

# Declaration of conformity



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

declares that the product

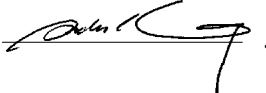
**Pentium®II Mainboard**  
**Advance 5**

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

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

European Representative:

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

Signature :  . Place / Date : HONG KONG/1999

Printed Name : Anders Cheung Position/ Title : President

## Declaration of conformity

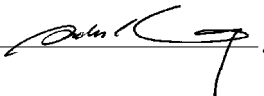


Trade Name: QDI Computer ( U . S . A . ) Inc.  
Model Name: Advance 5  
Responsible Party: QDI Computer ( U . S . A . ) Inc.  
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Equipment Classification: FCC Class B Subassembly  
Type of Product: AGP Pentium®II Mainboard  
**Manufacturer: Quantum Designs (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 : 1999



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## SpeedEasy Quick Setup

### Procedures :

1. Correctly insert the Intel Pentium®II/ Pentium®III/ Celeron™ processor.
2. Plug in other configurations and restore the system.
3. Switch on power to the system and press the <Del> key to enter BIOS Setup.
4. Enter "SpeedEasy CPU SETUP" menu to set up the CPU speed.

**Note: If you do not set the CPU speed, your system will run at the default setting ( 200MHz for processor with 100MHz host bus speed, 133MHz for processor with 66MHz host bus speed, for bus ratio locked processor, run its real speed.**

5. Save and exit BIOS Setup, your system will 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 provides you with a set of basic values for your processor selection instead of the jumper settings. The processor speed can be manually selected on the "SpeedEasy CPU SETUP" menu screen.

### Warning:

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



## Schnell-Installation durch SpeedEasy

### Vorgehensweise der Installation:

1. Legen sie die Pentium®II/ Pentium®III/ Intel® Celeron™ 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. (200MHz für den CPU mit 100MHz Host Bus Speed, 133MHz für den CPU 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 SETUP> aus dem Hauptmenü und öffnen Sie das untergeordnete Menü



Abb. 1 SpeedEasy CPU Installationsmenü

Das BIOS stellt Ihnen eine Reihe von Grundeinstellungen für Ihren CPU zur Verfügung, anstelle von "jumper setting". Sie können manuell die Geschwindigkeit des CPU innerhalb des "SpeedEasy CPU SETUP" 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/ Pentium®III/ Intel® Celeron™
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 (200MHz para CPU con velocidad de bus de 100MHz, 133MHz para CPU 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 Menú del CPU SpeedEasy

BIOS le proporcionará unos valores básicos para la elección de su CPU, en vez de tener que configurar jumpers. Ud. puede seleccionar manualmente la velocidad de CPU 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.



## 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 CPU au lieu de positions cavaliers. Vous pouvez sélectionner manuellement la vitesse de CPU 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 dommages qui en résulteraient.



## SETUP DELLA SCHEDA SPEEDEASY

### Procedura di installazione:

1. Inserite il microprocessore Pentium®II/ Pentium®III/ Intel® Celeron™ 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. <sup>1</sup>

**Nota: se non regolate la velocità del microprocessore, il sistema funzionerà con le regolazioni standard (Microprocessore da 200MHz con velocità di "host bus" da 100MHz e microprocessore da 133MHz 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:

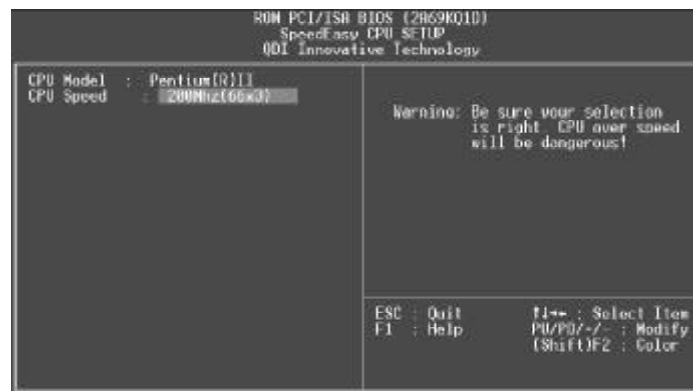


Figure -1 Menu del Setup del Microprocessore SpeedEasy

Il sistema BIOS Vi fornirà una serie di valori base per la selezione del microprocessore al posto della regolazione jumper (dell'accoppiamento). Potete selezionare manualmente la velocità del microprocessore 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 microprocessore.



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# Chapter 1

## Introduction

### Overview

The Advance 5 green mainboard utilizes the Apollo Pro-Plus chip set and provides a highly integrated solution for fully compatible, high performance and cost-effective PC/ATX platform. It provides 66MHz and 100MHz system bus support for all Intel Pentium®II, Pentium®III and Celeron™ processors. Both 66MHz/100MHz SDRAM with SPD and 66MHz EDO DIMMs are supported. It also provides advanced features such as wake-up on LAN, wake-up on internal/external modem and keyboard password power-on function. ManageEasy, our system management application is supplied to enable remote monitoring and configuration of the system. The green function is in compliance with the ACPI specification.

### Key Features

#### Form factor

- ATX form factor of 305mm x 190mm.

#### Microprocessor

- Supports all Intel® Pentium III processors.
- Supports all Intel Pentium®II processors at 233/266/300/333MHz with 66MHz bus speed and 350/400/450/500MHz with 100MHz bus speed.
- Supports all Intel®Celeron™ processors at 266/300/333 MHz with 66MHz bus speed.
- Supports 66MHz and 100MHz host bus speed.
- CPU core frequency = Bus speed x2.5, x3, x3.5, x4, x4.5, x5, x5.5, x6, x6.5, x7, x7.5, x8.
- CPU core supply voltage adjustable from 1.3V to 3.5V through on-board switching voltage regulator with VID(Voltage ID).

#### Chipset

- Apollo Pro-Plus chipset: VT82C693 system controller  
VT82C596A PCI to ISA bridge

#### System memory

- Provides three 168 pin 3.3V unbuffered DIMM sockets.
- Supports both 66MHz/100MHz SDRAMs with SPD and 66MHz EDO DIMMs.
- Minimum memory size is 8MB, maximum memory size is 768MB.
- SDRAM 64 bit data interface with ECC support.

**On-board IDE**

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

**On-board I/O**

- Use Winbond W83977EF super I/O chip.
- One floppy port supporting up to two 3.5" or 5.25" floppy drives with 360K/720K/1.2M/1.44M/2.88M format.
- Two high speed 16550 fast compatible UARTs(COM1/COM2/COM3/COM4 selective) with 16-byte send/receive FIFOs.
- One enabled parallel port at the I/O address 378H/278H/3BCH with additional bi-direction I/O capability and multi-mode as SPP/EPP/ECP (IEEE 1284 compliant).
- Circuit protection provided, preventing damage to the parallel port when a connected printer is powered up or operates at a higher voltage.
- Supports LS-120 floppy disk drive.
- All I/O ports can be enabled/disabled in the BIOS setup.

**Advanced features**

- PCI 2.2 Specification compliant.
- Provides Trend ChipAwayVirus® On Guard.
- Provides on-board PS/2 mouse and PS/2 keyboard ports.
- Two USB ports supported.
- Provides infrared interface.
- Supports Windows 95/98 software power-down.
- Supports wake-up on LAN and wake-up on internal/external modem.
- Supports auto fan off when the system enters suspend mode.
- Provides on-board 3.3V regulator to support ATX power supply without 3.3V output.
- On-board LM80 supports system monitoring (monitors system temperature, voltages, chassis intrusion and fan speed). (manufacturing option)
- On-board MAXIM1617 monitors the CPU temperature. (manufacturing option)
- Provides management application such as ManageEasy and LDCM(LANDesk® Client Manager). (manufacturing option)
- Supports keyboard password power-on function.
- System status resumes after AC power failure.

**BIOS**

- Licensed advanced AWARD BIOS, supports flash ROM with 2MB memory size, plug and play ready.
- Supports IDE CD-ROM or SCSI boot up.

**Green function**

- Supports ACPI (Advanced Configuration and Power Interface) and ODPM (OS Directed Power Management).
- Supports three green modes: Doze, Standby and Suspend.

**Expansion slots**

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



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## Chapter 2

### Installation Instructions

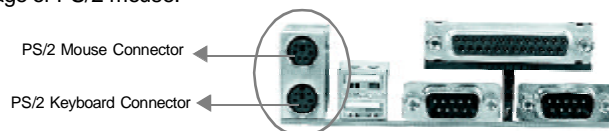
This section covers External Connectors, Jumper Settings and Memory Configuration. Refer to the mainboard layout chart for locations of all jumpers, external connectors, slots and I/O ports. Furthermore, this section lists all necessary connector pin assignments for your reference. The particular state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

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

#### External Connectors

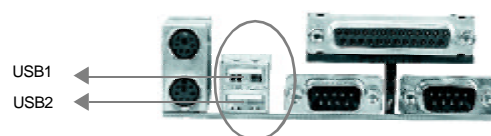
##### **PS/2 Keyboard Connector, PS/2 Mouse Connector**

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



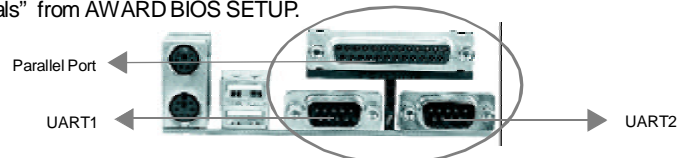
##### **USB1, USB2**

Two USB ports are available for connecting USB devices.



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

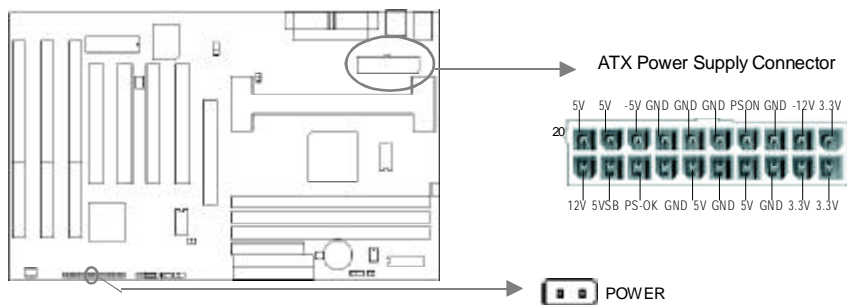
The parallel port connector can be connected to a parallel device such as a printer, while the serial port connectors can be connected to serial port devices such as a serial port mouse. You can enable/disable them and choose the IRQ or I/O address in "Integrated Peripherals" from AWARD BIOS SETUP.





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

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



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

### Hard Disk LED Connector (HD\_LED)

The connector connects to the case's IDE indicator LED indicating the activity status of IDE hard disk. The connector has an orientation. If one way doesn't work, try the other way.

### Reset Switch (RESET)

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

### Speaker Connector (SPEAKER)

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

### Power LED Connector (PWR\_LED)

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

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

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

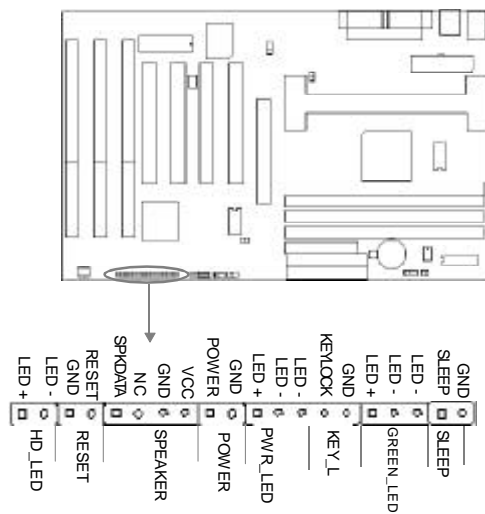


### ACPI LED Connector (GREEN\_LED)

The ACPI LED has four status. When no AC power supply is present, the LED is off. When the system is in soft power-down status, the LED glows dimly. When the system is powered up, the LED is on. When the system enters suspend mode, the LED will flash.

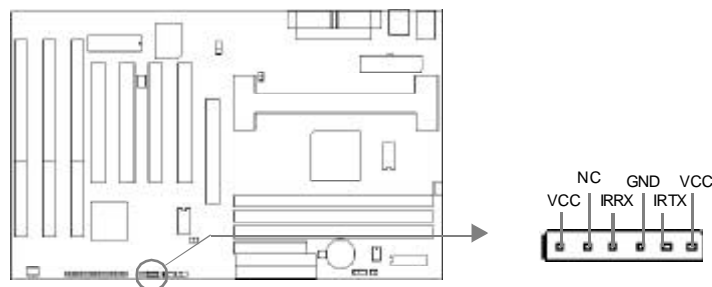
### Hardware Green Connector (SLEEP)

Push once the switch connected to this header, the system enters suspend mode.



### Infrared Header (IrDA)

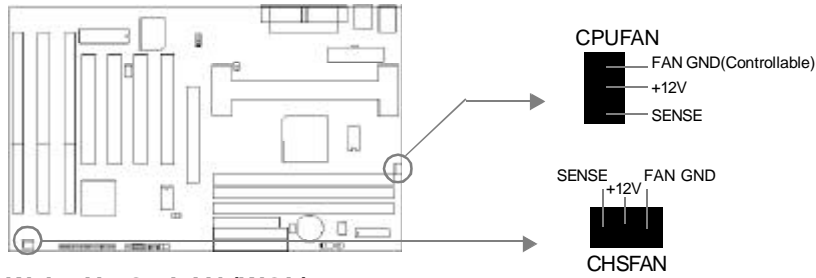
This connector supports wireless transmitting and receiving. If using this function, set "Serial Port 2 Mode" to IrDA or ASKIR and configure the settings from the "INTEGRATED PERIPHERALS" section of the BIOS.





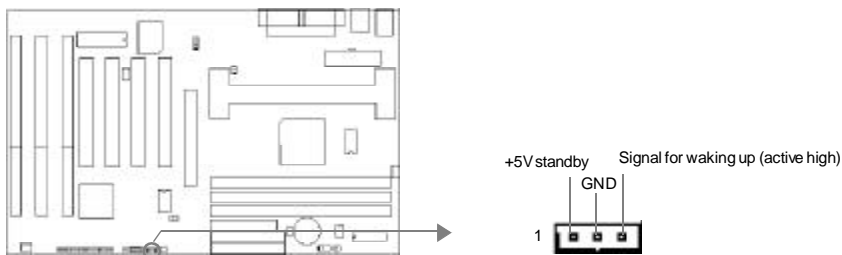
### Fan Connector (CPUFAN, CHSFAN)

These two fans are controllable. They will be automatically turned off after the system enters suspend mode. You also can choose not to turn the CPUFAN off by setting "CPUFAN Off In Suspend" as Disabled in the "POWER MANAGEMENT SETUP" section of the BIOS.



### Wake-Up On LAN (WOL)

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



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

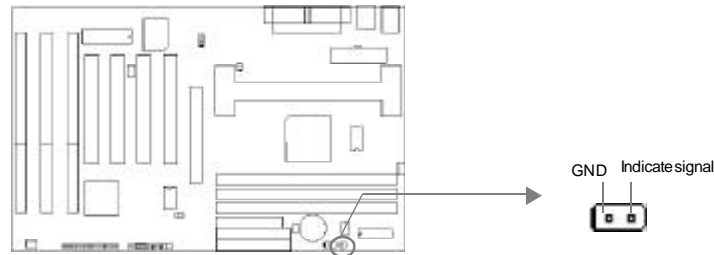
Through the Wake-Up On Internal Modem function, the system which is in the power-off status can be powered on by a ring signal received from the internal modem. If this function is to be used, be sure an internal modem card which supports the function is used. Then connect this header to the relevant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





### Chassis Security Switch (CHSSEC)

The connector connects to the chassis security switch on the case. The system can detect the chassis intrusion through the status of this connector. If the connector has been closed once, the system will record the status and indicate to the customer that the chassis has been opened. You can either get this information from "System Monitor" of the BIOS (optional) or QDI ManageEasy software.



### Sound Connector (PC-PCI)




This connector is for the usage of PCI sound card.



### Expansion Slots & I/O Ports description

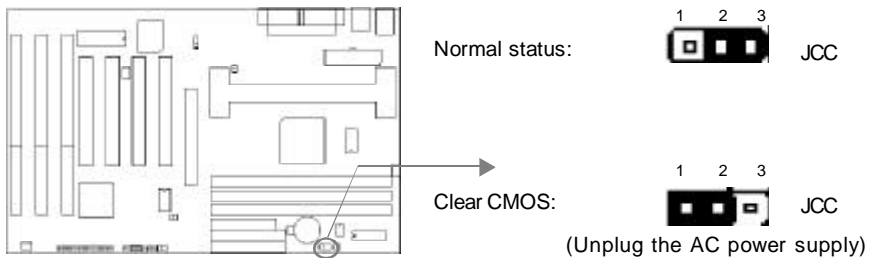
Slot / Port	Description
ISA 1	First ISA slot.
ISA 2	Second ISA slot.
ISA 3	Third ISA slot.
PCI1	First PCI slot.
PCI2	Second PCI slot.
PCI3	Third PCI slot.
PCI4	Fourth PCI slot.
IDE 1	Primary IDE port.
IDE 2	Secondary IDE port.
FLOPPY	Floppy Drive Port.
AGP	Accelerated Graphics Port.

### Jumper Settings

Jumpers are located on the mainboard, they represent, clear CMOS jumper JCC, enable keyboard password power-on function jumper JKB. Pin 1 for all jumpers are located on the side with a thick white line ( Pin1→  ), referring to the mainboard' s silkscreen . Jumpers with three pins will be shown as  to represent pin1 & pin2 connected and  to represent pin2 & pin3 connected.

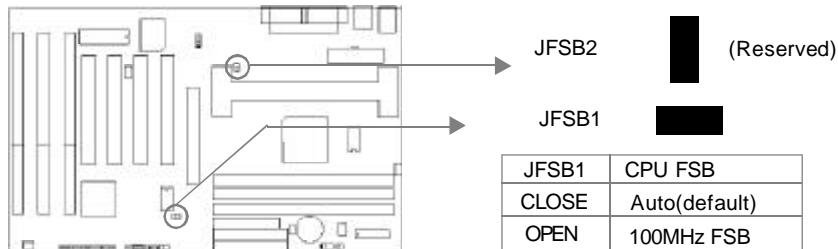
#### Clear CMOS (JCC)

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



#### Selection of Front Side Bus (JFSB1, JFSB2)

There are two jumpers(JFSB1 and JFSB2) on the mainboard providing users with an option to select 66/100 MHz Front Side Bus. Refer to the chart below for the location of these two jumpers, and the table for information on how to set them.

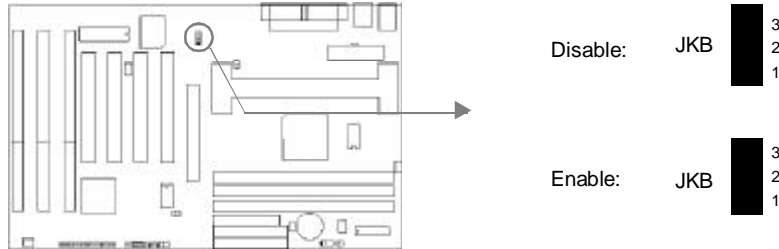


If setting CPU FSB as Auto, the system detects the FSB automatically. If setting CPU FSB as 100MHz, the system will run at 100MHz FSB no matter what type of processor is used. With the system already using 100MHz FSB processor, setting CPU FSB as 100MHz enables the system to achieve higher performance. Please note, whether or not your system can be overclocked depends on your processor' s capability. We do not guarantee the overclocking system to be stable.



### Enable keyboard password power-on function (JKB)

The mainboard provides the advanced keyboard password power-on function. When wanting to use this function, set JKB with pin1 & pin2 closed. Otherwise, set JKB with pin2 & pin3 closed for disabling this function.



In order to implement this function, it is necessary to set the keyboard power-on password in the "INTEGRATED PERIPHERALS" section of the BIOS. For detailed information, see the explanations of "INTERGATED PERIPHERALS" of BIOS Part.

**Note:** 1.If wanting to use this function, 5VSB line of the power supply should be capable of delivering enough current (eg. 200mA) for all devices connected to the keyboard port, or you can't power up the system using the keyboard.

2.If you set JKB with pin2 & pin3 closed, set "POWER ON Function" to Password/Button, don't set it to Password, or this will prevent you from powering up your system.

3. If you encounter the above problems, clear CMOS and reset the jumper and BIOS option.

### Memory Configuration

This mainboard provides three 168 pin 3.3V un-buffered DIMM sockets to support a flexible memory size ranging from 8MB/384MB for SDRAM or from 8MB/768MB for EDO memory. Both 66MHz/100MHz SDRAM with SPD and 66MHz EDO DIMMs are supported. The following set of rules allows optimum configurations.

- Using the serial presence detect (SPD) data structure, programmed into an E<sup>2</sup>PROM 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 timing of the slowest DRAMs installed.
- Possible SDRAM DIMM memory sizes are 8MB, 16MB, 32MB, 64MB, 128MB in each DIMM socket.
- Possible EDO DIMM memory sizes are 8MB, 16MB, 32MB, 64MB, 128MB, 256MB in each DIMM socket.



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## Chapter 3

### BIOS Description

#### Utility Support:

##### FLASH.EXE

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

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

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

Follow the steps exactly for a successful upgrade.

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

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

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

```
FLASH [BIOSfile] [/g]
```

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

<command> function definition:

c: clear CMOS;

p: clear PnP;

d: clear DMI.



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

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

/g: Retrieves BIOS file from BIOS ROM.

Examples:

A:\FLASH.EXE BIOSfile.bin

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

A:\FLASH.EXE BIOSfile.bin /g

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



## AWARD BIOS Description

### Entering Setup

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

**Press <Del> to enter SETUP**

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



Figure-1 Main Menu

**Note:**The “System Monitor” item will not be displayed if there is no system monitor hardware on the mainboard.

### Load Setup Defaults

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

### Standard CMOS Setup

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



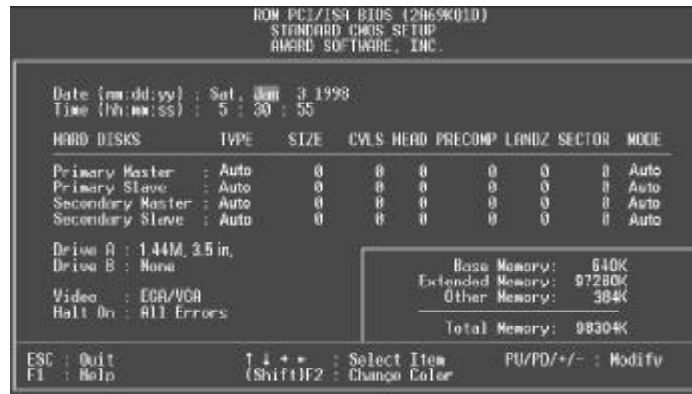


Figure-2 Standard CMOS Setup Menu

### Hard Disk

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

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

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

### Video

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

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



## Halt On

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

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

## Memory

This is a Display-Only Category, determined by POST (Power On Self Test) of the BIOS.

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

## SpeedEasy CPU Setup



Figure-3 SpeedEasy CPU Setup

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

<u>Item</u>	<u>Option</u>	<u>Description</u>
• CPU Model		BIOS automatically detects the CPU model, therefore this item is shown only. It could be Pentium(R)II, Intel (R) Celeron(TM) or Pentium III(R) depending on the processor chosen.
• CPU Speed	<i>SpeedEasy</i>	CPU frequency should be set according to the CPU type. For Celeron™ or Pentium®II (66MHz front-side bus) processors, you can choose from 200MHz (66X3), 233MHz(66X3.5), 266MHz (66x4), 300MHz(66X4.5), 333MHz (66X5), 366MHz(66x5.5) 400MHz(66x6), 433MHz(66x6.5), For Pentium®II or Pentium®III processors with 100MHz front-side bus, you can select from 300MHz(100X3), 350MHz (100X3.5), 400MHz (100X4), 450MHz(100X4.5), 500MHz(100X5), 550MHz(100x5.5) or 600MHz(100x6).
	<i>Jumper Emulation</i>	This item is only for users who understand all the CPU parameters, i.e. System Bus Frequency '100MHz / 66MHz' and multiplication of Processor Core Frequency to System Bus frequency "x2, x2.5, x3, x3.5, x4, x4.5, x5, x5.5, x6, x6.5, x7, x7.5, x8".

**Warning:**

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



## BIOS Features Setup



Figure-4 BIOS Features Setup Menu

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

<u>Item</u>	<u>Option</u>	<u>Description</u>
• ChipAway Virus On Guard	<i>Enabled</i>	Guards against boot Virus threats early in the boot cycle, before they have a chance to load into your system, ensuring your computer boots to a clean operating system.
	<i>Disabled</i>	Invalidates this function.
• CPU L1/L2 Cache	<i>Enabled</i>	Enables CPU internal Level1/Level2 cache.
	<i>Disabled</i>	Disables CPU internal Level1/Level2 cache.
• CPU L2 Cache ECC	<i>Enabled</i>	Enables CPU L2 Cache ECC (Error Checking and Correction) function.
	<i>Disabled</i>	Disables CPU L2 Cache ECC function.
• Quick Power On Self Test	<i>Enabled</i>	Enables quick POST. BIOS will shorten or skip some check items during POST to speed up POST after you power on the computer.
	<i>Disabled</i>	Normal POST.
• Boot from LAN first	<i>Enabled</i>	Boot from LAN is ahead of any boot sequence selection (LAN adapter must support this function).
	<i>Disabled</i>	Does not boot from LAN first.
• Boot Sequence	<i>C,A,SCSI,... C,CDROM,A LS/ZIP, C</i>	Any search sequency can be chosen for booting.
• Swap Floppy Drive	<i>Enabled</i>	Exchanges the assignment of A&B floppy drives.
	<i>Disabled</i>	The assignment of A&B floppy drives are normal.



• Boot Up Numlock Status	<i>On</i>	Keypad is used as number keys.
	<i>Off</i>	Keypad is used as arrow keys.
• Gate A20 Option	<i>Normal</i>	The A20 signal is controlled by the keyboard controller or chipset hardware.
	<i>Fast</i>	Default setting. The A20 signal is controlled by Port 92 or the chipset specific method.
• Memory Parity/ ECC Check	<i>Enabled</i>	Enables the Error Checking & Correction if ECC memory is used.
	<i>Disabled</i>	Disables the ECC function.
• Password Setting	<i>System</i>	The system will not boot and access to BIOS Setup will be denied if the correct password is not entered when prompted.
	<i>Setup</i>	The system will boot up, but access to BIOS Setup will be denied if the correct password is not entered when prompted.
• IDE Second Channel Control	<i>Enabled</i>	Enables the second IDE channel.
	<i>Disabled</i>	Disables the second IDE channel and releases the IRQ.
• OS Select For DRAM>64MB	<i>Non-OS2</i>	If your operating system is not OS/2, please select this item.
	<i>OS2</i>	If system DRAM is more than 64MB and the operating system is OS/2, please select this item.
• HDD S.M.A.R.T Capability	<i>Enabled</i>	Enables S.M.A.R.T hard disk support.
• Video BIOS Shadow	<i>Disabled</i>	Invalidates this feature.
	<i>Enabled</i>	Video BIOS will be copied to RAM. Video Shadow will increase the video speed.
• C8000~CBFFF Shadow: DC000~DFFFF	<i>Disabled</i>	Video shadow is disabled.
	<i>Enabled</i>	Optional ROM will be copied to RAM by 16K bytes per unit.
• Delay For HDD 0~15 (Secs):	<i>Disabled</i>	The shadow function is disabled.
• Show Bootup Logo	<i>0~15</i>	Sets the pre-delay time for hard disk to be accessed by the system.
	<i>Enabled</i>	Enables the logo when system boots up. Logo will not be shown when system boots up.



## Chipset Features Setup



Figure-5 Chipset Features Setup Menu

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

<u>Item</u>	<u>Option</u>	<u>Description</u>
• Bank 0/1, 2/3, 4/5 DRAM Timing	<i>EDO 50ns</i> <i>EDO 60ns</i> <i>Normal</i> <i>Medium</i> <i>Fast</i> <i>Turbo</i>	These items are of selected EDO DRAM read/write timing. Ensure your DIMMs are as fast as 50ns, otherwise select 60ns. The faster you choose, the higher performance you receive.
• SDRAM Cycle Length	<i>2/3</i>	Define the CLT timing parameter of SDRAM expressed in 66MHz clocks. Latency Time = 2 clocks Latency Time = 3 clocks
• Memory Hole	<i>Enabled</i> <i>Disabled</i>	Memory Hole at 15-16M is reserved for expanded ISA card. Do not set this memory hole.
• Read Around Write	<i>Enabled</i> <i>Disabled</i>	Enables read around Write. Disables read around write.
• Concurrent PCI/ HOST	<i>Enabled</i> <i>Disabled</i>	Enables concurrent PCI/Host. Disables concurrent PCI/Host.
• Video RAM Cacheable	<i>Enabled</i> <i>Disabled</i>	Besides conventional memory, video RAM is also cacheable. Video RAM area is not cacheable.
• AGP Aperture Size (MB)	<i>4-256</i>	Sets the effective size of the Graphics Aperture to be used in the particular PAC Configuration.
• AGP-2X Mode	<i>Enabled</i> <i>Disabled</i>	Supports 133MHz 2X mode. Does not support 133MHz 2X mode.
• Onchip USB	<i>Enabled</i> <i>Disabled</i>	Enables the onchip USB controller. Disables the onchip USB controller.



- |                            |                 |   |
|----------------------------|-----------------|---|
| • USB Keyboard Support     | <i>Enabled</i>  | USB keyboard support is enabled.              |
|                            | <i>Disabled</i> | USB keyboard support is disabled.             |
| • Close Empty DIMM/PCI Clk | <i>Enabled</i>  | Closes empty DIMM or PCI clock to reduce EMI. |
|                            | <i>Disabled</i> | Does not close empty DIMM or PCI clock.       |
| • Clock Spread Spectrum    | <i>Enabled</i>  | Enables Clock Spread Spectrum to reduce EMI.  |
|                            | <i>Disabled</i> | Disables Clock Spread Spectrum.               |



## Power Management Setup



Figure-6 Power Management Setup Menu

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

<u>Item</u>	<u>Option</u>	<u>Description</u>
• ACPI function	<i>Enabled</i>	Validates ACPI function.
	<i>Disabled</i>	Invalidates ACPI function.
• Power Management	<i>User Define</i>	Users can configure their own Power Management Timer.
	<i>Min Saving</i>	Pre - defined timer values are used. All timers are in their MAX values.
	<i>Max Saving</i>	Pre - defined timer values are used. All timers are in their MIN values.
• PM Control by APM	No	System BIOS will ignore APM when Power Management is enabled.
	Yes	System BIOS will wait for APM' s prompt before entering any PM mode e.g. Standby or Suspend.
• Video off Option	<i>Suspend-off</i>	The system BIOS will disable the video when entering suspend mode.
	<i>All Modes-off</i>	The system BIOS will disable the video when entering all power-saving mode.
	<i>Always On</i>	The video remains on.
• Video Off Method	<i>Blank Screen</i>	The system BIOS will only blank off the screen when disabling video.
	<i>V / H SYNC + Blank</i>	In addition to Blank Screen, BIOS will also turn off the V-SYNC & H - SYNC signals from VGA cards to monitor.
	<i>DPMS Support</i>	This function is enabled only for the VGA card supporting DPMS.
• Soft-off by PWRBTN	<i>Instant-off</i>	The system will power off immediately once the power button is pressed.
	<i>Delay 4 Sec</i>	The system will not power off until the power





• CPU Fan In Suspend	<i>On</i>	button has been pressed continuously for more than 4 seconds.
	<i>Off</i>	CPU fan remains on when the system enters suspend mode. CPU fan will be automatically turned off when the system enters suspend mode.
• HDD Power Down	<i>Disabled</i>	Disables HDD Power Down Timer.
	<i>1 ~ 15 Min</i>	Defines the continuous HDD idle time before the HDD enters power saving mode (motor off).
• Doze mode	<i>Disabled</i>	The system never enters Doze mode.
	<i>10Sec ~ 1 Hr</i>	Defines the continuous idle time before the system enters Doze mode. If any items defined in "PM Events" are on and activated, the system will be woken up.
• Suspend Mode	<i>Disabled</i>	The system never enters Suspend mode.
	<i>10Sec~ 1Hr</i>	Defines the continuous idle time before the system enters Suspend mode. If any items defined in "PM Events" are on and activated, the system will be woken up.
• VGA	<i>On</i>	VGA active reloads global timer.
	<i>Off</i>	VGA active has no influence to global timer.
• LPT&COM HDD&FDD DMA/master	<i>LPT/COM</i>	Set the options of these items to reload global timer.
	<i>OFF/ON</i>	
• Wake Up On LAN	<i>ON/OFF</i>	Allows the system to be powered on when a remote wake up signal comes up to the WOL header from LAN adapter, or when a ring indicator signal comes up to UART1/UART2 from an external modem or comes up to WOM header from an internal modem card.
	<i>Enabled</i>	
• Modem Ring Resume	<i>Disabled</i>	Does not allow wake up on LAN.
	<i>Enabled</i>	Allows the system to be powered up when a ring indicator signal comes up to UART1 or UART2 from an external modem or comes up to WOM header from an internal modem card.
• RTC Alarm Resume	<i>Disabled</i>	Does not allow Ring Power-on.
	<i>Enabled</i>	RTC alarm can be used to generate a wake event to power up the system which is in soft power-down status. You can set any date or any time to power up the system.
• Primary INTR IRQ (3-15)	<i>Disabled</i>	RTC has no alarm function.
	<i>Primary</i>	Reload global timer.
• HDD Down In Suspend	<i>Secondary</i>	No influence to global timer, except finishing an operation that IRQ "X" requests.
	<i>Disabled</i>	No influence to global timer.
	<i>Enabled</i>	HDD' s motor will be off when the system enters suspend mode.
	<i>Disabled</i>	HDD' s motor remains on.



## PNP/PCI Configuration Setup

```

ROM PCI/ISA BIOS (201601B)
PNP/PCI CONFIGURATION
AWARD SOFTWARE, INC.

PNP OS Installed      : No
Resources Controlled By : Manual
Force Updating ESCD   : Disabled

IRQ-3 assigned to : Legacy ISA
IRQ-4 assigned to : Legacy ISA
IRQ-5 assigned to : PCI/ISA PnP
IRQ-7 assigned to : Legacy ISA
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

CPU to PCI Write Buffer : Enabled
PCI Dynamic Bursting   : Enabled
PCI Master 0 WS Write  : Enabled
PCI Delay Transaction  : Enabled
PCI#2 Access #1 Retry  : Disabled
ACPI Master 1 WS Write : Enabled
ACPI Master 1 WS Read  : Disabled

PCI IRQ Activated By : Level
Assign IRQ For USB   : Enabled
Assign IRQ For VGA   : Enabled
Assign IRQ For ACPI  : IRQ9

ESC : Quit          F1* : 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 indicates the options for each item and describes their meaning.

<u>Item</u>	<u>Option</u>	<u>Description</u>
• PNP OS Installed	Yes No	Device resources assigned by PnP OS. Device resources assigned by BIOS.
• Resources Controlled By	Manual Auto	Assigns the system resources ( IRQ and DMA) manually . Assigns system resources (IRQ and DMA) automatically by BIOS.
• Force Updating ESCD	Enabled Disabled	The system BIOS will force updating ESCD once, the automatically set this item as disabled.
• IRQ-3~IRQ-15 assigned to	Legacy ISA PCI/ISA PnP	The specified IRQ-x will be assigned to ISA only. The specified IRQ-x will be assigned to ISA or PCI.
• DMA-0~DMA-7 assigned to	Legacy ISA PCI/ISA PnP	The specified DMA-x will be assigned to ISA only. The specified DMA-x will be assigned to ISA or PCI.
• CPU to PCI Write Buffer	Enabled Disabled	Enables CPU to PCI Write Buffer. Disables CPU to PCI Write Buffer.
• PCI Dynamic Bursting	Enabled Disabled	Enables PCI Dynamic Bursting. Disables PCI Dynamic Bursting.
• PCI Master 0 ws Write	Enabled Disabled	Enables PCI Master ws Write. Disables PCI Master ws Write.
• PCI Delay Transaction	Enabled Disabled	Enables PCI Delay Transaction. Disables PCI Delay Transaction.



• PCI #2 Access #1 Retry	<i>Enabled</i> <i>Disabled</i>	Enables PCI #2 Access #1 Retry. Disables PCI #2 Access #1 Retry.
• AGP Master 1 ws Write	<i>Enabled</i> <i>Disabled</i>	Enables AGP Master 1 ws Write. Disables AGP Master 1 ws Write.
• AGP Master 1 ws Read	<i>Enabled</i> <i>Disabled</i>	Enables AGP Master 1 ws Read. Disables AGP Master 1 ws Read.
• PCI IRQ Activated By	<i>Level</i> <i>Edge</i>	Select PCI IRQ Active mode.
• Assign IRQ for USB	<i>Enabled</i> <i>Disabled</i>	Assigns an IRQ for USB. If an USB device is used, enables this item. Does not assign an IRQ for USB. If no USB device is used, disabling this item can release the IRQ.
• Assign IRQ for VGA	<i>Enabled</i> <i>Disabled</i>	Assigns the needed IRQ for the VGA Card. Does not assign an IRQ for the VGA card, in order to release the IRQ.
• Assign IRQ for	<i>IRQ9~IRQ11</i>	Assigns the IRQ for ACPI.



## Integrated Peripherals

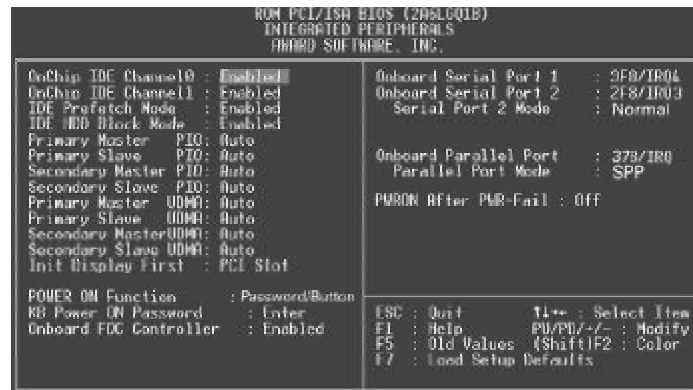


Figure-8 Integrated Peripherals Menu

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

<u>Item</u>	<u>Option</u>	<u>Description</u>
• OnChip IDE channel 0/1	<i>Enabled</i> <i>Disabled</i>	Enables OnChip IDE First/Second Channel. Disables OnChip IDE First/Second Channel.
• IDE Prefetch/Mode	<i>Enabled</i> <i>Disabled</i>	Enables IDE Prefetch Mode. Disables IDE Prefetch Mode.
• IDE HDD Block Mode	<i>Enabled</i> <i>Disabled</i>	Allows IDE HDD to read/write several sectors at once. IDE HDD only read/write a sector once.
• IDE Primary/ Secondary Master/Slave PIO	<i>Mode 0 - 4</i> <i>Auto</i>	Defines the IDE primary/secondary master/ slave PIO mode. The IDE PIO mode is defined by auto -detection.
• IDE Primary/ Secondary Master/Slave UDMA	<i>Auto</i> <i>Disabled</i>	Ultra DMA mode will be enabled if an ultra DMA device is detected. Disables this function.
• Init Display First	<i>PCI SLOT</i> <i>AGP</i>	Initializes the PCI VGA first. If a PCI VGA card and an AGP card are installed together in the system, the one initialized first functions. Initializes the AGP first.
• POWER ON FUNCTION	<i>Password</i> <i>/Button</i>	Either the power button or the keyboard password can be used to power up the system. Other than choosing this option, the password should be set to implement the keyboard password power-on function.



	<i>Password</i>	Enables the keyboard password power-on function and disables the power button's power-on function. Other than choosing this option, the password should be set to implement this function. <b>Note: 1. If the option( Password) is chosen, the jumper JKB must be set as pin1&amp;pin2 closed, or you will be unable to power up the system.</b> <b>2. The keyboard password must be set no more than 5 characters and can only use the numbers and alphabetic letters. The password will always remain unless you clear CMOS or reset it.</b>
● Onboard FDC Controller	<i>Enabled</i> <i>Disabled</i>	Onboard floppy disk controller is enabled. Onboard floppy disk controller is disabled.
● Onboard Serial Port 1/2	<i>3F8/IRQ4,</i> <i>2F8/IRQ3,</i> <i>3E8/IRQ4,</i> <i>2E8/IRQ3,</i> <i>Auto</i>	Defines the onboard serial port address and required interrupt number.  Onboard serial port address and IRQ are automatically assigned
● Serial Port 2 Mode	<i>Disabled</i> <i>Standard</i> <i>Sharp IR</i>  <i>IrDA SIR</i>	Onboard serial port is disabled. Defines Serial Port 2 as standard serial port. Supports SHARP ASK-IR protocol with maximum baud rate up to 57600bps. Supports IrDA version1.0 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>	Defines onboard parallel port address and IRQ channel.
● Parallel Port Mode	<i>Disabled</i> <i>SPP</i> <i>EPP</i> <i>ECP,</i> <i>ECP+EPP</i>	Onboard parallel port is disabled. Defines the parallel port mode as Standard Parallel Port (SPP), Enhanced Parallel Port (EPP), or Extended Capabilities Port (ECP).
● PWRON After PWR-Fail	<i>Off</i>  <i>On</i>  <i>Former-Sts</i>	The system remains OFF when the AC Power supply resumes. The system will be powered up when the AC power supply resumes. Whatever the system status is, before the AC power supply cuts off, the system resumes in the previous status (ON/OFF) when the AC power supply resumes.



## System Monitor

```

ROM PCI/ISA BIOS (2A69K019)
System Monitor
AWARD SOFTWARE, INC.

Current System Temp. : 30°C/86°F
Current CHSFAN Speed : 4320 RPM
Current CPUFAN Speed : 2010 RPM

+3.3V Voltage : 1.98 V
VTT(+1.5V) Voltage : 1.37 V
+5V Voltage : 3.32 V
VCCVID(CPU) Voltage : 4.83 V
+12V Voltage : 11.79 V
-12V Voltage : -12.03 V
Chassis status : closed

ESC : Quit      Y/↑ : Select Item
F1 : Help      PU/PD/+/− : Modify
F5 : Old Values (Shift)F2 : Color
F7 : Load Setup Defaults
  
```

Figure-9 System Monitor Menu

The following describes the meaning of each item.

<u>Item</u>	<u>Current Data Shown</u>	<u>Description</u>
• Current System Temp.	30°C/ 86°F	The temperature inside the chassis.
• Current CHSFAN Speed	2010RPM	connected to the fan header CPUFAN/ CHSFAN/BAKFAN.
• Current CPUFAN Speed	4320RPM	RPM( Revolution Per Minute) speed of fan. 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 Voltage	3.32V	Displays current Voltage values including all significant voltages of the mainboard.
• VTT(+1.5V) Voltage,	1.37V	+3.3V, +5V, +12V, -12V, are voltages from the ATX power supply, VTT (+1.5)
• +5V	4.84V	Voltage is GTL Termination Voltage from the on-board regulator, and VCCVID (CPU)
• VCCVID(CPU) Voltage	1.98V	Voltage is the CPU core voltage from the on board switching power supply.
• +12V	11.79V	
• -12V	-12.03V	
• Chassis Status Closed	Closed	Indicates status of chassis is closed.
	Opened	Indicates status of chassis is opened.



## Supervisor/ User Password

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

### ***ENTER PASSWORD***

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

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

### ***PASSWORD DISABLED***

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

If you have selected "**Setup**" at "Password Setting" from "BIOS Features Setup" menu, you will be prompted for the password only when you enter BIOS Setup.

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



## IDE HDD Auto Detection

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

ROM PCI/ISA BIOS (2A69KQ10) CMOS SETUP UTILITY AWARD SOFTWARE, INC.								
HARD DISKS	TYPE	SIZE	CYLS	HEAD	PRECOMP	LANDZ	SECTOR	MODE
Primary Master:								
Select Primary Master Option (N=Skip): N								
OPTION	SIZE	CYLS	HEAD	PRECOMP	LANDZ	SECTOR	MODE	
2(Y)	541	525	32	0	1049	67	LBA	
1	541	1050	16	65535	1049	63	NORMAL	
3	541	525	32	65535	1049	63	LARG	
Note: Some OSes (like SCO-UNIX) must use "NORMAL" for installation								
ESC: Skip								

Figure-11 IDE HDD Auto Detection Menu

### 1. Setup Changes

#### With auto-detection

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

#### With Standard CMOS Setup

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

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





## 2. HDD Modes

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

### **NORMAL**

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

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

### **LBA (Logical Block Addressing) mode**

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

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

### **LARGE mode**

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

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

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

## 3. Remark

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

## Boot with BIOS defaults

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



## Appendix A

### QDI Mainboard Utility CD-ROM

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

1. Chipset Dispatches:

Via Chipset Drivers included in the directory \ChipDrv\Via can be used for this mainboard. Run \ChipDrv\Via\Autorun.exe, installing the drivers below one by one.

- (1) IDE Driver  
This is Via Bus Master PCI IDE Driver which can be installed on either Windows 95 or Windows NT system, for supporting Ultra DMA/33MB. It also can remove the yellow question mark in the Device Manager of Windows 95 after installation.
- (2) IRQ Routing Program  
Installed on Windows 95 or Windows 98.
- (3) VxD Driver  
Installed on Windows 95/98 for supporting AGP. For all AGP feature benefits, you need to upgrade your Windows 95 OSR2.0 to OSR2.1 by installing USB supplement provided by Microsoft, also DirectX 5.0 from Microsoft.
- (4) ACPI Patch Program  
Installed on Windows 95 or Windows 98.

2. PC-cillin Anti-Virus software:

For Windows 95/98 English version, located in the directory \Pccillin\Win9x. Run Setup.exe for installation.

For Windows NT English version, located in the directory \Pccillin\WinNT4.0. Run Setup.exe for installation. S/N is PNEF-9991-6558-5857-5535.

3. QDI ManageEasy:

Run Setup.exe from the directory \QME to install the ManageEasy. For detailed information about QDI ManageEasy, refer to the ManageEasy Manual included in the directory \Doc. Please note, hardware is a manufacturing option.

4. QDI Mainboard Utility:

The utilities located in the directory \Utility are:

FLASH.EXE  
CBLOGO.EXE  
LFEXE

Refer to the online help for information on how to use these utilities.

5. Documents for QDI Mainboard:

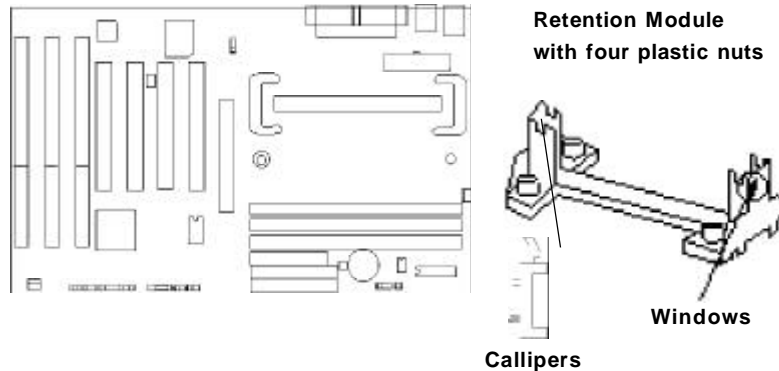
The files included in the directory \Doc are:  
Adobe Acrobat Reader V3.0 —ar32e301.exe  
ManageEasy Manuals —QMEV12.PDF.



## Appendix B.

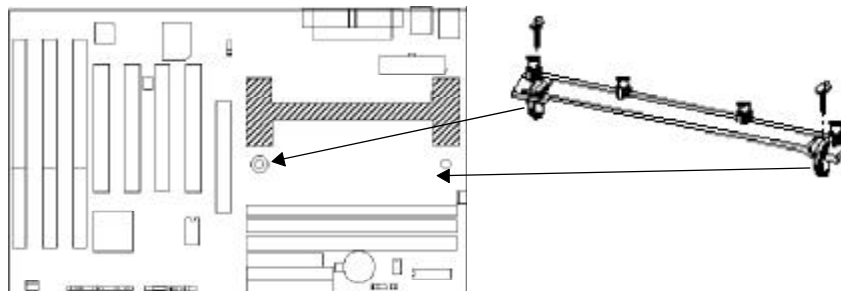
### Retention Mechanism & Pentium® II/Pentium® III/ Celeron™ Processor Installation Procedures

1. Place the retention module with four plastic nuts on the mainboard and place the four plastic stoppers onto the plastic nuts to secure them.



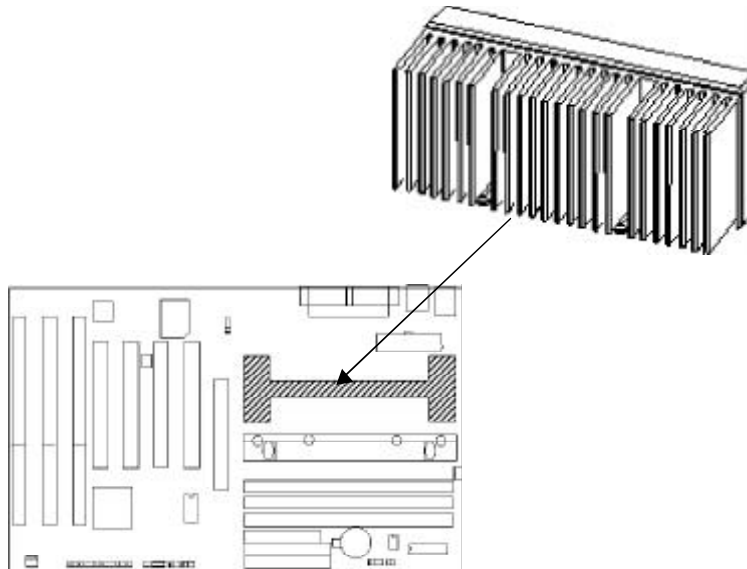
- Note:
1. If choosing to use Celeron™ Processor, snap-on Callipers onto the retention module.
  2. If choosing to use Intel Celeron™ PPGA 370 processor, other than placing the callipers, the socket 370 card with CPU and CPU fan should be installed.
  3. Please note the retention module has one orientation. If one way doesn't fit, change the direction to the other way. Do not forcefully press the retention module onto the mainboard.

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

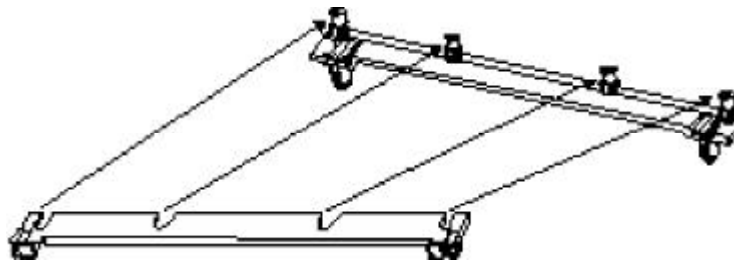




3. Insert Pentium® II/ Pentium®III/ Celeron™ Processor in Slot1.

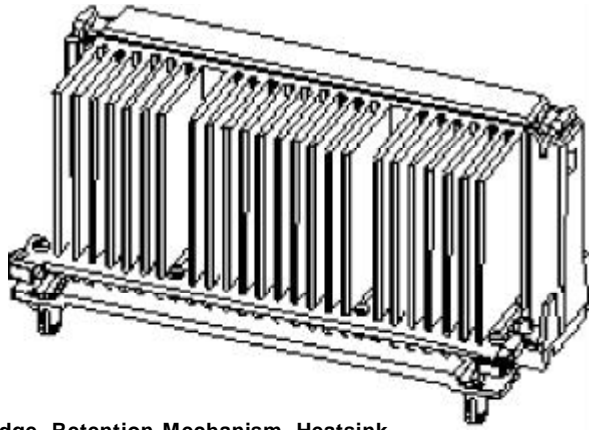


4. Clip Plastic Bar onto the HSSBASE through the fins on the processors' heatsink.





5. The Retention Mechanism installation procedure is completed as shown below.



**S.E.C Cartridge, Retention Mechanism, Heatsink support, and ATX Form Factor Heatsink Isometric View  
Not To Scale**

**Remark:**

***Please skip step2 and step4 for Boxed Pentium® II Processor and refer to relevant details concerning this type of processor for your installation.***



## Appendix C. Boot Logo

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



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

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

P/N : 430-01016-201-00  
Manual Advance 5 Ver 1.0

### **Item Checklist**

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

- Advance 5 mainboard
- QDI Mainboard Utility CD-ROM
- Retention Module
- I/O shield
- 1 IDE ribbon cable
- 1 floppy ribbon cable
- User' s manual

### **Notice**

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**Board Layout of  
Advance 5 V1.0**