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## BIOS Setup

BIOS Setup is an overview of the BIOS Setup Program. The 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.

### 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>– <Del> keys.

### CONTROL KEYS

|          |                                                                                                                                               |
|----------|-----------------------------------------------------------------------------------------------------------------------------------------------|
| <↑>      | Move to previous item                                                                                                                         |
| <↓>      | Move to next item                                                                                                                             |
| <←>      | Move to the item in the left hand                                                                                                             |
| <→>      | Move to the item in the right hand                                                                                                            |
| <Esc>    | 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> | Increase the numeric value or make changes                                                                                                    |
| <-/PgDn> | Decrease the numeric value or make changes                                                                                                    |
| <F1>     | General help, only for Status Page Setup Menu and Option Page Setup Menu                                                                      |
| <F2>     | Reserved                                                                                                                                      |
| <F3>     | Reserved                                                                                                                                      |
| <F4>     | Reserved                                                                                                                                      |
| <F5>     | Restore the previous CMOS value from CMOS, only for Option Page Setup Menu                                                                    |
| <F6>     | Load the default CMOS value from BIOS default table, only for Option Page Setup Menu                                                          |
| <F7>     | Load the Optimized Defaults.                                                                                                                  |
| <F8>     | Reserved                                                                                                                                      |
| <F9>     | Reserved                                                                                                                                      |
| <F10>    | Save all the CMOS changes, only for Main Menu                                                                                                 |

## GETTING HELP

### Main Menu

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

### 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>.

## The Main Menu

Once you enter Award BIOS CMOS Setup Utility, the Main Menu (Figure 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.

| CMOS Setup Utility-Copyright( C ) 1984-1999 Award Software                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                         |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>▶ Standard CMOS Features</li> <li>▶ Advanced BIOS Features</li> <li>▶ Advanced Chipset Features</li> <li>▶ Integrated Peripherals</li> <li>▶ Power Management Setup</li> <li>▶ PnP/PCI Configurations</li> <li>▶ PC Health Status</li> </ul> | <ul style="list-style-type: none"> <li>▶ Frequency/Voltage Control</li> <li>Load Fail-Safe Defaults</li> <li>Load Optimized Defaults</li> <li>Set Supervisor Password</li> <li>Set User Password</li> <li>Save &amp; Exit Setup</li> <li>Exit Without Saving</li> </ul> |
| <div style="display: flex; justify-content: space-between;"> <span>ESC:Quit</span> <span>↑↓→← : Select Item</span> </div>                                                                                                                                                           |                                                                                                                                                                                                                                                                         |
| F10:Save & Exit Setup                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                         |
| Time, Date, Hard Disk Type...                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                         |

Figure 1: Main Menu

- **Standard CMOS Features**

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

- **Advanced BIOS Features**

This setup page includes all the items of Award special enhanced features.

- **Advanced Chipset Features**

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

- **Integrated Peripherals**

This setup page includes all onboard peripherals.

- **Power Management Setup**

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

- **PnP/PCI Configurations**

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

- **PC Health Status**

This setup page is the System auto detect Temperature, voltage , fan, speed.

- **Frequency/Voltage Control**

This setup page is control CPU's clock and frequency ratio.

- **Load Fail-Safe Defaults**

Fail-Safe Defaults indicates the value of the system parameters which the system would be in safe configuration.

- **Load Optimized Defaults**

Optimized Defaults indicates the value of the system parameters which the system would be in best performance configuration.

- **Set Supervisor password**

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

- **Set User password**

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



- **Save & Exit Setup**

Save CMOS value settings to CMOS and exit setup.

- **Exit Without Saving**

Abandon all CMOS value changes and exit setup.

## Standard CMOS Features

The items in Standard CMOS Features Menu (Figure 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.

| CMOS Setup Utility-Copyright( C ) 1984-1999 Award Software<br>Standard CMOS Features                                                        |                   |              |
|---------------------------------------------------------------------------------------------------------------------------------------------|-------------------|--------------|
| Date (mm:dd:yy)                                                                                                                             | Thu , Jan 7 1999  | Item Help    |
| Time (hh:mm:ss)                                                                                                                             | 2 : 31 : 24       |              |
| ▶ IDE Primary Master                                                                                                                        | Press Enter None  | Menu Level ▶ |
| ▶ IDE Primary Slave                                                                                                                         | Press Enter None  |              |
| ▶ IDE Secondary Master                                                                                                                      | Press Enter None  | Change the   |
| ▶ IDE Secondary Slave                                                                                                                       | Press Enter None  | Day, month,  |
|                                                                                                                                             |                   | Year and     |
|                                                                                                                                             |                   | century      |
| Drive A                                                                                                                                     | 1.44M, 3.5 in.    |              |
| Drive B                                                                                                                                     | None              |              |
| Floppy 3 Mode Support                                                                                                                       | Disabled          |              |
| Video                                                                                                                                       | EGA / VGA         |              |
| Halt On                                                                                                                                     | All, But Keyboard |              |
| Base Memory                                                                                                                                 | 640K              |              |
| Extended Memory                                                                                                                             | 63488K            |              |
| Total Memory                                                                                                                                | 64512K            |              |
| ↑↓→ ←:Move Enter:Select +/-/PU/PD:Value F10:Save ESC:Exit F1:General Help<br>F5:Previous Values F6:Fail-Safe Defaults F7:Optimized Defaults |                   |              |

Figure 2: Standard CMOS Features 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.

- **IDE Primary Master, Slave / Secondary Master, Slave**

The category 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 and you will be prompted     |
| All Errors        | Whenever the BIOS detects a non-fatal error the system will be stopped                        |
| 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.

## Advanced BIOS Features

| CMOS Setup Utility-Copyright( C ) 1984-1999 Award Software                                                                                 |          |                                                                                                                                                                                                                                                                                            |
|--------------------------------------------------------------------------------------------------------------------------------------------|----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Advanced BIOS Features                                                                                                                     |          |                                                                                                                                                                                                                                                                                            |
| Virus Warning                                                                                                                              | Disabled | Item Help                                                                                                                                                                                                                                                                                  |
| CPU Cache                                                                                                                                  | Enabled  | Menu Level ▶<br>Allows you to<br>choose the VIRUS<br>Warning feature<br>For IDE Hard disk<br>Boot sector<br>Protection. If this<br>Function is enable<br>And someone<br>Attempt to write<br>Data into this area<br>, BIOS will show<br>A warning<br>Message on<br>Screen and alarm<br>beep |
| CPU L2 Cache ECC Checking                                                                                                                  | Disabled |                                                                                                                                                                                                                                                                                            |
| Quick Power On Self Test                                                                                                                   | Enabled  |                                                                                                                                                                                                                                                                                            |
| First Boot Device                                                                                                                          | Floppy   |                                                                                                                                                                                                                                                                                            |
| Second Boot Device                                                                                                                         | HDD-0    |                                                                                                                                                                                                                                                                                            |
| Third Boot Device                                                                                                                          | LS/ZIP   |                                                                                                                                                                                                                                                                                            |
| Boot Other Device                                                                                                                          | Enabled  |                                                                                                                                                                                                                                                                                            |
| Swap Floppy Drive                                                                                                                          | Disabled |                                                                                                                                                                                                                                                                                            |
| Boot Up Floppy Seek                                                                                                                        | Enabled  |                                                                                                                                                                                                                                                                                            |
| Boot Up NumLock Status                                                                                                                     | On       |                                                                                                                                                                                                                                                                                            |
| Gate A20 Option                                                                                                                            | Fast     |                                                                                                                                                                                                                                                                                            |
| Typematic Rate Setting                                                                                                                     | Disabled |                                                                                                                                                                                                                                                                                            |
| Typematic Rate (Chars/Sec)                                                                                                                 | 6        |                                                                                                                                                                                                                                                                                            |
| Typematic Delay (Msec)                                                                                                                     | 250      |                                                                                                                                                                                                                                                                                            |
| Security Option                                                                                                                            | Setup    |                                                                                                                                                                                                                                                                                            |
| OS Select For DRAM >64MB                                                                                                                   | Non-OS2  |                                                                                                                                                                                                                                                                                            |
| HDD S.M.A.R.T. Capability                                                                                                                  | Disabled |                                                                                                                                                                                                                                                                                            |
| Report No FDD For WIN 95                                                                                                                   | No       |                                                                                                                                                                                                                                                                                            |
| ↑↓→←:Move Enter:Select +/-/PU/PD:Value F10:Save ESC:Exit F1:General Help<br>F5:Previous Values F6:Fail-Safe Defaults F7:Optimized Defaults |          |                                                                                                                                                                                                                                                                                            |

Figure 3: Advanced 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 following error message will appear in the mean time. You can run anti-virus program to locate the problem.

|          |                                                                                                                                                                   |
|----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 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 <b>(Default Value)</b>                                 |

- **CPU Cache**

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

|          |                                     |
|----------|-------------------------------------|
| Enabled  | Enable cache <b>(Default Value)</b> |
| Disabled | Disable cache                       |

- **CPU L2 Cache ECC Checking**

|          |                                                          |
|----------|----------------------------------------------------------|
| Enabled  | Enable CPU L2 Cache ECC Checking                         |
| Disabled | Disable CPU L2 Cache ECC Checking <b>(Default Value)</b> |

- **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.

|          |                                          |
|----------|------------------------------------------|
| Enabled  | Enable quick POST <b>(Default Value)</b> |
| Disabled | Normal POST                              |

- **First / Second / Third Boot device**

|         |                                             |
|---------|---------------------------------------------|
| Floppy  | Select your boot device priority by Floppy  |
| LS/ZIP  | Select your boot device priority by LS/ZIP  |
| HDD-0~3 | Select your boot device priority by HDD-0~3 |
| SCSI    | Select your boot device priority by SCSI    |
| CDROM   | Select your boot device priority by CDROM   |
| Disable | Disable this function                       |
| LAN     | Select your boot device priority by LAN     |

- **Boot other device**

|          |                                                                          |
|----------|--------------------------------------------------------------------------|
| Enabled  | Enabled select your boot device priority function <b>(Default Value)</b> |
| Disabled | Disabled this function                                                   |

- **Swap Floppy Drive**

|          |                                                               |
|----------|---------------------------------------------------------------|
| Enabled  | Floppy A & B will be swapped under DOS                        |
| Disabled | Floppy A & B will be normal definition <b>(Default Value)</b> |

- **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.

|          |                                                                                                                                                                                             |
|----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 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 <b>(Default Value)</b> |
| 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**

|     |                                                |
|-----|------------------------------------------------|
| On  | Keypad is number keys <b>(Default Value)</b> . |
| Off | Keypad is arrow keys.                          |

- **Gate A20 Option**

|        |                                                      |
|--------|------------------------------------------------------|
| Normal | Set Gate A20 Option is Normal.                       |
| Fast   | Set Gate A20 Option is Fast <b>(Default Value)</b> . |

- **Typematic Rate Setting**

|          |                                                                  |
|----------|------------------------------------------------------------------|
| Enabled  | Enable Keyboard Typematic rate setting.                          |
| Disabled | Disable Keyboard Typematic rate setting <b>(Default Value)</b> . |

- **Typematic Rate (Chars / Sec.)**

|      |                                                                                                                  |
|------|------------------------------------------------------------------------------------------------------------------|
| 6-30 | Set the maximum Typematic rate from 6 chars. Per second to 30 characters. Per second. <b>(Default Value: 6 )</b> |
|------|------------------------------------------------------------------------------------------------------------------|

- **Typematic Delay (Msec.)**

|          |                                                                                                       |
|----------|-------------------------------------------------------------------------------------------------------|
| 250-1000 | Set the time delay from first key to repeat the same key in to computer <b>(Default Value: 250)</b> . |
|----------|-------------------------------------------------------------------------------------------------------|

- **Security Option**

This category allows you to limit access to the system and Setup, or just to 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 <b>(Default Value)</b> |

- **OS Select For DRAM>64MB**

|         |                                                         |
|---------|---------------------------------------------------------|
| Non-OS2 | Using non-OS2 operating system <b>(Default Value)</b> . |
| OS2     | Using OS2 operating system and DRAM>64MB.               |

- **HDD S.M.A.R.T. Capability**

|          |                                                           |
|----------|-----------------------------------------------------------|
| Enabled  | Enabled HDD S.M.A.R.T. Capability                         |
| Disabled | Disabled HDD S.M.A.R.T. Capability <b>(Default Value)</b> |

- **Report No FDD For WIN 95**

|     |                                              |
|-----|----------------------------------------------|
| No  | Assign IRQ6 For FDD <b>(Default Value)</b> . |
| Yes | FDD Detect IRQ6 Automatically.               |

## Advanced Chipset Features

| CMOS Setup Utility-Copyright( C ) 1984-1999 Award Software<br>Advanced Chipset Features |                |              |
|-----------------------------------------------------------------------------------------|----------------|--------------|
| SDRAM CAS Latency Time                                                                  | Auto           | Item Help    |
| SDRAM Cycle Time Tras/Trc                                                               | 5/7            | Menu Level ▶ |
| SDRAM RAS-to-CAS Delay                                                                  | 2              |              |
| SDRAM RAS Precharge Time                                                                | 2              |              |
| SDRAM Buffer Strength                                                                   | Auto           |              |
| DRAM Page Closing Policy                                                                | Precharge Bank |              |
| System BIOS Cacheable                                                                   | Enabled        |              |
| Video BIOS Cacheable                                                                    | Enabled        |              |
| Delayed Transaction                                                                     | Disabled       |              |
| On-Chip Video Window Size                                                               | 64MB           |              |
| Local Memory Frequency                                                                  | 100MHz         |              |
| * Onboard Display Cache Setting *                                                       |                |              |
| Initial Display Cache                                                                   | Enabled        |              |
| Display Cache Timing                                                                    | Fast           |              |

↑↓→ ←:Move Enter:Select +/-/PU/PD:Value F10:Save ESC:Exit F1:General Help  
F5:Previous Values F6:Fail-Safe Defaults F7:Optimized Defaults

Figure 4: Advanced Chipset Features Setup

- SDRAM CAS latency Time**

|      |                                                             |
|------|-------------------------------------------------------------|
| Auto | Set SDRAM CAS latency Time to Auto <b>(Default Value)</b> . |
| 3    | For 67 / 83 MHz SDRAM DIMM module.                          |
| 2    | For 100 MHz SDRAM DIMM module.                              |

- SDRAM Cycle Time Tras/Trc**

|     |                                                                    |
|-----|--------------------------------------------------------------------|
| 6/8 | Set DRAM Tras/Trc Cycle time is 6/8 SCLKs.                         |
| 5/7 | Set DRAM Tras/Trc Cycle time is 5/7 SCLKs <b>(Default Value)</b> . |

- SDRAM RAS# to CAS# delay**

|   |                                                               |
|---|---------------------------------------------------------------|
| 3 | Set SDRAM RAS# to CAS# delay 3 SCLKs.                         |
| 2 | Set SDRAM RAS# to CAS# delay 2 SCLKs <b>(Default Value)</b> . |

- **SDRAM RAS# Precharge**

|   |                                                        |
|---|--------------------------------------------------------|
| 3 | Set SDRAM RAS# Precharge is 3.                         |
| 2 | Set SDRAM RAS# Precharge is 2 <b>(Default Value)</b> . |

- **SDRAM Buffer Strength**

|        |                                                             |
|--------|-------------------------------------------------------------|
| Auto   | Auto detect SDRAM buffer strength. <b>(Default Value)</b> . |
| Auto-1 | Decrease SDRAM buffer strength.                             |
| Auto+1 | Increase SDRAM buffer strength.                             |

- **DRAM Page Closing Policy**

|                |                                                                                     |
|----------------|-------------------------------------------------------------------------------------|
| Precharge Bank | The GMCH precharge bank during the service of a page miss. <b>(Default Value)</b> . |
| Precharge All  | The GMCH precharge all during the service of a page miss.                           |

- **System BIOS Cacheable**

|          |                                                       |
|----------|-------------------------------------------------------|
| Enabled  | Enable System BIOS Cacheable <b>(Default Value)</b> . |
| Disabled | Disable System BIOS Cacheable.                        |

- **Video BIOS Cacheable**

|          |                                                      |
|----------|------------------------------------------------------|
| Enabled  | Enable video BIOS Cacheable <b>(Default Value)</b> . |
| Disabled | Disable video BIOS Cacheable.                        |

- **Delayed Transaction**

|          |                                           |
|----------|-------------------------------------------|
| Disabled | Normal operation <b>(Default Value)</b> . |
| Enabled  | For slow speed ISA device in system.      |

- **On-Chip Video Window Size**

|          |                                                             |
|----------|-------------------------------------------------------------|
| 32MB     | Set Graphics Aperture Size to 32MB.                         |
| 64MB     | Set Graphics Aperture Size to 64MB <b>(Default Value)</b> . |
| Disabled | Disabled this function.                                     |

- **Local Memory Frequency ( for 82810E)**

|        |                                                       |
|--------|-------------------------------------------------------|
| 100MHz | Set Display Cache used 100MHz. <b>(Default Value)</b> |
| 133MHz | Set Display Cache used 133MHz.                        |



- **Initialize Display Cache**

|          |                                                           |
|----------|-----------------------------------------------------------|
| Disabled | Disabled Initialize Display Cache.                        |
| Enabled  | Enabled Initialize Display Cache <b>(Default Value)</b> . |

- **Display Cache Timing**

|        |                                                           |
|--------|-----------------------------------------------------------|
| Fast   | Set Display Cache Timing to Fast <b>(Default Value)</b> . |
| Normal | Set Display Cache Timing to Normal.                       |

## Integrated Peripherals

| CMOS Setup Utility-Copyright( C ) 1984-1999 Award Software<br>Integrated Peripherals |             |              |
|--------------------------------------------------------------------------------------|-------------|--------------|
| On-Chip Primary PCI IDE                                                              | Enabled     | Item Help    |
| On-Chip Secondary PCI IDE                                                            | Enabled     | Menu Level ▶ |
| IDE Primary Master PIO                                                               | Auto        |              |
| IDE Primary Slave PIO                                                                | Auto        |              |
| IDE Secondary Master PIO                                                             | Auto        |              |
| IDE Secondary Slave PIO                                                              | Auto        |              |
| IDE Primary Master UDMA                                                              | Auto        |              |
| IDE Primary Slave UDMA                                                               | Auto        |              |
| IDE Secondary Master UDMA                                                            | Auto        |              |
| IDE Secondary Slave UDMA                                                             | Auto        |              |
| USB Controller                                                                       | Enabled     |              |
| USB Keyboard Support                                                                 | Disabled    |              |
| Init Display First                                                                   | PCI Slot    |              |
| AC97 Audio                                                                           | Auto        |              |
| AC97 Modem                                                                           | Auto        |              |
| IDE HDD Block Mode                                                                   | Enabled     |              |
| POWER ON Function                                                                    | BUTTON ONLY |              |
| *KB Power ON Password                                                                | Enter       |              |
| *Hot Key Power ON                                                                    | Ctrl-F1     |              |
| Onboard FDC Controller                                                               | Enabled     |              |
| Onboard Serial Port 1                                                                | Auto        |              |
| Onboard Serial Port 2                                                                | Auto        |              |
| UART Mode Select                                                                     | Normal      |              |
| *Rx/D, Tx/D Active                                                                   | Hi,Lo       |              |
| *IR Transmittiion delay                                                              | Enabled     |              |
| Onboard Parallel Port                                                                | 378/IRQ7    |              |
| Parallel Port Mode                                                                   | SPP         |              |
| *EPP Mode Select                                                                     | EPP1.7      |              |
| *ECP Mode Use DMA                                                                    | 3           |              |
| Game Port Address                                                                    | Disabled    |              |
| Midi Port Address                                                                    | Disabled    |              |
| Midi Port IRQ                                                                        | 5           |              |

↑↓→←:Move Enter:Select +/-/PU/PD:Value F10:Save ESC:Exit F1:General Help  
F5:Previous Values F6:Fail-Safe Defaults F7:Optimized Defaults

Figure 5: Integrated Peripherals

- On-Chip Primary PCI IDE

|          |                                                              |
|----------|--------------------------------------------------------------|
| Enabled  | Enable onboard 1st channel IDE port <b>(Default Value)</b> . |
| Disabled | Disable onboard 1st channel IDE port.                        |

---

- **On-Chip Secondary PCI IDE**

|          |                                                              |
|----------|--------------------------------------------------------------|
| Enabled  | Enable onboard 2nd channel IDE port <b>(Default Value)</b> . |
| Disabled | Disable onboard 2nd channel IDE port.                        |

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

|         |                                                                                    |
|---------|------------------------------------------------------------------------------------|
| Auto    | BIOS will automatically detect the IDE HDD Accessing mode <b>(Default Value)</b> . |
| Mode0~4 | Manually set the IDE Accessing mode.                                               |

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

|         |                                                                                    |
|---------|------------------------------------------------------------------------------------|
| Auto    | BIOS will automatically detect the IDE HDD Accessing mode <b>(Default Value)</b> . |
| Mode0~4 | Manually set the IDE Accessing mode.                                               |

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

|         |                                                                                    |
|---------|------------------------------------------------------------------------------------|
| Auto    | BIOS will automatically detect the IDE HDD Accessing mode <b>(Default Value)</b> . |
| Mode0~4 | Manually set the IDE Accessing mode.                                               |

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

|         |                                                                                     |
|---------|-------------------------------------------------------------------------------------|
| Auto    | BIOS will automatically detect the IDE HDD Accessing mode <b>(Default Value)</b> .. |
| Mode0~4 | Manually set the IDE Accessing mode.                                                |

- **IDE Primary Master UDMA**

|          |                                                                                    |
|----------|------------------------------------------------------------------------------------|
| Auto     | BIOS will automatically detect the IDE HDD Accessing mode <b>(Default Value)</b> . |
| Disabled | Disable UDMA function.                                                             |

- **IDE Primary Slave UDMA**

|          |                                                                                    |
|----------|------------------------------------------------------------------------------------|
| Auto     | BIOS will automatically detect the IDE HDD Accessing mode <b>(Default Value)</b> . |
| Disabled | Disable UDMA function.                                                             |

- **IDE Secondary Master UDMA**

|          |                                                                                    |
|----------|------------------------------------------------------------------------------------|
| Auto     | BIOS will automatically detect the IDE HDD Accessing mode <b>(Default Value)</b> . |
| Disabled | Disable UDMA function.                                                             |

- **IDE Secondary Slave UDMA**

|          |                                                                                    |
|----------|------------------------------------------------------------------------------------|
| Auto     | BIOS will automatically detect the IDE HDD Accessing mode <b>(Default Value)</b> . |
| Disabled | Disable UDMA function.                                                             |

- **USB Controller**

|          |                                                |
|----------|------------------------------------------------|
| Enabled  | Enable USB Controller <b>(Default Value)</b> . |
| Disabled | Disable USB Controller.                        |

- **USB Keyboard Support**

|          |                                                       |
|----------|-------------------------------------------------------|
| Enabled  | Enable USB Keyboard Support.                          |
| Disabled | Disable USB Keyboard Support <b>(Default Value)</b> . |

- **Init Display First**

|          |                                                             |
|----------|-------------------------------------------------------------|
| PCI Slot | Set Init Display First to PCI Slot <b>(Default Value)</b> . |
| Onboard  | Set Init Display First to onboard AGP.                      |

- **AC'97 Audio**

|          |                                                  |
|----------|--------------------------------------------------|
| Auto     | Set AC'97 Audio to Auto <b>(Default Value)</b> . |
| Enabled  | Enabled AC'97 Audio.                             |
| Disabled | Disabled AC'97 Audio.                            |

- **AC'97 Modem**

|          |                                                  |
|----------|--------------------------------------------------|
| Auto     | Set AC'97 Modem to Auto <b>(Default Value)</b> . |
| Enabled  | Enabled AC'97 Modem.                             |
| Disabled | Disabled AC'97 Modem                             |

- **IDE HDD Block Mode**

|          |                                                    |
|----------|----------------------------------------------------|
| Enabled  | Enable IDE HDD Block Mode <b>(Default Value)</b> . |
| Disabled | Disable IDE HDD Block Mode.                        |

- **POWER ON Function**

|             |                                                                                                                  |
|-------------|------------------------------------------------------------------------------------------------------------------|
| Password    | Enter from 1 to 5 characters to set the Keyboard Power On Password.                                              |
| Mouse Left  | Double click twice on PS/2 left bottom.                                                                          |
| Mouse Right | Double click twice on PS/2 right bottom.                                                                         |
| BUTTON ONLY | If your keyboard have "POWER Key" button, you can press the key to power on your system <b>(Default Value)</b> . |
| Keyboard 98 | Windows 98 keyboard "Power" key.                                                                                 |

- **Onboard FDC Controller**

|          |                                                  |
|----------|--------------------------------------------------|
| Enabled  | Enable onboard FDC port <b>(Default Value)</b> . |
| Disabled | Disable onboard FDC port.                        |

- **Onboard Serial Port 1**

|          |                                                                           |
|----------|---------------------------------------------------------------------------|
| Auto     | BIOS will automatically setup the port 1 address <b>(Default Value)</b> . |
| 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**

|          |                                                                           |
|----------|---------------------------------------------------------------------------|
| Auto     | BIOS will automatically setup the port 2 address <b>(Default Value)</b> . |
| 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.                                            |

- **UART Mode Select**

(This item allows you to determine which Infra Red(IR) function of Onboard I/O chip)

|        |                                                           |
|--------|-----------------------------------------------------------|
| ASKIR  | Onboard I/O chip supports ASKIR.                          |
| IrDA   | Onboard I/O chip supports IrDA.                           |
| Normal | Onboard I/O chip supports Normal <b>(Default Value)</b> . |

- **RxD , TxD Active**

|        |                                                 |
|--------|-------------------------------------------------|
| Hi, Hi | RxD set Hi, TxD set Hi                          |
| Hi, Lo | RxD set Hi, TxD set Lo <b>(Default Value)</b> . |
| Lo, Hi | RxD set Lo, TxD set Hi                          |
| Lo, Lo | RxD set Lo, TxD set Lo                          |

- **IR Transmittiion delay**

|          |                                                             |
|----------|-------------------------------------------------------------|
| Enabled  | Set IR Transmittiion delay Enabled <b>(Default Value)</b> . |
| Disabled | Set IR Transmittiion delay Disabled                         |

- **Onboard Parallel port**

|          |                                                                          |
|----------|--------------------------------------------------------------------------|
| 378/IRQ7 | Enable onboard LPT port and address is 378/IRQ7 <b>(Default Value)</b> . |
| 278/IRQ5 | Enable onboard LPT port and address is 278/IRQ5.                         |
| Disabled | Disable onboard LPT port.                                                |
| 3BC/IRQ7 | Enable onboard LPT port and address is 3BC/IRQ7.                         |

- **Parallel Port Mode**

|         |                                                                       |
|---------|-----------------------------------------------------------------------|
| SPP     | Using Parallel port as Standard Printer Port <b>(Default Value)</b> . |
| 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.                                |

- **EPP Mode Select**

|         |                                             |
|---------|---------------------------------------------|
| EPP 1.9 | EPP Version is 1.9.                         |
| EPP 1.7 | EPP Version is 1.7 <b>(Default Value)</b> . |

- **EPP Mode Use DMA**

|   |                                                    |
|---|----------------------------------------------------|
| 1 | Set EPP Mode Use DMA is 1.                         |
| 3 | Set EPP Mode Use DMA is 3 <b>(Default Value)</b> . |

- **Game Port Address**

|          |                                                      |
|----------|------------------------------------------------------|
| Disabled | Disabled On Board Game port <b>(Default Value)</b> . |
| 201      | Set Game port address is 201.                        |
| 209      | Set Game port address is 209.                        |

---

- **Midi Port Address**

|          |                                                      |
|----------|------------------------------------------------------|
| Disabled | Disabled On Board Midi Port <b>(Default Value)</b> . |
| 300      | Set On Board Midi Port is 300.                       |
| 330      | Set On Board Midi Port is 330.                       |

- **Midi Port IRQ**

|   |                                                  |
|---|--------------------------------------------------|
| 5 | Set 5 for Midi Port IRQ <b>(Default Value)</b> . |
| 7 | Set 7 for Midi Port IRQ                          |

## Power Management Setup

| CMOS Setup Utility-Copyright( C ) 1984-1999 Award Software |                    |              |  |
|------------------------------------------------------------|--------------------|--------------|--|
| Power Management Setup                                     |                    |              |  |
| ACPI Suspend Type                                          | S1(PowerOnSuspend) | Item Help    |  |
| Power Management                                           | User Define        | Menu Level ▶ |  |
| Video Off Method                                           | DPMS               |              |  |
| Video Off In Suspend                                       | Yes                |              |  |
| Suspend Type                                               | Stop Grant         |              |  |
| MODEM Use IRQ                                              | 4                  |              |  |
| Suspend Mode                                               | Disabled           |              |  |
| HDD Power Down                                             | Disabled           |              |  |
| Soft-Off by PWR-BTTN                                       | Instant-off        |              |  |
| Power LED in Suspend                                       | Blinking           |              |  |
| AC BACK Function                                           | Memory             |              |  |
| Wake-Up by PCI card                                        | Enabled            |              |  |
| ModemRingOn/WakeOnLan                                      | Enabled            |              |  |
| FAN Off In Suspend                                         | Enabled            |              |  |
| USB KB/Mouse wake From S3                                  | Disabled           |              |  |
| CPU Thermal-Throttling                                     | 50%                |              |  |
| Resume by Alarm                                            | Disabled           |              |  |
| * Date(of Month) Alarm                                     | 0                  |              |  |
| * Time(hh:mm:ss) Alarm                                     | 0 0 0              |              |  |
| ** Reload Global Timer Events **                           |                    |              |  |
| Primary IDE 0                                              | Disabled           |              |  |
| Primary IDE 1                                              | Disabled           |              |  |
| Secondary IDE 0                                            | Disabled           |              |  |
| Secondary IDE 1                                            | Disabled           |              |  |
| FDD,COM,LPT Port                                           | Enabled            |              |  |
| PCI IRQ[A-D]#                                              | Enabled            |              |  |

↑↓→←:Move Enter:Select +/-/PU/PD:Value F10:Save ESC:Exit F1:General Help  
F5:Previous Values F6:Fail-Safe Defaults F7:Optimized Defaults

Figure 6: Power Management Setup

- ACPI Suspend Type**

|                      |                                                      |
|----------------------|------------------------------------------------------|
| S1(Power On Suspend) | Set ACPI Suspend type is S1 <b>(Default Value)</b> . |
| S3(Suspend to RAM)   | Set ACPI Suspend type is S3.                         |

- Power Management**

|             |                                                                            |
|-------------|----------------------------------------------------------------------------|
| User Define | For configuring our own power management features <b>(Default Value)</b> . |
| Min Saving  | Enable Green function.                                                     |
| Max Saving  | Disable Green function.                                                    |



- **Video off Method**

|                |                                                                                                                                             |
|----------------|---------------------------------------------------------------------------------------------------------------------------------------------|
| 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           | BIOS will use DPMS Standard to control VGA card. (The Green type VGA card will turn off V/H-SYNC automatically.)<br><b>(Default Value).</b> |

- **Video Off In Suspend**

|     |                                                      |
|-----|------------------------------------------------------|
| Yes | Enabled video off in suspend <b>(Default Value).</b> |
| No  | Disabled video off in suspend.                       |

- **Suspend Type**

|               |                                                        |
|---------------|--------------------------------------------------------|
| Stop Grant    | Set Suspend type is stop grant <b>(Default Value).</b> |
| PwrOn Suspend | Set Suspend type is Power on suspend.                  |

- **MODEM Use IRQ**

|    |                                                |
|----|------------------------------------------------|
| NA | Set MODEM Use IRQ to NA.                       |
| 3  | Set MODEM Use IRQ to 3.                        |
| 4  | Set MODEM Use IRQ to 4 <b>(Default Value).</b> |
| 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.                       |

- **Suspend Mode**

|                |                                              |
|----------------|----------------------------------------------|
| Disabled       | Disable Suspend Mode <b>(Default Value).</b> |
| 1 min - 1 Hour | Setup the timer to enter Suspend Mode.       |

- **HDD Power Down**

|            |                                                              |
|------------|--------------------------------------------------------------|
| Disable    | Disable HDD Power Down mode function <b>(Default Value).</b> |
| 1-15 mins. | Enable HDD Power Down mode between 1 to 15 mins.             |

- **Soft-off by PWR-BTTN**

|              |                                                             |
|--------------|-------------------------------------------------------------|
| Instant-off  | Soft switch ON/OFF for POWER ON/OFF <b>(Default Value).</b> |
| Delay 4 Sec. | Soft switch ON 4sec. for POWER OFF.                         |

- **Power LED in Suspend**

|          |                                                                    |
|----------|--------------------------------------------------------------------|
| Blinking | Set Power LED in Suspend at Blinking mode <b>(Default Value)</b> . |
| On       | Set Power LED in Suspend at On mode.                               |
| Off/Dual | Set Power LED in Suspend at Off/Dual color mode.                   |

- **AC Back Function**

|          |                                                                   |
|----------|-------------------------------------------------------------------|
| Memory   | This function depends on computer status <b>(Default Value)</b> . |
| Soft-Off | Set System Soft-Off Status.                                       |
| Full-On  | Set System Full-On Status.                                        |

- **Wake-Up by PCI card**

|          |                                                      |
|----------|------------------------------------------------------|
| Disabled | Disabled this function.                              |
| Enabled  | Enabled wake-up by PCI card <b>(Default Value)</b> . |

- **ModemRingOn / WakeOnLan**

|          |                                                 |
|----------|-------------------------------------------------|
| Disabled | Disable these functions.                        |
| Enabled  | Enable these functions <b>(Default Value)</b> . |

- **FAN Off In Suspend**

|          |                                                                  |
|----------|------------------------------------------------------------------|
| Disabled | Disable this function.                                           |
| Enabled  | Stop CPU FAN when entering Suspend mode <b>(Default Value)</b> . |

- **USB KB/Mouse Wake From S3**

|          |                                                |
|----------|------------------------------------------------|
| Disabled | Disable this function <b>(Default Value)</b> . |
| Enabled  | Enable this function.                          |

- **CPU Thermal-Throttling**

|       |                                                                                                |
|-------|------------------------------------------------------------------------------------------------|
| 87.5% | Monitor CPU Temp. will cause system slow down CPU Duty Cycle to 87.5%.                         |
| 75.0% | Monitor CPU Temp. will cause system slow down CPU Duty Cycle to 75.0%.                         |
| 62.5% | Monitor CPU Temp. will cause system slow down CPU Duty Cycle to 62.5%.                         |
| 50.0% | Monitor CPU Temp. will cause system slow down CPU Duty Cycle to 50.0% <b>(Default Value)</b> . |
| 37.5% | Monitor CPU Temp. will cause system slow down CPU Duty Cycle to 37.5%.                         |

|       |                                                                        |
|-------|------------------------------------------------------------------------|
| 25.0% | Monitor CPU Temp. will cause system slow down CPU Duty Cycle to 25.0%. |
| 12.5% | Monitor CPU Temp. will cause system slow down CPU Duty Cycle to 12.5%. |

- **Resume by Alarm**

|          |                                                |
|----------|------------------------------------------------|
| Disabled | Disable this function <b>(Default Value)</b> . |
| Enabled  | Enable alarm function to POWER ON system.      |

If the default value is Enabled.

|                            |                          |
|----------------------------|--------------------------|
| Date ( of Month) Alarm :   | 0~31                     |
| Time ( hh: mm: ss) Alarm : | (0~23) : (0~59) : (0~59) |

- **Primary IDE 0/1**

|          |                                                 |
|----------|-------------------------------------------------|
| Disabled | Disable this function <b>(Default Value)</b> .  |
| Enabled  | Enable monitor Primary IDE 0/1 for Green event. |

- **Secondary IDE 0/1**

|          |                                                   |
|----------|---------------------------------------------------|
| Disabled | Disable this function <b>(Default Value)</b> .    |
| Enabled  | Enable monitor Secondary IDE 0/1 for Green event. |

- **FDD/COM/LPT Port**

|          |                                                                     |
|----------|---------------------------------------------------------------------|
| Disabled | Disable this function.                                              |
| Enabled  | Enable monitor FDC/COM/LPT for Green event <b>(Default Value)</b> . |

- **PCI PIRQ[A-D] #**

|          |                                                           |
|----------|-----------------------------------------------------------|
| Enabled  | Monitor PCI PIRQ[A-D] IRQ Active <b>(Default Value)</b> . |
| Disabled | Ignore PCI PIRQ[A-D] IRQ Active.                          |

## PnP/PCI Configurations

| CMOS Setup Utility-Copyright( C ) 1984-1999 Award Software |             |                                                                                                                                                         |
|------------------------------------------------------------|-------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|
| PnP/PCI Configurations                                     |             |                                                                                                                                                         |
| PNP OS Installed                                           | No          | Item Help                                                                                                                                               |
| Reset Configuration Data                                   | Disabled    |                                                                                                                                                         |
| Resources Controlled By                                    | Auto (ESCD) | Menu Level ▶                                                                                                                                            |
| * IRQ Resources                                            | Press Enter |                                                                                                                                                         |
| *DMA Resources                                             | Press Enter |                                                                                                                                                         |
| *Memory Resources                                          | Press Enter |                                                                                                                                                         |
| PCI/VGA Palette Snoop                                      | Disabled    |                                                                                                                                                         |
|                                                            |             | Select Yes if you<br>Are using a Plug<br>And Play capable<br>Operating system<br>Select No if you<br>Need the BIOS to<br>Configure non-<br>Boot devices |

↑↓↔ ← Move Enter:Select +/-PU/PD:Value F10:Save ESC:Exit F1:General Help  
F5:Previous Values F6:Fail-Safe Defaults F7:Optimized Defaults

Figure 7: PCI Slot Configuration

- PNP OS Installed**

|     |                                                            |
|-----|------------------------------------------------------------|
| Yes | Enable PNP OS Installed function.                          |
| No  | Disable PNP OS Installed function <b>(Default Value)</b> . |

- Reset Configuration Data**

|          |                                                |
|----------|------------------------------------------------|
| Disabled | Disable this function <b>(Default Value)</b> . |
| ESCD     | Clear ESCD data in flash memory.               |
| DMI      | Clear DMI data in flash memory.                |
| Both     | Clear Both ESCD and DMI data in flash memory.  |

---

- **Resources Controlled by**

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

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

- **Reserved Memory Base**

|             |                                                       |
|-------------|-------------------------------------------------------|
| N/A         | Disable the MEM. block using <b>(Default Value)</b> . |
| C800 ~ DC00 | Select the MEM. block starting address.               |

- **PCI/VGA Palette Snoop**

|          |                                                           |
|----------|-----------------------------------------------------------|
| Enabled  | For having Video Card on ISA Bus and VGA Card on PCI Bus. |
| Disabled | For VGA Card only <b>(Default Value)</b> .                |

PC Health Status

| CMOS Setup Utility- Copyright( C ) 1984-1999 Award Software                                                                                |            |           |
|--------------------------------------------------------------------------------------------------------------------------------------------|------------|-----------|
| PC Health Status                                                                                                                           |            |           |
| Reset Case Open Status                                                                                                                     | Disabled   | Item Help |
| Case Opened                                                                                                                                | No         |           |
| Current CPU Temperature                                                                                                                    | 47°C/116°F |           |
| CPU FAN Speed                                                                                                                              | 4891 RPM   |           |
| Power FAN Speed                                                                                                                            | 0 RPM      |           |
| System FAN Speed                                                                                                                           | 0 RPM      |           |
| VCORE                                                                                                                                      | 2.08 V     |           |
| VGTL                                                                                                                                       | 1.50 V     |           |
| VCC3                                                                                                                                       | 3.45 V     |           |
| + 5V                                                                                                                                       | 5.10 V     |           |
| +12V                                                                                                                                       | 12.28 V    |           |
| - 12V                                                                                                                                      | -12.52 V   |           |
| - 5V                                                                                                                                       | - 5.09 V   |           |
| VBAT                                                                                                                                       | 3.13 V     |           |
| 5VSB                                                                                                                                       | 5.33 V     |           |
| CPU Warning Temperature                                                                                                                    | 70°C/158°F |           |
| Shutdown Temperature                                                                                                                       | 75°C/167°F |           |
| CPU FAN Fail Alarm                                                                                                                         | Disabled   |           |
| Power FAN Fail Alarm                                                                                                                       | Disabled   |           |
| System FAN Fail Alarm                                                                                                                      | Disabled   |           |
| ↑↓→←:Move Enter:Select +/-/PU/PD:Value F10:Save ESC:Exit F1:General Help<br>F5:Previous Values F6:Fail-Safe Defaults F7:Optimized Defaults |            |           |

Figure 8: PC Health Status

- **Reset Case Open Status**
- **Case Opened**

If the case is closed, "Case Opened" will show "No".  
If the case have been opened, "Case Opened" will show "Yes" .  
If you want to reset "Case Opened" value, set "Reset Case Open Status" to "Enable" and save CMOS, your computer will restart.
- **Current CPU Temperature (°C / °F)**

Detect CPU Temp. automatically.
- **CPU FAN / Power FAN / System FAN Speed (RPM)**

Detect Fan speed status automatically.

- **Current Voltage (V) VCORE / VGTL/ VCC3 /  $\pm 12V$  /  $\pm 5V$  /VBAT /5VSB**

Detect system's voltage status automatically.

- **CPU Warning Temperature ( $^{\circ}C$  /  $^{\circ}F$ )**

|                                  |                                                                                |
|----------------------------------|--------------------------------------------------------------------------------|
| 65 $^{\circ}C$ / 149 $^{\circ}F$ | Monitor CPU Temp. at 65 $^{\circ}C$ / 149 $^{\circ}F$                          |
| 70 $^{\circ}C$ / 158 $^{\circ}F$ | Monitor CPU Temp. at 70 $^{\circ}C$ / 158 $^{\circ}F$ <b>(Default Value)</b> . |
| 75 $^{\circ}C$ / 167 $^{\circ}F$ | Monitor CPU Temp. at 75 $^{\circ}C$ / 167 $^{\circ}F$                          |
| Disabled                         | Disabled this function.                                                        |

- **Shutdown Temp. ( $^{\circ}C$  /  $^{\circ}F$ )**

(This function will be effective only for the operating systems that support ACPI Function.)

|                                  |                                                                                                                                                                  |
|----------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Disabled                         | Normal Operation                                                                                                                                                 |
| 65 $^{\circ}C$ / 149 $^{\circ}F$ | Monitor CPU Temp. at 65 $^{\circ}C$ / 149 $^{\circ}F$ , if Temp. > 65 $^{\circ}C$ / 149 $^{\circ}F$ system will automatically power off .                        |
| 70 $^{\circ}C$ / 158 $^{\circ}F$ | Monitor CPU Temp. at 70 $^{\circ}C$ / 158 $^{\circ}F$ , if Temp. > 70 $^{\circ}C$ / 158 $^{\circ}F$ system will automatically power off .                        |
| 75 $^{\circ}C$ / 167 $^{\circ}F$ | Monitor CPU Temp. at 75 $^{\circ}C$ / 167 $^{\circ}F$ , if Temp. > 75 $^{\circ}C$ / 167 $^{\circ}F$ system will automatically power off <b>(Default Value)</b> . |

- **Fan Fail Alarm**

CPU / POWER / SYSTEM

|          |                                                            |
|----------|------------------------------------------------------------|
| Disabled | Fan Fail Alarm Function Disabled. <b>(Default Value)</b> . |
| Enabled  | Fan Fail Alarm Function Enabled.                           |

Frequency/Voltage Control

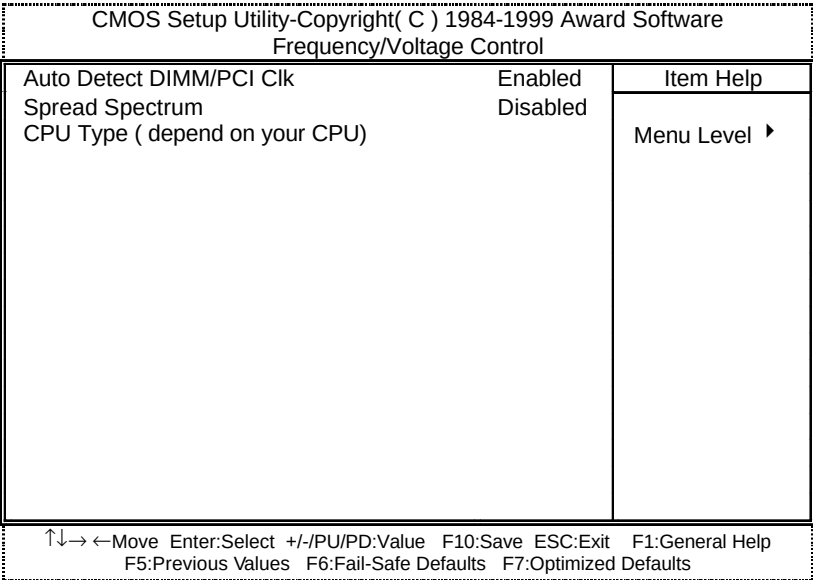


Figure 9: Frequency/Voltage Control

Auto Detect DIMM/PCI Clk

|          |                                                     |
|----------|-----------------------------------------------------|
| Disabled | Disabled Auto Detect DIMM/PCI Clk.                  |
| Enabled  | Enabled Auto Detect DIMM/PCI Clk. ( Default value ) |

Spread Spectrum

|          |                                                      |
|----------|------------------------------------------------------|
| Disabled | Disabled spread spectrum function. ( Default value ) |
| Enabled  | Enabled spread spectrum function.                    |

CPU Type (depend on your CPU)

1. System Bus Speed :66MHz

|                                                                 |
|-----------------------------------------------------------------|
| 200 / 233 / 266 / 300 / 333 / 366 / 400 / 433 / 466 / 500 / 533 |
|-----------------------------------------------------------------|

2. System Bus Speed : 100MHz

|                                                                 |
|-----------------------------------------------------------------|
| 300 / 350 / 400 / 450 / 500 / 550 / 600 / 650 / 700 / 750 / 800 |
|-----------------------------------------------------------------|

3. System Bus Speed : 133MHz

|                                                                   |
|-------------------------------------------------------------------|
| 400 / 466 / 533 / 600 / 666 / 733 / 800 / 866 / 933 / 1000 / 1066 |
|-------------------------------------------------------------------|



## Load Fail-Safe Defaults

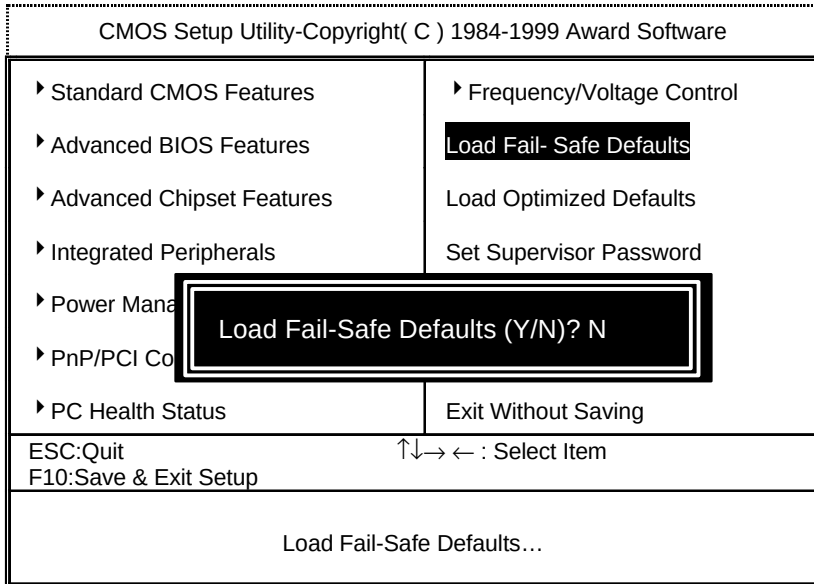


Figure 10: Load Fail-Safe Defaults

- Load Fail-Safe Defaults

Fail-Safe defaults contain the most appropriate values of the system parameters that allow minimum system performance.

Load Optimized Defaults

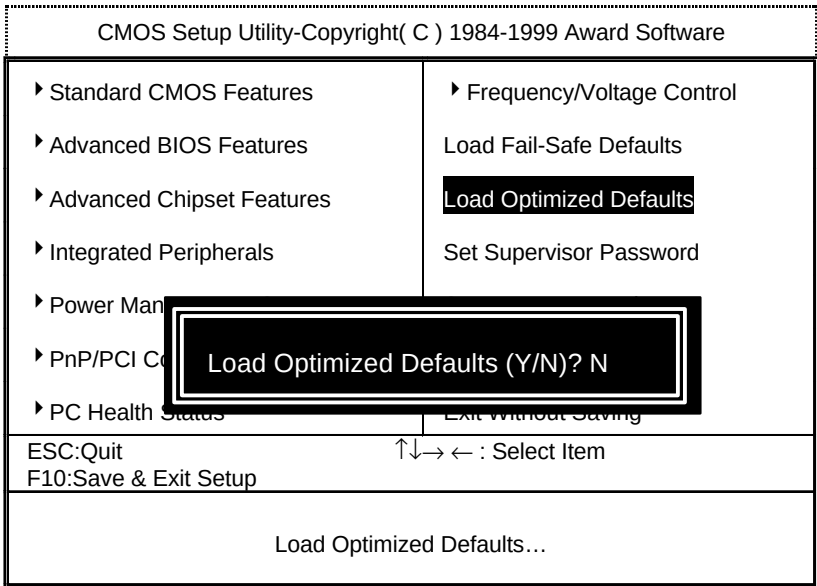


Figure 11: Load Optimized Defaults

- Load Optimized Defaults

Selecting this field loads the factory defaults for BIOS and Chipset Features which the system automatically detects.

## Set Supervisor / User Password

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

| CMOS Setup Utility-Copyright( C ) 1984-1999 Award Software                                                                                                                                                                                                 |                                                                                                                                                                                         |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>▶ Standard CMOS Features</li> <li>▶ Advanced BIOS Features</li> <li>▶ Advanced Chipset Features</li> <li>▶ Integrated Peripherals</li> <li>▶ Power Man</li> <li>▶ PnP/PCI Co</li> <li>▶ PC Health Status</li> </ul> | <ul style="list-style-type: none"> <li>▶ Frequency/Voltage Control</li> <li>Load Fail-Safe Defaults</li> <li>Load Optimized Defaults</li> <li><b>Set Supervisor Password</b></li> </ul> |
| <div style="border: 3px double black; padding: 10px; display: inline-block;"> Enter Password: </div>                                                                                                                                                       |                                                                                                                                                                                         |
| Exit Without Saving                                                                                                                                                                                                                                        |                                                                                                                                                                                         |
| ↑↓→← : Select Item                                                                                                                                                                                                                                         |                                                                                                                                                                                         |
| ESC:Quit<br>F10:Save & Exit Setup                                                                                                                                                                                                                          |                                                                                                                                                                                         |
| Change / Set / Disable Password...                                                                                                                                                                                                                         |                                                                                                                                                                                         |

Figure 12: 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 and not enter a password.

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.

Save & Exit Setup

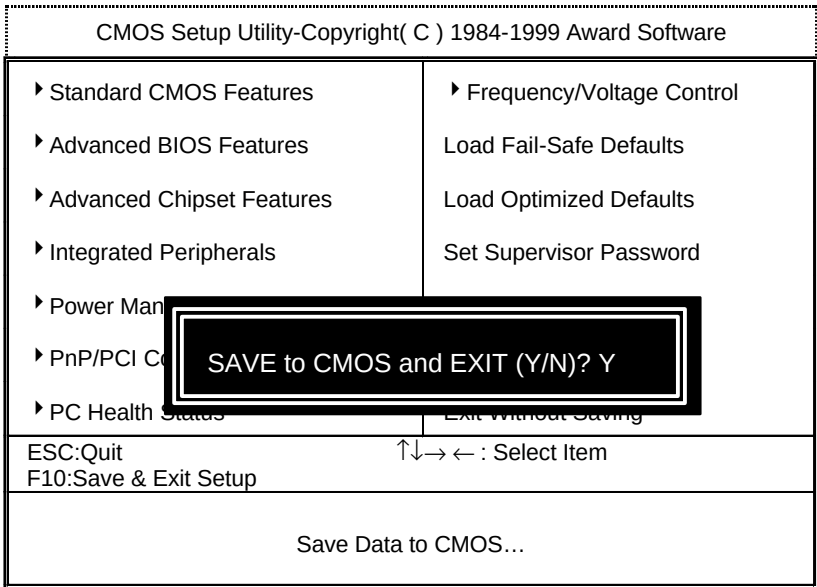


Figure 13: Save & Exit Setup

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

Type "N" will return to Setup Utility.

## Exit Without Saving

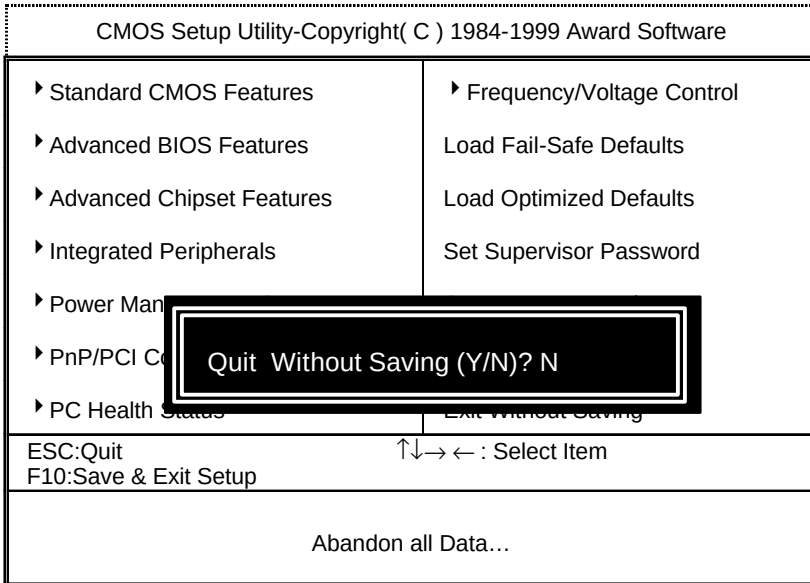


Figure 14: Exit Without Saving

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

Type "N" will return to Setup Utility.



## Appendix

### Appendix A : Onboard Driver Installation Procedure

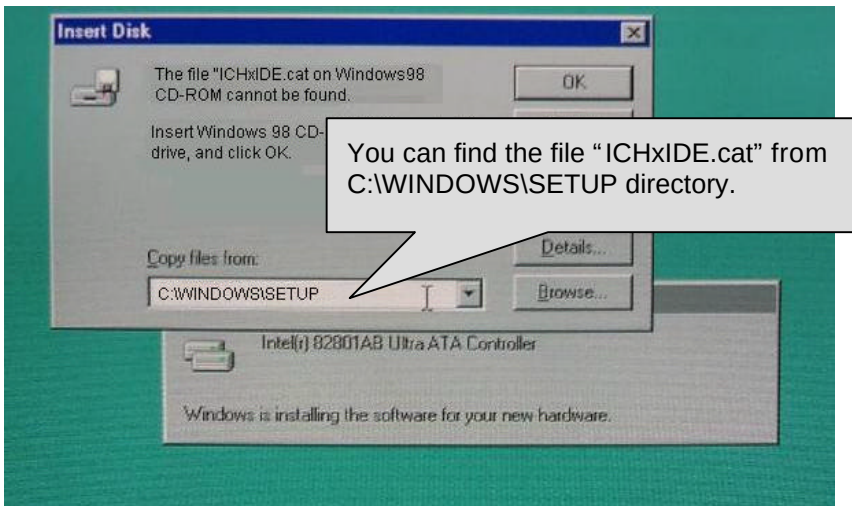
(In this manual, we assume that your CD-ROM Drive letter to be Drive D: )  
Please reference IUCD CD directory D: \ Manual \ Whitney810.pdf

### Appendix B :

#### 810 INF update utility can't find ICHxIDE.cat file automatically

1. After the installation of Windows 98 is completed, run the "Setup.exe" of INF update utility.
2. System restarts.
3. System starts to recognize every new component.
4. System will stop and prompt users to specify the location of "ICHxIDE.cat" file.
5. The system will not find the location of ICHxIDE.cat automatically.

#### Resolution:



## Appendix C : BIOS Flash Procedure

BIOS update procedure:

- ✓ Please check your BIOS vendor (AMI or AWARD) on the motherboard.
- ✓ It is recommended you copy the AWDFlash.exe or AMIFlash.exe , the BIOS binary files in driver CD(D:\>Utility\BIOSFlash) into the same directory in your hard disk. i.e:C:\>Utility\ (C: denotes the driver where you put the flash utilities and BIOS file in.) i j
- ✓ Restart your computer into MS-DOS mode or command prompt only for Win95/98, go into the directory where the new BIOS file are located Use the utility AWDFlash.exe or AMIFlash.exe to update the BIOS.
- ✓ Type the following command once you have enter the directory where all the files are located  
C:\utility\ AWDFlash or AMIFlash <filename of the BIOS binary file intended for flashing>
- ✓ Once the process is finished, reboot the system

●Note: Please download the newest BIOS from our website ([www.gigabyte.com.tw](http://www.gigabyte.com.tw)) or contact your local dealer for the file.



## Appendix D : Acronyms

| Acor. | Meaning                                    | Acor. | Meaning                           | Acor.    | Meaning                                             |
|-------|--------------------------------------------|-------|-----------------------------------|----------|-----------------------------------------------------|
| ACPI  | Advanced configuration and power interface | ECC   | Error checking and correcting     | IRQ      | Interrupt request                                   |
| POST  | Power-on self test                         | IDE   | Integrated dual channel enhanced  | NIC      | Network interface card                              |
| LAN   | Local area network                         | SCI   | Special circumstance instructions | A.G.P.   | Accelerated graphics port                           |
| ECP   | Extended capabilities port                 | LBA   | Logical block addressing          | S.E.C.C. | Single edge contact cartridge                       |
| APM   | Advanced power management                  | EMC   | Electromag-netic compatibility    | LED      | Light emitting diode                                |
| DMA   | Direct memory access                       | BIOS  | Basic input / output system       | EPP      | Enhanced parallel port                              |
| MHz   | Megahertz                                  | SMI   | System management interrupt       | CMOS     | Complementary metal oxide semiconductor             |
| ESCD  | Extended system configuration data         | I/O   | Input / Output                    | DMI      | Desktop Management Interface                        |
| CPU   | Central processing unit                    | ESD   | Electrostatic DISCHARGE           | MIDI     | Musical interface digital interface                 |
| SMP   | Symmetric multi-processi ng                | OEM   | Original equipment manufacturer   | IOAPIC   | Input Output Advanced Programmable Input Controller |
| USB   | Universal serial bus                       | SRAM  | Static random access memory       | DIMM     | Dual inline memory module                           |
| OS    | Operating System                           | VID   | Voltage ID                        | DRAM     | Dynamic random access memory                        |
|       |                                            |       |                                   |          | To be continued                                     |

| Acor. | Meaning                        | Acor. | Meaning                                       | Acor. | Meaning                           |
|-------|--------------------------------|-------|-----------------------------------------------|-------|-----------------------------------|
| DRM   | Dual retention mechanism       | PAC   | <u>P</u> CI <u>A</u> .G.P. <u>c</u> ontroller | PCI   | Peripheral component interconnect |
| ISA   | Industry standard architecture | AMR   | Audio Modem Riser                             | RIMM  | Rambus In-line Memory Module      |
| CRIMM | Continuity RIMM                |       |                                               |       |                                   |