Le menu « SpeedEasy CPU SETUP »

Choisissez « SpeedEasy CPU SETUP » dans le menu principal

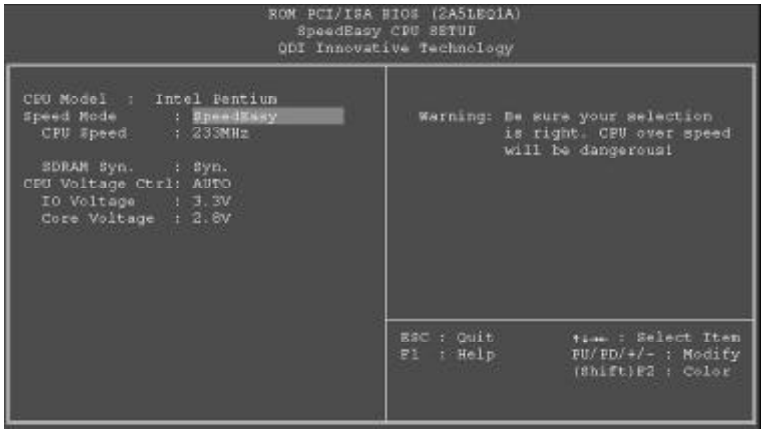


Figure 1 – Le menu « SpeedEasy CPU SETUP »

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:

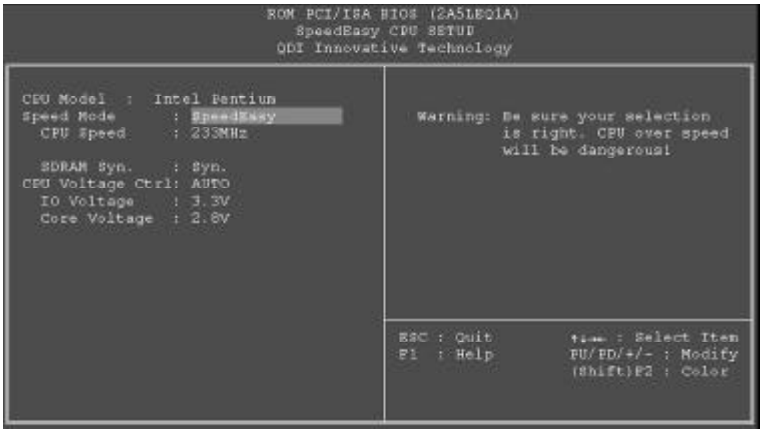


Figura 1: Menu SpeedEasy per l‘ impostazione della CPU

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 puo‘ impostare la velocita‘ di CPU manualmente, alla voce “CPU Speed” del menu “*SpeedEasy CPU SETUP*”.

Attenzione

declina ogni responsabilita‘ per eventuali danni causati alla CPU da una impostazione della velocita‘ piu‘ 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 riavviera‘ con I valori di base.

SpeedEasy

:

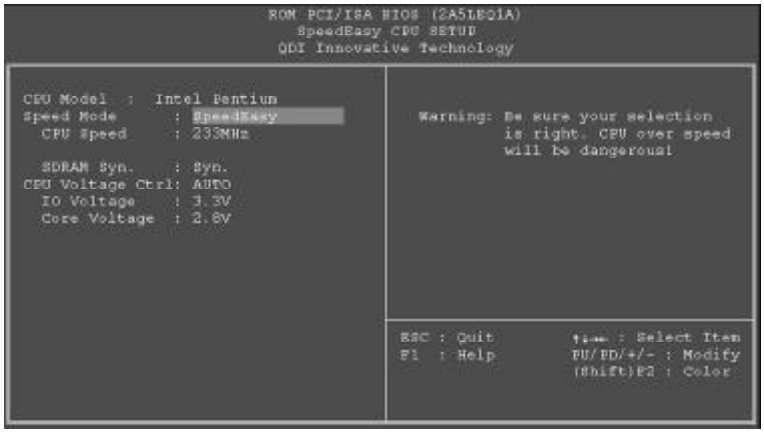
1. CPU
2.
3. <Del> BIOS
4. SpeedEasy CPU SETUP

:

5. BIOS

SpeedEasy Ö Ñ ê À £ É ¶ ² Ð ¥

<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

Jumpless 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.
- Supprots 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, transfering 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.

-- This page is intentionally left blank --

Chapter 2
Installation Instructions

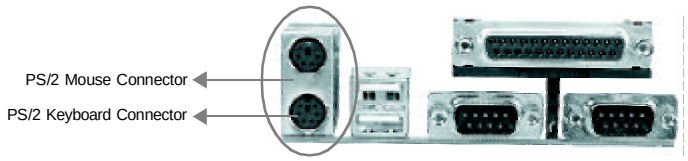
This section covers Jumper Settings, External Connectors and Memory Configuration. Refer to the motherboard layout chart for locations of all the jumpers, external connectors, slots and I/O ports. Furthermore, this section lists all necessary connector pin assignments for your reference. The particular 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

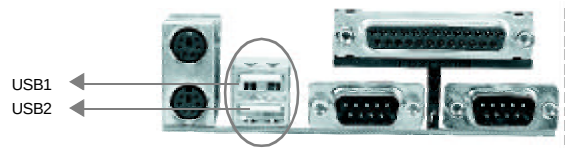
PS/2 Keyboard Connector, PS/2 Mouse Connector

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.



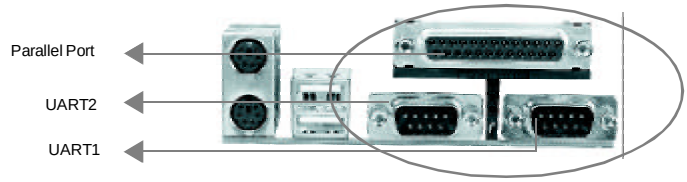
USB1, USB2

Two USB ports are available for connecting USB devices.



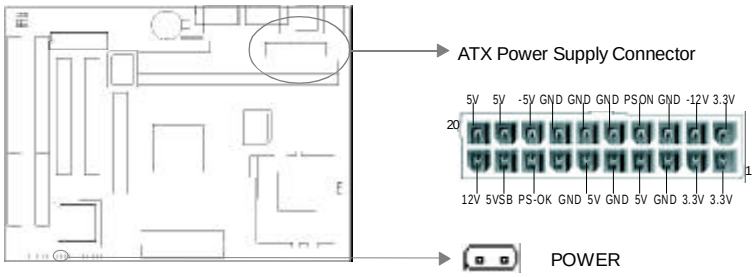
Parallel Port Connector and Serial Port Connector (UART1, UART2)

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)

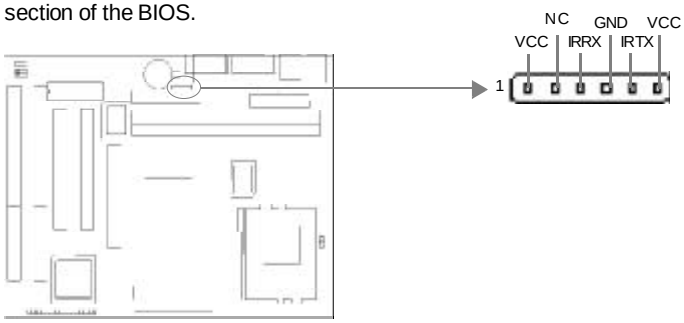
The Green LED has three status. When the system is in power-off status, the LED is off. When the system is powered up, the LED is on. When the system enters the Green Mode, the LED will flash.

Hardware Green Connector (SLEEP)

Press the switch once, the system enters suspend mode.

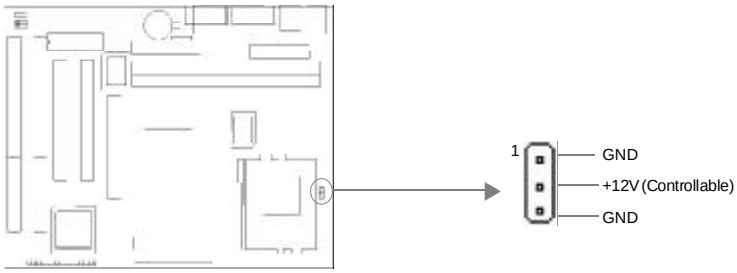
Infrared Header (IRDA)

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.



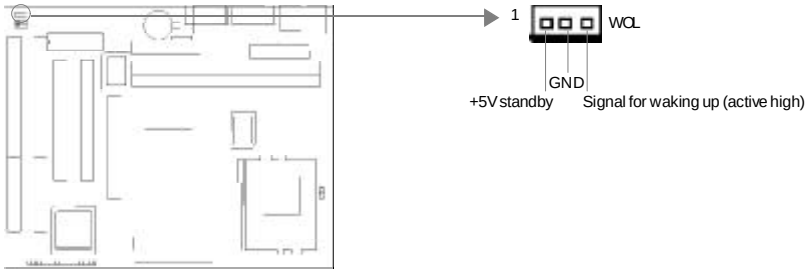
CPU Fan Connector (FAN1)

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 "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.



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

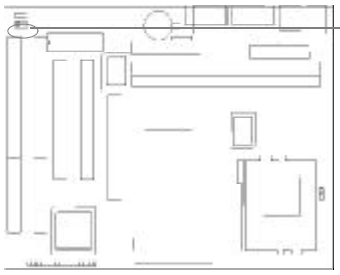
Slot / Port	Description
ISA 1	First ISA slot
ISA2	Second ISA slot
PCI 1	First PCI slot
PCI 2	Second PCI slot
IDE 1	Primary IDE port
IDE 2	Secondary IDE port
FLOPPY	Floppy Drive Port
AGP	Accelerated Graphics Port

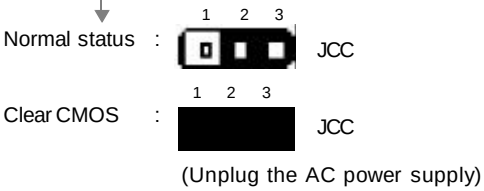
Jumper Settings

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.





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.

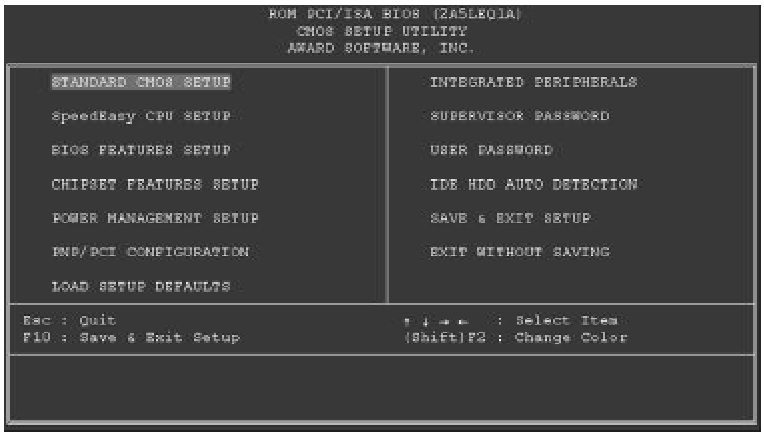


Figure-1 Main Menu

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.

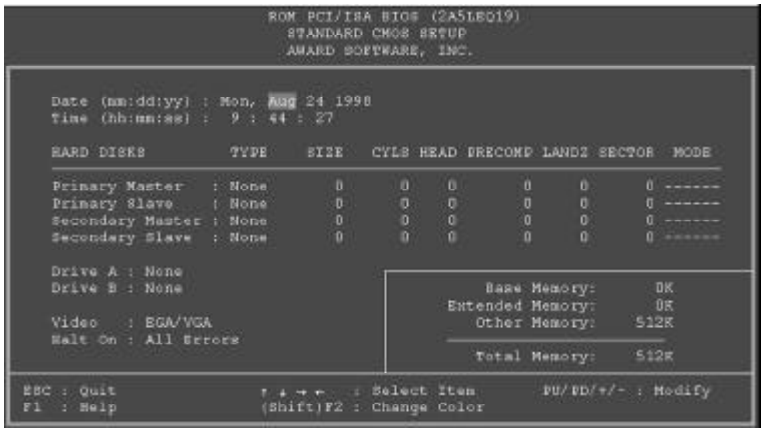


Figure-2 Standard CMOS Setup Menu

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

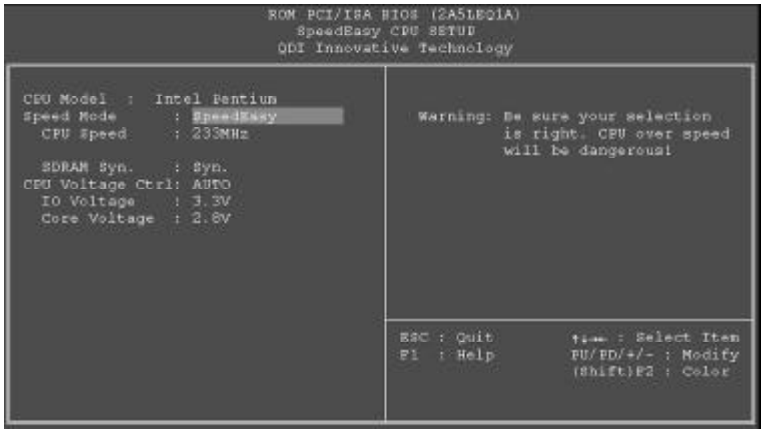


Figure-3 SpeedEasy CPU Setup

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

Item	Option	Description
• CPU Model		BIOS can automatically detect the CPU model, therefore this item is shown only.
• Speed Mode	*SpeedEasy*	CPU frequency should be set according to the CPU brand and type. It is recommended users choose this option.
	Jumper Emulation	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.	*Syn.*	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' .
	Asyn.	
• CPU Voltage Control	*Auto*	The CPU voltage can be automatically detected. It is recommended that users choose this option.
	Manual	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.

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

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

Chipset Features Setup

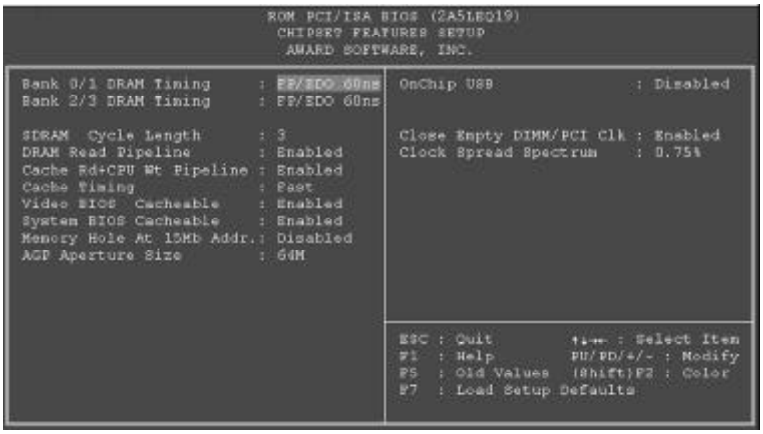


Figure-5 Chipset Features Setup Menu

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

Item	Option	Description
• Bank 0/1, 2/3, DRAM Timing	*60ns* *70ns*	These items are of selected EDO DRAM read/write timing. You must ensure that your DIMMs are as fast as 60ns, otherwise you have to select 70ns.
• SDRAM Cycle Length	*3*	Define the CLT timing parameter of SDRAM expressed in 66MHz clocks, Latency Time = 2 clocks Latency Time = 3 clocks
• DRAM Read Pipeline	*Enabled* *Disabled*	Enables DRAM Read Pipeline. Disables DRAM Read Pipeline.
• Cache Rd+CPU wt pipeline	*Enabled* *Disabled*	Enables Read Around Write. Disables Read Around Write.
• Cache Timing	*Fast* *Fastest*	This item is used to select Cache Read/Write speed, "Fast" is the optimize selection.
• Video BIOS Cacheable	*Enabled* *Disabled*	Besides conventional memory, video BIOS area is also cacheable. Video BIOS area is not cacheable.
• System BIOS Cacheable	*Enabled* *Disabled*	Besides conventional memory, the system BIOS area is also cacheable. The system BIOS area is not cacheable.
• Memory Hole At 15Mb Addr	*Enabled* *Disabled*	Memory Hole at 15-16M is reserved for expanded PCI card. Do not set this memory hole.

• AGP Aperture Size (4-256)	*64M*	Sets the effective size of the Graphics Aperture to be used in the particular PAC Configuration.
• Onchip USB	*Enabled*	This item is used to enable or disable onchip USB Controller.
	Disabled	
• Close Empty DIMM/PCI Clk	*Enabled*	Closes empty DIMM clock or PCI clock to reduce EMI.
	Disabled	Does not close empty DIMM or PCI clock.
• Clock Spread Spectrum	*0.75%, 0.50% 0.25%*	Enables Clock Spread Spectrum to reduce EMI.
	Disabled	Disables Clock Spread Spectrum.

Power Management Setup

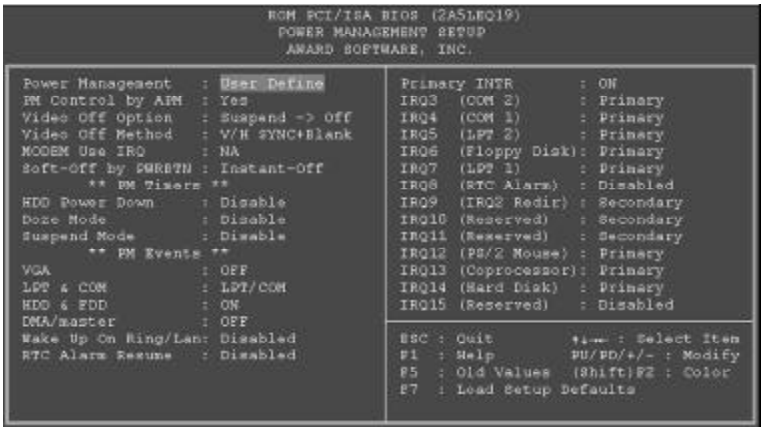


Figure-6 Power Management Setup Menu

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

Item	Option	Description
• Power Management	*Disabled*	Global Power Management (PM) will be disabled.
	User Define	Users can configure their own Power Management Timer.
	Min Saving	Pre - defined timer values are used. All timers are in their MAX values.
	Max Saving	Pre - defined timer values are used. All timers are in their MIN values.
• PM Control by APM	No	System BIOS will ignore APM when Power Management is enabled.
	Yes	System BIOS will wait for APM' s prompt before entering any PM mode e.g. Standby or Suspend.
• Video Off Option	*Suspend →Off*	The system BIOS will only blank off the screen when disabling video.
	All modes→Off	
	Always On	
• Video Off Method	*Blank Screen*	The system BIOS will only blank off the screen when disabling video.
	V / H SYNC +	In addition to Blank Screen, BIOS will also turn off the V-SYNC & H - SYNC signals from VGA cards to monitor.
	DPMS	This function is enabled only for the VGA card supporting DPMS.

● MODEM Use IRQ	*N/A* *IRQ "X"*	Select IRQ "X" used by modems.
● Soft-Off by PWRBTN	*Instant-off*	The system will power off immediately once the power button is pressed.
	Delay 4 secs	The system will not power off immediately once the power button is pressed.
● HDD Power Down	*Disabled*	HDD's motor will not be off.
	1 ~15 Min	Defines the continuous HDD idle time before the HDD enters the power saving mode (motor off).
● Doze mode	*Disabled*	The system never enters Doze mode.
	1Min ~ 1 Hr	Defines the continuous idle time before the system enters Doze mode. If any items defined in "Reload Global Timer Events" are On and activated, the system will be woken up.
● Suspend Mode	*Disabled*	The system will never enter Suspend mode.
	Min ~ 1Hr	Defines the continuous idle time before the system enters the Suspend mode. If any item defined in " Reload Global Timer Events " is On and activated, the system will be waken up.
● VGA	*On*	VGA active reloads global timer.
	Off	VGA active has no influence to global timer.
● LPT&COM HDD&FDD DMA/master	*ON*	Any operation of the items Reload global timer.
	OFF	The operation of the items have no influence to global timer.
● Wake Up On Ring/LAN	*Enabled*	Allow the system to be powered on when a Ring indicator signal comes up to UART1 or UART2 from external modem (to LAN Wake-up Header from LAN adapter or to modem Ring on Header from internal modem card).
	Disabled	Do not allow Ring Power-on.
● RTC Alarm Resume	*Enabled*	RTC alarm can be used to generate a wake event to power up the system which is in power-off status. You can set any date, any time to power up the system.
	Disabled	RTC has no alarm function.
● IRQ (3-15)	*Primary*	Reload global timer.
	Secondary	No influence to global timer, only finish an operation that IRQ "X" requests.
	Disabled	No influence to global timer.

PNP/PCI Configuration Setup

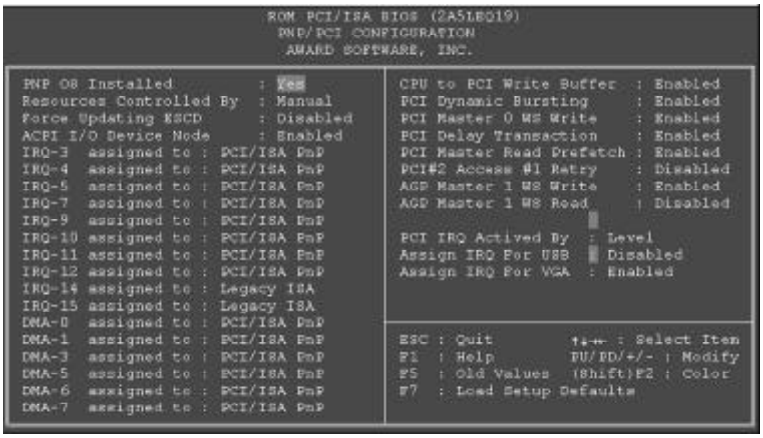


Figure-7 PNP/PCI Configuration Setup Menu

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

Item	Option	Description
• PNP OS Installed	*Yes*	Device resources assigned by PnP OS.
	No	Device resources assigned by BIOS. **Remark: It is strongly recommended that you choose "Yes" when using PnP OS, i.e. Windows 95.**
• Resources Controlled by	*Manual*	Assigns the system resources (IRQ and DMA) manually .
	Auto	Assigns system resources (IRQ and DMA) automatically by BIOS.
• Force Updating ESCD	*Enabled*	The system BIOS will force updating ESCD once, then automatically set this item as Disabled.
	Disabled	Disables the forced update ESCD function.
• ACPI I/O Device Node	*Enabled*	The configuration data will be reset to default setting.
	Disabled	The configuration data will not be reset.
• IRQ-3~IRQ-15 assigned to	*Legacy ISA*	The specified IRQ-x will be assigned to ISA only.
	PCI/ISA PnP	The specified IRQ-x will be assigned to ISA or PCI.
• DMA-0~DMA-7 assigned to	*Legacy ISA*	The specified DMA-x will be assigned to ISA only.
	PCI/ISA PnP	The specified DMA-x will be assigned to ISA or PCI.

• CPU to PCI Write Buffer	*Enabled*	Enables CPU to PCI Write Buffer.
	Disabled	Disables CPU to PCI Write Buffer
• PCI Dynamic Bursting	*Enabled*	Enables PCI Dynamic Bursting.
	Disabled	Disables PCI Dynamic Bursting.
• PCI Master 0 ws Write	*Enabled*	Enables PCI Master ws Write.
	Disabled	Disables PCI Master ws Write.
• PCI Delay Transaction	*Enabled*	Enables PCI Delay Transaction.
	Disabled	Disables PCI Delay Transaction.
• PCI Master Read Prefetch	*Enabled*	Enables PCI Master Read Prefetch
	Disabled	Disables PCI Master Read Prefetch
• PCI #2 Access #1 Retry	*Enabled*	Enables PCI #2 Access #1Retry.
	Disabled	Disables PCI #2 Access #1Retry.
• AGP Master 1 ws Write	*Enabled*	Enables AGP Master 1 ws Write.
	Disabled	Disables AGP Master 1 ws Write.
• AGP Master 1 ws Read	*Enabled*	Enables AGP Master 1 ws Read.
	Disabled	Disables AGP Master 1 ws Read.
• PCI IRQ Actived By	*Level*	Select PCI IRQ Active mode.
	Edge	
• Assign IRQ for USB	*Enabled*	Assigns an IRQ for USB. If an USB device is used, enable this item.
	Disabled	Does not assign an IRQ for USB. If USB device isn' t used, disabling this item can release the IRQ.
• Assign IRQ for VGA	*Enabled*	Assigns the needed IRQ for the VGA Card.
	Disabled	Does not assign an IRQ for the VGA card, in order to release the IRQ.

Integrated Peripherals

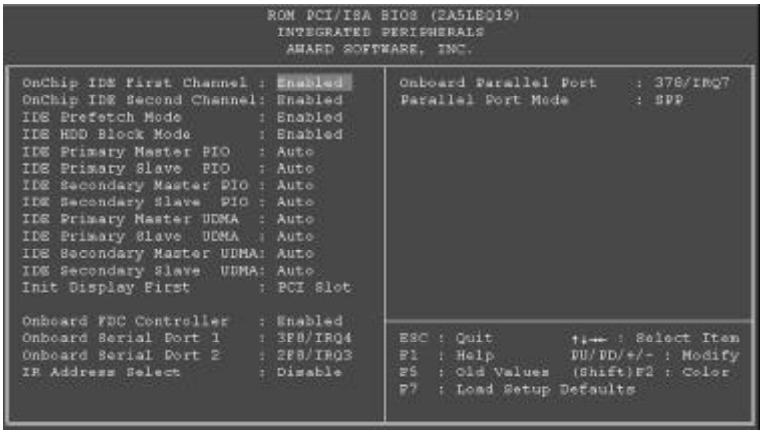


Figure-8 Integrated Peripherals Menu

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

Item	Option	Description
● On Chip IDE First/ Second Channel	*Enabled*	Enables on chip IDE First/Second Channel.
	Disabled	Disables on chip IDE First/Second Channel.
● IDE Prefetch Mode	*Enabled*	Enables IDE Prefetch Model.
	Disabled	Disables IDE Prefetch Model.
● IDE HDD Block Mode	*Enabled*	Allows IDE HDD to read/write several sectors at once.
	Disabled	IDE HDD only reads/writes a sector once.
● IDE Primary/ Secondary Master/Slave PIO	*Mode 0 - 4*	Defines the IDE primary/secondary master/ slave PIO mode.
	Auto	The IDE PIO mode is defined by auto -detection.
● IDE Primary/ Secondary Master/Slave UDMA	*Auto*	Ultra DMA mode will be enabled if ultra DMA device is detected.
	Disabled	Disables this function.
● Init Display First	*PCI Slot*	Initializes PCI VGA first.
	AGP	Initializes AGP VGA first.
● Onboard FDC Controller	*Enabled*	Onboard floppy disk controller is enabled.
	Disabled	Onboard floppy disk controller is disabled.
● Onboard Serial 1/2	*3F8/IRQ4, 2F8/IRQ3, 3E8/IRQ4, 2E8/IRQ3,*	Defines the onboard serial port address and required interrupt number.
	Disabled	Onboard serial port is disabled.

• IR Address Select	*Disabled* *3F8H* *2F8H* *3E8H*	This item is used to configure IR Address.
• IR Mode	*HP SIR* *ASKIR*	This item is used to configure IR Mode.
• IR IRQ Select	*IRQ3* *IRQ4* *IRQ10* *IRQ11*	This item is used to configure IR IRQ.
• Onboard Parallel Port	*1.7* *1.9*	Defines EPP version.
• Parallel Port Mode	*SPP* *ECP*	Selects parallel port mode.

Supervisor/User Password

When this function is selected, the following message appears at the center of the screen to assist you in creating a password.

ENTER PASSWORD

Type the password, up to eight characters, and press <Enter>. The password typed now will clear any previously entered password from CMOS memory. You will be asked to confirm the password. Type the password again and press <Enter>. You may also press <Esc> to abort the selection.

To disable password, just press <Enter> when you are prompted to enter password. A message will confirm the password being disabled. Once the password is disabled, the system will boot and you can enter CMOS Setup freely.

PASSWORD DISABLED

If you have selected "**System**" in "Security Option" from "BIOS Features Setup" menu, you will be prompted for the password every time the system reboots or any time you try to enter "CMOS Setup".

If you have selected "**Setup**" in "Security Option" from "BIOS Features Setup" menu, you will be prompted for the password only when you try to enter "CMOS Setup".

Supervisor Password has higher priority than *User Password*. You can use *Supervisor Password* when booting system or entering "CMOS Setup" to modify all settings. Also you can use *User Password* when booting system or entering "CMOS Setup" but can not modify any setting if *Supervisor Password* is enabled.

IDE HDD Auto Detection

The Enhanced IDE features are included in all Award BIOS. Below is a brief description of these features.

ROM PCI/ISA BIOS (2A69KQ10)
CMOS SETUP UTILITY
AWARD SOFTWARE, INC.

HARD DISKS TYPE SIZE CYLS HEAD PRECOMP LANDZ SECTOR MODE

Primary Master:

Select Primary Master Option (N=Skip): N

OPTION	SIZE	CYLS	HEAD	PRECOMP	LANDZ	SECTOR	MODE
2(Y)	541	525	32	0	1049	67	LBA
1	541	1050	16	65535	1049	63	NORMAL
3	541	525	32	65535	1049	63	LARG

Note: Some OSes (like SCO-UNIX) must use "NORMAL" for installation

ESC: Skip

Figure-11 IDE HDD Auto Detection Menu

1. Setup Changes

With auto-detection

- BIOS setup will display all possible modes supported by the HDD including NORMAL, LBA and LARGE.
- If HDD does not support LBA modes, no "LBA" option will be shown.
- If number of physical cylinder is less than or equal to 1024,"LARGE" option may not be shown.
- Users can select their appropriate mode .

With Standard CMOS Setup

	CYLS	HEADS	PRECOMP	LAND ZONE	SECTOR	MODE
Drive C: User(516MB)	1120	16	65535	1119	59	Normal
Drive D: None(203MB)	684	16	65535	685	38	--------

When HDD type is in "user" type, the "MODE" option will be available for users to select their own HDD mode.

2. HDD Modes

The Award BIOS supports 3 HDD modes: NORMAL, LBA and LARGE, also Auto detect.

NORMAL

Generic access mode in which neither the BIOS nor the IDE controller will make any transformation during accessing. The maximum number of cylinders, heads and sectors for NORMAL mode are 1024,16 and 63.

If the user sets his HDD to NORMAL mode, the maximum accessible HDD size will be 528 megabytes even though its physical size may be greater than that.

LBA (Logical Block Addressing) mode

A new HDD accessing method to overcome the 528 Megabyte bottleneck. The number of cylinders, heads and sectors shown in setup may not be the number physically contained in the HDD.

During HDD accessing, the IDE controller will transform the logical address described by sector, head and cylinder number into its own physical address inside the HDD. The maximum HDD size supported by LBA mode is 8.4 Gigabytes.

LARGE mode

Some IDE HDDs contain more than 1024 cylinder without LBA support (in some cases, users do not want LBA). The Award BIOS provides another alternative to support these kinds of HDD.

BIOS tricks DOS (or other OS) into recognizing the number of cylinders is less than 1024 by dividing it by 2. At the same time, the number of heads is multiplied by 2. A reverse transformation process will be made inside INT13h in order to access the right HDD address.

Auto detect

If using Auto detect, the BIOS will automatically detect the IDE hard disk mode and set it as one of the three modes.

3. Remark

To support LBA or LARGE mode of HDDs, there must be some softwares involved which are located in Award HDD Service Routine(INT13h).It may fail to access a HDD with LBA (LARGE) mode selected if you are running under an Operating System which replaces the whole INT 13h.

Boot with BIOS defaults

If you have made all the changes to CMOS values and the system can not boot with the CMOS values selected in Setup, clear CMOS after power-down, then power-on again. System will boot with BIOS defaults setting.

-- This page is intentionally left blank --

Appendix A

QDI Motherboard Utility CD-ROM

A QDI Motherboard Utility CD-ROM is supplied with each motherboard. The contents used for this motherboard are:

Contents:

1. Chipset Dispatches:
   VIA chipset drivers included in the directory \ChipDrv\VIA\MVP3 are used for this motherboard.
2. PC-cillin Anti-Virus software:
   Windows 95 English version is located in the directory \Pccillin\Win95.
   Windows NT English version is located in the directory \Pccillin\WinNT4.0.
   S/N is PNEF-9991-6558-5857-5535.
3. Motherboard Utility
   The utilities located in the directory \Utility are:
   FLASH.EXE
   LF.EXE

Installation Guide:

a. Installing VIA Chipset drivers under Windows 95
   Running \ChipDrv\VIA\MVP3\Autorun.exe, installing the drivers below one by one.
   (1) IDE Driver
   This is VIA Bus Master PCI IDE Driver which can be installed on either Win95 or WinNT, for supporting Ultra DMA/33MB. It also can remove the yellow question mark in the Device Manager of Windows 95 after installation.
   (2) IRQ Routing Program
   Installed on Win95 only.
   (3) VxD Driver
   Installed on Win95 only for supporting AGP. For all AGP feature benefits, you need to upgrade your Windows 95 OSR2.0 to OSR2.1 by installing USB supple ment provided by Mircrosoft, also DirectX 5.0 from Microsoft.
   (4) ACPI Patch Program
   Installed on Win95 only.

b. Under Windows 98, the IRQ Routing Program should be installed from \ChipDrv\VIA \MVP3\Drivers\Win98IRQ, running setup.exe in this directory. Do not install the drivers for Win95 on Windows 98.

For detailed information on each driver, please refer to the readme file in relevant driver directory.

Appendix B

Introducing Intel Pentium® with MMX™ Technology CPU

Intel Pentium® with MMX™

(Front view)

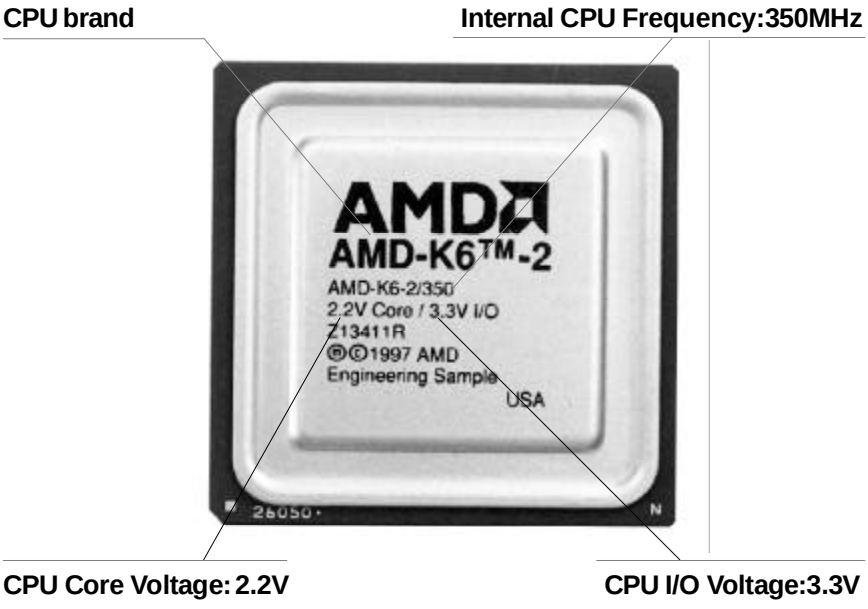
Internal CPU Frequency: 233 MHz

CPU Core Voltage: 2.8V

(Back view)

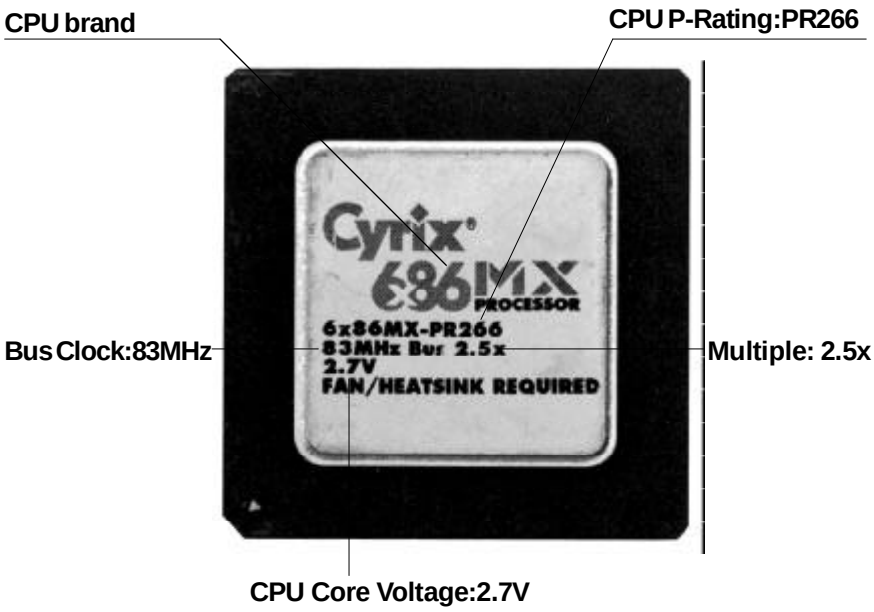
Appendix C

Introducing AMD K6™-2 CPU



Appendix D

Introducing Cyrix 6x86MX CPU



Appendix E

Introducing idt Winchip™ C6™ CPU

Appendix F
Boot Logo

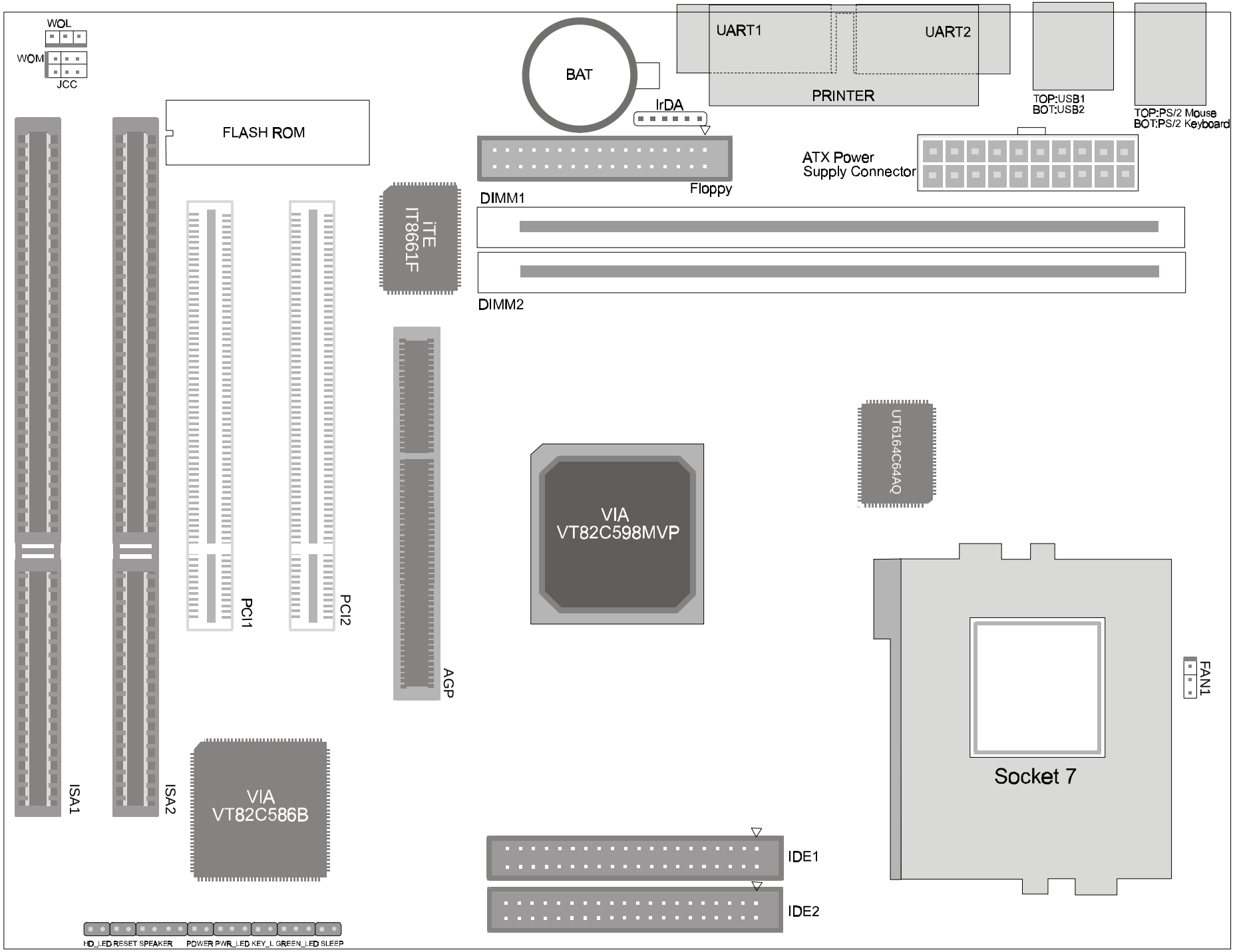
When you power on or reset your system, the picture listed below will be shown on the screen.

If you press <**Esc**>, it switches to the booting message screen. Otherwise, it enters operating system directly. You can use "**cblogo.exe**" (included on the QDI Motherboard Utility CD) to replace it by any other logo which you prefer. Regarding the method of using **cblogo.exe** utility, please refer to it' s online help. If you don' t prefer the logo displayed on the screen during boot up, set the "Show Bootup Logo" option as Disabled in the "BIOS FEATURES SETUP" section of the BIOS

*** We reserve the right of modifying the default full-logo of QDI without further notification.**

P/N :430-01014-601-00
Manual P5MVP3/A3 Ver 1.0

Board Layout of P5MVP3/A3 V1.0


WOL
WOM
JCC
BAT
IrDA
UART1
UART2
PRINTER
TOP:USB1
BOT:USB2
TOP:PS/2 Mouse
BOT:PS/2 Keyboard
FLASH ROM
Floppy
ATX Power
Supply Connector
DIMM1
DIMM2
iTE
IT8661F
UT6164C64AQ
VIA
VT82C598MVP
PCI1
PCI2
AGP
ISA1
ISA2
VIA
VT82C586B
Socket 7
FAN1
IDE1
IDE2
HD_LED RESET SPEAKER
POWER PWR_LED KEY_L GREEN_LED SLEEP

Item Checklist

Completely check your package. If you discover damaged or missing items, contact your retailer.

- ☑ P5MVP3/A3 motherboard
- ☑ QDI Motherboard Utility CD-ROM
- ☑ Retention Module
- ☑ I/O shield
- ☑ 1 IDE ribbon cable
- ☑ 1 floppy ribbon cable
- ☑ User' s manual

Notice

The information in this document is subject to change in order to improve reliability, design, or function without prior notice and does not represent a commitment on the part of this company. In no event will we be liable for direct, indirect, special, incidental, or consequential damages arising out of the use or the possibility of such damages.

All trademarks are the property of their respective owners.

If you need any further information, please visit our web-site: "www.qdigrp.com".

Declaration of conformity

CE

QUANTUM DESIGNS(HK) LTD.
5/F Somerset House, TaiKoo Place 979 Kings Road,
Quarry Bay, Hong Kong

declares that the product

Pentium® Motherboard
P5MVP3/A3

is in conformity with
(reference to the specification under which conformity is declared in accordance with 89/336 EEC-EMC Directive)

☑	EN 55022	Limits and methods of measurements of radio disturbance characteristics of information technology equipment
☑	EN 50081-1	Generic emission standard Part 1: Residential, commercial and light industry
☑	EN 50082-1	Generic immunity standard Part 1: Residential, commercial and light industry

European Representative:

QDI COMPUTER (UK) LTD.	QDI COMPUTER (SCANDINAVIA) A/S
QDI SYSTEM HANDEL GMBH	QDI COMPUTER (NETHERLANDS) B. V.
QDI COMPUTER (FRANCE) SARL	QDI COMPUTER HANDELS GMBH
QDI COMPUTER (ESPANA) S.A.	QDI COMPUTER (SWEDEN) AB

Signature : _____ . Place / Date : HONG KONG/1998

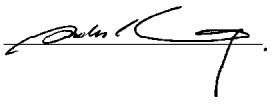
Printed Name : Anders Cheung Position/ Title : President

Declaration of conformity

Trade Name:	QDI Computer (U. S . A.) Inc.
Model Name:	P5MVP3/A3
Responsible Party:	QDI Computer (U. S. A.) Inc.
Address:	41456 Christy Street Fremont, CA 94538
Telephone:	(510) 668-4933
Facsimile:	(510) 668-4966
Equipment Classification:	FCC Class B Subassembly
Type of Product:	AGP Pentium® Motherboard
Manufacturer:	**Quantum Designs (HK) Inc.**
Address:	5/F, Somerset House, TaiKoo Place 979 Kings Road, Quarry Bay, HONG KONG

Supplementary Information:

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions : (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Signature : 

Date : 1998

CONTENTS

CONTENTS

SpeedEasy Quick Setup

Procedures :

1. Correctly insert the processor.

2. Plug in other configurations and restore the system.

3. Switch on power to the system and press the <Del> key to enter BIOS Setup.

4. Enter ' SpeedEasy CPU SETUP' menu to set up the CPU speed.

Note: If you don' t set CPU speed, your system will run at default setting.

5. Save and exit BIOS Setup, your system can now boot successfully as expected.

SpeedEasy CPU Setup Menu

Select <SpeedEasy CPU SETUP> item from the main menu and enter the sub-menu:

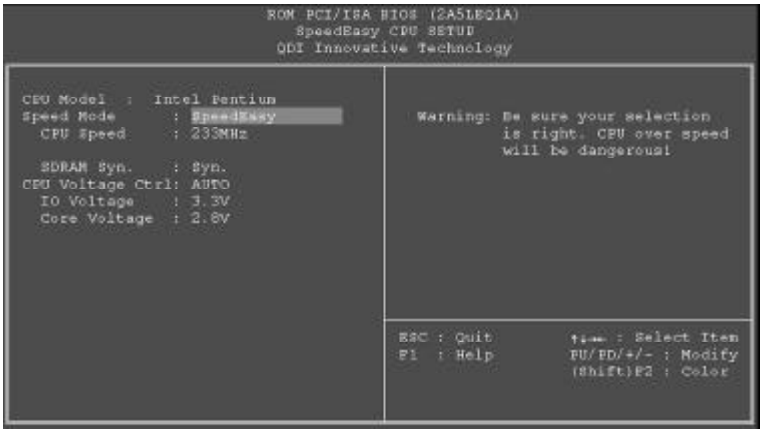


Figure - 1 SpeedEasy CPU Setup

BIOS will provide you with a set of basic values for your processor selection instead of the jumper settings. The processor speed can be manually selected on the "SpeedEasy CPU SETUP" menu screen.

BIOS also provides you with two choices, SDRAM Syn. or SDRAM Asyn. 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'.

Regarding the CPU voltage, it is recommended that users set CPU Voltage Ctrl as 'Auto'.

Warning:

Dot not set CPU frequency higher than its working frequency. If you do, we will not be responsible for any damages caused.

Note: In addition, if your system can not boot up again because of wrong CPU setting, hold down the hot-key <Del> while powering on the system, the system will reboot and run at the basic values.

Schneller Überblick über die Einstellungen:

Vorgehensweise:

1. Setzen Sie die CPU richtig ein.

2. Stecken Sie weitere Komponenten ein und vervollständigen Sie das System.

3. Drücken < DEL > oder < ENTF > und schalten Sie das System ein, um in das BIOS-Setup zu gelangen.

4. Wählen Sie das Menü ,,SpeedEasy CPU SETUP“, um die CPU-Taktfrequenz einzustellen.

Anmerkung: Wenn Sie die CPU-Taktfrequenz nicht einstellen, wird Ihr System in der Grundeinstellung laufen .

5. Wählen Sie die Option ,,Save and Exit BIOS Setup“, um die vorgenommen Änderungen abzuspeichern. Anschließend können Sie wie erwartet das System erfolgreich hochfahren.

Menü für die SpeedEasy CPU-Einstellungen

Wählen Sie das Menü < SpeedEasy CPU SETUP > aus und gehen Sie in das folgende Untermenü:

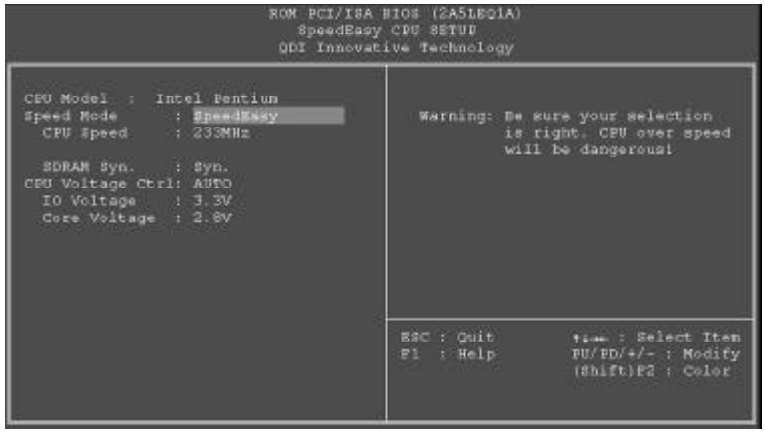


Bild 1 ,, SpeedEasy CPU SETUP "Menü

Beim den SpeedEasy-Mainboard stellt Ihnen das BIOS anstelle von Jumper-Einstellungen eine Auswahl von Grundeinstellungen zur Verfügung. Um Ihr System optimal zu betreiben, können Sie von Hand die Werte für die CPU-Taktfrequenz unter der Option „CPU-Taktfrequenz unter der Option „CPU Speed" im ,,SpeedEasy CPU SETUP" Menü einstellen.

warnung:

Sie sollten die CUP-Taktfrequenz nicht höher als die angegebene beitsgeschwindigkeit einstellen. Anderfalls sehen wir uns für irgendwelche hierdurch hervorgerufene Schäden nicht verantwortlich.

Anmerkung: Falls Ihr System aufgrund einer falschen CPU-Einstellung nicht mehr hochfahren kann, halten Sie beim inschalten des Rechners die Taste < DEL > bzw. < ENTF > gedrückt. Das System wird dann mit den Grundeinstellungen neu gestartet.

Setup Rápido

Procedimiento:

1. Insertar la CPU correctamente.

2. Insertar otros dispositivos en el sistema.

3. Presionar la tecla <Del> y arrancar el sistema para entrar en BIOS setup.

4. Seleccionar el menu “SpeedEasy CPU SETUP” para seleccionar la velocidad de la CPU.

Nota: si no selecciona la velocidad de la CPU, el sistema funcionará a la velocidad por defecto.

5. Grabar y salir de BIOS Setup, entonces el sistema arrancará y funcionará como Ud. espera.

Configuración de la CPU en el menu SpeedEasy

Seleccione <CPU Speed SETUP> en el menu principal para entrar en el siguiente menu:

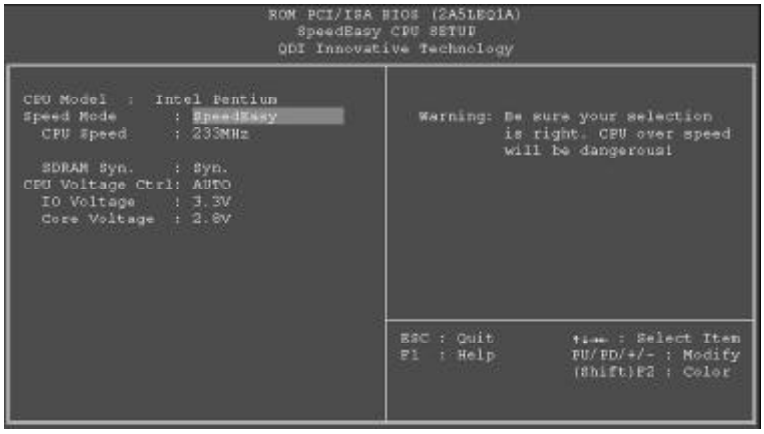


Figure -1. SpeedEasy CPU Setup Menu

Para la placa base SpeedEasy, la BIOS proporciona un juego de valores básicos para seleccionar el tipo de CPU, en lugar de los jumpers. Para hacer que su sistema funcione lo más rapidamente posible, Ud. puede manualmente aumentar el valor de la velocidad de frecuencia en " CPU Speed" en el menu <SpeedEasy CPU SETUP>.

Aviso

Aviso: es recomendable no seleccionar una frecuencia superior para la CPU a la que esta fue diseñada. En caso contrario, no nos hacemos responsables de los posibles daños que esto pueda causar.

Nota: por lo tanto, si su sistema no puede rearrancar de nuevo tras haber variado la frecuencia de trabajo de la CPU por una incorrecta, Ud. puede arrancar manteniendo apretada la tecla <Del> mientras conecta su equipo. El sistema arrancará con los valores básicos.