

# 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 Superb 3L**

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 : Lv Yan Position/ Title : Assistant President



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## Declaration of conformity



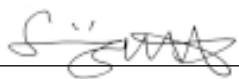
# FCC

Trade Name: QDI Computer ( U . S . A . ) Inc.  
Model Name: Superb 3L  
Responsible Party: QDI Computer ( U . S . A . ) Inc.  
Address: 41456 Christy Street  
Fremont, CA 94538  
Telephone: (510) 668-4933  
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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 : 2000



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## SpeedEasy Quick Setup

### Procedures :

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

**Note: If you do not set the CPU speed, your system will run at the default setting.**

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

## SpeedEasy CPU Setup Menu

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

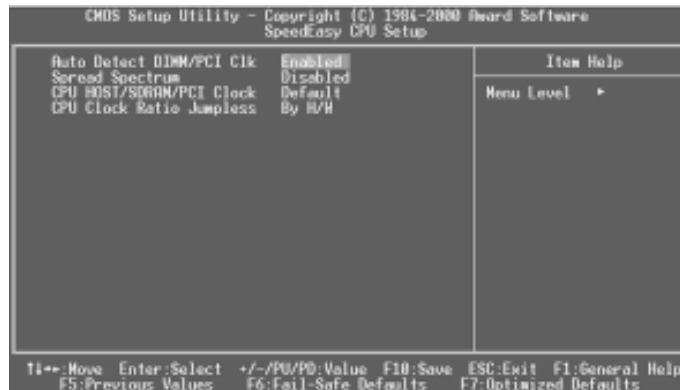


Figure - 1 SpeedEasy CPU Setup Menu

BIOS provides you with a set of basic values for your processor selection instead of the jumper settings. The processor speed can be manually selected on the "SpeedEasy CPU SETUP" menu screen.

### Warning:

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

## SpeedEasy 快速安装指南

### 程序：

1. 正确地插入 Intel Pentium®III FC-PGA , Celeron™PPGA或 Cyrix-III 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。

**注意：若不调节中央处理器的速度，系统将以预设的速度运行。**

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，然后进入子菜单：

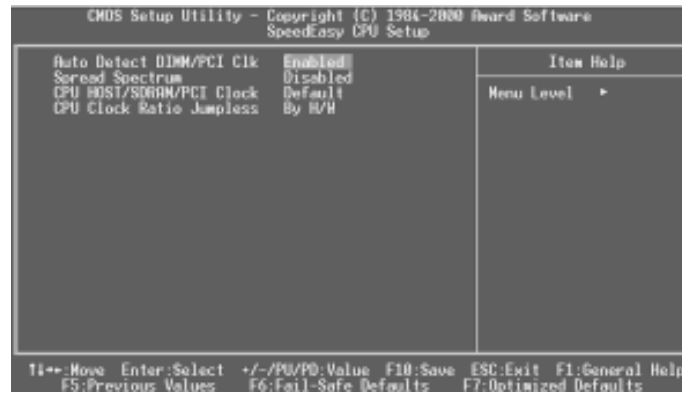


图-1 SpeedEasy 中央处理器设定项目单

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。



### **Installation de la carte mère Superb 3L**

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 17)
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:

#### 1. **Express install**

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

- A. Pilote VGA
- B. Pilote Audio codec AC97

#### 2. **Accessory**

Les logiciels contenus dans ce répertoire sont :

- A. DirectX 7.0
- B. QDIManageEasy
- C. PC-Cillin

#### 3. **Browse CD**

Vous pouvez voir le contenu du CD-ROM

Dans le répertoire Utility :

- A. AWDFLASH.EXE
- B. LFEFE
- C. CBLOGO

Dans le répertoire Documents :

- A. Adobe Acrobat Reader V3.0 – Ar32e301.exe
- B. Manuels français \*.doc

#### PC-Cillin98

De nouveaux virus apparaissent régulièrement, accroissant les chances que votre PC soit infecté, aussi les anti-virus deviennent-ils essentiels. PC-Cillin 98 vous offre une protection active permanente ainsi que des possibilités de scan manuel et de nettoyage de virus. Rester à jour en terme de protection reste une partie cruciale de la défense contre les virus, PC-Cillin vous offre la possibilité de mises à jour régulières des listes de virus connus à partir du site de Trend Micro:

<http://www.trend.com/download.pattern.htm> ou

<http://www.antivirus.com/download/pattern.htm>

### **Installation de PC-Cillin 98**

Pour Windows 95/98, lancer Setup.exe depuis le répertoire du CD-ROM \Pccillin \Win9x

Pour Windows NT 4.0, lancez Setup.exe depuis le répertoire du CD-ROM \Pccillin \WinNT4.0

Le numéro de série du produit est PN EF-9991-6558-5857-5535

### **QDI ManageEasy**

Il est bien connu que garantir la sécurité et la fiabilité du PC est essentiel.

Spécialement de nos jours, gérer et surveiller le matériel est encore plus important car les opérations et les échanges de données critiques entre ordinateurs et réseaux sont monnaie courante.

Avec le développement de l'ordinateur, le système devient de plus en plus complexe, en même temps le contrôle du matériel doit être renforcé. Aujourd'hui il est possible de surveiller et contrôler votre matériel sous Windows 9x ou NT. QDI ManageEasy est un outil système, comme un pont entre l'OS et le matériel, utilisé pour accéder au statut du matériel et exécuter des fonctions de contrôle. Ces fonctions vous permettent de voir plus d'une centaine d'informations basiques sur votre ordinateur et de surveiller des données clés sur la santé du PC en temps réel. QDI ManageEasy vous aide également à contrôler à distance des machines sous réseau local. Avec QDI ManageEasy, vous améliorez votre niveau de gestion.

### **Installation de QDI ManageEasy v2.0**

Lancez Setup.exe depuis le répertoire du CD-ROM \QME2 pour installer QDI ManageEasy 2.0. L'assistant d'installation vous guidera pour le reste de l'installation. Pour plus d'informations sur l'utilisation de QDI ManageEasy v2.0, référez-vous à l'aide en ligne de QDI ManageEasy v2.0.

## **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.

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**CMOS Setup Utility – Copyright© 1984-1999 Award Software**

**SpeedEasy CPU Setup**

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Auto detect DIMM/PCI Clk	: Enabled	Item Help
Spread Spectrum	: Disabled	
CPUHOST/SDRAM/PCIClk	: Default	Menu Level >
CPU Clock Ratio Jumpless	: By H/W	

---

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 Superb 3L green mainboard utilizes the SiS630E chipset which integrates Ultra AGP VGA for hardware 2D/3D video, provides highly integrated solution for fully compatible, high performance and cost-effective PC/MATX Platform. The new integrated technologies, together with the software configurable AC'97 audio give customers an advanced, multi-media solution at an extremely low price. It provides 66/100/133MHz system bus, Socket 370 CPU type support for all Intel Pentium®III, Celeron(include medocina and Coppermine 128K/256K) and Cyrix-III processors. 66/100/133MHz SDRAM memory and NEC Virtual channel memory are supported. It also provides advanced features such as wake-up on LAN, wake-up on internal/external modem, suspend to RAM and keyboard password power-on function. The green function is in compliance with the ACPI specification. With QDI innovations such as SpeedEasy, RecoveryEasy, LogoEasy , ManageEasy and BIOS-ProtectEasy.

#### Key Features

##### Form factor

- MATX form factor of 244mm x188mm.

##### Microprocessor

- Supports all Intel®Pentium III(Coppermine) FC-PGA processors at 533/600EB/667/733/800EB/866/933MHz/1000MHz and future processors with 133MHz bus speed.
- Supports all Intel®Pentium III(Coppermine) FC-PGA processors at 500/550/600/650/700/750/800/850MHz and future processors with 100MHz bus speed.
- Supports all Intel®Celeron™ FC-PGA processors at 533/566/600/633/667/700/733MHz and future processors with 66MHz bus speed.
- Supports all Intel®Celeron™ PPGA processors at 300/300A/333/366/400/433/466/500/533MHz with 66MHz bus speed.
- Supports later processors Cyrix-III at 500/533/550/600/667MHz and future processors
- Supports 66/100/133MHz host bus speed.
- CPU core frequency = Bus speed x3, x3.5, x4, x4.5, x5, x5.5, x6, x6.5, x7, x7.5, x8, x8.5, x9, x9.5, x10, x10.5, x11, x11.5, x12.
- CPU core voltage adjustable from 1.3V to 3.5V through on-board switching voltage regulator with VID (voltage ID)

##### Chipset

- SiS630E: Integrated AGP VGA for 2D/3D graphics and video accelerators.

### **System memory**

- Provides two 168 pin 3.3V unbuffered 66/100/133MHz DIMM sockets.
- Supports 66/100/133MHz SDRAM and 66/100/133MHz VCM(Virtual Channel Memory)SDRAM
- Minimum memory size is 8MB, 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.
- Integrated 16x32bit buffer for IDE PCI Burst Transfers.

### **On-chip I/O**

- Use ITE 8705 super I/O chip.
- One floppy port supporting up to two 3.5" or 5.25" floppy drives with 360K/720K/1.2M/1.44M/2.88M format.
- Two high speed 16550 fast compatible UARTs(COM1/COM2/COM3/COM4 selective) with 16-byte send/receive FIFOs.
- One enabled parallel port at the I/O address 378H/278H/3BCH with additional bi-direction I/O capability and multi-mode as SPP/EPP/ECP (IEEE 1284 compliant).
- Circuit protection provided, preventing damage to the parallel port when a connected printer is powered up or operates at a higher voltage.
- Supports LS-120 floppy disk drive and Zip drive.
- All I/O ports can be enabled/disabled in the BIOS setup.

### **On-board Graphics**

- Supports AGP 4 x 128 bits mode and AGP 2.0 compliant.
- Based on the onchip AGP graphics controller, integrated 2D/3D graphics and video accelerators.
- Display memory share from DIMM memory up to 64M.
- Supports a maximum resolution of 1920X1200 at 80Hz.

### **On-chip Audio**

- High quality Audio and AC'97/98 support.
- Compatible with Sound Blaster™, Sound Blaster Pro™ and Windows Sound system™.
- Supports software-based Wavetable Synthesizer.
- Provides on-board Line-in jack, speaker-out jack and microphone-in jack.

### **Advanced features**

- Provides on-board PS/2 mouse and PS/2 keyboard ports.
- Four USB ports supported.
- Provides infrared interface.
- Support PC99 color- coding connector Specification
- Supports Windows 98/Windows 2000 software power-down.
- Supports wake-up on LAN and wake-up on external modem.
- Supports keyboard password power-on function.
- supports system monitoring (monitors system temperature, CPU temperature, voltages, chassis intrusion and fan speed).
- 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 QDI innovation: RecoveryEasy
- Supports IDE CD-ROM or SCSI boot up.

### **Green function**

- Supports ACPI (Advanced Configuration and Power Interface).
- Supports three green modes: Doze, Standby and Suspend.
- Supports ACPI power status: S0, S1, S3(STR), S4(STD), S5(Soft-off).

### **Expansion slots**

- 3 PCI slots.
- 1 AMR

## Introduction to New Features

### BIOS Write Protection

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 close, the BIOS can not be overwritten.
2. Set the jumper (JAV) as open, 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.

### 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 data 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 Superb 3L mainboard.
2. The system BIOS must also support Ultra ATA/66.
3. The operating system must be capable of DMA transfers. Win95 (OSR2) and Win98 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.



**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 requirements are essential:

1. Power supply requirements: The current of 5VSB line of the power supply should be more than 0.75A.
2. 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
3. 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:).
4. 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.

**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.

## Chapter 2

### Installation Instructions

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

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

#### External Connectors

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

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



##### USB1, USB2

Two USB ports are available for connecting USB devices.



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

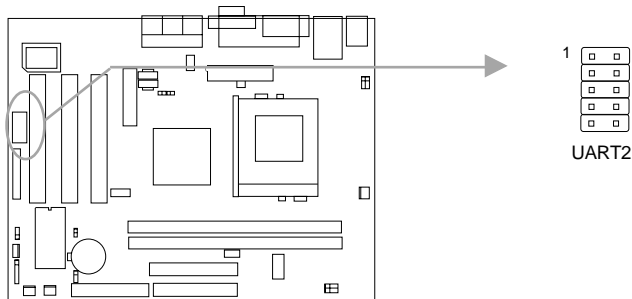
The parallel port connector can be connected to a parallel device such as a printer, while the serial port connector can be connected to a serial port device such as a serial port mouse. The monitor output connector is for output to a VGA-compatible device. You can enable/disable them and choose the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



## Installation Instructions

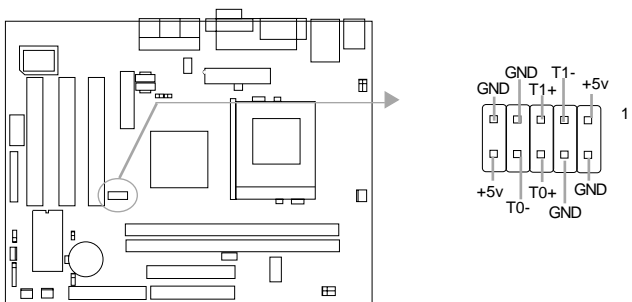
### UART2

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)



### USB3, USB4

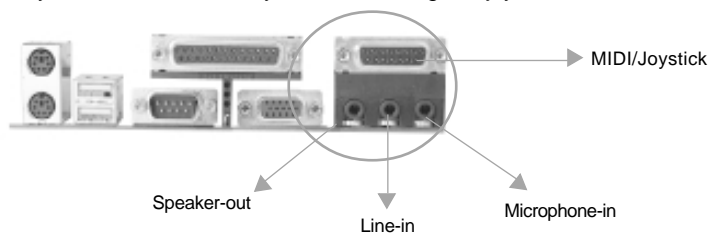
Two USB ports are not available on the back panel. Therefore, we provide a 10-pin ribbon cable with bracket to connect Built-in on-board USB header. (manufacturing option)



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

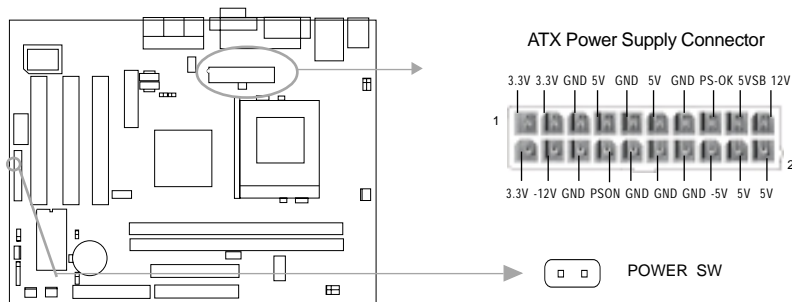
The Line-in jack can be connected to devices such as cassette or minidisc player for playback or recording. The Microphone-in jack can be connected to a microphone for voice input. The Speaker-out jack allows you to connect speakers or headphones for audio output from the internal amplifier.

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



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

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



#### Note:

1. If you change “Power Button Over Ride” 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.
2. Push the power switch once, when AC power supply power off, within 10 seconds, the AC power supply powers on, enabling the system to be powered on.
3. If the AC power supply cuts off when the system is in power-on status, within 4 seconds the AC power supply resumes, the system will be powered on.

### Hard Disk LED Connector (HDDLED)

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)**

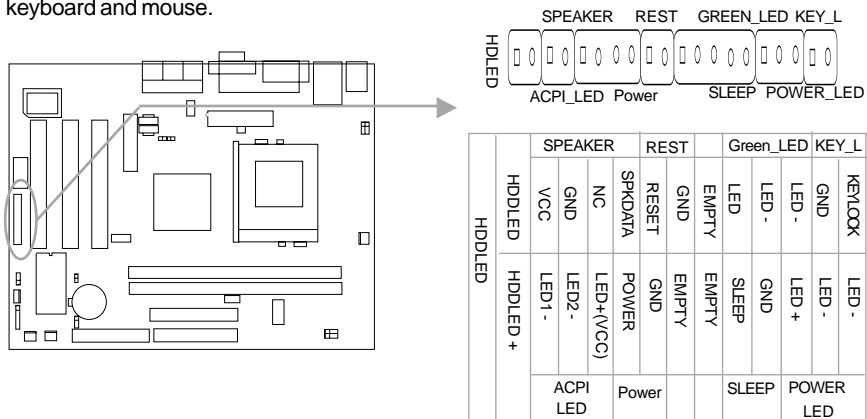
The GREEN LED has four status. When the system is in three status (including power up, suspend, soft-off), the LED is off. When the system is in suspend to RAM status, the LED is on.

**Hardware Green Connector (SLEEP)**

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

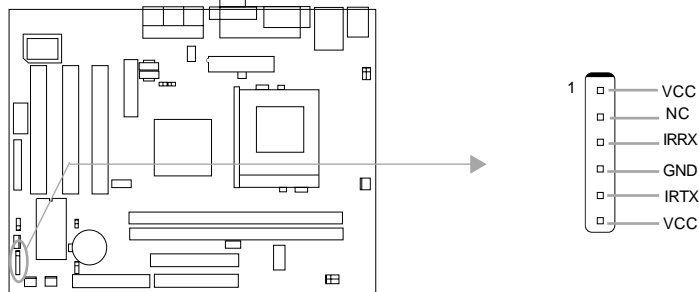
**Key-Lock connector(KEY\_L)**

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



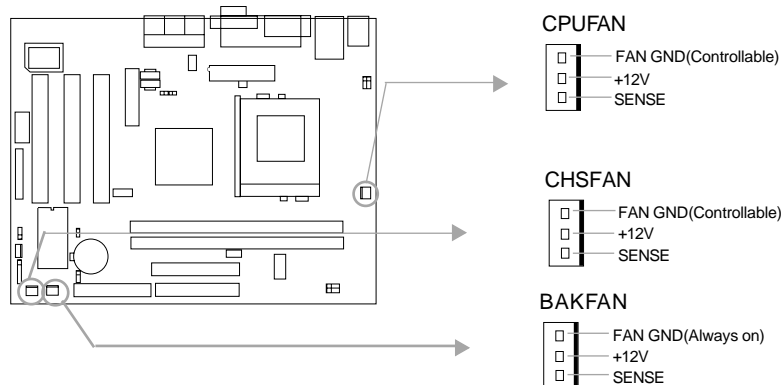
**Infrared Header (IrDA)**

This connector supports wireless transmitting and receiving. When using this function, configure the settings for IR Address, IR Mode and IR IRQ from the "INTEGRATED PERIPHERALS" section of the BIOS.



### Fan Connector (CPUFAN, BAKFAN, CPUFAN)

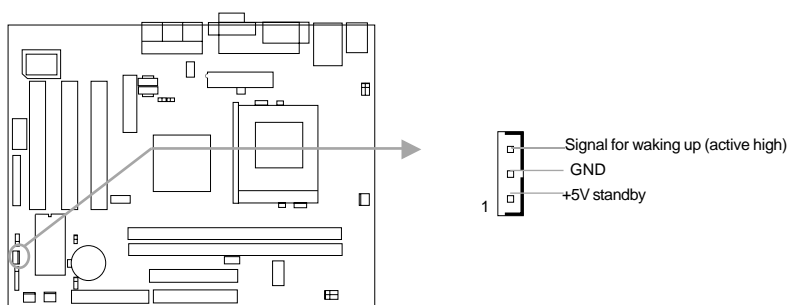
These connectors support cooling fans of 350mA or less. The fan speed of CPUFAN and CHSFAN can be detected and viewed in "INTEGRATED PERIPHERALS" section of the BIOS.



- Note:**
1. If a high frequency CPU is used, we suggest a good CPU fan be used, ensuring sufficient airflow eliminating overheating.
  2. Be careful not to scrape the motherboard when fixing a clamp-type processor's fan .

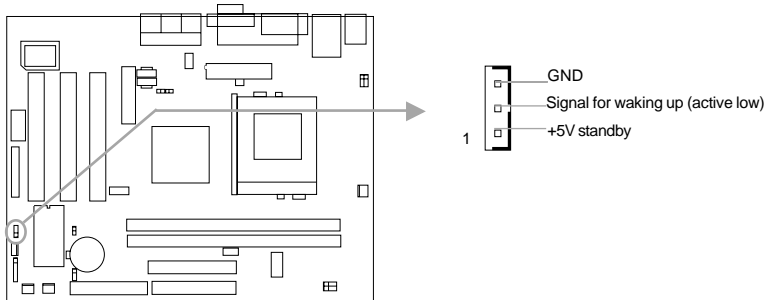
### Wake-Up On LAN (WOL)

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



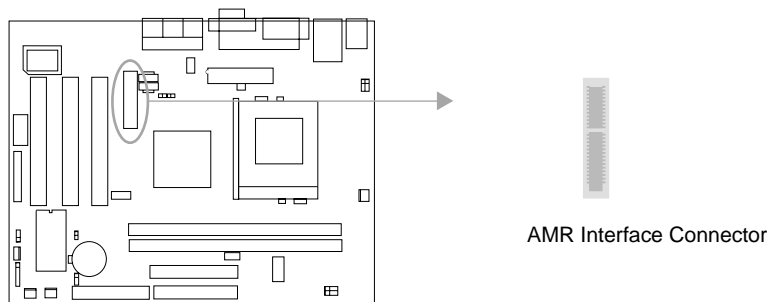
### Wake-Up On Internal Modem (WOM)

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



### Audio/Modem Riser Interface Connector (AMR)

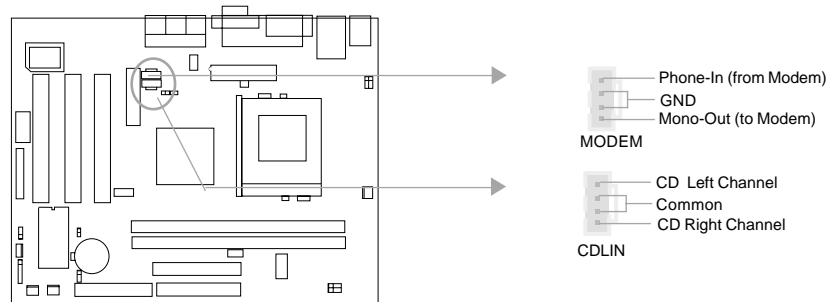
The AMR Interface Connector is the interface between the mainboard and the Audio/Modem Riser card. The connector provides all necessary signals which supports several different configurations of audio and modem in the system, such as audio and modem on the Riser, audio on the mainboard and modem on the Riser, or no audio with modem on the Riser. Superb 3L 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. 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.





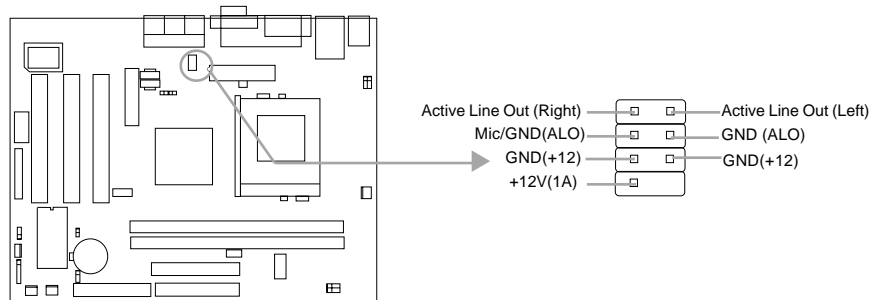
### Internal Audio Connectors (CDLIN, MODEM)

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.



### BL Speaker Connector(BL SPK)




This connector is an internal speaker connector, it will be disabled automatically if external speaker is connected to the Speaker-out jack.



### Expansion Slots & I/O Ports description

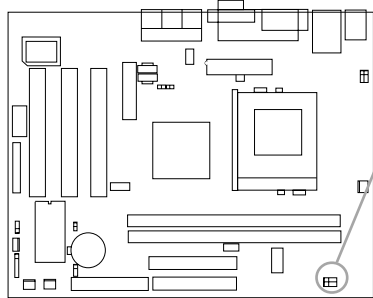
Slot / Port	Description
PCI1	First PCI slot.
PCI2	Second PCI slot.
PCI3	Third PCI slot.
AMR	AMR slot.
IDE1	Primary IDE port.
IDE2	Secondary IDE port.
FLOPPY	Floppy Drive Port.


### Jumper Settings


Jumpers are located on the mainboard, they represent, clear CMOS jumper JCC, enable keyboard password power-on function jumper JKB, and enable/disable onboard audio jumper JP8. Pin 1 for all jumpers are located on the side with a thick white line ( Pin1→  ), referring to the mainboard's silkscreen. Jumpers with three pins will be shown as  to represent pin1 & pin2 connected and  to represent pin2 & pin3 connected.

### Overclocking Jumper Setting (JFSB1, JFSB2)

Jumpers labeled JFSB1 and JFSB2 are located on the mainboard providing users with CPU overclocking feature. The host bus speed can be set as 66/100/133MHz or AUTO select. Refer to the chart below for the location of these jumpers, and the table for information on how to set them.



1 

1 

JFSB1

JFSB2

CPU FSB	66MHz	100MHz	133MHz	AUTO
JFSB1	2-3	OPEN	OPEN	1-2
JFSB2	2-3	2-3	OPEN	1-2

'1-2' represents pin1 & pin2 closed.  
'2-3' represents pin2 & pin3 closed.

If CPU FSB is set as default setting Auto, the system detects the CPU front side bus automatically. If CPU FSB is set as 100MHz, the system will run at 100MHz even if a processor with 66MHz or 133MHz FSB is installed. Setting up to 133MHz using processors with 100MHz bus speed is also supported. However, whether or not the 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 CPU FSB as 100/133MHz, meanwhile adjusting the bus ratio(multiplier) lower in "CPU SpeedEasy Setup" in AWARD BIOS CMOS Setup. We do not guarantee the overclocking system will be stable.

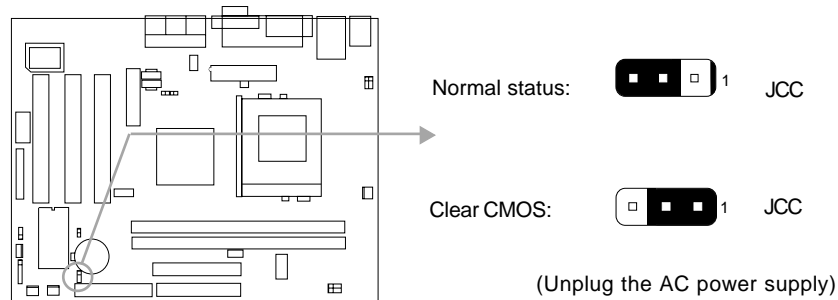
Note: Super 3 mainboard allows you setup CPU front side bus through Jumper Mode or SpeedEasy Mode.

If you choose the Jumper Mode, the options "CPU Host/SDRAM/PCI clock" and "CPU Clock Ratio Jumpless" of SpeedEasy section in BIOS is set as "Default" and "By H/W".

If you choose the SpeedEasy mode, the BIOS Setup is in place of jumper setting. the system only run at CPU FSB setup by BIOS.

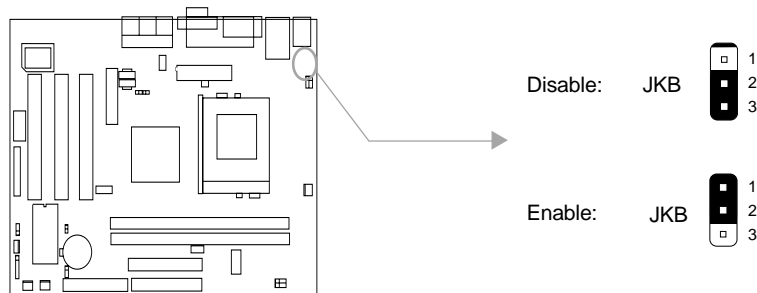
### Clear CMOS (JCC)

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.



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

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



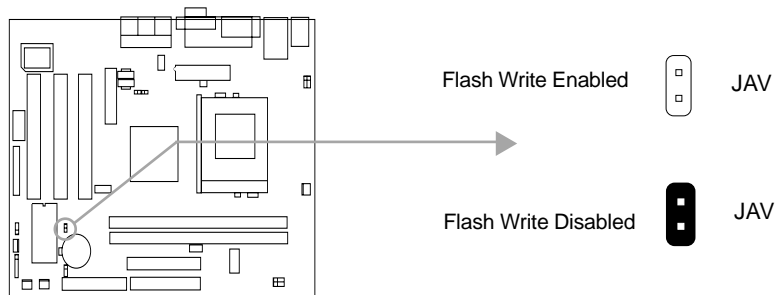
In order to implement this function, set "KB Power On Password" from the "Power Management Setup" section of the BIOS. Then you can power up the system either by using the keyboard or by the power switch.

**Note: 1. If using this function, 5VSB line of the power supply should be capable of delivering enough current (eg. 200mA) for all the devices connected to the keyboard port, if not, you will be unable to power up the system using the keyboard.**

**2. If the AC power supply cuts off, the keyboard power on password should be set again when the AC power supply resumes, in order to implement this function.**

### BIOS-ProtectEasy Jumper (JAV)

The BIOS of the mainboard is contained inside the Flash ROM. If the jumper JAV is set as close, 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 open (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 close makes flashing BIOS and updating DMI information impossible.

### Memory Configuration

This mainboard provides two 168 pin 3.3V un-buffered DIMM sockets to support a flexible memory size ranging from 8MB to 1GB for SDRAM. The following set of rules allows optimum configurations.

- The DRAM Timing register, which provides the DRAM speed grade control for the entire memory array, must be programmed to use the timing of the slowest DRAMs installed.
- Possible SDRAM DIMM memory sizes are 8MB, 16MB, 32MB, 64MB, 128MB, 256MB, 512MB in each DIMM socket.
- 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 /?

BIOS Description

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## 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 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 ten setup functions and two exit choices. Use the arrow keys to select among the items and press the <Enter> key to accept or enter the sub-menu.

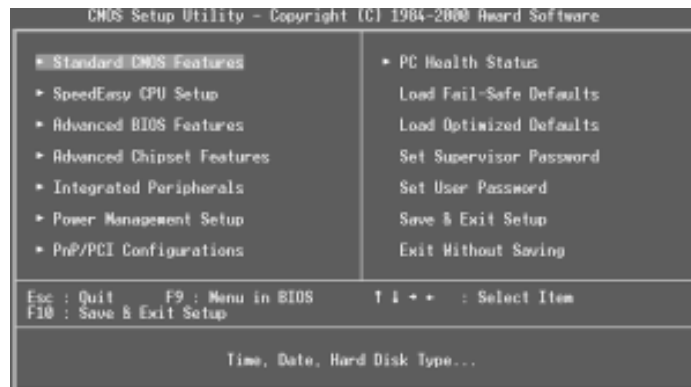


Figure-1 Main Menu

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

### Load Setup Defaults

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

### Standard CMOS Setup

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

## BIOS Description



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.

## SpeedEasy CPU SETUP

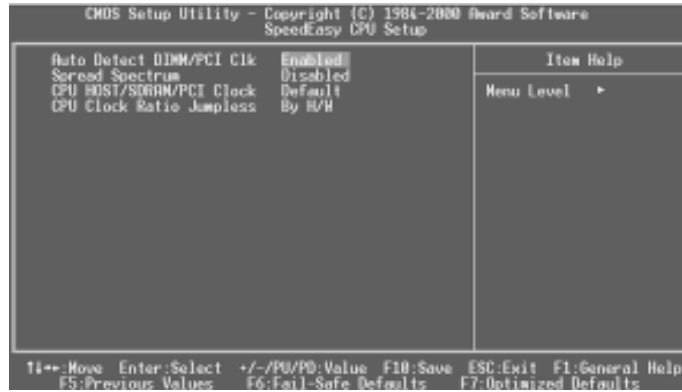


Figure-3 SpeedEasy CPU SETUP

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

<u>Item</u>	<u>Option</u>	<u>Description</u>
• AutoDetect DIMM/ PCI Clk	<i>Enabled</i> <i>Disabled</i>	Closes the CLK signal if no PCI or DIMM plug in. Device resources assigned by BIOS.
• Spread spectrum	<i>Enabled</i> <i>Disabled</i>	Enables clock spread spectrum to reduce EMI. Disables clock spread spectrum .
• CPU Host/ SDRAM/PCI Clock	<i>66/100/33MHz</i> <i>100/100/33MHz</i> ..... <i>133/133/33MHz</i>	Selects the CPU host bus clock , SDRAM clock PCI clock.
• CPU clock ratio Jumpless	<i>By H/W</i>  <i>x3,</i> <i>X3.5</i> ..... <i>x12</i>	When power on the computer, hardware initialize CPU ratio. The CPU ratio can be chosen from 3 to 12. However the CPU ratio setting will not function for bus ratio locked processor, only bus ratio unlocked processor.

## Advanced BIOS Features Setup

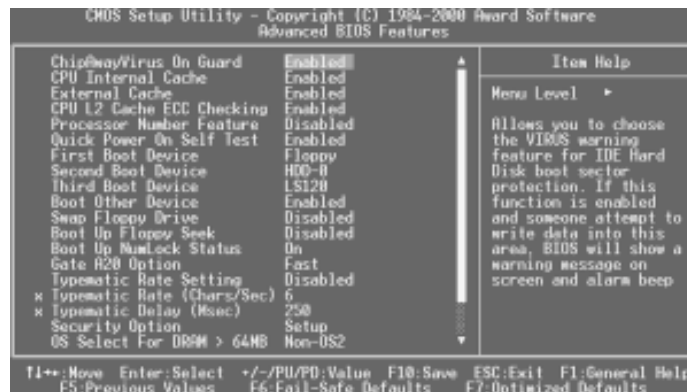


Figure-4 BIOS Features Setup Menu

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

<u>Item</u>	<u>Option</u>	<u>Description</u>
• ChipAway Virus on Guard	<i>Enabled</i>	Guards against boot Virus threats early in the boot cycle, before they have a chance to load into your system, ensuring your computer boots to a clean operating system.
	<i>Disabled</i>	Invalidates this function.
• CPU Internal Cache	<i>Enabled</i>	Enables CPU internal Level1/Level2 cache.
	<i>Disabled</i>	Disables CPU internal Level1/Level2 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</i>	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	<i>Floppy</i>	
	<i>Enabled</i>	Exchanges the assignment of A&B floppy drives.
	<i>Disabled</i>	The assignment of A&B floppy drives are normal.

• Boot up Floppy Seek	<i>Enabled</i>	Enabled tests floppy drivers to determine whether they have 40 or 80 tracks.
	<i>Disabled</i>	Skip drive seeking to speed up system booting.
• Boot Up Numlock Status	<i>On</i>	Keypad is used as number keys.
	<i>Off</i>	Keypad is used as arrow keys.
• Gate A20 Option	<i>Normal</i>	The A20 signal is controlled by the keyboard controller or chipset hardware.
	<i>Fast</i>	Default setting. The A20 signal is controlled by Port 92 or the chipset specific method.
• Typematic Rate Setting	<i>Disabled</i>	Disables the ECC function.
	<i>Enabled</i>	Enable typematic rate and typematic delay programming
	<i>Disabled</i>	Disable typematic rate and typematic delay programming. The system BIOS will use default value of these two items.
• Typematic Rate (Chars/Sec)	<i>6~30</i>	Sets the speed of the typematic rate.
• Typematic Delay (Msec)	<i>250~1000</i>	Sets the time of the typematic delay.
• Security Option	<i>System Setup</i>	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</i>	If your operating system is not OS/2, please select this item.
	<i>OS2</i>	If system DRAM is more than 64MB and the operating system is OS/2, please select this item.
• Video BIOS Shadow	<i>Enabled</i>	Video BIOS will be copied to RAM. Video Shadow will increase the video speed.
• Show Bootup Logo	<i>Disabled</i>	Video shadow is disabled.
	<i>Enabled</i>	Enables the logo when system boots up.
• Flash Write Protect	<i>Enabled</i>	Logo will not be shown when system boots up.
	<i>Disabled</i>	Does not allow you to upgrade the BIOS.
	<i>Enabled</i>	<b>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).</b>

## Advanced Chipset Features Setup

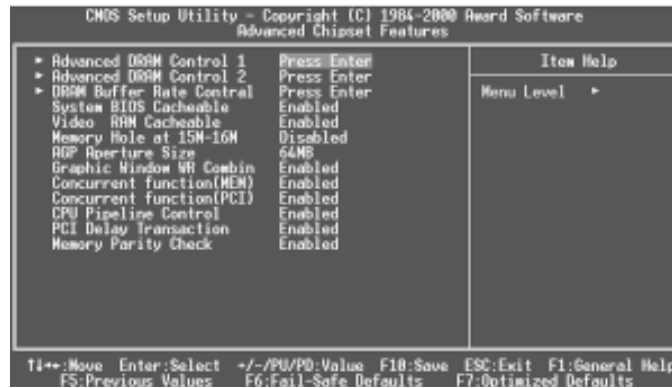


Figure-5 Chipset Features Setup Menu

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

<u>Item</u>	<u>Option</u>	<u>Description</u>
• Advanced DRAM Control 1	<i>Press Enter</i>	Press Enter key to select submenu.
• Auto Configuration	<i>Auto</i>	Automatically configures DRAM Timing. <b>*Note: It is recommended that the "Auto" option be chosen by common users.</b>
	<i>100MHz</i>	Configures DRAM timing as 100MHz speed.
	<i>133MHz</i>	Configures DRAM timing as 133MHz speed.
	<i>Manual</i>	Configures DRAM timing preferences.
• SDRAM RAS Active Time	<i>4T~7T</i>	This item is of selected EDO DRAM read/write timing. Ensure your DIMMs are as fast as 50ns, otherwise 60ns should be selected.
• SDRAM RAS Precharge Time	<i>2T~4T</i>	DRAM RAS # precharge time=(2~4)X system clocks.
• RAS to CAS delay	<i>Disabled</i> <i>2T~4T</i>	Add a delay time between the assertion of RAS# and CAS#.
• Dram Background Command	<i>Normal</i> <i>Delay 1T</i>	Memory command output timing control. Forces all memory command delay 1 clock.
• LD-off Dram RD/WR Cycles	<i>Normal</i> <i>Delay 1T</i>	Read/Write command and MA are issued at same time. memory read/write command is issued 1 clock behind memory address.
• Write Recovery Time	<i>1T</i> <i>2T</i>	Defines the Data-into PRE command period.
• VCM REF to ACT/REF Delay	<i>10T</i> <i>9T</i>	Defines VCM ACT to prefetch command period.

## BIOS Description

• VCM ACCT-ACT REF Delay	<i>8T~10T</i>	Defines VCM ACT to ACT/REF command period
• Early CKE Delay 1T Cntrl	<i>Normal Delay 1T</i>	when system operates under low frequency and CKE delay adjustment method.
• Early CKE Delay Adjust	<i>1ns~8ns</i>	Sets the timing for CKE.
• Advanced DRAM Control 2	<i>Press Enter</i>	Press Enter key to select submenu.
• Mem command output time	<i>Normal Delay 1T</i>	Sets memory command output time.
• SDRAM CAS Latency	<i>2T, 3T SPD</i>	Define the CLT timing parameter of SDRAM expressed in the bus speed. Latency Time=2 clocks Latency Time=3 clocks SPD=DIMM SPD value.
• SDRCLK Control	<i>-1.0ns ..... +6.5ns</i>	This option controls the phase of SDRCLK that lags behind SDCLK.
• SDRCLK Control CS#/CKE	<i>-1.0ns ..... +6.5ns</i>	This option controls the phase of SDRCLK used for CS# signals that lags ahead SDCLK.
• SDRCLK Control MA/SRAS	<i>-1.0ns ..... +6.5ns</i>	This option controls the phase of SDRCLK used for MA/SRAS signals that lags ahead SDCLK.
• SDRCLK Control DQM/MD	<i>-1.0ns ..... +6.5ns</i>	This option controls the phase of SDRCLK used for DQM/MD signals that lags ahead SDCLK.
• AGTL Pull Up control	<i>Enabled Disabled</i>	Enables chipset internal pull up control function. Disables chipset internal pull up control function.
• AGTL Feed Back control	<i>Enabled Disabled</i>	Enables inside of chipset feed back control function. Disables inside of chipset feed back control function.
• DRAM buffer rate Control	<i>Press Enter</i>	Press Enter key to select submenu.
• SRAS/SCAS/WE Slew Rate	<i>Fast  Slow</i>	Sets the pre-driver slew rate of DRAM.
• VCS/VBA1/VMA Slew Rate	<i>Fast  Slow</i>	Sets the pre-driver slew rate of DRAM.
• VDQM/VMD Slew Rate	<i>Fast  Slow</i>	Sets the pre-driver slew rate of DRAM.
• CKE/CSB/CSA/DQM /MDSlew Rate	<i>Fast  Slow</i>	Sets the pre-driver slew rate of DRAM.

• CKE/CSB/CSA/DQM /MD Driving Rate	<i>Normal strong strongest weak</i>	Sets the buffer strength of DRAM.
• AD current rate	<i>Normal strong strongest</i>	Controls buffer strength of AD on bus.
• PCI control Signal rate	<i>Normal strong strongest</i>	PCI control signals current rating.
• system BIOS Cacheable	<i>Enabled Disabled</i>	Beside conventional memory, video BIOS area is also cacheable. Video BIOS area is not cacheable.
• Video RAM Cacheable	<i>Enabled Disabled</i>	Beside conventional memory, video RAM area is also cacheable. Video RAM area is not cacheable.
• Memory Hole at 15m-16m	<i>Enabled</i>	Memory hole at 15-16m is reserved for expanded PCI card.
• AGP Aperture Size (MB)	<i>4-256</i>	Sets the effective size of the Graphics Aperture to be used in the particular PAC Configuration.
• Graphic Window WR combin	<i>Enabled Disabled</i>	Sets CPU cache type in order to enhance 3D graphic performance. Disables this function.
• Concurrent function (MEM)	<i>Enabled Disabled</i>	CPU access memory cycles and PCI masters access memory cycles can be concurrently issued on to host bus and PCI bus. either CPU or PCI masters starts memory access cycle will block the other one's cycle until be current cycle is finished.
• Concurrent function (PCI)	<i>Enabled Disabled</i>	CPU access PCI bus cycle and PCI masters access memory cycles can be concurrently issued on to host bus and PCI bus. Either one of these two kinds of cycles will block the other until the current cycle is finished.
• CPU Pipeline control	<i>Enabled Disabled</i>	There might be more than two pending cycles at one time depends on the CPU behaviour. Only one pending cycle is allowed at one time.
• Memory parity check	<i>Enabled Disabled</i>	Checks memory parity. Disables this function.

## Integrated Peripherals

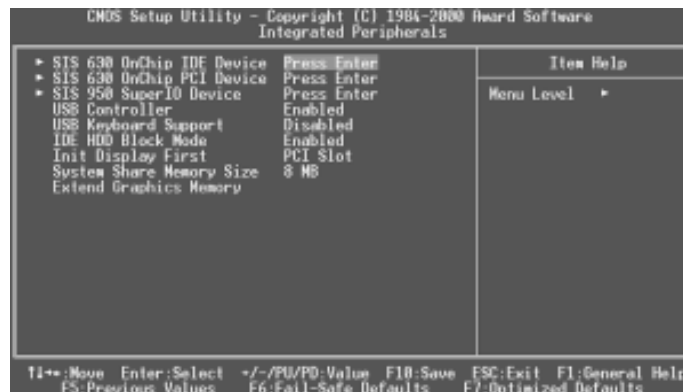


Figure-8 Integrated Peripherals Menu

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

<b>Item</b>	<b>Option</b>	<b>Description</b>
• SIS630 onchip IDE Device	<i>Press Enter</i>	press Enter key to select submenu.
• Internal PCI/IDE	<i>Both</i>	Both PCI and IDE can be select.
	<i>Disabled</i>	Both PCI and IDE can not be select.
	<i>Primary</i>	Primary device parameters can be select.
	<i>Secondary</i>	Secondary device parameters can be select.
• IDE Primary/ Secondary Master/Slave PIO	<i>Mode 0 - 4</i>	Defines the IDE primary/secondary master/ slave PIO mode.
• IDE Primary/ Secondary Master/Slave UDMA	<i>Auto</i>	The IDE PIO mode is defined by auto-detection.
• IDE Burst Mode	<i>Auto</i>	Ultra DMA mode will be enabled if an ultra DMA device is detected.
	<i>Disabled</i>	Disables this function.
• SIS630 onchip PCI Device	<i>Enabled</i>	Enabled sis-7018 AC'97 audio function.
• SIS-7018 AC97 Audio	<i>Disabled</i>	Disabled sis-7018 AC'97 audio function.
• SIS-7013 S/W Modem	<i>Enabled</i>	Enabled sis-7013 S/W modem function.
• SIS-900 10/100M Ethernet	<i>Disabled</i>	Disabled sis-7013 S/W modem function.
	<i>Disabled</i>	Disabled sis-900 10/100M Ethernet function(Default setting)
	<i>Enabled</i>	Enabled sis-900 10/100M Ethernet function.
• SIS950 Super I/O Device	<i>Press Enter</i>	press Enter key to select submenu.



• Onboard FDC Controller	<i>Enabled</i> <i>Disabled</i>	Onboard floppy disk controller is enabled. Onboard floppy disk controller is disabled.
• Onboard Serial Port 1/2	<i>3F8/IRQ4,</i> <i>2F8/IRQ3,</i> <i>3E8/IRQ4,</i> <i>2E8/IRQ3,</i> <i>Auto</i>	Defines the onboard serial port address and required interrupt number.  Onboard serial port address and IRQ are automatically assigned
• UART Mode Select	<i>Disabled</i> <i>Normal</i> <i>HPSIR</i> <i>ASK IR</i>	Onboard serial port is disabled. Defines Serial Port 2 as standard serial port. Supports IRD mode. Supports SHARP ASK-IR protocol with maximum baud rate up to 57600bps.
• UR2 Duplex Mode	<i>Half</i> <i>Full</i>	Defines UR2 Duplex mode:half or full.
• Onboard Parallel Port	<i>378/IRQ7,</i> <i>278/IRQ5,</i> <i>3BC/IRQ7</i>	Defines onboard parallel port address and IRQ channel.
• Parallel Port Mode	<i>Disabled</i> <i>Normal</i> <i>SPP</i> <i>EPP</i> <i>ECP,</i> <i>ECP+EPP</i>	Onboard parallel port is disabled. Defines the parallel port mode as Standard Parallel Port (Normal), Enhanced Parallel Port (EPP), or Extended Capabilities Port (ECP).
• ECP Mode Use DMA	<i>1, 3</i>	Set DMA for ECP mode use.
• Game Port Address	<i>201, 209</i> <i>Disabled</i>	Define game port address.
• Midi port address	<i>300, 330</i> <i>Disabled</i>	Define Midi port address.
• Midi Port IRQ	<i>10</i> <i>5</i>	Define Midi port IRQ.
• USB Controller	<i>Enabled</i> <i>Disabled</i>	Enable USB controller. Disable USB controller.
• USB Keyboard Support	<i>Enabled</i> <i>Disabled</i>	Enable USB keyboard support. Disable USB keyboard support.
• USB mouse Support	<i>Enabled</i> <i>Disabled</i>	Enable USB mouse support. Disable USB mouse support.
• IDE HDD Block Mode	<i>Enabled</i> <i>Disabled</i>	Allow IDE HDD read/write several sectors on time. IDE HDD read/write a sector one time.

## BIOS Description

- |                            |                       |  |
|----------------------------|-----------------------|--|
| • Init Display First       | <i>PCI SLOT</i>       | Initializes the PCI VGA first. If a PCI VGA card plugged in, it will replace onchip AGP. |
| • System share memory size | <i>AGP<br/>2M~64M</i> | Initializes the onchip AGP first.<br>Sets system share video memory size.                |

## Power Management Setup

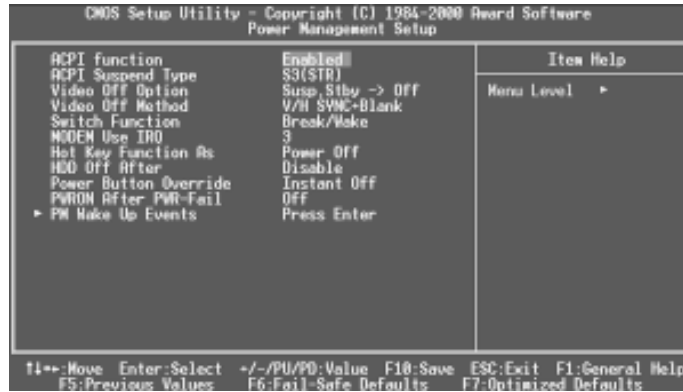


Figure-6 Power Management Setup Menu

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.
• ACPI Suspend Type	<i>S1(POS)</i>	Selects the ACPI suspend type. S1 defines Power on ACPI Suspend.
	<i>S3(STR)</i>	S3 defines suspend to RAM.
	<i>Disabled</i>	
• Video Off Option	<i>Suspend -&gt; Off</i>	Screen blanks after the system enters suspend mode.
	<i>Susp, stby -&gt; Off</i>	Screen blanks after the system enters either standby mode or suspend mode.
	<i>All Modes -&gt; 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.
• Switch Function	<i>Break/wake</i>	Enables Sleep Button function.
	<i>Disabled</i>	Disables Sleep Button function.



## 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 resource assign by PnP OS. Device resource assign 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 Resources	Press Enter	Press enter key to select submenu.
• IRQ-3~IRQ-15 assigned to	PCI/ISA PnP Legacy ISA	The specified IRQ-x will be assigned to ISA or PCI. The specified IRQ-x will be assigned to ISA only.
• DMA-0~DMA-7 assigned to	PCI/ISA PnP Legacy ISA	The specified DMA-x will be assigned to ISA or PCI. The specified DMA-x will be assigned to ISA only.
• PCI/VGA Palette Snoop	Disabled Enabled	Default setting. Non-standard VGA cards such as graphics accelerators or MPEG video cars may not show colors properly. Enabling this item can solve this problem.
• 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.

## BIOS Description

### PC Health Status

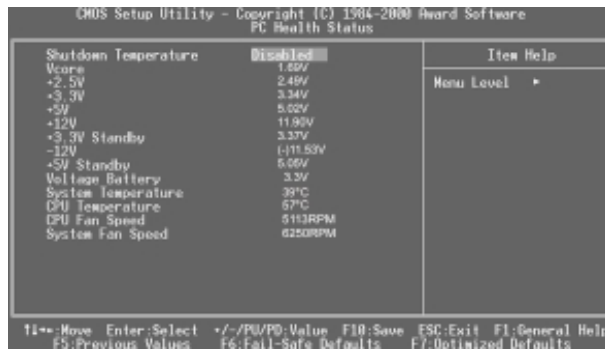


Figure-9 PC Health Status Menu

The following describes the meaning of each item.

<u>Item</u>	<u>Current</u> <u>Data Shown</u>	<u>Description</u>
• Shutdown Temperature	70°C/158°F . . Disabled	The system will shut down automatically when the CPU temperature reaches the previous setting, 70°C/158°F, 80°C/176°F, 90°C/194°F. The system remains on regardless of how much the CPU temperature is.
• Vcore	1.5V	Displays current Voltage values including all significant voltages of the mainboard. +3.3V, +2.5V, +12V, -12V, 5V, 3.3V Standby, 5V Standby are voltages from the ATX power supply, Vcore
• +2.5V	2.49	Vcore Voltage is the CPU core voltage from the on board switching power supply.
• +3.3V	3.32V	Voltage Battery is the voltage of the onboard battery.
• +5V	4.83V	
• +12V	11.79V	
• +3.3V Standby	3.37V	
• -12V	(-)11.53V	
• +5V Standby	5.05V	
• Voltage Battery	3.3V	
• System Temperature	36°C	Temperature inside the chassis.
• CPU Temperature	57°C	Temperature of the CPU core.
• CPU FAN Speed	5113RPM	RPM( Revolution Per Minute) speed of fan connected to the fan header CPUFAN/CHSFAN.
• System Fan Speed	5110RPM	Fan speed value is based on an assumption that tachometer signal is two pulses per revolution; In other cases, you should regard it relatively.

## Password Setting

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

### ***ENTER PASSWORD***

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

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

### ***PASSWORD DISABLED***

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

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

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

## 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. VGA Driver

It's recommended for advanced users that you may follow CD steps to install VGA driver

SiS VGA drivers included in the directory \ChipDrv\SiS\SiS630\VGA

##### B. Audio codec Driver

It's recommended for advanced users that you may choose the options you want to install Audio driver

Audio codec driver included in the directory \ChipDrv\sis\sis630\Audio

#### 2. Accessory

The softwares contained in this directory are:

- A. DirectX 7.0a
- 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
- C. CBlogo.exe

The files included in **Documents** are:

- A. Adobe Acrobat Reader V3.0 - Ar32e301.exe
- B. French Manual - SUPERB3L FR.doc, ect.



**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**

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 its 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 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.

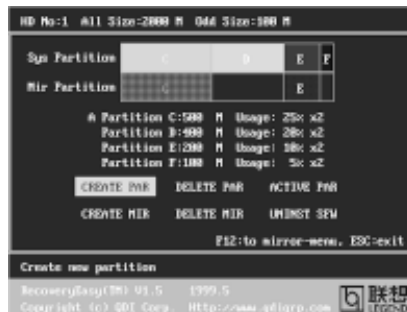


figure-1 Partition Interface

#### 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.

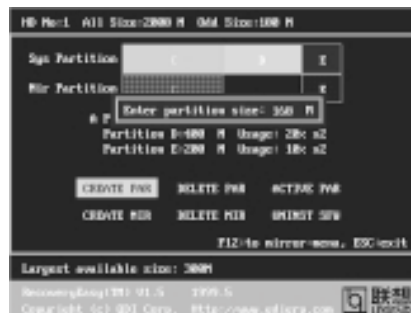


figure-2 Create Partition

**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.

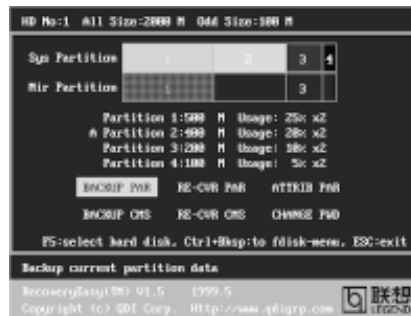


figure-3 Recovery User Interface

**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 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:**

- a. Use F5 key to choose the backed up 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.

## 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 26<sup>th</sup> 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.

- Superb 3L mainboard
- QDI Mainboard Utility CD-ROM
- I/O shield
- 1 IDE ribbon cable
- 1 floppy ribbon cable
- User's manual
- 1 10-pin ribbon cable with bracket for USB3 and USB4(manufacturing option)

### Notice

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# **Board Layout of Superb 3L V1.0**