

PENTIUM[®] II **P6I440BX/B1**
Brilliant - I

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Declaration of conformity



(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
Brilliant - I**

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 /1998

Printed Name : Anders Cheung

Position/ Title : President

Declaration of conformity



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Model Name: P6440BX/B1 Brilliant -I
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Equipment Classification: FCC Class B Subassembly
Type of Product: AGP Pentium® II 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_____

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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 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 (300MHz for Pentium® II with 100MHz host bus speed, 200MHz for Pentium® II with 66MHz host bus speed.).

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



SpeedEasy CPU Setup Menu

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

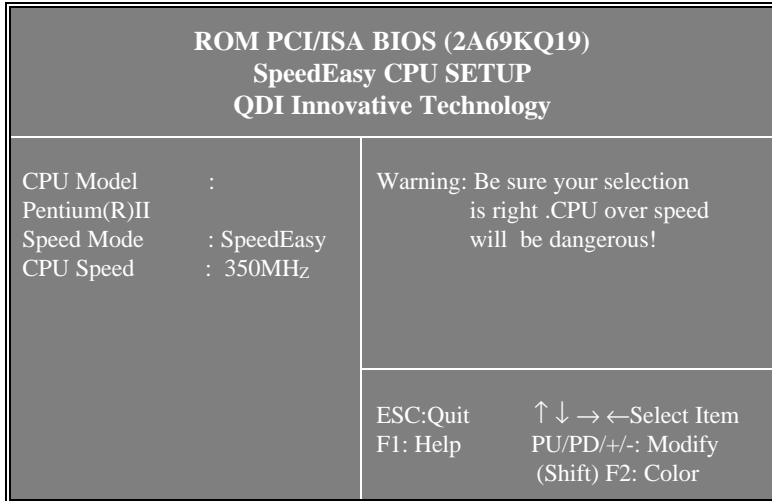



Figure - 1 SpeedEasy CPU Setup Menu

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.

Schnell-Installation durch SpeedEasy

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. Drücken Sie die Taste < Entf > und schalten Sie das System an um 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 Ihr System mit den Standardwerten für die CPU. (300MHz für den Pentium®II mit 100MHz Host Bus Speed, 200MHz für den Pentium®II mit 66MHz Host Bus Speed).

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

SpeedEasy CPU Installationsmenü

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

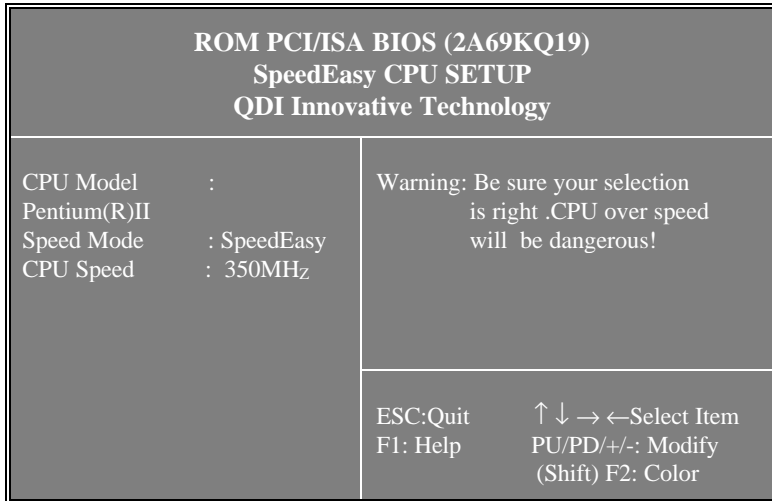


Abb. 1 SpeedEasy CPU Installationsmenü

Das BIOS stellt Ihnen eine Reihe von Grundeinstellungen für Ihren Pentium® II zur Verfügung, anstelle von "jumper setting". Sie können manuell die Geschwindigkeit des Pentium® II innerhalb des "SpeedEasy CPU Installationsmenüs" einstellen

⚠️ Warnung:

Bitte Setzen Sie die Taktfrequenz der CPU nicht höher als die tatsächliche freigegebene Taktfrequenz, ansonsten kann QDI für rechtliche Ansprüche nicht herangezogen werden.

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, para entrar 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 (300MHz para Pentium® II con velocidad de bus de 100MHz, 200MHz para Pentium® II con velocidad de bus de 66MHz)

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

Menu del SpeedEasy CPU

Seleccione el ítem <SpeedEasy CPU setup> desde el menú principal, y entre en el submenú:

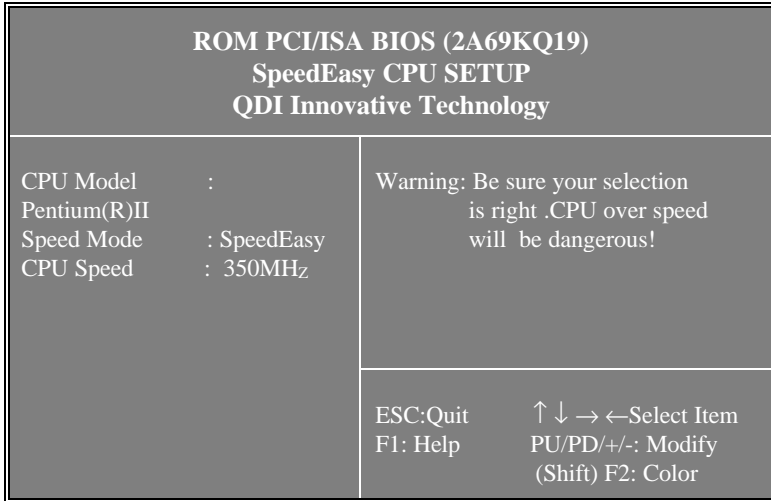


Figura-1 Menu del CPU SpeedEasy

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

●* Aviso

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

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 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'unité centrale.

Note: Si vous ne déterminez pas la vitesse de votre unité centrale, votre système fonctionnera par défaut (300MHz pour le Pentium® II avec vitesse bus d'hôte de 100MHz, 200MHz pour le Pentium® II avec vitesse bus d'hôte de 66MHz).

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:

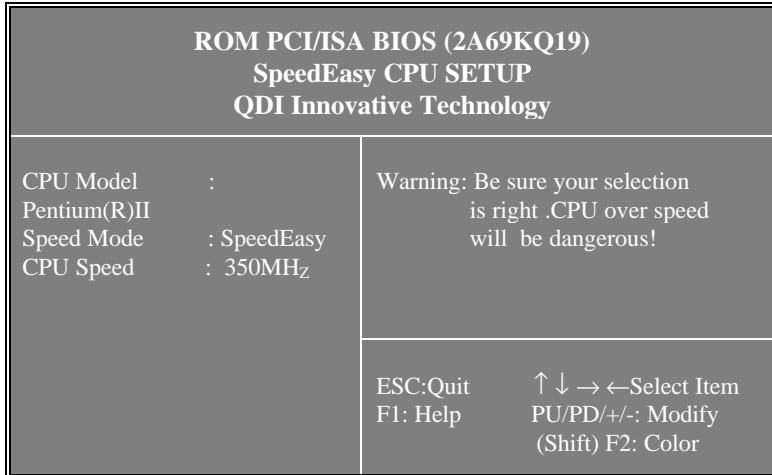


Figure-1 Menu d'initialisation de "SpeedEasy" dans l'unité centrale

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 déclinons toutes responsabilités en ce qui concerne les dégâts qui en résulteraient.

SETUP DELLA SCHEDA SPEEDEASY

Procedura di installazione:

1. Inserite il microprocessore Pentium®II come da istruzioni.
2. Modificate la configurazione del computer e ripristinate il sistema.
3. Premete il tasto 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 (Microprocessore Pentium® II da 300MHz con velocità di “host bus” da 100MHz e microprocessore Pentium® II da 200MHz con velocità di “host bus” da 66MHz).

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

*CPU= microprocessore

Menu del Setup del Microprocessore SpeedEasy

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

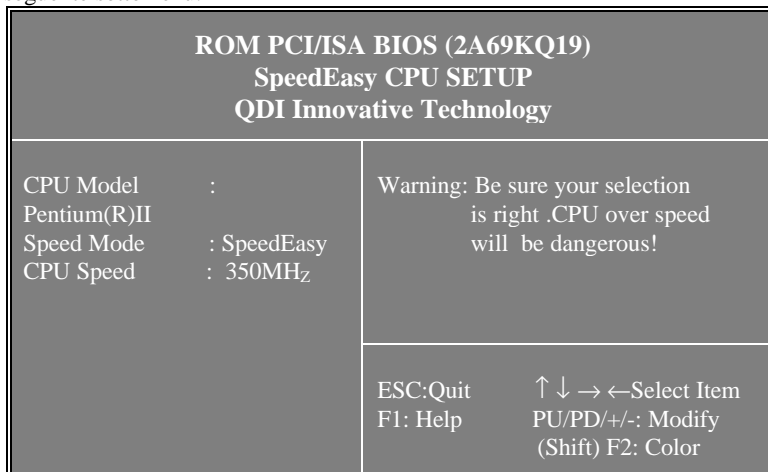


Figure -1 Menu del Setup del Microprocessore SpeedEasy

Il sistema BIOS Vi fornirà una serie di valori base per la selezione del microprocessore Pentium® II al posto della regolazione jumper (dell'accoppiamento). 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.

SpeedEasy: iEÜ^{o2} × ° Ö, ÄÏ

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CPU Model : Pentium(R)II Speed Mode : SpeedEasy CPU Speed : 350MHz	Warning: Be sure your selection is right .CPU over speed will be dangerous! ESC:Quit ↑ ↓ → ← Select Item F1: Help PU/PD/+/-: Modify (Shift) F2: Color

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Chapter 1

Introduction

Overview

P61440BX/B1 Brilliant-I 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, 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. The current green function is compliant to ACPI specification and OS Directed Power Management.

Key Features

Pentium®II

- Supports all Intel Pentium® II processors, eg.
233/266/300/333MHz with 66MHz bus speed and
350/400/450MHz with 100MHz bus speed
- Supports 100/66MHz bus speed
- Pentium®II core frequency =Bus speed 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® 440BX (82443BX, 82371EB PIIX4E)
It's a Intel third generation of desktop PCIset on Pentium® II processor architecture.

System memory

- Three 168-pin DIMM sockets
- 3.3V only DIMM DRAM configuration.
- Synchronous 100-MHz or 66-MHz SDRAM
- 4-Mbit, 16-Mbit, 64-Mbit and 128-Mbit DRAM devices.
- For up to 384MB SDRAM memory.
- SDRAM 64 bit data interface with ECC support.

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 WINBOND W83977TF-AW I/O chip
- One floppy port supports up to two 3.5” or 5.25” floppy drives of 360K /720K/1.2M/1.44M/2.88M format.
- Supports LS-120 floppy disk drive and ZIP drive.
- All I/O ports can be enabled/disabled by BIOS setup
- Two high speed 16550 fast compatible UARTs (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 LM80 support system monitoring (monitor system voltages, temperature, chassis intrusion and FAN speed) (Optional)
- MAXIM1617 monitors the temperature of the CPU (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 (support 1.3V to 3.5V)
- Provides Anti-Virus function
- Provides Infrared interface
- Supports Windows 95 Software Power-Down
- Supports both internal and external Modem Ring Power-On
- Supports Auto Fan off when system enters suspend mode
- Supports Wake on LAN function.

BIOS

- Licensed advanced AWARD BIOS, Supports Flash ROM BIOS, Plug and play ready. Built-in NCR® 53C810 SCSI BIOS
- Full supports for ACPI Specification and OS Directed Power Management
- Supports IDE CD-ROM or SCSI bootup

AGP

- Complies with the A.G.P specification Rev 1.0
- Supports for +3.3V A.G.P -66/133 devices
- Synchronous complying to the host bus frequency.

Expansion slots

- 3 x ISA slots and 4 x PCI slots
- 1 AGP Slot

Board size

- 305 mm x 190mm

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.

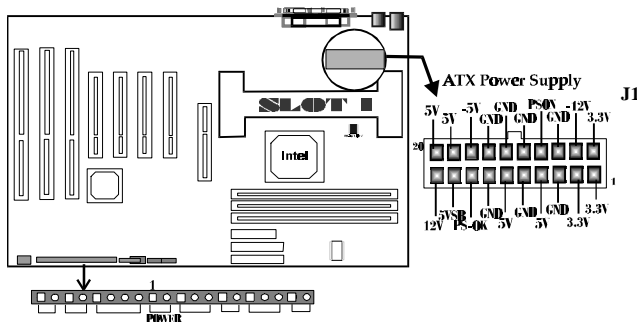
Power Switch (POWER)

PIN NUMBER	FUNCTION
1	POWER
2	3V_STB

Connect ATX Power Supply connector to socket J1 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” to “Delay 4 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 37.



.Hard Disk LED Connector(HD.LED)

PIN NUMBER	FUNCTION
1	LED ANODE
2	LED CATHODE

Reset Switch (RESET)

SETTING	FUNCTION
CLOSE ONCE	RESET THE SYSTEM
OPEN	NORMAL

Speaker Connector(SPEAKER)

PIN NUMBER	FUNCTION
1	SPKDATA
2	NC
3	GND
4	VCC

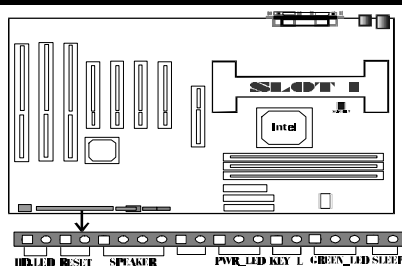
Power LED Connector (PWR_LED)

PIN NUMBER	FUNCTION
1	LED Anode
2	LED Cathode
3	LED Cathode

The LED connected to “PWR_LED” will light slightly when system in soft Power-Down status.

Key lock Connector (KEY_L)

SETTING	FUNCTION
CLOSE	PS/2 Mouse and Keyboard
OPEN	NORMAL



Green LED Connector

GREEN_LED)

PIN NUMBER	FUNCTION
1	GREEN
2	GND
3	GND

The LED connected to “GREEN_LED” will light when system is running, blink when system in green status and will light slightly when system is soft Power-Down status. If you have only one power LED on you chassis, connecting it to this connector is recommended.

Hardware Green Connector (SLEEP)

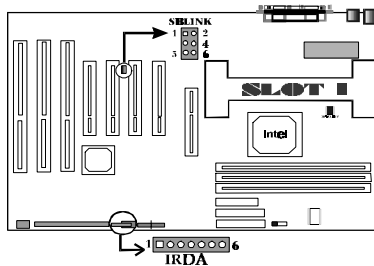
SETTING	FUNCTION
CLOSE ONCE	HARDWARE GREEN
OPEN	NORMAL

Infrared Header(INFRARED)

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

SBLINK™ Connector (SBLINK)

PIN NUMBER	FUNCTION
1	PC/PCI DMA ACKNOWLEDGE
2	GND
3	KEY
4	PC/PCI DMA REQUEST
5	GND
6	SERIAL INTERRUPT REQUEST



Cooling Fan Connectors(CPUFAN,CHSFAN)

PIN NUMBER	FUNCTION
1	FAN ground
2	FAN power
3	FAN speed sense

Note: These two fans are set as “ ON ”as default. They will be stopped automatically when system entering suspend mode.

Chassis Security (CHSSEC):

Opened if chassis is closed.

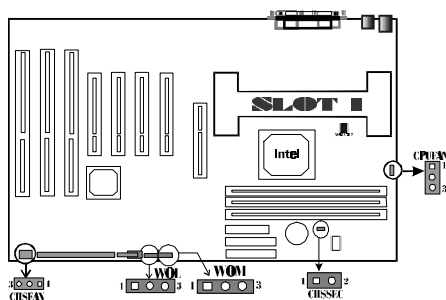
Closed if chassis is opened.

Wake on Lan connector(WOL)

PIN NUMBER	FUNCTION
1	Standby Power(+5V)
2	GND
3	Wake on Lan signal (active high)

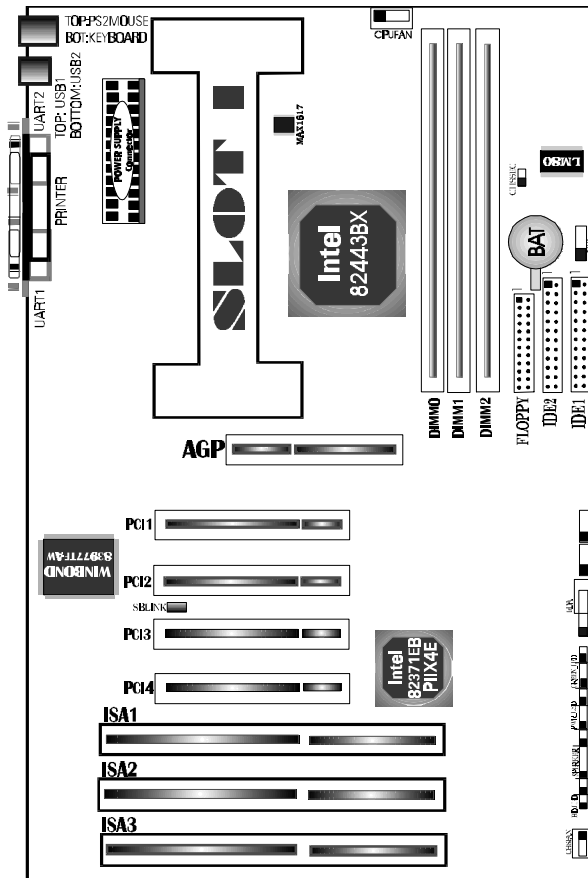
Wake on internal Modem connector(WOM)

PIN NUMBER	FUNCTION
1	Standby Power(+5V)
2	GND
3	WOM# signal (active low)



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



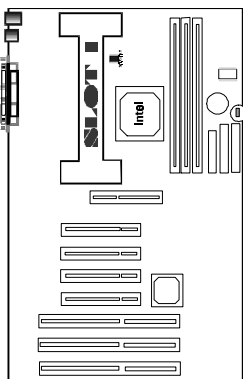
Memory Configuration Illustration of All Connectors on Board

The P6I440BX/B1 Brilliant-I main board supports up to three 168PIN 3.3V un-buffered 100MHz/66MHz DIMM, provides a flexible size from 8MB up to 384MB SDRAM memory. The following set of rules allows for optimum configurations.

Rules for populating a 440BX memory array:

- ✎ DIMM sockets can be populated in any order.
- ✎ Using the serial presence detect (SPD) data structure, programmed into an E²PROM on the DIMM, the BIOS can determine the SDRAM'S size and speed.
- ✎ 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.
- ✎ Pentium® II processors with 100MHz bus speed should be paired only with 100MHz SDRAM.
- ✎ Possible SDRAM memory size is 8MB, 16MB, 32MB, 64MB, 128MB in each DIMM socket.

Clear CMOS



Power down the AC supply then close once

Clear CMOS :



Normal:



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 key or simultaneously press <Ctrl> + <Alt> + <Esc> keys.

Press 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 (2A69KQ19)	
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

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.

ROM PCI/ISA BIOS(2A69KQ19)								
STANDARD CMOS SETUP								
AWARD SOFTWARE, INC								
Date (mm:dd:yy)	:	Thu,	Mar,	3,	1998			
Time (hh:mm:ss)	:	17:27:52						
HARD DISKS	TYPE	SIZE	CYLS	HEAD	PRECOMP	LANDZ	SECTOR	MODE
Primary Master	:Auto	0	0	0	0	0	0	Auto
Primary Slave	:Auto	0	0	0	0	0	0	Auto
Secondary Master	:Auto	0	0	0	0	0	0	Auto
Secondary Slave	:Auto	0	0	0	0	0	0	Auto
Drive A	:	1.44M, 3.5 in.			Base Memory : 640K			
Drive B	:	None			Extended Memory : 97280K			
Video	:	EGA/VGA			Other Memory : 384K			
Halt On	:	All Errors			Total Memory : 98304K			
ESC: Quit		↑ ↓ → ←:Select Item			PU/PD/+/- :Modify			
F1 :Help		(Shift)F2 :Change Color						

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 pre-compensation	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.

Halt On

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

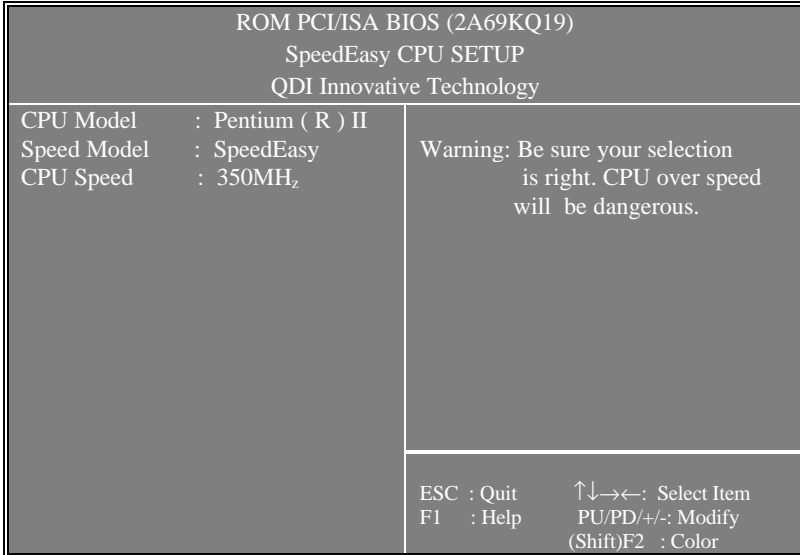


Figure-3 SpeedEasy CPU Setup

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

<u>Item</u>	<u>Option</u>	<u>Description</u>
• CPU Model		BIOS can automatically detect CPU model, so this item is shown only.
• Speed Mode	<i>SpeedEasy</i> <i>Jumper Emulation</i>	You should select CPU speed according to your CPU brand and type. This item is only for the user who understand all the CPU parameters, i.e. System Bus frequency, "100MHz / 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

ROM PCI/ISA BIOS (2A69KQI9)			
BIOS FEATURES SETUP			
AWARD SOFTWARE, INC.			
Virus Warning	: Disabled	Video BIOS Shadow	:Enabled
Pentium(R)II L1 Cache	: Enabled	C8000-CBFFF Shadow	:Disabled
Pentium(R)II L2 Cache	: Enabled	CC000-CFFFF Shadow	:Disabled
Pentium(R)II L2 Cache ECC	: Enabled	D0000-D3FFF Shadow	:Disabled
Quick Power On Self Test	: Enabled	D4000-D7FFF Shadow	:Disabled
Boot From LAN First	: Disabled	D8000-DBFFF Shadow	:Disabled
Boot Sequence	: C,A, SCSI	DC000-DFFFF Shadow	:Disabled
Swap Floppy Drive	: Disabled	Delay For HDD (Secs)	: 0
Boot Up Floppy Seek	: Disabled	Show Bootup Logo	: Enabled
Hard Disk Write Protect	: Disabled		
Drive A Boot Permit	: Enabled		
Boot Up NumLock Status	: On		
Gate A20 Option	: Fast		
Security Option	: Setup		
PS/2 mouse function control	: Enabled	ESC: Quit	↑↓→← : Select Item
OS Select For DRAM>64MB	: Non-OS2	F1 : Help	PU/PD/+/- : Modify
Report No FDD For Win95	: Yes	F5 : Old Values (Shift)F2: Color	
		F7 : Load Setup Defaults	

Figure-4 BIOS Features Setup Menu

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

<u>Item</u>	<u>Option</u>	<u>Description</u>
• Virus Warning	<i>Enabled</i>	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.
	<i>Disabled</i>	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	<i>Enabled</i>	Enable Pentium® II internal Level1/Level2 cache.
	<i>Disabled</i>	Disable Pentium® II internal Level1/Level2 cache.
• Pentium(R)II L2 Cache ECC	<i>Enabled</i>	Enable Pentium® II L2 Cache ECC (Error Checking and Correction) function.
	<i>Disabled</i>	Disabled Pentium® II L2 Cache ECC function.
• Quick Power On Self Test	<i>Enabled</i>	Enable quick POST. BIOS will shorten or skip some check items during POST to speed up POST after you power on the computer.

• Boot from LAN First	<i>Disabled</i> <i>Enabled</i>	Normal POST. Boot from LAN is ahead of any boot sequence selection (LAN Adapter must support this function). Do not boot from LAN first.
• Boot Sequence	<i>Disabled</i> <i>C,A,SCSI, ...</i> <i>C,CDROM,A</i> <i>LS/ZIP, C</i>	You can choose any search sequence for bootup.
• Swap Floppy Drive	<i>Enabled</i>	It will exchange the assignment of A&B floppy drives.
• Boot Up Floppy Seek	<i>Disabled</i> <i>Enabled</i>	The assignment of A&B floppy drives are normal. BIOS searches for floppy disk drive to determine if drive is ready for diskette read/write during booting. skip drive seeking to speed up system booting.
• Hard Disk Write Protect	<i>Enabled</i> <i>Disabled</i>	Do not allow hard disk to be writed any data. Allow hard disk to be writed any data.
• Driver A Boot Permit	<i>Enabled</i> <i>Disabled</i>	Boot from driver A function is enabled Boot from driver A function is disabled
• Boot Up Numlock Status	<i>On</i> <i>Off</i>	Keypad is used as number keys. Keypad is used as arrow keys.
• Gate A20 Option	<i>Normal</i> <i>Fast</i>	The A20 signal is controlled by keyboard controller or chipset hardware. It is default. The A20 signal is controlled by Port 92 or chipset specific method.
• Security Option	<i>System</i> <i>Setup</i>	The system will not boot and access to Setup will be denied if the correct password is not entered when prompting. The system will boot up, but access to Setup will be denied if the correct password is not entered when prompting.
• PS/2 mouse function control	<i>Enabled</i> <i>Disabled</i>	Without using PS/2 mouse, it will release all PS/2 resource.
• OS Select For DRAM>64MB	<i>Non-OS2</i> <i>OS2</i>	If your operating system is not OS/2, please select this item. If system DRAM is more than 64MB and operating system is OS/2, please select this item.
• Video BIOS Shadow	<i>Enabled</i> <i>Disabled</i>	Video BIOS will be copied to RAM. Video Shadow will increase the video speed. Video shadow is disabled.
• C8000-CBFFF Shadow ... DC000-DFFFF Shadow:	<i>Enabled</i>	Optional ROM will be copied to RAM by 16K bytes per unit.
• Delay For HDD (Secs):	<i>Disabled</i> <i>0-15</i>	The shadow function is disabled. Set the predelay time for hard disk to be ready to be accessed by the system.
• Show Bootup Logo	<i>Enabled</i> <i>Disabled</i>	Show Bootup Logo. Do not show Bootup Logo.

Chipset Features Setup

ROM PCI/ISA BIOS (2A69KQI9) CHIPSET FEATURES SETUP AWARD SOFTWARE, INC.		
Auto Configuration	: Enabled	Clock Spread Spectrum : Disabled
EDO DRAM Speed Selection	: 60ns	Close Empty DIMM/PCI Clk : Enabled
EDO CASx# MA Wait State	: 2	Close Empty PCI Clock : Disabled
EDO RASx# Wait State	: 2	
SDRAM CAS Latency Time	: 3	
DRAM ECC Select	: Non-ECC	
System BIOS Cacheable	: Disabled	
Video BIOS Cacheable	: Disabled	
Video RAM Cacheable	: Disabled	
8Bit I/O Recovery Time	: 1	
16Bit I/O Recovery Time	: 1	
Memory Hole At 15M-16M	: Disabled	
Passive Release	: Enabled	
Delayed Transaction	: Disabled	
AGP Aperture Size (MB)	: 64	
		ESC: Quit ↑↓→← : Select Item
		F1 : Help PU/PD/+/- : Modify
		F5 : Old Values (Shift)F2 : Color
		F7 : Load Setup Defaults

Figure-5 Chipset Features Setup Menu

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

<u>Item</u>	<u>Option</u>	<u>Description</u>
• Auto Configuration	<i>Enabled</i>	Automatically configure DRAM Timing according to the value of "DRAM Speed Selection".
	<i>Disabled</i>	Manually configure.
• EDO DRAM Speed Selection	<i>50ns, 60ns</i>	This item is of selected EDO DRAM read/write timing. You must ensure that your DIMMs are as fast as 50ns, otherwise you have to select 60ns.
• EDO CASx# MA Wait State	<i>2</i>	One additional wait state is inserted before the assertion of the first CASx# for page hit cycles. This allows one additional clock of MA setup time to the CASx# for the leadoff page hit cycle. Page miss and row miss timing are not affected by this bit.
	<i>1</i>	Without additional wait state.
• EDO RASx# Wait State	<i>2</i>	One additional wait state is inserted before RASx# is asserted for row misses. This

		provides one clock of additional MAX[13:0] setup time to RASx# assertion. This bit does not affect page misses since the MAX[13:0] lines are setup several clocks in advance of RASx# assertion for page misses. Without additional wait state.
	1	
• SDRAM CAS Latency Time	2	Define the CLT timing parameter of SDRAM expressed in the bus speed (eg. 100 MHZ clocks. Latency Time=2 clocks
	3	Latency Time=3 clocks
• DRAM ECC Select	ECC	Provide ECC (Error Checking and Correction) function.
	Non-ECC	Disable ECC function.
• 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 conventional memory, video BIOS 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.
• Passive Release	Enabled	Suggest to use default.
	Disabled	
• Delayed Transaction	Enabled	Suggest to use default.
	Disabled	
• AGP Aperture Size (MB)	4-256	Set the effective size of the Graphics Aperture to be used in the particular PAC Configuration.
	Enabled	Enable Clock spread spectrum or close empty
• Clock Spread Spectrum	Disabled	DIMM clock or PCI clock will be helpful to reduce EMI.
Close Empty DIMM/PCI Clk		
Close Empty PCI Clock		

Power Management Setup

ROM PCI/ISA BIOS (2A69KQI9) POWER MANAGEMENT SETUP AWARD SOFTWARE, INC.		
ACPI function	:Disabled	IRQ 8 Break Suspend :Disabled
Power Management	:User Define	** Reload Global Timer Events **
PM Control by APM	:Yes	IRQ [3-7,9-15], NMI :Enabled
Video Off Method	:V/H SYNC+Blank	Primary IDE 0 :Disabled
Video Off After	:Standby	Primary IDE 1 :Disabled
MODEM Use IRQ	:NA	Secondary IDE 0 :Disabled
		Secondary IDE 1 :Disabled
		Floppy Disk :Disabled
		Serial Port :Enabled
		Parallel Port :Disabled
Doze Mode	:Disabled	
Standby Mode	:Disabled	
Suspend Mode	:Disabled	
HDD Power Down	:Disabled	
Throttle Duty Cycle	:50%	
Soft-Off by PWR-BTTN	:Instant-Off	
CPUFAN Off In Suspend	:Enabled	
Resume by Ring	:Disabled	ESC: Quit ↑↓→← : Select Item
Resume by LAN	:Disabled	F1 : Help PU/PD/+/- : Modify
Resume by Alarm	:Disabled	F5 : Old Values (Shift)F2: Color
		F7 : Load Setup Defaults

Figure-6 Power Management Setup Menu

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

<u>Item</u>	<u>Option</u>	<u>Description</u>
• ACPI function	<i>Disabled</i> <i>Enabled</i>	Invalidates ACPI function. Validates ACPI function.
• Power Management	<i>Disabled</i> <i>User Define</i> <i>Min Saving</i> <i>Max Saving</i>	Global Power Management (PM) will be disabled. Users can configure their own Power Management Timer. Pre - defined timer value are used such that all timers are in their MAX values Pre - defined timer value are used such that all timers are in their MIN value
• PM Control	<i>No</i>	System BIOS will ignore APM when Power

by APM	<i>Yes</i>	Management is enabled. System BIOS will wait for APM's prompt before it 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	<i>Blank Screen</i> <i>V / H SYNC + Blank</i> <i>DPMS</i>	The system BIOS will only blank off the screen when disabling video. In addition to Blank Screen, BIOS will also turn off the V-SYNC & H - SYNC signals from VGA cards to monitor. 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	<i>N/A</i> <i>Suspend</i> <i>Standby</i> <i>Doze</i>	System BIOS will never turn off the screen. Screen off after system enters into Suspend mode. Screen off after system enters into Standby mode. Screen off after system enters into Doze mode.
• MODEM Use IRQ	<i>3,7,5,7,9,10,11</i> <i>NA</i>	Special wake-up event for Modem.
• Doze mode	<i>Disabled</i> <i>1Min ~ 1Hr</i>	Invalidates this feature. The system will never enter Doze mode.
• Standby Mode	<i>Disabled</i> <i>1 Min ~ 1Hr</i>	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. The system will never enter Standby mode.
• Suspend Mode	<i>Disabled</i> <i>1 Min ~ 1Hr</i>	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. The system will never enter Suspend mode.
• HDD Power Down	<i>Disabled</i> <i>1 ~15 Min</i>	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's motor will not be off.
• Throttle Duty	<i>12.5%</i> <i>25%</i>	Define the continuous HDD idle time before the HDD entering power saving mode (motor off). Selects the duty cycle of the STPCLK# signal when the system is in the system throttling mode.

	37.5%	
	50 %	
	62.5%	
	75%	
	87.5%	
• Soft-Off by PWR-BTTN	<i>Instant-Off</i>	The system will power off immediately when you press the “Power” button.
	<i>Delay 4 Secs</i>	The system will power off after you press the “Power” button for more than 4 seconds, otherwise the system will enter “sleeping” mode.
• Resume by Ring	<i>Enabled</i>	Allow the system to be powered on when a Ring Indicator signal comes up to UART1 or UART2 from external modem or comes up to WOM# from internal modem card.
	<i>Disabled</i>	Do not allow Ring Power-On.
• Resume by LAN	<i>Enabled</i>	Allow the system to be powered on when a remote waker-up signal comes up from LAN adapter .
	<i>Disabled</i>	Do not allow wake-up on LAN
• Resume by Alarm	<i>Enabled</i>	RTC alarm can be used to generate a wake event when the system is in a sleeping or in power off.
	<i>Disabled</i>	RTC no alarm function.
• IRQ 8 Break Suspend	<i>Enabled</i>	Generate a clock event.
	<i>Disabled</i>	Do not generate a clock event.
		Note: IRQ8 Clock Event must be enabled when you want to use Resume By Ring, Resume by LAN and Alarm.
• IRQ [3-7, 9-15], NMI Parallel Port	<i>Enabled</i>	Reload global timer.
	<i>Disabled</i>	No influence to global timer.

PNP/PCI Configuration Setup

ROM PCI/ISA BIOS (2A69KQ19) PNP/PCI CONFIGURATION SETUP AWARD SOFTWARE, INC			
PNP OS Installed	: No	PCI Slot 1 Use IRQ No.	: Auto
Resources Controlled By	: Manual	PCI Slot 2 Use IRQ No.	: Auto
Force Updating ESCD	: Disabled	PCI Slot 3 Use IRQ No.	: Auto
		PCI Slot 4 Use IRQ No.	: Auto
IRQ-3 assigned to	: PCI/ISA PnP	Used MEM base addr	: N/A
IRQ-4 assigned to	: PCI/ISA PnP	Assign IRQ For USB	: Enabled
IRQ-5 assigned to	: PCI/ISA PnP	Assign IRQ For VGA	: Enabled
IRQ-7 assigned to	: PCI/ISA PnP		
IRQ-9 assigned to	: PCI/ISA PnP		
IRQ-10 assigned to	: PCI/ISA PnP		
IRQ-11 assigned to	: PCI/ISA PnP		
IRQ-12 assigned to	: PCI/ISA PnP		
IRQ-14 assigned to	: Legacy ISA		
IRQ-15 assigned to	: Legacy ISA		
DMA-0 assigned to	: PCI/ISA PnP		
DMA-1 assigned to	: PCI/ISA PnP		
DMA-3 assigned to	: PCI/ISA PnP		
DMA-5 assigned to	: PCI/ISA PnP		
DMA-6 assigned to	: PCI/ISA PnP		
DMA-7 assigned to	: PCI/ISA PnP		
		ESC: Quit	↑↓→← : Select Item
		F1 : Help	PU/PD/+/- : Modify
		F5 : Old Values (Shift)	F2: Color
		F7 : Load Setup Defaults	

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.

<u>Item</u>	<u>Option</u>	<u>Description</u>
• PNP OS Installed	<i>Yes</i>	Device resource assigned by PnP OS.
	<i>No</i>	Device resource assigned by BIOS.
• Resources Controlled By	<i>Manual</i>	Assign system resources (IRQ and DMA) manually by user.
	<i>Auto</i>	Assign system resources (IRQ and DMA) automatically by BIOS.
• Force Update ESCD	<i>Enabled</i>	The system BIOS will force updating ESCD once, then automatically set this item Disable.
	<i>Disabled</i>	Disable force update ESCD function.
• IRQ-3~IRQ-15 assigned to	<i>Legacy ISA</i>	The specified IRQ-x will be assigned to ISA only.

• DMA-0~DMA-7 assigned to	<i>PCI/ISA PnP</i>	The specified IRQ-x will be assigned to ISA or PCI.
	<i>Legacy ISA</i>	The specified DMA-x will be assigned to ISA only.
• PCI Slot 1/2/3/4 Use IRQ No.	<i>PCI/ISA PnP</i>	The specified DMA-x will be assigned to ISA or PCI.
	<i>Auto,3,4,5,7,9</i>	Assign an IRQ for PCI slot1/2/3/4 manually or automatically.
• Used MEM base address	<i>10,11,12,14,15</i>	Claim a memory space occupied by legacy ISA card.
	<i>C800/8 ~ 64K</i>	Invalidate this feature.
• Assign an IRQ for USB	<i>N/A</i>	Assign an IRQ for USB when used
	<i>Enabled</i>	This function is disabled (USB can't be used in this moment).
• Assign an IRQ for VGA	<i>Disabled</i>	Assign an IRQ for VGA Card which needed
	<i>Enabled</i>	Do not assign an IRQ for VGA card .

Integrated Peripherals

ROM PCI/ISA BIOS (2A69KQ19) INTEGRATED PERIPHERALS AWARD SOFTWARE, INC.			
IDE HDD Block Mod	: Enabled	Onboard Parallel Port	: 378/IRQ7
IDE Primary Master PIO	: Auto	Parallel Port Mode	: SPP
IDE Primary Slave PIO	: Auto		
IDE Secondary Master PIO	: Auto		
IDE Secondary Slave PIO	: Auto		
IDE Primary Master UDMA	: Auto		
IDE Primary Slave UDMA	: Auto		
IDE Secondary Master UDMA	: Auto		
IDE Secondary Slave UDMA	: Auto		
On-Chip Primary PCI IDE	: Enabled		
On-Chip Secondary PCI IDE	: Enabled		
USB Keyboard Support	: Disabled		
Onboard FDC Controller	: Enabled		
FDC Write Protect	: Disabled	ESC: Quit	↑↓→← : Select It
Onboard Serial Port 1	:3F8/IRQ4	F1 : Help	PU/PD/+/-: Modify
Onboard Serial Port 2	:2F8/IRQ3	F5 : Old Value (Shift)	F2 : Color
Serial Port 2 Mode	: Normal	F7 : Load Setup Default	

Figure-8 Integrated Peripherals Menu

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

<u>Item</u>	<u>Option</u>	<u>Description</u>
• IDE HDD Block Mode	<i>Enabled</i> <i>Disabled</i>	Allow IDE HDD read/write several sectors one time. IDE HDD only reads/writes a sector for one time.
• IDE Primary/ Secondary Master/Slave PIO	<i>Mode 0 - 4</i> <i>Auto</i>	Define the IDE primary/secondary master/slave PIO mode. The IDE PIO mode is defined according to auto - detect.
• IDE Primary/ Secondary Master/Slave UDMA	<i>Auto</i> <i>Disabled</i>	Ultra DMA mode will be enabled if ultra DMA device is detected. Disable this function.

• On-chip Primary/Secondary PCI IDE	<i>Enabled</i> <i>Disabled</i>	On-chip primary/secondary PCI IDE port is enabled. On-chip primary/secondary PCI IDE port is disabled.
• USB Keyboard Support	<i>Enabled</i> <i>Disabled</i>	USB Keyboard Support enabled. USB Keyboard Support disabled.
• Onboard FDC Controller	<i>Enabled</i> <i>Disabled</i>	Onboard floppy disk controller is enabled. Onboard floppy disk controller is disabled. Onboard floppy disk controller is disabled.
• FDC Write Protect	<i>Disabled</i> <i>Enabled</i>	Disable FDC Write Protection Enable FDC Write Protection
• Onboard Serial Port 1/2	<i>3F8/IRQ4,</i> <i>2F8/IRQ3,</i> <i>3E8/IRQ4,</i> <i>2E8/IRQ3,</i> <i>3F8/IRQ10</i> <i>2F8/IRQ11</i> <i>3E8/IRQ10</i> <i>2E8/IRQ11</i> <i>Disabled,</i>	Define onboard serial port address and required interrupt number.
• Serial Port 2 Mode	<i>Normal</i> <i>ASKIR</i> <i>IrDA</i>	Onboard serial port is disabled. Define Serial Port 2 as standard serial port. Support SHARP ASK-IR protocol with maximum baud rate up to 57600bps. Support IrDA version 1.0 SIR protocol with maximum baud rate up to 115.2Kbps.
• Onboard Parallel Port	<i>378/IRQ7,</i> <i>278/IRQ5,</i> <i>3BC/IRQ7</i>	Define onboard parallel port address and IRQ channel.
• Parallel Port Mode	<i>SPP</i> <i>EPP</i> <i>ECP,</i> <i>ECP+EPP</i>	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 (2A69KQ19) System Monitor SETUP AWARD SOFTWARE , INC.		
Current System Temp.	:	32 ⁰ C / 89 ⁰ F
Current CHSFAN Speed	:	0 RPM
Current CPUFAN Speed	:	4821RPM
+3.3V	Voltage	: 3.32V
VTT (+1.5V)	Voltage	: 1.53V
+5V	Voltage	: 5.02V
VCCVID (CPU)	Voltage	: 2.02V
+12V	Voltage	: 11.96V
-12V	Voltage	: -12.03V
-5V	Voltage	: -5.06V
Chassis status	:	Closed
ESC: QUIT ↑↓→← : Select Item F1 : Help PU/PD/+/- : Modify F5 : Old Values (Shift)F2: Color F7 : Load Setup Defaults		

Figure-9 System Monitor Setup Menu

The following pages tell you the meaning of each item.

<u>Item</u>	<u>Current data shown</u>	<u>Description</u>
<ul style="list-style-type: none"> • Current System Temp. 		Display the current mainboard temperature detected by "LM80" chip.
<ul style="list-style-type: none"> • Current CHSFAN Speed • Current CPUFAN Speed 		RPM (Revolution Per Minute) Speed of fan which is connected to the fan header CPUFAN 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.
<ul style="list-style-type: none"> • + 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.
<ul style="list-style-type: none"> • Chassis Status 	:	The chassis is closed or 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”.

If you select “**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 (2A69KQ19) 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	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							
ESC: Skip							

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 “Utility Diskette”.

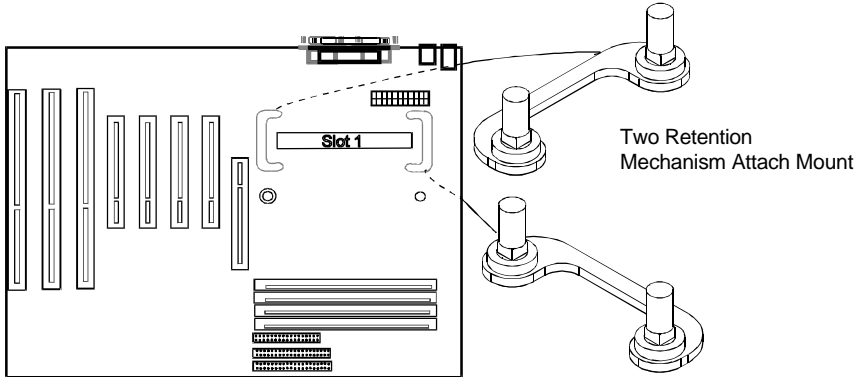
Warning:

- 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.**

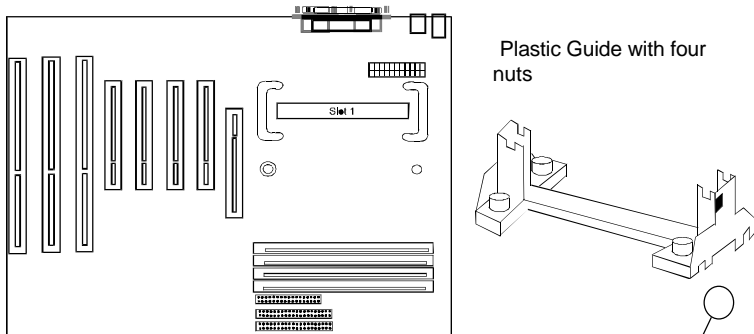
Appendix B.

Retention Mechanism & Pentium® II Processor Installation Procedures

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

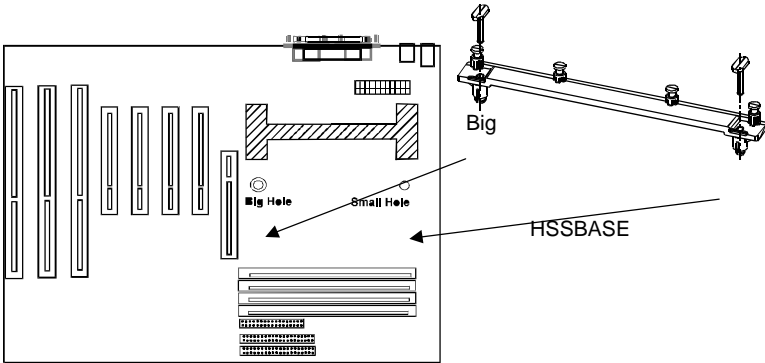


2. Place Plastic Guide with captive nuts on mainboard, then fasten all the four nuts.

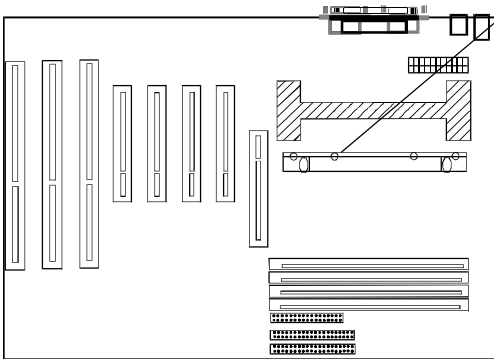
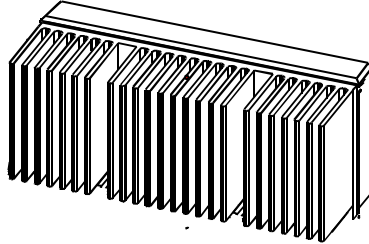


Note: Please pay attention to the direction of the window.

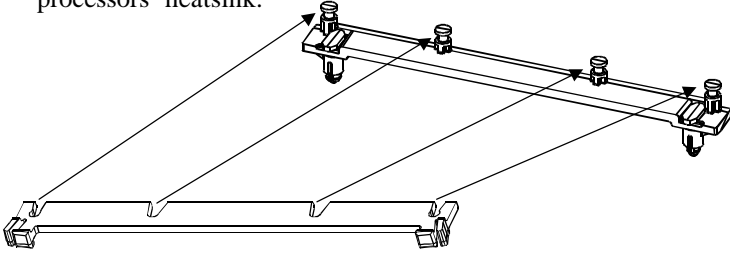
3. Install HSSBASE (Heatsink Support Base) on mainboard, then insert the two plastic pins through the HSSBASE to secure it to the mainboard.



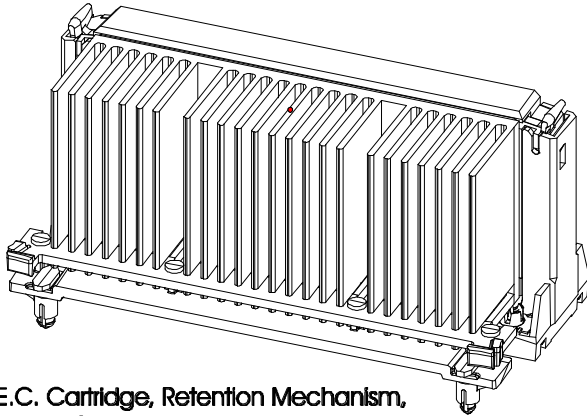
4. Insert Pentium® II Processor in Slot1.



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



6. The Retention Mechanism 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) 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 like the logo shown on the screen when every boot up, you can set “Disabled” to the “Show Bootup Logo” option. Please refer to page 32.

- * 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> "

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