

Declaration of conformity



QUANTUM DESIGNS(HK) LTD.
20th Floor, Devon House, TaiKoo Place 979 King's Road,
Quarry Bay, Hong Kong

declares that the product

Mainboard
Advance 6A/Advance 6B

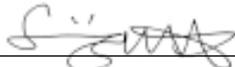
is in conformity with
(reference to the specification under which conformity is declared in
accordance with 89/336 EEC-EMC Directive)

- 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.
Legend QDI Spain S.L.
QDI Computer(France)SARL
QDI Computer Handels GmbH

QDI Europe B.V
QDI System Handel GmbH
QDI Computer(SWEDEN) AB
QDI Computer (SCANDINAVIA)A/S

Signature : 

Place / Date : HONG KONG/2001

Printed Name : Lv Yan

Position/ Title : Assistant President



Declaration of conformity

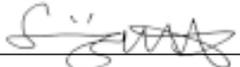


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Model Name: Advance 6A/Advance 6B
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Equipment Classification: FCC Class B Subassembly
Type of Product: Mainboard
Manufacturer: Quantum Designs (HK) Inc.
Address: 20th Floor, Devon House, TaiKoo Place
979 King's 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 : 2001





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QDI Boot Easy

Boot Easy è il nuovo software membro della famiglia legend QDI Easy, quale innovazione da LEGEND-QDI.



BootEasy Setup Menu

La tecnologia Boot Easy abbrevia gli enormi tempi del computer in fase di BOOT.

Riduce le attese d'ogni utente che accede al suo computer. Il BIOS senza Boot Easy deve eseguire molte routines ogni qualvolta il sistema parte, come controllo della sezione centrale del computer oltre che inizializzare le varie periferiche esterne.

Ora con Boot Easy, il BIOS non eseguirà questi processi ripetitivi così lunghi, il Pc potrà partire senza attese ridondanti prima della presentazione del logo del sistema operativo.

Boot Easy è facile da usare, basta scegliere la giusta opzione nel BIOS setup, (riferito al Advanced BIOS Features) ed il computer potrà velocemente ripartire.

Boot Easy salva tutte le informazioni al primo avvio normale, tutti i parametri saranno restituiti ai BOOT successivi

Nota:

1 Il Pc partirà normalmente se saranno rispettate le seguenti condizioni

- (1) Il Pc fa' il primo BOOT con l'opzione Enable
- (2) Le informazioni su i parametri salvati dal BIOS non erano DANNEGiate
- (3) Il PC fallisce l'avvio più di tre volte

Non spegnere o resettare il PC durante l'avvio di BOOT EASY

Disabilita il "QDI BootEasy Feature" prima di sostituire le periferiche ad esso collegate (HDD, CD-ROM, ecc.) solo dopo riabilita il "QDI BootEasy Feature".

QDI BootEasy

BootEasy es el nuevo miembro de la familia de “Easies” de Legend QDI , que se acaba de incorporar a los últimos modelos de placas base.



Menu de configuración de BootEasy

La tecnología BootEasy disminuye enormemente el tiempo dedicado al proceso de arranque del ordenador, reduciendo considerablemente el tiempo de espera que tiene que sufrir el usuario al arrancar su PC. Las BIOS normales, sin BootEasy, deben realizar multitud de rutinas repetitivas cada vez que el sistema se arranca, como verificar el “core” del sistema e inicializar periféricos. Ahora, con BootEasy, su BIOS no realizará estas tareas repetitivas nunca más, su PC podrá arrancar sin ninguna necesidad de repetir estas tareas antes de mostrar la pantalla de arranque de su sistema operativo. BootEasy es muy simple de utilizar, basta con escoger la opción correcta en CMOS SETUP, (refiérase al apartado Advanced BIOS Features); Así, conseguirá arrancar su sistema rápidamente. BootEasy guardará toda la información durante el primer arranque correcto, y, la próxima vez que arranque, restaurará esta información para permitir al sistema un arranque rápido y fiable.

Nota:

- Bajo estas circunstancias, el PC arrancará en modo normal:
 - La primera vez que arranque su PC después de haber activado la opción BootEasy en BIOS (“Enabled”).
 - La información guardada en BIOS es incorrecta.
 - El arranque de su PC falla por tres veces consecutivas.
- No apague su ordenador mientras se inicia BootEasy.
- Desactive “QDI BootEasy Feature” seleccionándolo como “Disabled” antes de cambiar algún componente de su PC. Puede restaurar la opción “QDI BootEasy Feature” como “Enabled” al terminar la instalación de nuevos componentes.

QDI BootEasy

BootEasy ist eine Neuentwicklung von Legend QDI, die neue Innovation der QDI Easy – Technologien.



BootEasy Setup Menu

Mit der BootEasy- Technologie Technik wird der Bootvorgang nur noch vier bis fünf Sekunden in Anspruch nehmen, bis das Betriebssystem geladen wird. Der Grund für die lange Wartezeit liegt in den Routine-Abfragen, die das BIOS bei jedem Start abarbeitet. So wird beispielsweise jedes Mal die Taktfrequenz des Prozessors geprüft oder angeschlossene Geräte aktiviert.

Die BootEasy-Technik prüft diese Punkte nur beim erstmaligen Start des Rechners und speichert die Ergebnisse in einem Flash ROM. Beim nächsten Start ruft das System lediglich diese Informationen aus dem Speicher ab und kann so innerhalb von wenigen Sekunden den Boot-Prozess abschließen.

Bei Änderungen am System, beispielsweise nach dem Einbau eines neuen Prozessors, muss deshalb zuvor die BootEasy-Funktion deaktiviert werden, beim nächsten Start werden die neuen Informationen dann erneut abgespeichert.

Falls Fehler im Flash ROM den Bootvorgang behindern, versucht das System drei Mal den Rechner hochzufahren, bei Misserfolg schaltet es auf die althergebrachte Art zu booten um, das heißt, es dauert wieder ebenso lang wie früher. Anschließend kann die BootEasy – Technik wieder aktiviert werden.

Installation de la carte mère Advance 6A/6B

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» pages 13 à 16)
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... voir manuel pages 9 à 12). Refermez le boîtier.
10. Branchez les périphériques externes sur les sorties du fond de panier: clavier, souris PS/2, périphériques USB, moniteur, imprimante... (voir manuel pages 7-8)
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 (ATTENTION: 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:

Un CD-ROM d'utilitaires QDI est fourni avec chaque carte mère. Il contient:

1. Express install

Il est recommandé que les utilisateurs installent ce programme avec les options de base

A. Pilote du chipset

les utilisateurs avancés peuvent choisir les options d'installation

Les pilotes du chipset se trouvent dans le répertoire \ChipDrv\Via428V

B. Pilotes VGA

les utilisateurs avancés peuvent choisir les options d'installation

Les pilotes VGA se trouvent dans le répertoire \DevDrv\VGA\VT8601-1040

C. Pilotes Codec Audio:

les utilisateurs avancés peuvent choisir les options d'installation

Pour Windows 9X/2000, cliquez sur cette option pour installer les pilotes son. Les pilotes audio sont dans le répertoire \DevDrv\Sound\686driver1.11

2. Accessoires

Les logiciels contenus dans ce répertoire sont :

A. DirectX 8

B. QDIManageEasy

3. Browse CD

Vous pouvez voir le contenu du CD-ROM

Dans le répertoire Utility :

A. AWDFLASH.EXE

B. LF.EXE

C. CBlogo

Dans le répertoire Documents :

A. Adobe Acrobat Reader V3.0 – Ar32e301.exe

B. Manuels français *.doc

QDI BootEasy

BootEasy est la dernière née des technologies Legend QDI.

Voir figure page 13 du manuel en anglais.

BootEasy permet au PC de démarrer plus rapidement lorsqu'on allume, reset ou relance le PC.

Avec le BootEasy, le PC peut démarrer en un instant, sans attente redondante pour afficher le démarrage du système d'exploitation.

BootEasy est facile à utiliser, il suffit de choisir l'option correcte dans le menu «Advanced Bios Features Setup».

BootEasy sauvegarde toutes les informations lorsque le PC boote et restaure les paramètres pour le système, permettant ainsi au PC de démarrer rapidement.

Note:

1. Le PC démarre de manière classique dans les cas suivants:
 - Premier démarrage après activation de l'option BootEasy
 - Informations sauvegardées endommagées
 - Echec au démarrage du PC à 3 reprises
2. N'arrêtez pas ou ne redémarrez pas le système lorsque BootEasy s'initialise
3. Placez «QDI BootEasy Feature» sur «Disabled» avant de changer un composant du système
Placez «QDI BootEasy Feature» sur «Enabled» après avoir effectué le changement.

Chapter 1

Introduction

Overview

The Advance 6A green mainboard utilizes the VIA PLE133 chipset consists of the VIA8601A (North Bridge) and the VT82C686A(South Bridge) , the other Advance 6B green mainboard utilizes the VIA PLE133 chipset consists of the VIA8601A (North Bridge) and the VT82C686B(South Bridge). The VIA PLE133 integrates AGP 2D/3D graphics accelerator to provide high graphics performance and cost-effective PC/MATX Platform. The VIA PLE133 chipset also provides new features with UltraDMA66/100 and AC'97 audio. Equipped with two memory module sockets to support PC100/PC133MHz SDRAM. It also provides advanced features such as wake-up on LAN, wake-up on modem. BootEasy, our new technology shorten the long boot process time of computer.

Key Features

Form factor

- MicroATX form factor of 244mm x210mm

Microprocessor

- Supports all Intel®Pentium III(Coppermine) FC-PGA processors at 533/600EB/667/733/800EB/866/933MHz/1GHz and future processors with 133MHz FSB speed
- Supports all Intel®Pentium III(Coppermine) FC-PGA processors at 500/550/600/650/700/750/800/850MHz and future processors with 100MHz FSB speed
- Supports all Intel®Celeron™ FC-PGA processors at 533/566/600/633/667/700/733/766MHz and future processors with 66MHz FSB speed
- Supports all Intel®Celeron™ FC-PGA processors at 800MHz and future processors with 100MHz FSB speed
- Supports all Intel®Celeron™ PPGA processors at 300/300A/333/366/400/433/466/500/533MHz with 66MHz FSB speed
- Supports later processors Cyrix-III at 500/533/550/600/667MHz and future processors
- Supports 66/100/133MHz FSB speed

Chipset

- VIA Apollo PLE133 chipset: VT8601A, VT82C686A (For Advance 6A mainboard)
or VT8601A, VT82C686B(For Advance 6B mainboard)

System memory

- Provides two 168 pin 3.3V unbuffered 100/133MHz DIMM sockets
- Supports 100/133MHz SDRAM
- Minimum memory size is 16MB, maximum memory size is 1GB

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
- Supports "Ultra DMA/100" Synchronous DMA mode transferring up to 100 Mbytes/sec (For Advance 6B mainboard only)
- 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 Audio

- Build in VIA VT82C686A(or VIA VT82C686B)
- AC'97 codec

On-chip integrated AGP

- Supports AGP 1.0 Specification
- Integrated 2D/3D Graphics Controller
- Share 2M~8M frame buffer from DIMMs

Advanced features

- PCI 2.2 Specification compliant
- Provides Trend ChipAwayVirus® On Guard
- Provides four USB ports, on-board PS/2 mouse and PS/2 keyboard ports
- Provides infrared interface
- Support PC99 color-coding connector Specification
- Supports wake-up on LAN and wake-up on external modem
- supports system monitoring (monitors system temperature, CPU temperature, voltages 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
- Supports QDI Innovation: LogoEasy, RecoveryEasy, BIOS-ProtectEasy, BootEasy

Green function

- Supports ACPI (Advanced Configuration and Power Interface) and ODPM (OS Directed Power Management)
- Supports ACPI power status: S0, S1, S4(STD), S5(Soft-off)

Expansion slots

- 1 ISA slots
- 3 PCI slots
- 1 AMR slots

QDI BootEasy

BootEasy is a new member of legend QDI Easy series, which is the latest innovation comes from legend QDI.



BootEasy Setup Menu

BootEasy technology enormously shorten the long BOOT process time of computers. Reducing the wait time every user has to suffer when starting their computer. BIOS without BootEasy has to perform many routines every time when the system starts, such as checking system core of the computer and initializing system peripherals. Now with the BootEasy, BIOS will not run these repetitive Processes any longer, PC can boot-up without any redundant waiting for the displaying of starting OS. BootEasy is quite easy to use, choose the right option in CMOS SETUP, (refer to Advanced BIOS Features) it can be easily booted quickly. BootEasy save all the information when PC first normally boot-up, and it restores all the parameters for the system and thus let the PC boot freely and rapidly.

Note:

- Under the following conditions, PC will boot-up in normal way.
 - PC boot-up for the first times after set option as Enabled.
 - the system information saved by BIOS was damaged.
 - PC fail to boot-up continually over three times.
- Don't power off or reset system while BootEasy initializing.
- set "QDI BootEasy Feature" as "Disabled" before you replace system equipment.
set "QDI BootEasy Feature" as "Enabled" after you accomplished replacing.

Introduction to new 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.

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.

Ultra ATA/100 (For Advance 6B mainboard only)

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, and 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. In the same way, the burst transfer rate of Ultra ATA/100 is higher than ATA/66 (from 66.6MB/s to 100MB/s) by reducing the pulse width from 30ns to 20ns and increasing the strobe rate.

It can be added into existing systems without the need for termination devices, new cable, or other hardware changes, industry implementation of ATA/100 will provide an inexpensive, simple, non-proprietary, high-speed method of host to storage access.

The 80-conductor, 40-pin cable standard in ATA/66 has enhanced reliability and been carried forward to ATA/100. of course, backwards compatible with ATA/33.



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Chapter 2

Installation Instructions

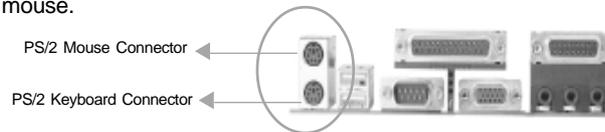
This section covers External Connectors, Jumper Settings and Memory Configuration. Refer to the mainboard layout chart for locations of all jumpers, external connectors, slots and I/O ports. Furthermore, this section lists all necessary connector pin assignments for your reference. The particular state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

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

External Connectors

PS/2 Keyboard Connector, PS/2 Mouse Connector

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



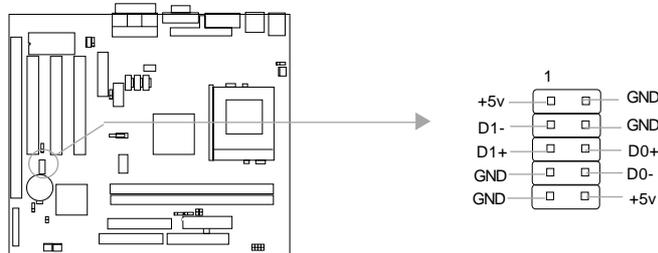
USB1, USB2

Two USB ports are available for connecting USB devices.



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)



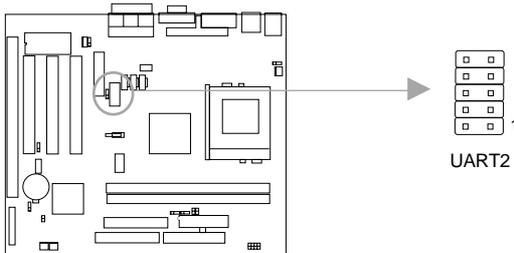
Parallel Port Connector, Serial Port Connector, Monitor Output Connector (Parallel, UART1, VGA Monitor)

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. The monitor output connector is for output to a VGA-compatible device. You can enable/disable them and choose the IRQ or I/O address in "Integrated Peripherals" from AWARD BIOS SETUP.



UART2

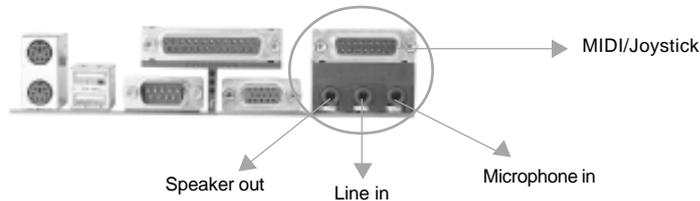
The serial port UART2 is not located on the back panel. Therefore, we provide a 9-pin ribbon cable with bracket for UART2 port. (manufacturing option)



Line-in jack, Microphone-in jack, Speaker-out jack and MIDI/Joystick connector

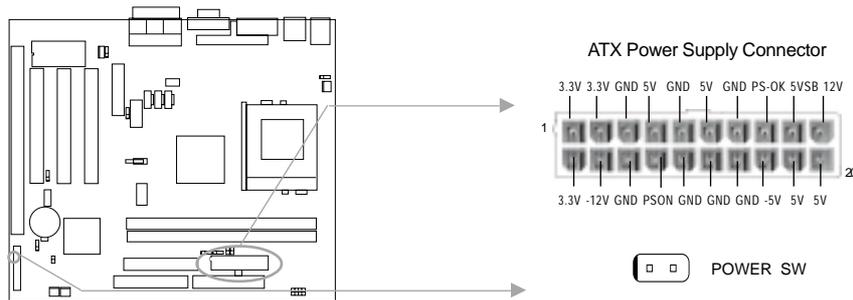
The Line-in jack can be connected to devices such as a cassette or minidisc player for playback or recording. The Microphone-in jack can be connected to a microphone for voice input. The Speaker-out jack allows you to connect speakers or headphones for audio output from the internal amplifier.

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



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.



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)

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 Soft-Off status, the LED is off. The connector has an orientation.

ACPI LED Connector (ACPI_LED)(Reserved)

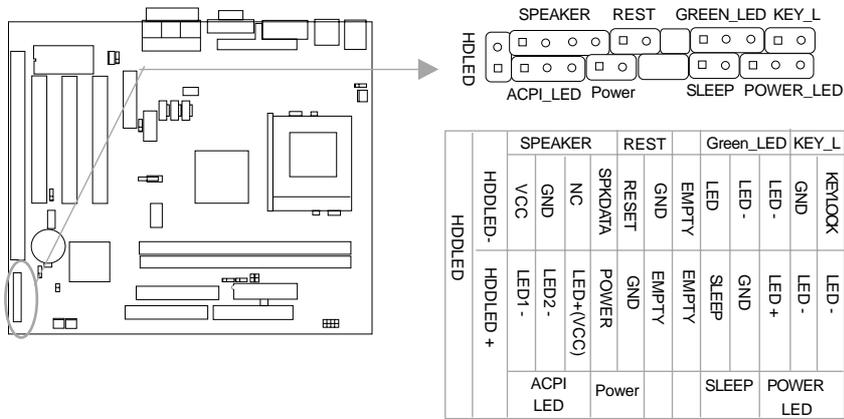
The ACPI LED is double-color lights with three pins. Pin1&Pin2 drive different color lights. If Pin1 drives orange light, Pin2 drives green light, the following status will come out. When the system is in power up status, the LED is green on. When the system is in suspend status, the LED is green blink.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

GREEN LED Connector (GREEN_LED)

When the system is in power up, ACPI suspend and soft-off status, the LED is off. When the system is in APM suspend status, the LED is on.

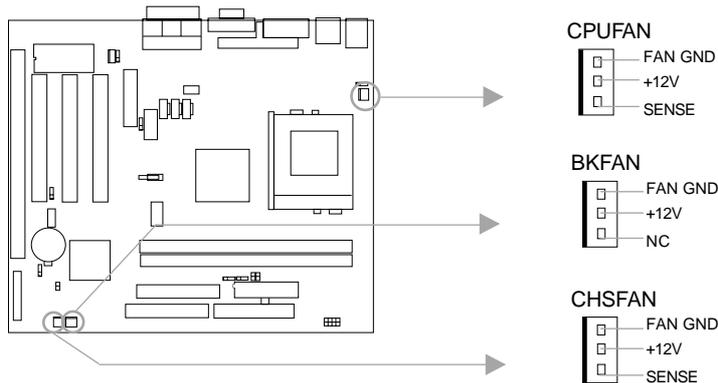
Hardware Green Connector (SLEEP)

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



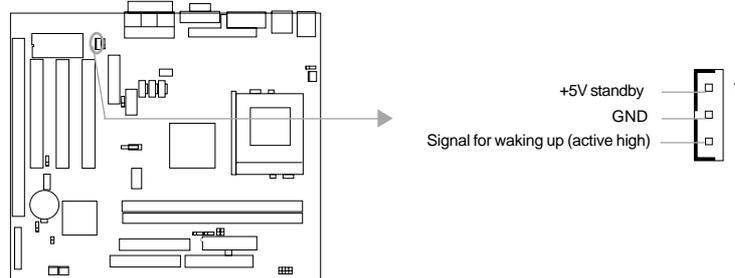
Fan Connector (CPUFAN, CHSFAN, BKFAN)

Except BKFAN, The fan speeds of CPUFAN and CHSFAN can be detected and viewed in "PC Health" section of the BIOS.



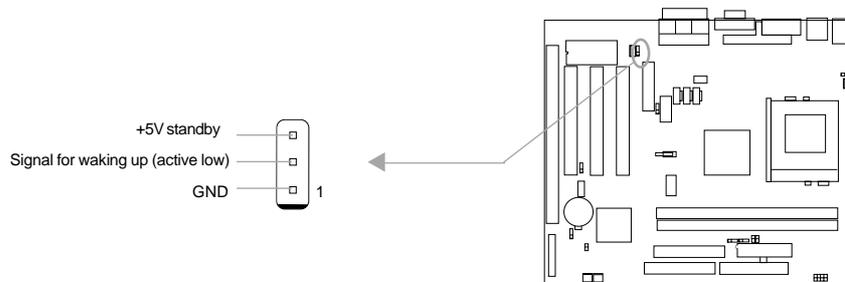
Wake-Up On LAN (WOL)

Through the Wake-Up On LAN function, a wake event occurring from the network can wake up the system. If this function is to be used, please be sure an ATX 2.01 power supply of which 5VSB line is capable of delivering 720mA, and a LAN adapter which supports this function are used. Then connect this header to the relevant connector on the LAN adapter, set "Wake up on 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.



Wake-Up On Internal Modem (WOM)

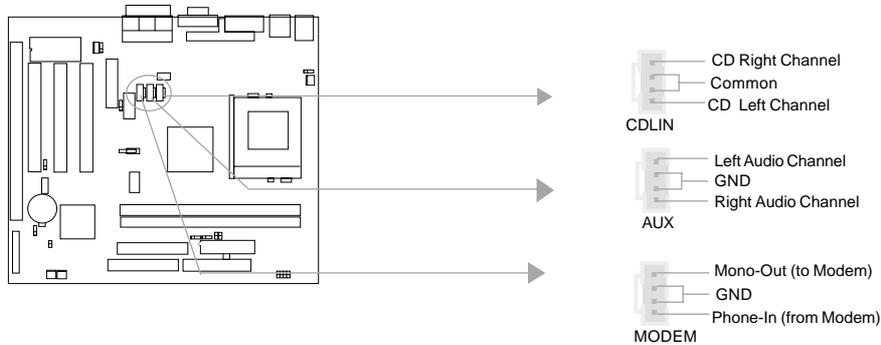
Through the Wake-Up On Internal Modem function, the system which is in the power-off status can be powered on by a ring signal received from internal modem. If this function is to be used, be sure an internal modem card which supports the function is used. Then connect this header to the relevant connector on the modem card, set "Wake up on 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.



Internal Audio Connectors (AUX, CDLIN, MODEM)

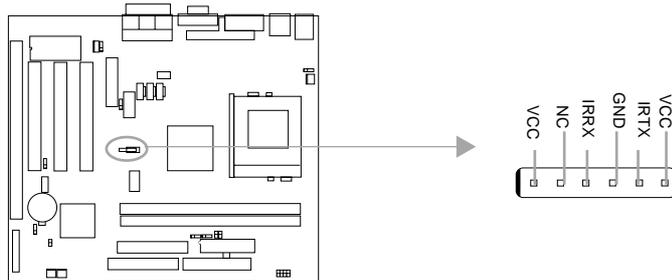
AUX and CDLIN connectors allow you to receive stereo audio input from such sound sources as a CD-ROM, TV tuner, or MPEG card. The MODEM connector allows the onboard audio to interface with a voice modem card with a similar connector. It also allows the sharing of mono_in (such as a phone) and mono_out (such as a speaker) between the onboard audio and the voice modem card.

Installation Instruction



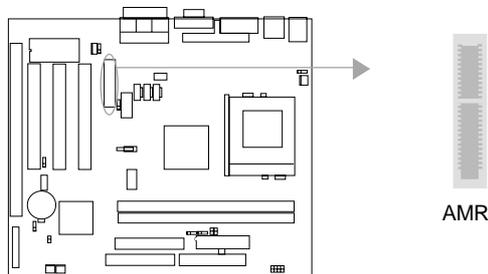
Infrared Header (IrDA)

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.



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. Either AMR (Audio/Modem Riser) card or MR (Modem Riser) card can be used on this system. This software configurable AC'97 audio and modem system gives customers an advanced, multimedia solution at an extremely low price.

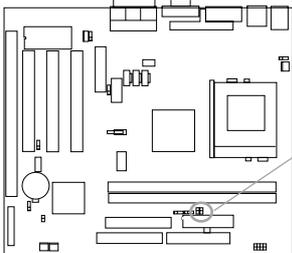


Jumper Settings

Jumpers are located on the mainboard, they represent, clear CMOS jumper JCC, enable BIOS ProtectEasy function jumper JAV 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.

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.



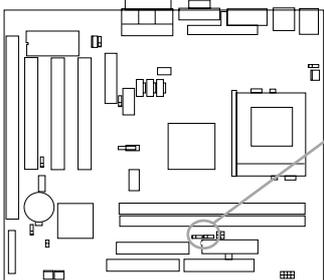
JFSB1 JFSB2



FSB Selection	JFSB1	JFSB2
Auto	Close	Close
Jumper	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.



JCLK1 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

Installation Instruction

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. For bus ratio unlocked processor, this overclocking feature can be implemented with CPU bus ratio selection Jumpers JX1~JX4. We do not guarantee the overclocking system to be stable.

CPU bus ratio selection (JX1, JX2, JX3, JX4)

The Host Bus speed by the CPU bus ratio equals the CPU's internal frequency (CPU speed)

If Host Bus speed = 100MHz, CPU bus ratio =4

then CPU speed= 100MHz x 4= 400MHz

please setup CPU bus ratio according to the following table.



Jumper Ratio	JX1	JX2	JX3	JX4
3	Open	Close	Close	Close
3.5	Open	Close	Open	Close
4	Close	Open	Close	Close
4.5	Close	Open	Open	Close
5	Open	Open	Close	Close
5.5	Open	Open	Open	Close
6	Close	Close	Close	Open
6.5	Close	Close	Open	Open
7	Open	Close	Close	Open
7.5	Open	Close	Open	Open
8	Close	Open	Close	Open

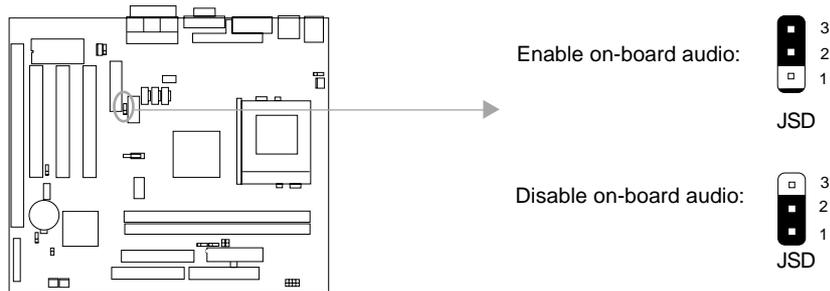
Note: The Most of Socket 370 processors have locked bus ratio. In this case, it's not necessary to setup the bus ratio by Jumper setting. So only unlocked Socket 370 processors can adjust specified bus ratio through hardware jumper setting .

Warning:

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

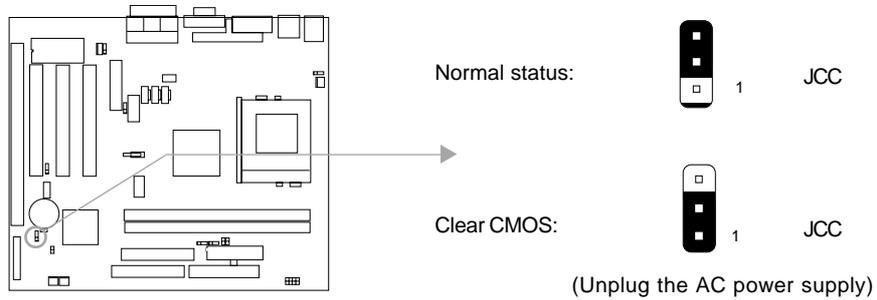
Enable/Disable on-board audio(JSD)

If you want to use the on-board audio, set JSD with pin2 & pin3 closed (default). Otherwise, set JSD with pin1 & pin2 closed for disabling this function.



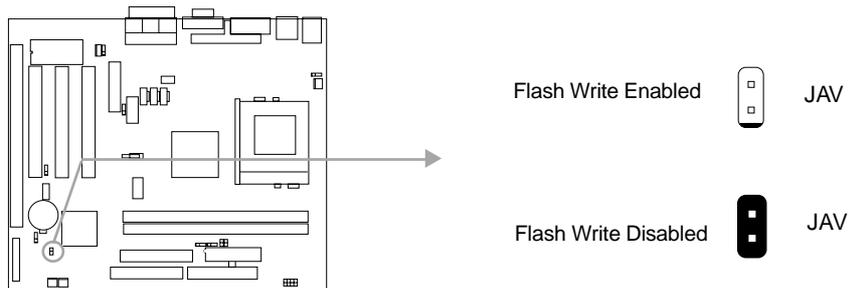
Clear CMOS (JCC)

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.



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.



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.

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 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 key or simultaneously press the <Ctrl> + <Alt> + <Esc> keys, to enter the AWARD BIOS CMOS Setup Utility.

Press to enter SETUP

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



Figure-1 Main Menu

Load 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.

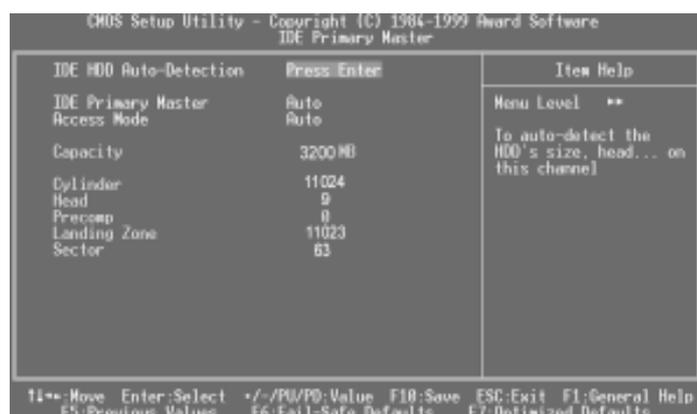


Figure-2-1 IDE Primary Master Setup Menu

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 transformation during accessing. The maximum number of cylinders, heads and sectors for NORMAL mode are 1024,16 and 63.

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

LBA (Logical Block Addressing) mode

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

During HDD accessing, the IDE controller will transform the logical address described by sector, head and cylinder number into its own physical address inside the HDD.

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 dividing 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.

Advanced BIOS Features Setup



Figure-4 BIOS Features Setup Menu

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

<u>Item</u>	<u>Option</u>	<u>Description</u>
• QDI BootEasy Feature	<i>Enabled</i>	PC boot in rapid speed, without any redundant waiting for the displaying of starting OS.
	<i>Disabled</i>	PC boot in the legacy BIOS way.
• ChipAway Virus on Guard	<i>Enabled</i>	Allows you to choose the virus warning feature for IDE hard disk boot sector protection. If this function is enabled and someone attempt to write data into this area, BIOS will show a warning message on screen and alarm beep.
	<i>Disabled</i>	Invalidates this function.
• CPU Internal Cache	<i>Enabled</i>	Enables CPU internal Level1/Level2 cache.
	<i>Disabled</i>	Disables CPU internal Level1/Level2 cache.
• External Cache	<i>Enabled</i>	Enables CPU external cache.
	<i>Disabled</i>	Disables CPU external cache.
• CPU L2 Cache ECC Checking	<i>Enabled</i>	Enables CPU L2 Cache ECC function.
	<i>Disabled</i>	Disables CPU L2 Cache ECC function.
• Processor Number Feature	<i>Enabled</i>	Pentium®III Processor Number can be readable.
	<i>Disabled</i>	Pentium®III Processor Number can be unreadable.
• Quick Power On Self Test	<i>Enabled</i>	Enables quick POST. BIOS will shorten or skip some check items during POST to speed up POST after you power on the computer.
	<i>Disabled</i>	Normal POST.

• First (Second, Third) Boot Device	<i>Disabled Floppy</i>	Select Your Boot Device Priority. It could be Disabled, Floppy, LS/ZIP, HDD-0, HDD-1, HDD-2, Boot other Device HDD-3, SCSI, CDROM, LAN.
• Swap Floppy Drive	<i>Enabled Disabled</i>	Exchanges the assignment of A&B floppy drives. The assignment of A&B floppy drives are normal.
• Boot Up Numlock Status	<i>On Off</i>	Keypad is used as number keys. Keypad is used as arrow keys.
• Gate A20 Option	<i>Normal Fast</i>	The A20 signal is controlled by the keyboard controller or chipset hardware. Default setting. The A20 signal is controlled by Port 92 or the chipset specific method.
• Security Option	<i>Disabled System Setup</i>	Disables the ECC function. Select whether the password is required every time the system boots or only when you enter setup.
• OS Select For DRAM>64MB	<i>Non-OS2 OS2</i>	If your operating system is not OS/2, please select this item. If system DRAM is more than 64MB and the operating system is OS/2, please select this item.
• HDD S.M.A.R.T Capability	<i>Enabled Disabled</i>	Enables S.M.A.R.T hard disk support. Invalidates this feature.
• Video BIOS Shadow	<i>Enabled Disabled</i>	Video BIOS will be copied to RAM. Video Shadow will increase the video speed. Video shadow is disabled.
• C8000~CBFFF Shadow: DC000-DFFFF Shadow:	<i>Enabled Disabled</i>	Optional ROM will be copied to RAM by 16K bytes per unit. The shadow function is disabled.
• Delay For HDD (Secs):	<i>0~3 Disabled</i>	Sets the pre-delay time for hard disk to be accessed by the system. Enables the logo when system boots up.
• Show Bootup Logo	<i>Enabled</i>	Logo will not be shown when system boots up.
• Flash Write Protect	<i>Enabled Disabled</i>	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 only when wanting to flash BIOS, afterwards set this item as Enabled (default). Disabling this item allows you to upgrade the BIOS.

Advanced Chipset Features Setup

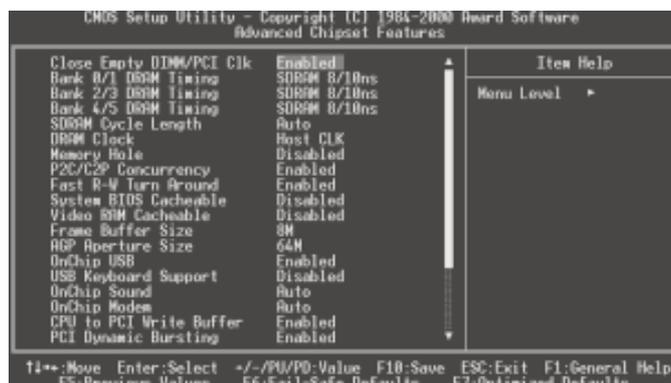


Figure-5 Advanced Chipset Features Setup Menu

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

<u>Item</u>	<u>Option</u>	<u>Description</u>
● Close Empty DIMM/PCI Clk	<i>Enabled</i>	Closes empty DIMM or PCI clock to reduce EMI.
	<i>Disabled</i>	Does not close empty DIMM or PCI clock.
● Bank 0/1, 2/3, 4/5 DRAM Timing	<i>SDRAM 8/10ns</i>	These items are of selected DRAM read/write timing. Default setting is recommended.
	<i>Normal</i>	
	<i>Medium</i>	
	<i>Fast</i>	
	<i>Turbo</i>	
● SDRAM Cycle Length	<i>2/3</i>	Define the CLT timing parameter of SDRAM expressed in 66MHz clocks. Latency Time = 2 clocks
	<i>Auto</i>	
● DRAM Clock	<i>Host Clk</i>	DRAM frequency same as CPU FSB
	<i>Hclk+33M</i>	
	<i>Hclk-33M</i>	
● Memory Hole	<i>15M-16M</i>	DRAM frequency is faster than CPU FSB by 33MHz. Memory Hole at 15-16M is reserved for expanded ISA card.
	<i>Disabled</i>	Do not set this memory hole.
● P2C/C2P Concurrency	<i>Enabled</i>	Enabled P2C/C2P concurrency
	<i>Disabled</i>	Disable P2C/C2P concurrency
● Fast R-W Turn Around	<i>Enabled</i>	Enable Fast R-W Turn Around.
	<i>Disabled</i>	Disable Fast R-W Turn Around.

• System BIOS Cacheable	<i>Enabled</i>	Beside conventional memory, system BIOS area is also cacheable.
	<i>Disabled</i>	System BIOS area is not cacheable.
• Video RAM Cacheable	<i>Enabled</i>	Besides conventional memory, video RAM is also cacheable.
	<i>Disabled</i>	Video RAM area is not cacheable.
• Frame Buffer Size	<i>2M-8M</i>	Sets on-board AGP share memory.
	<i>NA</i>	
• AGP Aperture Size	<i>4-128</i>	Sets the effective size of the Graphics Aperture to be used in the particular PAC Configuration.
	<i>Disabled</i>	Video RAM area is not cacheable.
• Onchip USB	<i>Enabled</i>	Enables the onchip USB controller.
	<i>Disabled</i>	Disables the onchip USB controller.
• USB Keyboard Support	<i>Enabled</i>	USB keyboard support is enabled.
	<i>Disabled</i>	USB keyboard support is disabled.
• Onchip Sound	<i>Auto</i>	Enable AC97 function.
	<i>Disabled</i>	Disable AC97 function.
• Onchip Modem	<i>Auto</i>	Enable MC97 function.
	<i>Disabled</i>	Disable MC97 function.
• CPU to PCI Write Buffer	<i>Enabled</i>	Enable CPU to PCI Write Buffer.
	<i>Disabled</i>	Disable CPU to PCI Write Buffer.
• PCI Dynamic Bursting	<i>Enabled</i>	Enable PCI Dynamci Bursting.
	<i>Disabled</i>	Disable PCI Dynamci Bursting.
• PCI Master 0 WS Write	<i>Enabled</i>	Enable PCI Master 0 WS Write.
	<i>Disabled</i>	Disable PCI Master0 WS Write.
• PCI Delay Transaction	<i>Enabled</i>	Enable PCI Delay Transaction.
	<i>Disabled</i>	Disable PCI Delay Transaction.
• PCI#2 Access #1 Retry	<i>Enabled</i>	Enable PCI#2 Access #1 Retry.
	<i>Disabled</i>	Disable PCI#2 Access #1 Retry.
• AGP Master 1 WS Write	<i>Enabled</i>	Enable AGP Master 1 WS Write.
	<i>Disabled</i>	Disabled AGP Master 1 WS Write.
• AGP Master 1 WS Read	<i>Enabled</i>	Enable AGP Master 1 WS Read.
	<i>Disabled</i>	Disabled AGP Master 1 WS Read.
• Memory Parity/ECC Check	<i>Enabled</i>	Enables the Error Checking&Correction if ECC memory is used.
	<i>Disabled</i>	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.

<u>Item</u>	<u>Option</u>	<u>Description</u>
• ACPI function	<i>Enabled</i>	Validates ACPI function.
	<i>Disabled</i>	Invalidates ACPI function.
• Power Management	<i>User Define</i>	Users can configure their own Power Management Timer.
	<i>Min Saving</i>	Pre - defined timer values are used. All timers are in their MAX values.
	<i>Max Saving</i>	Pre - defined timer values are used. All timers are in their MIN values.
	<i>HDD Power Down</i>	Defines the continuous HDD idle time before the HDD entering power saving mode (motor off)
	<i>Doze Mode</i>	Defines the continuous idle time before the system entering Doze mode.
	<i>Suspend Mode</i>	Define the continuous idle time before the system entering suspend mode.
• PM Control by APM	<i>NO</i>	System BIOS will ignore APM when Power Management is enabled.
	<i>Yes</i>	System BIOS will wait for APM's prompt before entering any PM mode e.g. Standby or Suspend.
• Video Off Option	<i>Suspend -> Off</i>	Screen blanks after the system enters either standby mode or suspend mode.
	<i>All Modes -> Off</i>	Screen blanks after the system enters all modes.
	<i>Always On</i>	Screen is always on.

• Video Off Method	<i>Blank Screen</i>	The system BIOS will only blank off the screen when disabling video.
	<i>V / H SYNC + Blank</i>	In addition to Blank Screen, BIOS will also turn off the V-SYNC & H - SYNC signals from VGA cards to monitor.
	<i>DPMS</i>	This function is enabled only for the VGA card supporting DPMS.
• MODEM Use IRQ	3,4,5,7,9, 10,11 NA	
• Soft-off by PWRBTN	<i>Instant-off</i>	The system will power off immediately once the power button is pressed.
	<i>Delay 4 Sec</i>	The system will not power off until the power button has been pressed continuously for more than 4 seconds.
• State after Power failure	<i>Off</i>	The system resumes Off when the AC power supply powers on.
	<i>On</i>	The system will be powered up when the AC power supply powers on.
	<i>Auto</i>	Whatever the system status is before the AC power supply powers down, the system resumes in the previous status(ON/OFF) when the AC power supply powers on.
• Wake Up Events	<i>Press Enter</i>	set the following items.
• VGA	<i>On</i>	VGA active reloads global timer.
	<i>Off</i>	VGA active has no influence to global timer.
• LPT&COM HDD&FDD PCI/master	<i>LPT/COM</i> <i>Off/On</i> <i>on/off</i>	Set the options of these items to reload global timer.
• Poweron by PCI card	<i>Disable</i> <i>Enable</i>	Disable power-on by PCI card. Enable power-on by PCI card.
• Wake up On by Ring/ LAN	<i>Enabled</i>	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.
	<i>Disabled</i>	Does not allow wake up on LAN or wake up from internal/external modem.
• RTC Alarm Resume	<i>Enabled</i>	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.
	<i>Disabled</i>	RTC has no alarm function.
• IRQs Activity Monitoring	<i>Press Enter</i>	Reloads global timer.

PNP/PCI Configuration Setup

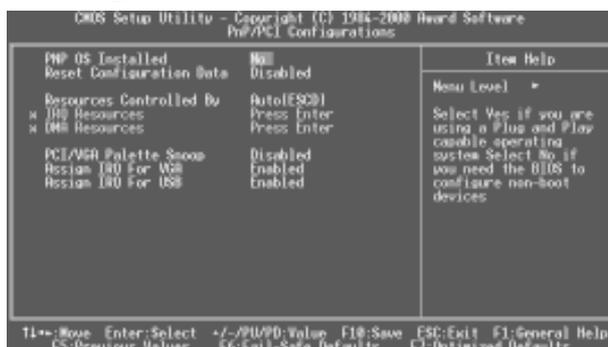


Figure-7 PNP/PCI Configuration Setup Menu

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

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

Integrated Peripherals

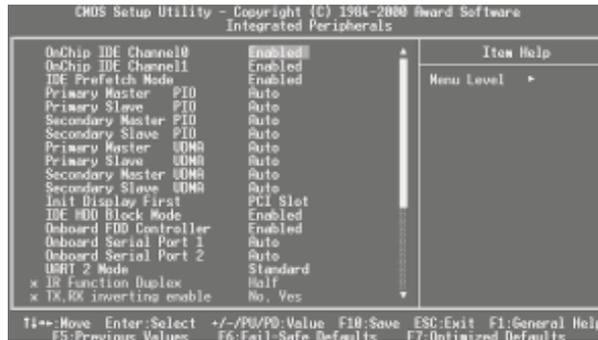


Figure-8 Integrated Peripherals Menu

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

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

Award BIOS Description

<ul style="list-style-type: none"> • UART 2 Mode 	<p><i>Standard</i> <i>HPSIR</i> <i>ASK IR</i></p>	<p>Defines Serial Port 2 as standard serial port. Supports IRD mode. Supports SHARP ASK-IR protocol with maximum baud rate up to 57600bps.</p>
<ul style="list-style-type: none"> • Onboard Parallel Port 	<p><i>378/IRQ7,</i> <i>278/IRQ5,</i> <i>3BC/IRQ7</i> <i>Disabled</i></p>	<p>Defines onboard parallel port address and IRQ channel.</p> <p>Onboard parallel port is disabled.</p>
<ul style="list-style-type: none"> • Onboard Parallel Mode 	<p><i>Normal</i> <i>EPP</i> <i>ECP+EPP</i> <i>ECP,</i> <i>1, 3</i></p>	<p>Defines the parallel port mode as Standard Parallel Port (Normal), Enhanced Parallel Port (EPP), or Extended Capabilities Port (ECP).</p>
<ul style="list-style-type: none"> • ECP Mode Use DMA 	<p><i>EPP1.7</i> <i>EPP1.9</i></p>	<p>Set DMA for ECP mode use.</p>
<ul style="list-style-type: none"> • Parallel Port EPP Type 	<p><i>Enabled</i></p>	<p>Set parallel port EPP type.</p>
<ul style="list-style-type: none"> • Onboard Legacy Audio 	<p><i>Enabled</i> <i>Disabled</i></p>	<p>the following item according as onboard audio to set.</p>
<ul style="list-style-type: none"> • Sound Blaster 	<p><i>Enabled</i> <i>Disabled</i></p>	<p>Enabled Sound Blaster. Disabled Sound Blaster.</p>
<ul style="list-style-type: none"> • SB I/O Base Address 	<p><i>220H/240H</i> <i>260H/280H</i></p>	<p>Define SB I/O Base Address.</p>
<ul style="list-style-type: none"> • SB IRQ Select 	<p><i>IRQ5~10</i></p>	<p>Select SB IRQ .</p>
<ul style="list-style-type: none"> • SB DMA Select 	<p><i>DMA0~DMA3</i></p>	<p>Select SB DMA.</p>
<ul style="list-style-type: none"> • MPU-401 	<p><i>Enabled</i> <i>Disabled</i></p>	<p>Enable MPU-401 Disable MPU-401</p>
<ul style="list-style-type: none"> • MPU-401 I/O Address 	<p><i>310/313H~</i> <i>320~323H</i> <i>Disabled</i></p>	<p>Define MPU-401 I/O address.</p>
<ul style="list-style-type: none"> • Game port (200-207H) 	<p><i>Enabled</i> <i>Disabled</i></p>	<p>Enable game port. Disable game port.</p>

PC Health Status

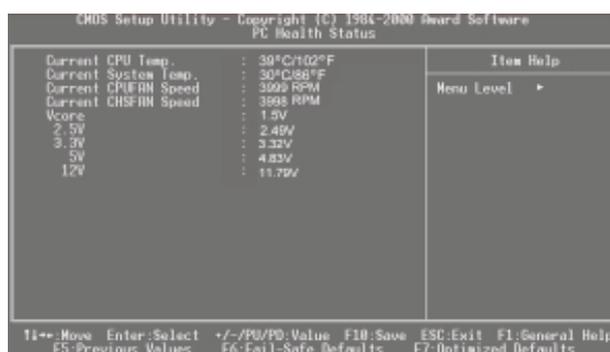


Figure-9 System Monitor Menu

The following describes the meaning of each item.

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

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.

Appendix B. Boot Logo

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



Both message and the picture will appear together on the screen. 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.**

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 backing up 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.

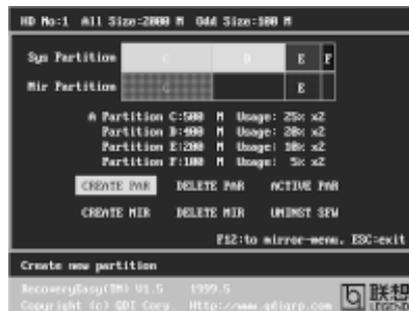


figure-1 Partition Interface

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.

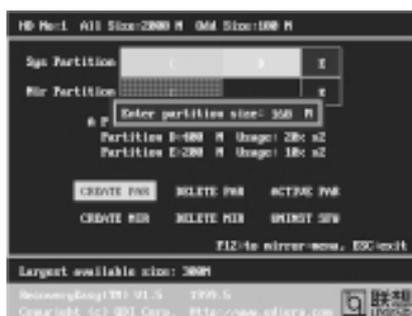


figure-2 Create Partition

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:

- 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.
- 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.

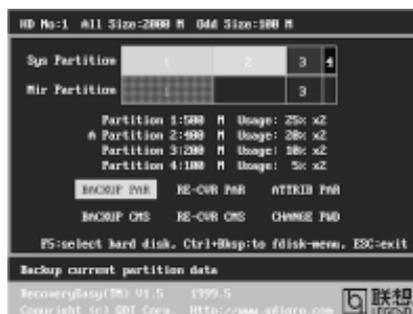


figure-3 Recovery User Interface

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:

- Use F5 key to choose the partition with mirror area existed.
- If the partition chosen has been backed up 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:

- Use F5 key to choose the backed up partition.
- 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 gauge will be shown as below, the backup or recovery speed is about 4-5Mbyte/s. See figure-4.

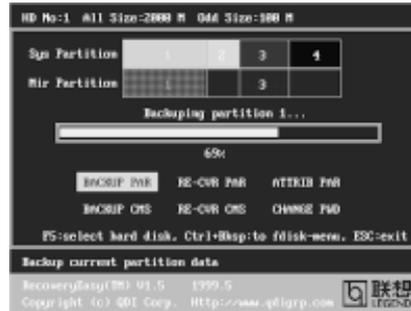


figure-4 Backup Partition

- 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 backed up 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 download 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 6A mainboard or Advance 6B 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

Notice

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

Mainboard Layout

Caution 1

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

The power status of the system is indicated by the red LED near the battery. If the LED is on, adding or removing devices like SDRAM memory is prohibited.

Caution 2

Be sure to add some Silicone Grease between the PentiumIII (Coppermine) CPU and the FAN to keep them fully contact , meanwhile to meet the heat sink requirement.

Caution 3

The Advance 6A/Advance 6B mainboard supports PC100/133 SDRAM only. If your processor FSB speed is 66MHz, please set item “DRAM Clock” of Advanced Chipset Features in BIOS as “Hclk+33M” .