Statement:

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Trademark:

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Version:

User's Manual V1.0 for MCP61PM2MA/MCP61SM2MA/MCP61VM2MA 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

CE

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

MCP61PM2MA/MCP61SM2MA/MCP61VM2MA

is in conformity with

(reference to the specification under which conformity is declared in

accordance with 89/336 EEC-EMC Directive)

☑ EN 55022: 1998/A2: 2003 Limits and methods of measurements of radio disturbance
characteristics of information technology equipment

☑ EN 61000-3-2/:2000 Electromagnetic compatibility (EMC)
Part 3: Limits
Section 2: Limits for harmonic current emissions
(equipment input current <= 16A per phase)

☑ 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

☑ EN 55024/A2:2003 Information technology equipment-Immunity characteristics limits
and methods of measurement

Signature :

Place / Date : TAIPEI/2006

Printed Name : James Liang

Position/ Title : Assistant President

Declaration of conformity

FC

Trade Name:	WinFast
Model Name:	**MCP61PM2MA/MCP61SM2MA/MCP61VM2MA**
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.
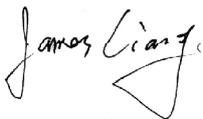
Signature : *James Liang*   Date :   2006

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ⓘ 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.

ⓘ Attention:

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

ⓘ 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.

ⓘ Attention:

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

ⓘ Attention:

This product is only designed for desktop CPU.

This manual is suitable for motherboard of MCP61PM2MA/
MCP61SM2MA/MCP61VM2MA. 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
-E   with 1394 function
-S   with SATA function
-2   with DDR2 function
-R   with RAID function
-H   comply with RoHS directives

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

ULBA4160000B PC   XXXXXXX-ES

The letters on the black mark of the PPID label, it means that
the motherboard supports 6-Channel Audio(-6)(default),
onboard 10/100M LAN(-L)(default),1394 port (-E), SATA func-
tion (-S).

Chapter 1

Thank you for buying WinFast MCP61PM2MA/MCP61SM2MA/ MCP61VM2MA 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 nVIDIA MCP61P / MCP61S / MCP61V chipset, providing users a computer platform with a high integration-compatibility-performance price ratio.

This chapter includes the following information:

- ❖ Main Features
- ❖ Layout
- ❖ Rear I/O Ports

Main Features

Size
• mATX form factor of 9.6 inch x 9.6 inch

Microprocessor Microprocessor
• Supports socket AM2 for AMD® Athlon™ 64X2 Dual Core,Athlon™ 64 and Sempron™ processors
• Supports HyperTransport ™ up to 2000MT/s

Chipset
• nVIDIA Chipset: MCP61P/MCP61S/MCP61V

System Memory
• Four 240-pin DIMM slots
• Supports Dual-Channel DDR2 800/667/533
• Supports up to 4GB DDR2 memory

USB 2.0 Ports
• Supports hot plug
• eight USB 2.0 ports
• Supports wake-up from S1 and S3 mode
• Supports USB 2.0 protocol up to 480Mbps transmission rate

Onboard Serial ATA II
• 300MBps data transfer rate
• Supports RAID 0, RAID 1, RAID 5,RAID 10,JBOD (only for MCP61P)
  Supports RAID 0, RAID 1 (only for MCP61V and MCP61S)
• Four internal Serial ATA II connectors

Onboard LAN (-L/-K) (optional)
• LAN interface built-in onboard
• Supports 10/100/1000 Mbit/sec Ethernet

Onboard 1394 (-E) (optional)

• Support hot plug

• With rate of transmission at 400 Mbps

• Can connect with two independent 1394 units synchronously at most

Onboard Audio (-6) (optional)

• AC'97 2.3 Specification Compliant

• Supports S/PDIF output

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

• Supports 6-channel audio(setting via software)

Onboard Audio (-8) (optional)

• Supports SPDIF output

• Supports Jack-Sensing function

• Supports Intel® High Definition Audio

PCI Express x16 Support

• PCI-E(16X) slot Supports 4 GB/sec bandwidth
  (supported on MCP61PM2MA only)
   PCI-E(16X) slot Supports 2 GB/sec bandwidth
  (supported on MCP61SM2MA only)
   PCI-E(16X) slot Supports 250MB/sec bandwidth
  (supported on MCP61VM2M only)

• MCP61PM2MA/MCP61SM2MA don't support some old version ATi graphics
  cards,such as ATi X300, X550,X700,X800 series graphics cards.

• Low power consumption and power management features

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)

Expansion Slots

• two PCI slots

• one PCI Express x16 Graphics slot

• one PCI Express x1 slot

Layout
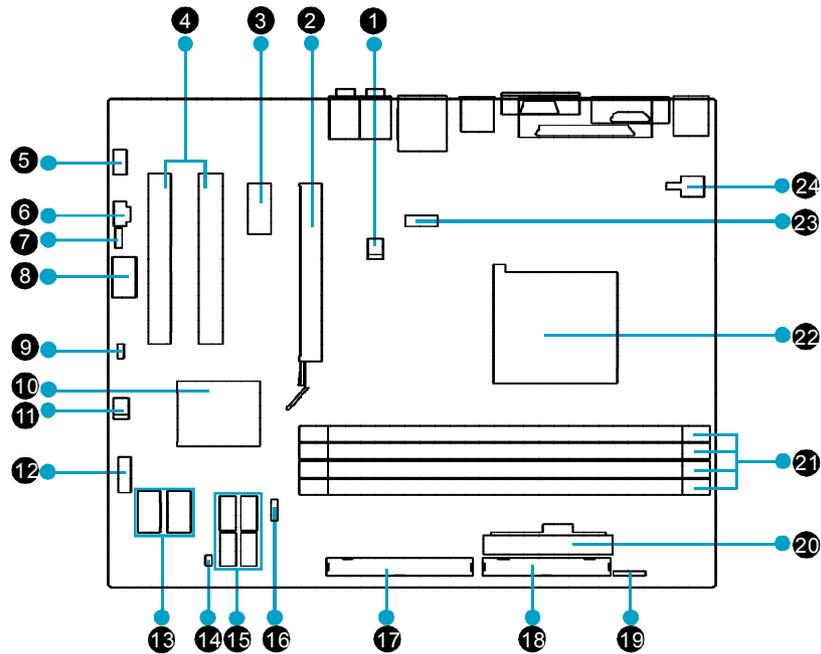
1. CPU_Fan Connector
2. PCI Express x16 Slot
3. PCI Express x1 Slot
4. PCI Slots
5. Front Audio Connector
6. CD_IN Connector
7. SPIDF_OUT Connector
8. 1394 Connector (optional)
9. Clear CMOS Jumper
10.nVIDIA Chipset: MCP61P/MCP61S/MCP61V
11.SYS_FAN Connector
12.Front Panel Connector

13. Front USB Connectors
14. Chassis Intruder Connector
15. SATA II Connector (optional)
16. Speaker Connector
17. IDE Connector: PIDE
18. FDD Connector
19. IrDA Header
20. 24-pin ATX Power Connector: PWR2
21. DDR2 DIMM Slots
22. CPU Socket
23. COM2 Connector
24. 4-pin ATX_12V Power Connector: PWR1

Note: The above motherboard layout is provided for reference only, please refer
to the physical motherboard.

Rear I/O Ports

This motherboard provides the ports as below:

For -6 models
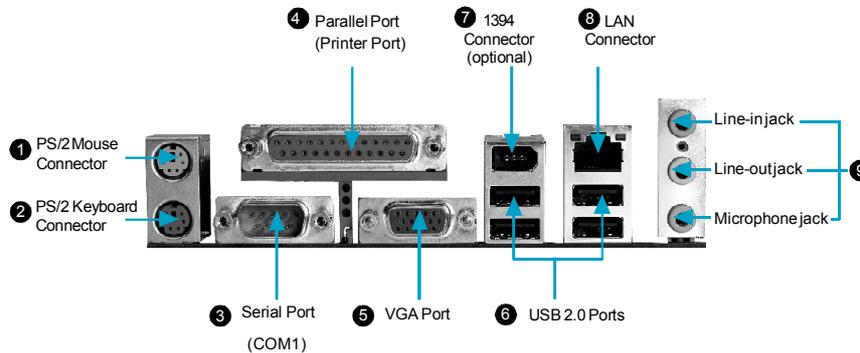
For -8 models
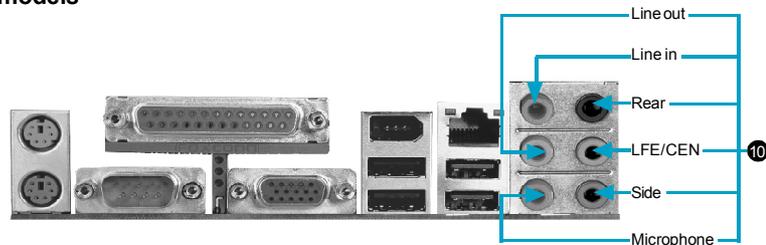
❾   When using a 6-channel sound source, connect the front speaker to the green audio output; connect the rear speaker to the blue audio output; connect the center speaker/subwoofer to the red Microphone output.

❿   When using an 8-channel sound source, connect the front speaker to the green audio output; connect the rear sound speaker to the black audio output; connect the center speaker/subwoofer to the orange audio output; connect the side sound speaker to the grey audio output.

Chapter**2**

This chapter introduces the hardware installation process, including the installation of the CPU, memory, power supply, slots, and pin headers, and the mounting of jumpers. Caution should be exercised during the installation of these modules. 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 socket AM2 for AMD® Athlon™ 64X2 Dual Core, Athlon™ 64 and Sempron™ processors .

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

ⓘ Attention:

> The CPU pins must be properly aligned with the holes in the socket, otherwise the CPU may be damaged.

Installation of CPU

Follow these steps to install the CPU.

1. Unlock the socket by pressing the le-ver sideways, then lift it up to a 90° angle.

90°
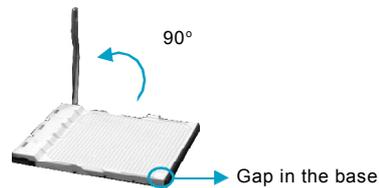
Gap in the base

2. Align the cut edge to the gap in the base of the socket. Carefully insert the CPU into the socket until it fits in place.

Cut edge

Push down the socket lever to secure the CPU.
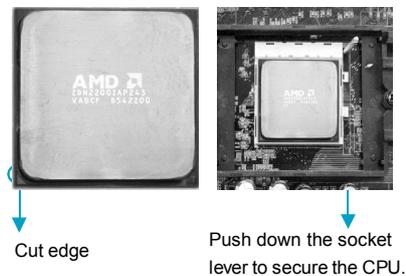
3. When the CPU is in place, press it firmly on the socket while you push down the socket lever to secure the CPU. The lever clicks on the side tab to indicate that it is locked.

Memory

This motherboard includes four 240-pin DIMM slots. So You must install at least one memory bank to ensure normal operation.

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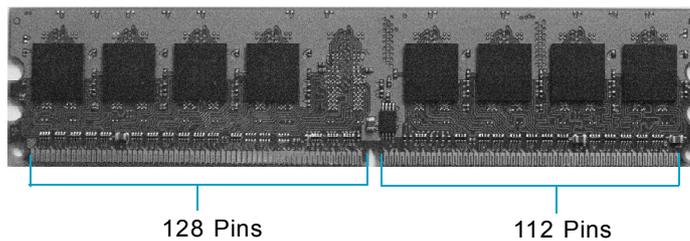
3. The plastic clips at both sides of the DIMM slot will lock automatically.

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
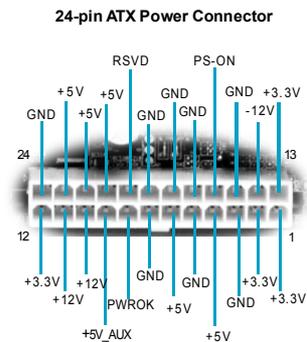
4-pin ATX_12 V Power Connector: PWR2

The 4-pin ATX 12V power supply connects to PWR2 and provides power to the CPU.

4-pin ATX_12 V Power Connector
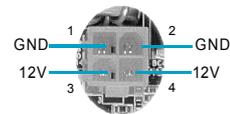
Other Connectors

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.

IDE Connectors: PIDE

The PIDE connector supports Ultra ATA 133/100 IDE hard disk drives. Connect the cable's blue connector to the IDE connector, then connect the gray connector to the slave device (hard disk drive) and the black connector to the Ultra ATA master device. If you install two hard disks, you must configure the second drive as a slave device by setting its jumper accordingly. Refer to the hard disk documentation for the jumper settings.

Front Panel Connector: FP1

This motherboard includes one connector for con-
necting the front panel switch and LED indicators.
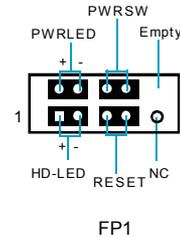
HDD LED Connector (HD-LED)
The connector connects to the case's HDD indicator LED indicating the activity
status of hard disks.

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 (PWRLED)
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 Switch Connector (PWRSW)
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.

**Audio Connector: F_AUDIO(for -6
models) (optional)**

The audio interface provides two kinds
of audio output choices: the Front Audio,
the Rear Audio.Their priority is se-
quenced 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 don't want to
use the Front Audio, pin 5 and 6,pin 9
and 10 must be SHORT, and then the
signal will be sent to the rear audio port.
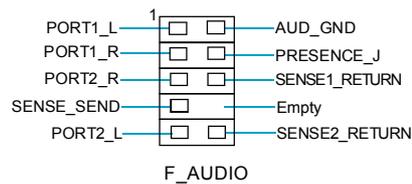
**Audio Connector: F_AUDIO(for -8 models) (optional)**

The audio interface provides two kinds of audio output choices:the Front Audio,the Rear Audio.Their priority is the same.Front Audio supports re-tasking function.

```
              1
PORT1_L ——— [  ] [  ] ——— AUD_GND
PORT1_R ——— [  ] [  ] ——— PRESENCE_J
PORT2_R ——— [  ] [  ] ——— SENSE1_RETURN
SENSE_SEND ——— [  ]     ——— Empty
PORT2_L ——— [  ] [  ] ——— SENSE2_RETURN
              F_AUDIO
```
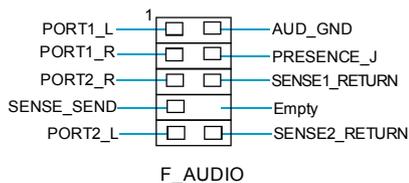
Audio Connectors: CD_IN

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

```
            —— CD_R
            —— GND
  1         —— CD_L
       CD_IN
```
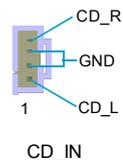
Fan Connectors: CPU_FAN,SYS_FAN

The fan speed 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 S3, S4 and S5 mode.

```
CONTROL  POWER
[ □ □ □ □ ] 1
SENSE   GND
    SYS_FAN

GROUND  SENSE
1 [ □ □ □ □ ]
POWER  CONTROL
    CPU_FAN
```
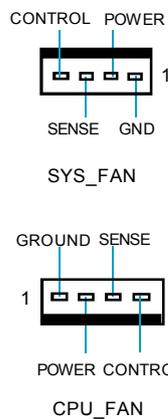
Serial ATA II Connectors: SATA_1, SATA_2, SATA_3, SATA_4 (optional) ;

The Serial ATA II connector is used to connect the Serial ATA II device to the motherboard. These connectors support the thin Serial ATA II cables for primary storage devices. The current Serial ATA II interface allows up to 300MB/s data transfer rate.

GND GND GND
TX+ RX+
TX- RX-

SATA_1/2/3/4
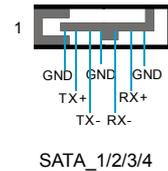
Chassis Intruder Connector: INTR

The connector connects to the chassis security switch on the case. The system can detect the chassis intrusion through the status of this connector. If the connector has been closed once, the system will send a message. To utilize this function, set "Case Open Warning" to "Enabled" in the "Power Management Setup" section of the CMOS Setup. Save and exit, then boot the operating system once to make sure this function takes effect.

1 INTRUDERJ   2 GND

INTR
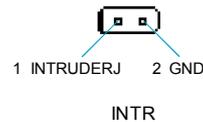
USB Headers: F_USB1, F_USB2,

Besides four USB ports on the rear panel, the series of motherboards also have two headers on board which may connect to front panel USB cable (optional) to provide additional four USB ports.

NC — Empty
GND — GND
D+ — D+
D- — D-
5V_DUAL — 5V_DUAL
1

F_USB 1/2
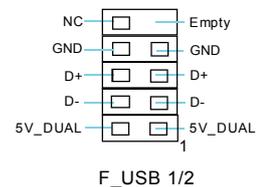
Additional COM Connector: COM2

This motherboard provides an additional serial COM header for your machine.
Connect one side of a switching cable to the header, then attach the serial COM device to the other side of the cable.

DTR# CTS#
SIN DSR# Empty
RLSD GND RI#
SOUT RTS#

COM2
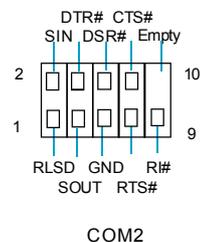
1394 Connector: F_1394 (optional)

The 1394 expansion cable can be connected to either the front (provided that the front panel of your chassis is equipped with the appropriate interface) or real panel of the chassis.

GND — Empty
+12V — +12V
TPB - — TPB +
GND — GND
TPA - — TPA +

F_1394
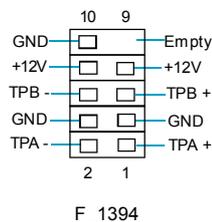
IrDA Connector: IR

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

+5V
Empty
IRRX
GND
IRTX

IR
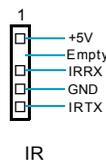
Speaker Connector: SPEAKER

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

SPKJ
Empty
NC
SPKJ
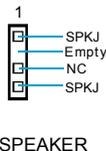
SPEAKER

S/PDIF Out Connector: SPDIF_OUT

The SPDIF OUT connector is capable of providing digital audio to external speaker or compressed AC3 data to an external Dolby digital decoder.
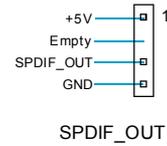
Note:The empty pin of SPDIF cable should be aligned to empty pin of SPDIF out connector.

```
+5V ———— ▣ 1
Empty ————
SPDIF_OUT——— ▣
GND———— ▣
```

SPDIF_OUT

Expansion Slots

This motherboard includes two 32-bit master PCI slots,one PCI Express
x 1 slot,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 Slots
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 Slots
This motherboard has one PCI Express x16 slot that reserved for graphics or
video cards.

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 cord before adding or removing any expan-
   sion 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.

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

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 content 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. 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: CLR_CMOS

The 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 connect pins 1 and 2 together using the jumper cap.

2. Return the jumper setting to normal (pins 2 and 3 together with the jumper cap).

3. Turn the AC power supply back on.

NORMAL
(Default)

1   2   3

CLEAR

1   2   3

CLR_CMOS

Warning:

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

Chapter 3

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
- ❖ Main Menu
- ❖ Standard CMOS Features
- ❖ Central Control Unit
- ❖ Advanced BIOS Features
- ❖ Advanced Chipset Features
- ❖ Integrated Peripherals
- ❖ Power Management Setup
- ❖ PnP/PCI Configurations
- ❖ PC Health Status
- ❖ Load Optimized Defaults
- ❖ Set Supervisor/User Password
- ❖ Save & Exit Setup
- ❖ Exit Without Saving

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, ESC to enter Boot Menu.

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.
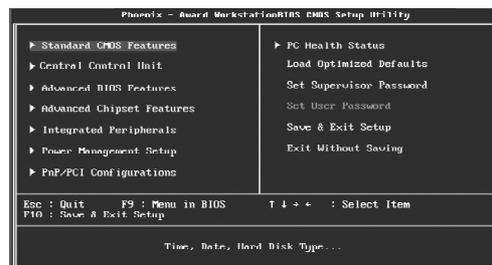
Main Menu

The items in the main menu are explained as below:

Standard CMOS Features

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

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 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 Master/Slave and SATA Channel 0/1/2/3 Master

These categories identify the HDD types of 1 IDE channel 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		

21

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

Floppy 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].

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, which identifies the amount of memory installed in the system.

Central Control Unit
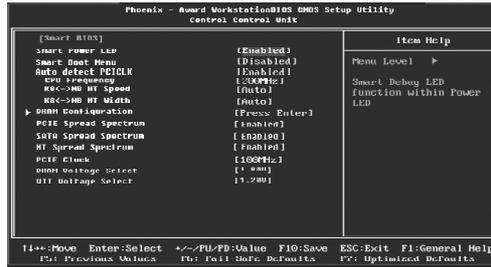
Central Control Unit Menu

[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.

❖**Auto Detect PCIClk**
   This option is used to set whether the clock of an unused PCI slot will be
   disabled to reduce electromagnetic interference.

❖**CPU Frequency**
   This option is used to set CPU Frequency .

❖**K8<->NB HT Speed**

These options are used to set the bandspeed of the link's transmitter of K8 <->NB.

❖**K8<->NB HT Width**

These options are used to set the bandwidth of the link's transmitter of K8 <->NB.

❖**DRAM Configuration**

Press <Enter> to set the items of DRAM Configuration.

❖**PCIE/SATA/HT Spread Spectrum**

If you enable spread spectrum, it can significantly reduce the EMI (Electro-Magnetic Interference) generated by PCIE / SATA / HT.

❖**PCIE Clock**

This option is used to set PCI Express Clock.

❖**DRAM/VTT Voltage Select**

This option is used to set DRAM / VTT Voltage.

DRAM Configuration Menu

❖**Timing Mode**

This item allows you to set Timing Mode.

Advanced BIOS Features
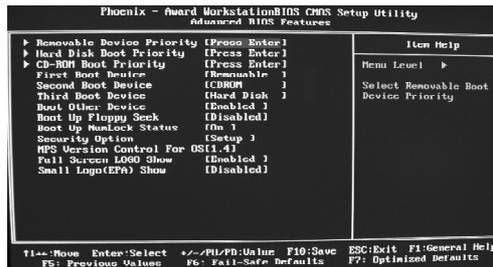
Advanced BIOS Features Menu

❖**Removable Device Priority**

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

❖**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 <->; you can exit this menu by pressing <Esc>.

❖**CD-ROM Boot Priority**

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

❖**First/Second/Third Boot Device**

This option allows you to set the boot device's sequence.

❖**Boot Other Device**

With this function set to enable, the system will boot from some other devices if the first/second/third boot devices failed.

❖**Boot Up Floppy Seek**

If this option is enabled, BIOS will activate the floppy drive during the system boot and the drive's indicator will flash after the activation. The magnetic head will move back and forth from A to B.

❖ **Boot Up NumLock Status**

This option defines if the keyboard Num Lock key is active when your system is started.

❖ **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 OS.

❖ **Full Screen LOGO Show**

This option allows you to enable or disable the full screen logo.

❖ **Small Logo (EPA) Show**

This item allows you to enable or disable the EPA logo.

Advanced Chipset Features
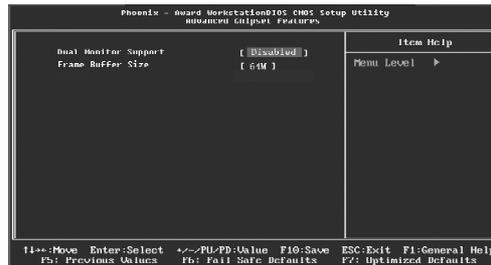
Advanced Chipset Features Menu

❖**Dual Monitor Support**

This option is used to set Dual Monitor Support.

❖**Frame Buffer Size**

This option is used to set Frame Buffer Size.

Integrated Peripherals

```
              Phoenix - Award WorkstationBIOS CMOS Setup Utility
                           Integrated Peripherals
   ▶ IDE Function Setup          [Press Enter]         Item Help
   ▶ RAID Config                 [Press Enter]
   ▶ Onboard Device              [Press Enter]       Menu Level   ▶
   ▶ SuperIO Device              [Press Enter]




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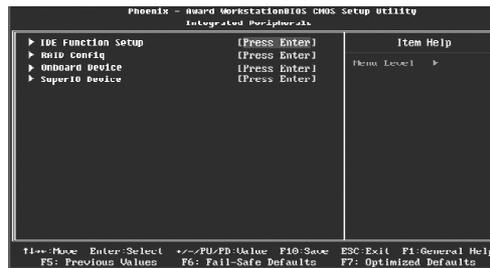
Integrated Peripherals Menu

❖**IDE Function Setup**

Press enter to set IDE Function Setup.

❖**RAID Config**

Press enter to set RAID Config device.

❖**Onboard Device**

Press enter to set onboard device.

❖**SuperIO Device**

Press enter to set onboard SuperIO device.
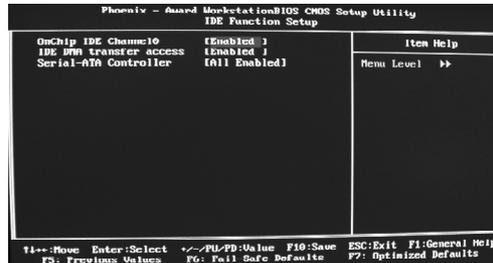
IDE Fuction Setup Menu

❖**OnChip IDE Channel 0**

This option is used to set the onchip IDE channel 0.

❖**IDE DMA transfer access**

This option is used to set the IDE transfer access—with it set to Enabled, the IDE Transfer Access uses the DMA mode; with it set to Disabled, the IDE Transfer Access uses the PIO mode.

❖**Serial-ATA Cotroller**

This option is used to enable or disable Serial-ATA cotroller.
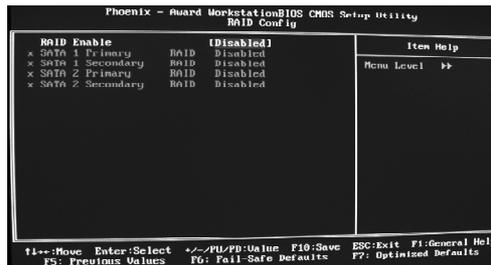
RAID Config Menu

❖ **RAID Enable**

This option is used to disable or enable the RAID function. When enabled, the following grayed items will be activated.

❖**SATA 1/2 Primary/Secondary RAID**

These feature allow users to enable or disable the RAID function for each SATA hard disk drive.
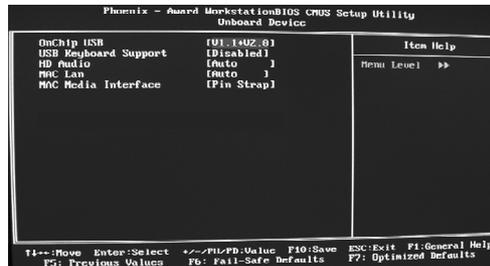
Onboard Device Menu

❖ **Onchip USB**

This option is used to set whether the USB Controller is enabled.

❖ **USB Keyboard Support**

This option is used to set whether the USB keyboard controller is enabled in a legacy operating system (such as DOS).

❖ **HD Audio**

This option is used to set whether onboard HD Audio is enabled.

❖ **MAC LAN**

This option is used to set whether MAC LAN device is enalbed.

❖ **MAC Media Interface**

This option is used to set MAC Media Interface.
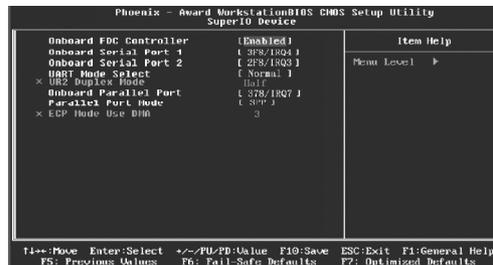
SuperIO Device Menu

❖ **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 ad-dress and interrupt request (IRQ).

❖ **Parallel Port Mode**

Select an address and corresponding interrupt for the onboard parallel port.

❖ **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.

Power Management Setup
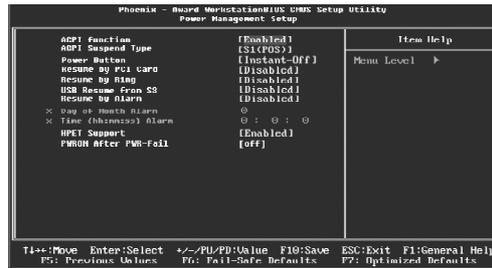
Power Management Setup Menu

❖**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 Buttom**

This option is used to set the Power Buttom.

❖**Resume by PCI card**

This item is used to set the Resume by PCI card.

❖**Resume by Ring**

This option is used to set the Resume by Ring.

❖**USB Resume from S3**

This item is used to set the system to wake up by USB equipment when it is in S3(Suspend to RAM)mode.

❖**Resume by Alarm**

This item is used to set the timing of the start-up function. In order to use this function, the start-up password function must be canceled. Also, the PC power source must not be turned off. The setting values are: Disabled and Enabled.

❖**Date (of Month) Alarm**

When the Resume by Alarm set as "Enabled", this item will be modified. It is used to set the timing for the start-up date.

❖**Time (hh:mm:ss) Alarm**

When the Resume by Alarm set as "Enabled", this item will be modified. It is used to set the timing for the start-up time.

❖**HPET Support**

This option is used to enable or disable the High Precision Event Timer Support.

❖**PWRON After PWR-Fail**

This item is used to set what action the PC will take with the power supply when it resumes after a sudden power failure.

PnP/PCI Configurations
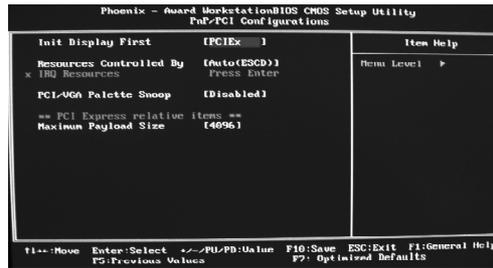
PnP/PCI Configurations Menu

❖ **Init Display First**

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

❖ **Resources Controlled By**

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.

❖**IRQ Resources**

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

❖**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.

❖**Maximum Payload Size**

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

PC Health Status
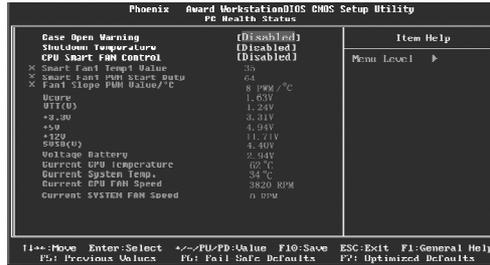
PC Health Status Menu

❖**Case Open Warning**

This option is used to enable or disable case open warning function.

❖**Shutdown Temperature**

This option is used to set the system temperature upper limit. When the temperature exceeds the setting value, the motherboard will automatically cut off power to the computer.

❖**CPU Smart Fan Control**

This option is used to set CPU Smart Fan Control.

❖**Smart Fan1 Temp1 Value**

The Smart Fan1 Temp1 Value will be automatically detected by the system.

❖**Smart Fan1 PWM Start Duty**

The Smart Fan1 PWM Start Duty will be automatically detected by the system.

❖**Fan1 Slope PWM Value/⁰C**

The Fan1 Slope PWM Value/^{0}C will be automatically detected by the system.

❖**Vcore/VTT(V)/+3.3V/+5V/+12V/5VSB(V)/Voltage Battery**

The current voltages will be automatically detected by the system.

❖**Current CPU/SYSTEM Temperature**

The CPU/system Temperature will be automatically detected by the system.

❖**Current CPU/SYSTEM Fan Speed**

The CPU/system fan speed will be automatically detected by the system.

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. NVIDIA Chipset Driver   B.Realtek HDA Audio Driver
    C. NVIDIA VGA Driver

2. Utility
Use this option to install additional software programs.

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

3. Click on dynamic Foxconn Logo to visit our homepage.

Installing Drivers

There are two ways to install drivers, manual or automatic. 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 automatic after install Intel Chipset Driver.

—Install by manual

—Install by automatic
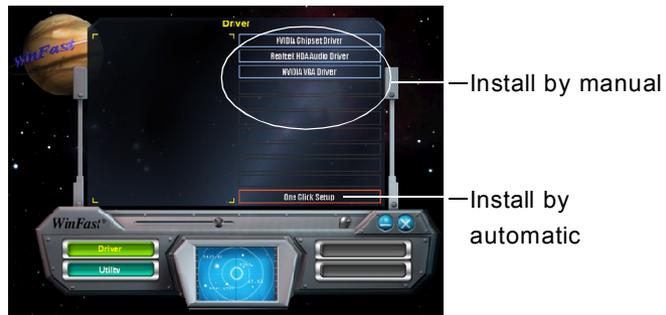
Installing Utilities

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:
- ❖ TIGER ONE
- ❖ Fox LiveUpdate

TIGER ONE

TIGER 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 TIGER 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
  -Windows 2003

Using TIGER ONE:
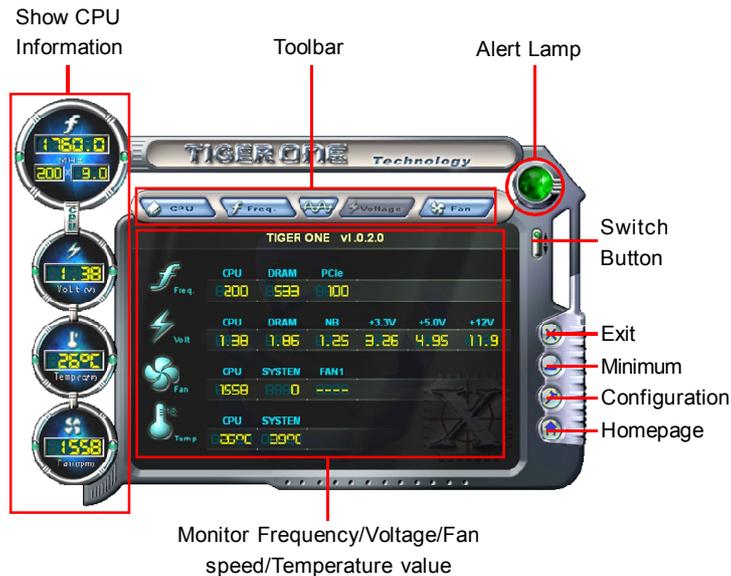
1. Main Page

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 configurate 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 TIGER 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
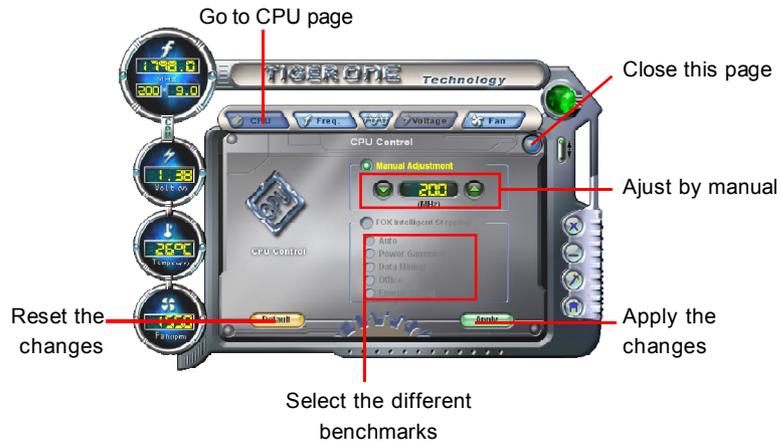
3. Freq. Page - Frequency Control

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
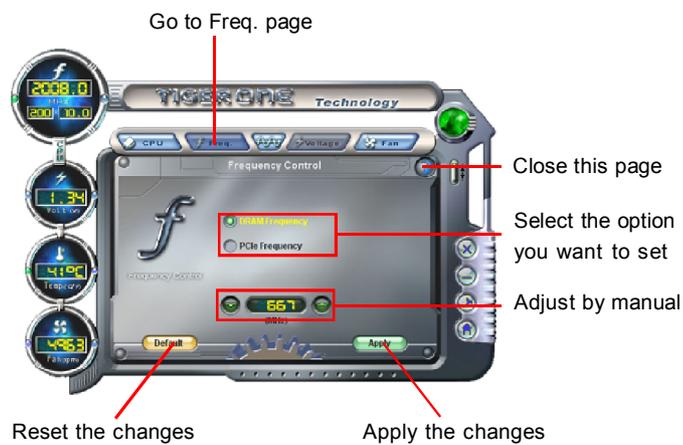
4.1 Limit Setting - CPU Temp.

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

Show current CPU temperature value

Go to Adjust page

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
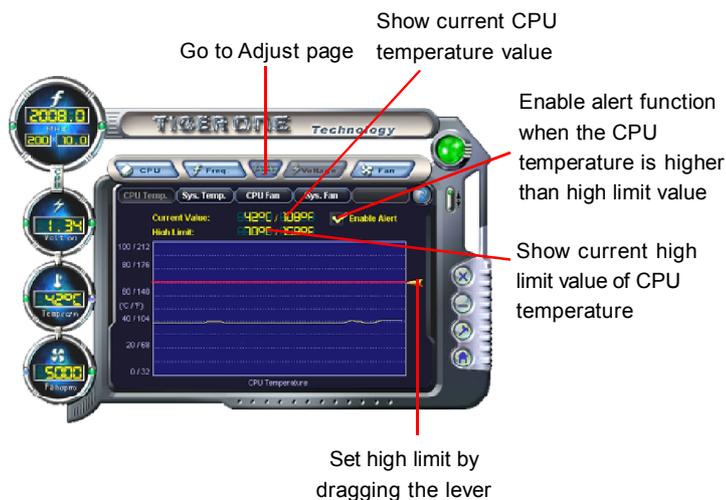
4.2 Limit Setting - Sys Temp.

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
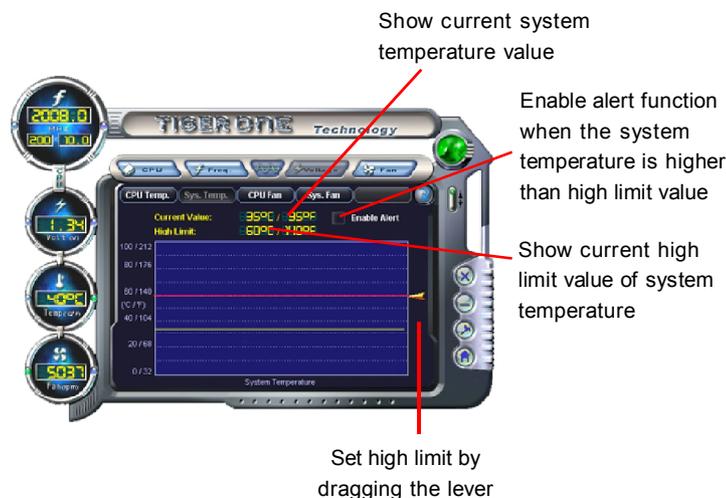
4.3 Limit Setting - CPU Fan
This page lets you to set CPU fan low limit rpm and enable the alert function.

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
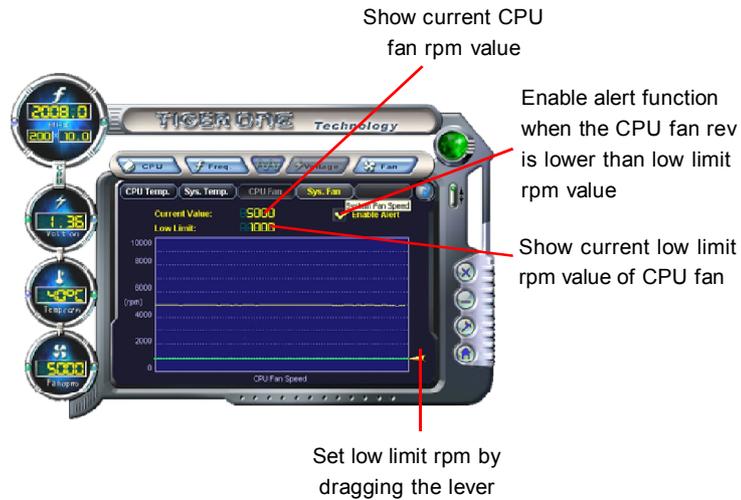
4.4 Limit Setting - Sys Fan
This page lets you to set system low limit rpm and enable the alert function.

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
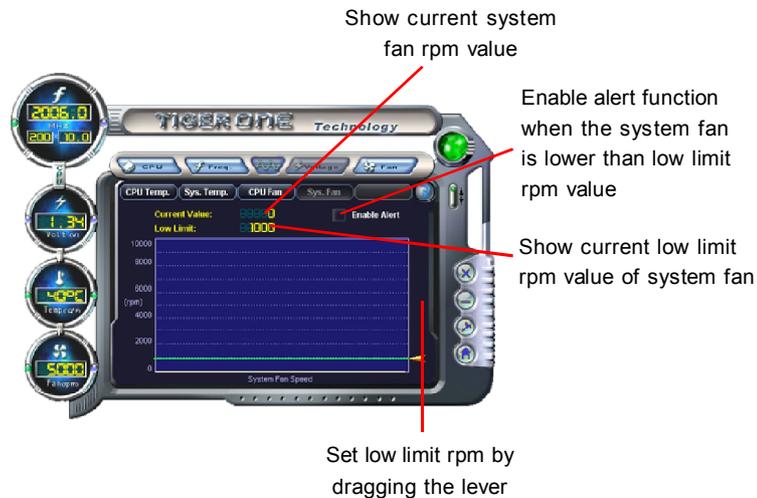
5. Fan Page - Fan Control

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
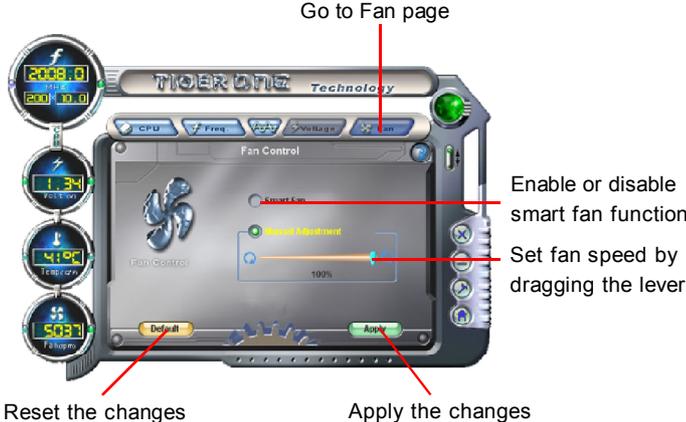
Fox LiveUpdate

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.
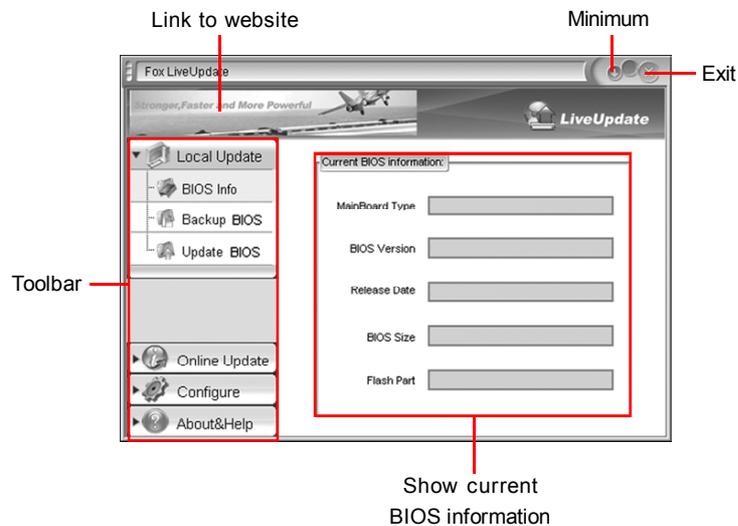
1.2 Local Update - Backup

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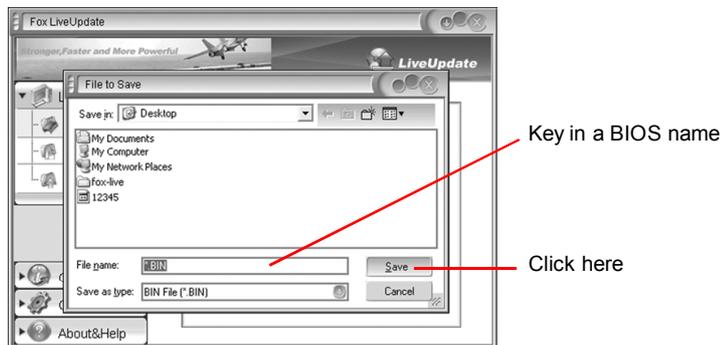
1.3 Local Update - Update

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.
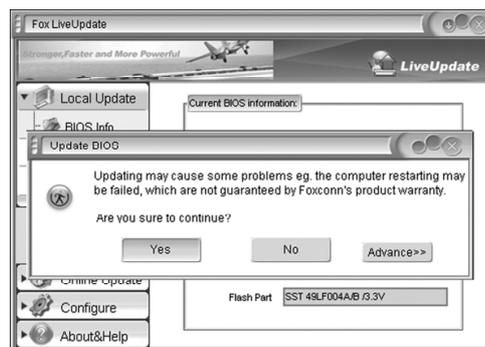

✎ Note:

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
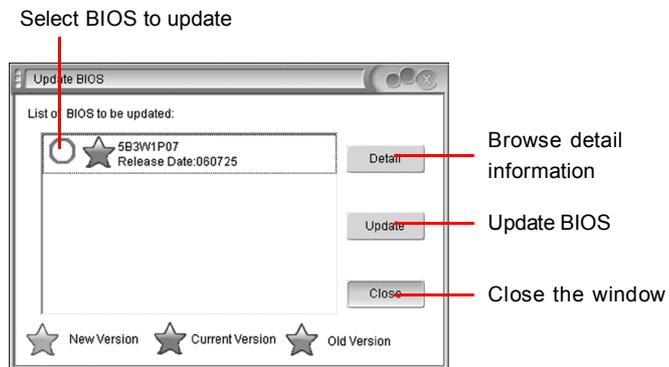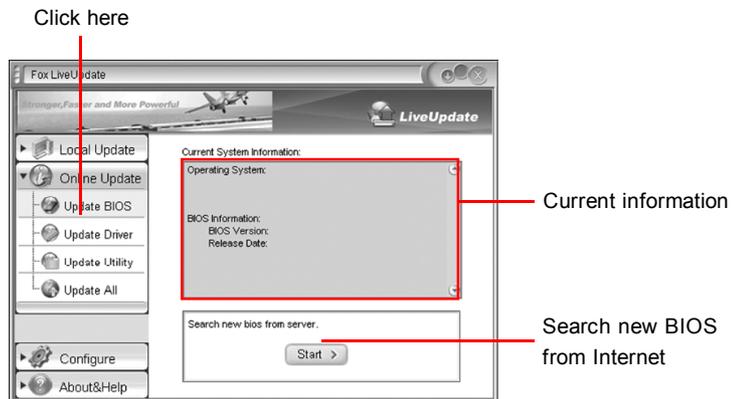
2.2 Online Update - Update Driver

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
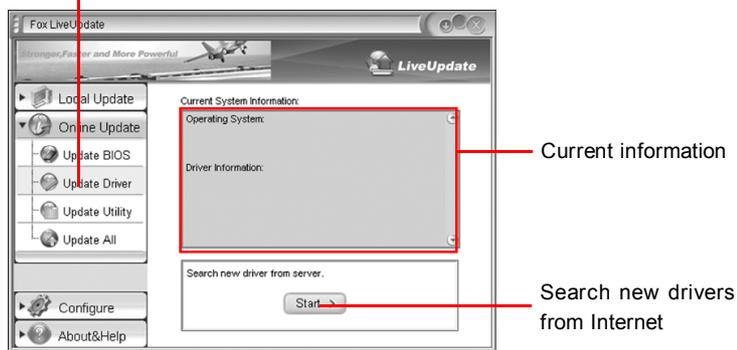
Select the drivers to update

Browse detail
information

Install the selected
drivers

Close the window
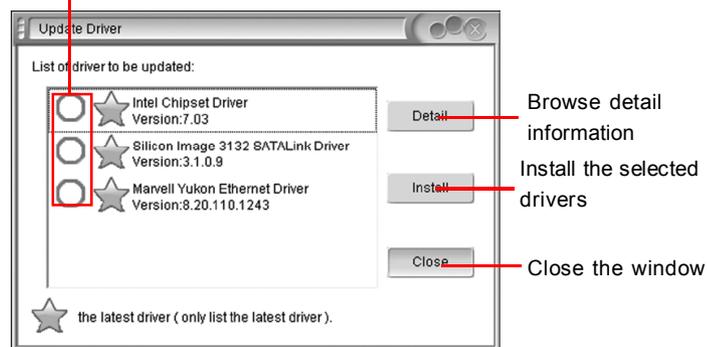
2.3 Online Update - Update Utility

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
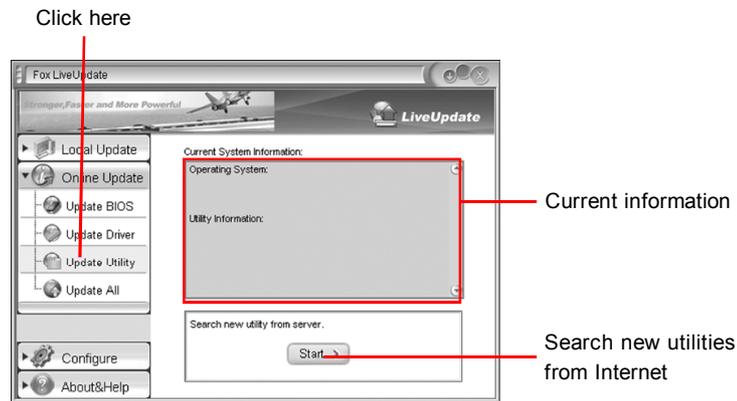
2.4 Online Update - Update All

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
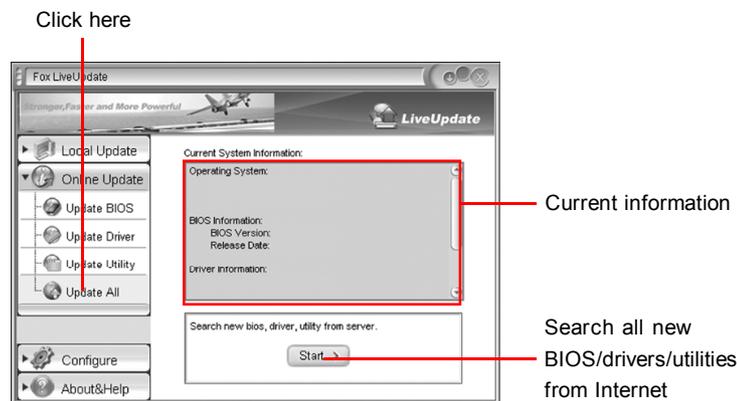
3.1 Configure - option

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
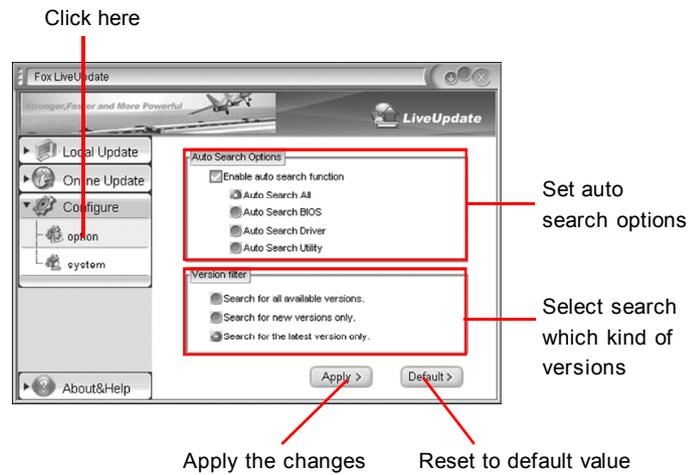
Note:

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
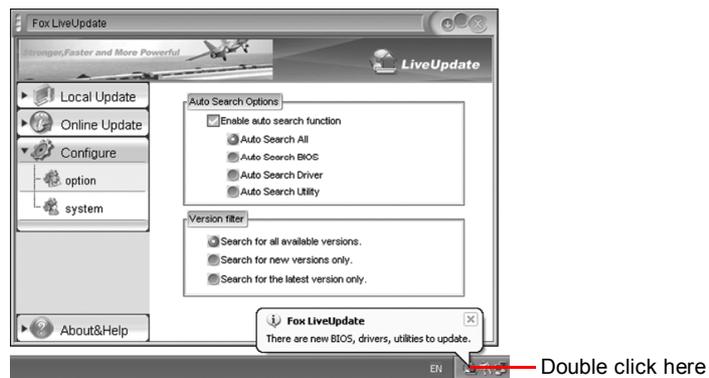
3.2 Configure - System

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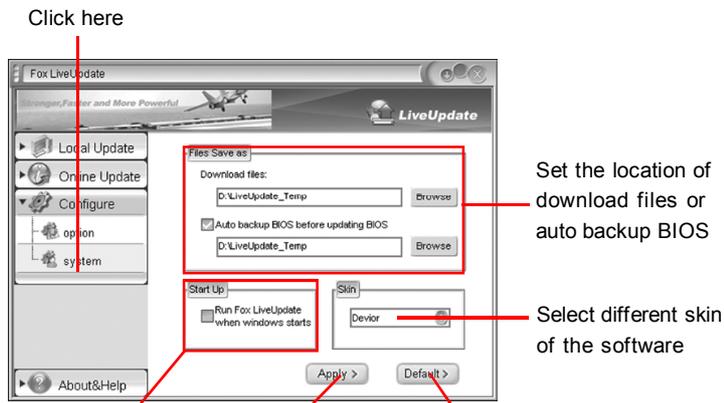
Determine if the Fox LiveUpdate can auto run when the system starts up

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