drive and your system software both support Ultra DMA/33, select Auto to enable BIOS support.

  The Choice: Auto, Disabled

- **Init Display First**

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

  The choice: PCI Slot, AGP.

- **Power On Function**

  1- Button Only

  2 - Keyboard 98 Choose

  3 - Password KB Power on password Enter

  4 - Hot KEY → CTRL+(F1~F10)

  5 - Mouse Left

  6 - Mouse Right

- **KBC Input Clock**

  1 - 6MHz

  2 - 8MHz

  3 - 12MHz : Default

  4 - 16MHz

  Set the frequency for the keyboard controller input clock.

- **Onboard FDC Controller**

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

  The Choice: Enabled or Disabled.

- **Onboard Serial Port 1/Port 2**

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

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

- **URAT Mode Select**

  1 - Normal : Default.

  2 - IrDA : This item allows you to determine the active of RxD, TxD.

  The Choice : Hi, Hi / Lo, Lo / Lo, Hi / Hi, Lo.

  IR Transmittion delay: Disabled-default enable show IR ransmittion delay.

  3 - ASKIR

- **Onboard Parallel Port**

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

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

- **Parallel port Mode**

  1 - SPP→Default

  2 - EPP→EPP Mode Select: EPP1.7, EPP1.9

3 - ECP→ECP Mode Use DMA:3, 1

4 - ECP+EPP→EPP Mode Use DMA:3, 1

EPP Mode Select: EPP1.7, EPP1.9

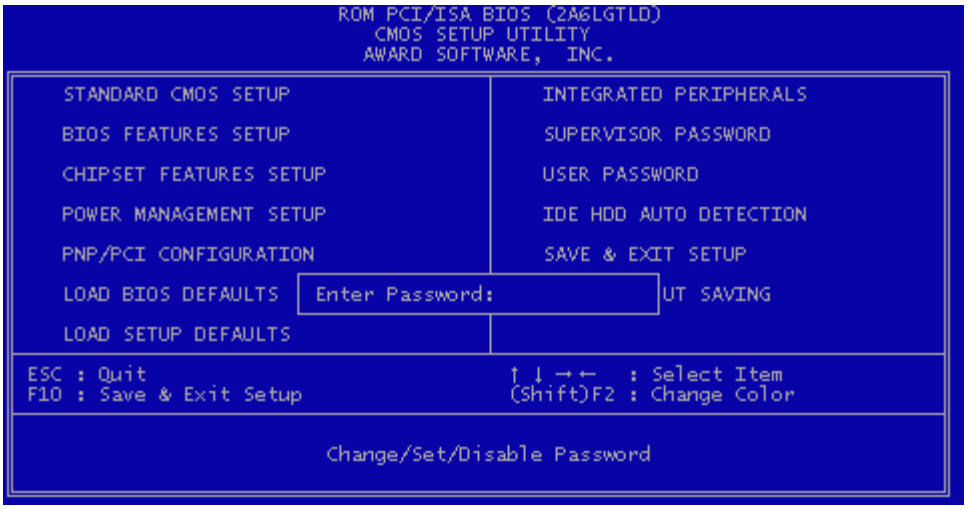
· OnChip USB

Disabled - Defult.

Enabled - Choose enabled the system can support

3.9 Supervisor Password

This option will set the password to prevent others from making changes to your system.



Enter Password:

Type the password, up to eight characters, and press Enter. Typing a password clears any previously entered password from CMOS memory. After press Enter, Now the message changes:

Confirm Password:

Again, type the password and press Enter.To abort the process at any time, leave the field blank and press Enter. In the Security Option item in the BIOS Features Setup screen, select System or Setup:

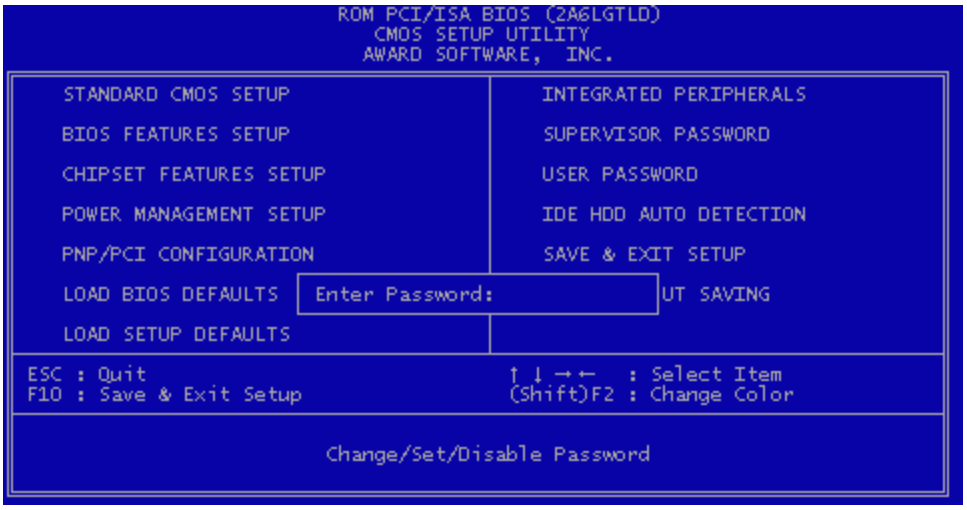
System - Enter a password each time the system boots and whenever you enter Setup.

Setup - Enter a password whenever you enter Setup.

NOTE: To clear the password, simply press Enter when asked to enter a password. Then the password function is disabled.

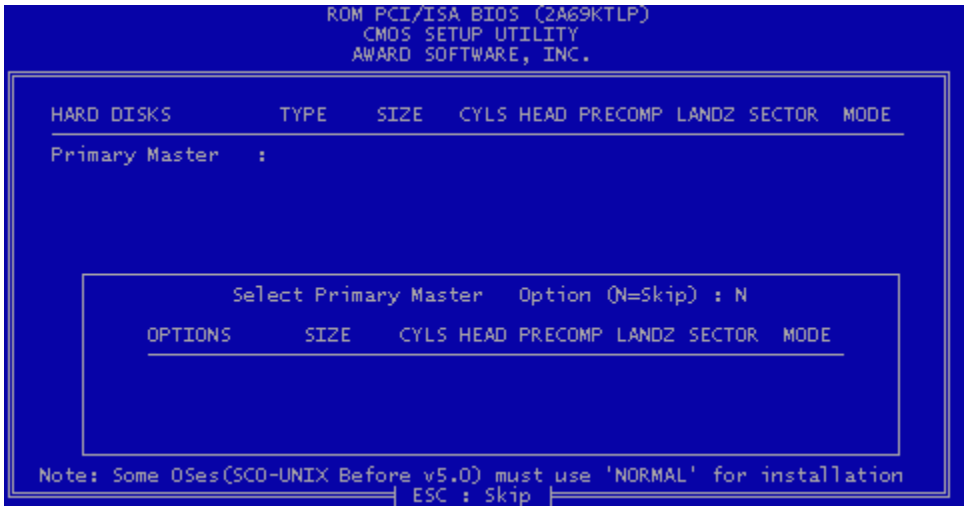
3.10 User Password

This option will set the password to prevent others from making changes to your system when accessed by POWER ON. This operation is the same as SUPERVISOR PASSWORD.



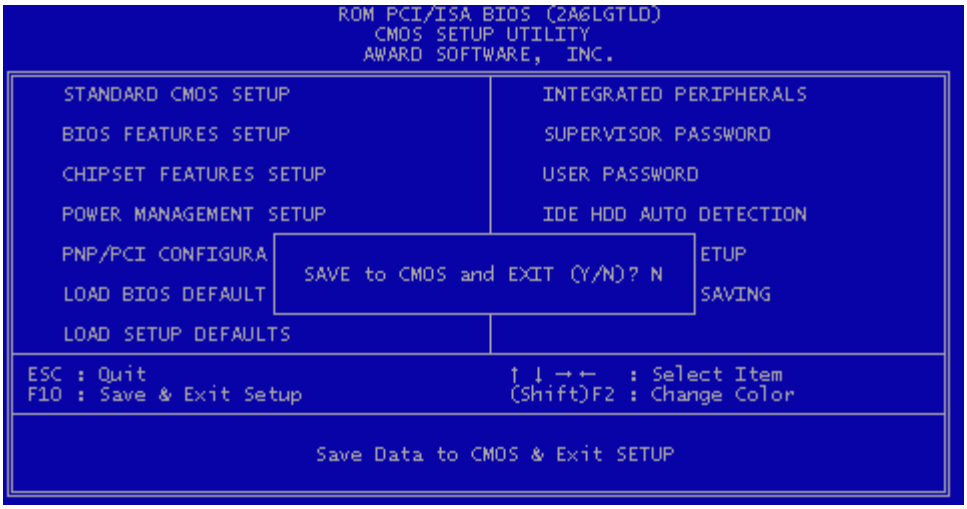
3.11 IDE HDD Auto Detection

Use the BIOS utility to detect the HDD type automatically. Press to accept, to reject, and ESC to the next detection.



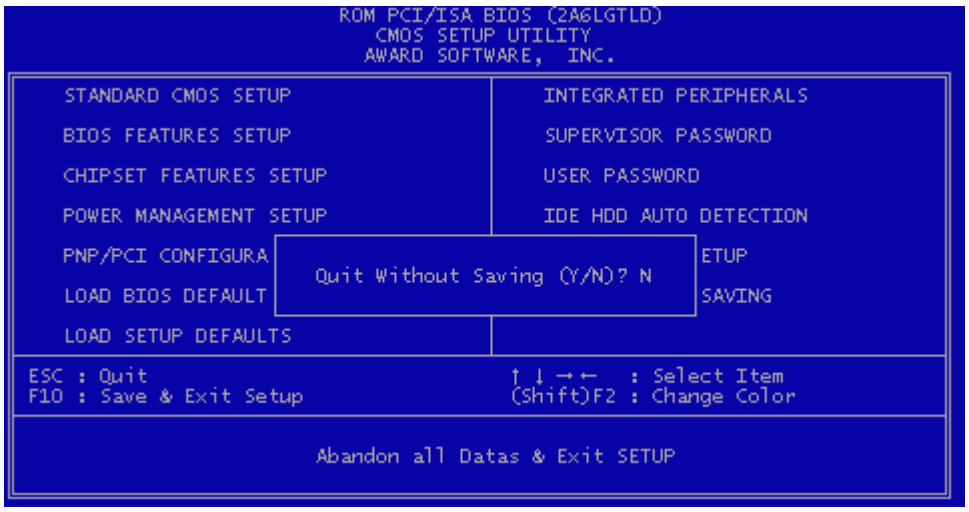
3.12 Save & Exit Setup

Save the setting and exit the BIOS utility.



3.13 Exit Without Saving

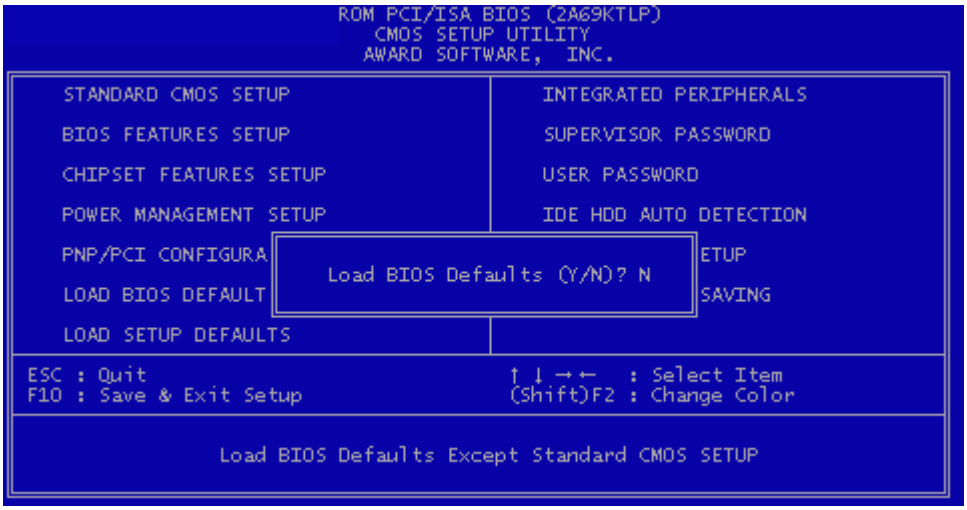
Abort the current change and exit the BIOS utility.



3.14 Load BIOS Defaults

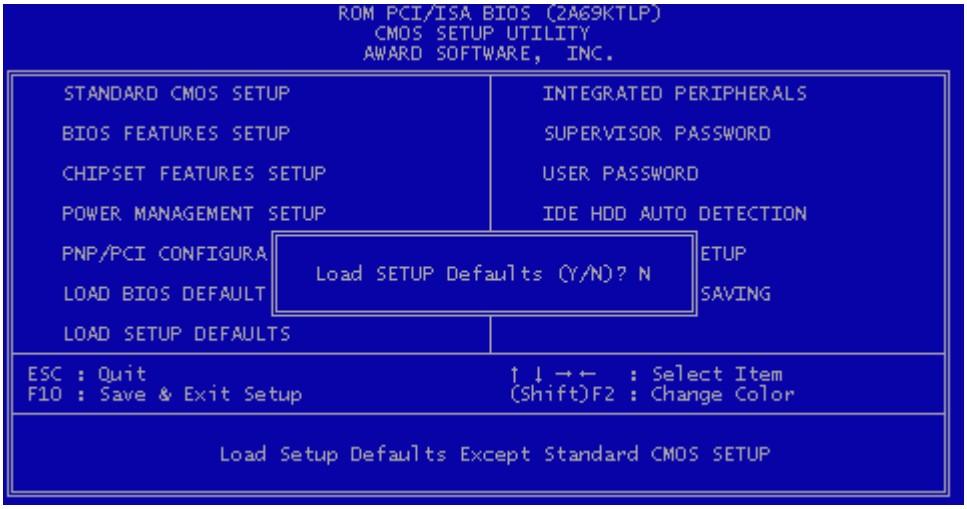
This item load the BIOS default valuses.

NOTE: BIOS DEFAULTS values are adjusted for high performance. If you run into any problem after loading BIOS DEFAULTS, please run this item.



3.15 Load Setup Defaults

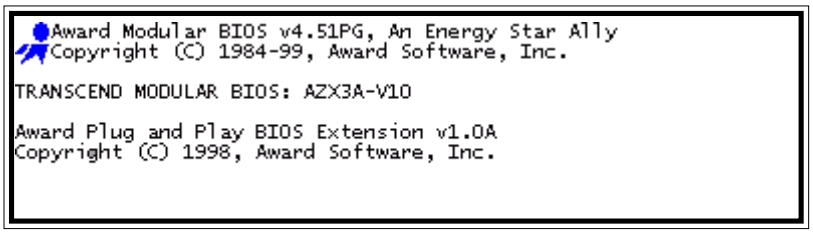
This item load the system valuses you have previously saved.



BIOS UPGRADE

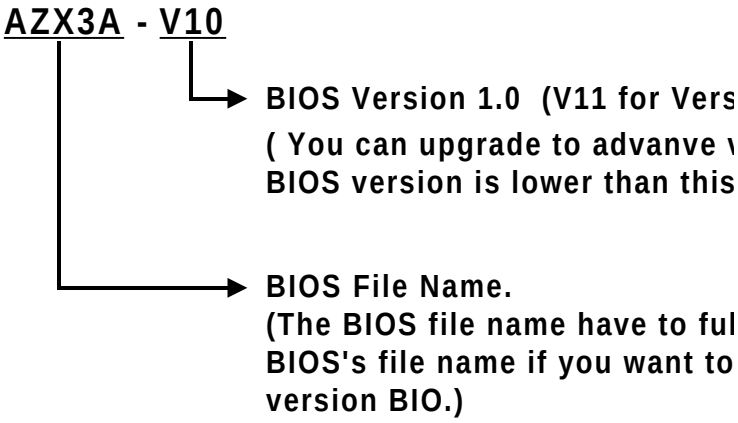
4.1 How to Check Your BIOS File Name and Version

Please turn on PC first, the screen will display as follows :



You can see a description shows(at third line):

TRANSCEND MODULAR BIOS : AZX3A-V10



4.2 Download Correct BIOS File From Web.

Please enter Transcend Internet web : **http://www.transcend.com.tw**

Choose into BIOS upgrade environment.

The BIOS file name consisted of 5 characters. Check the suitable BIOS to down load. Your BIOS file name must absolute mach which is on our web. Then download the latest version to your disk.

4.3 How To Update Your Mainboard's BIOS

Please follow below 7 steps to update new BIOS.

Step 1: Make a record of your original or existing BIOS Setup parameters

- Press [Del] during the Power-On-Self-Test to enter BIOS Setup Program when you start your system.
- Write down the value of each parameter in order to re-configure your system after BIOS updating.

Step 2: Make a System Disk

- Put a clean 3.5" disk in Drive A

MS-DOS : Key in **FORMAT A:/S** and press [Enter].

Windows O/S : Select My Computer

Click 3.5" Floppy (A:)

Select File/Format from Command Bar

Under **Format 3.5** Floppy (A:) **Menu** select

Format type = Full item and

Other Options = Copy system files

Click [Start] button

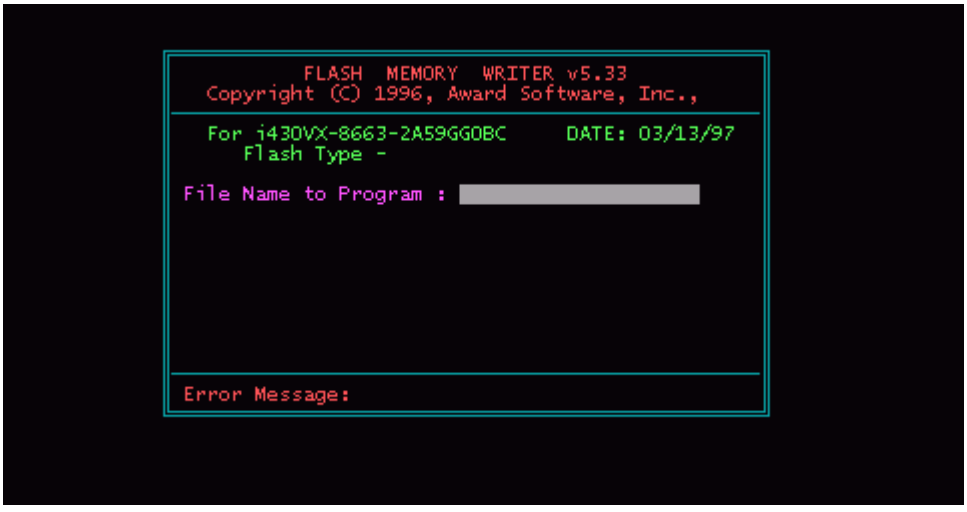
Step 3: Download the updated BIOS bin file from the web site to floppy disk. (Ref 4.1 and 4.2)

Step 4: Copy the updated BIOS bin file and **AWDFLASH.EXE** file (in the Driver Disk or Manual & Utility CD-ROM) to floppy disk.

Step 5: Put the System Disk in Drive A and re-start your computer from Drive A:

Step 6: Begin to update your BIOS:

- Enter **AWADFLASH** command Flash Memory Writer" appears on screen. (as below scrren)
- Enter the updated BIOS file name at **File Name to Program:**
- Enter the backup file name for the existing BIOS at **File Name to Save:**
- Press [Y] to proceed the BIOS updating



Step 7: Re-configure your system:

- Remove the Floppy Disk and Re-start your computer.
- Press [Del] key during the Power-On-Selt-Test to enter BIOS Setup Program.
- Re-set the relevant parameters according to your record of the original setting.
- Save and Exit BIOS Setup program to re-boot your system.