# 4. BIOS CONFIGURATION

Award's BIOS ROM has a built-in Setup program that allows users to modify the basic system configuration. This type of information is stored in battery-backed CMOS SRAM so that it retains the Setup information when the power is turned off.

## 4.1. ENTERING SETUP

Power ON the computer and press <Del> immediately will allow you to enter Setup. If the message disappears before you respond and you still wish to enter Setup, restart the system to try again by turning it OFF then ON or pressing the "RESET" bottom on the system case. You may also restart by simultaneously press <Ctrl>, <Alt>, and <Del> keys.

## 4.2. CONTROL KEYS

| | |
|---|---|
| Up arrow | Move to previous item |
| Down arrow | Move to next item |
| Left arrow | Move to the item in the left hand |
| Right arrow | Move to the item in the right hand |
| Esc key | Main Menu - Quit and not save changes into CMOS Status Page Setup Menu and Option Page Setup Menu - Exit current page and return to Main Menu |
| PgUp key | Increase the numeric value or make changes |
| PgDn key | Decrease the numeric value or make changes |
| F1 key | General help, only for Status Page Setup Menu and Option Page Setup Menu |
| F2 key | Change color from total 16 colors |
| F3 key | Reserved |
| F4 key | Reserved |
| F5 key | Restore the previous CMOS value from CMOS, only for Option Page Setup Menu |
| F6 key | Load the default CMOS value from BIOS default table, only for Option Page Setup Menu |
| F7 key | Load the default |
| F8 key | Reserved |
| F9 key | Reserved |
| F10 key | Save all the CMOS changes, only for Main Menu |

## 4.3. GETTING HELP

### *4.3.1. Main Menu*

The on-line description of the highlighted setup function is displayed at the bottom of the screen.

### *4.3.2. Status Page Setup Menu / Option Page Setup Menu*

Press F1 to pop up a small help window that describes the appropriate keys to use and the possible selections for the highlighted item. To exit the Help Window press <Esc>.

## 4.4. THE MAIN MENU

Once you enter Award BIOS CMOS Setup Utility, the Main Menu (Figure 4.1) will appear on the screen. The Main Menu allows you to select from nine setup functions and two exit choices. Use arrow keys to select among the items and press <Enter> to accept or enter the sub-menu.

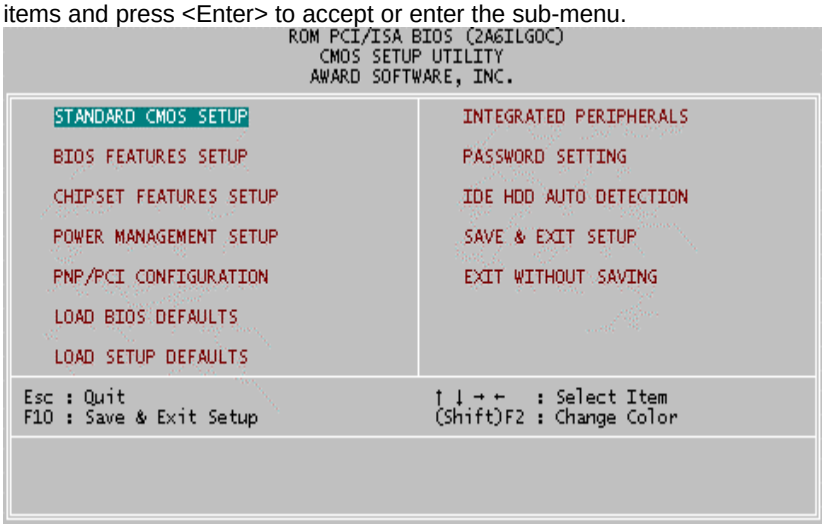



Figure 4.1: Main Menu

- Standard CMOS setup

  This setup page includes all the items in standard compatible BIOS.

- BIOS features setup

  This setup page includes all the items of Award special enhanced

features.

- Chipset features setup

  This setup page includes all the items of chipset special features.

- Power management setup

  This setup page includes all the items of Green function features.

- PNP/PCI configuration

  This setup page includes all the configurations of PCI & PnP ISA resources.

- Load BIOS defaults

  BIOS Defaults indicates the most appropriate value of the system parameters that the system would be in safe configuration.

- Load Setup defaults

  Setup Defaults indicates the value of the system parameters that the system would be in the best performance configuration.

- Integrated peripherals

  This setup page includes all onboard peripherals.

- Password setting

  Change, set, or disable password. It allows you to limit access to the system and Setup, or just to Setup.

- IDE HDD auto detection

  Automatically configure hard disk parameters.

- Save & exit setup

  Save CMOS value settings to CMOS and exit setup.

- Exit without saving

  Abandon all CMOS value changes and exit setup.

## 4.5. STANDARD CMOS SETUP MENU

The items in Standard CMOS Setup Menu (Figure 4.2) are divided into 9 categories. Each category includes no, one or more than one setup items. Use the arrows to highlight the item and then use the <PgUp> or <PgDn> keys to select the value you want in each item.

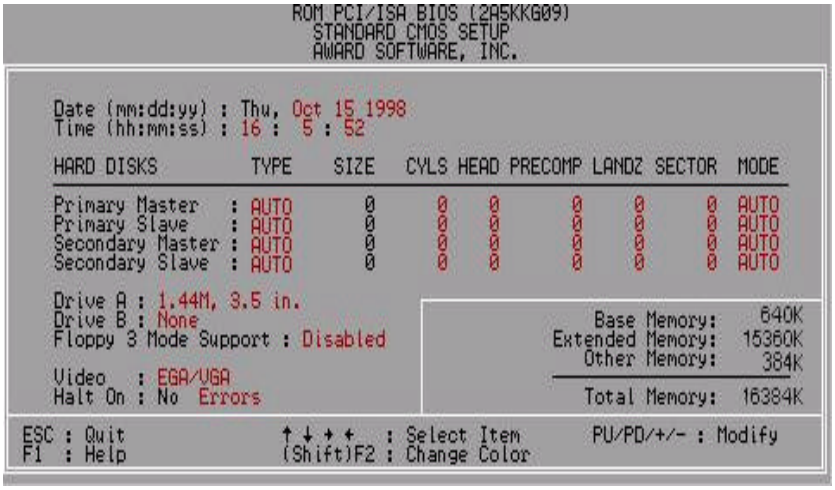



Figure 4.2: Standard CMOS Setup Menu

- Date

  The date format is <day>, <month> <date> <year>.

| | |
|---|---|
| day | The day, from Sun to Sat, determined by the BIOS and is display-only |
| month | The month, Jan. through Dec. |
| date | The date, from 1 to 31 (or the maximum allowed in the month) |
| year | The year, from 1994 through 2079 |

- Time

  The times format in <hour> <minute> <second>. The time is calculated base on the 24-hour military-time clock. For example, 1 p.m. is 13:00:00.

- Primary HDDs / Secondary HDDs

  The cateory identifies the types of hard disk from drive C to F that has been installed in the computer. There are two types: auto type, and user definable type. User type is user-definable; Auto type which will automatically detect HDD type.
  Note that the specifications of your drive must match with the drive table. The hard disk will not work properly if you enter improper information for this category.

  If you select User Type, related information will be asked to enter to the following items. Enter the information directly from the keyboard and press <Enter>. Such information should be provided in the documentation form your hard disk vendor or the system manufacturer.

| | |
|---|---|
| CYLS. | Number of cylinders |
| HEADS | number of heads |
| PRECOMP | write precomp |
| LANDZONE | Landing zone |
| SECTORS | number of sectors |

If a hard disk has not been installed select NONE and press <Enter>.

- Drive A type / Drive B type

  The category identifies the types of floppy disk drive A or drive B that has been installed in the computer.

| | |
|---|---|
| None | No floppy drive installed |
| 360K, 5.25 in. | 5.25 inch PC-type standard drive; 360K byte capacity. |
| 1.2M, 5.25 in. | 5.25 inch AT-type high-density drive; 1.2M byte capacity (3.5 inch when 3 Mode is Enabled). |
| 720K, 3.5 in. | 3.5 inch double-sided drive; 720K byte capacity |
| 1.44M, 3.5 in. | 3.5 inch double-sided drive; 1.44M byte capacity. |

| | |
|---|---|
| 2.88M, 3.5 in. | 3.5 inch double-sided drive; 2.88M byte capacity. |

- Floppy 3 Mode Support (for Japan Area)

| | |
|---|---|
| Disabled | Normal Floppy Drive. |
| Drive A | Drive A is 3 mode Floppy Drive. |
| Drive B | Drive B is 3 mode Floppy Drive. |
| Both | Drive A & B are 3 mode Floppy Drives. |

- Video

  The category detects the type of adapter used for the primary system monitor that must match your video display card and monitor. Although secondary monitors are supported, you do not have to select the type in setup.

| | |
|---|---|
| EGA/VGA | Enhanced Graphics Adapter/Video Graphics Array. For EGA, VGA, SVGA, or PGA monitor adapters |
| CGA 40 | Color Graphics Adapter, power up in 40 column mode |
| CGA 80 | Color Graphics Adapter, power up in 80 column mode |
| MONO | Monochrome adapter, includes high resolution monochrome adapters |

- Halt on

  The category determines whether the computer will stop if an error is detected during power up.

| | |
|---|---|
| NO Errors | The system boot will not stop for any error that may be detected |
| All Errors | Whenever the BIOS detects a non-fatal error the system will be stopped and you will be prompted |
| All, But Keyboard | The system boot will not stop for a keyboard error; it will stop for all other errors |
| All, But Diskette | The system boot will not stop for a disk error; it will stop for all other errors |

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

- Memory

  The category is display-only which is determined by POST (Power On Self Test) of the BIOS.

  **Base Memory**

  The POST of the BIOS will determine the amount of base (or conventional) memory installed in the system.

  The value of the base memory is typically 512 K for systems with 512 K memory installed on the motherboard, or 640 K for systems with 640 K or more memory installed on the motherboard.

  **Extended Memory**

  The BIOS determines how much extended memory is present during the POST.

  This is the amount of memory located above 1 MB in the CPU's memory address map.

  **Expanded Memory**

  Expanded Memory in memory defined by the Lotus/Intel/Microsoft (LIM) standard as EMS.
  Many standard DOS applications can not utilize memory above 640 K; the Expanded Memory Specification (EMS) swaps memory, which not utilized by DOS with a section, or frame, so these applications, can access all of the system memory.

  Memory can be swapped by EMS is usually 64 K within 1 MB or memory above 1 MB, depends on the chipset design.

  Expanded memory device driver is required to use memory as Expanded Memory.

  **Other Memory**

  This refers to the memory located in the 640 K to 1024 K

address space. This is memory that can be used for different applications.

DOS uses this area to load device drivers to keep as much base memory free for application programs. Most use for this area is Shadow RAM.

## 4.6. BIOS FEATURES SETUP

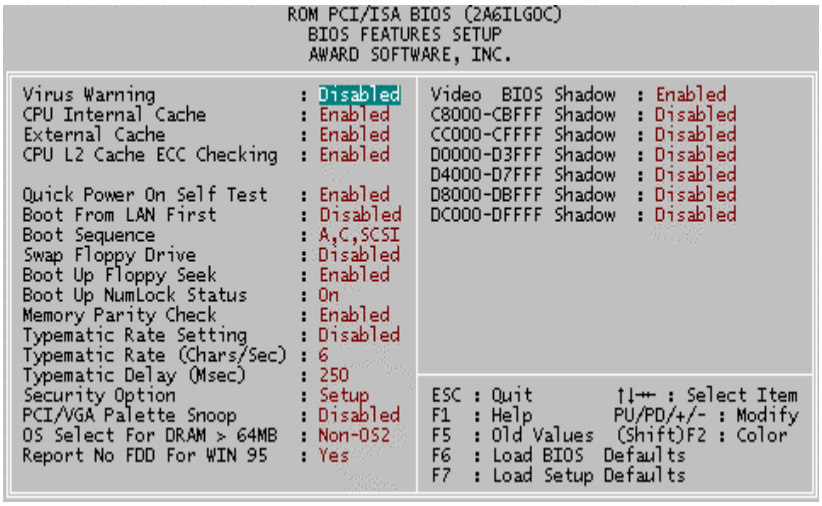



Figure 4.3: BIOS Features Setup

- Virus Warning

  If it is set to enable, the category will flash on the screen when there is any attempt to write to the boot sector or partition table of the hard disk drive. The system will halt and the warning message will appear in the mean time. You can run anti-virus program to locate the problem.

  Default value is Disabled.

| | |
|---|---|
| Enabled | Activate automatically when the system boots up causing a warning message to appear when anything attempts to access the boot sector or hard disk partition table |
| Disabled | No warning message to appear when anything attempts to access the boot sector or hard disk partition table |

- CPU Internal Cache / External Cache

  These two categories speed up memory access. However, it depends on CPU / chipset design.

  The default value is Enabled.

| | |
|---|---|
| Enabled | Enable cache |
| Disabled | Disable cache |

- CPU L2 Cache ECC Checking

  The default value is Enabled.

| | |
|---|---|
| Enabled | Enable CPU L2 Cache ECC Checking |
| Disabled | Disable CPU L2 Cache ECC Checking |

- Quick Power On Self Test

  This category speeds up Power On Self Test (POST) after you power on the computer. If it is set to Enable, BIOS will shorten or skip some check items during POST.

  The default value is Enabled.

| | |
|---|---|
| Enabled | Enable quick POST |
| Disabled | Normal POST |

- Boot From LAN First

  The default value is Disabled.

| | |
|---|---|
| Enabled | Enable Boot From LAN First |
| Disabled | Disable Boot From LAN First |

- Boot Sequence

  This category determines which drive computer searches first for the disk operating system (i.e., DOS).

  Default value is A, C, SCSI.

| | |
|---|---|
| X1, X2, X3 | System will first search for X1 disk drive then X2 disk drive and then X3 disk drive. |

- Swap Floppy Drive

  The default value is Disabled.

| | |
|---|---|
| Enabled | Floppy A & B will be swapped under DOS |
| Disabled | Floppy A & B will be normal definition |

- Boot Up Floppy Seek

  During POST, BIOS will determine the floppy disk drive installed is 40 or 80 tracks. 360 K type is 40 tracks 720 K, 1.2 M and 1.44 M are all 80 tracks.

  The default value is Enabled.

| | |
|---|---|
| Enabled | BIOS searches for floppy disk drive to determine it is 40 or 80 tracks. Note that BIOS can not tell from 720 K, 1.2 M or 1.44 M drive type as they are all 80 tracks |
| Disabled | BIOS will not search for the type of floppy disk drive by track number. Note that there will not be any warning message if the drive installed is 360 K |

- Boot Up NumLock Status

  The default value is On.

| | |
|---|---|
| On | Keypad is number keys |
| Off | Keypad is arrow keys |

- Memory Parity Check

  The default value is Enabled.

| | |
|---|---|
| Enabled | Enabled Memory Parity Check Function. |
| Disabled | Disabled Memory Parity Check Function. |

- Typematic Rate Setting

  The default value is Disabled.

| | |
|---|---|
| Enabled | Enable Keyboard Typematic rate setting. |
| Disabled | Disable Keyboard Typematic rate setting. |

- Typematic Rate (Chars / Sec.)

  The default value is 6.

| | |
|---|---|
| 6-30 | Set the maximum Typematic rate from 6 chars. Per second to 30 characters. Per second. |

- Typematic Delay (Msec.)

  The default value is 250.

| | |
|---|---|
| 250-1000 | Set the time delay from first key to repeat the same key in to computer. |

- Security Option

  This category allows you to limit access to the system and Setup, or just to Setup.

  The default value is Setup.

| | |
|---|---|
| System | The system can not boot and can not access to Setup page will be denied if the correct password is not entered at the prompt |
| Setup | The system will boot, but access to Setup will be denied if the correct password is not entered at the prompt |

- **To disable security, select PASSWORD SETTING at Main Menu and then you will be asked to enter password. Do not type anything and just press <Enter>, it will disable security. Once the security is disabled, the system will boot and you can enter Setup page freely.**

- PCI/VGA Palette Snoop

  The default value is Disabled.

| | |
|---|---|
| Enabled | For having Video Card on ISA Bus and VGA Card on PCI Bus. |
| Disabled | For VGA Card only. |

- OS Select For DRAM>64MB

  The default value is Non-OS2.

| | |
|---|---|
| Non-OS2 | Using non-OS2 operating system. |
| OS2 | Using OS2 operating system and DRAM>64MB. |

- Report No FDD For WIN 95

  The default value is Yes.

| | |
|---|---|
| No | Assign IRQ6 For FDD. |
| Yes | FDD Detect IRQ6 Automatically. |

- Video BIOS Shadow

  It determines whether video BIOS is able to copy to RAM, however, it is optional from chipset design. Video Shadow will increase the video speed.

  The default value is Enabled.

| | |
|---|---|
| Enabled | Video shadow is enabled |
| Disabled | Video shadow is disabled |

- C8000 - CFFFF Shadow / D0000 - DFFFF Shadow

  These categories determine whether optional ROM will be copied to RAM by 16 byte.

  The default value are Disabled.

| | |
|---|---|
| Enabled | Optional shadow is enabled. |
| Disabled | Optional shadow is disabled. |

## 4.7. CHIPSET FEATURES SETUP

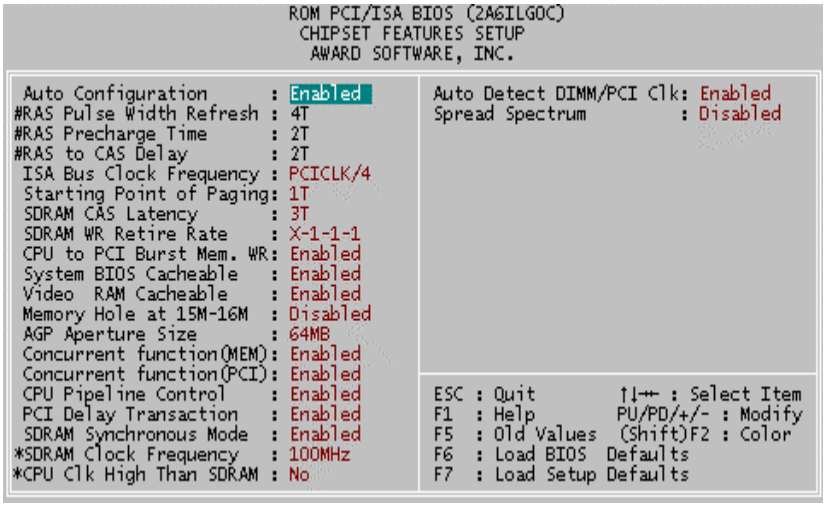



Figure 4.4: Chipset Features Setup

# These three items will be available when Auto Configuration is set to Disabled.

*These two item will be available when SDRAM Clock Frequency is set to Disabled.

- Auto Configuration

  The default value is Enabled.

| | |
|---|---|
| Enabled | For 50 - 60ns EDO DRAM Timing. |
| Disabled | For slow speed DRAM Timing. |

- RAS Pulse width Refresh

  The default value is 4T

| | |
|---|---|
| 4T | Set RAS Pulse width Refresh to 4T. |
| 5T | Set RAS Pulse width Refresh to 5T. |
| 6T | Set RAS Pulse width Refresh to 6T. |
| 7T | Set RAS Pulse width Refresh to 7T. |

- RAS Precharge Time

The default value is 2T

| | |
|---|---|
| 2T | Set RAS Precharge Time to 2T. |
| 3T | Set RAS Precharge Time to 3T. |
| 4T | Set RAS Precharge Time to 4T. |
| 5T | Set RAS Precharge Time to 5T. |

- RAS to CAS Delay

The default value is 2T

| | |
|---|---|
| 2T | Set RAS to CAS Delay to 2T. |
| 3T | Set RAS to CAS Delay to 3T. |
| 4T | Set RAS to CAS Delay to 4T. |
| 5T | Set RAS to CAS Delay to 5T. |

- ISA Bus Clock Frequency

The default value is PCICLK/4

| | |
|---|---|
| PCICLK/4 | Set ISA Bus Clock Frequency to PCICLK/4. |
| PCICLK/3 | Set ISA Bus Clock Frequency to PCICLK/3. |
| 7.159MHz | Set ISA Bus Clock Frequency to 7.159MHz. |

- Starting Point of Paging

The default value is 1T

| | |
|---|---|
| 1T | Set Starting Point of Paging to 1T. |
| 2T | Set Starting Point of Paging to 2T. |
| 4T | Set Starting Point of Paging to 4T. |
| 8T | Set Starting Point of Paging to 8T. |

- SDRAM CAS Latency

The default value is 3T

| | |
|---|---|
| 2T | Set SDRAM CAS Latency to 2T. |
| 3T | Set SDRAM CAS Latency to 3T. |

- SDRAM WR Retire Rate

  The default value is X-1-1-1

| | |
|---|---|
| X-1-1-1 | Set SDRAM WR Retire Rate to X-1-1-1. |
| X-2-2-2 | Set SDRAM WR Retire Rate to X-2-2-2. |

- CPU to PCI Burst Mem. WR

  The default value is Enabled

| | |
|---|---|
| Enabled | Enabled CPU to PCI Burst Mem. WR. |
| Disabled | Disabled this function. |

- System BIOS Cacheable

  The default value is Enabled.

| | |
|---|---|
| Enabled | Enable System BIOS cacheable. |
| Disabled | Disable System BIOS cacheable. |

- Video RAM Cacheable

  The default value is Enabled.

| | |
|---|---|
| Enabled | Enable video RAM cacheable. |
| Disabled | Disable video RAM cacheable. |

- Memory Hole At 15M-16M

  The default value is Disabled.

| | |
|---|---|
| Disabled | Normal Setting. |
| Enabled | Set Address=15~16MB remap to ISA BUS. |

- AGP Aperture Size

  The default value is 64MB.

| | |
|---|---|
| 4MB | Set AGP Aperture Size to 4MB. |
| 8MB | Set AGP Aperture Size to 8MB. |
| 16MB | Set AGP Aperture Size to 16MB. |
| 32MB | Set AGP Aperture Size to 32MB. |
| 64MB | Set AGP Aperture Size to 64MB. |
| 128MB | Set AGP Aperture Size to 128MB. |
| 256MB | Set AGP Aperture Size to 256MB. |

- Concurrent function (MEM)

  The default value is Enabled.

| | |
|---|---|
| Disabled | Disabled Concurrent function (MEM). |
| Enabled | Enabled Concurrent function (MEM). |

- Concurrent function (PCI)

  The default value is Enabled.

| | |
|---|---|
| Disabled | Disabled Concurrent function (PCI). |
| Enabled | Enabled Concurrent function (PCI). |

- CPU Pipeline Control

  The default value is Enabled.

| | |
|---|---|
| Disabled | Disabled this function. |
| Enabled | Enabled CPU Pipeline Control function. |

- PCI Delay Transaction

  The default value is Enabled.

| | |
|---|---|
| Disabled | Disabled PCI Delay Transaction Function. |
| Enabled | Enabled PCI Delay Transaction Function. |

- SDRAM Synchronous Mode

The default value is Enabled.

| | |
|---|---|
| Disabled | Disabled this Function. |
| Enabled | Enabled SDRAM Synchronous Mode Function. |

- SDRAM Clock Frequency

The default value is 100MHz.

| | |
|---|---|
| 66MHz | Set SDRAM Clock Frequency to 66MHz. |
| 75MHz | Set SDRAM Clock Frequency to 75MHz. |
| 83MHz | Set SDRAM Clock Frequency to 83MHz. |
| 100MHz | Set SDRAM Clock Frequency to 100MHz. |

- CPU Clk High Than SDRAM

The default value is No.

| | |
|---|---|
| No | Disabled this Function. |
| Yes | Enabled CPU Clk High Than SDRAM Function. |

- Auto Detect DIMM/PCI Clk

The default value is Enabled.

| | |
|---|---|
| Disabled | Disabled Auto Detect DIMM/PCI Function. |
| Enabled | Enabled Auto Detect DIMM/PCI Function. |

- Spread Spectrum

The default value is Disabled.

| | |
|---|---|
| Disabled | Normal |
| 0.25%(Cntr) | Set Spread Spectrum 0.25%(Cntr) |
| 0.50%(Down) | Set Spread Spectrum 0.50%(Down) |

## 4.8. POWER MANAGEMENT SETUP

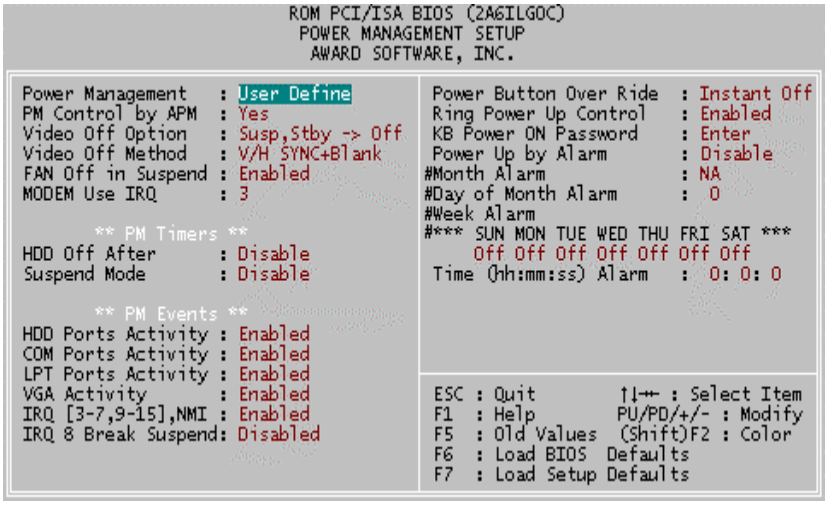


Figure 4.5: Power Management Setup

# These five items will show up when Power Up by Alarm is Enabled.

- Power Management

The default value is User Define.

| | |
|---|---|
| Disabled | Disabled this function. |
| User Define | Set Power Management to User Define . |
| Min Saving | Set Power Management to Min Saving . |
| Max Saving | Set Power Management to Max Saving . |

- PM Control by APM

The default value is Yes.

| | |
|---|---|
| Yes | Enable software APM function. |
| No | Disable software APM function. |

- Video Off Option

The default value is Susp,Stby->Off.

| | |
|---|---|
| Susp,Stby->Off | Set Video Off Option to Susp,Stby->Off. |
| Suspend->Off | Set Video Off Option to Suspend->Off. |
| All Modes->Off | Set Video Off Option to All Modes->Off. |
| Always On | Set Video Off Option to Always On. |

- Video off Method

The default value is V/H SYNC+Blank.

| | |
|---|---|
| V/H SYNC+Blank | BIOS will turn off V/H-SYNC when gets into Green mode for Green monitor power saving. |
| Blank Screen | BIOS will only black monitor when gets into Green mode. |
| DPMS Supported | BIOS will use DPMS Standard to control VGA card. (The Green type VGA card will turn off V/H-SYNC automatically.) |

- FAN Off in Suspend

  The default value is Enabled.

| | |
|---|---|
| Disabled | Disabled this function. |
| Enabled | Enabled FAN Off in Suspend function. |

- MODEM Use IRQ

  The default value is 3.

| | |
|---|---|
| NA | Set MODEM Use IRQ to NA. |
| 3 | Set MODEM Use IRQ to 3. |
| 4 | Set MODEM Use IRQ to 4. |
| 5 | Set MODEM Use IRQ to 5. |
| 7 | Set MODEM Use IRQ to 7. |
| 9 | Set MODEM Use IRQ to 9. |
| 10 | Set MODEM Use IRQ to 10. |
| 11 | Set MODEM Use IRQ to 11. |

- HDD Off After

  The default value is Disable.

| | |
|---|---|
| Disable | Disabled HDD Power Down mode function. |
| 1-15mins | Enabled HDD Power Down mode function. |

- Suspend Mode

  The default value is Disable.

| | |
|---|---|
| Disable | Disable Suspend Mode. |
| 10 sec-4 hours | Setup the timer to enter Suspend Mode. |

- HDD Ports Activity

  The default value is Enabled.

| | |
|---|---|
| Disabled | Disable HDD Ports Activity. |
| Enabled | Enable HDD Ports Activity. |

- COM Ports Activity

  The default value is Enabled.

| | |
|---|---|
| Disabled | Disable COM Ports Activity. |
| Enabled | Enable COM Ports Activity. |

- LPT Ports Activity

  The default value is Enabled.

| | |
|---|---|
| Disabled | Disable LPT Ports Activity. |
| Enabled | Enable LPT Ports Activity. |

- VGA Activity

  The default value is Enabled.

| | |
|---|---|
| Disabled | Disable VGA Activity. |
| Enabled | Enable VGA Activity. |

- IRQ [3-7,9-15] , NMI

  The default value is Enabled.

| | |
|---|---|
| Disabled | Disable this function. |
| Enabled | Enable monitor IRQ [3-7,9-15], NMI for Green event. |

- IRQ 8 Break Suspend

  The default value is Disabled.

| | |
|---|---|
| Disabled | Disable this function. |
| Enabled | Enable IRQ 8 Break Suspend function. |

- Power Button Over Ride

  The default value is Instant-Off.

| | |
|---|---|
| Instant-off | Press Soft PWR switch ON/OFF to POWER ON/OFF |
| Delay 4 Sec. | Press Soft PWR switch Over 4sec. to POWER OFF. |

- Ring Power Up Control

  The default value is Enabled.

| | |
|---|---|
| Disabled | Disabled Modem Ring On Function. |
| Enabled | Enabled Modem Ring On Function. |

- KB Power ON Password

| | |
|---|---|
| Enter | Enter from 1 to 8 characters to set the Keyboard Password. |

- Power Up by Alarm

  The default value is Disabled.

| | |
|---|---|
| Disabled | Disable this function. |
| Enabled | Enable alarm function to POWER ON system. |

If the default value is Enabled.

| | |
|---|---|
| Month Alarm: | NA,1~12 |
| Date of Month Alarm: | 0~31 |
| Week Alarm: | *** SUN MON TUE WED THU FRI SAT *** Off Off Off Off Off Off Off |
| Time ( hh: mm: ss) Alarm: | (0~23) : (0~59) : (0~59) |

## 4.9. PNP/PCI CONFIGURATION

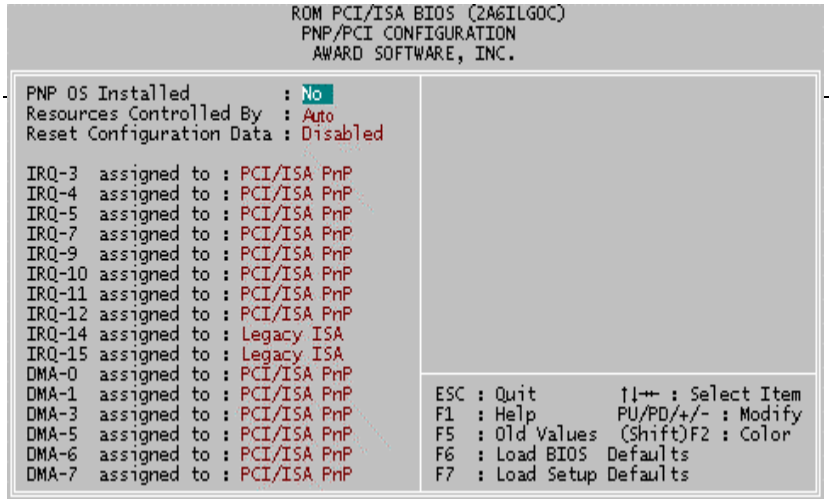


Figure 4.6: PNP/PCI Configuration

- IRQ[3.4.5.7.9.10.11.12.14.15] & DMA[1.3.5.6.7]These items will show up when "Resources Controlled By" is Manual.

- PNP OS Installed

The default value is No.

| | |
|---|---|
| Yes | Enable PNP OS Installed function. |
| No | Disable PNP OS Installed function. |

- Resources Controlled by

The default value is Auto.

| | |
|---|---|
| Manual | User can set the PnP resource (I/O Address, IRQ & DMA channels) used by legacy ISA DEVICE. |
| Auto | BIOS automatically use these PnP resources. |

- Reset Configuration Data

The default value is Disabled.

| | |
|---|---|
| Disabled | Disable this function. |
| Enabled | Enable clear PnP information in ESCD. |

- IRQ (3,4,5,7,9,10,11,12,14,15), DMA(0,1,3,5,6,7) assigned to

The default value is "Legacy ISA" or "PCI/ISA PnP".

| | |
|---|---|
| Legacy ISA | The resource is used by Legacy ISA device. |
| PCI/ISA PnP | The resource is used by PCI/ISA PnP device (PCI or ISA). |

## 4.10. LOAD BIOS DEFAULTS

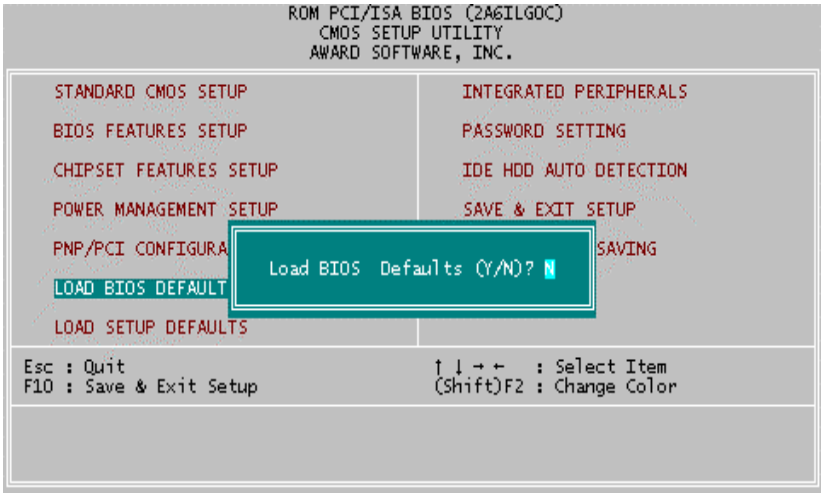



Figure 4.7: Load BIOS Defaults

- Load BIOS Defaults

  To load BIOS defaults value to CMOS SRAM, enter "Y". If not, enter "N".

## 4.11. LOAD SETUP DEFAULTS

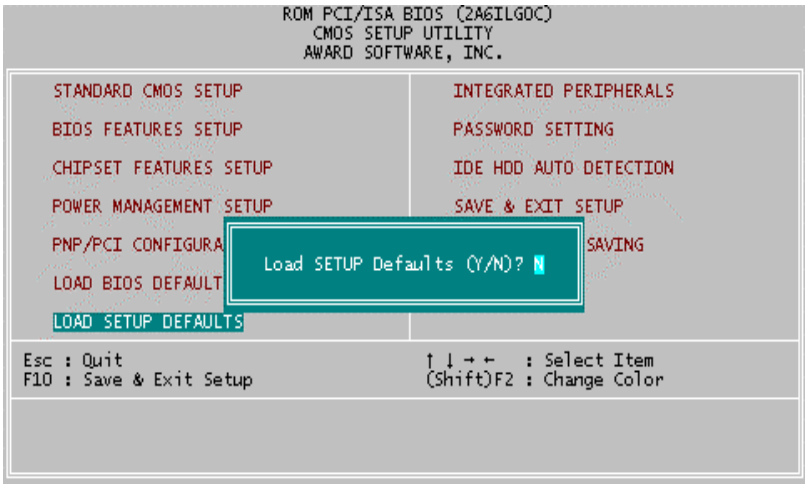
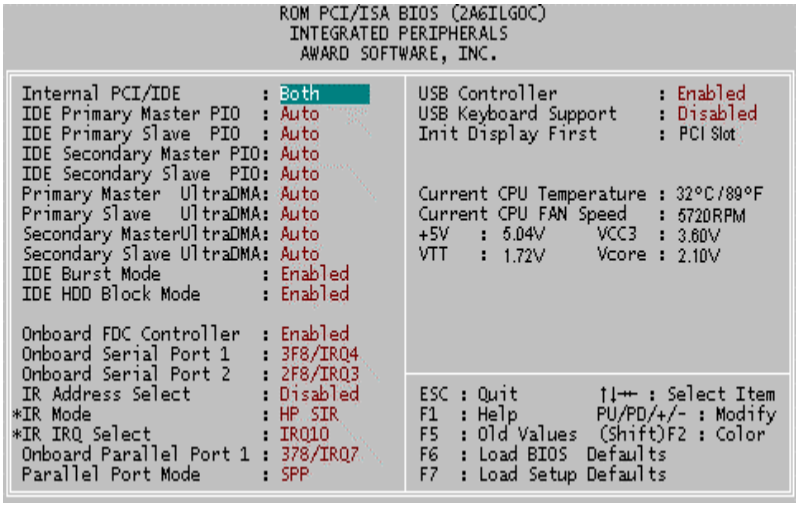



Figure 4.8: Load SETUP Defaults

- Load SETUP Defaults

  To load SETUP defaults value to CMOS SRAM, enter "Y". If not, enter "N".




## 4.12. INTEGRATED PERIPHERALS

Figure 4.9: Integrated Peripherals

*These two items will show up when IR Address Select is 3F8H.

- Internal PCI/IDE

  The default value is Both.

| | |
|---|---|
| Disabled | Disabled Internal PCI/IDE . |
| Primary | Set Internal PCI/IDE to Primary. |
| Secondary | Set Internal PCI/IDE to Secondary . |
| Both | Set Internal PCI/IDE to Both. |

- IDE Primary Master PIO (for onboard IDE 1st channel).

  The default value is Auto.

| | |
|---|---|
| Auto | BIOS will automatically detect the IDE HDD Accessing mode. |
| Mode0~4 | Manually set the IDE Accessing mode. |

- IDE Primary Slave PIO (for onboard IDE 1st channel).

  The default value is Auto.

| | |
|---|---|
| Auto | BIOS will automatically detect the IDE HDD Accessing mode. |
| Mode0~4 | Manually set the IDE Accessing mode. |

- IDE Secondary Master PIO (for onboard IDE 2nd channel).

  The default value is Auto.

| | |
|---|---|
| Auto | BIOS will automatically detect the IDE HDD Accessing mode. |
| Mode0~4 | Manually set the IDE Accessing mode. |

- IDE Secondary Slave PIO (for onboard IDE 2nd channel).

  The default value is Auto.

| | |
|---|---|
| Auto | BIOS will automatically detect the IDE HDD Accessing mode. |
| Mode0~4 | Manually set the IDE Accessing mode. |

- Primary Master UltraDMA (for onboard IDE 1st channel).

  The default value is Auto.

| | |
|---|---|
| Auto | BIOS will automatically detect the IDE HDD Accessing mode. |
| Disabled | Disable UDMA function. |

- Primary Slave UltraDMA (for onboard IDE 1st channel).

  The default value is Auto.

| | |
|---|---|
| Auto | BIOS will automatically set the IDE HDD to Ultra DMA/33 Mode. |
| Disabled | Disable Ultra DMA HDD Function. |

- Secondary Master UltraDMA (for onboard IDE 2nd channel).

  The default value is Auto.

| | |
|---|---|
| Auto | BIOS will automatically set the IDE HDD to Ultra DMA/33 Mode. |
| Disabled | Disable Ultra DMA HDD Function. |

- Secondary Slave UltraDMA (for onboard IDE 2nd channel).

  The default value is Auto.

| | |
|---|---|
| Auto | BIOS will automatically set the IDE HDD to Ultra DMA/33 Mode. |
| Disabled | Disable Ultra DMA HDD Function. |

- IDE Burst Mode

  The default value is Enabled.

| | |
|---|---|
| Enabled | Enable IDE Burst Mode. |
| Disabled | Disable IDE Burst Mode. |

- IDE HDD Block Mode

  The default value is Enabled.

| | |
|---|---|
| Enabled | Enable IDE HDD Block Mode. |
| Disabled | Disable IDE HDD Block Mode. |

- Onboard FDC Controller

  The default value is Enabled.

| | |
|---|---|
| Enabled | Enable onboard FDC port. |
| Disabled | Disable onboard FDC port. |

- Onboard Serial Port 1

  The default value is 3F8/IRQ4.

| | |
|---|---|
| Auto | BIOS will automatically setup the port 1 address. |
| 3F8/IRQ4 | Enable onboard Serial port 1 and address is 3F8. |
| 2F8/IRQ3 | Enable onboard Serial port 1 and address is 2F8. |
| 3E8/IRQ4 | Enable onboard Serial port 1 and address is 3E8. |
| 2E8/IRQ3 | Enable onboard Serial port 1 and address is 2E8. |
| Disabled | Disable onboard Serial port 1. |

- Onboard Serial Port 2

  The default value is 2F8/IRQ3.

| | |
|---|---|
| Auto | BIOS will automatically setup the port 2 address. |
| 3F8/IRQ4 | Enable onboard Serial port 2 and address is 3F8. |
| 2F8/IRQ3 | Enable onboard Serial port 2 and address is 2F8. |
| 3E8/IRQ4 | Enable onboard Serial port 2 and address is 3E8. |
| 2E8/IRQ3 | Enable onboard Serial port 2 and address is 2E8. |
| Disabled | Disable onboard Serial port 2. |

- IR Address Select

  The default value is Disabled.

| | |
|---|---|
| 3F8H | IR Address Select 3F8H. |
| 2F8H | IR Address Select 2F8H. |
| 3E8H | IR Address Select 3E8H. |
| 2E8H | IR Address Select 2E8H. |
| Disabled | Disabled IR Address Select. |

- IR Mode

  The default value is HP SIR.

| | |
|---|---|
| HP SIR | IR Mode Support HP SIR. |
| ASKIR | IR Mode Support ASKIR. |

- IR IRQ Select

  The default value is IRQ10.

| | |
|---|---|
| IRQ10 | IR IRQ Select IRQ10. |
| IRQ11 | IR IRQ Select IRQ11. |
| IRQ3 | IR IRQ Select IRQ3. |
| IRQ4 | IR IRQ Select IRQ4. |

- Onboard Parallel port

  The default value is 378/IRQ7.

| | |
|---|---|
| 378/IRQ7 | Enable onboard LPT port and address is 378/IRQ7. |
| 278/IRQ5 | Enable onboard LPT port and address is 278/IRQ5. |
| 3BC/IRQ7 | Enable onboard LPT port and address is 3BC/IRQ7. |
| Disabled | Disable onboard LPT port. |

- Parallel Port Mode

  The default value is SPP.

| | |
|---|---|
| SPP | Using Parallel port as Standard Printer Port. |
| EPP | Using Parallel port as Enhanced Parallel Port. |
| ECP | Using Parallel port as Extended Capabilities Port. |
| ECP+EPP | Using Parallel port as ECP & EPP mode. |

- USB Controller

  The default value is Enabled.

| | |
|---|---|
| Disabled | Disable USB Controller. |
| Enabled | Enable USB Controller. |

- USB Keyboard Support

  The default value is Disabled.

| | |
|---|---|
| Enabled | Enable USB Keyboard Support. |
| Disabled | Disable USB Keyboard Support. |

- Init Display First

  The default value is PCI Slot.

| | |
|---|---|
| PCI Slot | System will boot from PCI VGA Card |
| AGP | System will boot from AGP Display Card |

- Current CPU Temperature

  Detect CPU Fan speed status automatically.

- Current CPUFAN Speed

  Detect CPU Fan speed status automatically.

- Current CPU Vcore ,VCC3 ,+5V ,VTT

  Detect system' s 4 positive voltage status automatically.

## 4.13. PASSWORD SETTING

When you select this function, the following message will appear at the center of the screen to assist you in creating a password.

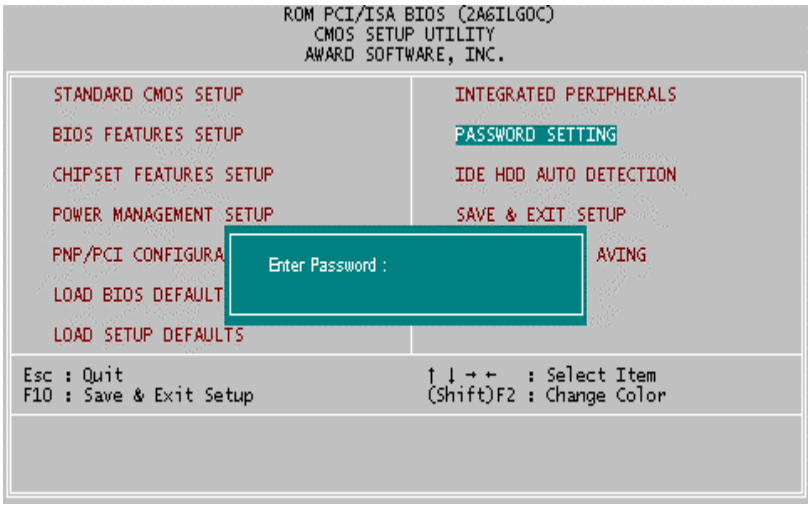



Figure 4.10: Password Setting

Type the password, up to eight characters, and press <Enter>. The password typed now will clear the 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 "PASSWORD DISABLED" will appear to confirm the password being disabled. Once the password is disabled, the system will boot and you can enter Setup freely.

If you select System at Security Option in BIOS Features Setup Menu, you will be prompted for the password every time the system is rebooted or any time you try to enter Setup Menu. If you select Setup at Security Option in BIOS Features Setup Menu, you will be prompted only when you try to enter Setup.

## 4.14. IDE HDD AUTO DETECTION

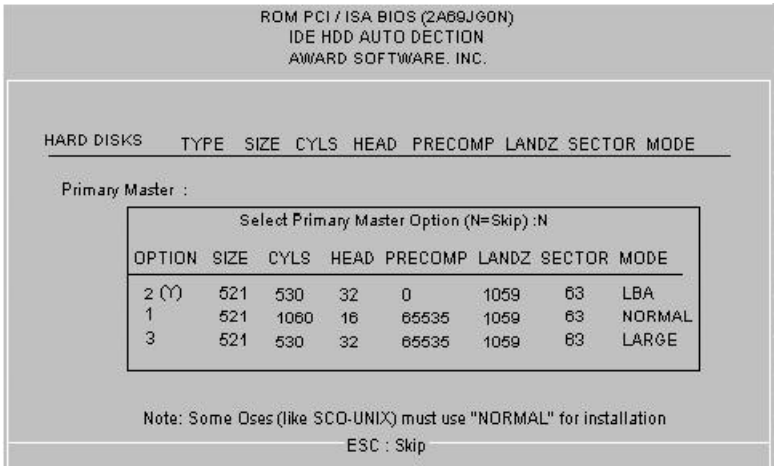
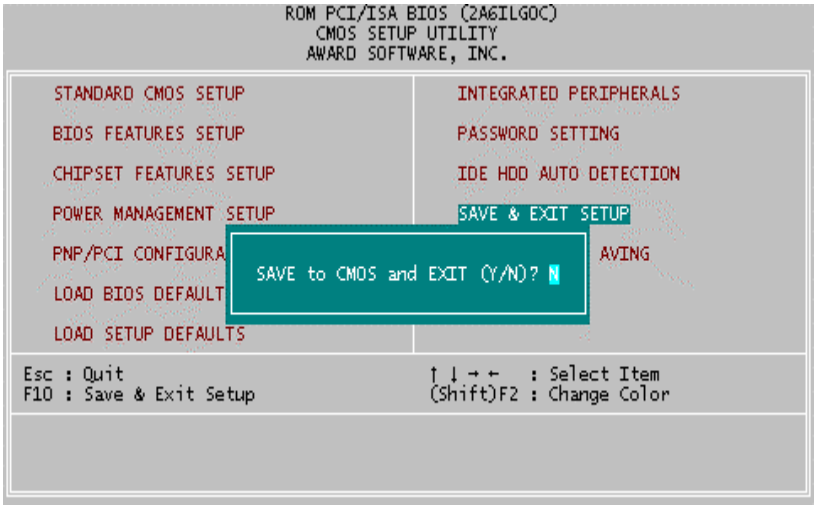



Figure 4.11: IDE HDD Auto Detection

Type "Y" will accept the H.D.D. parameter reported by BIOS.

Type "N" will keep the old H.D.D. parameter setup. If the hard disk cylinder number is over 1024, then the user can select LBA mode or LARGER mode for DOS partition larger than 528 MB.




## 4.15. SAVE & EXIT SETUP

Figure 4.12: Save & Exit Setup

Type "Y" will quit the Setup Utility and save the user setup value to RTC CMOS SRAM.

Type "N" will return to Setup Utility.

## 4.16. EXIT WITHOUT SAVING

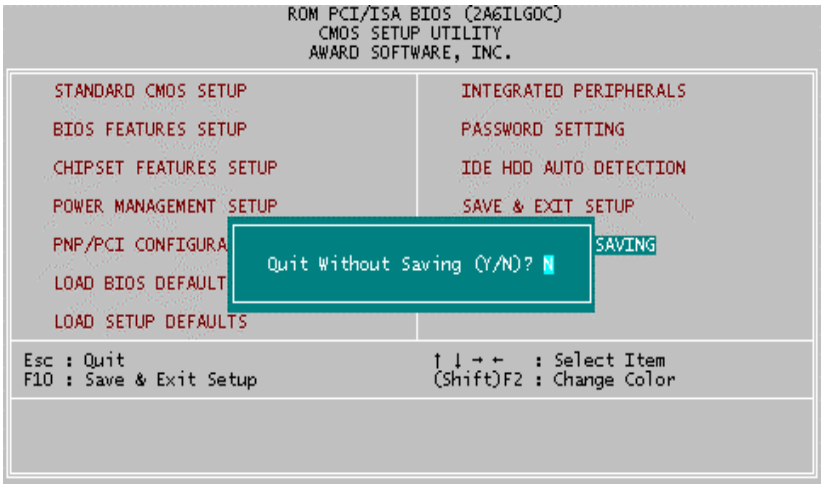



Figure 4.13: Exit Without Saving

Type "Y" will quit the Setup Utility without saving to RTC CMOS SRAM.

Type "N" will return to Setup Utility.

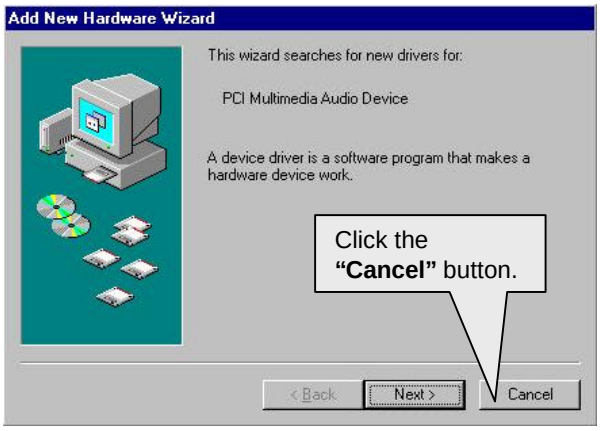
# APPENDIX A: Audio Driver Installation

## A.1. ESS Solo-1 PCI sound driver installation:

**This manual assumes that your CD-ROM device drive letter is D:.**

When starting Windows 95/98, the operation system will detect that you have a new PCI Multimedia Audio Device, and the **Add New Hardware Wizard** will show up.

**STEP 1:**

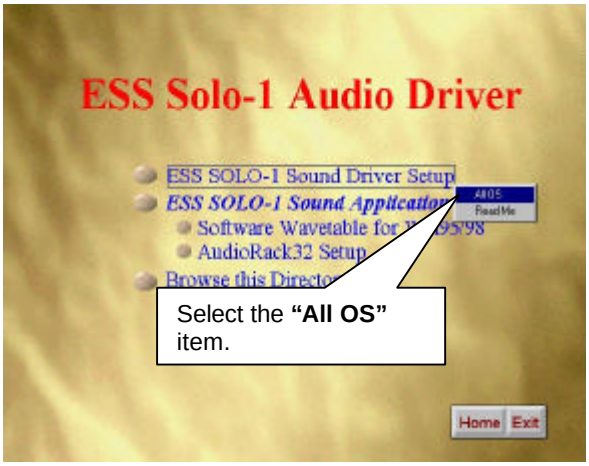


After the system finishes loading. You must insert the **UUCD** Installation CD disk into your CD-ROM, then you can see the AUTORUN window. If it does not show up, please run **"D:\Setup.exe"**

**STEP 2:**

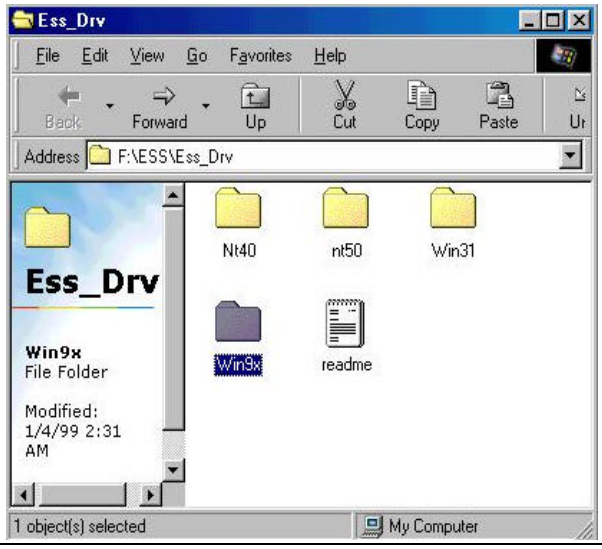

**STEP 3:**

**STEP 4:**




Please select the Operation System you want to install.
(Ex.If you are using windows 98, select the Win9x file folder.
If you are using Windows NT4.0, select the Nt4.0 file folder.)

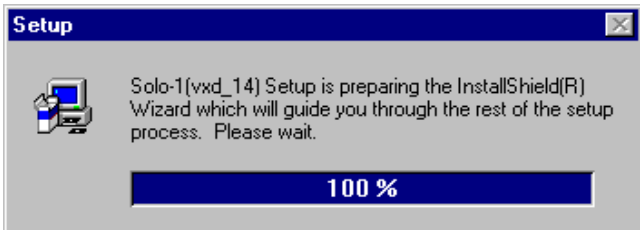
**STEP 5:**



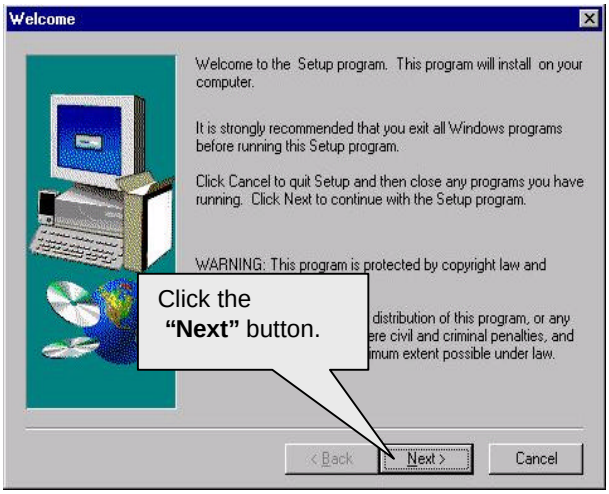
**STEP 6:**


Win9x
File Edit View Go Favorites Help
Back Forward Up Cut Copy Paste Undo Delete
Address F:\ESS\Ess_Drv\Win9X
Win9x
Select the
"Setup" item
Setup
1 object(s) selected
My Computer

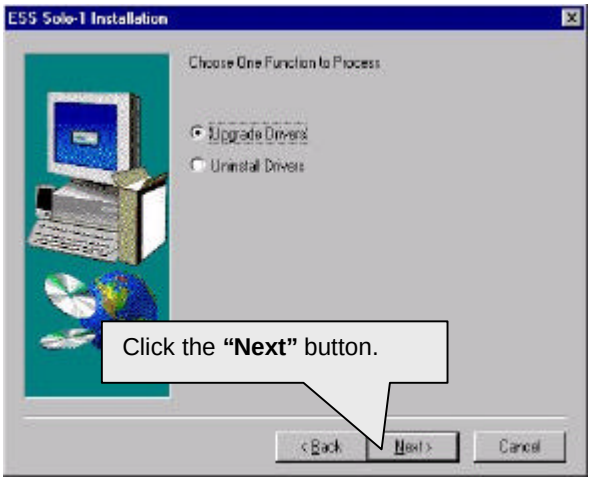
**STEP 7:**


Setup
Solo-1(vxd_14) Setup is preparing the InstallShield(R) Wizard which will guide you through the rest of the setup process. Please wait.
100 %

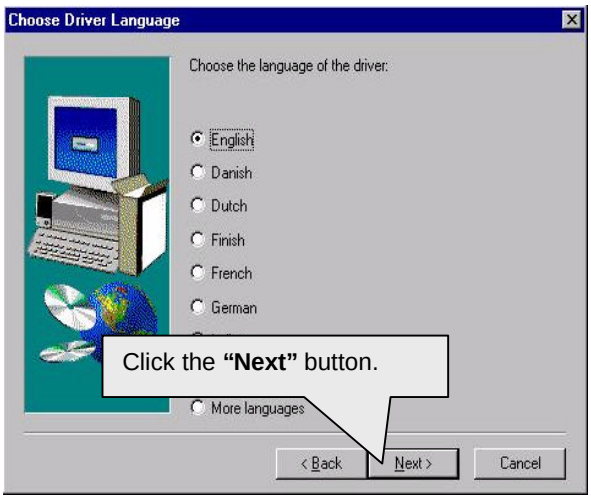
**STEP 8:**


Welcome
Welcome to the Setup program. This program will install on your computer.
It is strongly recommended that you exit all Windows programs before running this Setup program.
Click Cancel to quit Setup and then close any programs you have running. Click Next to continue with the Setup program.
WARNING: This program is protected by copyright law and
distribution of this program, or any
civil and criminal penalties, and
mum extent possible under law.
Click the "Next" button.
< Back
Next >
Cancel

**STEP 9:**

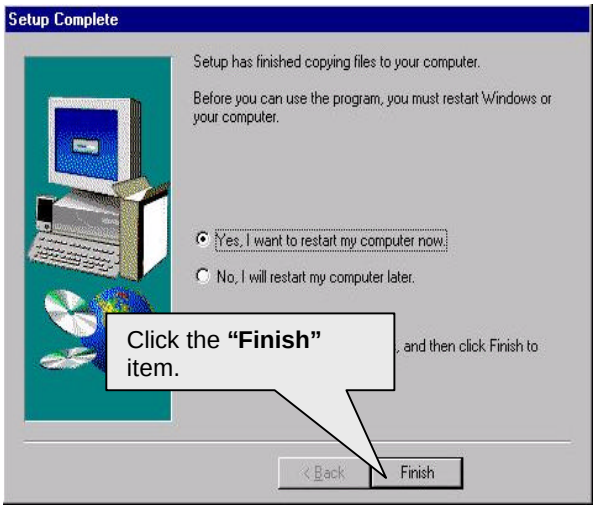

ESS Solo-1 Installation
Choose One Function to Process
Upgrade Drivers
Uninstall Drivers
Click the "Next" button.
< Back
Next >
Cancel

**STEP 10:**




**STEP 11:**


**STEP 12:**

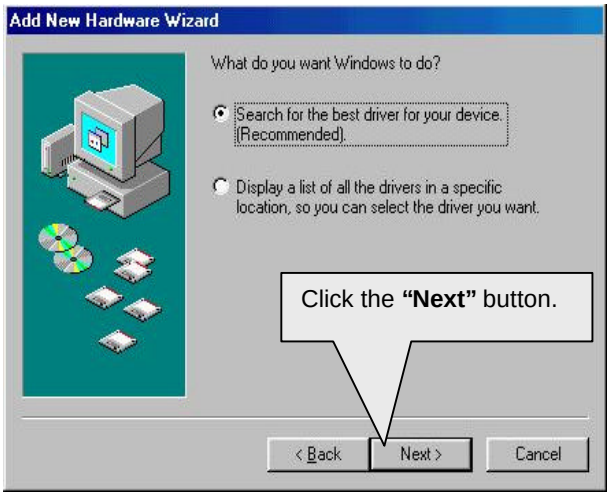



When restarting Windows95/98, the operation system will detect that you have "PCI Multimedia Audio Device", and the **Add New Hardware Wizard** will show up.

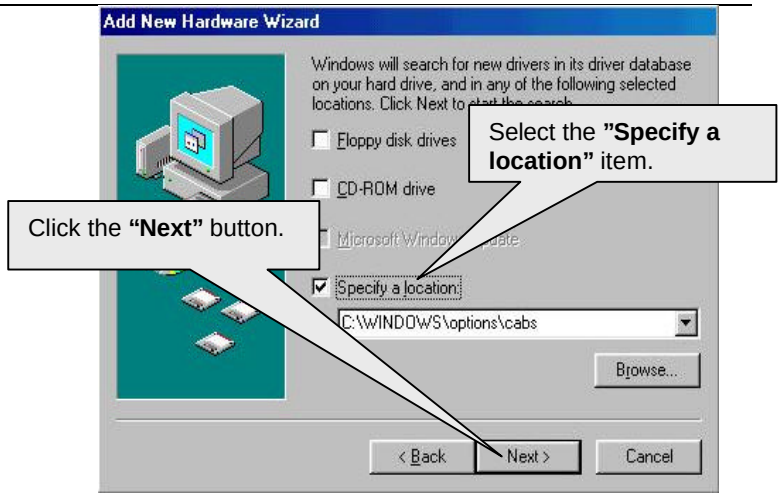
Please follow the steps below:

STEP 13:

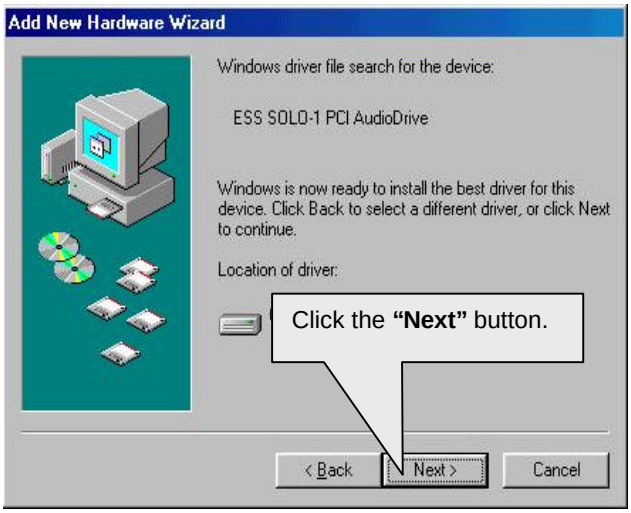

**STEP 14:**




**STEP 15:**

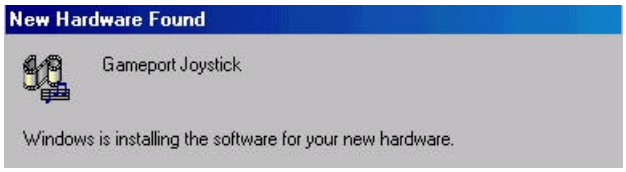


**STEP 16:**



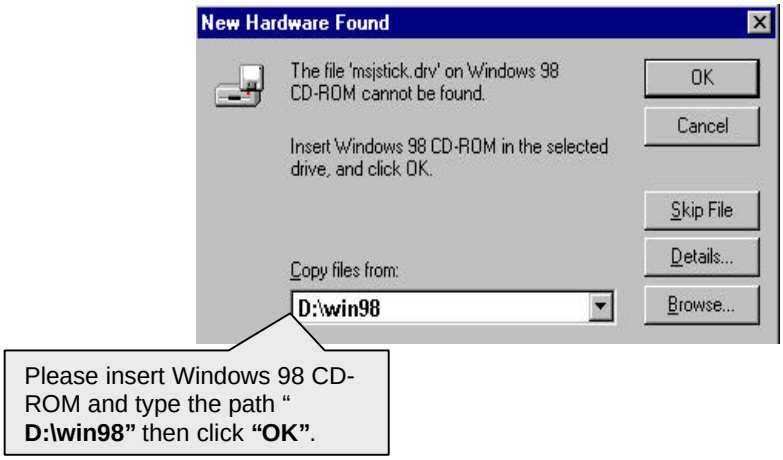

**STEP 17:**

**STEP 18:**




**STEP 19:**


**STEP 20:**




Then the sound driver installation is completed.

**DECLARATION OF CONFORMITY**

Per FCC Part 2 Section 2. 1077(a)

**Responsible Party Name: G.B.T. INC.**

**Address: 18305 Valley Blvd., Suite#A**
**LA Puent, CA 91744**

**Phone/Fax No: (818) 854-9338/ (818) 854-9339**

hereby declares that the product

**Product Name:** Mother Board

**Model Number:** GA-6SMM7

Conforms to the following specifications:

FCC Part 15, Subpart B, Section 15.107(a) and Section 15.109(a), Class B Digital Device

**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 inference received, including interference that may cause undesired operation.

Representative Person's Name: ERIC LU

Signature: *Eric Lu*

Date: May. 5, 1999

**FCC Compliance Statement:**

This equipment has been tested and found to comply with limits for a Class B digital device , pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in residential installations. This equipment generates, uses, and can radiate radio frequency energy, and if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause interference to radio or television equipment reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

-Reorient or relocate the receiving antenna

-Move the equipment away from the receiver

-Plug the equipment into an outlet on a circuit different from that to which the receiver is connected

-Consult the dealer or an experienced radio/television technician for additional suggestions

You are cautioned that any change or modifications to the equipment not expressly approve by the party responsible for compliance could void Your authority to operate such equipment.

This device complies with Part 15 of the FCC Rules. Operation is subjected 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.

# Declaration of Conformity

We, Manufacturer/Importer
(full address)

**G.B.T. Technology Träding GMbH**
**Ausschlager Weg 41, 1F, 20537 Hamburg, Germany**

declare that the product
( description of the apparatus, system, installation to which it refers)

GA-6SMM7

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

| | | | |
|---|---|---|---|
| **EN 55011** | Limits and methods of measurement of radio disturbance characteristics of industrial, scientific and medical (ISM high frequency equipment | **EN 61000-3-2* EN60555-2** | Disturbances in supply systems caused by household appliances and similar electrical equipment "Harmonics" |
| **EN55013** | Limits and methods of measurement of radio disturbance characteristics of broadcast receivers and associated equipment | **EN61000-3-3* EN60555-3** | Disturbances in supply systems caused by household appliances and similar electrical equipment "Voltage fluctuations" |
| **EN 55014** | Limits and methods of measurement of radio disturbance characteristics of household electrical appliances, portable tools and similar electrical apparatus | **EN 50081-1** | Generic emission standard Part 1: Residual, commercial and light industry |
| | | **EN 50082-1** | Generic immunity standard Part 1: Residual, commercial and light industry |
| **EN 55015** | Limits and methods of measurement of radio disturbance characteristics of fluorescent lamps and luminaries | **EN 55081-2** | Generic emission standard Part 2: Industrial environment |
| **EN 55020** | Immunity from radio interference of broadcast receivers and associated equipment | **EN 55082-2** | Generic immunity standard Part 2: Industrial environment |
| **EN 55022** | Limits and methods of measurement of radio disturbance characteristics of information technology equipment | **ENV 55104** | Immunity requirements for household appliances tools and similar apparatus |
| ☐ **DIN VDE 0855 part 10** ☐ **part 12** | Cabled distribution systems; Equipment for receiving and/or **distribution** from sound and television signals | **EN 50091- 2** | EMC requirements for uninterruptible power systems (UPS) |

☒ **CE marking** CE (EC conformity marking)

**The manufacturer also declares the conformity of above mentioned product with the actual required safety standards in accordance with LVD 73/23 EEC**

| | | | |
|---|---|---|---|
| ☐ **EN 60065** | Safety requirements for mains operated electronic and related apparatus for household and similar general use | ☐ **EN 60950** | Safety for information technology equipment including electrical business equipment |
| ☐ **EN 60335** | Safety of household and similar electrical appliances | ☐ **EN 50091-1** | General and Safety requirements for uninterruptible power systems (UPS) |

**Manufacturer/Importer**

Signature : Rex Lin

(Stamp)

Date : May. 5, 1999

Name : Rex Lin