Statement:

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Trademark:

All trademarks are the property of their respective owners.

Version:

User's Manual V1.0 for P4M8907MA motherboard.

Symbol description:

Note: refers to important information that can help you to use motherboard better.

Attention: indicates that it may damage hardware or cause data loss, and tells you how to avoid such problems.

Warning: means that a potential risk of property damage or physical injury exists.

More information:

If you want more information about our products, please visit Foxconn's website: http://www.foxconnchannel.com

This product and its accessories are produced after 13th Aug, 2005 and comply with the WEEE2002/96EC directive.

Declaration of conformity

C E

HON HAI PRECISION INDUSTRY COMPANY LTD

66 , CHUNG SHAN RD., TU-CHENG INDUSTRIAL DISTRICT,

TAIPEI HSIEN, TAIWAN, R.O.C.

declares that the product

Motherboard

P4M8907MA

is in conformity with

(reference to the specification under which conformity is declared in

accordance with 89/336 EEC-EMC Directive)

þ	EN 55022: 1998/A2: 2003	Limits and methods of measurements of radio disturbance characteristics of information technology equipment
þ	EN 61000-3-2/:2000	Electromagnetic compatibility (EMC) Part 3: Limits Section 2: Limits for harmonic current emissions (equipment input current <= 16A per phase)
þ	EN 61000-3-3/A1:2001	Electromagnetic compatibility (EMC) Part 3: Limits Section 2: Limits of voltage fluctuations and flicker in low-voltage supply systems for equipment with rated current <= 16A
þ	EN 55024/A2:2003	Information technology equipment-Immunity characteristics limits and methods of measurement

Signature :   *James Liang*   Place / Date :   TAIPEI/2006

Printed Name :   James Liang   Position/ Title :   Assistant President

Declaration of conformity

FC

Trade Name:	Foxconn
Model Name:	**P4M8907MA**
Responsible Party:	PCE Industry Inc.
Address:	458 E. Lambert Rd.
	Fullerton, CA 92835
Telephone:	714-738-8868
Facsimile:	714-738-8838

Equipment Classification:	FCC Class B Subassembly
Type of Product:	Motherboard
Manufacturer:	**HON HAI PRECISION INDUSTRY COMPANY LTD**
Address:	66 , CHUNG SHAN RD., TU-CHENG INDUSTRIAL DISTRICT, TAIPEI HSIEN, TAIWAN, R.O.C.

Supplementary Information:

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions : (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Tested to comply with FCC standards.

Signature : *James Liang*   Date : 2006

Table of Contents

Chapter 1 **Product Introduction**

Chapter 2 **Installation Instructions**

Chapter 3 **BIOS Description**

Table of Contents

Chapter **4**   **Driver CD Introduction**

Chapter **5**   **Directions for Bundled Software**

ℹ Attention:

1. Attach the CPU and heatsink using silica gel to ensure full contact.
2. It is suggested to select high-quality, certified fans in order to avoid damage to the motherboard and CPU due high temperatures.
3. Never turn on the machine if the CPU fan is not properly installed.
4. Ensure that the DC power supply is turned off before inserting or removing expansion cards or other peripherals, especially when you insert or remove a memory module. Failure to switch off the DC power supply may result in serious damage to your system or memory module.

ℹ Attention:

We cannot guarantee that your system will operate normally while over-clocked. Normal operation depends on the over-clock capacity of your device.

ℹ Attention:

Since BIOS programs are upgraded from time to time, the BIOS description in this manual is just for reference. We do not guarantee that the content of this manual will remain consistent with the actual BIOS version at any given time in the future.

ℹ Attention:

The pictures of objects used in this manual are just for your reference. Please refer to the physical motherboard.

This manual is suitable for motherboard of P4M8907MA. Each motherboard is carefully designed for the PC user who wants diverse features.

-L with onboard 10/100M LAN (Default is omitted)
-K with onboard Gigabit LAN
-6 with 6-Channel audio (Default is omitted)
-8 with 8-Channel audio
-2 with DDR2 slots
-E with 1394 connector
-S with SATA connector
-R with RAID function
-H Comply with RoSH directive

You can find PPID label on the motherboard. It indicates the functions that the motherboard has.

For example:

ULBA4160000B PC   XXXXXXX-ES

The latters on the black mark of the PPID label mean that the motherboard supports 6-channel Audio (-6), onboard 10/100M LAN (-L), 1394 port (-E), SATA connector (-S).

Chapter 1

Thank you for your buying Foxconn P4M8907MA series motherboard. This series of motherboard is one of our new products and offers superior performance, reliability and quality, at a reasonable price. This motherboard adopts the advanced VIA P4M890 + VT8237R Plus chipsets, providing users a computer platform with a high integration-compatibility-performance price ratio.

This chapter includes the following information:

- ∨ Main Features
- ∨ Motherboard Layout
- ∨ Rear Panel Ports

Main Features

Size
- mATX form factor of 9.6" x 8.81"

Microprocessor
- Supports Intel® Pentium® 4 Extreme Edition, Pentium® D, Pentium® 4, Celeron® D processors in an LGA775 package
- Supports FSB 1066MHz/800MHz/533MHz CPU

Chipsets
- VIA® P4M890 (North Bridge) + VT8237R Plus (South Bridge)

System Memory
- Two 240-pin DIMM slots
- Supports DDR2 533/400 memory
- Supports 128 Mb/256 Mb/512 Mb/1 Gb technology up to 2GB

USB 2.0 Ports
- Supports hot plug
- Eight USB 2.0 ports (four rear panel ports, two onboard USB headers providing four extra ports)
- Supports wake-up from S1 and S3 mode
- Supports USB 2.0 protocol up to 480 Mbps transmission rate

Onboard Serial ATA
- 150MBps transfer rate
- Supports two SATA devices
- Supports RAID 0, RAID 1 and JBOD

Onboard LAN (-L)(-K) (optional)
- Supports 10/100 (-L)Mbps Ethernet
  Supports 10/100/1000 (-K)Mbps Ethernet
- LAN interface built-in on board

Onboard Audio

· AC' 97 2.3 Specification Compliant

· Supports S/PDIF output

· Onboard Line-in jack, Microphone jack, Line-out jack

· Supports 6-channel audio

Onboard Graphics

· Supports VGA display function (S3 Graphics UniChrome™ Pro IGP)

Expansion Slots

· Two PCI slots

· One PCI Express x1 slot

· One PCI Express x16 graphics slot

Green Function

· Supports ACPI (Advanced Configuration and Power Interface)

· Supports S0 (normal), S1 (power on suspend), S3 (suspend to RAM), S4 (suspend to disk – depends on OS) and S5 (soft-off)

Advanced Features

· PCI 2.3 Specification Compliant

· Supports PC Health function (capable of monitoring system voltage, CPU temperature, system temperature and fan speed)

Motherboard Layout
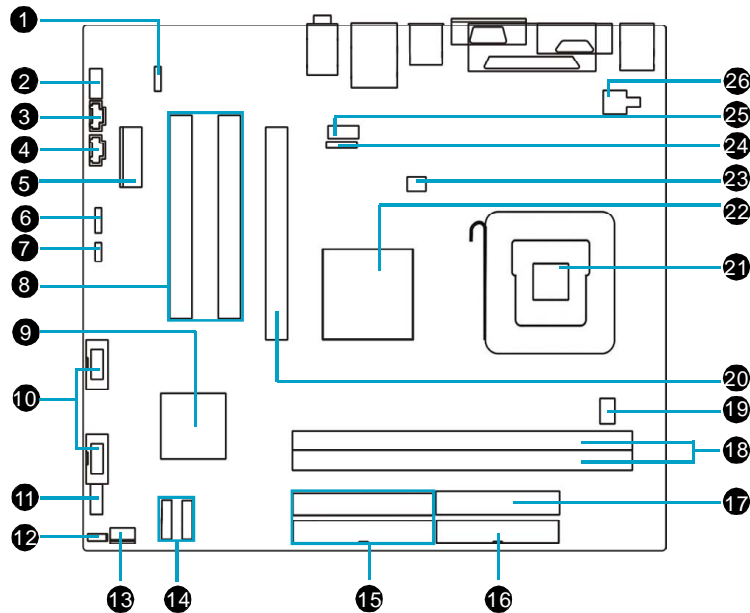
1. S/PDIF OUT Connector
2. Front Audio Connector
3. CD_IN Connector
4. AUX_IN Connector
5.PCI Express X1 slot
6.Speaker Connector
7. Clear CMOS Jumper
8. PCI Slots
9. South Bridge: VIA VT8237R Plus
10. Front USB Connectors
11. Front Panel Connector
12. BIOS Write Protect Jumper
13. System Fan Connector

14.SATA Connectors
15.HDD Connectors
16.FDD Connector
17.24-pin ATX Power Connector
18.DDR 2 memory Slots
19.CPU Fan Connector
20.PCI Express X16 slot
21.CPU Socket
22.North Bridge: VIA P4M890
23.System Fan Connector
24. IrDA connector
25.COM2 Connector
26.4-pin ATX 12V Power Connector

Note: This motherboard layout is provided for reference only; please refer to the physical motherboard.

Rear Panel Ports

This motherboard provides the ports as below:
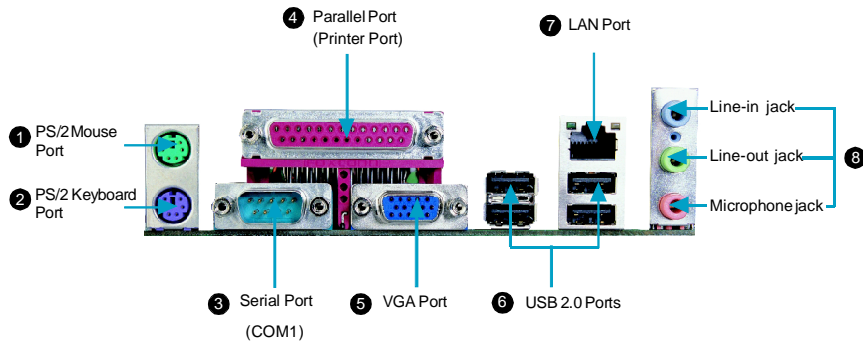
❽ Use the three audio ports to connect audio devices. The Line-in jack is for a tape player or other audio sources. The Line-out jack is for a headphone or a speaker. The Microphone jack is for a microphone. In 6-Channel mode, the function of the three jacks becomes Rear Speaker Out, Front Speaker Out and Center/Subwoofer Speaker respectively.

Chapter 2

This chapter introduces the hardware installation process, including the installation of the CPU and memory. It also addresses the connection of your power supply, connection of hard drive and floppy drive data cables, and setting up various other feature of the motherboard. Caution should be exercised during the installation process. Please refer to the motherboard layout prior to any installation and read the contents in this chapter carefully.

This chapter includes the following information:

∨ CPU
∨ Memory
∨ Power Supply
∨ Other Connectors
∨ Expansion Slots
∨ Jumpers

CPU

This motherboard supports Intel® Pentium® 4 Extreme Edition,Pentium® D, Pentium® 4, Celeron® D processor in an LGA775 package.

For the detailed CPU support list on this motherboard, please visit the website: http://www.foxconnchannel.com

Installation of CPU

Below is the CPU socket illustration. Follow these procedures to install a CPU.

Load lever ——————→   ←—————— Load plate

Protective cover
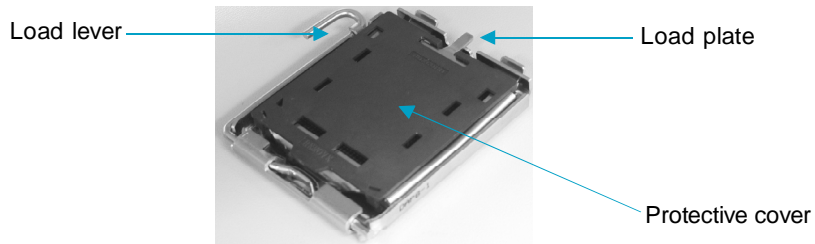
1. Use thumb and forefinger to hold the hook of the load lever and pull the lever down and away from socket to unlock it. Lift the load lever.
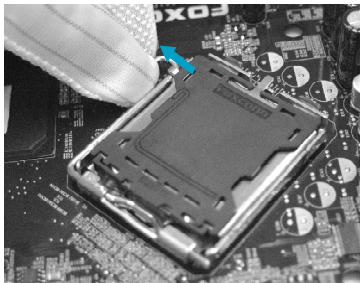
2. Push down the rear tab with your forefinger to bring the front end of the load plate up slightly. Open the load plate with thumb. Be careful not to touch the contacts.
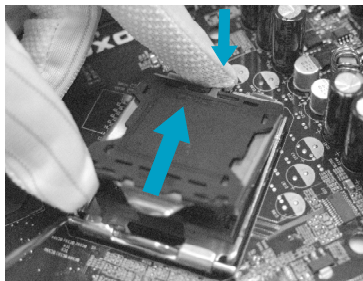
3. Hold CPU with thumb and forefinger. Ensure fingers align to socket cutouts. Match the CPU triangle marker to Pin 1 position as shown below. The alignment key also provides the orientation directed function. Lower the CPU straight down without tilting or sliding the CPU in the socket.
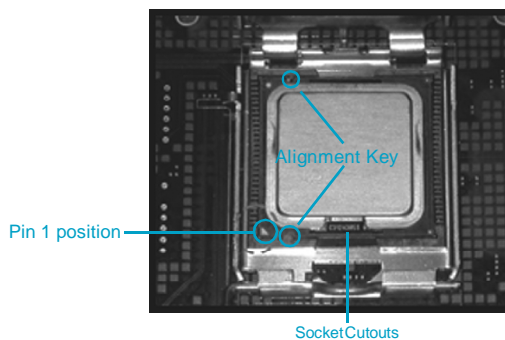
4. After installing the CPU, remove the protective cover from load plate. The protective cover is used to protect the contacts of the socket. Do not discard the protective cover. Always replace the socket cover if the CPU is removed from the socket.
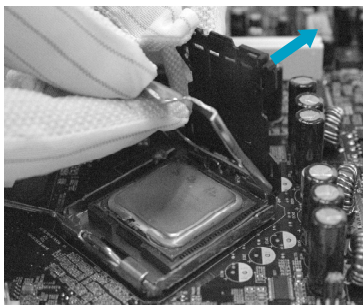
5. Close the load plate, and slightly push down the tongue side.
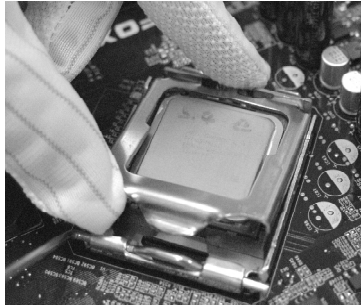
6. Lower the lever and lock it to the load plate, then the CPU is locked completely.

Note :

Excessive temperatures will severely damage the CPU and system. Therefore, you should install CPU cooling fan and make sure that the cooling fan works normally at all times in order to prevent overheating and damaging to the CPU. Please refer to your CPU fan user guide to install it properly.

Memory

This motherboard includes two 240-pin slots for DDR2. You must install at least one memory module to ensure normal operation. Mixed memory modules from different manufacturers is not recommended.

Installation of DDR2 Memory

1. There is only one gap near the center of the DIMM slot, and the memory module can be fixed in one direction only. Unlock a DIMM slot by pressing the module clips outward.
2. Align the memory module to the DIMM slot, and insert the module vertically into the DIMM slot.

128 Pins   112 Pins
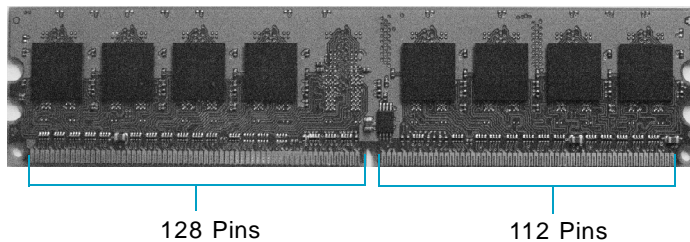
3. The plastic clips at both sides of the DIMM slot will lock automatically.

⚡ Warning :

> Be sure to unplug the AC power supply before adding or removing expansion cards or other system peripherals, especially the memory devices, otherwise your motherboard or the system memory might be seriously damaged.

For the detailed memory support list on this motherboard, please visit the website: http://www.foxconnchannel.com

Power Supply

This motherboard uses an ATX power supply. In order to avoid damaging any devices, make sure that they have been installed properly prior to connecting the power supply.

24-pin ATX power connector: PWR1

PWR1 is the ATX power supply connector. Make sure that the power supply cable and pins are properly aligned with the connector on the motherboard. Firmly plug the power supply cable into the connector and make sure it is secure.

24-pin ATX Power Connector
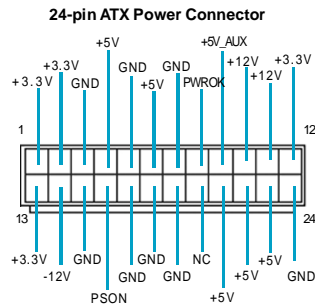
4-pin ATX_12V Power Connector: PWR2

The ATX power supply connects to PWR2 and provides power to the CPU.

4-pin ATX-12V Power Connector
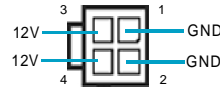
Note:

We recommend that you use 300 W power supply or above. If you want to use 20-pin power supply, you need to align the ATX power connector according to the right picture.

Align the connector
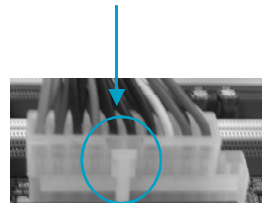
Other Connectors

This motherboard includes connectors for FDD devices, IDE devices, Serial ATA devices, USB devices, IR module, and others.

FDD Connector: FLOPPY

This motherboard includes a standard FDD connector, supporting 360K, 720K, 1.2M, 1.44M, and 2.88M FDDs.

HDD Connectors: PIDE & SIDE

This connectors support the provided Ultra DMA 133/100/66 IDE hard disk ribbon cable. Connect the cable's blue connector to the primary (recommended) or secondary IDE connector, then connect the gray connector to the Ultra DMA 133/100/66 slave device (hard disk drive) and the black connector to the Ultra DMA 133/100/66 master device.

🛈 Attention:

Ribbon cables are directional, therefore, make sure to always connect with the cable on the same side as pin 1 of the PIDE/SIDE or FDD connector on the motherboard.

COM2 Connector: COM2

This connector accommodates a second serial port using an optional serial port bracket. Connect the bracket cable to this connector then install the bracket into a slot opening at the back of the system chassis.

```
             1       2
RLSD ———  □    □  ——— SIN
SOUT ———  □    □  ——— DTR
 GND ———  □    □  ——— DSR
 RTS ———  □    □  ——— CTS
  RI ———  □          ——— NA
             9      10
```

COM2
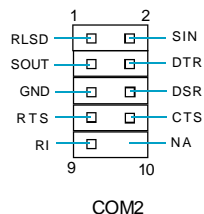
Front Panel Connector: FP1

This motherboard includes one connector for connecting the front panel switch and LED indicators.

FP1

PLED PWRBTN#

HDD_LED RESET NC

1
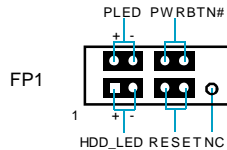
Hard Disk LED Connector (HDD_LED)

The connector connects to the case's IDE indicator LED indicating the activity status of IDE hard disk.

Reset Switch (RESET)

Attach the connector to the Reset switch on the front panel of the case; the system will restart when the switch is pressed.

Power LED Connector (PLED)

Attach the connector to the power LED on the front panel of the case. The Power LED indicates the system's status. When the system is in S0 status, the LED is on. When the system is in S1 status, the LED is blink; When the system is in S3, S4, S5 status, the LED is off.

Power Swith Connector (PWRBTN#)

Attach the connector to the power button of the case. Pushing this switch allows the system to be turned on and off rather than using the power supply button.

Front Audio Connector: F_AUDIO

The audio connector provides two kinds of audio output choices: the Front Audio, the Rear Audio. Their priority is sequenced from high to low (Front Audio to Rear Audio). If headphones are plugged into the front panel of the chassis (using the Front Audio), then the Line-out (Rear Audio) on the rear panel will not work. If you do not want to use the Front Audio, pin 5 and 6, pin9 and 10 must be short, and then the signal will be sent to the rear audio port.

1   2

MIC_IN ——————— MIC_GND
MIC_PWR ——————— +5VA
AUD_OUT_R ——————— AUD_RET_R
N A ——————— Empty
AUD_OUT_L ——————— AUD_RET_L

9   10

F_AUDIO

13
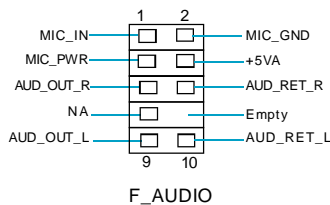
IrDA Connector: IR

This connector supports wireless transmitting and receiving device. Before using this function, configure the settings of IR Address, IR Mode and IR IRQ from the "Integrated Peripherals" section of the CMOS Setup.

```
1  ▢ ─── +5V
       ─── Empty
   ▢ ─── RX
   ▢ ─── GND
   ▢ ─── TX
        IR
```
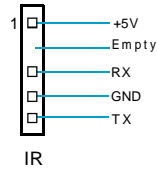
USB Connectors: F_USB1, F_USB2

Besides four USB ports on the rear panel, the series of motherboards also have two 10-pin header on board which may connect to front panel USB cable to provide additional four USB ports.

```
VCC ─┤▢  ▢├─ VCC
D-  ─┤▢  ▢├─ D-
D+  ─┤▢  ▢├─ D+
GND ─┤▢  ▢├─ GND
Empty ─   ▢├─ NC
      F_USB1/2
```
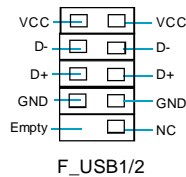
Fan Connectors: CPU_FAN, SYS_FAN

The speed of CPU_FAN and SYS_FAN can be detected and viewed in "PC Health Status" section of the CMOS Setup. These fans will be automatically turned off after the system enters suspend mode.

```
   ▢ ─── CONTROL
   ▢ ─── SENSE
   ▢ ─── POWER
   ▢ ─── GND
1
      CPU_FAN

GND  +12V  SENSE
1  ▢ ▢ ▢   SYS_FAN
```
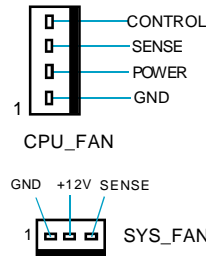
Audio Connectors: CD_IN, AUX_IN

CD_IN and AUX_IN are Sony standard CD audio connectors, they can be connected to a CD-ROM drive through a CD audio cable.

```
        ─── CD_R
        ─── GND   CD_IN
1       ─── CD_L

1       ─── AUX_R
        ─── GND   AUX_IN
        ─── AUX_L
```
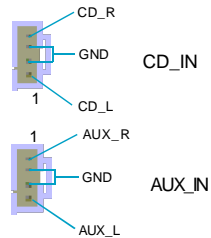
S/PDIF Out Connector: SPDIF_OUT

The S/PDIF out connector is capable of providing digital audio to external speakers or compressed AC3 data to an external Dolby digital decoder.

Note: The empty pin of S/PDIF cable should be aligned to empty pin of S/PDIF out connector.

```
1    +5V
     Empty
     SPDIF_OUT
     GND
```
SPDIF_OUT
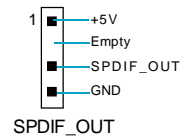
Speaker Connector: SPEAKER

The speaker connector is used to connect speaker of the chassis.

```
1    SPK (Pull high)
     Empty
     NC
     SPKJ
```
SPEAKER
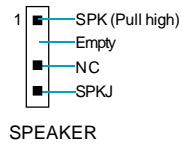
Serial ATA Connectors: SATA_1, SATA_2

The Serial ATA connectors are used to connect the Serial ATA devices to the motherboard. These connectors support the thin Serial ATA cables for primary storage devices. The current Serial ATA interface allows up to 150MB/s data transfer rate.

These two serial ATA connectors support RAID 0, RAID 1, JBOD configuration.

```
1
     GND  GND  GND
     TX+    RX+
      TX- RX-
```
SATA_1/2
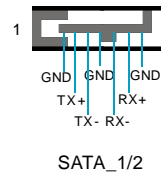
Expansion Slots

This motherboard includes two 32-bit master PCI slots, one PCI Express x 1 slot, and one PCI Express x 16 slot.

PCI Slots

The expansion cards can be installed in the two PCI slots. PCI slots support cards such as a LAN card, USB card, SCSI card and other cards that comply with PCI specifications.

PCI Express x1 Slot

This motherboard has one PCI Express x1 slot that designed to accommodate less bandwidth-intensive cards, such as a modem or LAN card.

PCI Express x16 Slot

This motherboard has one PCI Express x16 slot that reserved for graphics or video cards. The difference in bandwidth between the x16 and x1 slot is notable to be sure.

For the detailed PCI Express x16 graphics card supports list on this motherboard, please visit the website: http://www.foxconnchannel.com

Installing an expansion card
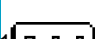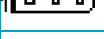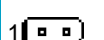
1. Before installing the expansion card, read carefully the documentation that came with it and make the necessary hardware settings for the card.
2. Make sure to unplug the power card before adding or removing any expansion cards.
3. Remove the bracket opposite the slot that you intend to use.
4. Align the card connector with the slot and press firmly until the card is completely seated in the slot.
5. Secure the card to the chassis with the screw you removed earlier.

Jumpers

The users can change the jumper settings on this motherboard if needed. This section explains how to use the various functions of this motherboard by changing the jumper settings. Users should read the following contents carefully prior to modifying any jumper settings.

Description of Jumpers

1. For the jumpers on this motherboard, pin 1 can be identified by the bold silk-screen printed next to it. However, in this manual, pin 1 is simply labeled as "1".
2. The following table provides some explanation of the jumper pin settings. User should refer to this when adjusting jumper settings.

Jumper	Diagram	Definition	Description
1	1	1-2	Set pin1 and pin2 closed
	1	2-3	Set pin2 and pin3 closed
1	1	Closed	Set the pin closed
	1	Open	Set the pin opened

Clear CMOS Jumper: CLS_CMOS

This motherboard uses the CMOS RAM to store all the set parameters. The CMOS can be cleared by removing the CMOS jumper.

How to clear CMOS?

1. Turn off the AC power supply and quickly connect pins 1 and 2 together using the jumper cap.
2. Return the jumper setting to normal (pins 2 and 3 locked together with the jumper cap).
3. Turn the AC power supply back on.

Normal Status
(Default)
1 2 3

Clear CMOS
1 2 3

Clear CMOS Jumper

> **Warning:**
>
> 1. Disconnect the power cable before adjusting the jumper settings.
> 2. Do not clear the CMOS while the system is turned on.

BIOS protection Jumper: WP_EN (optional)

If the jumper WP_EN is set as OPEN, the system
BIOS is protected from being attacked by a serious
virus, such as the CIH virus. You will be unable to
flash the BIOS to the motherboard, when the sys-
tem BIOS is protected.

CLOSED
Disabled

3
2
1

OPEN
Enabled

3
2
1

WP_EN
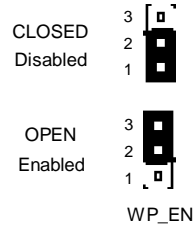
This chapter tells how to change system settings through the BIOS Setup menus. Detailed descriptions of the BIOS parameters are also provided.

You have to run the Setup Program when the following cases occur:

1. An error message appears on the screen during the system POST process.
2. You want to change the default CMOS settings.

This chapter includes the following information:

Enter BIOS Setup

The BIOS is the communication bridge between hardware and software, correctly setting up the BIOS parameters is critical to maintain optimal system performance. Power on the computer, when the following message briefly appears at the bottom of the screen during the POST (Power On Self Test), press <Del> key to enter the Award BIOS CMOS Setup Utility.

Press TAB to show POST Screen, DEL to enter SETUP.

Note:

We do not suggest that you change the default parameters in the BIOS Setup, and we shall not be responsible for any damage that result from any changes that you make.

Main Menu

The main menu allows you to select from the list of setup functions and two exit choices. Use the arrow keys to select among the items and press <Enter> to accept or go to the sub-menu.
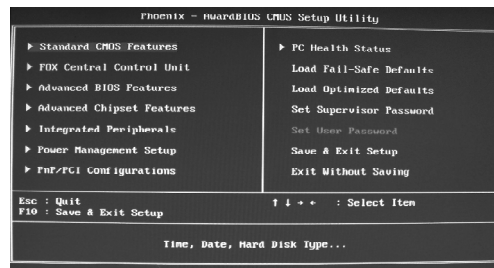
Main Menu

The items in the main menu are explained as below:

Standard CMOS Features

The basic system configuration can be set up through this menu.

FOX Central Control Unit

The special features can be set up through this menu.

Advanced BIOS Features

The advanced system features can be set up through this menu.

Advanced Chipset Features

The values for the chipset can be changed through this menu, and the system performance can be optimized.

Integrated Peripherals

All onboard peripherals can be set up through this menu.

Power Management Setup

All the items of Green function features can be set up through this menu.

PnP/PCI Configurations

The system's PnP/PCI settings and parameters can be modified through this menu.

PC Health Status

This will display the current status of your PC.

Load Fail-Safe Defaults

The default BIOS settings can be loaded through this menu.

Load Optimized Defaults

The optimal performance settings can be loaded through this menu, however, the stable default values may be affected.

Set Supervisor Password

The supervisor password can be set up through this menu.

Set User Password

The user password can be set up through this menu.

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

This sub-menu is used to set up the standard CMOS features, such as the date, time, HDD model and so on. Use the arrow keys select the item to set up, and then use the <PgUp> or <PgDn> keys to choose the setting values.
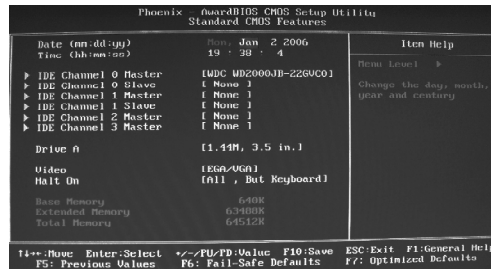
Standard CMOS Features Menu

Date

This option allows you to set the desired date (usually as the current day) with the <day><month><date><year> format.

Day—weekday from Sun. to Sat., defined by BIOS (read-only).

Month—month from Jan. to Dec..

Date—date from 1st to 31st, can be changed using the keyboard.

Year—year, set up by users.

Time

This option allows you to set up the desired time (usually as the current time) with <hour><minute><second> format.

IDE Channel 0/1 Master/Slave, IDE Channel 2/3 Master

These categories identify the HDD types of 2 IDE channels installed in the computer system. There are three choices provided for the Enhanced IDE BIOS: None, Auto, and Manual. "None" means no HDD is installed or set; "Auto" means the system can auto-detect the hard disk when booting up; by choosing "Manual" and changing Access Mode to "CHS", the related information should be entered manually. Enter the information directly from the keyboard and press < Enter>:

Cylinder	number of cylinders	Head	number of heads
Precomp	write pre-compensation	Landing Zone	landing zone
Sector	number of sectors		

Award (Phoenix) BIOS can support 3 HDD modes: CHS, LBA and Large or Auto mode.

CHS	For HDD<528MB
LBA	For HDD>528MB & supporting LBA (Logical Block Addressing)
Large	For HDD>528MB but not supporting LBA
Auto	Recommended mode

Drive A

This option allows you to select the kind of FDD to be installed, including "None", [360K, 5.25 in], [1.2M, 5.25 in], [720K, 3.5 in], [1.44M, 3.5 in] and [2.88 M, 3.5 in].

Video

The following table is provided for your reference in setting the display mode for your system.

EGA/VGA	Enhanced Graphics Adapter / Video Graphic Array. For EGA, VGA, SEGA, SVGA, or PGA monitor adapters.
CGA 40	Color Graphic Adapter, powering up in 40 column mode.
CGA 80	Color Graphic Adapter, powering up in 80 column mode.
MONO	Monochrome adapter, including high resolution monochrome adapters.

Halt On

This category determines whether or not the computer will stop if an error is detected during powering up.

All Errors	Whenever the BIOS detects a nonfatal error, the system will stop and you will be prompted.
No Errors	The system boot will not stop for any errors that may be detected.
All, But Keyboard	The system boot will not stop for a keyboard error; but it will stop for all other errors.
All, But Diskette	The system boot will not stop for a diskette error; but it will stop for all other errors.
All, But Disk/Key	The system boot will not stop for a keyboard or disk error, but it will stop for all other errors.

Memory

This is a Display-Only Category, determined by POST (Power On Self Test) of the BIOS.

Base Memory	The BIOS POST will determine the amount of base (or conventional) memory installed in the system.
Extended Memory	The BIOS determines how much extended memory is present during the POST.
Total Memory	Total memory of the system.

FOX Central Control Unit
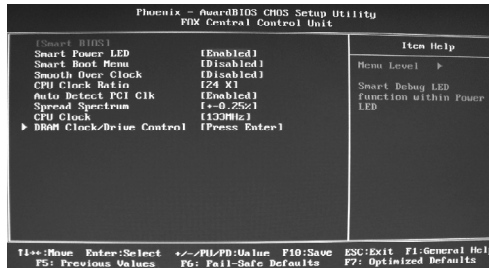
FOX Central Control Unit Menu

ⅴ**[Smart BIOS]**
Smart Power LED
Smart debug LED function within power LED. Enable this function, the power
LED status can show the system status of POST process.

System Status	Power LED Status
Normal	on
No CPU Fan	blinking once (blinking 0.5 sec., off 0.5 sec.)
No Display	blinking once (blinking 2 sec., off 2 sec.)
No Memory	blinking twice
Post Error Message	blinking thrice

Smart Boot Menu
Smart boot menu with a timer to let user to control boot device easily.

ⅴ**Smooth Over Clock**
To open smooth over clock function can let over clocking to be more stable.

ⅴ**CPU Clock Ratio**
This option is used to set the ratio of an unlocked CPU. Using different CPU
the setting values are different.

ⅴ**Auto Detect PCI Clk**
This option is used to set whether the clock of an unused PCI slot will be
disabled to reduce electromagnetic interference. The setting values are
Disabled and Enabled.

∨**Spread Spectrum**

If you enable spread spectrum, it can significantly reduce the EMI(Electro-Magnetic Interference) generated by the system. The setting values are Disabled and Enabled.

∨**CPU Clock**

This option is used to set the CPU clock.

∨**DRAM Clock/Driver Control**

Press Enter to set the items of DRAM Clock/Driver Control.
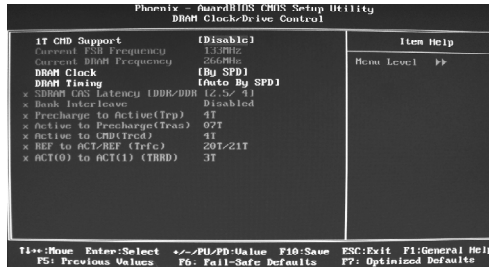
DRAM Clock/Drive Control Menu

∨1T CMD Support

This option is used to set whether the first command delay of 1 clock cycle
is enable.

∨Current FSB/DRAM Frequency

This option is used to show current FSB and DRAM Frequency.

∨DRAM Clock

This option is used to set DRAM clock.

∨DRAM Timing

Selects whether DRAM timing is controlled by the SPD (Serial Presence Detect)
EEPROM on the DRAM module. Setting to "Auto By SPD" enables DRAM tim-
ings to be determined by BIOS based on the configurations on the SPD.
Selecting "Manual" allows users to configure the DRAM timings manually.
The setting values are:Manual, Auto By SPD, Turbo, Ultra.

∨SDRAM CAS Latency [DDR/DDR2]

When synchronous SDRAM is installed, the number of clock cycles of CAS
latency depends on the SDRAM timing.

∨Bank Interleave

This field selects 2-bank or 4-bank interleave for the installed SDRAM. Dis-
able the function if 16MB SDRAM is installed.

ν Precharge to Active (Trp)

This option controls the number of cycles for Row Address Strobe (RAS) to be allowed to precharge. If insufficient time is allowed for the RAS to accumulate its charge before DRAM refresh, refresh may be incomplete and DRAM may fail to retain data. This option applies only when synchronous DRAM is installed in the system.

ν Active to Precharge(Tras)

This option is used to set active to precharge(Tras).

ν Active to CMD<Trcd>

When DRAM is refreshed, both rows and columns are addressed separately. This setup option allows you to determine the timing of the transition from RAS (row address strobe) to CAS (column address strobe). The less the clock cycles, the faster the DRAM performance.
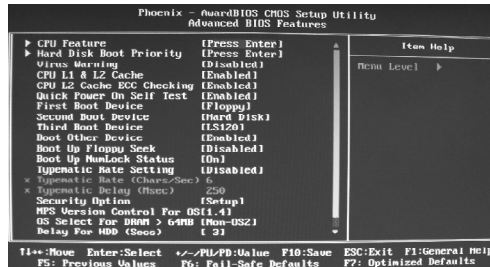
ν REF to ACT/REF (Trfc)

This option is used to set REF to ACT/REF (Trfc).

ν ACT(0) to ACT(1) (TRRD)

This option is used to set ACT(0) to ACT(1) (TRRD).

Advanced BIOS Features

Advanced BIOS Features Menu

∨ **CPU Feature**

Press enter to set the items of CPU feature.

∨ **Hard Disk Boot Priority**

This option is used to select the priority for HDD startup. After pressing <Enter>, you can select the HDD using the <PageUp>/<PageDn> or Up/Down arrow keys, and change the HDD priority using <+> or <->. To exit this option, press <Esc>.

∨ **Virus Warning**

Allows you to choose the VIRUS warning feature for IDE hard disk boot sector protection. If this function is enabled and someone attempt to write data into this area, BIOS will show a warning message on screen and an alarm will beep. The setting values are: Disabled and Enabled.

Note: Such function provides protection to the start-up sector only; it does not protect the entire hard disk.

∨ **CPU L1 & L2 Cache**

This option is used to enable or disable the L1 and L2 CPU cache. The available setting values are: Disabled and Enabled.

∨ **CPU L2 Cache ECC Checking**

This option is used to enable or disable CPU L2 cache ECC Checking. The setting values are: Disabled and Enabled.

∨ **Quick Power On Self Test**

Enable this option to shorten the power on tesing (POST) and have your sys tem start up faster.

∨**First/Second/Third Boot Device**

This option allows you to set the boot device sequence. The available setting values are: Floppy, LS120, Hard Disk, CDROM, ZIP100, USB-FDD, USB-ZIP, USB-CDROM, Legacy LAN, NVIDIA Boot Age and Disabled.

∨**Boot Other Device**

With this item enabled, the system will search all other possible locations if it fails to find one in the devices specified under the first, second and third boot devices.

∨**Boot Up Floppy Seek**

This option controls shether the BIOS checks for a floppy drive while booting up. If it cannot detect one (eiter due to improper configuration or physical unavailability), it will appear an error message. The available setting values are: Disabled and Enabled.

∨**Boot Up NumLock Status**

This option defines if the keyboard Num Lock key is active when your system is started. The setting values are: On and Off.

∨**Typematic Rate Setting**

If this option is enabled, you can use the following two items to see the typematic rate and the typematic delay settings for your keyboard. The available setting values are: Disabled and Enabled.

∨**Typematic Rate (Chars/Sec)**

Use this option to define how many characters per second a held-down key generated.

∨**Typematic Delay (Msec)**

Use this option to define how many milliseconds must elapse before a held-down key beings generating repeat characters.

∨**Security Option**

When it is set to "Setup", a password is required to enter the CMOS Setup screen; When it is set to "System", a password is required not only to enter CMOS Setup, but also to start up your PC.

∨**MPS Version Control For OS**

This option is used to set up the version of MPS Table used in NT4.0 OS.

∨**OS Select For DRAM > 64MB**

This option is only required if you have installed more than 64 MB of memory and you are running the OS/2 operating system. Otherwise, leave this option at the default.
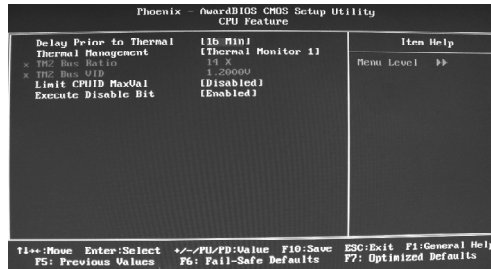
∨**Delay For HDD(Secs)**

This option is used to set delay boot time of HDD controller.

∨**Full Screen LOGO Show**

This option allows you to enable or disable the full screen logo. The available setting values are: Disabled and Enabled.

∨**Small Logo (EPA) Show**

This option allows you to enable or disable the EPA logo. The available setting values are: Disabled and Enabled.

CPU Feature Menu

∨ **Delay Prior to Thermal**

This option is used to set the delay time before the CPU enters auto thermal mode. The setting values are: 4 Min, 8 Min, 16 Min, 32 Min.

∨ **Thermal Management**

This option is used to manage Prescott CPU thermal.

∨ **TM2 Bus Ratio**

Represents the frequency bus ratio of the throttled performance state that will be initiated when the on-diesensor goes from not hot to hot .

∨ **TM2 Bus VID**

Represents the voltage of the throttled performance state that will be initiated when the on-diesensor goes from not hot to hot.

∨ **Limit CPUID MaxVal**

The option is used to set limit CPUID MaxVal. The available setting values are: Disabled and Enabled. Set Limit CPUID MaxVal to 3, should be "Disabled" for WinXP.

∨ **Execute Disable Bit**

The option is used to enable or disable execute disable bit.

Advanced Chipset Features
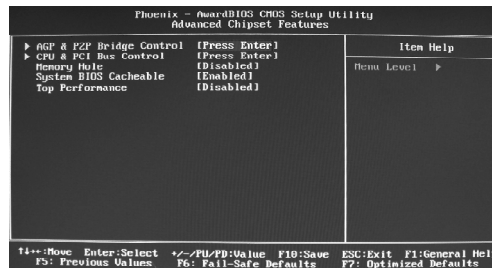
Advanced Chipset Features Menu

v **AGP & P2P Bridge Control**

Press enter to set the items about AGP & P2P bridge.

v **CPU & PCI Bus Control**

Press enter to set the items about CPU & PCI bus.

v **Memory Hole**

This option is used to select memory hole. The setting values are: Disabled, 15M-16M.

v **System BIOS Cacheable**

Select "Enabled" to allow caching of the system BIOS which may improve performance. If any other program writes to this memory area, a system error may result. The available setting values are: Enabled and Disabled.

v **Top Performance**

This option is used to set overclock performance.

AGP & P2P Bridge Control Menu

∨**AGP Aperture Size**
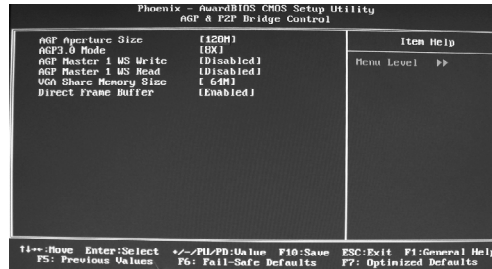
This option defines the size of the aperture if you use an AGP graphics adapter. The aperture is a portion of the PCI memory address range dedicated for graphic memory address space.

Note: This function does not work when onboard VGA is used.

∨**AGP 3.0 Mode**

This option is used to set an appropriate mode for the installed AGP card.

∨**AGP Master 1 WS Write**

When "Enabled", writes to the AGP (Accelerated Graphics Port) are executed with one wait states. The setting values are: Disabled and Enabled.

∨**AGP Master 1 WS Read**

When "Enabled", reads to the AGP (Accelerated Graphics Port) are executed with one wait states. The setting values are: Disabled and Enabled.

∨**VGA Share Memory Size**

This option is used to set the onboard VGA share memory size. If you are running under Windows XP or Windows 2000, set this option to 32M or lower. The setting values are: Disabled, 16M, 32M, 64M.

∨**Direct Frame Buffer**

This option is used to enable or disable direct frame buffer.
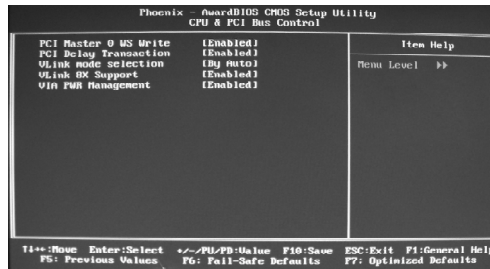
CPU & PCI Bus Control Menu

v **PCI Master 0 WS Write**
   This option allows you to enable or disable the support of PCI Master 0 Wait
   State Write. The setting values are: Disabled and Enabled.

v **PCI Delay Transaction**
   This option allows you to enable or disable PCI delay transaction. The setting
   value are: Disabled and Enabled.

v **VLink mode selection**
   This option allows you to select VLink mode.

v **VLink 8X Support**
   This option allows you to enable or disable the VLink 8X support. When
   "Enabled", it may increase system performance. The setting values are:
   Disabled and Enabled.

v **VIA PWR Management**
   This option is used to manage the power supply of VIA.

Integrated Peripherals
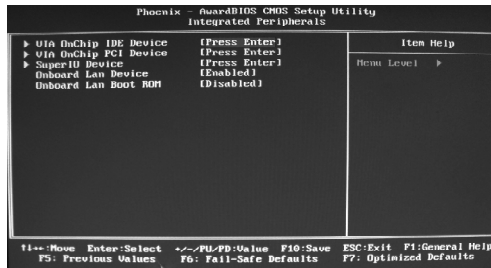
Integrated Peripherals Menu

ᴠ**VIA OnChip IDE Device**

Press enter to set onchip IDE device.

ᴠ**VIA OnChip PCI Device**

Press enter to set onchip PCI device.

ᴠ**SuperIO Device**

Press enter to set onboard SuperIO device.

ᴠ**Onboard Lan Device**

This option is used to enable or disable onboard LAN device.

ᴠ**Onboard Lan Boot ROM**

The option enables or disables the initialization of the onboard LAN Boot
ROM during bootup.

VIA OnChip IDE Device Menu

∨ OnChip SATA

This option is used to enable or disable onchip SATA. The setting values are: Disabled and Enabled.

∨ SATA Mode

This option is used to select SATA mode. The setting values are: IDE and RAID.
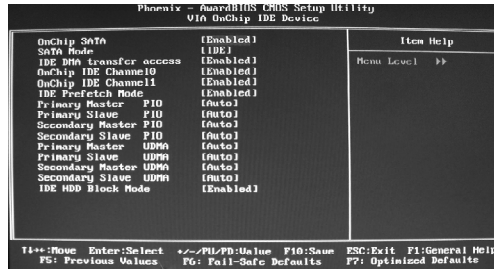
∨ IDE DMA transfer access

This option is used to enable or disable IDE DMA transfer access. The setting values are: Disabled and Enabled.

∨ OnChip IDE Channel 0/1

The integrated peripheral controller contains an IDE interface with support for two IDE channels. Choose "Enabled" to activate each channel separately. The setting values are: Disabled and Enabled.

∨ IDE Prefetch Mode

This option is used to enable or disable IDE prefetch mode. The setting values are: Disabled and Enabled.

∨ Primary/Secondary Master/Salve PIO

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.

**∨ Primary/Secondary Master/Salve UDMA**

UltraDMA technology provides faster access to IDE devices. If you install a device that supports UltraDMA, change the appropriate item on this list to Auto. The available setting values are: Disabled and Auto.

∨ IDE HDD Block Mode

This option is used to set whether the IDE HDD Block Mode is allowed. The available setting values are: Disabled and Enabled.
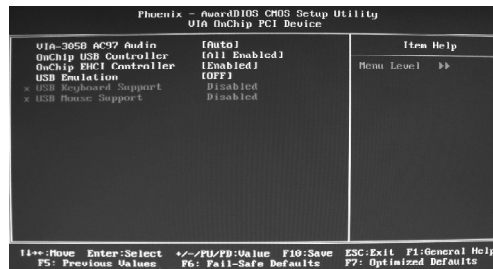
VIA OnChip PCI Device Menu

∨ **VIA-3058 AC97 Audio**

"Auto" allows the motherboard's BIOS to detect whether you're using any audio devices. If so, the onboard audio controller will be enabled. If not, the onboard audio controller will be disabled. If you want to use different controller cards to connect audio connectors, set the option to "Disabled". The setting values are: Disabled and Auto.

∨ **OnChip USB Controller**

This option is used to set onchip USB controller.

∨ **OnChip EHCI Controller**

This option is used to enable or disable onchip EHCI controller. The setting values are: Disabled and Enabled.

∨ **USB Emulation**

This option is used to enable or disable USB legacy keyboard, mouse, and USB storage.

∨ **USB Keyboard/Mouse Support**

When **USB Emulation** is set as KM/MS, the two options are for choosing. This option is used to enable or disable USB keyboard/mouse support. The setting values are: Disabled and Enabled.
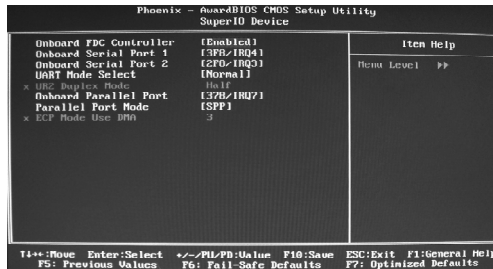
SuperIO Device Menu

∨**Onboard FDC Controller**

This option is used to set whether the Onboard FDC Controller is enabled. The available setting values are: Disabled and Enabled.

∨**Onboard Serial Port1/2**

This option is used to assign the I/O address and interrupt request (IRQ) for the onboard serial port 1/2.

Note: Do not try to set the same values for serial ports 1 and 2.

∨**UART Mode Select**

Use this option to select the UART mode. Setting values include Normal, IrDA, and ASKIR. The setting value is determined by the infrared module in stalled on the board.

∨**UR2 Duplex Mode**

This option is available when UART 2 mode is set to either ASKIR or IrDA. This item enables you to determine the infrared function of the onboard infrared chip.

∨**Onboard Parallel Port**

This option allows you to determine onboard parallel port controller I/O address and interrupt request (IRQ). The setting values are: Disabled, 378/IRQ7, 278/IRQ5 and 3BC/IRQ7.
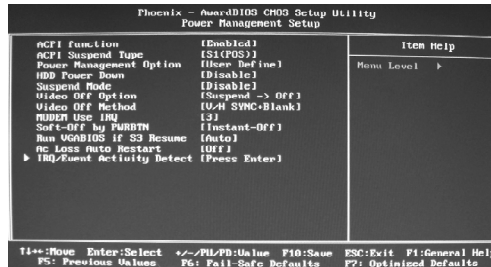
∨**Parallel Port Mode**

Select an address and corresponding interrupt for the onboard parallel port. The setting values are: SPP, EPP, ECP, ECP+EPP.

∨**ECP Mode Use DMA**

When the Parallel Port Mode is set to ECP or ECP+ EPP, this option is used to select the channel for the ECP mode. The setting values are: 1 and 3.

Power Management Setup

Power Management Setup Menu

∨ ACPI function

ACPI stands for "Advanced Configuration and Power Interface". ACPI is a standard that defines power and configuration management interfaces between an operating system and the BIOS. In other words, it is a standard that describes how computer components work together to manage system hardware. In order to use this function the ACPI specification must be supported by the OS (for example, Windows2000 or WindowsXP). The available setting values are: Enabled and Disabled.

∨ ACPI Suspend Type

This option is used to set the energy saving mode of the ACPI function. When you select "S1 (POS)" mode, the power will not shut off and the supply status will remain as it is, in S1 mode the computer can be resumed at any time. When you select "S3 (STR)" mode, the power will be cut off after a delay period. The status of the computer before it enters STR will be saved in memory, and the computer can quickly return to previous status when the STR function wakes. When you select "S1 & S3" mode, the system will automatically select the delay time.

∨ Power Management Option

This option is used to set the power management scheme. The available settings are: User Define, Min Saving and Max Saving.

∨ HDD Power Down

This option is used to define the continuous HDD idle time before the HDD enters power saving mode. The setting values are: Disabled, 1 Min, 2 Min, 3 Min, 4 Min, 5 Min, 6 Min, 7 Min, 8 Min, 9 Min, 10 Min, 11 Min, 12 Min, 13 Min, 14 Min, 15 Min.

∨ **Suspend Mode**

This option is used to set the idle time before the system enters into sleep status. The setting values are: Disabled, 1 Min, 2 Min, 4 Min, 6 Min, 8 Min, 12 Min, 20 Min, 30 Min, 40 Min, 1 Hour.

∨ **Video Off Option**

This option is used to set video off option. The setting values are: Always On, Suspend -> Off.

∨ **Video Off Method**

This option is used to define the video off method. "Blank Screen" mode means that after the computer enters into power saving mode, only the monitor will close, however, the vertical and horizontal scanning movement of the screen continues. When you select the "V/H SYNC + Blank" mode the vertical and horizontal scanning movement of screen stops when the computer enters power saving mode. "DPMS Support" mode is a new screen power management system, and it needs to be supported by the monitor you're using.

∨ **MODEM Use IRQ**

This option is used to set the IRQ in which the modem can use. The setting values are: NA, 3, 4, 5, 7, 9, 10, 11.

∨ **Soft-Off by PWRBTN**

This option is used to set the power down method. This function is only valid for systems using an ATX power supply.
When "Instant-Off" is selected, press the power switch to immediately turn off power.
When "Delay 4 Sec" is selected, press and hold the power button for four seconds to turn off power.

∨ **Run VGABIOS if S3 Resume**
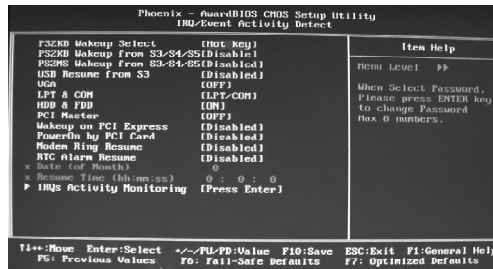
This option allows the system to initialize the VGABIOS from S3 (Suspend to RAM) sleep state. The available setting values are: Auto, Yes and No.

∨ **Ac Loss Auto Restart**

The system will switch which status when power comes back after a power failure. The setting values are: Auto, On, Off.

∨ **IRQ/Event Activity Detect**

Press Enter to set IRQ/Event Activity Detect.

IRQ/Event Activity Detect Menu

∨**PS2KB Wakeup Select**

This option is used to select which action will wake up PS/2 keyboard from S3 /S4/S5 staus. Use <PgUp> or <PgDn> to select the desired item.

∨**PS2KB Wakeup from S3/S4/S5**

This option is used to select which hotkey will wake up by PS/2 keyboard from S3/S4/S5 staus or disable it.

∨**PS2MS Wakeup from S3/S4/S5**

This option is used to enable or disable the system to be waken up by PS/2 mouse from S3/S4/S5 staus.

∨**USB Resume from S3**

This option is used to enable or disable the USB to be resume from S3.

∨**VGA**

When on of VGA, any activity from one of the listed system peripheral devices or IRQs wakes up the system.

∨**LPT & COM**

When on of LPT & COM, any activity from one of the listed system peripheral devices or IRQs wakes up the system. If select "NONE", cannot wake up the system.

∨**HDD & FDD**

When on of HDD & FDD, any activity from one of the listed system peripheral devices or IRQs wakes up the system.

∨**PCI Master**

When on of PCI master, any activity from one of the listed system peripheral devices or IRQs wakes up the system.

∨**Wakeup on PCI Express**

This option is used to set whether the system is wakeuped by PCI Express.

42

∨**PowerOn by PCI Card**
This option is used to set whether the system is wakeuped by PCI Card.If "Enabled" any PCI interrupt will wake up the system.

∨**Modem Ring Resume**
This option is used to set the system to be waked up by the modem ring.

∨**RTC Alarm Resume**
This option is used to set alarm to power on the system by the date (1-31) or time (hh:mm:ss).
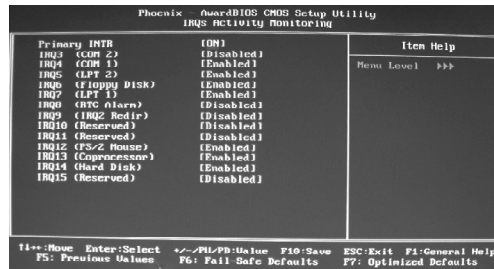
∨**Date (of Month)**
This option is used to set the timing for the start-up day of the month. The setting values contain 0 – 31.

∨**Resume Time (hh:mm:ss)**
This option is used to set the timing for the start-up time. The setting values contain hh:0 – 23; mm:0 – 59; ss:0 – 59.

∨**IRQs Activity Monitoring**
Press enter to set the items of IRQs activity monitoring.

IRQs Activity Monitoring Menu

∨ **Primary INTR**

Selecting "ON" will cause the system to wake up from power saving modes if activity is detected from any enabled IRQ channels. The setting values are: ON and OFF.

∨**IRQ3 (COM2)**

This option is used to enable or disable IRQ3 (COM2) activity monitoring. The setting value are: Disabled and Enabled.

∨**IRQ4 (COM1)**

This option is used to enable or disable IRQ4 (COM1) activity monitoring. The setting value are: Disabled and Enabled.

∨**IRQ5 (LPT2)**

This option is used to enable or disable IRQ5 (LPT2) activity monitoring. The setting value are: Disabled and Enabled.

∨**IRQ6 (Floppy Disk)**

This option is used to enable or disable IRQ6 (Floppy Disk) activity monitoring. The setting values are: Disabled and Enabled.

∨**IRQ7 (LPT1)**

This option is used to enable or disable IRQ7 (LPT1) activity monitoring. The setting value are: Disabled and Enabled.

∨**IRQ8 (RTC Alarm)**

This option is used to enable or disable IRQ8 (RTC Alarm) activity monitoring. The setting values are: Disabled and Enabled.

∨**IRQ9 (IRQ2 Redir)**

This option is used to enable or disable IRQ9 (IRQ2 Redir) activity monitoring. The setting values are: Disabled and Enabled.

∨**IRQ10 (Reserved)**

This option is used to enable or disable IRQ10 (Reserved) activity monitoring. The setting values are: Disabled and Enabled.

ᴠIRQ11 (Reserved)

This option is used to enable or disable IRQ11 (Reserved) activity monitoring. The setting values are: Disabled and Enabled.

ᴠIRQ12 (PS/2 Mouse)

This option is used to enable or disable IRQ12 (PS/2 Mouse) activity monitoring. The setting values are: Disabled and Enabled.

ᴠIRQ13 (Coprocessor)

This option is used to enable or disable IRQ13 (Coprocessor) activity monitoring. The setting values are: Disabled and Enabled.
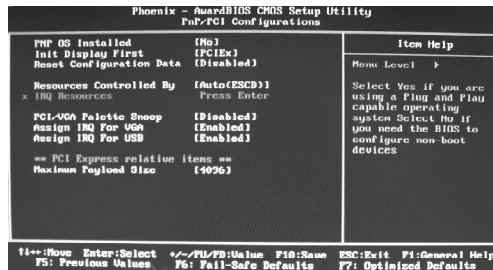
ᴠIRQ14 (Hard Disk)

This option is used to enable or disable IRQ14 (Hard Disk) activity monitoring. The setting values are: Disabled and Enabled.

ᴠIRQ15 (Reserved)

This option is used to enable or disable IRQ15 (Reserved) activity monitoring. The setting values are: Disabled and Enabled.

PnP/PCI Configurations

PnP/PCI Configurations Menu

v PNP OS Installed

Set this field to "Yes" if you are running Windows 95, which is PnP compatible. It is recommended to keep the default setting.

v Init Display First

This option is used to set which display device will be used first when your PC starts up.

v Reset Configuration Data

This option is used to set whether the system is permitted to automatically distribute IRQ DMA and I/O addresses when each time that the machine is turned on. The setting values are: Disabled and Enabled.

v Resources Controlled By

This option is used to define the system resource control scheme. If all cards you use support PnP, then select Auto (ESCD) and the BIOS automatically distributes interruption resources. If you install ISA cards not supporting PnP, you will need to select "Manual" and manually adjust interruption resources in the event of hardware conflicts. However, since this motherboard has no ISA slot, this option does not apply.

v IRQ Resources

Press the <Enter> key, then manually set IRQ resources.

v PCI/VGA Palette Snoop

If you use a non-standard VGA card, use this option to solve graphic acceleration card or MPEG audio card problems (e.g., colors not accurately displayed). The setting values are: Disabled and Enabled.

v Assign IRQ For VGA

This option is used to set whether BIOS will assign IRQ for VGA.

ᴠ**Assign IRQ For USB**

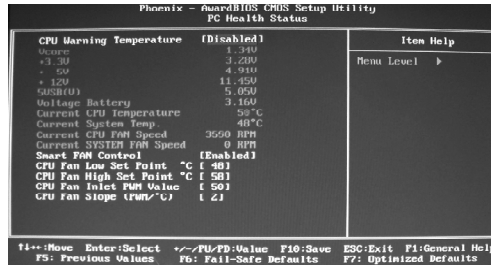This option is used to set whether BIOS will assign IRQ for USB.

ᴠ**Maximum Payload Size**

This option is used to set maximum TLP payload size for PCI Express devices.
The unit is byte.

PC Health Status

PC Health Status Menu

∨**CPU Warning Temperature**

This option is used to set the warning temperature for the system.When the temperature of CPU is higher than setting value, the motherboard will send out warning information.

∨**Vcore/ +3.3V/+5V/+12V/5VSB(V)**

Display current voltage value including all significant voltages of the mainboard +3.3V, +5V, +12V are voltages from the power supply.

∨**Voltage Battery**

This option is used to show the voltage of battery.

∨**Current System/CPU Temperature**

The current system/CPU temperature will be automatically detected by the system.

∨**Current SYSTEM/CPU FAN Speed**

The current speed of System/CPU fan automatically detected by the system/ CPU.

∨**Smart FAN Control**

This option is used to enable or disable smart fan function.

Load Fail-Safe Defaults

Press <Enter> to select this option. A dialogue box will pop up that allows you to load the default BIOS settings. Select <Y> and then press <Enter> to load the defaults. Select <N> and press <Enter> to exit without loading. The defaults set by BIOS set the basic system functions in order to ensure system stability. But if your computer cannot POST properly, you should load the fail-safe defaults to restore the original settings. Then carry out failure testing. If you only want to load the defaults for a single option, you can select the desired option and press the <F6> key.

Load Optimized Defaults

Select this option and press <Enter>, and a dialogue box will pop up to let you load the optimized BIOS default settings. Select <Y> and then press <Enter> to load the optimized defaults. Select <N> and press <Enter> to exit without loading. The defaults set by BIOS are the optimized performance parameters for the system, to improve the performance of your system components. However, if the optimized performance parameters are not supported by your hardware devices, it will likely cause system reliability and stability issues. If you only want to load the optimized default for a single option, select the desired option and press the <F7> key.

Set Supervisor/User Password

The access rights and permissions associated with the Supervisor password are higher than those of a regular User password. The Supervisor password can be used to start the system or modify the CMOS settings. The User password can also start the system. While the User password can be used to view the current CMOS settings, these settings cannot be modified using the User password. When you select the Set Supervisor/User Password option, the following message will appear in the center of the screen, which will help you to set the password:

Enter Password:

Enter your password, not exceeding 8 characters, then press <Enter>. The password you enter will replace any previous password. When prompted, key in the new password and press <Enter>.

If you do not want to set a password, just press <Enter> when prompted to enter a password, and in the screen the following message will appear. If no password is keyed in, any user can enter the system and view/modify the CMOS settings.

Password Disabled!!!
Press any key to continue …

Under the menu "Advanced BIOS Features", if you select "System" from the Security Option, you will be prompted to enter a password once the system is started or whenever you want to enter the CMOS setting program. If the incorrect password is entered, you will not be permitted to continue.
Under the menu "Advanced BIOS Features", if you select "Setup" from the Security Option, you will be prompted to enter a password only when you enter the CMOS setting program.

Save & Exit Setup

When you select this option and press <Enter>, the following message will appear in the center of the screen:

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

Press <Y> to save your changes in CMOS and exit the program; press <N> or <ESC> to return to the main menu.

Exit Without Saving

If you select this option and press <Enter>, the following message will appear in the center of the screen:

Quit Without Saving (Y/N)?N

Press <Y> to exit CMOS without saving your modifications; press <N> or <ESC> to return to the main menu.

Chapter 4

The utility CD that came with the motherboard contains useful software and several utility drivers that enhance the motherboard features.

This chapter includes the following information:

- ∨ Utility CD content
- ∨ Installing Drivers
- ∨ Installing Utilities

Utility CD content

This motherboard comes with one Utility CD. To begin using the CD, simply insert the CD into your CD-ROM drive. The CD will automatically displays the main menu screen.

1. Install Driver

Using this choice, you can install all the drivers for your motherboard. You should install the drivers in order and you need to restart your computer after the drivers all installed.

A. VIA Chipset Driver
B. VIA VGA Driver
C. Realtek Audio Driver
D. Realtek LAN Driver

2.Accessories

Use this option to install additional software programs.

A. FOX ONE
B. Fox LiveUpdate
C. Microsoft DirectX 9.0
D. Adobe Acrobat Reader
E. Norton Security
F. Create RAID Driver Floppy

3. Link to website

Click static Foxconn Logo to visit our homepage.

Installing Divers

There are two ways to install drivers, manual or auto. Click the drivers that you want to install and begin the setup steps by manual. Or you just click "One Click Setup" button to install the drivers by auto after install Intel Chipset Driver.

Install by manual

Install by auto
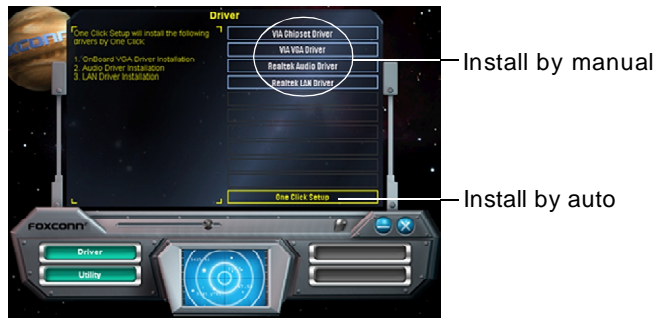
Installing Utilities

You can select the utilities that you want to install and begin the setup steps.

Click here
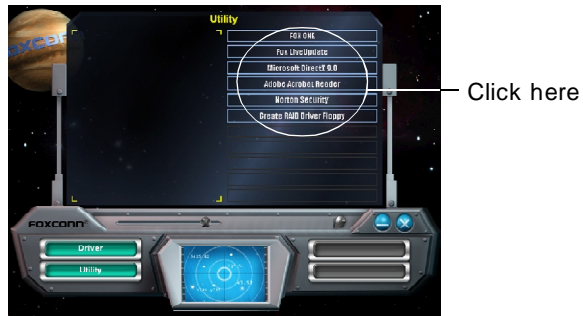
Chapter **5**

This chapter will introduce how to use attached software.

This chapter provides the following information:
- **v** FOX ONE
- **v** Fox LiveUpdate

FOX ONE

FOX ONE is a powerful utility for easily modifying system settings. It also allows users to monitor various temperature values, voltage values, frequency and fan speed at any time.
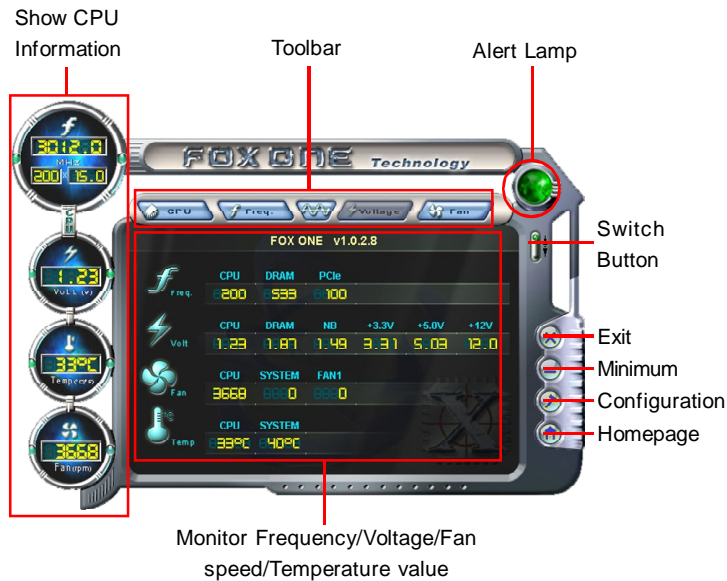
With FOX ONE, you can
   -Modify system performance settings, such as bus speeds, CPU voltages, fan speed, and other system performance options that are supported by the BIOS
   -Monitor hardware temperature, voltage, frequency and fan speed

Supported Operating Systems:
   -Windows 2000
   -Windows XP (32-bit and 64-bit)
   -Windows 2003 (32-bit and 64-bit)

Using FOX ONE:

1. Main Page

Show CPU Information

Toolbar

Alert Lamp

Switch Button

Exit

Minimum

Configuration

Homepage

Monitor Frequency/Voltage/Fan speed/Temperature value

Toolbar

Use the toolbar to navigate to other pages.

Alert Lamp

When the system is in healthy status, the alert lamp color is green. When the system is in abnormal status, the alert lamp color is red.

Switch Button

Click this button, it will shorten to below figure. It helps you to minitor your system healthy status at any time.
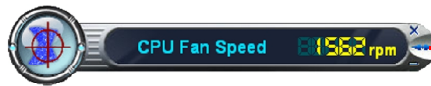
Click here to return to previous status

Exit

Click this button to exit the program.

Minimum

Click this button to minimize the window.

Configuration

Click this button to configure the parameters for the program. It determines which items will be shown in shorten mode.
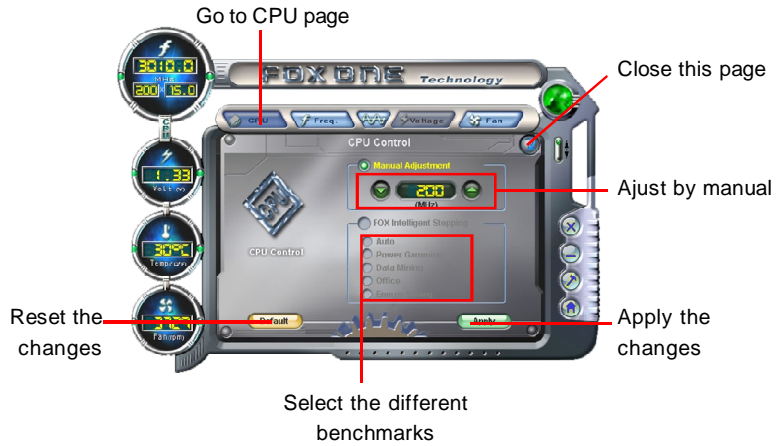
Homepage

Click this button to visit Foxconn motherboard website.

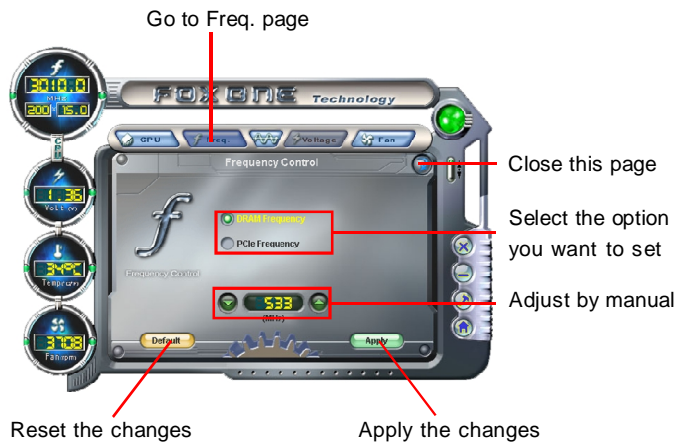**2. CPU Page - CPU Control**

This page lets you select and run the FOX ONE developed benchmarks to determine the current performance level of the system. You can also adjust by manual. Only this page is set to Manual Adjustment, the Freq., Vlotage, and Fan pages can be adjusted by manual.

Go to CPU page

Close this page

Ajust by manual

Reset the
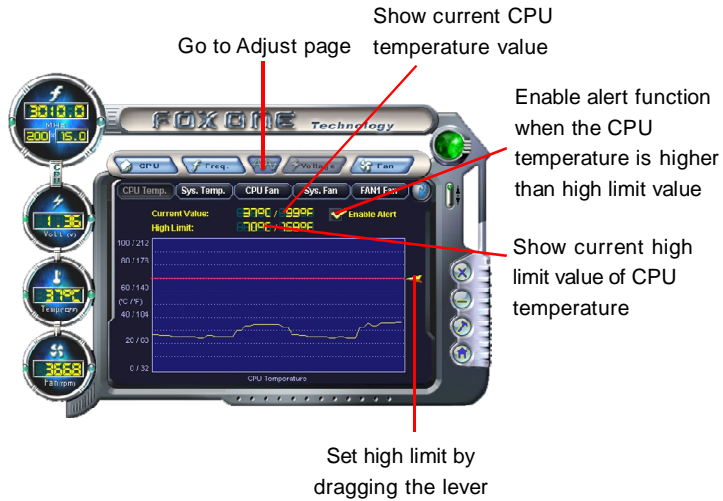changes

Apply the
changes

Select the different
benchmarks

3. Freq. Page - Frequency Control

This page lets you set memory and PCI Express frequency by manual.

Go to Freq. page

Close this page

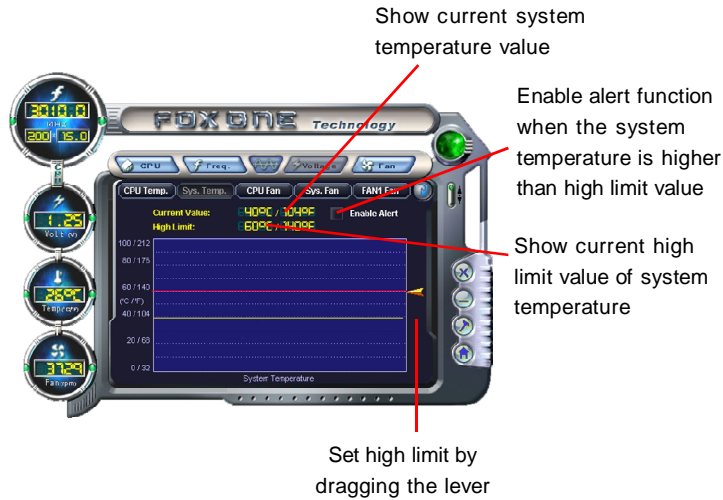Select the option
you want to set

Adjust by manual

Reset the changes

Apply the changes

4.1 Limit Setting - CPU Temp.

This page lets you to set CPU high limit temperature and enable the alert function.

Go to Adjust page

Show current CPU temperature value

Enable alert function when the CPU temperature is higher than high limit value

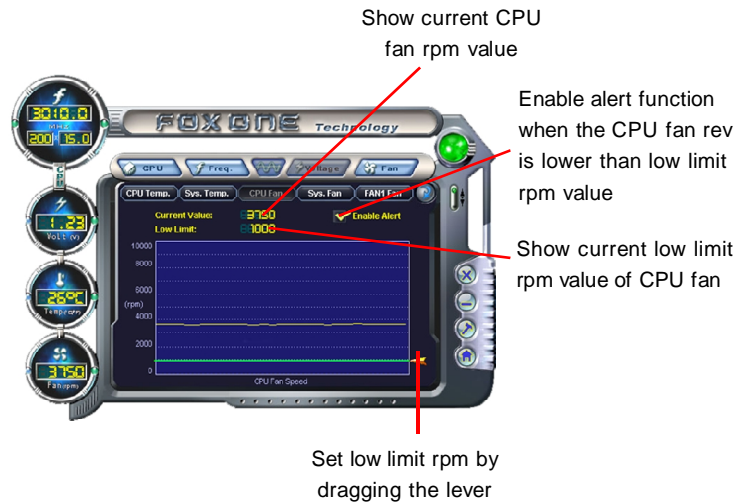Show current high limit value of CPU temperature

Set high limit by dragging the lever

4.2 Limit Setting - Sys Temp.

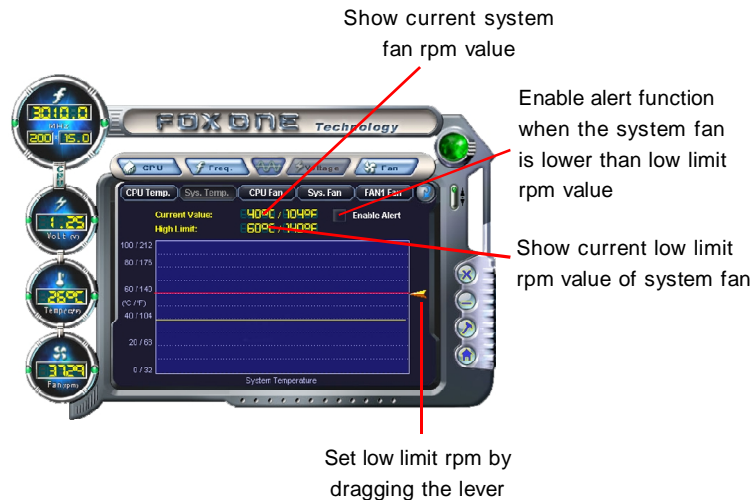This page lets you to set system high limit temperature and enable the alert function.

Show current system temperature value

Enable alert function when the system temperature is higher than high limit value

Show current high limit value of system temperature

Set high limit by dragging the lever

4.3 Limit Setting - CPU Fan

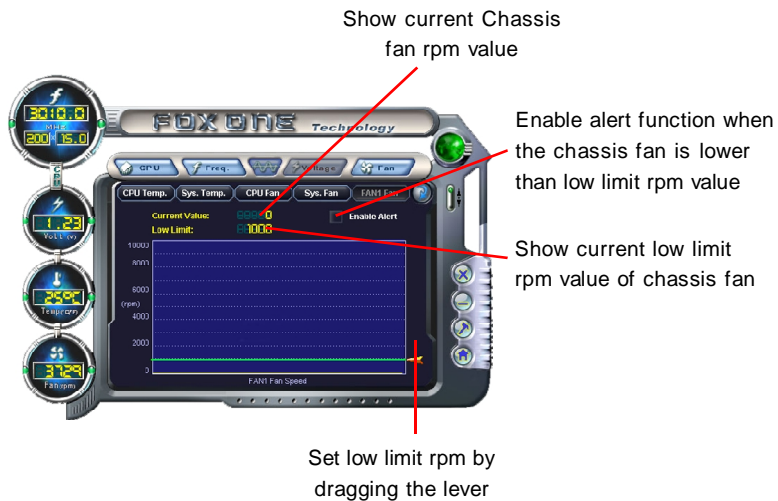This page lets you to set CPU fan low limit rpm and enable the alert function.

Show current CPU
fan rpm value

Enable alert function
when the CPU fan rev
is lower than low limit
rpm value

Show current low limit
rpm value of CPU fan

Set low limit rpm by
dragging the lever

4.4 Limit Setting - Sys Fan

This page lets you to set system low limit rpm and enable the alert function.

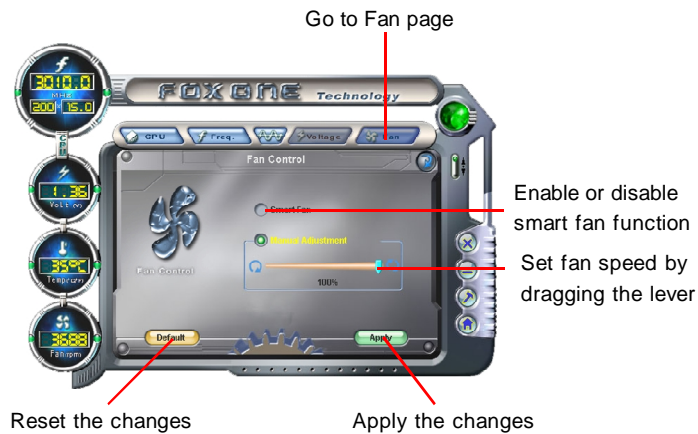Show current system
fan rpm value

Enable alert function
when the system fan
is lower than low limit
rpm value

Show current low limit
rpm value of system fan

Set low limit rpm by
dragging the lever

4.5 Limit Setting - Chassis Fan

This page lets you to set chassis fan low limit rpm and enable the alert function.

Show current Chassis
fan rpm value

Enable alert function when
the chassis fan is lower
than low limit rpm value

Show current low limit
rpm value of chassis fan

Set low limit rpm by
dragging the lever

5. Fan Page - Fan Control

This page lets you enable smart Fan function or set fan speed by manual.

Go to Fan page

Enable or disable
smart fan function

Set fan speed by
dragging the lever

Reset the changes   Apply the changes

Fox LiveUpdate

Fox LiveUpdate is a useful utility for backuping and updating the system BIOS, drivers and utilities by local or online.
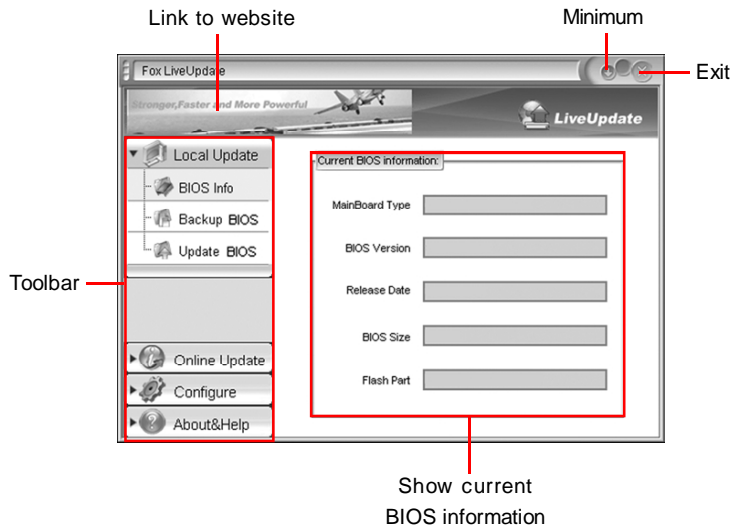
Supported Operating Systems:
   -Windows 2000
   -Windows XP (32-bit and 64-bit)
   -Windows 2003 (32-bit and 64-bit)

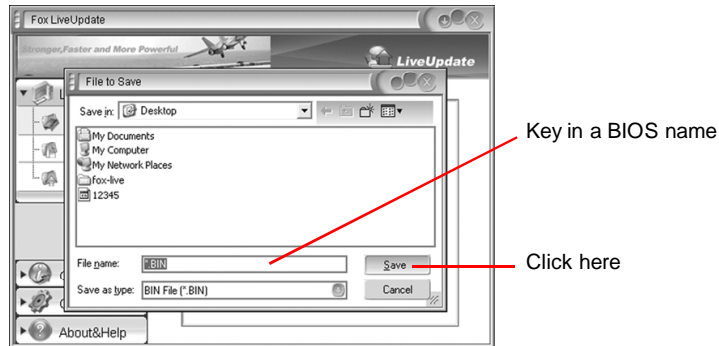## *Using Fox LiveUpdate:*

1.1 Local Update - BIOS Info.
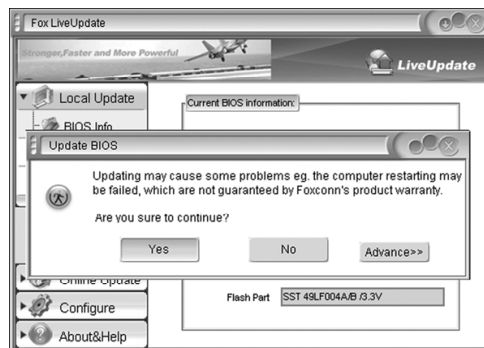
This page lets you know your system BIOS information.

Link to website   Minimum

Exit

Toolbar

Show current
BIOS information

1.2 Local Update - Backup

This page lets you backup your system BIOS. Click "Backup", then give a name. Click "Save" to finish the backup operation.

Key in a BIOS name

Click here

1.3 Local Update - Update

This page lets you update your system BIOS from Internet. After click "Update", there will show warning message, please read it carefully. If you still want to continue, click "Yes". Then load a local BIOS file and follow the wizard to finish the operation.
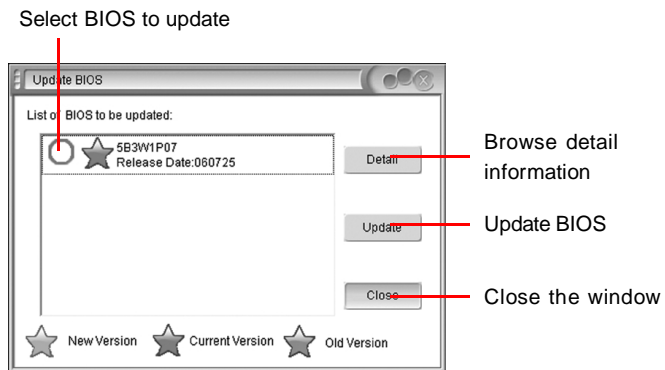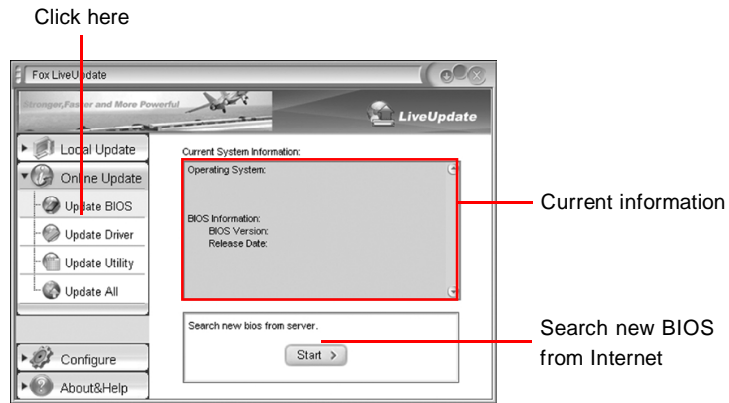

Note:

Fox LiveUpdate will auto backup BIOS before update because we have enabled this function in Configure option.
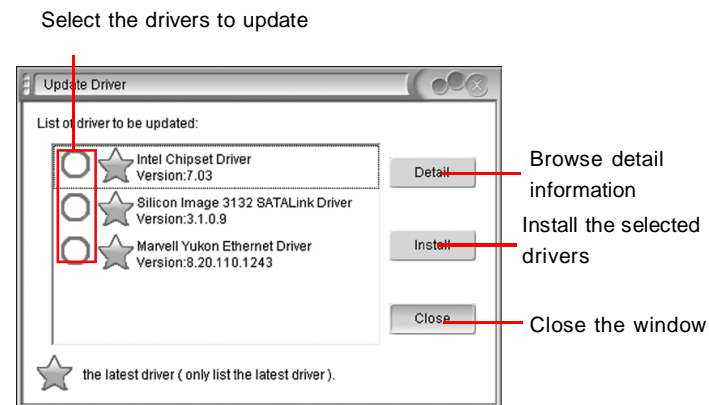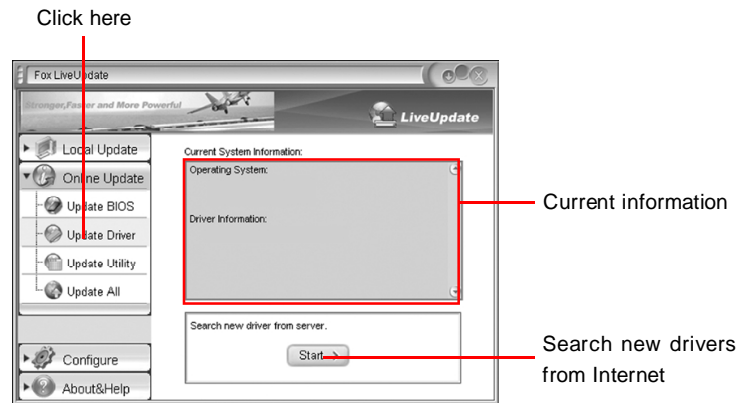
2.1 Online Update - Update BIOS

This page lets you update your system BIOS from Internet. Click "start", it will search the new BIOS from Internet. Then follow the wizard to finish the update operation.

Click here

Current information

Search new BIOS from Internet

Select BIOS to update

Browse detail information
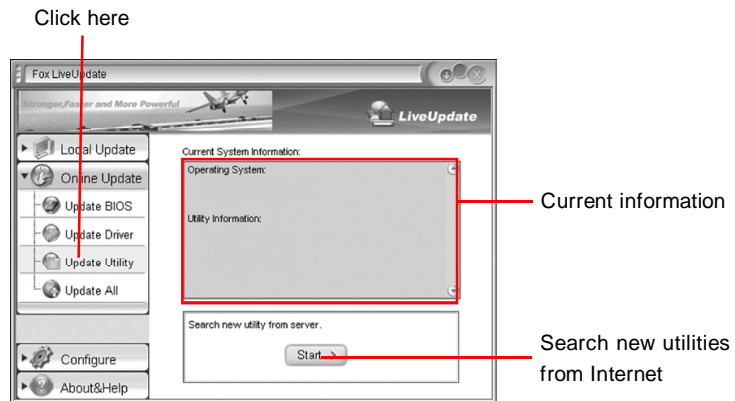
Update BIOS

Close the window

2.2 Online Update - Update Driver

This page lets you update your system drivers from Internet. Click "start", it will search the new drivers from Internet. Then follow the wizard to finish the update operation.

Click here

Current information

Search new drivers from Internet

Select the drivers to update

Browse detail information

Install the selected drivers

Close the window

2.3 Online Update - Update Utility

This page lets you update utilities from Internet. Click "start", it will search the new utilities from Internet. Then follow the wizard to finish the update operation.
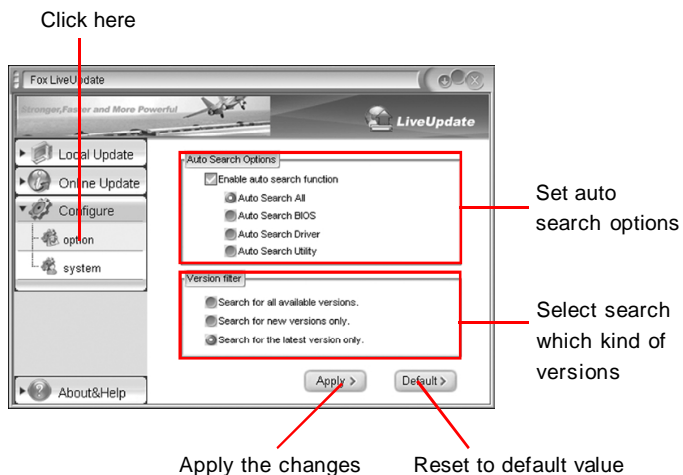
Click here

Current information

Search new utilities from Internet

2.4 Online Update - Update All

This page lets you update your system drivers from Internet. Click "start", it will search all new BIOS/drivers/utilities from Internet. Then follow the wizard to finish the update operation.

Click here

Current information

Search all new BIOS/drivers/utilities from Internet
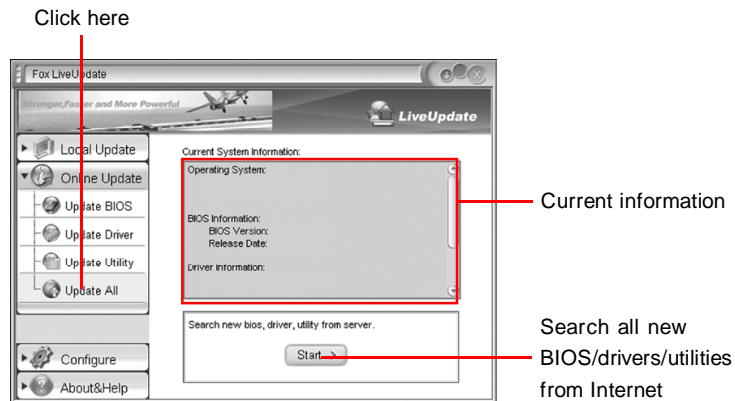
3.1 Configure - option

This page lets you set auto search options. After your setting, the utility will start searching and related information will show on the task bar.

Click here

Set auto search options

Select search which kind of versions
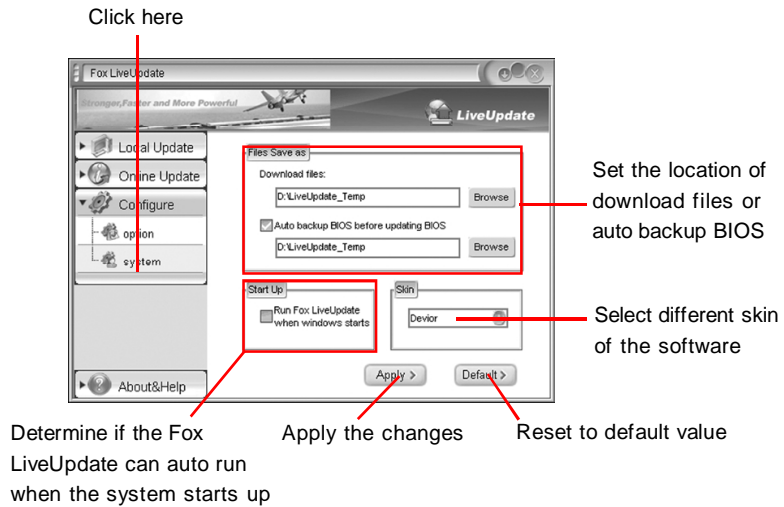
Apply the changes   Reset to default value

📧 Note:

When enable auto search function, Fox LiveUpdate will appear searching result on task-bar. Double click the icon, you can see the detail information.

Double click here
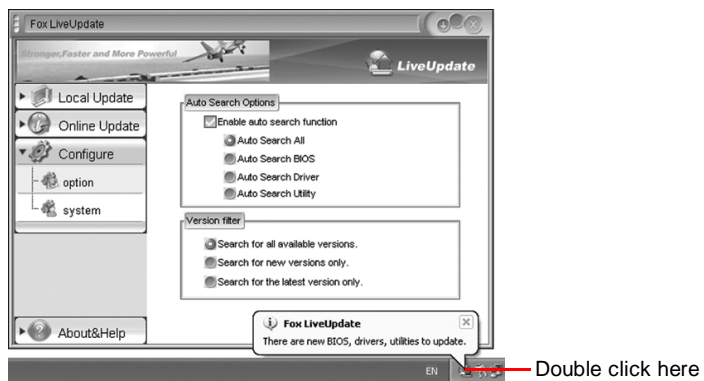
3.2 Configure - System

This page lets you set the backup BIOS location and change different skin of the utility.

Click here

Set the location of download files or auto backup BIOS

Select different skin of the software

Determine if the Fox LiveUpdate can auto run when the system starts up

Apply the changes

Reset to default value

4. About & Help

This page shows some information about Fox LiveUpdate.

Click here

Show information about Fox LiveUpdate