



## Le menu « SpeedEasy CPU SETUP »

Choisissez « SpeedEasy CPU SETUP » dans le menu principal

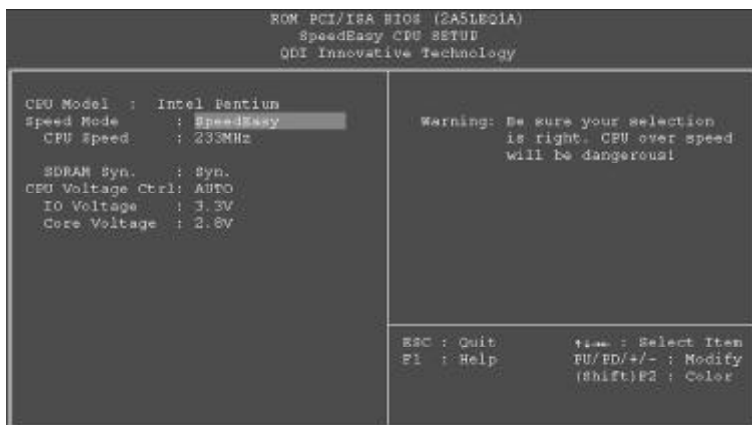


Figure 1 – Le menu « SpeedEasy CPU SETUP »

Le Bios vous propose une série de valeurs pour votre processeur au lieu du système de configuration par cavaliers. La vitesse du processeur peut être sélectionnée manuellement dans la rubrique « SpeedEasy CPU SETUP »

Le Bios vous propose également 2 possibilités : SDRAM Syn ou SDRAM Asyn. Si vous utilisez de la SDRAM à la norme PC 100, sélectionnez « Syn ». Si vous utilisez de la SDRAM à la norme PC 66 et que le bus externe est inférieur à 83 MHz, sélectionnez « Syn ».

Si le bus externe est égal ou supérieur à 83 MHz, sélectionnez « Asyn ».

Il est conseillé aux utilisateurs de sélectionner la valeur « Auto » pour le voltage du processeur (« CPU Voltage Ctrl »).



### ATTENTION

**Ne pas choisir une fréquence de processeur supérieure à celle annoncée par le constructeur, faute de quoi nous ne saurions être responsables pour tous les dommages causés.**

NOTE : Si votre système ne peut pas redémarrer à cause d'une mauvaise sélection de vitesse de processeur, maintenez la touche < Suppr > enfoncée en rallumant le système, qui va redémarrer en utilisant des valeurs de base.



## Setup Rapido

### Procedure:

1. Inserire la CPU correttamente.
2. Inserire gli altri componenti e ricomporre il systema.
3. Premere il tasto <Del> e accendere il sistema per entrare nel setup del Bios.
4. Entrare nel menu ' SpeedEasy CPU SETUP' per impostare la velocita' della CPU.

**Nota: Se la velocita' di CPU non viene impostata, il sistema lavorera' alla velocita' di default.**

5. Salvare e uscire dal Setup del Bios. Il sistema si riavviera' alla velocita' voluta.



## Menu SpeedEasy per l'impostazione della CPU

Selezionare <SpeedEasy CPU SETUP> dal menu principale ed entrare nel seguente sottomenu:

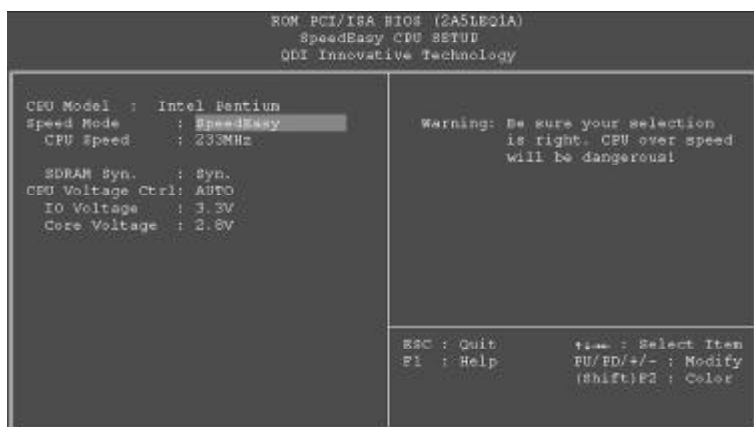


Figura 1: Menu SpeedEasy per l'impostazione della CPU

Per una mainboard *SpeedEasy*, il BIOS fornisce una serie di valore base per la specifica CPU, invece di dover impostarli via jumpers. Per far lavorare il sistema in modo ottimale, si può impostare la velocità di CPU manualmente, alla voce "CPU Speed" del menu "*SpeedEasy CPU SETUP*".



### Attenzione

**declina ogni responsabilità per eventuali danni causati alla CPU da una impostazione della velocità più alta di quanto indicato dal produttore della CPU stessa.**

Nota: Se il sistema non completa il boot per impostazioni errate della CPU, riaccendere tenendo premuto il tasto <Del>. Il sistema si riavvierà con i valori di base.



## SpeedEasy

:

1. CPU

2.

3. <Del> BIOS

4. SpeedEasy CPU SETUP

:

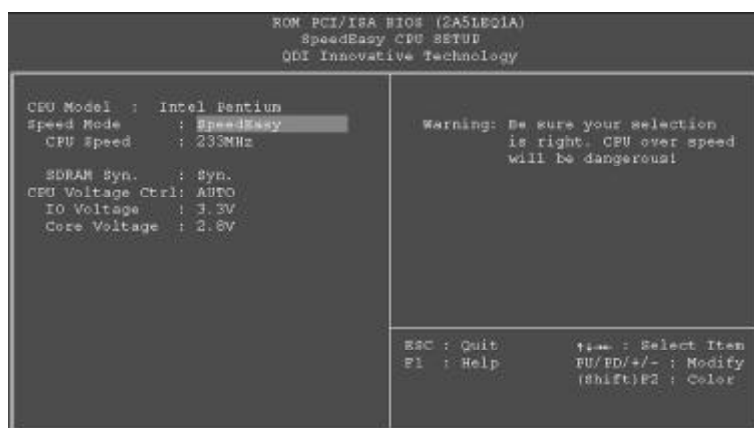
5. BIOS



SpeedEasy

## SpeedEasy Ö Ñ ë À Å É Ç º þ ¥

<SpeedEasy CPU SETUP>



### 1 SpeedEasy

BIOS

(Jumper)

SpeedEasy CPU SETUP



<Del>



## SpeedEasy

1. CPU
- 2.
3. <Del> BIOS
4. SpeedEasy CPU SETUP

:

5. BIOS



## SpeedEasy

<SpeedEasy CPU SETUP>



1 SpeedEasy

BIOS

(Jumper)

SpeedEasy CPU SETUP



<Del>



# Chapter 1

## Introduction

### Overview

The P5MVP3/A3 is a high performance, highly integrated motherboard which utilizes the VIA Apollo MVP3 chipsets. With support for CPU bus frequencies from 66MHz to 100MHz, Accelerated Graphics Port (AGP), and advanced performance enabling features, the motherboard helps to advance and extend the popular Socket 7 platform.

### Highlighted Features

#### Jumperless for CPU settings

- The motherboard provides a 100% jumperless design for CPU settings and future upgrades. The CPU model and the CPU voltages can be automatically detected. The CPU speed can be set easily in BIOS Setup.

#### 100MHz

- The motherboard overcomes the limitations of current generation bandwidth-constricted 66MHz PC systems. By connecting the system buses of upcoming 100MHz internal operation CPUs, PC100 SDRAM, and high-speed multimedia technologies like Accelerated Graphics Port (AGP), the motherboard delivers performance comparable to current Pentium®II-based systems.

#### AGP

- The motherboard brings arcade quality graphics to desktop systems with its AGP support. Compliant with 1x and 2x AGP implementations, the chipset is designed to operate the full range of 3D graphic cards from the industry's leading vendors.

### Key Features

#### Form factor

- MicroATX form factor of 244mm x 186mm.
- Provides backward compatibility with standard ATX2.01 chassis for easy integration.

#### Microprocessor

- Supports Intel Pentium®CPU from 133MHz to 200MHz and Pentium®with MMX™ CPU from 166MHz to 233MHz.
- Supports Cyrix 6x86™ CPU at 100MHz(120+), 133MHz(166+), 150MHz(200+) and Cyrix 6x86MX™ CPU.





- Supports AMD K6™ CPU from 166MHz to 300MHz and AMD-K6™-2 CPU from 233MHz to 450MHz.
- Supports IDT Winchip™ C6™ CPU at 180/200/225/240/266MHz.
- Supports Rise mP6™ CPU.
- Supports 60/66/75/83/95/100MHz host bus speed.
- CPU core frequency = Bus speed x1.5, x2, x2.5, x3, x3.5, x4, x4.5, x5, x5.5.
- CPU core voltage adjustable from 1.3V to 3.5V through on-board switching voltage regulator with VID (Voltage ID).

### Chipset

- VIA Apollo MVP3: VT82C598MVP, VT82C586B.

### System memory

- Provides two 168 pin 3.3V Unbuffered DIMM sockets.
- Supports both 66MHz/100MHz SDRAM and 66MHz EDO DIMMs.
- Supports up to 256MB SDRAM or up to 512MB EDO memory.

### On-board IDE

- Supports two PCI PIO and Bus master IDE ports.
- Two fast IDE interfaces supporting four IDE devices including IDE hard disks and CD-ROM drives.
- Supports up to mode 4 timing.
- Supports "Ultra DMA/33" Synchronous DMA mode, transferring up to 33Mb/sec.
- Integrated 16x32bit buffer for IDE PCI Burst Transfers.

### On-board I/O

- Uses iTE 8661 super I/O chip.
- One floppy port supporting up to two 3.5" or 5.25" floppy drives with 360K/720K/1.2M/1.44M/2.88M format.
- Supports LS-120 floppy disk drive.
- All I/O ports can be enabled/disabled in the BIOS setup.
- Two high speed 16550 fast compatible UARTs (COM1/COM2/COM3/COM4 selective) with 16-byte send/receive FIFOs.
- One enabled parallel port at the I/O address 378H/278H/3BCH with additional bi-direction I/O capability and multi-mode as SPP/EPP/ECP (IEEE 1284 compliant).
- Circuit protection provided, preventing damage to the parallel port when a connected printer is power up or operates at a higher voltage.

**Advanced Features**

- Provides Trend ChipAwayVirus® On Guard.
- Provides on-board PS/2 mouse and PS/2 keyboard ports.
- Two USB ports supported.
- Provides infrared interface.
- Supports Windows 95/98 software power-down.
- Supports external modem ring power-on.
- Supports wake-up on LAN and wake-up on internal modem.
- Supports auto fan off when the system enters suspend mode.

**BIOS**

- Licensed advanced AWARD BIOS, supports flash ROM BIOS, plug and play ready.
- Supports IDE CD-ROM or SCSI boot up.
- Supports LogoEasy.

**Expansion Slots**

- 2 ISA slots and 2 PCI slots.
- 1 AGP slot.



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## Chapter 2

### Installation Instructions

This section covers Jumper Settings, External Connectors and Memory Configuration. Refer to the motherboard layout chart for locations of all the jumpers, external connectors, slots and I/O ports. Furthermore, this section lists all necessary connector pin assignments for your reference. The particular state of the jumpers, connectors and ports are illustrated in the following figures. Before setting the jumpers or inserting these connectors, please pay attention to the directions.

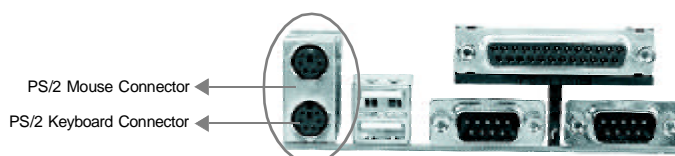
**Be sure to unplug the AC power supply before adding or removing expansion cards or other system peripherals, otherwise your motherboard and expansion cards might be severely damaged.**

### External Connectors

#### PS/2 Keyboard Connector, PS/2 Mouse Connector

PS/2 keyboard connector is for the usage of PS/2 keyboard. If using a standard AT size keyboard, an adapter should be used to fit this connector.

PS/2 mouse connector is for the usage of PS/2 mouse.



#### USB1, USB2

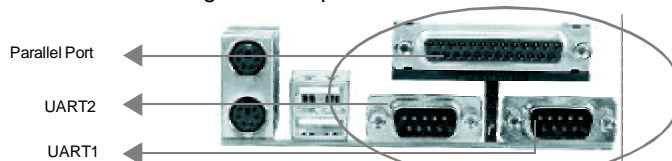
Two USB ports are available for connecting USB devices.





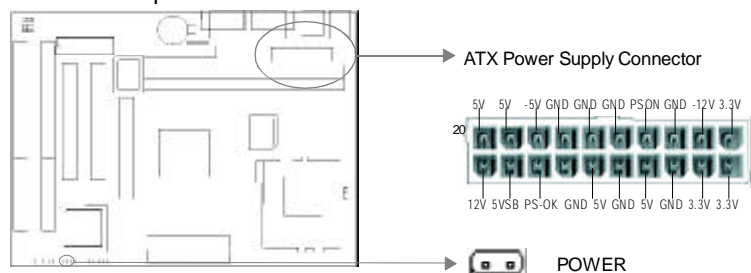
### Parallel Port Connector and Serial Port Connector (UART1, UART2)

The parallel port connector can be connected to a parallel device such as a printer, while the serial port connectors can be connected to serial port devices such as a serial port mouse. You can enable/disable them and choose the IRQ or I/O address from 'Integrated Peripherals' in AWARD BIOS SETUP.



### ATX Power Supply Connector & Power Switch (Power)

ATX/SFX power supply can both be used on this system. Be sure to connect the power supply plug to the connector in its proper orientation. The power switch (Power) should be connected to a momentary switch. When powering up your system, first turn on the mechanical switch of the power supply (if one is provided), then push once the button of the power switch. When powering off the system, you needn't turn off the mechanical switch, just **Push once** the button of the power switch.



**Note:** \* If you change 'soft-off by PWR-BTTN' from default 'Instant-off' to 'Delay 4 Secs' in BIOS setup (POWER MANAGEMENT SETUP), the power button should be pressed for more than 4 seconds before the system powers down.

### Hard Disk LED Connector (HDLED)

The connector connects to the case's IDE indicator LED indicating the activity status of IDE hard disk.

### Reset Switch (RESET)

The connector connects to the case's reset switch. Press the switch once, the system resets.



### Speaker Connector (SPEAKER)

The connector can be connected to the speaker on the case.

### Power LED Connector (PWR-LED)

The power LED has three status. When no AC power supply is present, the LED is off. When the system is in soft power-down status, the LED glows dimly. When the system is powered up, the LED is on.

### Key-Lock Connector (KEY\_L)

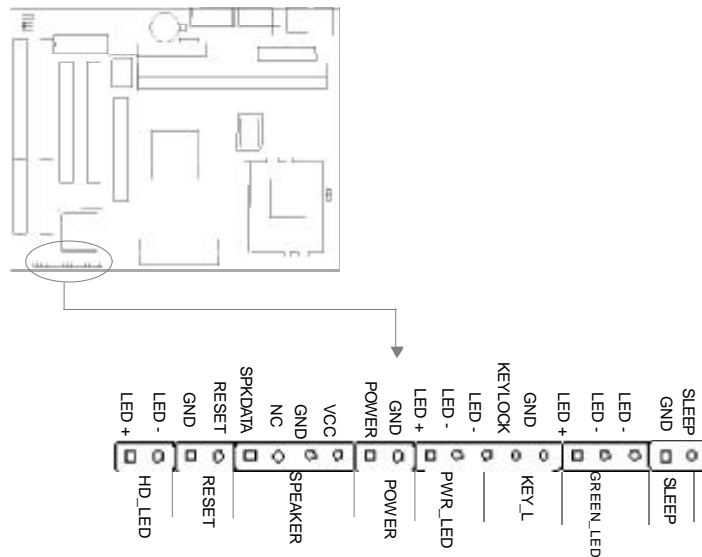
The connector can be connected to the keyboard lock switch on the case for locking the keyboard.

### Green LED Connector (GREEN\_LED)

The Green LED has three status. When the system is in power-off status, the LED is off. When the system is powered up, the LED is on. When the system enters the Green Mode, the LED will flash.

### Hardware Green Connector (SLEEP)

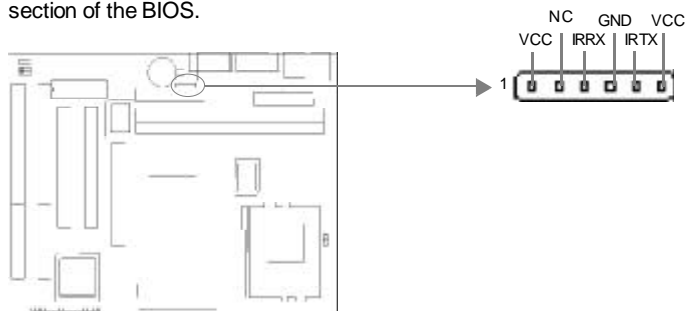
Press the switch once, the system enters suspend mode.





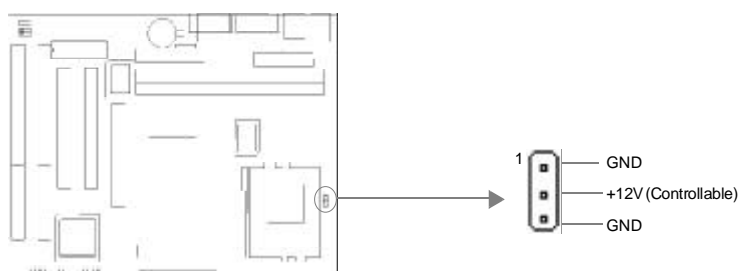
### Infrared Header (IRDA)

This connector supports wireless transmitting and receiving. If using this function, configure the settings of IR Address, IR Mode and IRQ in the 'INTEGRATED PERIPHERALS' section of the BIOS.



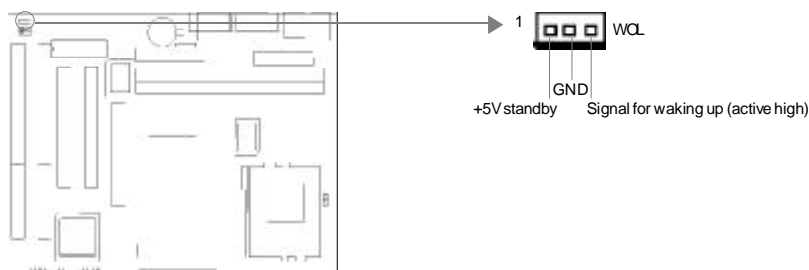
### CPU Fan Connector (FAN1)

This fan is controllable. It will be automatically turned off after the system enters suspend mode.



### Wake-Up On LAN (WOL)

Through the Wake-Up On LAN function, a wake event occurring from the network can wake up the system. If this function is to be used, please be sure an ATX 2.01 power supply of which 5VSB line is capable of delivering 720mA, and a LAN adapter which supports this function are used. Then connect this header to the relevant connector on the LAN adapter, set "WakeUp On Ring/LAN" as Enabled in the "POWER MANAGEMENT SETUP" section of the BIOS. Save & exit, then boot the operating system once to make sure this function takes effect.





### Wake-Up On Internal Modem (WOM)

Through the Wake-Up On Internal Modem function, the system which is in the power-off status can be powered on by a ring signal received from the internal modem. If this function is to be used, be sure an internal modem card which supports the function is used. Then connect this header to the relevant connector on the modem card, set "Wake Up On Ring/LAN" as Enabled in the "POWER MANAGEMENT SETUP" section of the BIOS. Save & exit, then boot the operating system once to make sure this function takes effect.






### Expansion Slots & I/O Ports description

Slot / Port	Description
ISA 1	First ISA slot
ISA2	Second ISA slot
PCI 1	First PCI slot
PCI 2	Second PCI slot
IDE 1	Primary IDE port
IDE 2	Secondary IDE port
FLOPPY	Floppy Drive Port
AGP	Accelerated Graphics Port

### Jumper Settings

There is one jumper setting on the motherboard, clear CMOS jumper JCC.

Pin 1 of the jumper is located on the side with a thick white line (Pin 1 —>

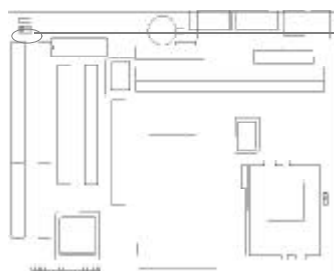
, referring to the motherboard silkscreen. Jumpers with three pins will be shown as  to represent pin1&pin2 connected and  to represent pin2 & pin3 connected.






### Clear CMOS (JCC)

If you want to clear CMOS, unplug the AC power supply first, close JCC (pin1&pin2) once, set JCC back to normal status with pin2 & pin3 connected, then power on the system.



Normal status :  JCC

Clear CMOS :  JCC

(Unplug the AC power supply)

### Memory Configuration

This mainboard provides two 168 pin 3.3V un-buffered DIMM sockets to support a flexible memory size ranging from 8MB/256MB for SDRAM or from 8MB/512MB for EDO memory. Both 66MHz/100MHz SDRAM and 66MHz EDO DIMMs are supported.

#### General DIMM notes:

- The DRAM Timing register, which provides the DRAM speed grade control for the entire memory array, must be programmed to use the timing of the lowest DRAMs installed.
- Possible EDO DIMM memory sizes are 8MB, 16MB, 32MB, 64MB, 128MB, 256MB in each DIMM socket.
- Possible SDRAM DIMM memory sizes are 8MB, 16MB, 32MB, 64MB, 128MB in each DIMM socket.
- SDRAM clocks can be programmed to be synchronous with CPU clock. The BIOS provides you with two choices, SDRAM Syn. or SDRAM Asyn. Syn. is more stable than Asyn., so if PC-100 spec. SDRAMs are used on your system, choose 'Syn'. If PC-66 spec. SDRAMs are used on your system, and the host bus speed is lower than 83MHz, set as 'Syn.' also. However, if the host bus speed equals to or higher than 83MHz, set as 'Asyn.'



## Chapter 3

### BIOS Description

#### Utility Support:

##### FLASH.EXE

This is a flash memory write/read utility used for the purpose of updating your BIOS when necessary. Before doing so, please note:

- **We strongly recommend you only upgrade BIOS when encountering problems.**
- **Before upgrading your BIOS, review the description below to avoid making mistakes, resulting in a destroyed BIOS and a non-working system.**

When you are encountering problems, for example, you find your system doesn't support the new CPU which is released after our current motherboard, you may therefore update the BIOS.

Follow the steps exactly for a successful upgrade.

1. Create a bootable system floppy diskette by typing Format A:/s from the DOS prompt under DOS6.xx or Windows 9x environment.
2. Copy FLASH.EXE from the directory \Utility on the QDI Motherboard Utility CD onto your new bootable diskette.
3. Download the updated BIOS file from the Website (<http://www.qdigrp.com>). Please be sure to download the suitable BIOS file for your motherboard.
4. Uncompress the file download, copy the BIOS file (xx.bin) onto the bootable diskette, and write down the checksum of this BIOS which is included in readme file.
5. Reboot the system from the bootable diskette which you have created.
6. Then run the FLASH utility at the **A:\** prompt. During the process, the system will prompt : ' Do you want to save the BIOS(Y/N)' . If you type ' Y' , the system will prompt for the BIOS name. The system will also display the checksum which should be exactly the same as the checksum you copied from the readme file. Don't turn off power or reset the system until the BIOS upgrade has been completed.

Concerning how to run the FLASH utility, please refer to the following descriptions:

Usage: FLASH [BIOSfile] [/c<command...>]][/n]

FLASH [BIOSfile] [/g]

/c: Flashing memory will clear previous settings. Default allows settings to remain.

<command> function definition:

c: clear CMOS;

p: clear PnP;

d: clear DMI.



/n: programs BIOS without prompting. If this option is chosen:

Be sure your new BIOS is compatible with your MB. If not, the system will be damaged.

/g: Retrieves BIOS file from BIOS ROM.

Examples:

A:\FLASH.EXE BIOSfile.bin

A:\FLASH.EXE BIOSfile.bin /cdpc/n

A:\FLASH.EXE BIOSfile.bin /g

**Note: FLASH utility runs incorrectly at Windows DOS prompt.**



## AWARD BIOS Description

### Entering Setup

Power on the computer, when the following message briefly appears at the bottom of the screen during the POST (Power On Self Test), press <Del> key or simultaneously press the <Ctrl> + <Alt> + <Esc> keys, to enter the AWARD BIOS CMOS Setup Utility.

**Press <Del> to enter SETUP**

Once you have entered, the Main Menu (Figure 1) appears on the screen. The main menu allows you to select from eleven setup functions and two exit choices. Use the arrow keys to select among the items and press the <Enter> key to accept or enter the sub-menu.

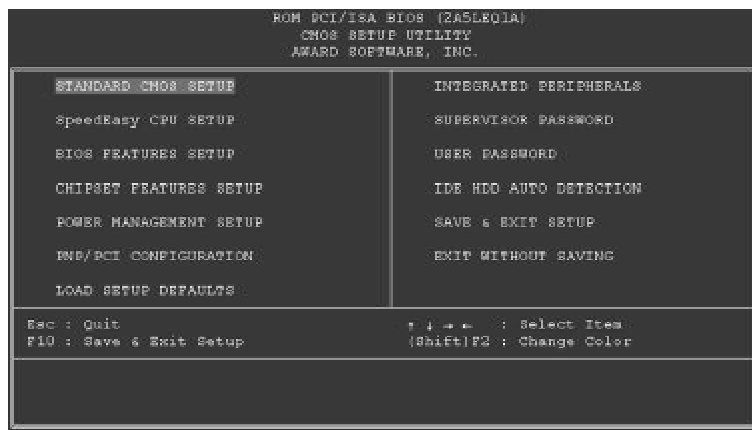


Figure-1 Main Menu

### Load Setup Defaults

The Setup Defaults are common and efficient. It is recommended that users load the setup defaults first, then modify the needed configuration settings.

### Standard CMOS Setup

The basic CMOS settings included in "Standard CMOS Setup" are Date, Time, Hard Disk Drive Types, Floppy Disk Drive Types, and VGA etc. Use the arrow keys to highlight the item, then use the <PgUp> or <PgDn> keys to select the value you want in each item.

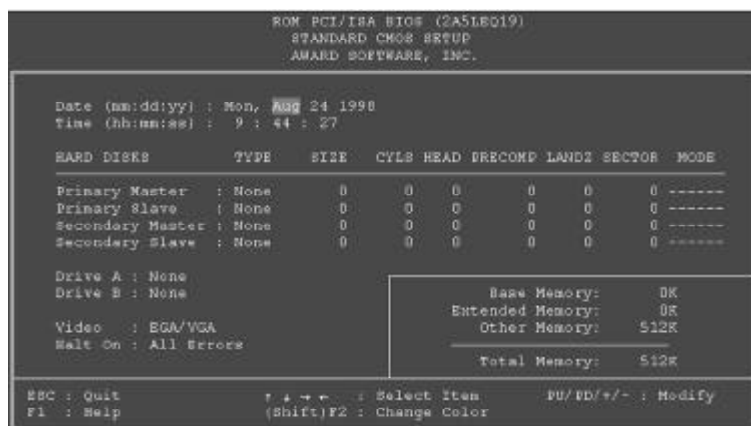


Figure-2 Standard CMOS Setup Menu

## Hard Disk

### Primary Master/Primary Slave/Secondary Master/Secondary Slave

These categories identify the HDD types of 2 IDE channels installed in the computer system. There are three choices provided for the Enhanced IDE BIOS: None, Auto, and User. "None" means no HDD is installed or set; "Auto" means the system can auto-detect the hard disk when booting up; by choosing "user", the related information should be entered regarding the following items. Enter the information directly from the keyboard and press < Enter>:

CYLS	number of cylinders	HEAD	number of heads
PRECOMP	write pre-compensation	LANDZ	landing zone
SECTOR	number of sectors	MODE	HDD access mode

## Video

Set this field to the type of video display card installed in your system.

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



## Halt On

This category determines whether or not the computer will stop if an error is detected during powering up.

No errors	The system boot will not stop for any error that may be detected.
All errors	Whenever the BIOS detects a non-fatal error, the system will stop and you will be prompted.
All, But Keyboard	The system boot will not stop for a keyboard error, but it will stop for all other errors.
All, But Diskette	The system boot will not stop for a disk error; but it will stop for all other errors.
All, But Disk/Key	The system boot will not stop for a keyboard or disk error, but it will stop for all other errors.

## Memory

This category displays only what is determined by POST (Power On Self Test) of the BIOS.

Base Memory	The POST of the BIOS will determine the amount of base (or conventional) memory installed in the system.
Extended Memory	The BIOS determines how much extended memory is presented during the POST.
Other Memory	This is the memory that can be used for different applications. Most used for this area is Shadow RAM.
Total Memory	Total memory of the system equals the sum of the above memory.



## SpeedEasy CPU Setup

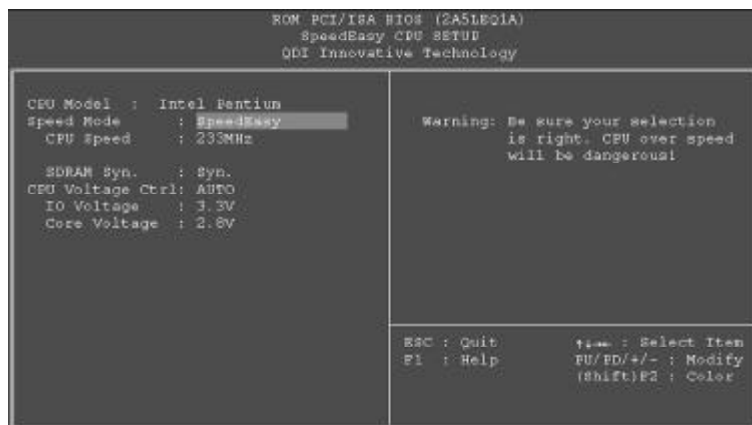


Figure-3 SpeedEasy CPU Setup

The following indicates the options of each item and describes their meanings .

<u>Item</u>	<u>Option</u>	<u>Description</u>
• CPU Model		BIOS can automatically detect the CPU model, therefore this item is shown only.
• Speed Mode	<i>SpeedEasy</i>	CPU frequency should be set according to the CPU brand and type. It is recommended users choose this option.
	<i>Jumper Emulation</i>	This option is only for users who understand all the CPU parameters, i.e. System Bus Clock, "60/66/75/83/100MHz" and multiplier "x2, x2.5, x3, x3.5, x4, x4.5, x5, x5.5".
• SDRAM Syn.	<i>Syn.</i>	SDRAM clocks can be programmed to Sync. with CPU clock. Syn. is more stable than Asyn, therefore if PC-100 spec. SDRAMs are used on your system, set as 'Syn'. If PC-66 spec. SDRAM are used on your system, and the host bus clock is lower than 83MHz, set as 'Syn'. However, if the host bus clock equals to or higher than 83MHz, set as 'Asyn'.
	<i>Asyn.</i>	
• CPU Voltage Control	<i>Auto</i>	The CPU voltage can be automatically detected. It is recommended that users choose this option.
	<i>Manual</i>	This option is only for users who are familiar with all the CPU voltages ' I/O Voltage' and ' Core Voltage' . Wrong CPU voltage setting might damage your CPU.



## BIOS Features Setup



Figure-4 BIOS Features Setup Menu

The following indicates the options of each item and describes their meaning.

<u>Item</u>	<u>Option</u>	<u>Description</u>
• ChipAway Virus On Guard	<i>Enabled</i>	Guards against boot virus threats early in the boot cycle, before they have a chance to load into your system, ensuring your computer boots to a clean operating system.
	<i>Disabled</i>	Invalidates this function.
• CPU Internal Cache	<i>Enabled</i>	This item speeds up memory access. However, it depends on CPU/chipset design. The default value is enabled.
	<i>Disabled</i>	
• External Cache	<i>Enabled</i>	Enables external L2 cache. This allows better performance.
	<i>Disabled</i>	Disables external cache.
• Quick Power On Self Test	<i>Enabled</i>	Enables quick POST. BIOS will shorten or skip some check items during POST to speed up POST after you power on the computer.
	<i>Disabled</i>	Normal POST.
• Boot From LAN First	<i>Enabled</i>	Boot from LAN is ahead of any boot sequence selection (LAN Adapter must support this function).
	<i>Disabled</i>	Does not boot from LAN first.
• Boot Sequence	<i>A,C,SCSI,...</i>	Any search sequence can be chosen for booting.
	<i>C,CDROM,A</i>	
• Swap Floppy Drive	<i>Enabled</i>	Exchanges the assignment of A&B floppy drives.
	<i>Disabled</i>	The assignment of A&B floppy drives are normal.





• Boot Up	<i>On</i>	Keypad is used as number keys.
Numlock Status	<i>Off</i>	Keypad is used as arrow keys.
• Gate A20	<i>Normal</i>	The A20 signal is controlled by the keyboard controller or chipset hardware.
Option	<i>Fast</i>	Default setting. The A20 signal is controlled by Port 92 or the chipset specific method.
• Memory Parity/ECC check	<i>Enabled</i>	Enables the Error Checking & Correction if ECC memory is used.
	<i>Disabled</i>	Disables the ECC Function.
• Security Option	<i>System</i>	The system will not boot and access to Setup will be denied if the correct password is not entered when prompted.
	<i>Setup</i>	The system will boot up, but access to Setup will be denied if the correct password is not entered when prompted.
• IDE Second Channel Control	<i>Enabled</i>	Enables 2 IDE Channel.
	<i>Disabled</i>	Disables 2 IDE Channel.
• PCI/VGA Palette Snoop	<i>Enabled</i>	Non-standard VGA cards such as graphics accelerators or MPEG video cards may not show colors properly. Enabling this can solve this problem.
	<i>Disabled</i>	
• OS Select For DRAM>64MB	<i>Non-OS2</i>	If your operating system is not OS/2, please select this item.
	<i>OS2</i>	If system DRAM is more than 64MB and operating system is OS/2, please select this item.
• Video BIOS Shadow	<i>Enabled</i>	Video BIOS will be copied to RAM. Video Shadow will increase the video speed.
	<i>Disabled</i>	Video shadow is disabled.
• C8000~CBFFF Shadow:	<i>Enabled</i>	Optional ROM will be copied to RAM by 16K bytes per unit.
DC000-DFFFF Shadow:	<i>Disabled</i>	The shadow function is disabled.
• Show Bootup Logo	<i>Enabled</i>	Enables the Logo when system boots up.
	<i>Disabled</i>	Logo will not be shown when the system boots up.