Declaration of conformity

$C\,E$

QUANTUM DESIGNS(HK) LTD.

5/F Somerset House, TaiKoo Place 979 Kings Road,

Quarry Bay, Hong Kong

declares that the product

Pentium®III Mainboard

Advance 10M

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
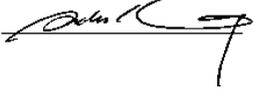
Signature :   . Place / Date :   HONG KONG/2000

Printed Name :   Anders Cheung   Position/ Title :   President

Declaration of conformity

FC

Trade Name:	QDI Computer (U. S . A.) Inc.
Model Name:	Advance 10M
Responsible Party:	QDI Computer (U. S. A.) Inc.
Address:	41456 Christy Street
	Fremont, CA 94538
Telephone:	(510) 668-4933
Facsimile:	(510) 668-4966

Equipment Classification:	FCC Class B Subassembly
Type of Product:	AGP Pentium® III 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 : _____2000_____

CONTENTS

CONTENTS

SpeedEasy Quick Setup

Procedures :

1. Correctly insert Intel FC-PGA Pentium®III or Intel® Celeron™ PPGA370 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.

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:
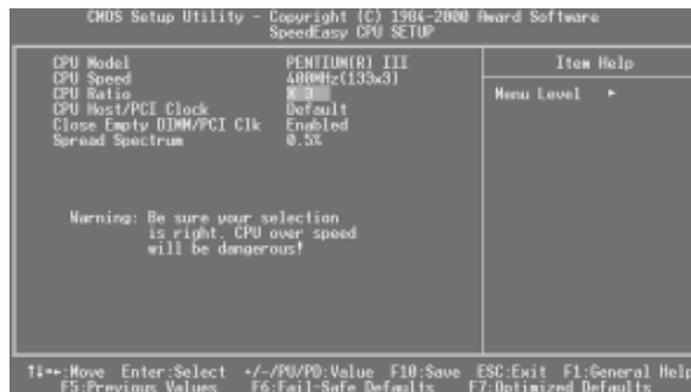
Figure - 1 SpeedEasy CPU Setup Menu

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 from the "SpeedEasy CPU SETUP" menu screen.

⚠ Warning:

Dot not set CPU frequency higher than its working frequency. If you do, we will not be responsible for any damages caused. Whether or not the system can be overclocked depends on the processor's capability. We do not guarantee the overclock system to be stable.

Users are provided with CPU overclock feature through "Jumper Emulation". The host bus speed can be set as 66/75/83/100/103/105/110/112/115/124/133/140/150MHz. The multiplier can be chosen from 3, 3.5, 4, 4.5, 5, 5.5, 6, 6.5, 7, 7.5, 8. However the multiplier setting will not function for bus ratio locked processor, only bus ratio unlocked processor.

SpeedEasy 快速安装指南

程序：

1. 正确地插入 Intel® FC-PGA Pentium®III 或者 Intel® Celeron™PPGA370中央处理器。

2. 插入其他配置，组装成完整的微机系统。

3. 开启系统电源，并且按住 <Del> 键，进入 BIOS 设置程序。

4. 进入 "SpeedEasy CPU SETUP" 菜单，以调节中央处理器的速度。

5. 存储设定值，退出 BIOS，系统就可以按你设定的速度运行了。

SpeedEasy 中央处理器设定菜单

从主设置菜单中选择 <SpeedEasy CPU SETUP> 项，然後进入次菜单：
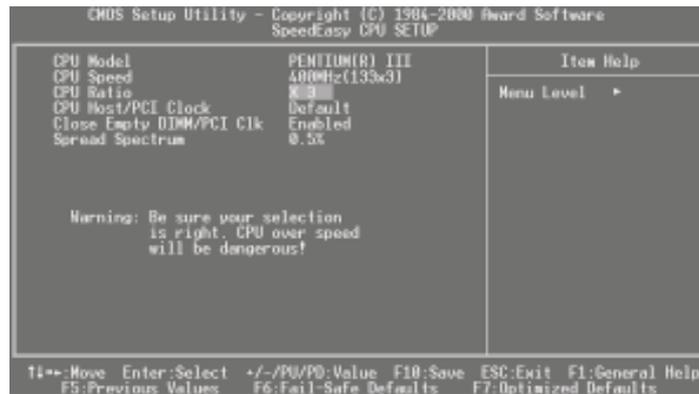
图－1　SpeedEasy 中央处理器设定项目单

BIOS 为你的中央处理器提供一组基本选项， 以代替传统的跳线 (jumper) 方式，使你可以在"SpeedEasy CPU SETUP" 菜单上，为中央处理器选择正确的工作频率。

⚠ 警告：

请勿将中央处理器的频率调节至高於其正常工作频率，否则本公司将不会负责由此而产生的任何损毁．系统能否超频工作亦取决于 CPU 的工作能力，我们不保证超频工作的系统稳定．

通过 "Jumper Emulation"，我们还给用户提供 CPU 超频功能．系统总线速度可以设置为66/75/83/100/103/105/110/112/115/124/133/140/150MHz. 倍频数可设置为3/3.5/4/4.5/5/5.5/6/6.5/7/7.5/8．然而对于倍频数锁死的 CPU，此项设置无效，倍频数设置仅对未锁死倍频数的 CPU 有效．

Installation de la carte mère Advance 10M

1. Assurez-vous que votre ensemble est complet: carte mère, câbles IDE et FLOPPY, notice d'utilisation et CD-ROM d'installation.
2. Vérifiez que l'alimentation est débranchée et reliez-vous à la terre par une courroie à votre poignet. A défaut, maintenez le contact de vos deux mains avec un objet lui-même relié à la terre, ou une partie en métal de votre système.
3. Fixez la carte mère dans le boîtier grâce aux vis fournies avec celui-ci.
4. Si votre carte mère est munie de cavaliers, placez les en fonction des options que vous souhaitez utiliser: réglage de la fréquence du processeur si votre carte n'est pas SpeedEasy, fonction allumage par saisie du mot de passe…(voir le manuel, rubrique «configuration des cavaliers»)
5. Insérez le processeur dans son logement avec son ventilateur que vous brancherez au connecteur «CPUFAN».
6. Insérez la/les barrette(s) mémoire dans les slots DIMM.
7. Installez vos éventuelles cartes PCI et AMR dans les slots prévus à cet effet (voir page centrale du manuel).
8. Branchez vos périphériques IDE et FLOPPY sur les connecteurs prévus à cet effet grâce aux nappes fournies avec la carte. Vérifiez que le sens de branchement est correct (liseré rouge du câble sur la broche 1 du connecteur).
9. Reliez les câbles du boîtier aux connecteurs prévus à cet effet (Connecteur d'alimentation, LED de marche/arrêt, disque dur, haut-parleur…). Refermez le boîtier.
10. Branchez les périphériques externes sur les sorties du fond de panier: clavier, souris PS/2, périphériques USB, moniteur, imprimante…
11. Lorsque tous les éléments du système sont installés physiquement, rebranchez l'unité centrale.

Installation du système.

1. Démarrez votre système en pressant le bouton «POWER».
2. Pressez la touche «Suppr» pour entrer dans le setup du BIOS.
3. Dans le menu «SpeedEasy CPU Setup», réglez la vitesse de votre processeur (AT-TENTION: il est recommandé de ne pas sélectionner une fréquence supérieure à celle de votre processeur, nous déclinons toute responsabilité pour les dommages qui en résulteraient)
4. Effectuez les autres réglages du BIOS selon votre configuration (nous vous conseillons fortement de maintenir les réglages par défaut afin d'éviter toute manipulation hasardeuse pouvant résulter en un dysfonctionnement). Pour plus d'informations sur les fonctions du BIOS, vous pouvez consulter la version française du manuel sur le CD-ROM.

5. Pressez la touche F10 ou choisissez «Save and exit» pour enregistrer vos paramètres et relancer la machine.
6. Installez votre système d'exploitation
7. Après installation, assurez-vous qu'il ne subsiste aucun conflit ou périphérique inconnu dans votre système.
8. Installation des pilotes:

1.   Chipset:

Les pilotes des chipsets VIA du répertoire \ChipDrv\Via peuvent être utilisés sur cette carte mère.

Insérez le CD-ROM dans votre lecteur et cliquez sur « Chipset Driver » pour installer les pilotes

2.   Logiciel PC-cillin 98:

Pour Windows 95/98, version anglaise, dans le répertoire \Pccillin\Win9X. Lancez setup.exe pour l'installation.

Pour Windows NT version anglaise, il se trouve dans le répertoire \Pccillin\Winnt40, lancez setup.exe.

Numéro de série: PNEF-9991-6558-5857-5535.

3.   QDI ManageEasy:

Lancez le setup.exe du répertoire \QME pour installer le ManageEasy. Pour des informations détaillées sur le ManageEasy, référez-vous au manuel ManageEasy du répertoire \Doc.

N'oubliez pas de redémarrer votre système pour que les changements soient pris en compte.

4.   RecoveryEasy

RecoveryEasy™, la dernière innovation de QDI, permet de protéger le système des destructions en créant une «partition miroir» de la partition courante du disque dur et en sauvegardant toutes les données dans ce «miroir».

Cette utilitaire fournit partition du disque, récupération/sauvegarde des données, récupération/sauvegarde des réglages du CMOS et fonctions multi-boot.

RecoveryEasy permet également la protection du système contre les divers types de virus de boot tels que CIH. Dans le cas où le système est perdu soit par erreur, soit à cause d'un virus, il peut être récupéré depuis la partition miroir. Cette innovation utilise la technologie du Bios intégré qui n'occupe ni l'espace disque, ni la mémoire du système. C'est la solution idéale pour l'utilisateur.

Il faut presser les touches Ctrl + Bksp et F12 pour entrer dans les interfaces «Recovery» et «Partition» durant le démarrage du Bios.

ATTENTION : lisez attentivement le manuel du RecoveryEasy traduit sur le CD-ROM QDI avant d'installer cette fonction.

Très important : n'oubliez pas votre mot de passe, faute de quoi vous n'auriez plus accès au RecoveryEasy, même après avoir effectué un Clear CMOS.

Le menu SpeedEasy

I.   Insérez le processeur correctement.

II.   Connectez les autres éléments du système (voir Installation).

III.   Au démarrage du système, pressez la touche <Suppr> pour entrer dans le Bios

IV.   Entrez dans le menu «CPU SpeedEasy setup»

Note: si vous ne déterminez pas la vitesse de votre unité centrale, votre système fonctionnera par défaut (200MHz pour les CPU avec une fréquence de Bus de 100MHz et 133MHz pour les CPU à 66MHz).

V.   Sauvegardez et quittez le Bios.

CMOS Setup Utility – Copyright©1984-1999 Award Software

SpeedEasy CPU Setup

CPU Model	: Intel® Celeron™	Item Help
CPU Speed	: 433 Mhz (66x6.5)	
X Multiplier	X2	Menu Level >
X Bus Clock	66MHz	
Spread Spectrum	Disabled	

Prévenir :

Le menu SpeedEasy vous fournit un ensemble de valeurs. Vous pouvez sélectionner manuellement la vitesse de CPU dans ce menu soit en mode «SpeedEasy» soit en mode «Jumper Emulation» (voir manuel).

ATTENTION: Ne pas sélectionner une fréquence de fonctionnement du CPU supérieure à celle indiquée par le constructeur. Nous déclinons toute responsabilité pour tout dégât qui en résulterait.

Chapter 1
Introduction

Overview

The Advance 10M green mainboard utilizes the Apollo Pro 133A chipset and provides high performance and cost-effective mATX platform. The VIA®VT82C694X chipset and VIA® VT82C686A chipset provides new features with Intel Celeron™ PPGA370 &Pentium®III FC-PGA processors, Cyrix-III processor , AGP 4X mode, and UltraDMA66. Equipped with two memory module sockets to support PC66/PC100/PC133MHz SDRAM and 66/100/133MHz VCM SDRAM. It also provides advanced features such as Suspend to RAM, wake-up on LAN, wake-up on internal/external modem and keyboard password power-on function. The green function is in compliance with the ACPI specification.

Key Features

Form factor
- MicroATX form factor of 244mm x220mm.

Microprocessor
- Supports all Intel Pentium®III FC-PGA processors at 500E/533EB/550E/600E/600EB/ 650/667/700/733/750/800/800EB MHz and future processors
- Supports all Intel®Celeron™ PPGA 370 processors at 300A/333/366/400/433/466/ 500/533A/566/600/633 MHz and future processors.
- Supports later processors Cyrix-III at PR433/466/500/533MHz and future processors
- Supports 66/100/133MHz host bus speed, can overclock to 150MHz.
- CPU core frequency = Bus speed x3, x3.5, x4, x4.5, x5, x5.5, x6, x6.5, x7, x7.5, x8.
- On-board 1.5V, 2.5V regulators.

Chipset
- Apollo Pro 133A chipset: VT82C694X, VT82C686A.

System memory
- Provides two168 pin 3.3V unbuffered 66/100/133MHz DIMM sockets.
- Supports both 66/100/133MHz SDRAM and 66/100/133MHz VCM(Virtual Channel Memory)SDRAM

- Minimum memory size is 8MB, maximum memory size is 1GMB.
- 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.
- Supports "Ultra DMA/66"Synchronous DMA mode transferring up to 66 Mbytes/sec.
- Integrated 16x32bit buffer for IDE PCI Burst Transfers.

On-chip I/O

- 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 and Zip drive.
- All I/O ports can be enabled/disabled in the BIOS setup.

On-chip sound

- AC'97 codec
- Hardware Sound AU8810 (Manufacturing option)

AGP SLOT

- Supports 4X mode & AGP 2.0 compliant.

Advanced features

- PCI 2.2 Specification compliant.
- Provides Trend ChipAwayVirus® On Guard and PC-Cillin software with killing virus function.
- Provides four USB ports, on-board PS/2 mouse and PS/2 keyboard ports.
- Provides infrared interface.
- Support PC99 color- coding connector Specification
- Supports Windows 98/Windwos 2000 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.

- supports system monitoring (monitors system temperature, CPU temperature, voltages, chassis intrusion and fan speed).
- Provides management application such as ManageEasy.
- Protects the system BIOS from being attacked by severe virus such as CIH, by enabling "Flash Write Protect" in CMOS setup or closing the Jumper "JAV".

BIOS

- Licensed advanced AWARD BIOS, supports flash ROM with 2M bit 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.
- Supports ACPI power status: S0, S1, S3(STR), S5(Soft-off)

Expansion slots

- 2 PCI slots
- 1 AGP Slot
- 1 AMR

Special Features

BIOS-ProtectEasy

The BIOS of the mainboard is contained inside the Flash ROM. Severe viruses such as CIH virus are so dangerous that it may overwrite the BIOS of the mainboard. If the BIOS has been damaged, the system will be unable to boot. We provide the following solution which protects the system BIOS from being attacked by such viruses.

There are two choices which implements this function.
1. Set the jumper (JAV) as closed, the BIOS can not be overwritten.
2. Set the jumper (JAV) as opened, meanwhile set "Flash Write Protect" as Enabled in AWARD BIOS CMOS Setup. In this way, the BIOS can not be overwritten, but the DMI information can be updated.

Refer to page 22 for detailed information on jumper setting, and page 32 for related BIOS setting.

Ultra ATA/66

According to the previous ATA/IDE hard drive data transfer protocol, the signaling way to send data was in synchronous strobe mode by using the rising edge of the strobe signal. The Ultra ATA/33 protocol doubles the burst transfer rate from 16.6MB/s to 33.3MB/s, by using both the rising and falling edges of the strobe signal, this time Ultra ATA/66 doubles the Ultra ATA burst transfer rate once again (from 33.3MB/s to 66.6MB/s) by reducing setup times and increasing the strobe rate. The faster strobe rate increases EMI, which cannot be eliminated by the standard 40-pin cable used by ATA and Ultra ATA. To eliminate this increase in EMI, a new 40-pin, 80-conductor cable is needed. This cable adds 40 additional ground lines between each of the original 40 ground and signal lines. The additional 40 lines help shield the signal from EMI, reduce crosstalk and improves signal integrity.

Ultra ATA/33 introduced CRC (Cyclical Redundancy Check), a new feature of IDE that provides data integrity and reliability. Ultra ATA/66 uses the same process. The CRC value is calculated by both the host and the hard drive. After the host-request data is sent, the host sends its CRC to the hard drive, and the hard drive compares it to its own CRC value. If the hard drive reports errors to the host, then the host retries the command containing the CRC error.

Ultra ATA/66 technology increases both performance and date integrity. However there are basically five requirements for your system to run in Ultra ATA/66 mode:

1.   The system board must have a special Ultra ATA/66 detect circuit, such as Advance 10M mainboard.
2.   The system BIOS must also support Ultra ATA/66.
3.   The operating system must be capable of DMA transfers. Win95 (OSR2) , Win98 and WindowsNT are capable.
4.   An Ultra ATA/66 capable, 40-pin, 80-conductor cable is required.
5.   Ultra ATA/66 compatible IDE device such as a hard drive or CD-ROM drive.

PC-133 Memory

PC133 SDRAM Unbuffered DIMM defines the electrical and mechanical requirements for 168-pin, 3.3 Volt, 133MHz, 64/72-bit wide, Unbuffered Synchronous DRAM Dual In-Line Memory Modules (SDRAM DIMMs). Relatively , the peak bandwidth of PC-133 memory is the 33% higher than PC-100 memory. These latest SDRAMs are necessary to meet the enhanced 133MHz bus speed requirement.

Advance 10M mainboard based on VIA Apollo Pro 133(694X) chipset to adopt the PC-133 technology.

Suspend to RAM

Suspend to RAM is a cost-effective, optimal implementation of the Advanced Configuration and Power Interface (ACPI) 1.0 specification, which makes a PC's power consumption drop to the lowest possible level and enables quick wakeup. When the system is in Suspend-to-RAM status, the system context is maintained in system memory, the system consumes only a small fraction of the power used for full operation. Instead of shutting down the system to save power when not in use and then having to reboot later, Suspend-to-RAM solution enables the system to quickly wake up, restoring all applications and features, enabling operation in a few seconds.

To implement this function, the following requirments are essential:

1. Power supply requirements: The current of 5VSB line of the power supply should be more than 0.75A.

2. Set the Jumper JSTR with pin2&pin3 closed. Refer to page 24 for detail.

3. The BIOS option "ACPI function" should be enabled, and "ACPI Suspend Type" should be set as S3 in AWARD BIOS CMOS setup. Refer to page 35 for detail

4. An ACPI-enabled operating system such as Windows 98 or Windows 2000 family is needed.
    a. In order to install ACPI-enabled Windows 98 operating system, the setup command should be typed as shown below:

    D:\SETUP /P J

    (This manual assumes that your CD-ROM device driver letter is D:).

5. Three ways to enter Suspend-to-RAM status under ACPI-enabled Windows 98:
    - Click Start -> Shut down -> Standby to enable the system to enter Suspend-to-RAM status.
    - Click Start -> Setup -> Control Panel -> Power Management -> Advanced and choose Standby item, the system will enter Suspend-to-RAM status when you press power button.
    - From Power Management Properties in Control Panel, set the latency time in System Standby, the system will enter Suspend-to-RAM status when time out.

The same ways used to power up the system can be used to wake up the system from Suspend-to-RAM status. For example, pushing the power button, through the Wake-on-LAN, Wake-on-Modem function or RTC Alarm.

Aureal's AU8810

PCI-Based AC'97 Digital Audio chip

The AU8810 offers a professional quality PC audio system that combines DirectSound acceleration with complete legacy compatibility.The function is in compliance with PCI2.2, ACPI, PPMI, APM specifecation. it provides high sound quality and performance to play the 3D game and others home multimedia applications, also supports A3D audio technology. The Advance 10M mainboard has two solution for on-board sound.

 1. Soft-sound   2. AU8810(Manufacturing option)

Soft-sound

Au8810(Manufacturing option)
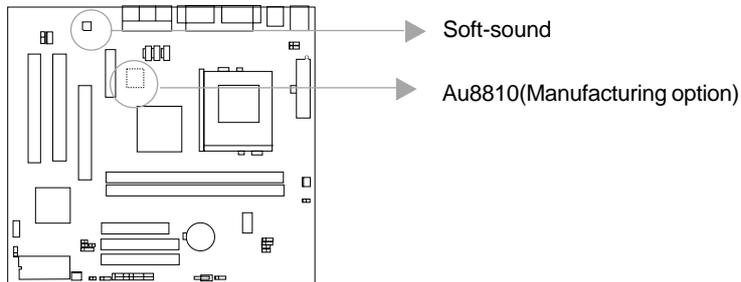
Warning: If AU8810 chip is onboard, the primary codec MR(Modem Riser) card must be used.

A3D

Aureal A3D is a breakthrough audio technology that brings an authentic three-dimensional sound quality to a pair of ordinary speaker. With Aureal A3D, you hear dynamically created and positioned sounds while playing games or visiting websites that have been encoded with Aureal A3D -adding a whole new dimension to the gaming experience.

A3D is a two-part technology; one part is the API - the code that enables A3D in a game; the other part is the algorithms - the actual processing of the 3D audio information. A3D is similar to Microsoft's DirectSound 3D, but has many improvements. The A3D logo screen will appear whenever a game or other program initializes A3D.

(A3D Logo)

Installation of Au8810 driver

Before you install Au8810 driver, please Make sure that Au8810 PCI sound chipset is onboard.

1. If Au8810 is onboard, you need to install both Audio Codec driver and Au8810 PCI Sound driver by QDI Driver CD 2000.

2. If Au8810 is not onboard, you only install Aduio Codec driver by QDI Driver CD 2000

Please Refer to Appendix A for more information about QDI driver CD 2000.

Chapter 2

Installation Instructions

This section covers External Connectors, Jumper Settings and Memory Configuration. Re-fer 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.

PS/2 Mouse Connector

PS/2 Keyboard Connector
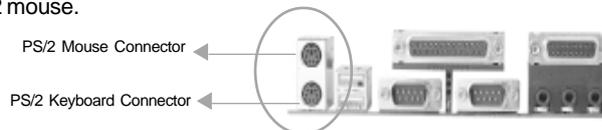
USB1, USB2

Two USB ports are available for connecting USB devices.

USB1

USB2

USB3, USB4

Two USB ports are not available on the back panel. Therefore, we provide a 10-pin ribbon cable with bracket to connect Built-in on-board USB header. (manufacturing option)

+5v			GND
T1-			GND
T1+			T0+
GND			T0-
GND			+5v
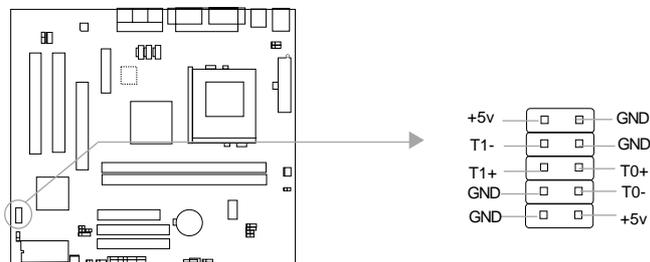
Parallel Port Connector and Serial Port Connector (UART1, UART2)

The parallel port connector can be connected to a parallel device such as a printer, while the serial port connector can be connected to a serial port device 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.

Parallel Port

UART1

UART2

Line-in jack, Microphone-in jack, Speaker-out jack and

MIDI/Joystick connector

The Line-in jack can be connected to devices such as a cassette or minidisc player for playback or recording. The Microphone-in jack can be connected to a microphone for voice input. The Speaker-out jack allows you to connect speakers or headphones for audio output from the internal amplifier.

The MIDI/Joystick connector allows you to connect a game joystick or a MIDI device.

MIDI/Joystick

Speaker out   Line in   Microphone in
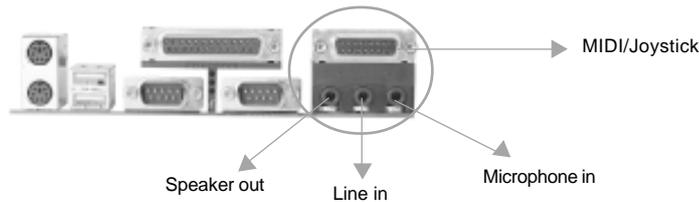
ATX Power Supply Connector & Power Switch (POWER SW)

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 (power button). 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.

ATX Power Supply Connector

3.3V 3.3V GND 5V GND 5V GND PS-OK 5VSB 12V

1

20

3.3V -12V GND PSON GND GND GND -5V 5V 5V
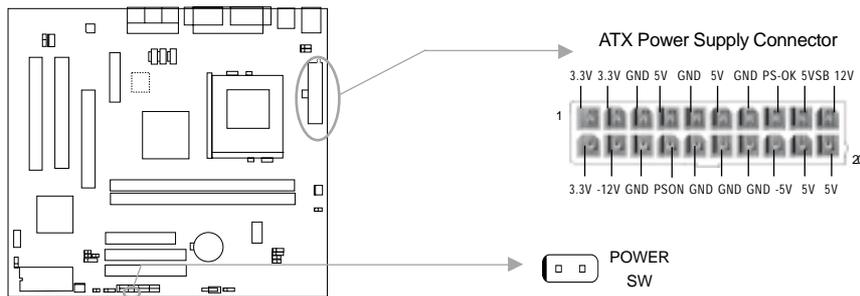
POWER
SW

Note: * If you change "soft-off by PWR-BTTN" 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 (PWRLED)

The power LED has four status. When the system is in power up status, the LED is on. When the system is in suspend status, the LED is blink. When the system is in Suspend to RAM, the LED is off. When the system is in Soft-Off status, the LED is off.The connector has an orientation.

ACPI LED Connector (ACPI_LED)(Reserved)

The ACPI LED is double-color lights with three pins. Pin1&Pin2 drive different color lights. If Pin1 drives orange light , Pin2 drives green light, the following status will come out. When the system is in power up status, the LED is green on. When the system is in suspend status, the LED is green blink. When the system is in suspend to RAM status, the LED is orange on. When the system is in soft-off status, the LED is off.

GREEN LED Connector (GREEN_LED)

The GREEN LED has four status. When the system is in three status (including power up, suspend, soft-off), the LED is off. When the system is in suspend to RAM status, the LED is on.

Hardware Green Connector (SLEEP SW)

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

|		SPEAKER			REST		Green_LED			KEY_L
HDDLED	HDDLED-	VCC	GND	NC	SPKDATA	RESET	GND	EMPTY	LED+	LED -	LED -	GND	KEYLOCK
	HDDLED +	LED1 -	LED2-	LED+(VCC)	POWER	GND	EMPTY	EMPTY	SLEEP	GND	LED+	LED -	LED -
		ACPI LED		Power SW				SLEEP SW	POWER LED
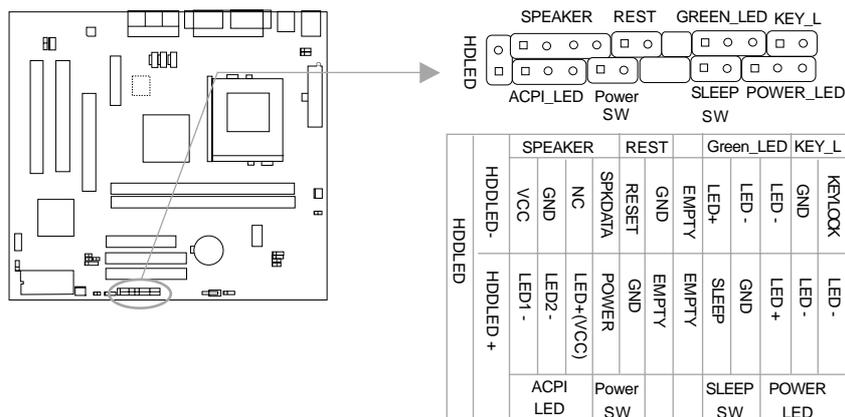
Fan Connector (CPUFAN, CHSFAN)

The fan speed of these two fans can be detected and viewed in "PC Health" section of the BIOS. They will be automatically turned off after the system enters suspend mode.

CPUFAN
FAN GND
+12V
SENSE

SENSE   FAN GND
+12V
CHSFAN
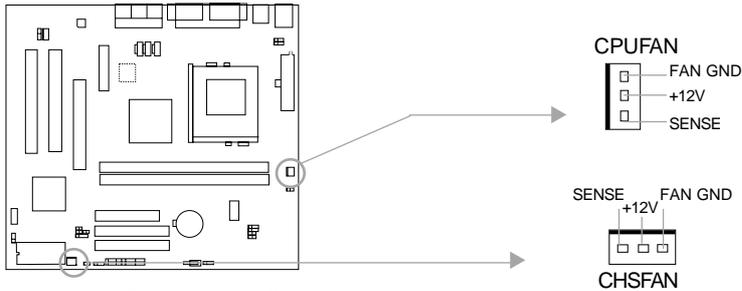
Wake-Up On LAN (WOL)

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 "PowerOn by Ring/LAN" as Enabled in the "POWER MANAGEMENT SETUP" section of the BIOS. Save & exit, then boot the operating system once to make sure this function takes effect.

Signal for waking up (active high)
GND
+5V standby
1
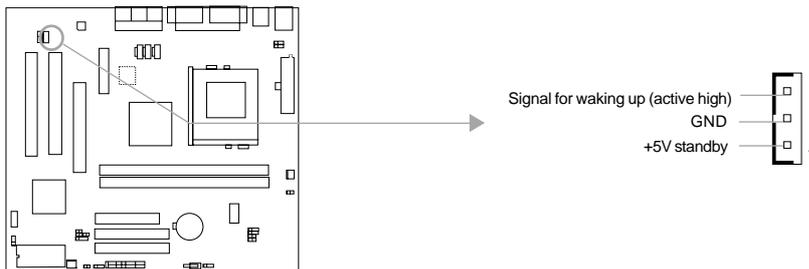
Wake-Up On Internal Modem (WOM)

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 " PowerOn by Ring/ LAN " as Enabled in the "POWER MANAGEMENT SETUP" section of the BIOS. Save & exit, then boot the operating system once to make sure this function takes effect.

GND
Signal for waking up (active low)
+5V standby
1
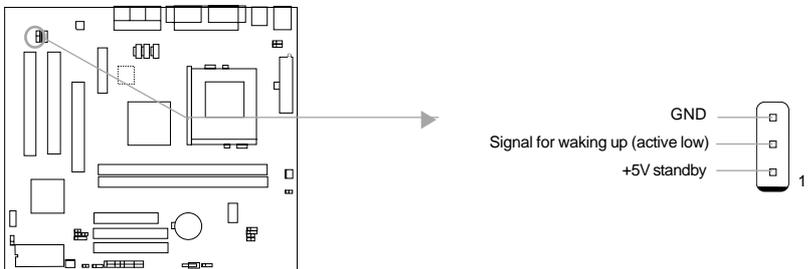
Audio Connectors (AUDIO_OUT, CDLIN, MODEM)

The onboard AUDIO_OUT is set for incase speaker, when the outcase speaker is being used, the status of incase speaker will automatically switch to disable. The CDLIN connector allow you to receive stereo audio input from such sound sources as a CD-ROM, TV tuner, or MPEG card. The MODEM connector allows the onboard audio to interface with a voice modem card with a similar connector. It also allows the sharing of mono_in (such as a phone) and mono_out (such as a speaker) between the onboard audio and the voice modem card.

Phone-In (from Modem)
GND
Mono-Out (to Modem)

MODEM

CD Left Channel
Common
CD Right Channel

CDLIN

Right track	1		2	Left track
Signal Ground	3		4	Signal Ground
Power Ground	5		6	Power Ground
+12V(500mA)	7			

Audio-out
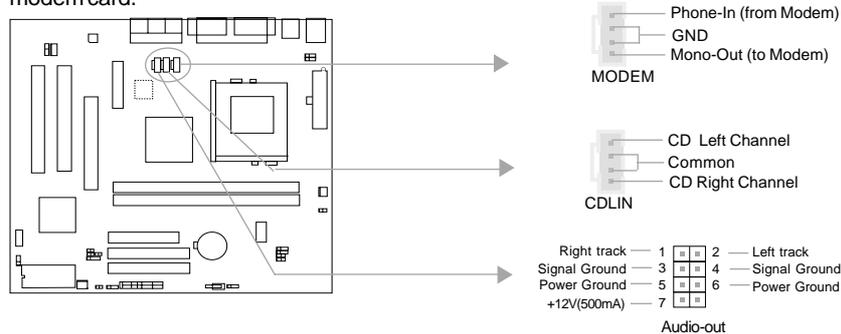
Audio/Modem Riser Interface Connector (AMR)

The AMR Interface Connector is the interface between the mainboard and the Audio/Modem Riser card. The connector provides all necessary signals which supports several different configurations of audio and modem in the system, such as audio and modem on the Riser, audio on the mainboard and modem on the Riser, or no audio with modem on the Riser. Advance 10M mainboard provides you with audio onboard solution, onboard audio can be enabled/disabled. Either AMR (Audio/Modem Riser) card or MR (Modem Riser) card can be used on this system. If AU8810 chip is onboard, the primary codec MR card must be used. This software configurable AC'97 audio and modem system gives customers an advanced, multimedia solution at an extremely low price. The AC'97 audio and modem system can be enabled/disabled in "Integrated Peripherals" in AWARD BIOS CMOS Setup.

AMR Interface Connector
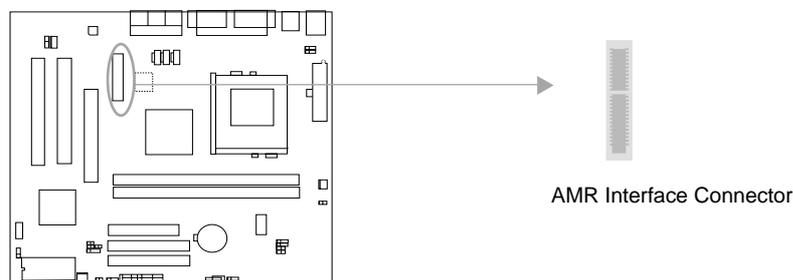
Chassis Security Switch (CHSSEC)

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 the chassis has been opened. You can receive this information from QDI ManageEasy software.

GND   Indicate signal
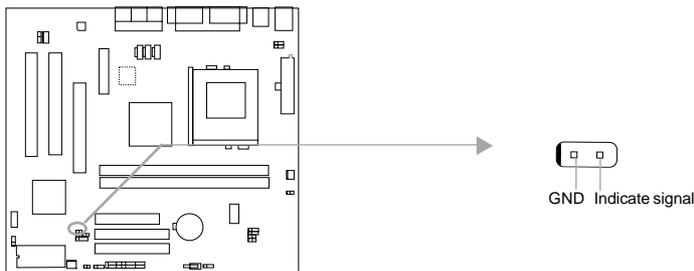
Infrared Header (IrDA)

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

VCC
IRTX
GND
IRRX
NC
VCC
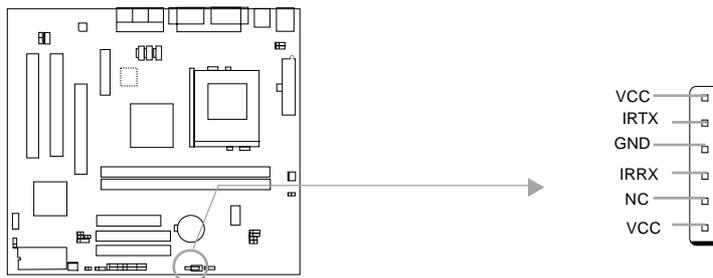
Expansion Slots & I/O Ports description

| Slot / Port	Description
PCI 1	First PCI slot.
PCI 2	Second PCI slot.
DIMM1	First DIMM slot.
DIMM2	Second DIMM slot.
IDE 1	Primary IDE port.
IDE 2	Secondary IDE port.
AMR	AMR slot.
AGP	AGP slot.
FLOPPY	Floppy Drive Port.

Jumper Settings

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

Processors Selection(JCPU2)

Advance 10 mainboard supports Intel® processors and Cyrix-III processors. If you use Intel® processors , set the jumper JCPU2 as opened. If your use Cyrix-III processors, set the jumper JCPU2 as closed.

Supports Cyrix-III processors   JCPU2

Supports Intel processors   JCPU2
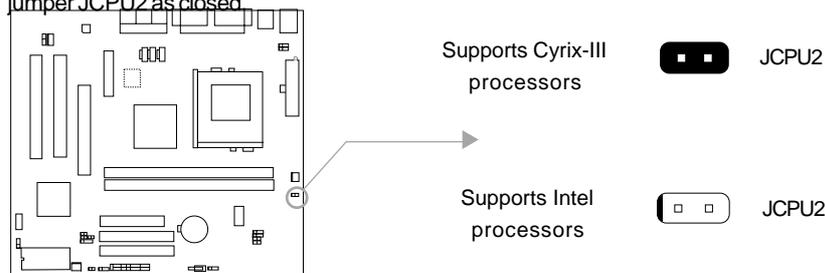
FSB Frequency Selection(JFSB1, JFSB2)

The jumper labeled JFSB1 and JFSB2 are located on the mainboard providing users with FSB frequency selection. If it is set as Auto with JFSB1 and JFSB2 closed, the system detects the CPU front side bus automatically. If it is set as Jumper setting with JFSB1 and JFSB2 opened, the CPU front side bus can be set manually. For more FSB frequency selection, you could check it in AWARD BIOS CMOS Setup and set the proper frequency that you need.


JFSB1
JFSB2

| FSB Selection	JFSB1	JFSB2
Auto	Close	Close
Jumper Set	Open	Open
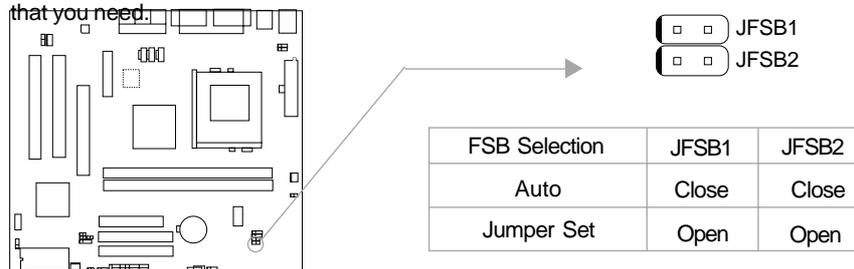
Overclocking Jumper Setting (JCLK1, JCLK2)

Jumpers labeled JCLK1, JCLK2 are located on the mainboard providing users with CPU overclocking feature. The host bus speed can be set as 66/100/133MHz. Refer to the chart below for the location of these jumpers, and the table for information on how to set them.
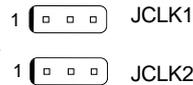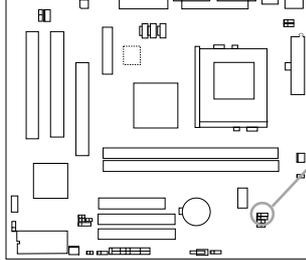
1 □ □ □   JCLK1

1 □ □ □   JCLK2

CPU FSB	JCLK1	JCLK2
66MHz	Pin2&Pin3 closed	Pin2&Pin3 closed
100MHz	Pin1&Pin2 closed	Pin2&Pin3 closed
133MHz	Pin1&Pin2 closed	Pin1&Pin2 closed

If CPU FSB is set as 66MHz, the system only run at 66MHz front side bus even if a processor with 100MHz or higher. If CPU FSB is set as 100MHz, the system can run at 100MHz front side bus even if a processor with 66MHz FSB is installed. Setting up to 133MHz FSB is also supported. However, whether or not your system can be overclocked depends on your processor's capability. Whether the processor is bus ratio locked or unlocked should also be taken into account. For bus ratio unlocked processor, this overclocking feature can be implemented by setting JFSB1 and JFSB2 as all opened, meanwhile respectively adjusting the bus clock higher and the bus ratio (Multiplier) lower in "SpeedEasy CPU Setup" in AWARD BIOS CMOS Setup. We do not guarantee the overclocking system to be stable.

BIOS-ProtectEasy Jumper (JAV)

The BIOS of the mainboard is contained inside the Flash ROM. If the jumper JAV is set as closed, you will be unable to flash the BIOS to the mainboard. However in this status, the system BIOS is protected from being attacked by serious virus such as CIH virus.
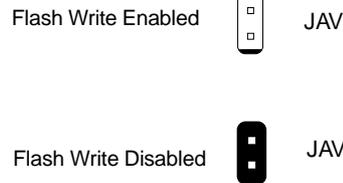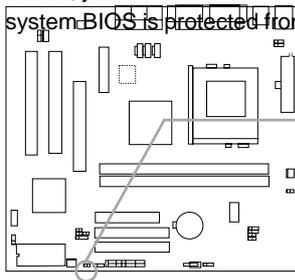
Flash Write Enabled   JAV

Flash Write Disabled   JAV

Setting the jumper JAV as opened(default), meanwhile disabling the "Flash Write Protect" item from "BIOS Features Setup" in AWARD BIOS CMOS Setup, allows you to flash the BIOS to the Flash ROM.

The DMI (Desktop Management Interface) system information such as the CPU type/speed, memory size, and expansion cards will be detected by the onboard BIOS and stored in the flash ROM. Whenever the system hardware configuration is changed, DMI information will be updated automatically. However, setting jumper JAV as closed makes flashing BIOS and updating DMI information impossible. Therefore, set JAV as closed when changing the system hardware configuration, or the error message "Unkown Flash Type" will be displayed on the screen, and DMI information update will be fail.

Setting the jumper JAV as opened(default), meanwhile disabling the "Flash Write Protect" item from "BIOS Features Setup" in AWARD BIOS CMOS Setup, allows you to flash the BIOS to the Flash ROM.

Setting the jumper JAV as closed, the Pentium® III Processor Number can be not readable whatever disabling or enabling "Processor Number Feature" item from "BIOS Features Setup" in AWARD BIOS CMOS Setup.

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.

Normal status: JCC

Clear CMOS: JCC

(Unplug the AC power supply)
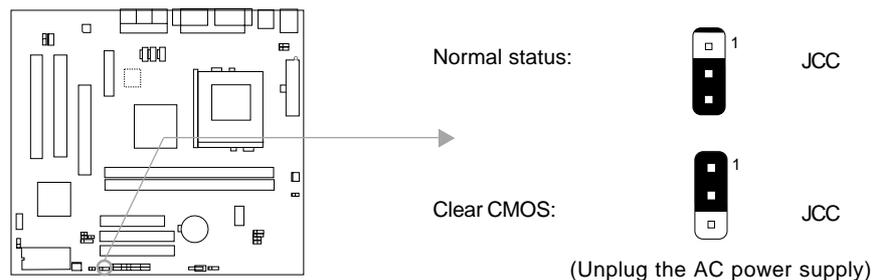
## Enable USB KeyDevice Wake-up Function (JUSB1, JUSB2)

The mainboard provides the advanced USB keyDevice wake-up function. The system can be waken up from its power saving status including ACPI S3 by activating USB keyDevice. When using this function, set JUSB1&JUSB2 with pin1 & pin2 closed. Otherwise, set JUSB1&JUSB2 with pin2 & pin3 closed for disabling.

JUSB1

Disable: JUSB1&JUSB2
              1 2 3

Enable: JUSB1&JUSB2
              1 2 3

JUSB2
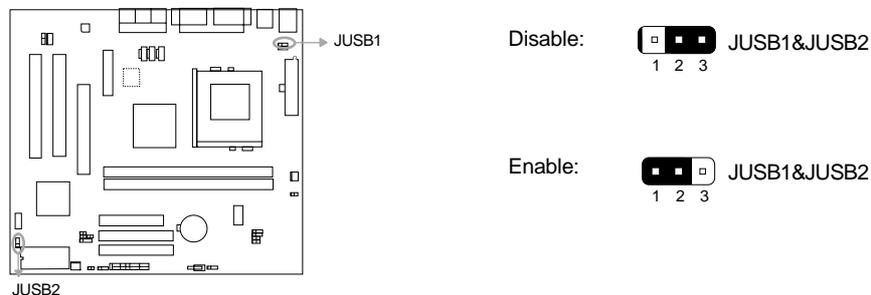
AC97&MC97 Selection (JMC1, JMC2, JAC1)

Advance 10 mainboard is compatible with AC97 and MC97specification. Refer to the table for information on how to set them.
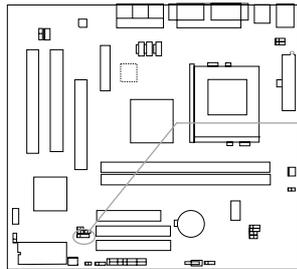
Jumper Function	JAC1	JMC1	JMC2
AC97 Only	1-2	1-2	1-2
AC97+MC97	1-2	1-2, 3-4	Open

'1-2' represents pin1 &pin2 closed

'2-3' represents pin2 & pin3 closed

Suspend to RAM Switch (JSTR)

If you want to Disable Suspend to RAM function, set JSTR with pin1&pin2 closed, otherwise, set JSTR with pin2&pin3 closed for implementing this function.
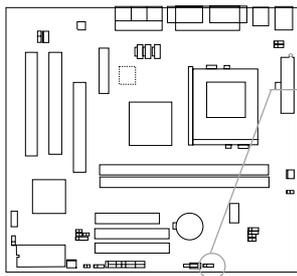
Enable STR   JSTR

Disable STR   JSTR

Memory Configuration

This mainboard provides two 168 pin 3.3V PC133 un-buffered DIMM sockets to support a flexible memory size ranging from 8MB up to 1GMB for SDRAM. PC66/PC100/ PC133MHz SDRAM with SPD and later memory VCM (Virtual Channel Memory) SDRAM are supported, The following set of rules allows optimum configurations.

- Possible SDRAM DIMM memory sizes are 16MB, 32MB, 64MB, 128MB, 256MB, 512MB in each DIMM socket.

- Processor with 66MHz FSB should be paired with PC66, PC100, PC133 SDRAM processor with 100MHz FSB should be paired with either PC100 or PC133 SDRAM, processor with 133MHz FSB should be paired only with PC133 SDRAM.

- supports Suspend to RAM

Chapter 3
BIOS Description

Utility Support:

AWDFLASH.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 encounter problems.**

- **Before upgrading your BIOS, review the description below to avoid making mistakes, destroying the BIOS and resulting in a non-working system.**

When you encounter problems, for example, you find your system does not support the latest CPU released after our current mainboard, you may therefore upgrade the BIOS, please don't forget to set JAV as close and disable the "Flash Write Protect" item in AWARD BIOS CMOS Setup first .

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 AWDFLASH.EXE (version>7.07) from the directory \Utility located on 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 note the checksum of this BIOS which is located in readme file.

5. Reboot the system from the bootable diskette created.

6. Then run the AWDFLASH utility at the **A:** prompt as shown below:

    A:\AWDFLASH xxxx.bin

    Follow the instruction through the process. Don't turn off power or reset the system until the BIOS upgrade has been completed.

If you require more detailed information concerning AWDFLASH Utility, for example, the different usage of parameters, please type A:\>AWDFLASH /?

AWARD BIOS Description

Entering Setup

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

Press <Del> to enter SETUP

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

```
     CMOS Setup Utility - Copyright (C) 1984-2000 Award Software

   ▶ Standard CMOS Features            ▶ PC Health Status

   ▶ SpeedEasy CPU SETUP                 Load Fail-Safe Defaults

   ▶ Advanced BIOS Features              Load Optimized Defaults

   ▶ Advanced Chipset Features           Set Supervisor Password

   ▶ Power Management Setup              Set User Password

   ▶ PnP/PCI Configurations             Save & Exit Setup

   ▶ Integrated Peripherals             Exit Without Saving


   Esc : Quit       F9 : Menu in BIOS      ↑ ↓ → ←  : Select Item
   F10 : Save & Exit Setup

                   Time, Date, Hard Disk Type...
```

Figure-1 Main Menu

Load Fail-Safe Defaults
The Fail-Safe Defaults are secure and useful for system. It is recommended users load the Fail -Safe Defaults when the system is in trouble.

Load Optimized Defaults
The Optimized Defaults are common and efficient. It is recommended users load the optimized defaults first, then modify the needed configuration settings.

Standard CMOS Features Setup
The basic CMOS settings included in "Standard CMOS Features" 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 desired in each item.
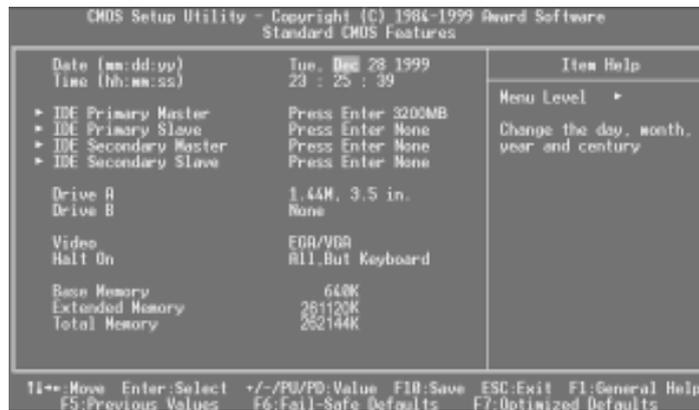
Figure-2　Standard CMOS Setup Menu

For the items marked, press enter, a window will pop up as shown below. You can view detailed information or make modifications.
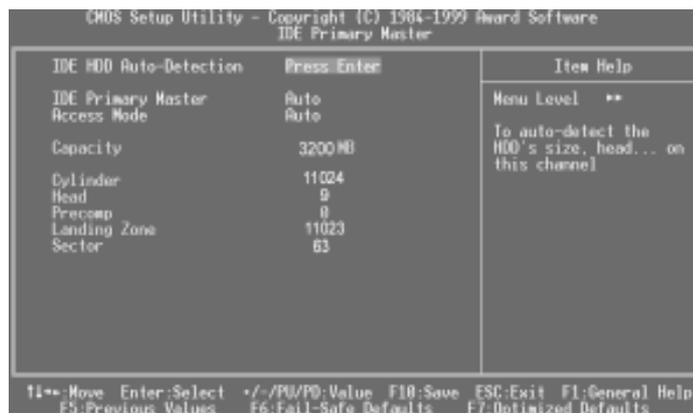
Figure-2-1　IDE Primary Master Setup Menu

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

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 trans-formation 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.

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 divising 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.

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.

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

Memory

This 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.
Total Memory	Total memory of the system equals the sum of the above memory.

SpeedEasy CPU Setup
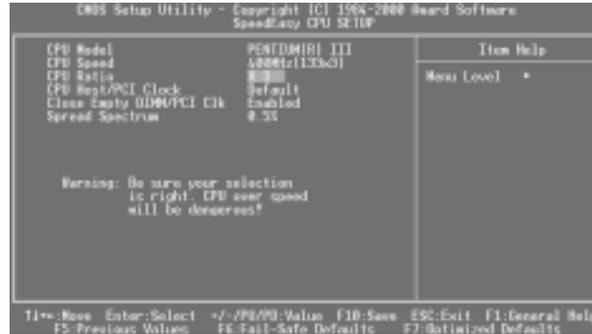
Figure-3 SpeedEasy CPU Setup

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

Item	Option	Description
● CPU Model	*Intel(R) Celeron(TM)*	BIOS can automatically detect the CPU model, therefore this item is shown only.
● CPU Speed	*200MHz (66x3)*	CPU frequency should be set according to the CPU type. CPU frequency should be set according to the CPU type. For processors with 66MHz FSB you can choose from 200MHz (66X3) to 533MHz(66x8). For processors with 100MHz FSB, you can select from 300MHz(100X3) to 800MHz(100X8). For proces -sors with 133MHz FSB, you can select from 400MHz (133x3) to 1066MHz(133x8).
● CPU Ratio	*3~8*	The multiplier can be chosen from 3, 3.5, 4, 4.5, 5, 5.5,6, 6.5, 7, 7.5, 8. However the multiplier setting will not function for bus ratio locked processor, only bus ratio unlocked processor.
● CPU Host/PCI Clock	*66/33MHz 150/37MHz*	Selects the CPU host bus clock and PCI clock.
● Close Empty DIMM/PCI Clk	*Enabled*	Closes empty DIMM or PCI clock to reduce EMI.
	Disabled	Does not close empty DIMM or PCI clock.
● Spread Spectrum	0.25% 0.5%	Enables Clock Spread Spectrum to reduce EMI.
	Disabled	Disables Clock Spread Spectrum to reduce EMI.

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

Advanced BIOS Features Setup
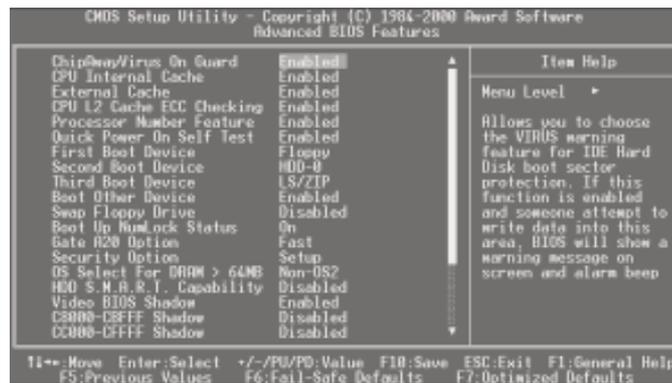
Figure-4   BIOS Features Setup Menu

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

Item	Option	Description
● ChipAway Virus OnGuard	*Enabled*	Guards against boot Virus threats early in the boot cycle, before they have a chance to load into your system, ensuring your computer boots to a clean operating system.
	Disabled	Invalidates this function.
● CPU Internal Cache	*Enabled*	Enables CPU internal Level1/Level2 cache.
	Disabled	Disables CPU internal Level1/Level2 cache.
● CPU L2 Cache ECC Checking	*Enabled*	Enables CPU L2 Cache ECC function.
	Disabled	Disables CPU L2 Cache ECC function.
● Processor Number Feature	*Enabled*	Pentium®III Processor Number can be readable.
	Disabled	Pentium®III Processor Number can be unreadable.
● Quick Power On Self Test	*Enabled*	Enables quick POST. BIOS will shorten or skip some check items during POST to speed up POST after you power on the computer.
	Disabled	Normal POST.
● First (Second, Third) Boot Device Boot other Device	*Disabled* *Floppy*	Select Your Boot Device Priority. It could be Disabled, Floppy, LS/ZIP, HDD-0, HDD-1, HDD-2, HDD-3, SCSI, CDROM, LAN.
● Swap Floppy Drive	*Enabled*	Exchanges the assignment of A&B floppy drives.
	Disabled	The assignment of A&B floppy drives are normal.
● Boot Up Numlock Status	*On*	Keypad is used as number keys.
	Off	Keypad is used as arrow keys.

● Boot Up Numlock Status	*On*	Keypad is used as number keys.
	Off	Keypad is used as arrow keys.
● Gate A20 Option	*Normal*	The A20 signal is controlled by the keyboard controller or chipset hardware.
	Fast	Default setting. The A20 signal is controlled by Port 92 or the chipset specific method.
● Memory Parity/ ECC Check	*Enabled*	Enables the Error Checking & Correction if ECC memory is used.
	Disabled	Disables the ECC function.
● Security Option	*System*	Select whether the password is required every
	Setup	time the system boots or only when you enter setup.
● OS Select For DRAM>64MB	*Non-OS2*	If your operating system is not OS/2, please select this item.
	OS2	If system DRAM is more than 64MB and the operating system is OS/2, please select this item.
● HDD S.M.A.R.T Capability	*Enabled*	Enables S.M.A.R.T hard disk support.
	Disabled	Invalidates this feature.
● Video BIOS Shadow	*Enabled*	Video BIOS will be copied to RAM. Video Shadow will increase the video speed.
	Disabled	Video shadow is disabled.
● C8000~CBFFF Shadow: DC000-DFFFF	*Enabled*	Optional ROM will be copied to RAM by 16K bytes per unit.
Shadow:	*Disabled*	The shadow function is disabled.
● Delay For HDD 0~3 (Secs):	*0~3*	Sets the pre-delay time for hard disk to be accessed by the system.
● Show Bootup Logo	*Disabled*	Enables the logo when system boots up.
	Enabled	Logo will not be shown when system boots up.
● Flash Write Protect	*Enabled*	Does not allow you to upgrade the BIOS. **Note: Enabling this item can protect the system BIOS from being attacked by severe virus such as CIH. Therefore disable this item item only when wanting to flash BIOS, afterwards set this item as Enabled (default).**
	Disabled	Disabling this item allows you to upgrade the BIOS.

Advanced Chipset Features Setup
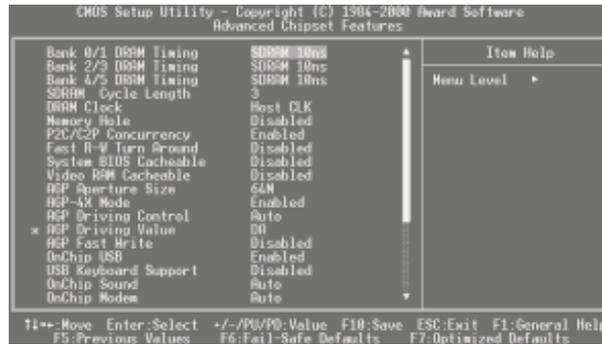
Figure-5   Advanced Chipset Features Setup Menu

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

Item	Option	Description
● Bank 0/1, 2/3, 4/5 DRAM Timing	Normal Medium Fast Turbo SDRAM 8ns	These items are of selected 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	2/3	Define the CLT timing parameter of SDRAM expressed in 66MHz clocks. Latency Time = 2 clocks Latency Time = 3 clocks
● DRAM Clock	Host Clk Hclk-33M Hclk+33M	DRAM frequency same as CPU FSB DRAM frequency is faster than CPU FSB by 33MHz DRAM frequency is slower than CPU FSB by 33MHz
● Memory Hole	Enabled	Memory Hole at 15-16M is reserved for expanded ISA card.
	Disabled	Do not set this memory hole.
● P2C/C2P Concurrency	Enabled Disabled	Enabled P2C/C2P concurrency Disable P2C/C2P concurrency
● Fast R-W Turn Around	Enabled Disabled	Enable Fast R-W Turn Around. Disable Fast R-W Turn Around.
● System BIOS Cacheable	Enabled	Beside conventioal memory, system BIOS area is also cacheable.
	Disabled	System BIOS area is not cacheable.
● Video RAM Cacheable	Enabled	Besides conventional memory, video RAM is also also cacheable.
	Disabled	Video RAM area is not cacheable.

● AGP Aperture Size (MB)	*4~256*	Sets the effective size of the Graphics Aperture to be used in the particular PAC Configuration.
● AGP-4X Mode	*Enabled*	Supports 4X mode.
	Disabled	Does not support 4X mode.
● AGP Driving Control	*Auto manual*	The default setting is suggested.
● AGP Driving Value	*EC*	Sets the AGP Driving Value when the 4X AGP card runs incorrectly.
● AGP Fast Write	*Enabled*	Enable AGP Fast Write
	Disabled	Disable AGP Fast Write
● Onchip USB	*Enabled*	Enables the onchip USB controller.
	Disabled	Disables the onchip USB controller.
● USB Keyboard Support	*Enabled*	USB keyboard support is enabled.
	Disabled	USB keyboard support is disabled.
● Onchip Sound	*Auto*	Enable AC97 function.
	Disabled	Disable AC97 function.
● Onchip Modem	*Auto*	Enable MC97 function.
	Disabled	Disable MC97 function.
● CPU to PCI Write Buffer	*Enabled*	Enable CPU to PCI Write Buffer.
	Disabled	Disable CPU to PCI Write Buffer.
● PCI Dynamci Bursting	*Enabled*	Enable PCI Dynamci Bursting.
	Disabled	Disable PCI Dynamci Bursting.
● PCI Master 0 WS Write	*Enabled*	Enable PCI Master 0 WS Write.
	Disabled	Disable PCI Master0 WS Write.
● PCI Delay Transaction	*Enabled*	Enable PCI Delay Transaction.
	Disabled	Disable PCI Delay Transaction.
● PCI#2 Access #1 Retry	*Enabled*	Enable PCI#2 Access #1 Retry.
	Disabled	Disable PCI#2 Access #1 Retry.
● AGP Master 1 WS Write	*Enabled*	Enable AGP Master 1 WS Write.
	Disabled	Disabled AGP Master 1 WS Write.
● AGP Master 1 WS Read	*Enabled*	Enable AGP Master 1 WS Read.
	Disabled	Disabled AGP Master 1 WS Read.
● Memory Parity/ECC Check	Enabled	Enables the Error Checking&Correction if ECC memory is used.
	Disabled	Disable the ECC function.

Power Management Setup

Figure-6   Power Management Setup Menu

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

Item	Option	Description
● ACPI function	*Enabled*	Validates ACPI function.
	Disabled	Invalidates ACPI function.
● Power Management	*User Define*	Users can configure their own Power Management Timer.
	Min Saving	Pre - defined timer values are used. All timers are in their MAX values.
	Max Saving	Pre - defined timer values are used. All timers are in their MIN values.
● ACPI Suspend Type	*S1*	Selects the ACPI suspend type.
	S3	
	Disabled	
● 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 After	*N/A*	System BIOS will never turn off the screen.
	Suspend	Screen blanks after the system enters suspend mode.
	Standby	Screen blanks after the system enters standby mode.
	Doze	Screen blanks after the system enters Doze mode.
● Video Off Method	*Blank Screen*	The system BIOS will only blank off the screen when disabling video.
	V / H SYNC + Blank	In addition to Blank Screen, BIOS will also turn off the V-SYNC & H - SYNC signals from VGA cards to monitor.
	DPMS	This function is enabled only for the VGA card supporting DPMS.

• Soft-off by PWRBTN	*Instant-off*	The system will power off immediately once the power button is pressed.
	Delay 4 Sec	The system will not power off until the power button has been pressed continuously for more than 4 seconds.
• Modem Use IRQ	*3,5,7,9,10,11 NA*	Special Wake-up event for Modem.
• Wake Up Events	*Press Enter*	set the following items.
• VGA	*on*	VGA active reloads global timer.
• LPT&COM HDD&FDD PCI/master	*Off* *LPT/COM* *Off/On on/off*	VGA active has no influence to global timer. Set the options of these items to reload global timer.
• Poweron by PCI card	Disable Enable	Disable power-on by PCI card. Enable power-on by PCI card.
• Wake up On by Ring/ LAN	*Enabled*	Allows the system to be powered on 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, or when a remote wake up signal comes up to the WOL header from LAN adapter.
	Disabled	Does not allow wake up on LAN or wake up from internal/external modem.
• Resume by Alarm	*Enabled*	RTC alarm can be used to generate a wake event to power up the system which is in power-off status. You can set any date or any time to power up the system.
	Disabled	RTC has no alarm function.
• IRQs Activity Monitoring	*Press Enter*	Reloads global timer.

PNP/PCI Configuration Setup
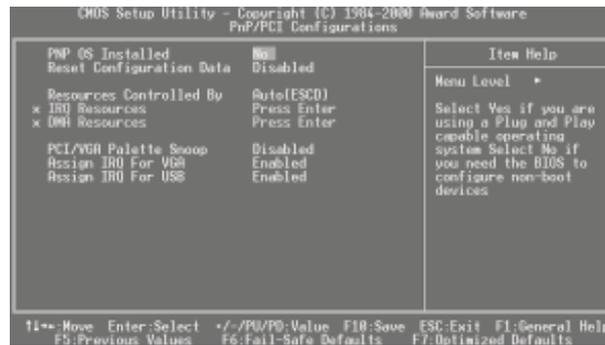
Figure-7   PNP/PCI Configuration Setup Menu

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

Item	Option	Description
● PNP OS Installed	*Yes*	Device resources assigned by PnP OS.
	No	Device resources assigned by BIOS.
● Reset Configuration Data	*Enabled*	The system BIOS will reset configuration data once then automatically set this item as disabled.
	Disabled	Disables the configuration data function.
● Resources Controlled By	*Manual*	Assigns the system resources (IRQ and DMA) manually .
	Auto	Assigns system resources (IRQ and DMA) auto- matically by BIOS.
● PCI/VGA Palette Snoop	*Enabled*	Enabled PCI/VGA Palette Snoop.
	Disabled	Disabled PCI/VGA Palette Snoop.
● Assign IRQ For VGA	*Enabled*	Assigns the needed IRQ for the VGA card.
	Disabled	Does not assign an IRQ for the VGA card, in order to release the IRQ.
● Assign IRQ For USB	*Enabled*	Assigns an IRQ for USB. If an USB device is used enables this item.
	Disabled	Does not assign an IRQ for USB.
● IRQ-3~IRQ-15 assigned to	*Legacy ISA*	The specified IRQ-x will be assigned to ISA only.
	PCI/ISA PnP	The specified IRQ-x will be assigned to ISA or PCI.
● DMA-0~DMA-7 assigned to	*Legacy ISA*	The specified DMA-x will be assigned to ISA only.
	PCI/ISA PnP	The specified DMA-x will be assigned to ISA or PCI.
● PCI #2 Access #1 Retry	*Enabled*	Enables PCI #2 Access #1 Retry.
	Disabled	Disables PCI #2 Access #1 Retry.

Integrated Peripherals

Figure-8 Integrated Peripherals Menu

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

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

● UART 2 Mode	*Standard*	Defines Serial Port 2 as standard serial port.
	HPSIR	Supports IRD mode.
	ASK IR	Supports SHARP ASK-IR protocol with maximum baud rate up to 57600bps.
● Onboard Parallel Port	*378/IRQ7, 278/IRQ5, 3BC/IRQ7*	Defines onboard parallel port address and IRQ channel.
	Disabled	Onboard parallel port is disabled.
● Parallel Port Mode	*SPP*	Defines the parallel port mode as
	EPP	Standard Parallel Port (SPP), Enhanced
	ECP,	Parallel Port (EPP), or Extended
	ECP+EPP	Capabilities Port (ECP).
● Onboard Legacy Audio	*Enabled*	the following item according as onboard audio to set
	Disabled	
● Sound Blaster	*Enabled*	Enabled Sound Blaster.
	Disabled	Disabled Sound Blaster.
● SB I/O Base Address	*220H/240H 260H/280H*	Define SB I/O Base Address.
● SB IRQ Select	*DMA0~DMA3 260H/280H*	Select SB IRQ.
● SB DMA Select	*IRQ5~10*	Select SB DMA .
● MPU-401	*Enabled*	Enable MPU-401
	Disabled	Disable MPU-401
● MPU-401 I/O Address	*310/313H~ 320-323H*	Define MPU-401 I/O address.
	Disabled	
● Game port (200-207H)	*Enabled*	Enable game port.
	Disabled	Disable game port.

PC Health Status
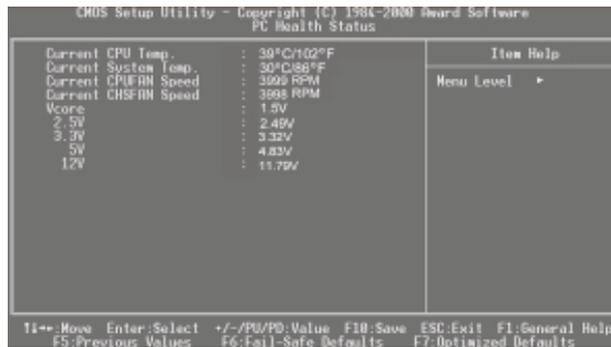
Figure-9 System Monitor Menu

The following describes the meaning of each item.

Item	Current Data Shown	Description
● Current CPU Temp	$39^0C/102^0C$	Temperature of the CPU core.
● Current System Temp.	$30^0C/86^0F$	Temperature inside the chassis.
Current CPUFAN Speed	3999RPM	RPM(Revolution Per Minute) speed of fan
Current CHSFAN Speed	3998RPM	connected to the fan header CPUFAN/ 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.
● Vcore	1.5V	Displays current Voltage values including all
2.5V	2.49	significant voltages of the mainboard. +3.3V,
3.3V	3.32V	+2.5V, +12V and 5V are voltages from the
5V	4.83V	ATX power supply, Vcore Voltage is the
12V	11.79V	CPU core voltage from the on board switching power supply.

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 "Security Option" 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 "Security Option" 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 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 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.

<u>NORMAL</u>

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.

<u>LBA (Logical Block Addressing) mode</u>

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.

<u>LARGE mode</u>

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.

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Appendix A
QDI Driver CD 2000

A QDI Driver CD 2000 is supplied with this mainboard. Insert CD 2000 that came with your mainboard into your CD-ROM drive to bring up the screen, click the options to install. The contents contained in it are showed as below:

1. Express Install
  It's recommended for most users that program will be installed with the most common options.
  A.   Chipset Driver   B.   Audio Codec Driver
  C.   Au8810 PCI Sound Driver*

*Note: Before installing Au8810 PCI sound driver, Please make sure that Au8810 chip is onboard. If Au8810 chip is not onboard, this option will be not display.

2   Chipset Driver
  It's recommended for advanced users that you may choose the options you want to install chipset driver
  ViA Chipset Drivers included in the directory \ChipDrv\Via .

3   OnBoard Device Driver
  It's recommended for advanced users that you may choose the options you want to install Audio driver
  A.   Audio Codec Driver   B.   Au8810 PCI Sound Driver*

2.   Accessory
  The softwares contained in this directory are:
  A.   DirectX 7.0   B.   QDI ManageEasy
  C.   PC-cillin

3.   Browse CD
  You could read all the contents contained in this CD, including Utility and Documents.
  The files included in **Utility** are:
  A.   Awdflash.exe   B.   Lf.exe
  The files included in **Documents** are:
  A.   Adobe Acrobat Reader V3.0 - Ar32e301.exe
  B.   French Manual - AD5 FR.doc, ect.

PC-cillin 98

New viruses are appearing frequently; the chance of your PC being infected increases; antivirus softwares are becoming a must. PC-cillin 98 offers you full-time active virus protection as well as manual scans, plus virus clean capability. Keeping up to date on the latest threats and updating significant files are crucial in keeping antivirus software effective. PC-cillin 98 provides Free Virus Pattern File Updates from the Trend Micro Website:
http://www.trend.com/download/pattern.htm or
http://www.antivirus.com/download/pattern.htm.

Installation of PC-cillin 98

For Windows 95/98 English version, run Setup.exe for installation from the utility CD directory \Pccillin\Win9x.
For Windows 95/98 Chinese version, run Setup.exe for installation from the utility CD directory \Pccillin\PWin9x.
For Windows NT 4.0, run Setup.exe for installation from the utility CD directory \Pccillin\WinNT4.0.
S/N is PN EF-9991-6558-5857-5535.

QDI ManageEasy V2.0

It is well known that guaranteeing the computer's security and reliability is essential. Especially today, effectively managing and monitoring the computer's hardware is even more important; because processing and exchanging critical data through computer and network are happening everyday.
Moving with the computer's development, the system of the computer will become more and more complex; at the same time, the control computer's hardware will be strengthened. Today, it is possible to monitor and manage your complex hardware from Windows 9X and Windows NT. QDI ManageEasy is a system tool, a bridge between the complex hardware and OS, used to access hardware status and to execute control functions. It supports stronger functions for Windows 9X and Windows NT. These functions enables you to view more than one hundred of the basic information about the system and monitor some key reference data concerning computer health in real time. QDI ManageEasy also helps you to use remote access and control computers in
your local area network. With QDI ManageEasy, you can improve your management level.

Installation of QDI ManageEasy V2.0
Run Setup.exe from the utility CD directory \QME2 to install the QDI ManageEasy V2.0. The QDI ManageEasy Setup Wizard will guide you through the installation process. For detailed information on how to use QDI ManageEasy V2.0, please refer to the QDI ManageEasy V2.0 online help.

Appendix B.
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.

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RecoveryEasy

Introduction:

RecoveryEasy™, the latest QDI innovation, is able to protect the system from being destroyed, by creating a so-called "mirror partition" for a current hard disk partition and backuping all the data to the mirror area. This ideal utility provides disk partition, disk data backup/recovery, CMOS settings backup/recovery and multi-boot functions. RecoveryEasy is also able to prevent the system from being attacked by different kinds of boot virus or other severe virus such as CIH. In case the system is ruined either by mistake or virus, the system can be recovered from the mirror partition. It applies the build-in BIOS technology that does not occupy either the hard disk space or the system memory. It's the best choice for both corporations and PC users.

Operation Process:

There are two hotkeys – Ctrl+Bksp and F12 for RecoveryEasy to enter "Partition" and "Recovery" user interfaces accordingly during BIOS booting up. If two or more hard disks are installed, use F5 key to choose the hard disk.

1.　Partition Interface (see figure-1)

Users can create and delete partitions/mirror partitions, activate partitions, and uninstall RecoveryEasy in Partition User Interface.
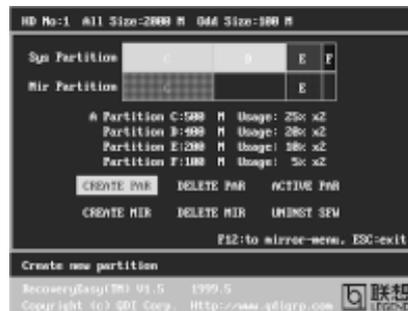
figure-1 Partition Interface

1.0　Install RecoveryEasy for the first time

a. The utility checks the previous disk partition at first, and displays the status of the first four partitions. If there are more than four disk partitions, users will be asked to delete the redundant disk partitions, since only four partitions that can be activated are allowed to exist. However, if there're only four or fewer partitions, users can follow the system prompt and choose to install RecoveryEasy based on the previous disk partitions. In this way, the original extension partitions will be changed to normal ones, and probably the sequence of the partitions will be changed also, but the contents contained in each partition will remain the same.

b. If choosing to install RecoveryEasy on an absolutely clear disk, the utility will delete all the previous partitions.

c. The password is set as default setting "qdiqdi" after installing RecoveryEasy.

1.1 CREATE PAR

Function : Creates a new partition.

Limitation : When no disk space remains or 4 partitions already exist, this button is disabled.

Steps : After pressing the "CREATE PAR" button.

a. The system will prompt whether users want to create a mirror partition for it or not.

b. If answering "Y", input the new partition size in Megabyte. Notice that the maximum partition size that can be assigned is half of the left disk space, which is also displayed in the status line. Another half is for the mirror partition. If answering "N", the whole disk space left can be assigned. See figure-2.
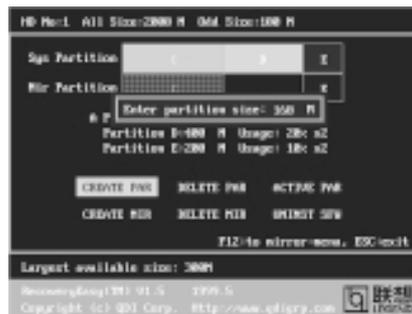
figure-2 Create Partition

Note:

a. The system will prompt "Insert system floppy, then reset" when the first partition on the first hard disk is created.

b. After using DOS6.xx boot disk to format C partition, the system should be reset in order to access the partition.

c. In Windows system 1,048,576 bytes equal 1 Megabyte, while in RecoveryEasy 1,000,000 bytes equal 1 Megabyte, therefore a smaller size will be displayed in Windows system compared with the size displayed in RecoveryEasy.

1.2 DELETE PAR

Function : Deletes the last partition and its mirror partition.

Limitation : When no partition exists, this button is disabled.

Steps : After choosing this function, only the final partition can be deleted in order to keep the continuous disk space. If the warning message is confirmed, the partition will be deleted. By pressing "N" or "ESC" key, the system quits.

1.3 ACTIVE PAR

Function : Implements multi-boot function by activating one of the partitions.

Limitation : When no partition exists, this button is disabled.

Steps : If there're two or more partitions, choose one of them by pressing F5 key.

Note : After setting active partition, a letter "A" will be shown in front of this partition.

1.4 CREATE MIR

Function : Adds mirror partition for the disk partition that has no mirror.

Limitation : This function should be performed by order, for example, from partition 1 to 4. If no disk space remains or the last partition has its mirror partition already, this button is disabled.

Steps : After pressing the "CREATE MIR" button, use F5 key to choose the partition to create mirror. The partition of which the size is bigger than the left disk space will be ignored.

1.5 DELETE MIR

Function : Deletes the mirror partition.

Limitation : If there is no mirror partition, this button is disabled. This function should be performed in reverse order, for example, from partition 4 to 1.

Steps : After pressing the "DELETE MIR" button, only the final mirror partition can be deleted in order to keep the continuous disk space. If the warning message is confirmed, the mirror partition will be deleted. By pressing "N" or "ESC" key, the system quits.

1.6 UNINST SFW

Function : Uninstall RecoveryEasy.

Limitation : None.

Steps : After pressing the "UNINST SFW" button and the warning message is confirmed, RecoveryEasy will be uninstalled. By answering "N", the system quits.

Note : After RecoveryEasy is uninstalled, all the mirror areas have been disconnected with the relate partitions. If no partition is deleted or changed in size, or no other partition is created, users have chance to "Recover existing RecoveryEasy settings" when next time entering RecoveryEasy partition interface, meanwhile the password will be set as default setting "qdiqdi".

1.7 OTHERS

F12 : Switches to Recovery User Interface.

ESC : Exits from the Partition User Interface. If users made some mistakes, for example, wrongly delete a partition, do not press the "ESC" key, press the reset button on your system at once, in this way users can save their system.

F5:

a. When two or more than two hard disks are installed on the system, use F5
   key to choose the hard disk. Every time users use F5 key to switch the hard disk, the
   operation result for the previous hard disk is saved. When processing a certain hard
   disk, F5 key can be used to choose the partition.
b. In addition, when two or more than two hard disks are installed, the sign of
   partitions will be changed from C, D, E, F to 1, 2, 3, 4 accordingly.

2.   Recovery Interface (see figure-3)

Users can backup the partition to its mirror area, and recover the partition from its mirror
area from Recovery User Interface. This interface also provides users with CMOS
settings backup or recovery, and changing password functions.
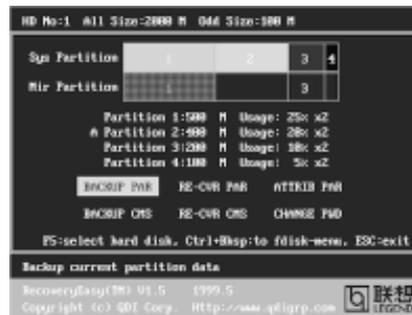
figure-3 Recovery User Interface

2.1   BACKUP PAR

Function   **:** Backups the content of the partition to its mirror area.
Limitation : If no mirror partition exists, this button is disabled.
Steps:
a. Use F5 key to choose the partition with mirror area existed.
b. If the partition chosen has been backuped before, a warning message will be shown,
   and the time when last backup was done will be displayed in the status line. After
   confirming the warning message, the system performs the backup. By pressing "N" or
   "ESC" key, the system quits.

2.2   RE-CVR PAR

Function   **:** Recovers the content from the mirror area to the relate partition.
Limitation : If users didn't backup any partitions before, this button is disabled.
Steps:
a. Use F5 key to choose the backuped partition.
b. The time when the latest backup was done will be displayed in the status line. After
   confirming the warning message, the system performs the content recovery. By
   pressing "N" or "ESC" key, the system quits.

Note:

a. During the process of partition backup or recovery, a guage will be shown as below, the backup or recovery speed is about 4-5Mbyte/s. See figure-4.
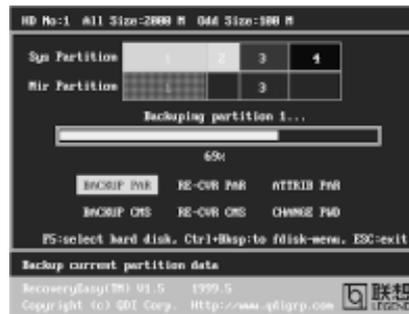
figure-4 Backup Partition

b. If a disk I/O error occurs during the process of partition backup or recovery, this means there's physical damage on the hard disk, however users can ignore it and continue the process.

2.3 ATTRIB PAR

Function : Allows users to modify the properties of the partition (eg. FAT16 -> FAT32) after entering OS.

Limitation : None.

Steps : After pressing this button, turn on/off the switch.

Note:

a. The switch resets to the default setting "disable" every time the system reboots.

b. In order to implement this function, users need to enable the switch when installing the OS or modifying the partition properties. Please note: Do not create or delete partitions or change the partition size when modifying the partition properties.

2.4 BACKUP CMS

Function : Backups all CMOS settings.

Limitation : None.

Steps : After choosing this function, the current CMOS settings will be saved.

2.5 RE-CVR CMS

Function : Recovers all CMOS settings.

Limitation : None.

Steps : After choosing this function, the latest backup of the CMOS settings will be recovered. The system needs reboot in order to validate the new CMOS settings.

Note : If users have never backuped the CMOS settings, a wrong message will be shown after choosing this function.

2.6 CHANGE PWD

Function   **:** Changes the password to enter RecoveryEasy Partition or Recovery User
            Interface.

Limitation : None.

Steps   **:** Follow the system prompt, input the password no more than 6 characters
            twice. To delete the password, follow the system prompt and press the
            "Enter" key twice.

Note:

a. The password should be no more than 6 characters, only digital and alphabetic letters
   are valid.

b. Once the password is enabled, users will be asked to input the password every time
   they try to enter the RecoveryEasy user interfaces, and up to 3 times try is permitted.

2.7 Others

Ctrl+Bksp : Switches to Partition User Interface.

ESC   **:** Exits from the Partition User Interface.

F5   **:** When two or more than two hard disks are installed on the system, use F5
            key to choose the hard disk. When processing a certain hard disk, F5 key
            can be used to choose the partition.

FAQ:

1.   What does RecoveryEasy do?
      RecoveryEasy creates a so-called "mirror partition" with same size for the hard disk
      partition on the same hard disk, and then completely backups all the data sector by
      sector to the mirror area. This mirror partition is reserved to OS. When the OS ruins
      either by mistakes or virus, users can recover the partition from its mirror.

2.   Does RecoveryEasy occupy the system resources?
      Although some hard disk data protection applications can automatically protect the
      disk data in runtime, it lowers the system performance. Unlike these applications,
      RecoveryEasy need users to backup or restore data manually when needed, but it
      DOES NOT lower the system performance when the system is running. It does not
      occupy either hard disk space or system memory, additional floppy disk or ISA/PCI
      cards are unnecessary.

3.   RecoveryEasy utilizes Build-in BIOS skill, what is build-in BIOS?
      RecoveryEasy build-in BIOS means all functions of RecoveryEasy including creating
      partition, backuping and restoring partition are built in BIOS. Users just need to down
      load the latest BIOS from our Website (http://www.qdigrp.com) when wanting to
      upgrade (It's free!).

4. **Are there any hard disk limitations of RecoveryEasy?**

   RecoveryEasy supports all kinds of current IDE hard disks and has no limitation on the hard disk capacity. RecoveryEasy can not provide its function for some special hard disk types such as SCSI, but it will not affect their usage.

5. **Are there any OS limitations of RecoveryEasy?**

   RecoveryEasy supports current operating systems such as DOS, Windows 95/98. However in Windows NT, Windows 2000, Unix and OS2 systems, users should notice that the disk tools bundled in the OS could change the mirror partition. On the other hand, since users can create partition with RecoveryEasy, it is unnecessary to use other disk tools.

6. **Why does the system halt when HDD access mode is changed (eg. LBA->LARGE)?**

   This is a way to protect the system from the errors of data accessing caused by changing HDD access mode. When RecoveryEasy detects such things, the system will be locked, users could reboot the system and set the HDD access mode as the original one in BIOS SETUP.

7. **Why does the remainder size plus partitions size not match the total size shown in RecoveryEasy sometimes?**

   When the location of partitions is not continuous, the above problem exists.

8. **Are there any other disk partition tools that can modify the partition table made by RecoveryEasy?**

   RecoveryEasy provides a write-protect function, so the disk tools such as Fdisk, Partition Magic, BootMenu, SmartDisk and BootStar can not modify the partition table created by RecoveryEasy. Some of the applications even terminate during operation. However the disk tools bundled in the OS such as Windows NT, Windows 2000, Unix and OS2 could change the mirror partition.

9. **Why does it happen that a prompt *"installation can not continue"* pops up when installing Windows98 or a yellow exclamation mark shown beside IDE device in system properties?**

   During Windows 98 installation, the installation program will write to MBR (Master Boot Record) which is protected by RecoveryEasy, therefore the installation will be terminated. To avoid this problem, a "ATTRIB PAR" button is provided in Recovery User Interface. Enable this switch before installing Windows 98, then the installation will be successfully completed. In order to remove the yellow question mark before IDE devices in Device Manager, enable this switch once more after system reboot.

10. **Why does the converting of FAT16->FAT32 in PQ Magic go wrong?**

    MBR will be accessed when converting FAT16 to FAT32 with PQ Magic, which is protected by RecoveryEasy, therefore the conversion will be invalidate. Enabling the " ATTRIB PAR" switch from Recovery User Interface

before converting can avoid this problem. It's the same situation as "FAT32 Converter" provided in Windows98.

11. What if partitions be wrongly deleted in RecoveryEasy?

If users delete a partition in RecoveryEasy by mistake, they can save it by pressing the Reset button on their system at once. Do not press the "ESC" key to quit RecoveryEasy, this will save the change. Do not try to create the partition again, since creating partition will clear all the content of the partition.

12. What is multi-boot?

RecoveryEasy can implement the multi-boot function by activating different partition. For example on the hard disk, partition C contains DOS, partition D contains Windows 95 version, partition E contains Windows 98 version, when activating partition C in RecoveryEasy, the system enters DOS, when activating partition E, the system enters Windows 98 version. At the same time, the sequence of the partitions is adjusted accordingly, partition E becomes C:, partition C becomes D: and partition D becomes E:. This function is the same as that of fdisk.exe, but the system needs reboot in order to make the change validate for fdisk.exe.

13. What if computer accidentally power off when backuping (recovering)?

The partition should be completely backuped or recovered. If the computer accidentally powers off, the partition should be backuped or recovered once again.

14. What if users lose the password?

To make sure the security, the password is saved in the hard disk. **It's very important for users to remember the password.** If forgetting the password, contact us, clearing CMOS is useless.

15. Does RecoveryEasy protect hard disk against CIH?

RecoveryEasy can strongly protect the hard disk from boot-virus, as well as the attack of CIH. If the system is attacked by CIH, RecoveryEasy will automatically recover the MBR and each partition boot record before system boots up, and try to recover the FAT. In this way the system can basically boot up, then users can use some anti-virus application to kill the virus. However this depends on how CIH virus affects the system. CIH normally outbreaks on 26th every month, if the system cannot boot up that day, power off the computer instantly, and use the second safe way to recover the system, that is, recover the partition from its mirror area from Recovery User Interface. Remember to create a mirror partition and backup before virus attacks the system.

Item Checklist

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

- ☑ Advance 10M mainboard
- ☑ QDI Driver CD 2000
- ☑ I/O shield
- ☑ 1 IDE ribbon cable
- ☑ 1 floppy ribbon cable
- ☑ 1 10-pin ribbon cable with bracket for USB3 and USB4(manufacturing option)
- ☑ User's manual

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