

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.

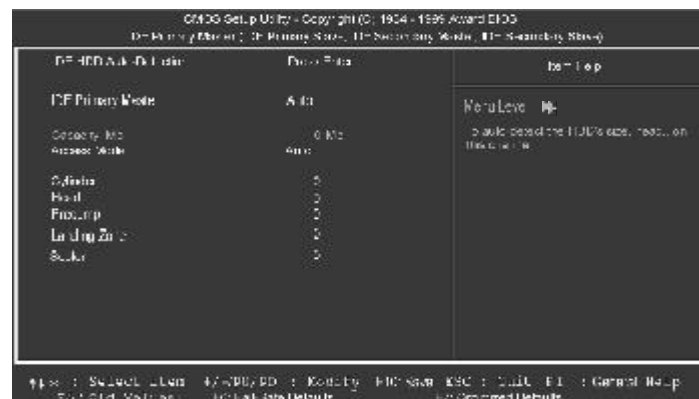


Figure-2-1 IDE Primary Master Setup Menu

## 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 addresses described by sector, head and cylinder number into its own physical address inside the HDD. The maximum HDD size supported by LBA mode is 8.4 Gigabytes.

### **LARGE mode**

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

BIOS tricks DOS (or other OS) into 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.

BaseMemory	The POST of the BIOS will determine the amount of base (or conventional) memory installed in the system.
ExtendedMemory	The BIOS determines how much extended memory is presented during the POST.
TotalMemory	Total memory of the system equals the sum of the above memory.



## CPU SpeedEasy Setup

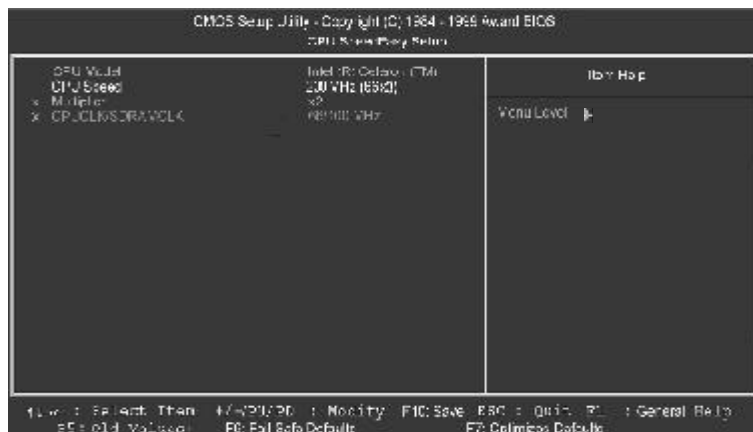


Figure-3 CPU SpeedEasy Setup Menu

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

<u>Item</u>	<u>Option</u>	<u>Description</u>
● CPU Speed	<i>Jumper Emulation</i>	This item is only for users who understand all the CPU parameters, i.e. system bus frequency like 66MHz/100MHz, and the frequency ratio (Multiple) between the processor core frequency and system bus frequency "x2.5, x3, x3.5, x4, x4.5, x5, x5.5, x6, x6.5, x7, x7.5, x8".
	200MHz(66x3)	Selects the CPU speed according to your CPU brand and type.
	233MHz(66x3.5)	
	.	
	.	
	533MHz(66x8)	
	300MHz(100x3)	
	350MHz(100x3.5)	
	.	
	.	
	800MHz(100x8)	
	400MHz(133x3)	
	466MHz(133x3.5)	
	.	
	866MHz(133x6.5)	



## Advanced BIOS Features Setup



Figure-4 Advanced BIOS Features Menu

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

<u>Item</u>	<u>Option</u>	<u>Description</u>
• ChipAwayVirus 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>	Disables this function.
• CPU Internal Cache	<i>Enabled</i>	Enabling this option speeds up memory access.
	<i>Disabled</i>	However, it depends on CPU/chipset design.
• External Cache	<i>Enabled</i>	Enables external L2 cache. This allows better performance.
	<i>Disabled</i>	Disables external cache.
• CPU L2 Cache ECC Checking	<i>Enabled</i>	Enables CPU L2 Cache ECC (Error Checking and Correction) function.
	<i>Disabled</i>	Disables CPU L2 Cache ECC function.
• Processor Number Feature	<i>Enabled</i>	When Pentium III CPU is installed, the serial number is readable.
	<i>Disabled</i>	The serial number is unreadable.
• Quick Power On Self Test	<i>Enabled</i>	Allows the system to skip certain tests while booting. This will decrease the time needed to boot the system.
	<i>Disabled</i>	Normal POST.

Manual for WinneX 2E



## Advanced Chipset Features Setup

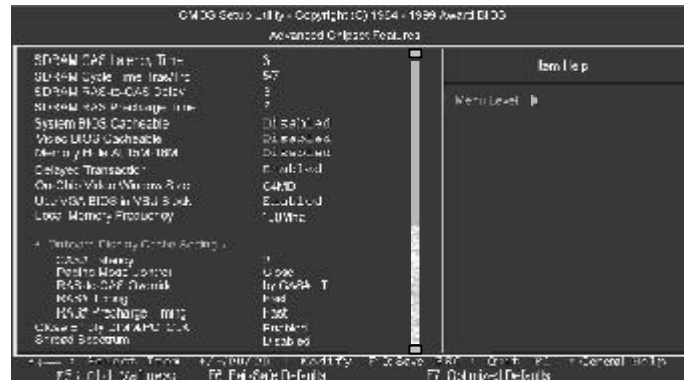


Figure-5 Advanced Chipset Features Menu

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

<u>Item</u>	<u>Option</u>	<u>Description</u>
• SDRAM CAS Latency Time	Auto 3 2	Contains the information for SDRAM initialization procedure.
• SDRAM CycleTime Tras/Trc	5/7 6/8	
• SDRAMRAS To CAS Delay	2 3	Adds a delay time between the assertion of RAS and CAS. Without additional delay time.
• SDRAM RAS Precharge Time	2 3	Default setting is suggested.
• System BIOS Cacheable	Enabled Disabled	Besides conventional memory, the system BIOS area is also cacheable.
• Video BIOS Cacheable	Enabled Disabled	Besides conventional memory, video BIOS is also cacheable. Video BIOS is not cacheable.
• Memory hole at 15M-16M	Enabled Disabled	Memory hole at 15-16M is reserved for expanded ISA card. Does not set this memory hole.
• Delayed Transaction	Enabled Disabled	Default setting is suggested.
• On-Chip Video Window Size	32/64MB Disabled	Selects graphic display cache window size. Does not select it.
• Use VGA BIOS in VBU Block	Enabled Disabled	VGA BIOS in VBU Block can be used. VGA BIOS in VBU Block can not be used.
• Local Memory Frequency	100MHz 133MHz	Defines the local memory frequency, 100MHz or 133MHz.
• Close Empty DIMM/PCI Clk	Enabled Disabled	Closes empty DIMM clock or PCI clock to reduce EMI. Does not close empty DIMM/PCI clock.



## BIOS Description

- Spread Spectrum *Enabled* Enables Spread Spectrum to reduce EMI.
- Disabled* Disables Spread Spectrum.

## Power Management Setup

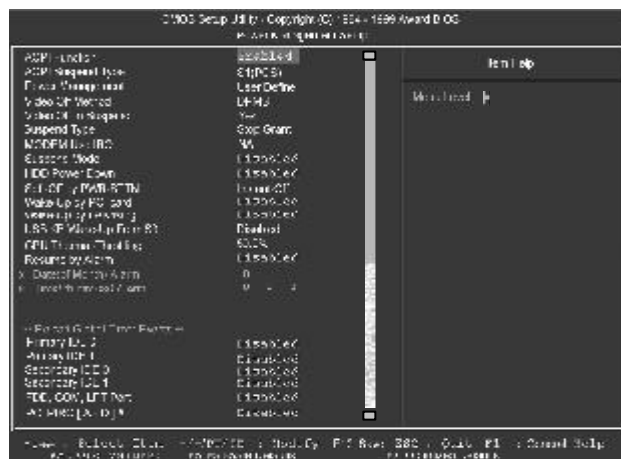


Figure-6 Power Management Setup Menu

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

Item	Option	Description
• ACPI function	<i>Disabled</i>	Invalidates ACPI function.
	<i>Enabled</i>	Validates ACPI function.
• ACPI Suspend Type	S1	Selects the ACPI suspend type.
	S3	
• Power Management	<i>Disabled</i>	Global Power Management (PM) will be disabled.
	<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.
• Video Off Method	<i>Blank Screen</i>	The system BIOS will only blank off the screen when disabling video.
	<i>V/H SYNC +</i>	In addition to Blank Screen, BIOS will also turn off the V-SYNC & H - SYNC signals from VGA card to monitor.
	<i>DPMS</i>	This function is enabled only for VGA cards supporting DPMS.
		<b>Note : When the green monitor does not detect the V/H-SYNC signals, the electron gun will be turned off.</b>







• Video Off In Suspend	Yes	The system will disable video when entering suspend mode.
	No	Does not turn off video when entering suspend mode.
• Suspend Type	Stop Grant PwrOn Suspend	Selects the Suspend type.
• MODEMUseIRQ	3, 5, 7, 9, 10, 11 NA	Special wake-up event for Modem.
• Suspend Mode	Disabled Min ~ 1Hr	The system never enters Suspend mode by timer. Defines the continuous idle time before the system enters Suspend mode. If any items defined in "Reload Global Timer Events" are on and activated, the system will be woken up.
• HDD Power Down	Disabled 1 - 15 Min	HDD' s motor will not be off by timer. Defines the continuous HDD idle time before the HDD enters power saving mode (motor off).
• Soft-Off by PWR-BTTN	Instant-Off	The system will immediately power off once the power button is pressed.
	Delay 4 secs	The system will power off when power button is pressed for 4 seconds.
• Wake-Up by PCI card	Enabled	Allows the system to be woken up by PCI card.
	Disabled	Does not allow the system to be powered on by PCI card.
• Wake-Up by LAN/Ring	Enabled	Allows the system to be powered on when a Ring indicator signal comes up to UART1 or UART2 from external modem (to LAN Wake-up Header from LAN adapter or to modem Ring on Header from internal modem card).
	Disabled	Does not allow Ring/LAN wake up.
• USBKBWake-Up From S3	Enabled	The system can be waken up from Suspend to RAM status by pressing any key on USB keyboard.
	Disabled	The system can not be waken up.
• CPUThermal-Throttling	12.5%, 25%, 50%, 37.5%, 62.5%, 75%, 87.5%	Selects the duty cycle of the STPCLK# signal, slowing down the CPU speed when the system enters green mode.
• Resume by Alarm	Enabled	RTC alarm can be used to generate a wake-up event to power up the system.
	Disabled	RTC has no alarm function.
• Primary IDE 0/1, Secondary IDE 0/1	Enabled	Reloads global timer, when there' s an IDE event.
	Disabled	Does not reload global timer.





## BIOS Description

- | Item               | Option          | Description                                             |
|--------------------|-----------------|---------------------------------------------------------|
| • FDD/COM/LPT Port | <i>Enabled</i>  | Reloads global timer, when there's a FDD/COM/LPT event. |
|                    | <i>Disabled</i> | Does not reload global timer.                           |
| • PCI IRQ [A - D]# | <i>Enabled</i>  | Reloads global timer, when there's an PCI event.        |
|                    | <i>Disabled</i> | Does not reload 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>
• Reset Configuration Data	<i>Enabled</i>	Default is Disabled. Select Enabled to reset Extended System Configuration Data (ESCD).
	<i>Disabled</i>	Does not reset the configuration data function.
• Resources Controlled By	<i>Auto(ESCD)</i>	BIOS can automatically configure all boot and Plug and Play compatible devices. If you choose Auto, you can not select IRQ, DMA and memory base address fields, because BIOS automatically assigns them.
	<i>Manual</i>	



CMOS Setup Utility - Copyright (C) 1999 Award Corp.		Integrated Peripherals	
On-Chip Primary PCI IDE	Disabled	Serial Port	
On-Chip Secondary PCI IDE	Enabled	Parallel Port	
IDE Primary Master PIO	Auto		
IDE Primary Slave PIO	Auto		
IDE Secondary Master PIO	Auto		
IDE Secondary Slave PIO	Auto		
ATA Secondary Master UDMA	Auto		
IDE Primary Slave UDMA	Auto		
IDE Secondary Master UDMA	Auto		
IDE Secondary Slave UDMA	Auto		
USB Controller	Disabled		
USB Keyboard Support	Enabled		
PCI Display File	PCI86		
AGP Audio	Enabled		
AC97 Audio	Enabled		
IDE HDD Bus. Mode	Disabled		
Initialization options	Full BIOS ONLY		
1. BIOS Setup Loadscreen	On		
Advanced BIOS Configuration	Enabled		
Advanced System. Menu. 1	Advanced		
Advanced Serial. Port. 2	OFF/IRQ2		
OnUI Mode Select	Normal		
2. Mail. Box Window	Off		
3. TX Transm. Delay	Fixed		
4. BIOS/OS Data. Load. Boot	STG/STG2		
5. Format (in) Norm. Mode	off		
6. EPP Mode Select	EPP1.7		
7. ECI Mode Use DMA	0		
8. AHCN/Aha EPP/ECI	0		
9. Game Port Address	Disabled		
Mid Port Address	Disabled		
10. Mid Port I/O	0		
Press <b>Esc</b> to Exit, <b>F2</b> to Modify, <b>F10</b> Save, <b>F9</b> to Load, <b>F7</b> to Load Defaults, <b>F11</b> to General Help			

<u>Item</u>	<u>Option</u>	<u>Description</u>
● On-Chip Primary/Secondary PCI IDE	<i>Enabled</i>	On-Chip Primary/Secondary PCI IDE is enabled.
● IDE	<i>Disabled</i>	On-Chip Primary/Secondary PCI IDE is disabled.
Primary/Secondary Master/Slave PIO	<i>Mode 0 - 4</i>	Defines the IDE primary/secondary master/ slave PIO mode.
● IDE	<i>Auto</i>	The IDE PIO mode is defined by auto -detection.
Primary/Secondary Master/Slave UDMA	<i>Auto</i>	Ultra DMA mode will be enabled if an Ultra DMA device is detected.
● USB Controller	<i>Disabled</i>	Disables this function.
	<i>Enabled</i>	Enables onchip USB controller.
	<i>Disabled</i>	Disables onchip USB controller.
● USB Keyboard Support	<i>Enabled</i>	USB keyboard support is enabled.
	<i>Disabled</i>	USB keyboard support is disabled.
● Init Display First	<i>PCI Slot</i>	Initializes the PCI VGA first.
	<i>Onboard</i>	Initializes the AGP first. For PCI VGA or AGP, the one initialized first functions.
● AC97 Audio	<i>Enabled</i>	Enables the AC97 Audio onboard.
	<i>Disabled</i>	Disables the AC97 Audio onboard.
● AC97 Modem	<i>Enabled</i>	Enables the AC97 Modem onboard.
	<i>Disabled</i>	Disables the AC97 Modem onboard.



## BIOS Description

• IDE HDD Block Mode	<i>Enabled</i> <i>Disabled</i>	Allows IDE HDD to read/write several sectors at once. IDE HDD only reads/writes a sector once.
• Power On Function	<i>BUTTON ONLY</i> <i>Password</i>	Uses the power button to power up the system. Enables the Keyboard password power-on function and disables the power button's power-on function. Other than choosing this option, the password should be set to implement this function. <b>Note: 1. If the option (Password) is chosen, the jumper JKB must be set as pin1 &amp; pin2 closed, or you will be unable to power up the system.</b> <b>2. The keyboard password must be set no more than 5 characters and can only use the numbers and alphabetic letters. The password will always remain unless you clear CMOS or reset it.</b>
• Onboard FDC Controller	<i>Enabled</i> <i>Disabled</i>	Onboard floppy disk controller is enabled. Onboard floppy disk controller is disabled.
• Onboard Serial Port 1/2	<i>3F8/IRQ4,</i> <i>2F8/IRQ3,</i> <i>3E8/IRQ4,</i> <i>2E8/IRQ3,</i> <i>Auto</i>	Defines the onboard serial port address and required interrupt number.  Onboard serial port address and IRQ are automatically assigned.
• UART Mode Select	<i>Disabled</i> <i>Normal</i>	Onboard serial port is disabled. This option is used to configure UART Mode.
• Onboard Parallel Port	<i>378/IRQ7,</i> <i>278/IRQ5,</i> <i>3BC/IRQ7</i>	Defines onboard parallel port address and IRQ channel.
• Parallel Port Mode	<i>Disabled</i> <i>SPP, EPP,</i> <i>ECP,</i> <i>ECP+EPP</i>	Onboard parallel port is disabled. Defines the parallel port mode as standard Parallel Port (SPP), Enhanced Parallel Port (EPP), or Extended Capabilities Port (ECP).
• PWRON After PWR-Fail	<i>OFF</i>  <i>ON</i>  <i>Former-Sts</i>	The system remains OFF when the AC power supply resumes.  The system will be powered up when the AC power supply resumes.  Whatever the system status is before the AC power supply cuts off, the system resumes in the previous status (ON/OFF) when the AC power supply resumes.
• GamePort Address	<i>Disabled</i> <i>201</i> <i>209</i>	This option is used to configure Game Port Address.
• MidiPort Address	<i>Disabled</i> <i>300</i> <i>330</i>	This option is used to configure Midi Port Address.





## PC Health Status

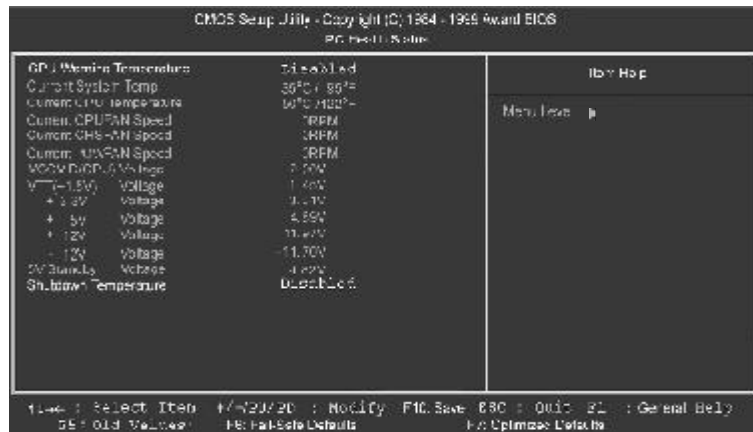


Figure-9 PC Health Status Menu

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

Item	Option	Description
• CPU Warning Temperature	50°C/122°F 53°C/127°F 56°C/133°F 60°C/140°F 63°C/145°F 66°C/151°F 70°C/158°F Disabled	An alarm will beep when the CPU temperature reaches the previous setting, such as 50°C/122°F, 53°C/127°F, 56°C/133°F, 60°C/140°F, 63°C/145°F, 66°C/151°F, 70°C/158°F, etc.  No alarm beep.
• Current System Temp.		The temperature inside the chassis.
• Current CPU Temperature		The temperature near CPU.
• Current CPUFAN Speed		RPM (Revolution Per Minute) Speed of fan which is connected to the fan header, CPUFAN or CHSFAN or POWFAN. Fan speed value is based on an assumption that tachometer signal is two pulses per revolution. In other cases, you should regard it relatively.
• Current CHSFAN Speed		
• Current POWFAN Speed		
• VCCVID(CPU)		Displays current voltage value including all significant voltages of the mainboard.
• VTT(+1.5V)		+3.3V, +5V, +12V, -12V are voltages from the ATX power supply, VTT(+1.5) Voltage is GTL
• Voltage,		



## BIOS Description

+3.3V,  
+5 V,  
+12 V,  
-12 V,  
5V Standby Voltage

- Shutdown  
Temperature

*60°C/140°F*  
*65°C/149°F*  
*70°C/158°F*  
*75°C/167°F*  
*Disabled*

Termination voltage from the on board regulator and VCCVID (CPU) Voltage is the CPU core voltage from the on board switching Power Supply.

The system will shut down automatically when the CPU temperature reaches the previous setting, such as 60°C/140°F, 65°C/149°F, 70°C/158°F, 75°C/167°F, etc.  
The system remains on regardless of how much the CPU temperature is.





## Password Setting

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.

When User/Supervisor password setting 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.

## Boot with BIOS Defaults

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





## Appendix

### QDI Mainboard Utility CD-ROM

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

#### 1. Intel® 810E Chipset Drivers

##### A. INF Files for Intel® 810E Chipset

Contained in the directory \ChipDrv\Intel\Whitney\inf for Windows 95/98.

##### B. INF Utility Files for Intel® 810E Chipset

Contained in the directory \ChipDrv\Intel\Whitney\inf utility for Windows 95/98.

##### C. VGA Drivers

Contained in the directory \ChipDrv\Intel\Whitney\display for Windows 9x, Windows 2000 and Windows NT4.0 respectively.

#### 2. Sound Drivers

Contained in the directory \DevDrv\Codec\ad1881 for Windows 95, Windows 98 and Windows NT 4.0 respectively.

#### 3. PC-cillin 98 Anti-Virus software:

Contained in the directory \Pccillin\Win9x for Windows 95/98 English version.

Contained in the directory \Pccillin\PWin9x for Windows 95/98 Chinese version.

Contained in the directory \Pccillin\WinNT4.0 for Windows NT 4.0.

#### 4. QDI ManageEasy V2.0:

Contained in the directory \QME2.

#### 5. QDI Mainboard Utilities:

AWDFLASH.EXE

CBLOGO.EXE

LF.EXE

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

#### 6. Documents

The files included in the directory \Doc are:

Adobe Acrobat Reader V3.0 —ar32e301.exe

QDI ManageEasy (V1.2) Manual —QMEV12.PDF.







The Patent for SpeedEasy

# **Board Layout of WinneX 2E V1.0**

**P/N: 430-01018-101-00**  
**Manual WinneX 2E Ver 1.0**