PENTIUM® II

Legend - V

Declaration of conformity

CE (EC conformity marking)

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

declare that the product

Pentium® II Motherboard
Legend -V

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	Genetic 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 /1997

Printed Name : Anders Cheung Position/ Title : President

Declaration of conformity

Trade Name:	QDI Computer (U. S . A.) Inc.
Model Name:	Legend -V
Responsible Party:	QDI Computer (U. S. A.) Inc.
Address:	41456 Christy Street Fremont, CA 94538
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Equipment Classification:	FCC Class B Subassembly
Type of Product:	PCI 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 : 1997

Notice

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SpeedEasy Quick Setup

Procedures :

1. Insert the Pentium® II correctly.
2. Plug in other configurations and restore the system.
3. Press <Del> key and switch on power to the system to enter BIOS Setup.
4. Enter “SpeedEasy CPU Setup” menu to set up CPU speed.

Note: If you do not set CPU speed, your system will run at the default setting (233MH$_Z$ for Pentium®II).

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

SpeedEasy CPU Setup Menu

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

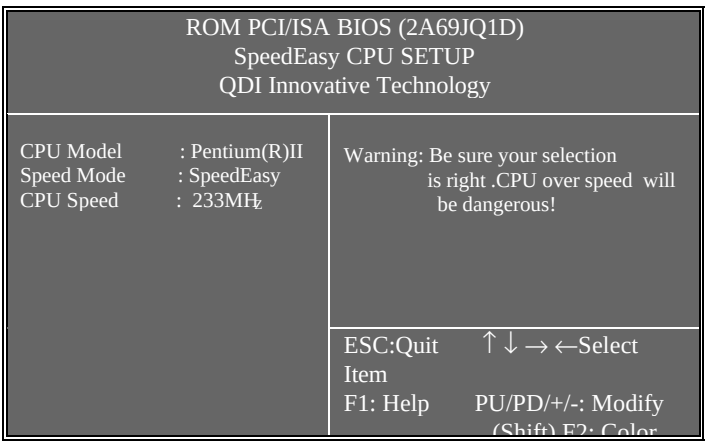

Figure -1 SpeedEasy CPU Setup Menu

BIOS will provide you with a set of basic values for your Pentium® II selection instead of the jumper setting. You can manually select Pentium® II speed on "SpeedEasy CPU Setup" menu screen.

Warning:
Do not set CPU frequency higher than its working frequency. If you do, we will not be responsible for any damage caused.

Note: ***If your system does not boot up again because of wrong CPU setting, you can hold down the hot-key <Del>at startup/restart (i.e. power on). The system will reboot and run at basic values.***

Schnell-Installation durch SpeadEasy

Vorgehensweise der Installation:

1. Legen Sie die Pentium® II im Slot 1 mit Hilfe der mitgelieferten Halterung.

2. Vervollständigen Sie das System mit den weiteren erforderlichen Computerkomponenten

3. Drüken Sie die Taste < Entf > und schalten Sie das System an um in das BIOS-setup zu gelangen.

4. Steigen Sie in das Menü "SpeedEasy CPU Setup" ein, um die Geschwindigkeit einzustellen.

ACHTUNG: Falls Sie die Taktfrequenz der CPU nicht setzen, arbeitet lhr System mit den Standardwerten für die CPU. Bei der Pentium® II sind das 233MH$_z$.

5. Speichern Sie die Einstellungen und verlassen Sie das BIOS, um die zuvor eingestellte Taktfrequenz zu aktivieren.

DEUTSCH

SpeedEasy CPU Installationsmenü

Wählen Sie < SpeedEasy CPU Setting> aus dem Hauptmenu und öffnen Sie das untergeordnete Menü

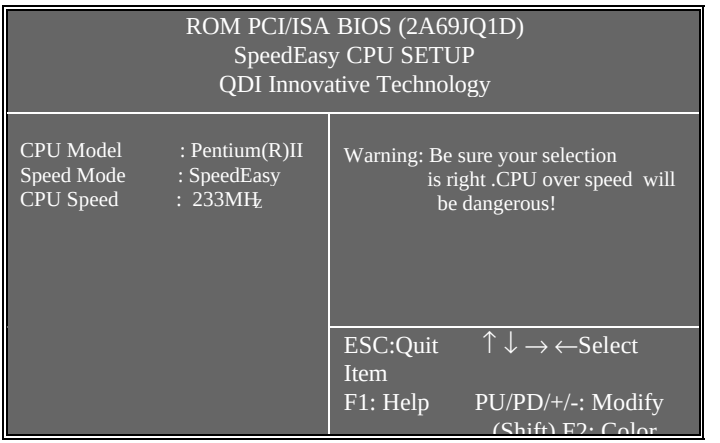

Abb.1 SpeedEasy CPU Installationsmenü

Das BIOS stellt lhnen eine Reihe von Grundeinstellungen fur lhren Pentium® II zur Verfügung, anstelle von "Jumper Setting." Sie können manuell die Geschwindigkeit der Pentium® II innerhalb des "SpeedEasy CPU Installationmenus "einstellen.

Warnung:
Bitte setzen Sie die Taktfrequenz der CPU nicht höher als die tatsächliche freigegebene Taktfrequenz, ansonten kann QDI für rechtliche Anspruche nicht herangezogen werden.

Achtung : Sollte sich lhr System wegen falscher CPU Einstellung nicht starten lassen, drüken, Sie die Taste <Del> und gleichzeitig die Power On Taste. Das System startet neu und läuft mit den vorgegebenen Grundeinstellungen.

SpeedEasy Instalación rápida

Procedimiento:

1. Introduzca correctamente el Pentium®II.

2. Finalize el proceso de ensamblaje de su equipo.

3. Presione la tecla <Supr> y encienda el sistema, paraentrar en BIOS.

4. Entre al menu "SpeedEasy CPU setup" para establecer la velocidad de su CPU.

Nota: Si no establece la velocidad del CPU, su sistema funcionará a la velocidad minima por defecto (233MHz para Pentium®II)

5. Salve y salga de BIOS, luego su sistema arrancará a la velocidad por Ud. seleccionada.

Menu del SpeedEasy CPU

Seleccione el item <SpeedEasy CPU setup> desde el menu principal , y entre en el submenu:

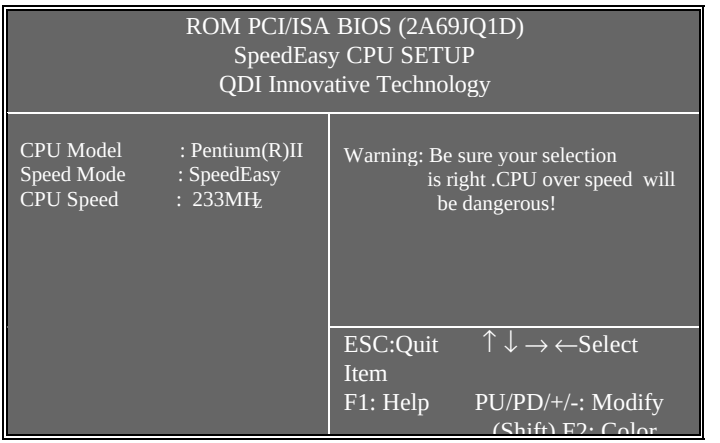

Figura-1 Menu del CPU SpeedEasy

BIOS le proporcionará unos valores básicos para la elección de su Pentium®II, en vez de tener que configurar jumpers. Ud. puede seleccionar manulmente la velocidad de Pentium®II en el menu "SpeedEasy CPU Setup."

Aviso

NO es recommendable selecclonar una frecuencia de trabajo superìor a la cual esta diseñada su CPU. De otra manera, no seremos responsables de los daños que esto pudiera ocasionar.

Nota: adicionalmente, si su sistema no puede arrancar debido a un error en la configuración de la velocidad de su CPU, Ud. siempre tiene la opción de arrancar manteniendo presionada la tecla<Supr>, con lo que el sistema le arrancará nuevamente a la velocidad mínima por defecto.

Facilité de vitesse Initialisation

Procédure:

1. Insérez le Pentium® II correctement.
2. Connectez les autres configurations et restaurez le système.
3. Appuyez sur la touche <Del> et mettez le système sous tension pour entrer dans l'initialisation BIOS.
4. Entrez le menu 'SpeedEasy CPU Setup' (=initialisation de la facilité de vitesse dans l'unité centrale) pour déterminer la vitesse de l'unite centrale.

Note: Si vous ne déterminez pas la vitesse de votre unité centrale, votre système fonctionnera par défaut (233MHz pour Pentium ® II).

5. Sauvegardez et sortez de la position BIOS. Le système pourra alors démarrer avec le succès auquel vous vous attendez.

Menu d'initialisation de "SpeedEasy" dans l'unité centrale.

Sélectionnez la rubrique <SpeedEasy CPU Setup> dans le menu principal et entrez le sous-menu:

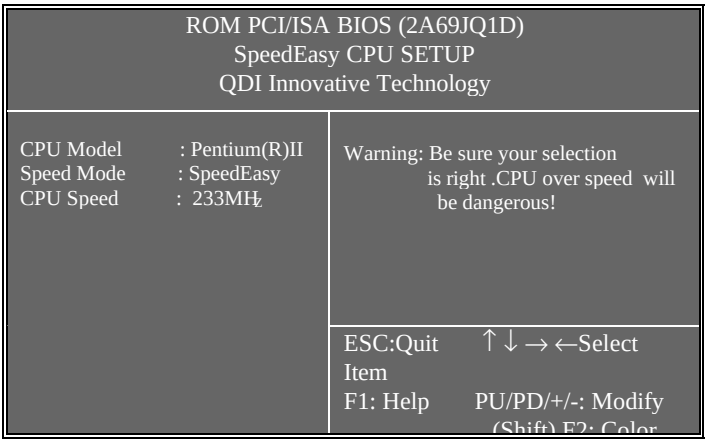

Figure-1 Menu d'initialisation de "SpeedEasy" dans l'unité centrale

BIOS fournira un jeu de valeurs de base pour votre sélection de Pentium II au lieu de positions cavaliers. Vous pouvez sélectionner manuellement la vitesse de Pentium II dans l'affichage du menu "SpeedEasy CPU Setup."

Avertissement:
Ne vous laissez pas aller à installer une fréquence à l'unité centrale supérieure à sa fréquence de travail. Sinon nous déclinerons toutes responsabilités en ce qui concerne les dégâts qui en résulteraient.

Note: De plus, si votre système ne peut pas redémarrer à cause d'une mise à l'erroné, vous pouvez maintenir la pression sur la touche à grande activité <Del> tout en mettant le système sous tension. Ce dernier alors redémarrera et fonctionnera sur des valeurs de base.

SETUP DELLA SCHEDA SPEEDEASY

Procedura di installazione:

1. Inserite il microprocessore Pentium® come da istruzioni.
2. Modificate la configurazione del computer e ripristinate il sistema.
3. Premete il tasto <Del> e accendete il computer per entrare nel setup BIOS.
4. Entrate nel menu "SpeedEasy CPU* Setup" per regolare la velocità del microprocessore. [1]

Nota: se non regolate la velocità del microprocessore, il sistema funzionerà con le regolazioni standard (233MHz per il Pentium® II).

5. Salvate e uscite dal Setup BIOS, e fate ripartire il computer.

ITALIANO

*CPU= microprocessore

Menu del Setup del Microprocessore SpeedEasy

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

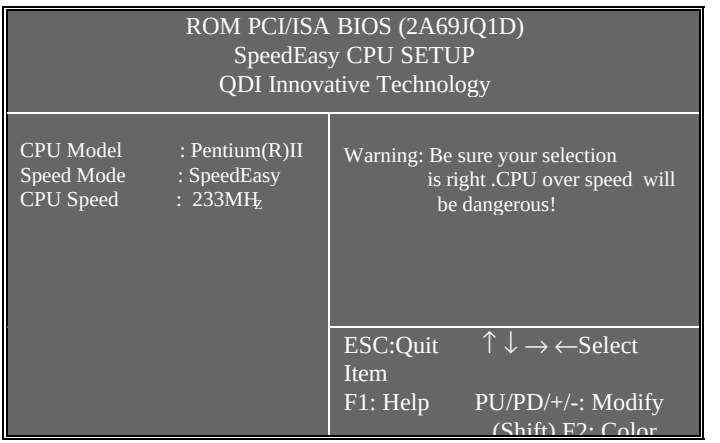

Figure -1 Menu del Setup del Microprocessore SpeedEasy

I1 sistema BIOS Vi forniràuna serie di valori base per la selezione del microprocessore Pentium® II al posto della regolazione jumper (dellàccoppiamento). Potete selezionare manualmente la velocità del Pentium® II sulla schermata "SpeedEasy CPU Setup."

Avvertenza:
non dovete regolare la frequenza del microprocessore più alta di quella predisposta, altrimenti la casa produttrice non si farà carico di eventuali danni al micorprocessore.

regolazioni del microprocessore, potete tenere premuto il tasto <Del> mentre accendete la macchina, ed il sistema ripartirà e funzionerà con le regolazioni originali.

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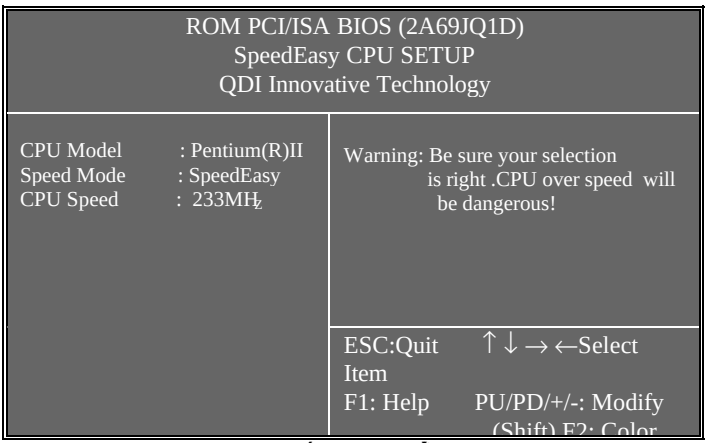
SpeedEasy CPU Setup>



SpeedEasy

BIOS Pentium® II (Jumper)SpeedEasyPentium® II

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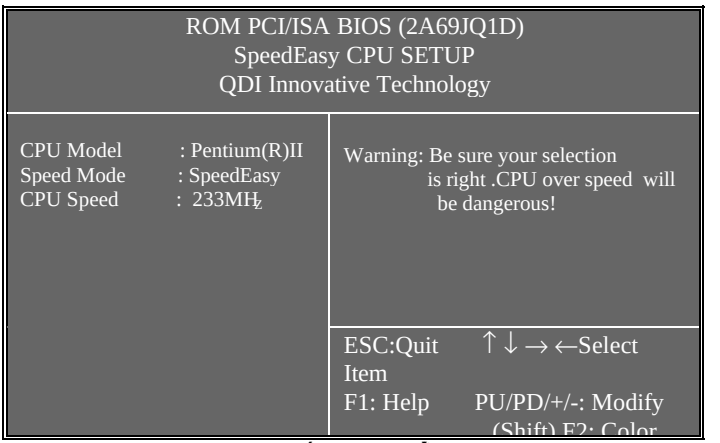

SpeedEasy

BIOSPentium® II umper SpeedEasy Pentium® II

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Del>

Chapter 1
Introduction

Overview

Legend-V green mainboard provides a highly integrated solution for fully compatible, high performance PC/ATX platforms, and supports Pentium®II processors, flexible main memory size can be installed from 8MB up to 384MB SDRAM or 8MB up to 768MB EDO DIMM, so as to give full play to the advantages of Pentium®II processors. The mainboard offers a wide range of interface to support integrated on-board IDE and on-board I/O function. It also supports the function of wake-up on LAN. The current green function is divided into three phases: Doze, Standby and Suspend.

Key Features

Pentium®II

- Supports Pentium®II processors at 233/266/300/333MHz
- Supports 66MHZ bus speed
- Pentium®II core frequency = System Clock x2.5, x3, x3.5, x4, x4.5, x5, x5.5
- On board switching voltage regulator with VID(Voltage ID), and Pentium®II core supply voltage can be selected from 1.3V to 3.5V automatically.

Chipset

- Intel® 440LX (82443LX, 82371AB PIIX4)

System memory

- Three 168 pin DIMM sockets
- Supports up to 384MB SDRAM memory or up to 768MB EDO 3.3V unbuffered DIMM memory

- Supports memory ECC (Error Checking and Correction) function.

On-board IDE

- Supports two PCI PIO and bus Master IDE ports.
- supports up to Mode 4 Timing
- Supports 2 Fast IDE interfaces for up to 4 IDE devices including IDE hard disks and CD ROMs
- Supports "Ultra DMA/33" Synchronous DMA mode transfers up to 33 Mbytes/sec.
- Integrated 8x32bit buffer for IDE PCI Burst Transfers.

Green function

- Supports Advanced Configuration and Power Interface (ACPI) specification and OS Directed Power Management.
- Supports three green modes: Doze, Standby and Suspend.
- Power LED will blink when the system is in green status.

On-board I/O

- Use NS Plug & play I/O chip PC87309
- One floppy port supports up to two 3.5"or 5.25" floppy drives 360K/720K/1.2M/1.44M/2.88M format.
- Supports LS-120 floppy disk drive
- All I/O port can be enabled/disabled by BIOS setup
- Two high speed 16550 fast compatible UART (COM1/COM2/COM3 /COM4 selectable) with 16-byte send/receive FIFOs and support MIDI mode.
- One enabled parallel port at I/O address 378H/278H/3BCH with additional bi-direction I/O capability and multi-mode (SPP/EPP/ECP) (IEEE1284 compliant).
- Provides protection circuit to prevent damage to the parallel port when a connected printer is powered up or operated at a higher voltage.

Advanced Feature

- On board LM78 support system monitoring(monitor system voltages, chassis intrusion and FAN speed) (Optional)
- Supports LDCM(LanDesk Client Manager) software (Optional)
- On board PS/2 mouse and PS/2 keyboard socket
- Two USB ports
- On board switching voltage regulator with VID (support1.3V to 3.5V)

- Provides Anti-Virus function
- Provides Infrared interface
- Supports Windows 95 Software Power-Down
- Supports External Modem Ring Power-On
- Supports Auto Fan off when system entering suspend mode
- Supports External wake up on LAN function

BIOS

- Licensed advanced AWARD BIOS, Supports FlashROM BIOS, Plug and play ready. Built-in NCR®53C810 BIOS
- Supports IDE CD-ROM or SCSI bootup

Expansion slots

- 3 x ISA slots and 4 x PCI slots
- 1 AGP Slot
- Board size: 305mm x208mm

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Chapter 2
Connector Configuration

This section lists all connector pin assignment and port description on the main-board. The situations of the connectors and ports are illustrated in the following figures. Before inserting these connectors, please pay attention to the directions.

Power/Sleep LED Connector (PWRLED)

PIN NUMBER	FUNCTION
1	LED Anode
2	NC
3	LED Cathode

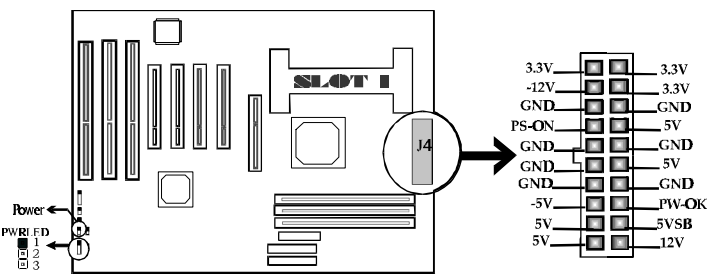
The LED connected to "PWRLED" will blink when system in green status and will light slightly when system in standby status.

Power Switch (POWER)

Connect ATX Power Supply connector to socket J4 first.

1. If you want to power up your system, you should turn on the mechanical switch of ATX power supply first, then push once the button connected to the two pin header (POWER).

2. If you want to power off your system, you need not turn off the mechanical switch of ATX power supply , just ***push once**** again the button connected to the two pin header(POWER). The location of connector is shown as below figure:



***Note:** If you change "soft-off by PWR-BTTN" from default "Instant-off" Secs", you will have to press the power button for more than 4*

seconds before the system power down. For details, please refer to Page 3-12.

Hard Disk LED Connector(HD.LED)

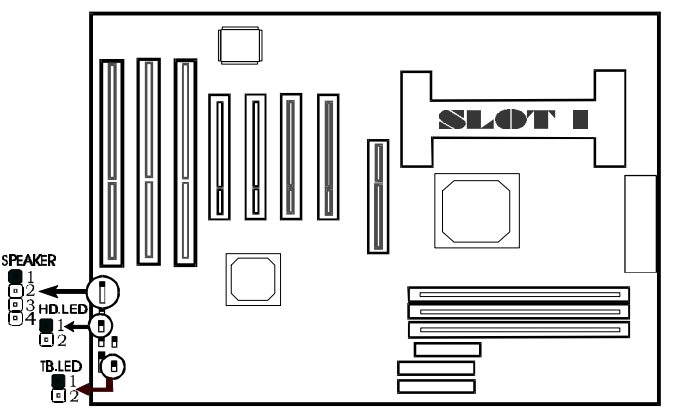
PIN NUMBER	FUNCTION
1	LED ANODE
2	LED CATHODE

Speaker connector(SPEAKER)

PIN NUMBER	FUNCTION
1	SPKDATA (for speaker)
2	NC
3	GND
4	VCC (for speaker)

Turbo LED Connector (TB. LED)

PIN NUMBER	FUNCTION
1	LED ANODE
2	LED CATHODE



Reset Switch (Reset)

SETTING	FUNCTION

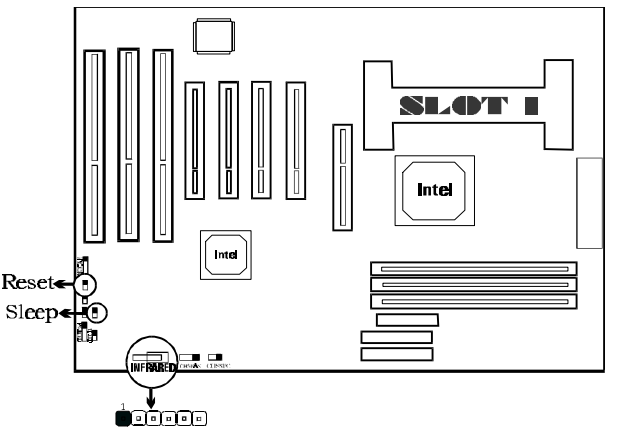
CLOSE ONCE	RESET THE SYSTEM
OPEN	NORMAL

Hardware Green Connector (SLEEP)

SETTING	FUNCTION
CLOSE ONCE	HARDWARE GREEN
OPEN	NORMAL

Infrared Header(INFRARED)

PIN NUMBER	FUNCTION
1	VCC
2	NC
3	IRRX
4	GND
5	IRTX
6	VCC



Controlled Fan Connector(CPUFAN,BAKFAN)

PIN NAME	FUNCTION
-	FAN NEGA.

+	FAN POSI.
S	FAN SPEED

Note: These two fans are set as "ON " as default.

Standard Fan Connector (CHSFAN)

PIN NAME	FUNCTION
-	FAN NEGA.
+	FAN POSI.
S	FAN SPEED

Wake-Up ON LAN (WOL2)

PIN NUMBER	FUNCTION
1	+5V Standby
2	GND
3	Signal for waking up

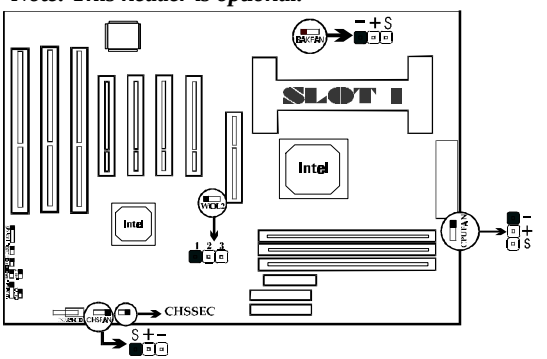
Note: This header is to be connected to a LAN adapter for wake-up on LAN. Please set "Resume by LAN/Ring" to Enable at the "POWER MANAGERMENT SETUP" of CMOS SETUP first, if Wake-Up on LAN function to be used.

Chassis Security (J30):

Opened if chassis is closed.

Closed if chassis is opened.

Note: This header is optional.



I/O Port Description

CONNECTOR	FUNCTION

IDE1	Primary IDE Port
IDE2	Secondary IDE Port
FLOPPY	Floppy Drive Port
PRINTER	Parallel Port
UART1	COM1/COM2/COM3/COM4
UART2	COM2/COM3/COM4/COM1
USB1	First USB Port
USB2	Second USB Port
AGP	Accelerate graphics port

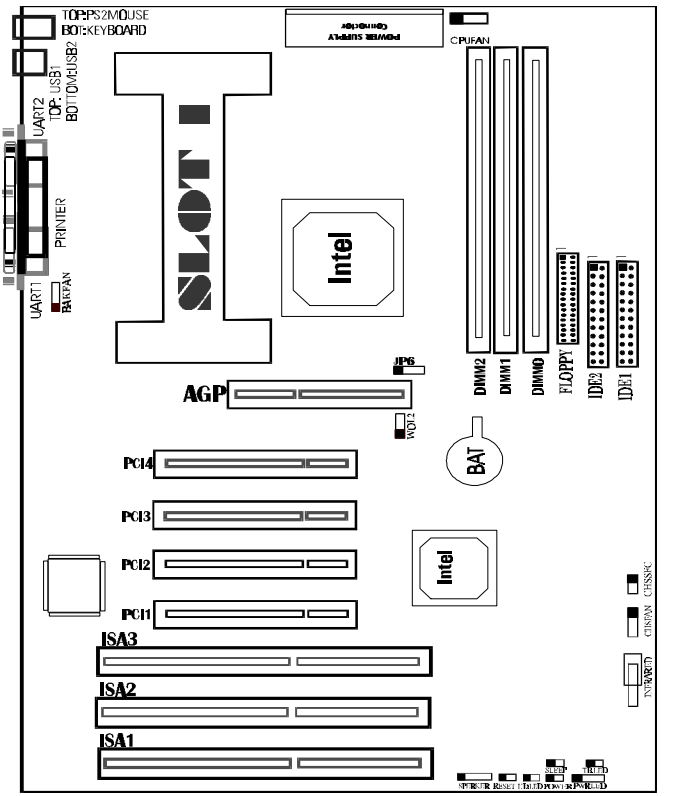


Figure 2-1 Illustration of All Connectors on Board

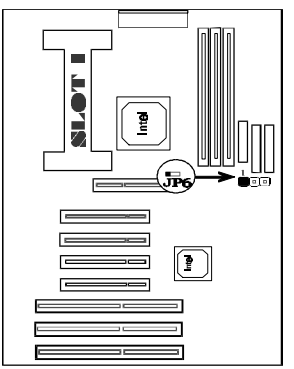
Memory Configuration

The Legend-V mainboard supports up to three 168 pin 3.3V un-buffered DIMM, provides a flexible size from 8MB up to 384MB SDRAM memory or from 8MB up to 768MB EDO memory. The following setof rules allows for optimum configurations.

Rules for populating a 440LX 0memory array:

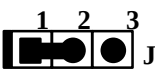
- DIMM sockets can be populated in any order. However, to take advantage of potentially faster MA timing it is recommended to populate sockets in order.
- The DRAM Timing register, which provides the DRAM speed grade control for the entire memory array, must be programmed to use the timings of the slowest DRAMs installed.
- Possible EDO DIMM memory size is 8MB, 16MB, 32MB, 64MB, 128MB, 256MB in each DIMM socket.
- Possible SDRAM memory size is 8MB, 16MB, 32MB, 64MB, 128MB in each DIMM socket.

Clear CMOS



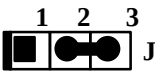
Close Once

Clear CMOS :



JP6

Normal :



JP6

Note: You must power down the AC supply(110/220V) when you want to clear CMOS.

Chapter 3
AWARD BIOS Description

Entering Setup

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

Press <Del> to enter SETUP

Once you enter Award BIOS CMOS Setup Utility, the Main Menu (Figure 1) will be appeared on the screen. The main menu allows you to select from twelve setup functions and two exit choices. Use arrow keys to select among the items and press <Enter> to accept or enter the sub-menu.

ROM PCI/ISA BIOS (2A69JQ1D) CMOS SETUP UTILITY AWARD SOFTWARE, INC.	
STANDARD CMOS SETUP	INTEGRATED PERIPHERALS
SpeedEasy CPU SETUP	System Monitor SETUP
BIOS FEATURES SETUP	SUPERVISOR PASSWORD
CHIPSET FEATURES SETUP	USER PASSWORD
POWER MANAGEMENT SETUP	IDE HDD AUTO DETECTION
PNP/PCI CONFIGURATION	SAVE & EXIT SETUP
LOAD SETUP DEFAULTS	EXIT WITHOUT SAVING
Esc: Quit	↑ ↓ → ← :Select Item
F10: Save & Exit Setup	(Shift) F2 :Change Color
Time, Date, Hard Disk Type ...	

Figure-1 Main Menu

Note: The item of " System Monitor SETUP" will not be displayed if there is no LM78 on the motherboard.

Load Setup Defaults

The Setup Defaults is common and efficient setting.

Standard CMOS Setup

Use the arrow keys to highlight the item, then use the <PgUp> or <PgDn> keys to select the value you want in each item.

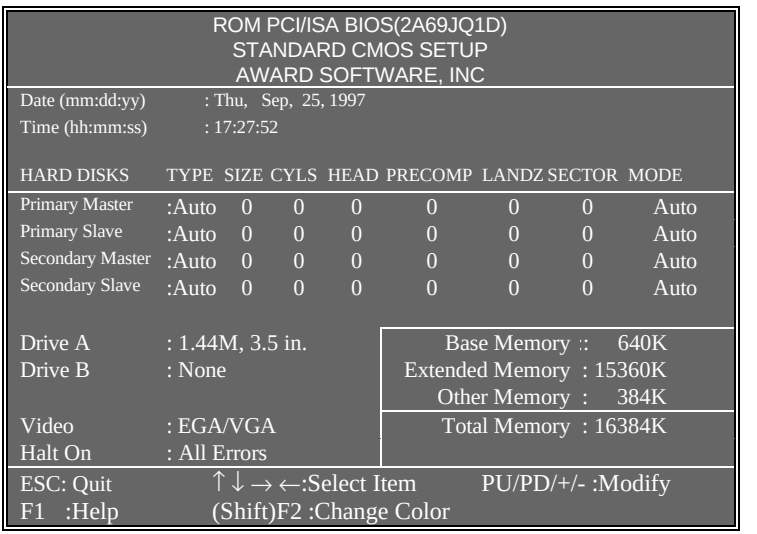


Figure-2 Standard CMOS Setup Menu

Hard Disk
Primary Master/Primary Slave/Secondary Master/Secondary Slave

The categories identify the types of 2 IDE channels that have been installed in the computer. There are 45 predefined types and 4 user definable types are used for Enhanced IDE BIOS. Type 1 to Type 45 are predefined. Type "User" is user-definable. If your hard disk drive type is not matched with drive table or listed in it, you can use Type "User" to define your own drive type manually.

If you select Type **"Auto"**, that means the system can autodetect your hard disk when boots up. If you select Type **"User"**, related information is asked to be entered into the following items. Enter the information directly from the keyboard and press **<Enter>**:

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

Video

You have two ways to boot up the system:

I. When VGA is used as primary and monochrome is used as secondary, the selection of the video type is **"EGA/VGA"** mode.

II. When monochrome is used as primary and VGA is used as secondary, the selection of the video type is **"Mono"** mode.

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.

Error Halt

The category determines that whether the computer will stop or not 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 the other errors.
All, But Diskette	The system boot will not stop for a disk error; but it will stop for all the other errors.
All, But Disk/Key	The system boot will not stop for a keyboard or disk error, but it will stop for all the other errors.

Memory

The category is display-only which 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 that how much extended memory is presented during the POST.
Other Memory	This is the memory that can be used for different applications. Most use for this area is Shadow RAM.
Total Memory	Total memory of the system is the sum of the above memory.

SpeedEasy CPU Setup

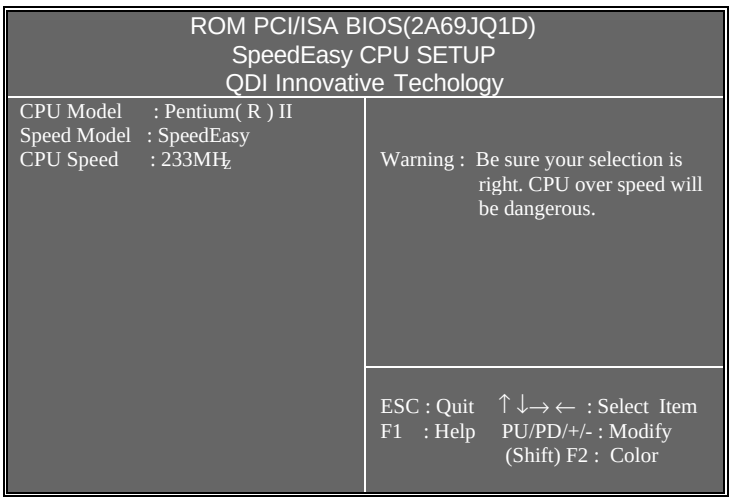


Figure-3 SpeedEasy CPU Setup

The following pages tell you the options of each item and describe the meanings of each option.

Item	**Option**	**Description**
• CPU Model		BIOS can automatically detect CPU model, so this item is shown only.
• Speed Mode	*SpeedEasy*	You should select CPU speed according to your CPU brand and type.
	Jumper Emulation	This item is only for the user who understand all the CPU parameters, i.e. System Bus frequency, "66MHz" and multiplication of Processor Core frequency to System Bus frequency "×2.5, ×3, ×3.5, ×4, ×4.5, ×5, ×5.5".

BIOS Features Setup

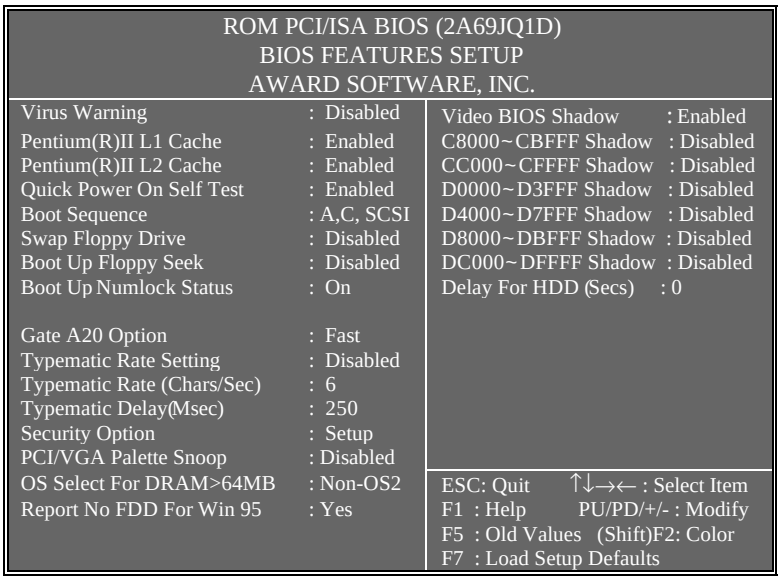


Figure-4 BIOS Features Setup Menu

The following pages tell you the options of each item and describe the meaning of each option.

Item	Option	Description
• Virus Warning	*Enabled*	Activate automatically when the system boots up causing a warning message to appear when anything attempts to access the boot sector or hard disk partition table.
	Disabled	No warning message appears when anything attempts to access the boot sector or hard disk partition table. **Note: This function is available only for DOS and other OS that do not trap INT13.**
• Pentium(R)II L1/L2 Cache	*Enabled*	Enable Pentium® II internal Level1/Level2 cache.
	Disabled	Disable Pentium® II internal Level1/Level2 cache.
• Quick Power	*Enabled*	Enable quick POST. BIOS will shorten or skip

On Self Test		some check items during POST to speed up POST after you power on the computer.
	Disabled	Normal POST.
• Boot Sequence	*A,C,SCSI, ... C, CDROM,A*	You can choose any search sequence for bootup.
• Swap Floppy Drive	*Enabled*	It will exchange the assignment of A&B floppy drives.
	Disabled	The assignment of A&B floppy drives are normal.
• Boot Up Floppy Seek	*Enabled*	BIOS searches for floppy disk drive to determine if drive is ready for diskette read/write during booting.
	Disabled	skip drive seeking to speed up system booting.
• 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 keyboard controller or chipset hardware.
	Fast	It is default. The A20 signal is controlled by Port 92 or chipset specific method.
•Typematic Rate Setting	*Enabled*	Enable typematic rate and typematic delay programming.
	Disabled	Disable typematic rate and typematic delay programming. The system BIOS will use default value of these two items.
• Typematic Rate Chars/Sec)	6~30	Set the speed of the typematic rate (characters per second).
• Typematic Delay (Msec)	*250~1000*	Set the time of the typematic delay.
• Security Option	*System*	The system will not boot and access to Setup will be denied if the correct password is not entered when prompting.
	Setup	The system will boot up, but access to Setup will be denied if the correct password is not entered when prompting.
• PCI/VGA Palette Snoop	*Enabled*	Enable PCI/VGA palette snoop.
	Disabled	Disable PCI/VGA palette snoop.
• 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.
• Delay For HDD (Secs):	0~15	Set the predelay time for hard disk to be ready to be accessed by the system.

Chipset Features Setup

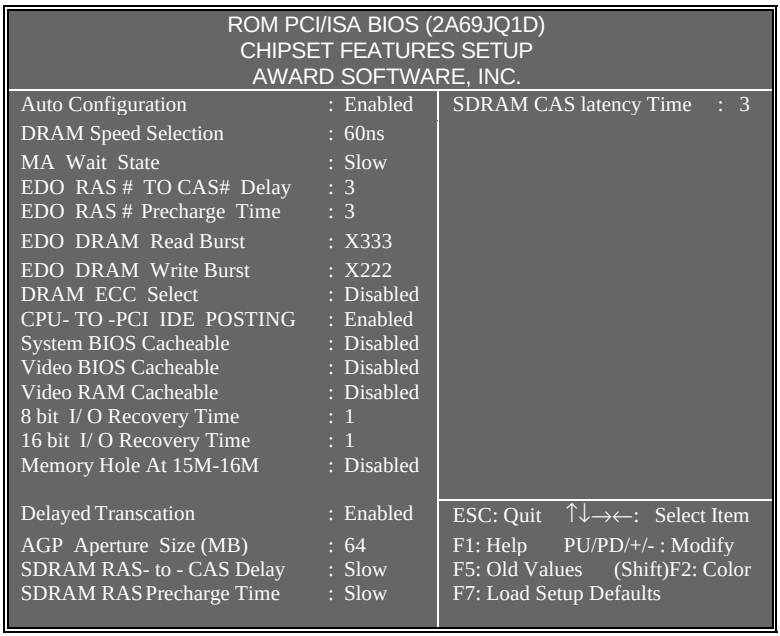


Figure-5 Chipset Features Setup Menu

The following pages tell you the options of each item and describe the meaning of each option.

Item	**Option**	**Description**
• Auto Configuration	*Enabled*	Automatically configure DRAM Timing according to the value of "DRAM Speed
	Disabled	Manually configure.
		Note: It is recommended to choose "Enabled" option for common users.
• DRAM Speed	*50ns*,	This item is of selected EDO DRAM read/write timing. You must ensure that your DIMMs are as fast

Selection	*60ns*	as 50ns, otherwise you have to select 60ns.
• MA Wait State	*Slow*	One additional wait state is inserted before the assertion of the first MA and CAS#/RAS# during DRAM read or write leadoffcycles.This affects page hit, row miss and page miss cases.
	Fast	Without additional wait state.
• EDO RAS# To CAS# Delay	*2*	Add a delay time between the assertion of RAS# and CAS#
	3	Without additional delay time.
• EDO RAS# Precharge Time	*3*	DRAM RAS# Precharge time=3x system clocks.
	4	DRAM RAS# Precharge time=4x system clocks.
• EDO DRAM Read Burst	*´ 3 3 3,*	The DRAM read burst timing depends on the type of DRAM on a per-row basis. Slower rates may be required to support slower DRAM.
	´ 2 2 2,	
• EDO DRAM Write Burst	*´ 2 2 2,*	The DRAM write burst timing depends on the type of DRAM on a per-row basis. Slower rates may be required to support slower DRAM.
	´ 3 3 3,	
• DRAM ECC Select	*ECC*	Provide ECC (Error Checking and Correction) function.
	Disabled	Disable ECC / EC function.
• CPU-To-PCI IDE Posting	*Enabled*	Enable CPU-To-PCI write posting.
	Disabled	Disable CPU-To-PCI write cycles to IDE.
• Burst Write Combinning	*Enabled*	Enable PCI burst write combining.
	Disabled	Desable PCI burst write combining.
• PCI-To-DRAM Pipeline	*Enabled*	Provide PCI-To-DRAM pipeline operating.
	Disabled	Disabled PCI-To-DRAM pipeline operating.
• System BIOS Cacheable	*Enabled*	Beside conventional memory, the system BIOS area is also cacheable.
	Disabled	The system BIOS area is not cacheable.
• Video BIOS Cacheable	*Enabled*	Beside cnventional memory, video IOS area is also cacheable.
	Disabled	Video BIOS area is not cacheable.
• Video RAM Cacheable	*Enabled*	Beside conventional memory, video BIOS area is also cacheable.
	Disabled	Video BIOS area is not cacheable.
• 8 Bit I/ O Recovery Time	*1~ 8*	Define the ISA Bus 8 bit I/O operating recovery time.
	NA	8 bit I/O recovery time is not exist.
• 16 Bit I / O Recovery Time	*1~ 4*	Define the ISA Bus 16 bit I/O operating recovery time.
	NA	16 bit I/O recovery time is not exist.
• Memory Hole At 15M-16M	*Enabled*	Memory Hole at 15-16M is reserved for expanded PCI card.
	Disabled	Do not set this memory hole.
• Delayed		

Transaction		
• AGP Aperture Size (MB)	*4~256*	Set the effective size of the Graphics Aperture to be used in the particular PAC Configuration.
• SDRAM RAS-To-CAS Delay	*Fast*	RAS-To-CAS Delay time=2 HCLK
	Slow	RAS-To-CAS Delay time=3 HCLK
• SDRAM RAS Precharge Time	*Fast*	RAS Precharge Time=2 HCLK
	Slow	RAS Precharge Time=3 HCLK
• SDRAM CAS Latency Time	*Fast*	Define the CLT timing parameter of SDRAM expressed in 66 MHZ clocks. Latency Time=2 clocks
	Slow	Latency Time=3 clocks

Power Management Setup

ROM PCI/ISA BIOS (2A69JQ1D) POWER MANAGEMENT SETUP AWARD SOFTWARE, INC.		
Power Management	:Disabled	** Reload Global Timer Events **

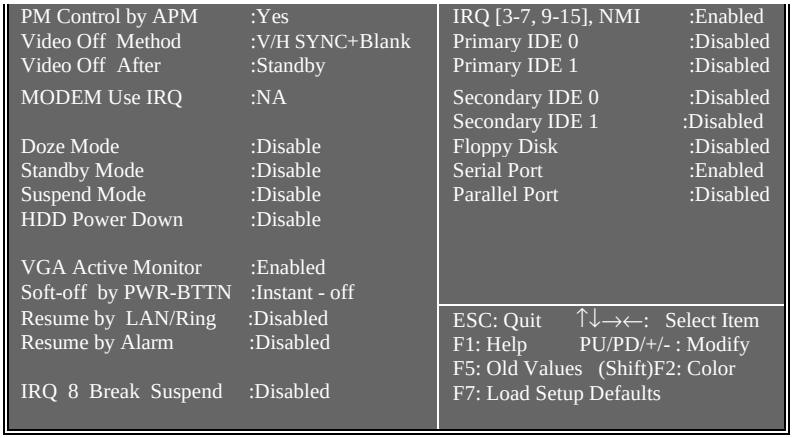


Figure-6 Power Management Setup Menu

The following pages tell you the options of each item and describe the meanings of each option.

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 value are used such that all timers are in their MAX values
	Max Saving	Pre - defined timer value are used such that all timers are in their MIN value
• 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 enters any PM mode e.g. Standby or Suspend. **Note: If APM is installed, and if there is a task running, even the timer is time out, the APM will not prompt the BIOS to put the system into any power saving mode. But if APM is not installed, this option has no effect.**
• Video Off Method	*Blank Screen*	The system BIOS will only blank off the screen when disabling video.
	V / H SYNC + Blank	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. **Note: Green monitors detect the V/H-SYNC signals to turn off its electron gun .**
• Video Off After	*N/A*	System BIOS will never turn off the screen.
	Suspend	Screen off after system enters into Suspend mode.
	Standby	Screen off after system enters into Standby mode.
	Doze	Screen off after system enters into Doze mode.
• Doze mode	*Disabled*	The system will never enter Doze mode.
	1Min ~ 1 Hr	Define the continuous idle time before the system entering Doze mode. If any item defined in "Wake Up Events In Doze & Suspend" is On and activated, the system will be waken up.
• Standby Mode	*Disabled*	The system will never enter Standby mode.
	1 Min ~ 1Hr	Define the continuous idle time before the system entering Standby mode. If any item defined in "Wake Up Events In Doze & Suspend"is On and activated, the system will be waken up.
• Suspend Mode	*Disabled*	The system will never enter Suspend mode.
	1 Min ~ 1Hr	Define the continuous idle time before the system entering Suspend mode. If any item defined in "Wake Up Events In Suspend"is On and activated, the system will be waken up.
• HDD Power Down	*Disabled*	HDD's motor will not be off.
	1 ~15 Min	Define the continuous HDD idle time before the HDD entering power saving mode (motor off).
• VGA Active Monitor	*Disabled*	
• Soft-off by PWR-BTTN	*Instant -off*	The system will power off immediately once the power button is pressed.
	Delay 4 Sec.	The system will not power off until the power button is pressed continuously more than 4 seconds.
• Resume by LAN/ Ring	*Enabled*	Allow the system to be powered on when a Ring Indicator signal comes up to UART1 or UART2 from external modem, or when a remote waker-up signal comes up to LAN adapter from a server.
	Disabled	Do not allow Ring Power-On and wake-up on LAN.
• Resume by Alarm	*Enabled*	RTC alarm can be used to generate a wake event when the system is in a sleeping.
	Disabled	RTC no alarm function.
• IRQ 8 Clock Event	*Enabled*	Generate a clock event.
	Disabled	Do not generate a clock event.
		Note: IRQ8 Clock Event must be enabled when

		you want to use Resume By Ring and Alarm.
• IRQ [3-7, 9-15], NMI	*Enabled* *Disabled*	Reload global timer. No influence to global timer.

PNP/PCI Configuration Setup

ROM PCI/ISA BIOS (2A69JQ1D) PNP/PCI CONFIGURATION SETUP AWARD SOFTWARE, INC.		
PNP OS Installed	: No	PCI IDE IRQ Map To: PCI-AUTO
Resources Controlled By	: Manual	Primary IDE INT# : A
Force Update ESCD	: Disabled	Secondary IDE INT#: : B

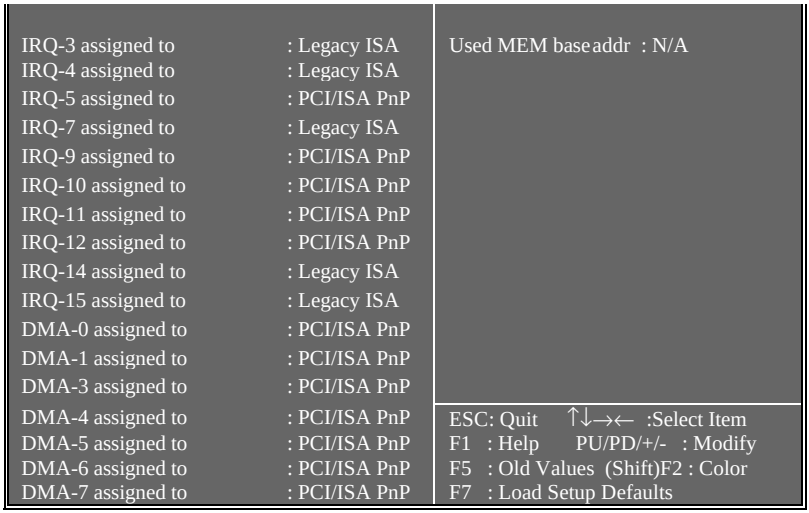


Figure-7 PNP/PCI Configuration Setup Menu

The following pages will tell you the options of each item and describe the meaning of each option.

Item	**Option**	**Description**
• PNP OS Installed	*Yes*	Device resource assigned by PnP OS.
	No	Device resource assigned by BIOS.
• Resources Controlled By	*Manual*	Assign system resources (IRQ and DMA) manually by user.
	Auto	Assign system resources (IRQ and DMA) automatically by BIOS.
• Force Update ESCD	*Enabled*	The system BIOS will force updating ESCD once, then automatically set this item Disable.
	Disabled	Disable force update ESCD function.
• 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.
• PCI IDE IRQ Map	*PCI-AUTO*	The BIOS will scan for PCI IDE

To		devices and determine the location of the PCI IDE device.
	PCI - SLOT4~1	The BIOS will scan IRQ14 for primary IDE INT# and IRQ15 for secondary IDE INT# at the specified slot.
	ISA	The BIOS will not assign any IRQs even if PCI IDE card is found. Because some IDE cards connect the IRQ14&15 directly from ISA slot through a card.
• Primary IDE INT#	*A ~ D*	Tell which INT# the PCI IDE card uses for its interrupt of 1st IDE channel.
• Secondary IDE INT#	*A ~ D*	Tell which INT# the PCI IDE card uses for its interrupt of 2nd IDE channel.
• Used MEM base address	*C800/8 ~ 64K*	Claim a memory space occupied by legacy ISA card.
	N/A	Invalidate this feature.

Integrated Peripherals

ROM PCI/ISA BIOS (2A69JQ1D) INTEGRATED PERIPHERALS AWARD SOFTWARE, INC.		
IDE HDD Block Mod	: Enabled	
IDE Primary Master PIO	: Auto	
IDE Primary Slave PIO	: Auto	

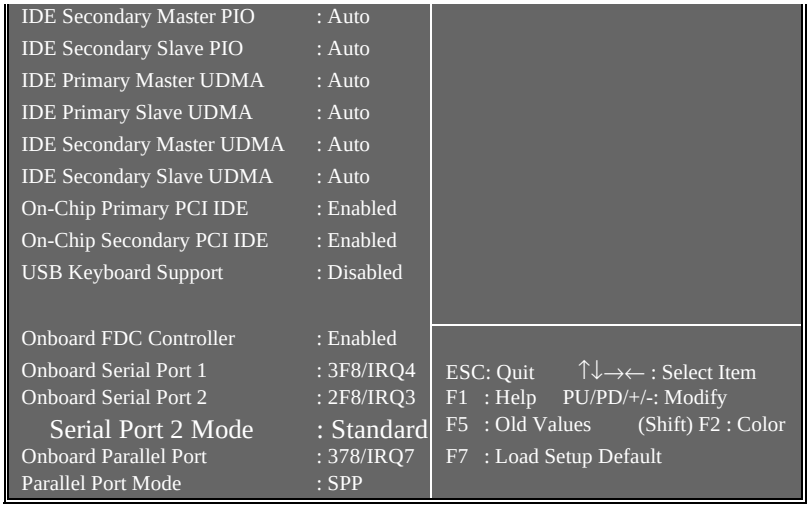


Figure-8 Integrated Peripherals Menu

The following pages tell you the options of each item and describe the meaning of each option.

Item	**Option**	**Description**
• IDE HDD Block Mode	*Enabled*	Allow IDE HDD read/write several sectors one time.
	Disabled	IDE HDD only reads/writes a sector for one time.
• IDE Primary/Secondary Master/Slave PIO (UDMA)	*Mode 0 - 4*	Define the IDE primary/secondary master/ slave PIO mode.
	Auto	The IDE PIO mode is defined according to auto - detect.
• On-chip Primary/Secondary PCI IDE	*Enabled*	On-chip primary/secondary PCI IDE port is enabled.
	Disabled	On-chip primary/secondary PCI IDE port is disabled.
• USB Keyboard Support	*Enabled*	USB Keyboard Support enabled.
	Disabled	USB Keyboard Support disabled.
• Onboard FDC Controller	*Enabled*	Onboard floppy disk controller is enabled.
	Disabled	Onboard floppy disk controller is disabled.
• Onboard Serial Port 1/2	*3F8/IRQ4, 2F8/IRQ3,*	Define onboard serial port address and required interrupt number.

	3E8/IRQ4, *2E8/IRQ3,* *Disabled,* *Auto*	 Onboard serial port is disabled. Set address and interrupt number automatically.
• Serial Port 2 Mode	*Standard,* *Sharp IR,*	Define Serial Port 2 as standard serial port This mode provides bi-directional communication by transmitting and receiving infrared radiation. In this mode, infrared I/O circuits receive the serial UART output signal. The rate of the signal is 38.4K Baud in half-duplex, and it uses normal UART serial data formats with physical ASKIR modulation.
	IrDA SIR	The system function is the same as in Sharp-IR mode, but at 115.2K Baud.
• Onboard Parallel Port	*378/IRQ7,* *278/IRQ5,*	Define onboard parallel port address and IRQ channel.
• Parallel Port Mode	*SPP* *EPP1.7* *EPP1.9* *ECP,* *ECP+EPP*	Define the parallel port mode as Standard Parallel Port (SPP), Enhanced Parallel Port (EPP), or Extended Capabilities Port (ECP).

System Monitor Setup

ROM PCI/ISA BIOS (2A69JQ1D) System Monitor SETUP AWARD SOFTWARE , INC.	
Fan Speed (CPUFAN) : 0 RPM Fan Speed (CHSFAN) : 0 RPM Fan Speed (BAKFAN) : 0 RPM	

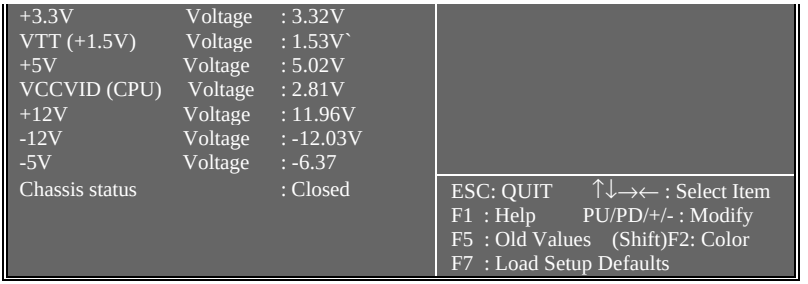


Figure-9 System Monitor Setup Menu

The following pages tell you the options of each item and describe the meaning of each option.

Item	Option	Description
• CPUFAN Speed BAKFAN CHSFAN		RPM (Revolution Per Minute) Speed of fan which is connected to the fan header CPUFAN, BAKFAN or CHSFAN. Fan speed value is based on an assumption that tachometer signal is two pulses per revolution; In other cases, you should regard it relatively.
• + 3.3V, VTT (+1.5) Voltage, + 5V, VCCVID (CPU) Voltage, +12 V, - 12 V, - 5 V.		Display current Voltage value including all the most important voltages of the mainboard. +3.3V, +5V, +12V, -12V, -5V are voltages from the ATX power supply, VTT (+1.5) Voltage is GTL Termination Voltage from the on board regulator, and VCCVID (CPU) Voltage is CPU Core Voltage from the on board switching Power Supply.
• Chassis Status	*Closed* *Opened*	The chassis is closed currently. The chassis is opened currently.

Supervisor/User Password

When you select this function, the following message will appear 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 and not enter a password.

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 Setup freely.

PASSWORD DISABLED

If you select "**System**" at "Security Option" of "BIOS Features Setup" Menu, you will be prompted for the password every time the system is rebooted or any time you try to enter "CMOS Setup."

"**Setup**" at "Security Option" of "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 was included in all Award BIOS. Below is a brief description of this features.

ROM/PCI/ISA BIOS (2A69JQ1D)
IDE HDD AUTO DETECTION
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	Heads	Precomp	Landzone	Sectors	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	LARGE

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

Figure-10 IDE HDD Auto Detection Menu

1. Setup Changes

With auto-detection

- BIOS setup will display all possible modes that is 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 cylinders is less than or equal to 1024, "LARGE" option may not be shown.
- Users can select a mode which is appropriate for them.

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 opened for user to select their own HDD mode.

2. HDD Modes

The Award BIOS supports 3 HDD modes: NORMAL, LBA and LARGE, and 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 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, user do not want LBA). The Award BIOS provides another alternative to support these kinds of HDD.

BIOS tricks DOS (or other OS) that 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 IDE hard disk mode and set it to one kind of HDD modes.

3. Remark

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

Power - On Boot

If you have made all the changes to CMOS values and the system can not boot with the CMOS values selected in Setup, restart the system by turning it OFF then ON or press the "RESET" button on the system case.You may also restart the system by simultaneously pressing < Ctrl >, < Alt > and
< Del > keys.

Appendix A.
Utility Diskette

You may use this diskette to update your BIOS when necessary.

For the most update and additional information about BIOS upgrade, please refer to "README" in the "BIOS Upgrade Diskette."

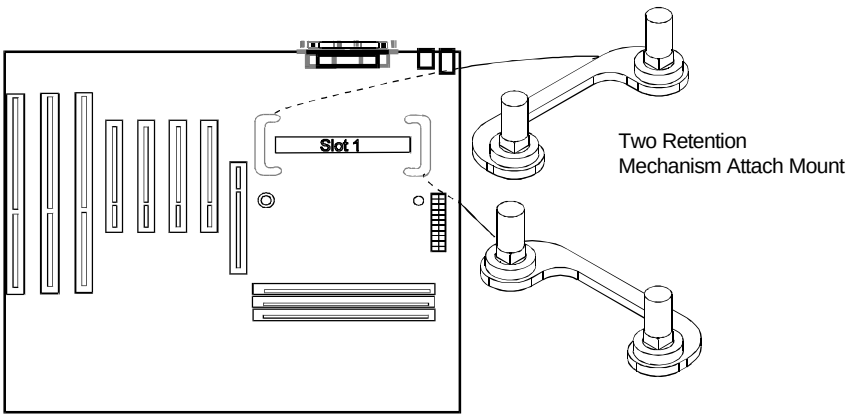
Warning:

1. **We strongly recommend that you only upgrade BIOS when in trouble.**
2. **Before you update your BIOS, you should look over the "README" file to avoid making mistake.**

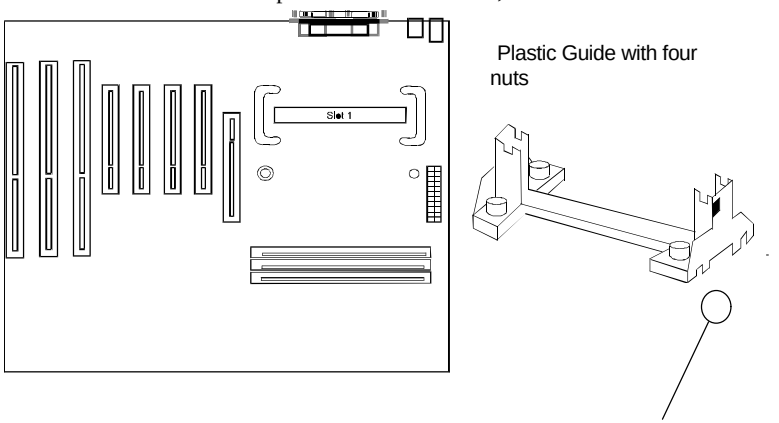
Appendix B.

Retention Mechanism & Pentium ® II Processor Installation Procedures

1. Insert the two Retention Mechanism Attach Mount up through the bottom of the mainboard.

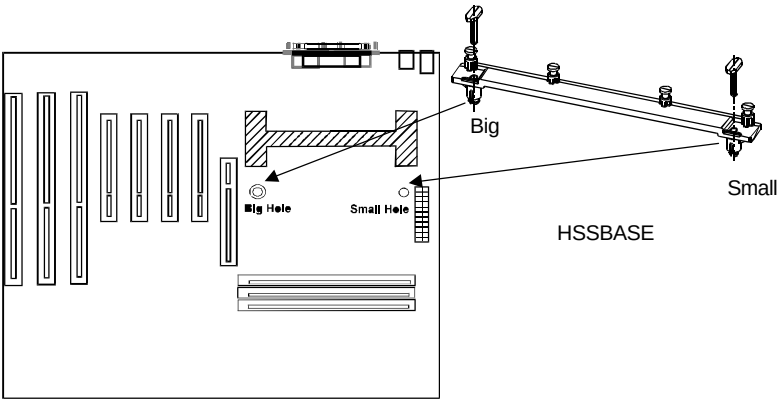


2. Place Plastic Guide with captive nuts onmainboard, then fasten all the four nuts.

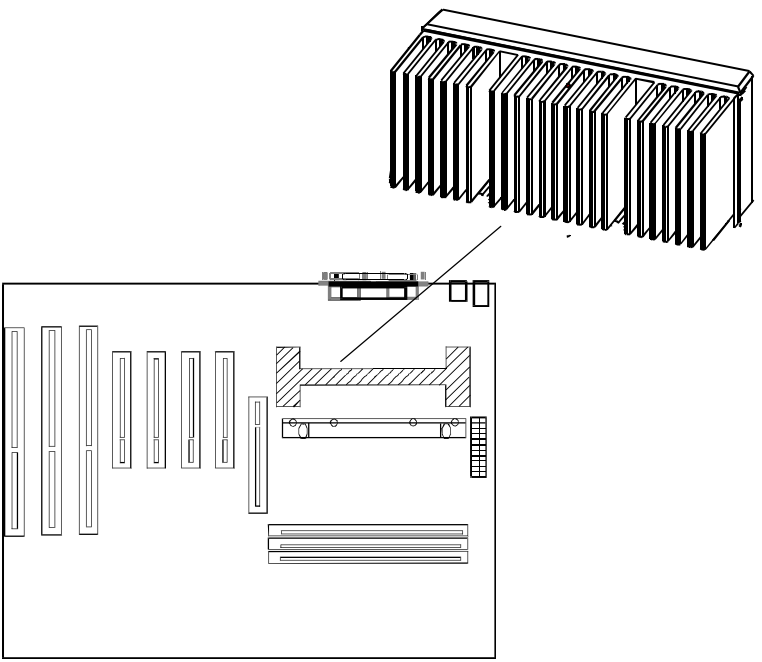


Note: Plese pay attention to the direction of the window.

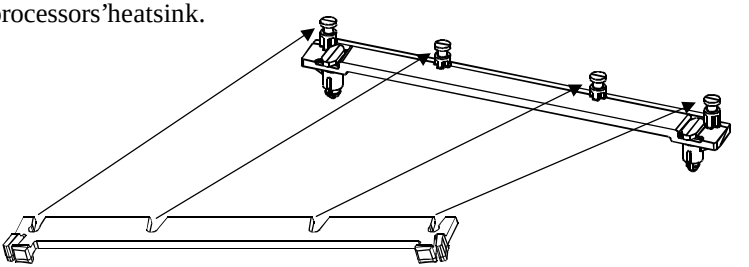
3. Install HSSBASE (Heatsink Support Base) on mainboard, then insert the two plastic pins through the HSSBASE to secure it to themainboard.



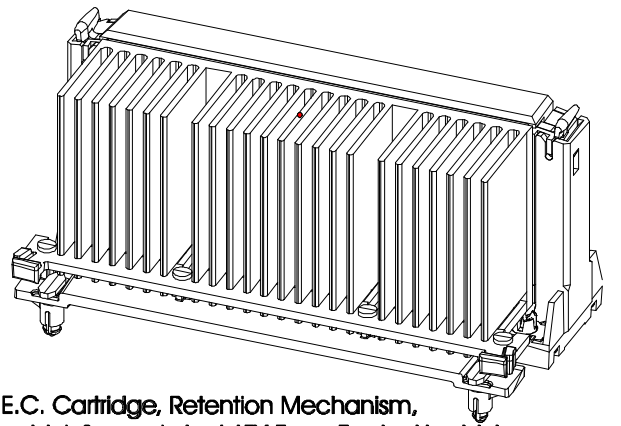
4. Insert Pentium®II Processor in Slot1.



5. Clip Plastic Bar onto the HSSBASE through the fins on the processors'heatsink.



6. The Retention Mechnism installation procedure is finished as below shown.



S.E.C. Cartridge, Retention Mechanism,
Heatsink Support, And ATX Form Factor Heatsink
Isometric View
Not To Scale

Remark:

Please skip step3 and step5 for Boxed Pentium® II Processor and refer to relevant details of this kind of processor for you installation.

Appendix C.
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 will switch to the booting message screen. Otherwise, it enters operating system directly.

You can use "**cblogo.exe**" (See Utility Diskette 2) 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.

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

English

- For more information, please visit our web-site: " ***http://www.qdigrp.com*** "

[redacted]

- [redacted] " ***http://www.qdigrp.com*** "

[redacted]

- [redacted] "***http://www.qdigrp.com*** "

Deutsch

- Weitere Informationen sind abrufbar unter der QDI Worldwide-Webseite: " ***http://www.qdigrp.com*** "

Francãis

- Plus amples renseignements peuvent être obtenus en s' adressant au site mondial de QDI désigné par " ***http://www.qdigrp.com*** "

Italiano

- Per ottenere ulteriori informazioni, consultate il sito Internet all'indirizzo " ***http://www.qdigrp.com*** "

Espaõl

- Hay información adicional disponsible en la web site mundial en " ***http://www.qdigrp.com*** "

Portuguese

- Para mais informações, por favor visitar a nossa website : "***http://www.qdigrp.com*** "

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Manual Legend-V Ver 1.0