XPC User Guide

For the : X27

Shuttle®

XPC Installation Guide

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2. This device must withstand any background interference including those that may cause undesired operation.

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Safety Information

Read the following precautions before setting up a Shuttle XPC.

CAUTION

Incorrectly replacing the battery may damage this computer. Replace only with the same or equivalent as recommended by Shuttle. Dispose of used batteries according to the manufacturer's instructions.
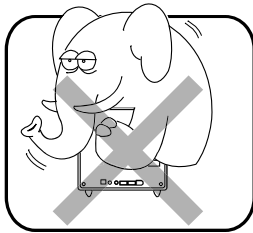
Laser compliance statement

**The optical disc drive in this PC is a laser product.
The drive's classification label is located on the drive.**

CLASS 1 LASER PRODUCT

**CAUTION：INVISIBLE LASER RADIATION WHEN OPEN.
            AVOID EXPOSURE TO BEAM.**

Installation Notices

Do not place this device underneath heavy loads or in an unstable position.

Do not expose this device to high levels of direct sunlight, high-humidity or wet conditions.
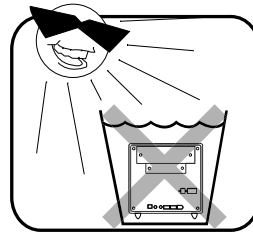
Do not use or expose this device around magnetic fields as magnetic interference may affect the performance of the device.

Do not block the air vents to this device or impede the airflow in any way.
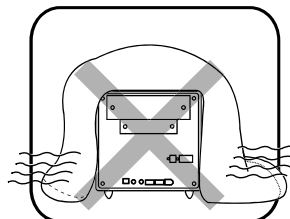
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Driver and Software Installation

■ **Motherboard Driver CD**

⚠ The CD contents attached in X27 motherboard are subject to change without notice. The product's specifications will depend upon the actually shipping product.
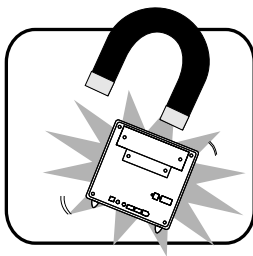
The Motherboard Driver CD contains all the motherboard drivers necessary to optimize the performance of this XPC in a Windows® OS. Install these drivers after installing Microsoft® Windows®.

Navigation Bar Description :

☞ Install Motherboard Drivers - Install Intel Chipset Driver,
　　　　　　　　　　　　　　　　Install Intel VGA Driver,
　　　　　　　　　　　　　　　　Install Realtek Audio Driver,
　　　　　　　　　　　　　　　　Install Marvell Gigabit LAN Driver.

☞ Install Utilities - Install Adobe Reader 8.1,
　　　　　　　　　　　Install Symantec Norton 2008 Software.

☞ User Manuals - X27 Manual, X27 Quick Guide in PDF format.

☞ Link to Shuttle Website - Link to shuttle website homepage.

☞ Browse this CD - Allows you to see contents of this CD.

■ Install Motherboard Software

Insert the attached CD into your CD-ROM drive. The CD AutoRun screen should appear. If the AutoRun screen does not appear, double click on Autorun icon in My Computer to bring up Shuttle Mainboard Software Setup screen.

Click the "Install Motherboard Drivers" bar. Individually install the following drivers.

☞ Install Intel Chipset Driver

☞ Install Intel VGA Driver

☞ Install Realtek Audio Driver

☞ Install Marvell Gigabit LAN Driver

☞ Return to previous page

Appendix
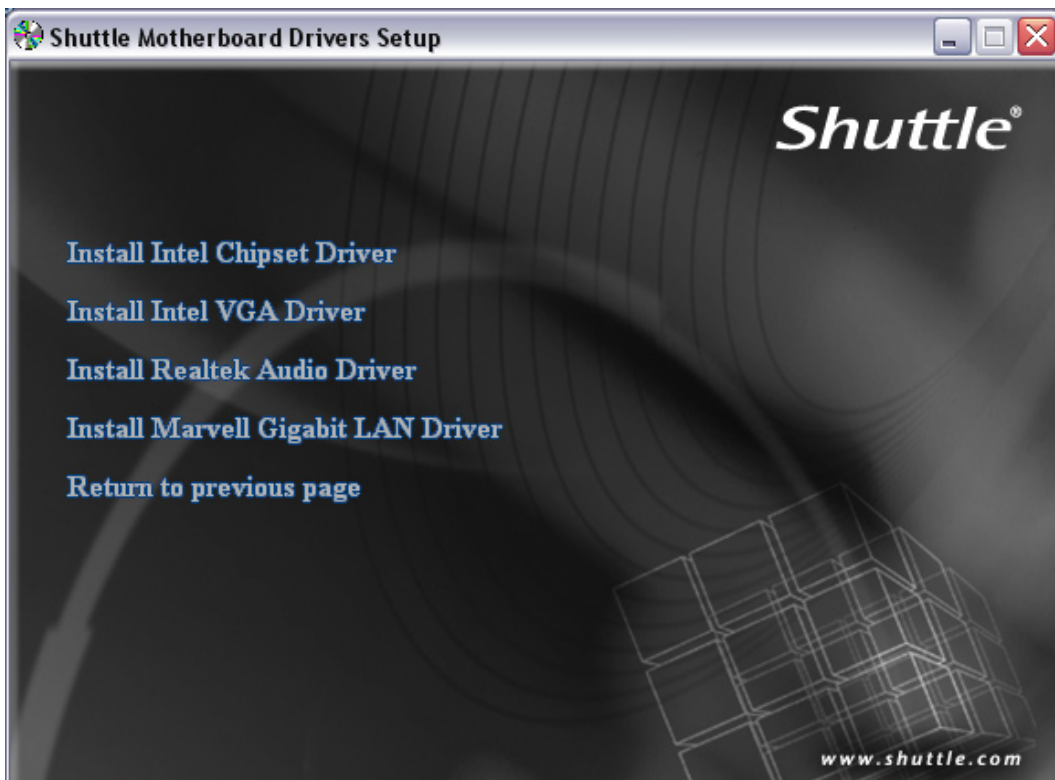
BIOS Settings

The X27 BIOS ROM has a built-in Setup program that allows users to modify basic system configuration. This information is stored in battery-backed RAM so that it retains Setup information even if the system power is turned off.

The system BIOS manages and executes variety of hardware related functions including:

System date and time

Hardware execution sequence

Power management functions

Allocation of system resources

Enter the BIOS

To enter the BIOS (Basic Input / Output System) utility, follow these steps:

Step1.　Power on the computer. The system will perform its POST (Power-On Self Test) routine checks.

Step2.　Press the <Del> key immediately, or at the following message: Press DEL to enter SETUP, or simultaneously press <Ctrl>,<Alt>, <Esc> keys

> ⚠ 1. If you miss wordings mentioned in step2 (the message disappears before you can respond) and you still wish to enter BIOS Setup, restart the system and try again by turning the computer OFF and ON again or by pressing the <RESET> switch located at the computer's front-panel. You may also reboot by simultaneously pressing the <Ctrl>,<Alt>, <Del> keys simultaneously.
>
> 2. If you do not press the keys in time and system does not boot, the screen will prompt an error message, and you will be given the following options:
>
>   "Press F1 to Continue, DEL to Enter Setup"

Step3.　When you enter the BIOS program, the CMOS Setup Utility will display the Main Menu, as shown in the next section.

The Main Menu

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

```
               Phoenix - AwardBIOS CMOS Setup Utility
┌──────────────────────────────────────────────────────────────────────┐
│                                                                        │
│  ▶ Standard CMOS Features          ▶ PC Health Status                  │
│  ▶ Advanced BIOS Features             Load Default Settings            │
│  ▶ Advanced Chipset Features          Set Supervisor Password          │
│  ▶ Integrated Peripherals             Set User Password                │
│  ▶ Power Management Setup             Save & Exit Setup                 │
│  ▶ PnP/PCI Configurations             Exit Without Saving              │
│                                                                        │
├──────────────────────────────────────────────────────────────────────┤
│  Esc : Quit       F9 : Menu in BIOS        ↑ ↓ → ←    : Select Item    │
│  F10 : Save & Exit Setup                                               │
├──────────────────────────────────────────────────────────────────────┤
│                  Virus Protection, Boot Sequence...                    │
└──────────────────────────────────────────────────────────────────────┘
```

Note that a brief description of each highlighted selection appears at the bottom of the screen.

Setup Items

The main menu includes the following main setup categories. Recall that some systems may not include all entries.

Standard CMOS Features

Use this menu for basic system configuration.

Advanced BIOS Features

Use this menu to set the Advanced Features available on your system.

Advanced Chipset Features

Use this menu to change the values in the chipset registers and optimize your system's performance.

Integrated Peripherals

Use this menu to specify your settings for integrated peripherals.

Power Management Setup

Use this menu to specify your power management settings.

PnP / PCI Configurations

This entry appears if your system supports PnP / PCI.

PC Health Status

This entry displays the current system temperature, Voltage, and FAN settings.

Load Default Settings

Use this menu to load the BIOS default values that are factory-set for optimal system operation. While Award has designed the custom BIOS to maximize performance, the factory has the right to change these defaults to meet users' needs.

Set Supervisor / User Password

Use this menu to change, set, or disable password protection. This allows you to limit access to the system and Setup, or only to Setup.

Save & Exit Setup

Save CMOS value changes in CMOS and exit from setup.

Exit Without Saving

Abandon all CMOS value changes and exit from setup.

✍ Standard CMOS Features

The items in the Standard CMOS Setup Menu are divided into several categories. Each category includes none, one or more than one setup items. Use the arrow keys to highlight the item and then use the <PgUp> or <PgDn> keys to select the value you want in each item.

```
                    Phoenix - AwardBIOS CMOS Setup Utility
                           Standard CMOS Features
    ┌──────────────────────────────────────────────────┬──────────────────────┐
    │  Date (mm:dd:yy)          Sat, Jun 19 1999        │      Item Help       │
    │  Time (hh:mm:ss)          16 : 19 : 11            ├──────────────────────┤
    │                                                   │ Menu Level    ▶      │
    │ ▶ IDE Channel 0 Master                            │                      │
    │ ▶ IDE Channel 0 Slave                             │ Change the day, month,│
    │ ▶ Serial ATA 1 Channel                            │ year and century     │
    │ ▶ Serial ATA 2 Channel                            │                      │
    │   Halt On                 [All Errors]            │                      │
    │                                                   │                      │
    │   Base Memory                    1K               │                      │
    │   Extended Memory                1K               │                      │
    │   Total Memory                 512K               │                      │
    │                                                   │                      │
    │                                                   │                      │
    │                                                   │                      │
    │                                                   │                      │
    ├──────────────────────────────────────────────────┴──────────────────────┤
    │ ↑↓→←:Move  Enter:Select  +/-/PU/PD:Value  F10:Save  ESC:Exit  F1:General Help│
    │            F5:Previous Values             F7:Default Settings             │
    └──────────────────────────────────────────────────────────────────────────┘
```

Date

   <Month>   <DD>   <YYYY>

Set the system date. Note that the 'Day' automatically changes when you set the date.

Time

   <HH : MM : SS>

The time is converted based on the 24-hour military-time clock.

For example, 5 p.m. is 17:00:00.

IDE Channel 0 Master/Slave / Serial ATA 1/2 Channel

Options are in its sub-menu.

Press <Enter> to enter the sub-menu of detailed options.

Halt On

Select the situation in which you want the BIOS to stop the POST process and notify you.

➢ The choice: All Errors, No Errors, All, But Keyboard.

Base Memory

Displays the amount of conventional memory detected during boot up.

➤ The choice: N/A.

Extended Memory

Displays the amount of extended memory detected during boot up.

➤ The choice: N/A.

Total Memory

Displays the total memory available in the system.

➤ The choice: N/A.

* *

IDE Adapters

The IDE adapters control the hard disk drive. Use a separate sub-menu to configure each hard disk drive.

IDE HDD Auto-Detection

Press <Enter> to auto-detect HDD on this channel. If detection is successful, it fills the remaining fields on this menu.

➤ Press Enter

IDE Channel 0 Master/Slave / Serial ATA 1/2 Channel

Selecting 'manual' lets you set the remaining fields on this screen and select the type of fixed disk. "User Type" will let you select the number of cylinders, heads, etc., Note: PRECOMP=65535 means NONE !

➤ The choice: None, Auto, or Manual.

Access Mode

Choose the access mode for this hard disk.

➤ The choice: CHS, LBA, Large, or Auto.

Capacity

Disk drive capacity (Approximated). Note that this size is usually slightly greater than the size of a formatted disk given by a disk checking program.

➤ Auto-Display your disk drive size.

⚠ The following options are selectable only if the 'IDE Primary Master' item is set to 'Manual', and Access mode set to CHS.

Cylinder

Set the number of cylinders for this hard disk.

➢ Min = 0, Max = 65535

Head

Set the number of read/write heads.

➢ Min = 0, Max = 255

Precomp

Warning: Setting a value of 65535 means no hard disk.

➢ Min = 0, Max = 65535

Landing zone

Set the Landing zone size.

➢ Min = 0, Max = 65535

Sector

Number of sector per track.

➢ Min = 0, Max = 255

* *

✎ Advanced BIOS Features

This section allows you to configure your system for basic operation. You have the opportunity to select the system's default speed, boot-up sequence, keyboard operation, shadowing, and security.

```
                Phoenix - AwardBIOS CMOS Setup Utility
                       Advanced BIOS Features
 ┌──────────────────────────────────────────┬─────────────────────┐
 │ ▶ CPU Feature              [Press Enter]  │      Item Help      │
 │ ▶ Hard Disk Boot Priority  [Press Enter]  ├─────────────────────┤
 │   Bios Write Protect       [Disabled]     │ Menu Level     ▶    │
 │   Quick Power On Self Test [Enabled]      │                     │
 │   First Boot Device        [CDROM]        │                     │
 │   Second Boot Device       [Hard Disk]    │                     │
 │   Third Boot Device        [USB-ZIP]      │                     │
 │   Security Option          [Setup]        │                     │
 │   HDD Security Freeze Lock  [Disabled]    │                     │
 │   Full Screen LOGO Show    [Enabled]      │                     │
 │                                           │                     │
 │                                           │                     │
 │                                           │                     │
 ├──────────────────────────────────────────┴─────────────────────┤
 │ ↑↓→←:Move  Enter:Select  +/-/PU/PD:Value  F10:Save  ESC:Exit  F1:General Help │
 │            F5:Previous Values            F7:Default Settings     │
 └──────────────────────────────────────────────────────────────────┘
```

CPU Feature

Options are in its sub-menu.

Press <Enter> to enter the sub-menu of detailed options.

Delay Prior to Thermal

This item is select Delay Prior to Thermal.

➢ The Choice: 4Min, 8Min, 16Min or 32 Min.

Limit CPUID MaxVal

Set Limit CPUID MaxVal to 3,Should Be "Disabled" for WinXp.

➢ The Choice: Disabled or Enabled.

> ⚠ Some older O.S.'s (Win98,WinMe..) cannot handle a CPUID MaxVal greater than 3. Please choose "Enabled" if you use one of those O.S. If your O.S. is WinXP or Win2000, we suggest you "Disabled" the item.

C1E Function

When disabled, processor can't transitions to a lower core frequency and voltage.

➢ The Choice: Auto or Disabled.

9

Execute Disable Bit

When disabled, forces the XD feature flag to always return 0.

➤ The Choice: Enabled or Disabled.

Hard Disk Boot Priority

This item allows you to select Hard Disk Book Device Priority.

Bios Write Protect

This item allows you to enable or disable the Bios Write Protect.
If you want to flash BIOS, you must set it [Disabled].

➤ The choice: Enabled or Disabled.

Quick Power On Self Test

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

➤ The choice: Enabled or Disabled.

First/Second/Third Boot Device

The BIOS attempts to load the operating system from the devices in the sequence selected in these items.

➤ The Choice: LS120, Hard Disk, CDROM, ZIP100, USB-FDD,
USB-ZIP,USB-CDROM, LAN or Disabled .

Security Option

Select whether the password is required every time the system boots or only when you enter setup.

System The system will not boot and access to Setup will be denied if the correct password is not entered promptly.

Setup The system will boot, but access to Setup will be denied if the correct password is not entered promptly.

➤ The choice: System or Setup.

> ⚠ To disabled security, select PASSWORD SETTING at Main Menu, and then you will be asked to enter password. Don't type anything and just press ＜Enter＞; it will disable security. Once the security is disabled, the system will boot, and you can enter Setup freely.

HDD Security Freeze Lock

This item allows you to enable/disable the HDD Security Freeze Lock. Enabled - prevents any external application from locking Hard drive except for BIOS.

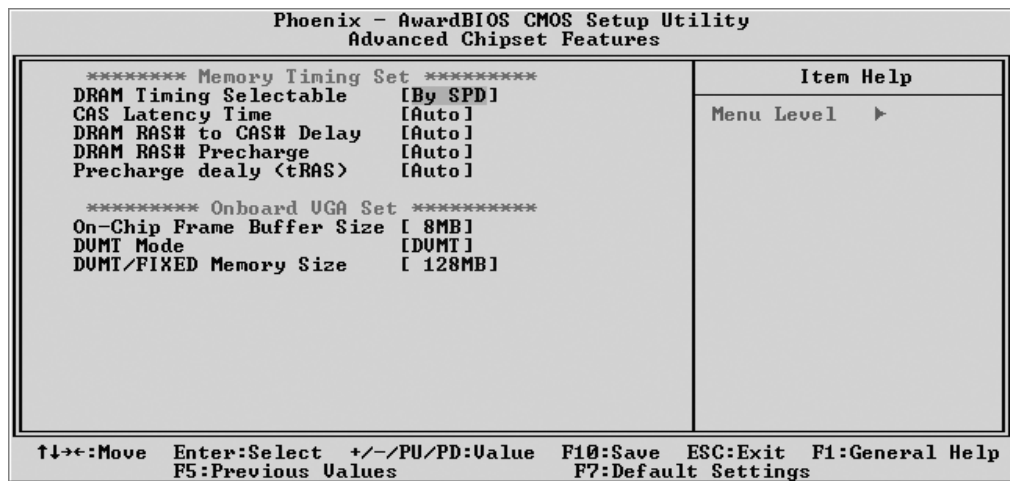➢ The choice: Enabled or Disabled.

Full Screen LOGO Show

This item allows you to enable/disable the Full Screen LOGO Show.

➢ The choice: Enabled or Disabled.

✍ *Advanced Chipset Features*

This section allows you to configure the system based on the specific features of the installed chipset. This chipset manages bus speeds and access to system memory resources, such as DRAM and the external cache. It also coordinates communications between the conventional ISA bus and the PCI bus. It states that these items should never need to be altered. The default settings have been chosen because they provide the best operating conditions for your system. If you discovered that data was being lost while using your system, you might consider making any changes.

```
              Phoenix - AwardBIOS CMOS Setup Utility
                     Advanced Chipset Features

    ******** Memory Timing Set *********          Item Help
  DRAM Timing Selectable    [By SPD]
  CAS Latency Time          [Auto]         Menu Level    ▶
  DRAM RAS# to CAS# Delay    [Auto]
  DRAM RAS# Precharge        [Auto]
  Precharge dealy (tRAS)     [Auto]

    ********* Onboard VGA Set ***********
  On-Chip Frame Buffer Size [ 8MB]
  DVMT Mode                  [DVMT]
  DVMT/FIXED Memory Size     [ 128MB]




↑↓→←:Move  Enter:Select  +/-/PU/PD:Value  F10:Save  ESC:Exit  F1:General Help
           F5:Previous Values              F7:Default Settings
```

******** Memory Timing Set *********

DRAM Timing Selectable

This item allows you to select the value in this field, depending on whether the board using which kind of DDR DRAM.

➢ The choice: By SPD or Manual.

CAS Latency Time

When synchronous DRAM is installed, the number of clock cycles of CAS latency depends on the DRAM timing. Don't change this field from the default value specified by the system designer.

➢ The choice: Auto,3 ~ 6.

DRAM RAS# to CAS# Delay

This field lets you insert a timing delay between the CAS and RAS strobe signals, and you can use it when DRAM is written to, read from, or refreshed. Faster performance is gained in high speed, more stable performance, in low speed. This field is applied only when synchronous DRAM is installed in the system.

➢ The choice: Auto,2 ~ 6.

DRAM RAS# Precharge

If an insufficient number of cycles is allowed for the RAS to accumulate its charge before DRAM refresh, the refresh may be-incompleted, and the DRAM may fail to retain data. Fast gives faster performance; and Slow gives more stable performance. This field is applied only when synchronous DRAM is installed in the system.

➢ The choice: Auto, 2 ~ 6.

Precharge dealy (tRAS)

The precharge time is the number of cycles it takes for DRAM to accumulate its charge before refresh.

➢ The choice: Auto, 9 ~ 18.

********* Onboard VGA Set **********

On-Chip Frame Buffer Size

This item allows you to set the onboard VGA share memory size.
➢ The Choice: 1MB or 8MB.

DVMT Mode

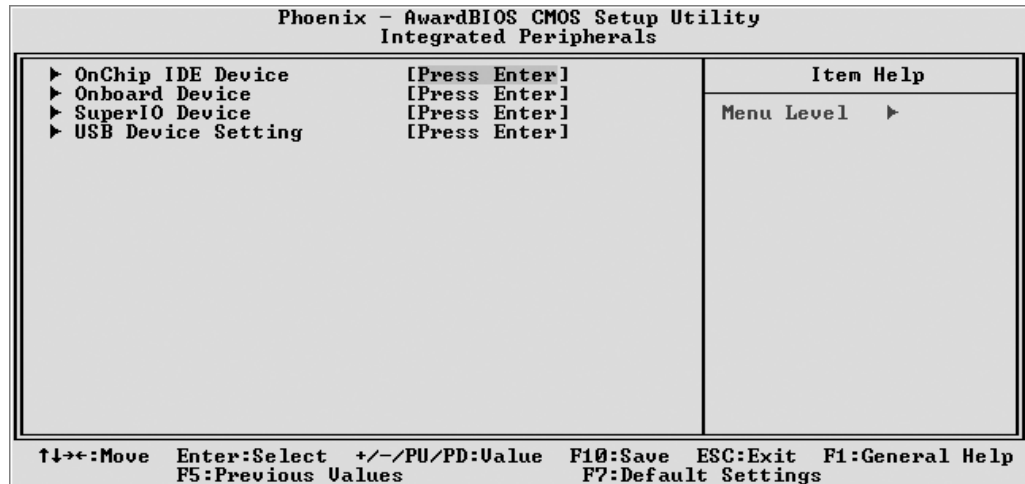This item allows you to set the DVMT Mode.
➢ The choice: DVMT, BOTH or FIXED.

DVMT/FIXED Memory Size

This item allows you to set the DVMT/FIXED Memory Size.
➢ The choice: 64MB, 128MB or 224MB.

✍ *Integrated Peripherals*

```
         Phoenix - AwardBIOS CMOS Setup Utility
                 Integrated Peripherals
 ▶ OnChip IDE Device          [Press Enter]           Item Help
 ▶ Onboard Device             [Press Enter]
 ▶ SuperIO Device             [Press Enter]     Menu Level    ▶
 ▶ USB Device Setting         [Press Enter]




 ↑↓→←:Move  Enter:Select  +/-/PU/PD:Value  F10:Save  ESC:Exit  F1:General Help
            F5:Previous Values            F7:Default Settings
```

On-Chip IDE Device

Option are in its sub-menu.

Press < Enter > to enter the sub-menu of detailed options.

IDE HDD Block Mode

If your IDE hard disk drive supports block mode (most new drives do), select Enabled to automatic detect the optimal number of block read and writes per sector that the drive can support and improves the speed of access to IDE devices.

➢ The choice: Enabled, or Disabled.

On-Chip Primary PCI IDE

Use these items to enable or disable the PCI IDE channels that are integrated on the mainboard.

➢ The choice: Enabled or Disabled.

IDE Primary Master/Slave PIO

Each IDE channel supports a master device and a slave device. These four items let you assign which kind of PIO (Programmed Input / Output) is used by IDE devices. Choose Auto to let the system auto detect which PIO mode is best or select a PIO mode from 0-4.

➢ The choice: Auto, Mode 0, Mode 1, Mode 2, Mode 3, or Mode 4.

IDE Primary Master/Slave UDMA

Each IDE channel supports a master device and a slave device. This mainboard supports UltraDMA technology, which provides faster access to IDE devices.

If you install a device that supports UltraDMA, change the appropriate item on this list to Auto. You may have to install the UltraDMA driver supplied with this mainboard in order to use an UltraDMA device.

➢ The Choice: Auto or Disabled.

********** On -Chip Serial ATA Setting **********

On-Chip Serial ATA
[Disabled]: Disabled SATA Controller.
[SATA Only]: SATA is operating in legacy mode.
[Enhanced Mode]: Enable both SATA and PATA. Max.of 4 IDE drives
                 are supported.

➢ The choice: Disabled,SATA Only or Enhanced Mode.

SATA PORT Speed Settings

This item allows you to set the SATA PORT Speed.

➢ The choice: Disabled, Force GEN I, or Force GEN II.

Onboard Device

Option are in its sub-menu.

Press<Enter>to enter the sub-menu of detailed options.

Init Display First

This item is used to determine initial device when system power on.
➢ The choice: PCI Slot or Onboard.

Onboard Lan Function

This item allows you to set the Onboard Lan Function.
➢ The choice: Disabled or Enabled.

Onboard Lan Boot ROM

Decide whether to invoke the boot ROM of the onboard LAN chip.
➢ The choice: Disabled or Enabled.

High Definition Audio

This item allows you to set the High Definition Audio.

➢ The choice: Enabled or Disabled.

SuperIO Device

Option are in its sub-menu.

Press＜Enter＞to enter the sub-menu of detailed options.

Onboard Serial Port 1

This option is used to assign the I/O address and interrupt request (IRQ) for the onboard serial port 1 (COM1).

➢ The choice: Disabled, 3F8/IRQ4, 2F8/IRQ3, 3E8/IRQ4, 2E8/IRQ3, or Auto.

USB Device Setting

Option are in its sub-menu.
Press＜Enter＞to enter the sub-menu of detailed options.

USB 1.0/2.0 Controller

Enable or Disable Universal Host Controller Interfacefor Universal Serial Bus.

➢ The choice: Enabled or Disabled.

USB Operation Mode

Auto decide USB device operation mode.

High speed: If USB device was high speed device, then it operated on high speed mode.If USB device was full/low speed device, then it operated on full/low speed mode.

Full/Low Speed: All of USB device operated on full/low speed mode.

➢ The choice: High speed or Full/Low Speed.

USB Storage Function

Enable or Disable Legacy support of USB USB Mass Storage.

➢ The choice: Enabled or Disabled.

*** USB Mass Storage Device Boot Setting ***

UFDDA USB Floppy

UFDDB USB Floppy

No Device

Auto: According to contents of USB MSD decide boot up type.

FDD Mode: The USB MSD always boot up as floppy disk.

HDD Mode: The USB MSD always boot up as hard disk.

➢ The choice: Auto mode, FDD mode or HDD mode.

✎ Power Management Setup

```
            Phoenix - AwardBIOS CMOS Setup Utility
                    Power Management Setup

 ACPI Function                 Enabled            ┌──────────────────┐
 ACPI Suspend Type            [S3(STR)]           │    Item Help     │
 Run VGABIOS if S3 Resume     [Auto]              ├──────────────────┤
 Soft-Off by PWR-BTTN         [Instant-Off]       │ Menu Level   ►   │
 Wake-Up by PCI card          [Disabled]          │                  │
 Power On by Ring             [Disabled]          │                  │
 Resume by Alarm              [Disabled]          │                  │
x  Date(of Month) Alarm           0               │                  │
x  Time(hh:mm:ss) Alarm        0 :  0 :  0        │                  │
 Power On By PS2 Mouse        [Disabled]          │                  │
 Power On By PS2 Keyboard     [Disabled]          │                  │
 KB Power ON Password         [Enter]             │                  │
 Hot Key Power ON             [Ctrl-F1]           │                  │
 PWR-ON After PWR-Fail        [Off]               │                  │
                                                  │                  │
                                                  │                  │
                                                  └──────────────────┘
↑↓→←:Move  Enter:Select  +/-/PU/PD:Value  F10:Save  ESC:Exit  F1:General Help
             F5:Previous Values            F7:Default Settings
```

The Power Management Setup allows you to configure your system to most effectively save energy while operating in a manner consistent with your computer usage.

ACPI Suspend Type

This item allows you to select sleep state when suspend.

➢ The choice: S1(POS) or S3(STR).

Run VGABIOS if S3 Resume(Auto)

This item allows the system to initialize the VGA BIOS from S3(Suspend to RAM) sleep state.

➢ The choice: Auto, Yes or No.

Soft-Off by PWR-BTTN

Under ACPI you can create a software power down. In a software power down, the system can be resumed by Wake UP Alarms. This item lets you install a software power down that is controlled by the power button on your system. If the item is set to Instant-Off, then the power button causes a software power down. If the item is set to Delay4 Sec. then you have to hold the power button down for 4 seconds to cause a software power down.

➢ The choice: Instant-Off or Delay 4 Sec.

Wake-Up by PCI card

This item allows you to set the Wake-Up by PCI card.

➢ The choice: Enabled or Disabled.

Power On by Ring

This item determine the system will resume by activating of modem ring.

➢ The choice: Enabled or Disabled.

Resume by Alarm

When this item enabled, your can set the date (day of the month) and time to turn on your system.

➢ The choice: Disabled or Enabled.

Date(of Month) Alarm

This item selects the alarm Date (day of the month).

➢ Key in a DEC number: Min=0, Max=31.

Time(hh : mm : ss) Alarm

This item selects the alarm Time.

[hh]   ➢   Key in a DEC number: Min=0, Max=23.

[mm/ss] ➢   Key in a DEC number: Min=0, Max=59.

Power on By PS2 Mouse

This item allows you to set the the Mouse Power On function. Only supports S4/S5.

➢ The choice: Disabled or Enabled.

Power on By PS2 Keyboard

This item allows you to set the Keyboard Power On function. Only supports S4/S5.

➢ The choice: Disabled, password, Hot KEY, Any KEY.

KB Power ON Password

This item allows you to set the KB Power On Password.

➢ Press" Enter" to set Password.

Hot Key Power ON

This item allows you to set the Hot Key Power On.

➢ The choice: Ctrl-F1~Ctrl-F12.

PWR-On After PWR-Fail

This item defines if the system will be rebooted after the power fails.

➢ The choice: Off, On or Former-Sts.

✍ PnP/PCI Configurations

```
         Phoenix - AwardBIOS CMOS Setup Utility
                  PnP/PCI Configurations
┌─────────────────────────────────────────┬───────────────────────┐
│  Resources Controlled By   [Auto(ESCD)]  │      Item Help        │
│ x IRQ Resources             Press Enter  ├───────────────────────┤
│                                          │ Menu Level    ▶       │
│  PCI/VGA Palette Snoop      [Disabled]   │                       │
│                                          │ BIOS can automatically│
│                                          │ configure all the     │
│                                          │ boot and Plug and Play│
│                                          │ compatible devices.   │
│                                          │ If you choose Auto,   │
│                                          │ you cannot select IRQ │
│                                          │ DMA and memory base   │
│                                          │ address fields, since │
│                                          │ BIOS automatically    │
│                                          │ assigns them          │
│                                          │                       │
│                                          │                       │
│                                          │                       │
├─────────────────────────────────────────┴───────────────────────┤
│ ↑↓→←:Move  Enter:Select +/-/PU/PD:Value  F10:Save  ESC:Exit  F1:General Help │
│            F5:Previous Values                    F7:Default Settings │
└──────────────────────────────────────────────────────────────────┘
```

This section describes the configuration of PCI bus system. PCI or Personal Computer Interconnection is a system which allows I/O devices to operate at the speed CPU itself keeps when CPU communicating with its own special components.

This section covers some very technical items, and it is strongly recommended that only experienced users should make any changes to the default settings.

Resource controlled By

The Award Plug-and-Play BIOS has the capacity to automatically configure all of the boot and Plug-and-Play compatible devices. However, this capability means absolutely nothing unless you are using a Plug-and-Play operating system such as Windows 95.

➢ The choice: Auto(ESCD) or Manual.

IRQ Resources

When resources are controlled manually, assign each system interrupt a type, depending on the type of device using the interrupt.

IRQ3/4/5/7/9/10/11/12/14/15 assigned

This item allows you to determine the IRQ assigned to the ISA bus and is not available to any PCI slot. Legacy ISA for devices is compliant with the original PC AT bus specification; PCI/ISA PnP for devices is compliant with the Plug-and-Play standard whether designed for PCI or ISA bus architecture.

➢ The choice: PCI Device or Reserved.

PCI/VGA Palette Snoop

It determines whether the MPEG ISA/VESA VGA Cards can work with PCI/VGA or not. If you have MPEG ISA/VESA VGA Cards and PCI/VGA Card worked, Enable this field. Otherwise, please Disable it.

➢ The choice: Enabled or Disabled.

✍ *PC Health Status*

```
                Phoenix - AwardBIOS CMOS Setup Utility
                           PC Health Status
┌──────────────────────────────────────────────┬──────────────────┐
│ Fan1 Speed Control      [Ultra-Low Speed]      │    Item Help     │
│ Fan2 Speed Control      [Ultra-Low Speed]      │                  │
│ CPU Voltage                                    │  Menu Level   ▶  │
│ ChipSet Voltage                                │                  │
│   +3.3V                                        │                  │
│     +5V                                        │                  │
│    +12V                                        │                  │
│ DDR2 Voltage                                   │                  │
│   +5VSB                                        │                  │
│ Voltage Battery                                │                  │
│ CPU Temperature                                │                  │
│ System Temperature                             │                  │
│ Fan 1 Speed                                    │                  │
│ Fan 2 Speed                                    │                  │
│                                                │                  │
│                                                │                  │
├──────────────────────────────────────────────┴──────────────────┤
│ ↑↓→←:Move  Enter:Select  +/-/PU/PD:Value  F10:Save  ESC:Exit  F1:General Help │
│            F5:Previous Values          F7:Default Settings        │
└──────────────────────────────────────────────────────────────────┘
```

Fan1/Fan2 Speed Control

> Here you can set the Fan1/Fan2 Speed.

> ➢ The choice: Ultra-Low Speed, Low Speed, Mid Speed,
>   or Full Speed.

CPU Voltage

ChipSet Voltage

  +3.3V

   +5V

  +12V

DDR2 Voltage

  +5VSB

Voltage Battery

CPU Temperature

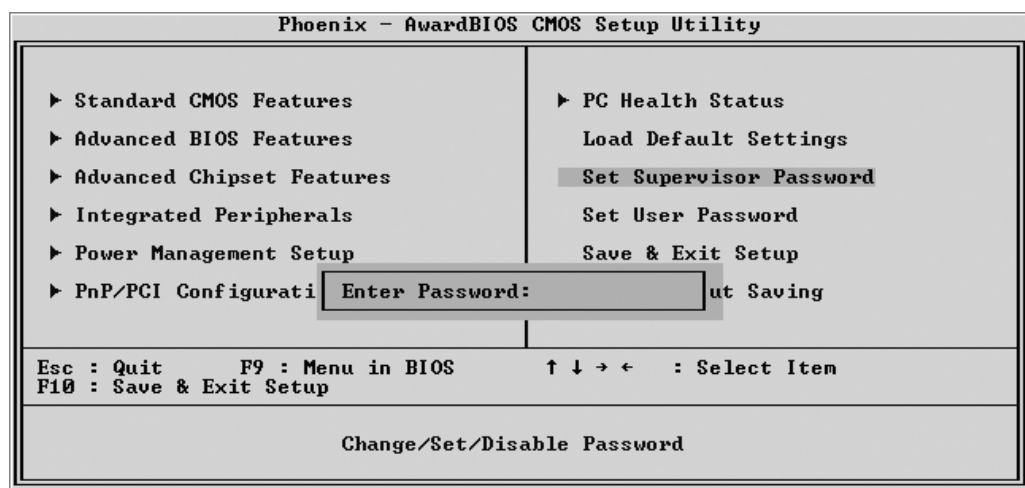System Temperature

Fan 1 Speed

Fan 2 Speed

✍ *Load Default Settings*

When you press <Enter> on this item, you will get a confirmation dialog box with a message similar to:

Load Default Settings (Y/N) ? N

Pressing 'Y' loads the default values that are factory-set for optimal performance system operation.

✍ *Set Supervisor/User Password*

```
                 Phoenix - AwardBIOS CMOS Setup Utility

   ▶ Standard CMOS Features          ▶ PC Health Status
   ▶ Advanced BIOS Features            Load Default Settings
   ▶ Advanced Chipset Features         Set Supervisor Password
   ▶ Integrated Peripherals            Set User Password
   ▶ Power Management Setup            Save & Exit Setup
   ▶ PnP/PCI Configurati  Enter Password:            ut Saving

   Esc : Quit      F9 : Menu in BIOS      ↑ ↓ → ←   : Select Item
   F10 : Save & Exit Setup

                    Change/Set/Disable Password
```

Steps to set supervisor/user password are described as follows:

New Password Setting:

1. While pressing <Enter> to set a password, a dialog box appears to ask you enter a password.

2. Key in a new password. The password can not exceed eight characters.

3. System will request you to confirm the new password again.

4. When completed, new code takes effect.

No Password Setting:

5. If you want to delete the password, just press the <Enter> key instead of typinga new password. Follow the procedure as ablve.

If You Forget Password:

6. If you forget your password, you must turn off the system and clear CMOS. Please refer to the tech notes at the end of section two for more information.

✍ **Save & Exit Setup**

Pressing < Enter > on this item asks for confirmation:

SAVE to CMOS and EXIT (Y/N)? Y

Pressing "Y" stores the selections made in the menus of CMOS - a special section of memory that stays on after you turn your system off. The next time you boot your computer, the BIOS configures your system according to the Setup selections stored in CMOS. After saving the values the system is restarted again.

✍ **Exit Without Saving**

Pressing < Enter > on this item asks for confirmation:

Quit Without Saving (Y/N)? N

This allows you to exit from Setup without storing in CMOS any change. The previous selections remain in effect. This exits from the Setup utility and restarts your computer.