D52S/D42S

Motherboard

User's Manual

FOXCONN®

Statement:

This manual is the intellectual property of Foxconn, Inc. Although the information in this manual may be changed or modified at any time, Foxconn does not obligate itself to inform the user of these changes.

Trademark:

All trademarks are the property of their respective owners.

Version:

User's Manual V1.0 for D52S/D42S motherboard.

Symbol description:

Caution : refers to important information that can help you to use motherboard better, and tells you how to avoid problems.

Warning : indicating a potential risk of hardware damage or physical injury may exist.

WEEE:

The use of this symbol indicates that this product may not be treated as household waste. By ensuring this product is disposed of correctly, you will help prevent potential negative consequences for the environment and human health, which could otherwise be caused by inappropriate waste handling of this product. For more detailed information about recycling of this product, please contact your local city office, your household waste disposal service or the shop where you purchased this product.

More information:

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

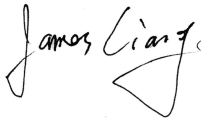
Declaration of conformity

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 D52S/D42S
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/2010

Printed Name : James Liang

Declaration of conformity

FC

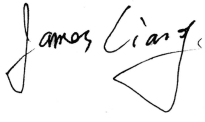
Trade Name:	FOXCONN
Model Name:	D52S/D42S
Responsible Party:	PCE Industry Inc.
Address:	458 E. Lambert Rd. Fullerton, CA 92835
Telephone:	714-738-8868
Facsimile:	714-738-8838

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 :  Date : 2010

Installation Precautions

- Electrostatic discharge (ESD) is the sudden and momentary electric current that flows between two objects at different electrical potentials. Normally it comes out as a spark which will quickly damage your electronic equipment. Please wear an electrostatic discharge (ESD) wrist strap when handling components such as a motherboard, CPU or memory.
- Ensure that the DC power supply is turned off before installing or removing CPU, memory, expansion cards or other peripherals. It is recommended to unplug the AC power cord from the power supply outlet. Failure to unplug the power supply cord may result in serious damage to your system.

Please carefully read the following procedures to install your computer :

- It is suggested to select high-quality, certified fans in order to avoid damage to the motherboard and CPU due to high temperature. Never turn on the computer if the CPU fan is not properly installed.
- We cannot guarantee that your system can operate normally when your CPU/Memory is overclocked. Normal operation depends on the overclocking capacity of your device.
- If there is any, when connecting USB, audio, 1394a, RS232 COM, IrDA or S/PDIF cables to the internal connectors on the motherboard, make sure their pinouts are matching with the connectors on the motherboard. Incorrect connections might damage the motherboard.
- When handling the motherboard, avoid touching any metal leads or connectors.
- If there is a PCI Express x16 graphics card installed in your system, we recommend using a 24-pin ATX power supply to get the best performance.
- Before turning on the power, please make sure the power supply AC input voltage setting has been configured to the local standard.
- To prevent damage to the motherboard, do not allow screws to come in contact with the motherboard circuit or its components. Also, make sure there are no leftover screws or metal components placed on the motherboard or within the computer casing.
- If you are uncertain about any installation steps or have a problem related to the use of the product, please consult a certified computer technician.

TABLE OF CONTENTS

Technical Support :

Support

Website :
http://www.foxconnchannel.com

Support Website :
http://www.foxconnsupport.com

Worldwide online contact Support :
http://www.foxconnsupport.com/inquiry.aspx

CPU Support List :
http://www.foxconnsupport.com/cpusupportlist.aspx

Memory, VGA Compatibility List :
http://www.foxconnsupport.com/complist.aspx

Thank you for buying Foxconn D52S/D42S motherboard. Foxconn products are engineered to maximize computing power, providing only what you need for break-through performance.

With advanced overclocking capability and a range of connectivity features for today multi-media computing requirements, D52S/D42S enables you to unleash more power from your computer.

This chapter includes the following information:

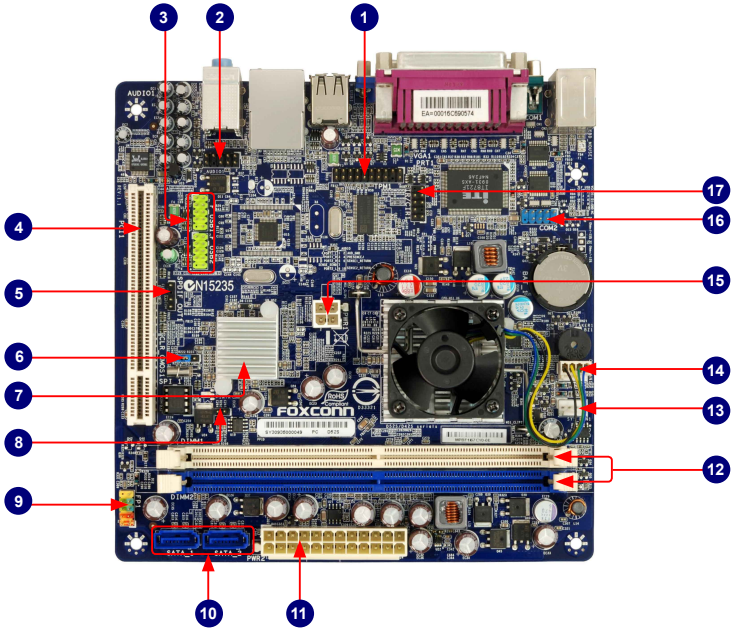
- Product Specifications
- Layout
- Back Panel Connectors

1-1 Product Specifications

CPU	Intel® Atom™ D520 processor mounted onboard (D52S)
	Intel® Atom™ D420 processor mounted onboard (D42S)
Chipset	Intel® NM10 Express
Memory	2 x 240-pin DDR2 DIMM socket
	Support up to 4GB of system memory
	Single channel DDR2 800/667MHz architecture
Audio	Realtek ALC662 codec
	High Definition Audio
	2/4/5.1-channel
LAN	Realtek 10/100/1000Mb/s LAN chip
Expansion Slot	1 x PCI slot
Onboard Serial ATA	2 x SATA connectors
	300MB/s data transfer rate
USB	Support hot plug
	Support up to 8 USB 2.0 ports (4 rear panel ports, 2 onboard USB headers providing 2 extra ports)
	Supports USB 2.0 protocol up to 480Mb/s
Internal Connectors	1 x 24-pin ATX main power connector
	1 x 4-pin ATX main power connector
	2 x SATA connectors
	2 x USB 2.0 headers (supporting 4 x USB devices)
	1 x Front panel connector
	1 x Front audio connector
	1 x S/PDIF_OUT connector
	1 x CPU fan header (4-pin)
	1 x System fan header (4-pin)
	1 x TPM connector
	1 x IR/CIR connector
	1 x COM2 connector
	1 x Chassis intrusion alarm header (INTR)
Back Panel Connectors	1 x PS/2 keyboard port
	1 x PS/2 mouse port
	1 x Serial port
	1 x Parallel port
	1 x VGA port
	4 x USB 2.0 ports
	1 x RJ-45 LAN port
	6-channel Audio ports
Hardware Monitor	System voltage detection
	CPU/System temperature detection

	CPU/System fan speed detection
	CPU overheating shutdown
Green Function	Low power consumption and power management features
	Support ACPI (Advanced Configuration and Power Interface)
	Support S0 (normal), S1 (power on suspend), S3 (suspend to RAM), S4 (Suspend to disk), and S5 (soft - off)
Operating System	Support for Microsoft® Windows® 7/Vista/XP
Form Factor	Mini-ITX Form Factor, 6.75 inches x 6.75 inches (171mm x 171mm)

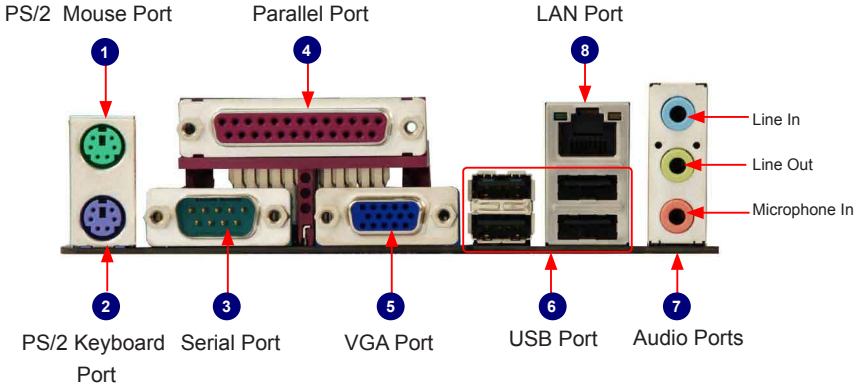
1-2 Layout



1. TPM Connector
2. Front Audio Connector
3. Front USB Connectors
4. PCI Slot
5. SPDIF_OUT Connector
6. Clear CMOS Jumper
7. Chipset: Intel® NM10 Express
8. Chassis Intrusion Alarm Header
9. Front Panel Connector
10. SATA Connectors
11. 24-pin ATX Power Connector
12. DDR2 DIMM Slots
13. System Fan Header
14. CPU Fan Header
15. 4-pin ATX 12V Power Connector
16. COM2 Connector
17. IR/CIR Connector

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

1-3 Back Panel Connectors



1. PS/2 Mouse Port

Use the upper port (green) to connect a PS/2 mouse.

2. PS/2 Keyboard Port

Use the lower port (purple) to connect a PS/2 keyboard.

3. Serial Port

This is output of RS232 COM1 port.

4. Parallel Port

This connector provides printer port interface.

5. VGA Port

To connect with external display devices, such as monitor or LCD display.

6. USB Ports

The USB port supports the USB 2.0/1.1 specification. Use this port for USB devices such as an USB keyboard/mouse, USB printer, USB flash drive and etc.

7. Audio Ports

For the definition of each audio port, please refer to the table below :

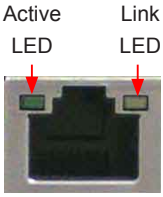
Port	2-channel	4-channel	5.1-channel
Blue	Line In	Rear Speaker Out	Rear Speaker Out
Green	Line Out	Front Speaker Out	Front Speaker Out
Pink	Microphone In	Microphone In	Center/Subwoofer Speaker Out

* : Please refer to Chapter 4, and install the Realtek audio driver (in CD) to assign the audio output ports for different applications of 2/4/5.1 channels. The fundamental audio outputs are depicted in the table above.

8. RJ-45 LAN Port

The Ethernet LAN port provides Internet connection at up to 10/100/1000Mb/s data rate.

LAN Type	Left: Active		Right: Link	
	Status	Description	Status	Description
1000M	Off	No Link	Off	No Link
	Green Blinking	Data Activity	Off	10Mb/s Connection
			Green	100Mb/s Connection
			Orange	1000Mb/s Connection



This chapter introduces the hardware installation process, including the installation of the CPU, memory, power supply, slots, 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 :

- Install the Memory
- Install other Internal Connectors
- Jumpers

Please visit the following website for more supporting information about your motherboard.

CPU Support List:

http://www.foxconnsupport.com/cpusupportlist.aspx

Memory, VGA Compatibility List:

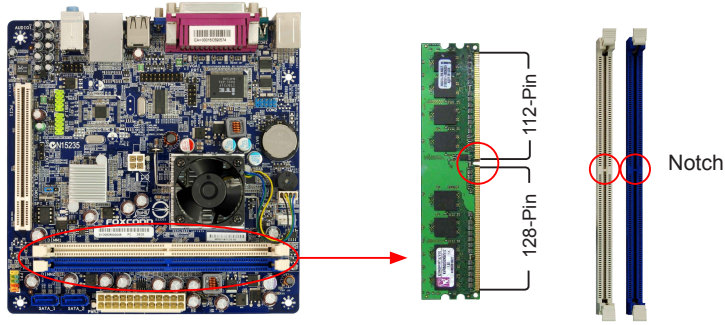
http://www.foxconnsupport.com/complist.aspx

2-1 Install the Memory

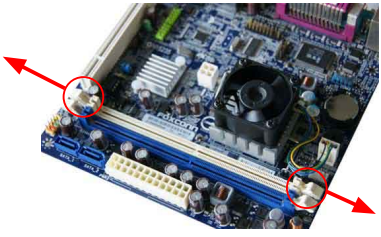
CAUTION

Read the following guidelines before you begin to install the memory :

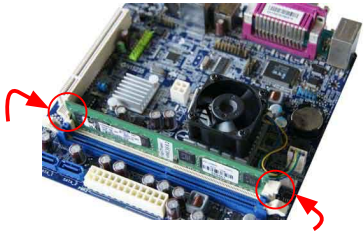
- Make sure that the motherboard supports the memory. It is recommended that memory of the same capacity, brand, speed, and chips be used.
- Always turn off the computer and unplug the power cord from the power outlet before installing the memory to prevent hardware damage.
- Memory modules have a foolproof design. A memory module can be installed in only one direction. If you are unable to insert the memory, switch the direction.
- Be sure to install DDR2 DIMMs on this motherboard.



If you take a look at front side of memory module, it has asymmetric pin counts on both sides separated by a notch in the middle, so it can only fit in one direction. Follow the steps below to correctly install your memory modules into the sockets.



Step 1:
Spread the clips at both ends of the memory socket. Place the memory module onto the socket, then put your fingers on top edge of the module, and push it down firmly and seat it vertically into the memory socket.



Step 2:
The clips at both ends of the socket will snap into place when the memory module is securely inserted.

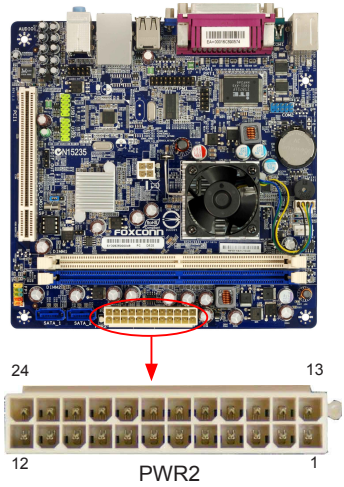
2-2 Install other Internal Connectors

Power Connectors

This motherboard uses an ATX power supply. In order not to damage any device, make sure all the devices have been installed properly before applying the power supply.

24-pin ATX power connector : PWR2

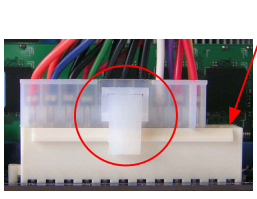
PWR2 is the ATX power supply connector. Make sure that the power supply cable and pins are properly aligned with the connector on the motherboard. Firmly plug the power supply cable into the connector and make sure it is secure.



Pin #	Definition	Pin #	Definition
1	3.3V	13	3.3V
2	3.3V	14	-12V
3	GND	15	GND
4	+5V	16	PS_ON(Soft On/Off)
5	GND	17	GND
6	+5V	18	GND
7	GND	19	GND
8	Power Good	20	NC
9	+5V SB(Stand by +5V)	21	+5V
10	+12V	22	+5V
11	+12V	23	+5V
12	3.3V	24	GND

CAUTION

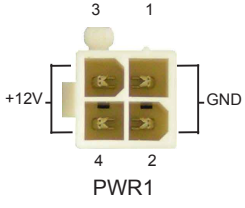
We recommend you using a 24-pin power supply. If you are using a 20-pin power supply, you need to align the ATX power connector according to the picture.



20-Pin Power

4-pin ATX 12 V Power Connector : PWR1

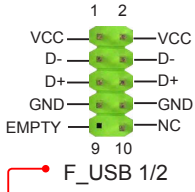
Connect the 4-pin ATX 12V power supply to PWR1 and provides power to the CPU.



Pin #	Definition
1	GND
2	GND
3	+12V
4	+12V

USB Connectors : F_USB1/2

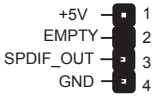
In addition to the four USB ports on the rear panel, this product also provides two 10-pin USB headers on its motherboard. By connecting through USB cables with them, user can quickly expand another four USB ports on the front panel.



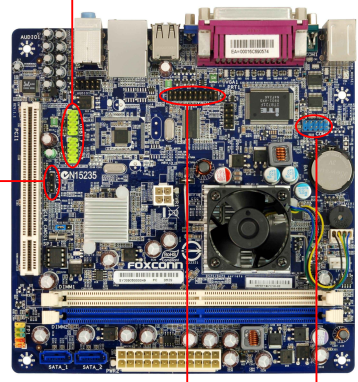
F_USB 1/2

S/PDIF OUT Connector : SPDIF_OUT1

The connector is used for S/PDIF output.

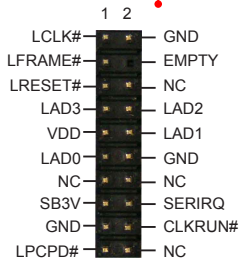


SPDIF_OUT1



TPM Connector : TPM1

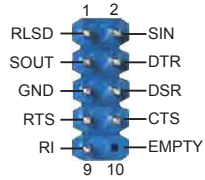
The TPM (Trusted Platform Module) provides the ability to the PC to run applications more secure and to make transactions and communication more trustworthy. To utilize this function, you should purchase additional device and install it.



TPM1

COM Connector : COM2

This motherboard supports one serial RS232 COM port for legacy compatibility. User must purchase another RS232 cable with a 9-pin D-sub connector at one end to connect with the external RS232 device and another end with 10-pin female connector to connect with COM2 connector in the motherboard.



COM2

Front Panel Connector : FP1

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

Hard Disk LED Connector (HDD-LED)

Connect to the chassis front panel IDE indicator LED. It indicates the active status of the hard disks. This 2-pin connector is directional with +/- sign.

Reset Switch (RESET-SW)

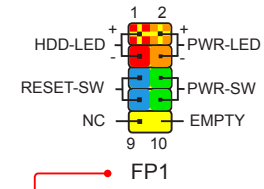
Attach the connector to the Reset switch on the front panel of the case; the system will restart when the switch is pressed.

Power LED Connector (PWR-LED)

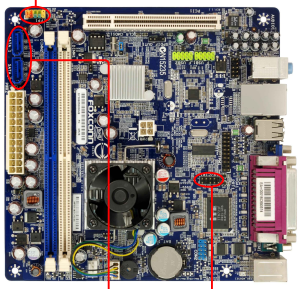
Connect to the power LED indicator on the front panel of the chassis. The Power LED indicates the system's status. When the system is in operation (S0 status), the LED is on. When the system gets into sleep mode (S1) , the LED is blinking; When the system is in S3/S4 sleep state or power off mode (S5), the LED is off. This 2-pin connector is directional with +/- sign.

Power Switch Connector (PWR-SW)

Connect to the power button on the front panel of the chassis. Push this switch allows the system to be turned on and off rather than using the power supply button.

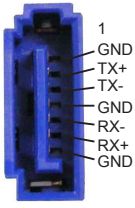


FP1



Serial ATA Connectors : SATA_1/2

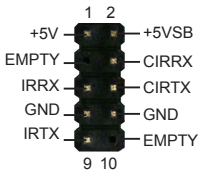
The Serial ATA connector is used to connect with SATA Hard Disk or CD devices which supporting this feature. The current Serial ATA II interface allows up to 300MB/s data transfer rate.



SATA _1/2

IrDA Connector : IR/CIR1

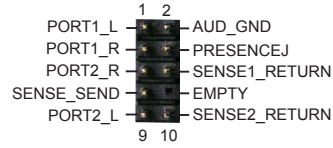
This connector supports infrared wireless transmitting and receiving device.



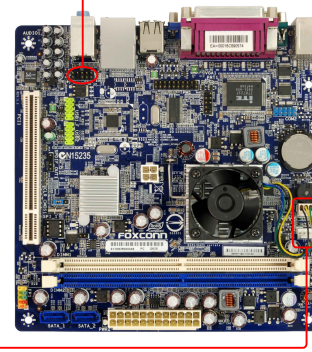
IR/CIR1

Audio Connector : F_AUDIO1

The audio connector supports HD Audio standard. It provides the Front Audio output choice.

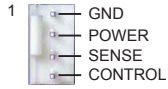


F_AUDIO1



Fan Headers : CPU_FAN1, SYS_FAN1

There are two main fan headers on this motherboard. The fan speed can be controlled and monitored in “PC Health Status” section of the BIOS Setup. These fans can be automatically turned off after the system enters S3, S4 and S5 sleeping states.



CPU_FAN1/SYS_FAN1

2-3 Jumpers

For some features needed, users can change the jumper settings on this motherboard to modify them. 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 setting.

Description of Jumpers

1. For any jumper on this motherboard, Pin 1 can be identified by the bold silkscreen next to it. However, in this manual, Pin 1 is simply labeled as “1”.
2. The following table explains different types of the jumper settings. "Closed" means placing a jumper cap on the two pins to temporarily short them. The shorting can also be done by touching two pins by a screwdriver for a few seconds, but using jumper cap is recommended. It can prevent hazardous ESD (Electrical Static Discharge) problem.

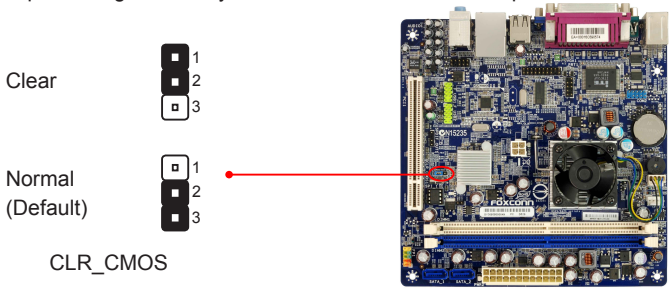
Jumper	Diagram	Definition	Description
1	1	1-2	Set Pin 1 and Pin 2 closed
	1	2-3	Set Pin 2 and Pin 3 closed

Clear CMOS Jumper: CLR_CMOS

The motherboard uses CMOS RAM to store the basic hardware information (such as BIOS data, date, time information, hardware password...etc.). Clear CMOS data is the fast way to go back to factory default when the BIOS settings were mistakenly modified.

The steps to clear CMOS data are :

1. Turn off the computer, unplug the power cord from the power outlet.
2. Remove jumper cap from pins 2-3, put it onto pins 1-2 to short them. This will clear CMOS data.
3. Return the setting to its original with pins 2-3 closed.
4. Plug in the power cord to your computer and turn it on.
5. Go to BIOS Setup to configure new system as described in next chapter.



WARNING!

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

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 Power On Self Test (POST) process.
2. You want to change the default CMOS settings.

This chapter includes the following information :

- Enter BIOS Setup
- Main Menu
- System Information
- Advanced BIOS Features
- Fox Central Control Unit
- Advanced Chipset Features
- Integrated Peripherals
- Power Management Setup
- PC Health Status
- BIOS Security Features
- Load Optimal Defaults
- Save & Exit Setup
- Exit Without Saving

Since BIOS could be updated some other times, the BIOS information described in this manual is for reference only. We do not guarantee the content of this manual will remain consistent with the newly released BIOS at any given time in the future. Please visit our website for updated manual if it is available.

Enter BIOS Setup

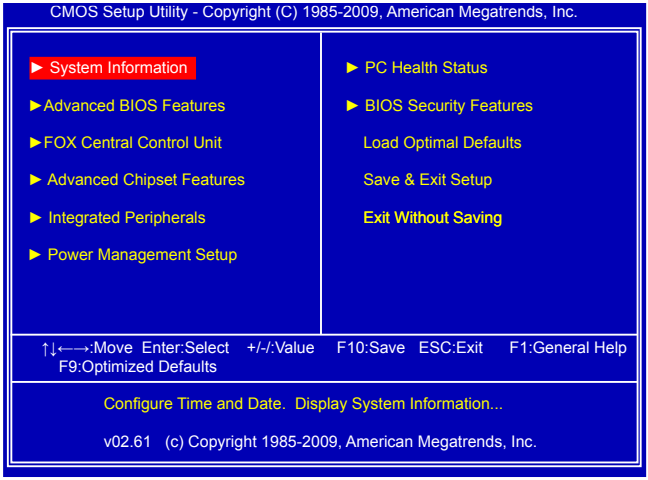
The BIOS is the communication bridge between hardware and software, correctly setting up the BIOS parameters is critical to maintain optimal system performance. Power on the computer, when the message "**Press <DEL> to enter Setup, <ESC> to boot menu**" appears at the bottom of the screen, you can press <Del> key to enter SETUP.

CAUTION

We do not suggest that you change the default values in the BIOS Setup, and we shall not be responsible for any damage which resulted from the change you made.

Main Menu

The main menu allows you to select from a list of setup functions together with two exit choices. Use the arrow keys to select a specific item and press <Enter> to go to the submenu.
Each item in the main menu is explained below:



► **System Information**

It displays the basic system configuration, such as BIOS ID, system date and time. They all can be seen or set up through this menu.

► **Advanced BIOS Features**

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

► **Fox Central Control Unit**

Some special proprietary 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. There are IDE devices, Super I/O

devices such as Serial I/O and other USB devices... etc.

► **Power Management Setup**

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

► **PC Health Status**

This setup enables you to read/change Fan speeds, and displays temperatures and voltages of your CPU/System.

► **BIOS Security Features**

The Supervisor/User password can be set up through this menu to prevent unauthorized use of your computer. If you set a password, the system will ask you to key in correct password before boot or access to Setup.

► **Load Optimal Defaults**

The optimal performance settings can be loaded through this menu. However, it may offer better performance in some ways (such as less I/O cards, less memory ...etc.), still, it may cause problem if you have more memory or I/O cards installed. It means, if your system loading is heavy, set to optimal default may sometimes come out an unstable system. What you need now is to adjust BIOS setting one by one, trial and error, to find out the best setting for your current system.

► **Save & Exit Setup**

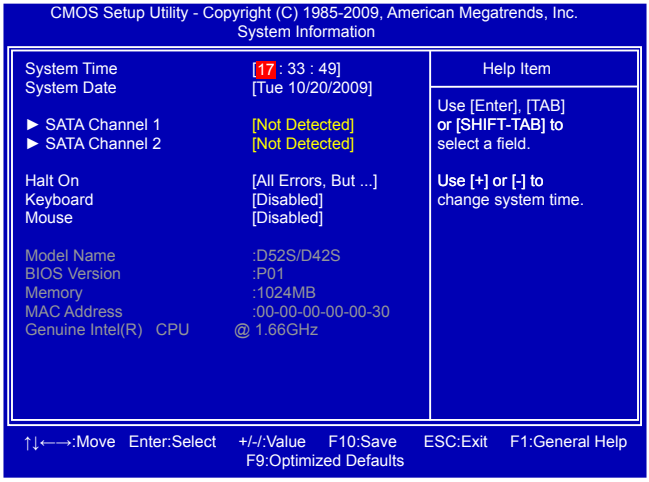
Save setting values to CMOS and exit.

► **Exit Without Saving**

Do not change anything and exit the setup.

When we talk about <+> and <-> keys in this manual, they are the single-keypad keys of the numeric keypad which is located at the right hand side of your desktop keyboard. They are not the combination keys made by pressing and holding down <Shift> key first, then press <+ => or <-_> key the next.

System Information



This submenu is used to set up the standard BIOS features, such as the date, time, IDE channel and so on. Use the arrow up/down keys to select an item, then use the <+> or <-> keys to change the setting.

► System Time

This item allows you to configure the desired time. Use [ENTER] to enter the setting, then use [TAB] to move forward a field. Use [+] or [-] to input the value.

The three fields of the setting are <hour> : <minute> : <second> respectively.

► System Date

<weekday><month><date> <year> format.

Day—weekday from Sun. to Sat., this message is automatically displayed by BIOS (Read Only).

Month—month from 1 to 12.

Date—date from 1 to 31.

Year—year, set up by users.

Use [ENTER], [TAB] or [SHIFT-TAB] to select a field. Use [+] or [-] to input the value.

► SATA Channel 1 /SATA Channel 2

While entering setup, BIOS automatically detects the presence of SATA devices. This item displays the drive information of SATA devices.

► Halt On

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

[All Errors] : All errors can result in system halt.

[All Errors But...] : All errors but keyboard or mouse can result in system halt. The halt condition can be enabled/disabled in the next two settings.

► Keyboard

The system boot will not stop for a keyboard error if you enabled this item.

► **Mouse**

The system boot will not stop for a mouse error if you enabled this item.

► **Model Name**

This item shows the model name.

► **BIOS Version**

It displays the current BIOS version. User can check this information and discuss with the field service people if a BIOS upgrade is needed.

► **Memory**

This item shows the information of the system memory, determined by POST(Power On Self Test) of the BIOS.

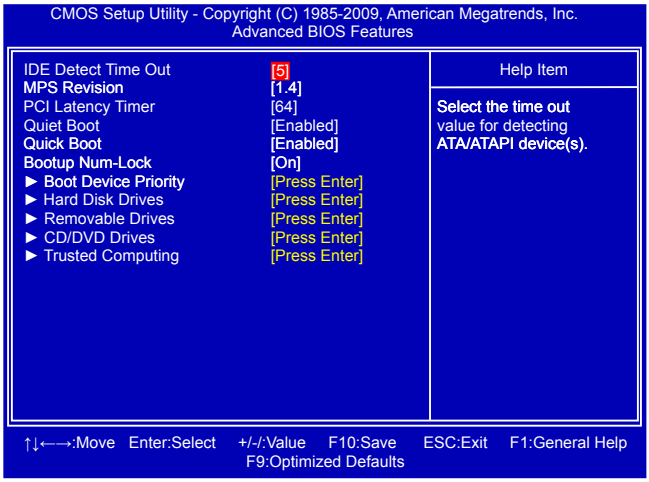
► **MAC Address**

This item shows the onboard LAN MAC address.

► **CPU Name**

It displays the current CPU name.

Advanced BIOS Features



► IDE Detect Time Out

This item is used to select the time out value for detecting ATA/ATAPI devices. If the checking time is over the set value, the system will skip it.

► MPS Revision

This feature is only applicable to multiprocessor motherboards as it specifies the version of the MPS that the motherboard will use. The MPS is a specification by which PC manufacturers design and build CPU architecture systems with two or more processors. MPS 1.1 was the original specification. MPS version 1.4 adds extended configuration tables for improved support of multiple PCI bus configurations and greater expandability in the future. In addition, MPS 1.4 introduces support for a secondary PCI bus without requiring a PCI bridge. If your operating system comes with support for MPS 1.4, you should keep the setting as the default 1.4. You also need to enable MPS 1.4 support if you need to make use of the secondary PCI bus on a motherboard that doesn't come with a PCI bridge. You should only leave it as 1.1 only if you are running an older operating system that only supports MPS 1.1.

► PCI Latency Timer

This item is used to set the PCI latency timer. The value is in unit of PCI cycle for PCI device latency timer register. Setting values are 32, 64, 96, 128, 160, 192, 224, 248.

This feature controls how long each PCI device can hold the bus before another takes over. The larger the value, the longer the PCI device can retain control of the bus. Low values for the PCI Latency Timer will reduce the effective PCI bandwidth while higher values means every PCI device will have to wait longer before they can get access to the bus, but when they do get access, they can conduct their transactions for a longer time. Normally, a default value of 64 cycles is set. Some PCI devices may not agree with longer latency times so if you start facing problems like stuttering sound or a less responsive system, reduce the latency. Higher values will actually reduce performance as too much time may be allocated to each PCI device to the disadvantage of other devices on the bus.

► **Quiet Boot**

This item is used to enable/disable the quiet boot.

[Disabled] : Displays the normal POST messages.

[Enabled] : Displays OEM customer logo instead of POST messages.

► **Quick Boot**

While Enabled, this option allows BIOS to skip certain tests while booting, this will shorten the time needed to boot the system.

► **Bootup Num-Lock**

This item defines if the keyboard Num Lock key is active when your system is started. The available settings are: On (default) and Off.

► **Boot Device Priority**

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

► **Hard Disk Drives**

This option is used to specify the boot priority sequence from available hard disk drives.

► **Removable Drives**

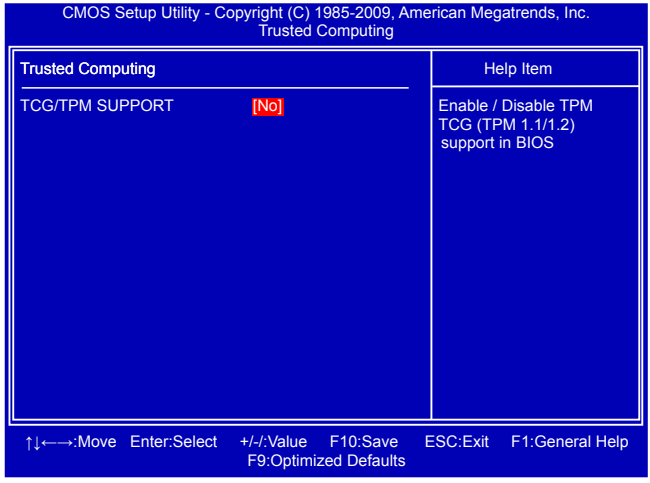
This option is used to specify the boot priority sequence from available removable drives.

► **CD/DVD Drives**

This option is used to specify the boot priority sequence from available CD/DVD drives.

► **Trusted Computing**

Press <Enter> to go to its submenu.



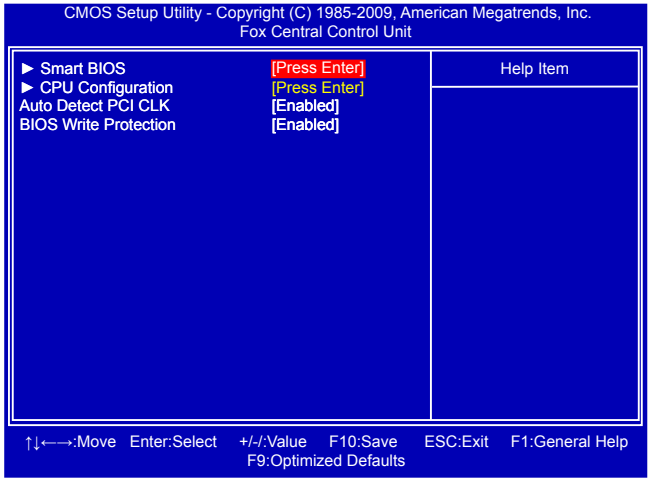
► **TCG/TPM SUPPORT**

Trusted Computing Group (TCG) members develop and promote open, vendor-neutral, industry standard specifications for trusted computing building blocks and software interfaces across multiple platforms

TPM (Trusted Platform Module) is a specification promoted by TCG. A Trusted Platform Mod-

ule offers facilities for secure generation of cryptographic keys.
The TPM Work Group is chartered to create the Trusted Platform Module (TPM) specification. The definition of the TPM architecture comes from the TC and the TPM Work Group defines the implementation of that architecture. Work group members should have a working knowledge of security in relation to the design and usage of cryptographic modules. Members should also have a working knowledge of cryptographic techniques including public-key cryptography, cryptographic algorithms and protocols.
This item is used to enable/disable the function of TCG/TPM support.

Fox Central Control Unit



► **Smart BIOS / CPU Configuration**

Press <Enter> to go to its submenu.

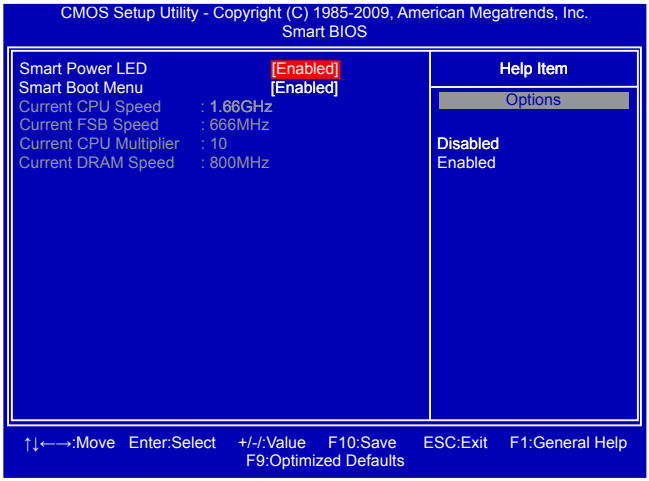
► **Auto Detect PCI CLK**

This option is used to auto detect PCI slot. When enabled, the system will turn off clock of the empty PCI slot to reduce EMI (Electromagnetic Interference).

► **BIOS Write Protection**

To protect the system BIOS from virus attack, there is a BIOS write-protection mechanism provided. Super BIOS Protect function protects your BIOS from being affected by viruses, e.g. CIH.

Smart BIOS



► **Smart Power LED**

Smart Power LED is a feature built on your motherboard to indicate different states during Power-On Self-Test (POST). The LED is located at the front panel, and it displays POST state by different long-short blinking intervals. You can always leave this state enabled.

System Status	Power LED Status	Stop Blinking Condition
Normal	Always On	Always On
No Memory	Continue blinking On (1sec.), Off (1sec.)	Reboot & Memory OK
No Display	Continue blinking On (2sec.), Off (2sec.)	Reboot & Display OK
Post Error Message	Quick blinking twice (1/3sec. On, 1/3sec. Off), one long On (1sec.), continuously.	Enter Setup or Skip

► **Smart Boot Menu**

When PC starts, it will ask you to press [Del] key to enter setup or press [Esc] key to enter smart boot menu. If [Disabled] is selected, then pressing [Esc] has no function. This also prevents user without password trying to get into your computer through smart boot menu.

► **Current CPU Speed**

This item displays the current CPU speed.

► **Current FSB Speed**

This item displays the current Front Side Bus clock.

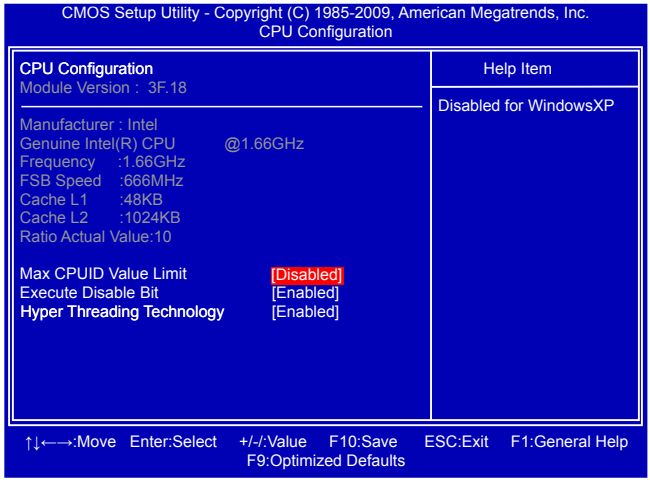
► **Current CPU Multiplier**

This item displays the current CPU Ratio.

► **Current DRAM Speed**

This item displays the current DRAM Speed.

CPU Configuration



This menu shows most of the CPU specifications.

► **Max CPUID Value Limit**

This item is used to enable or disable CPUID maximum value limit configuration. Set [Disabled] for WinXP.

► **Execute-Disable Bit**

This item is used to enable/disable the Execute Disable Bit feature.

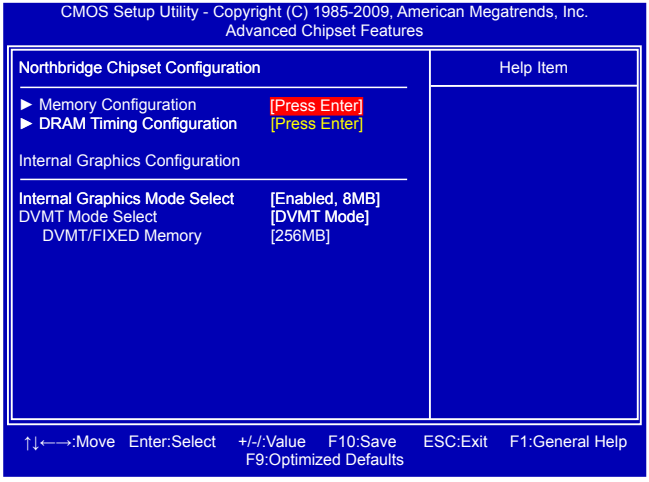
Intel's Execute Disable Bit functionality can help prevent certain classes of malicious buffer overflow attacks when combined with a supporting operating system.

Execute Disable Bit allows the processor to classify areas in memory by where application code can execute and where it cannot. When a malicious worm attempts to insert code in the buffer, the processor disables code execution, preventing damage and worm propagation. Replacing older computers with Execute Disable Bit-enabled systems can halt worm attacks, reducing the need for virus-related repairs. By combining Execute Disable Bit with anti-virus, firewall, spyware removal, e-mail filtering software, and other network security measures, IT managers can free IT resources for other initiatives.

► **Hyper Threading Technology**

This item is used to enable/disable the Hyper Threading Technology feature.

Advanced Chipset Features



► Memory Configuration / DRAM Timing Configuration

Press <Enter> to go to its submenu.

► Initate Graphic Adapter

This item is used to choose the initial graphics controller which will be used as the primary boot device.

► DVMT Mode Select

Dynamic Video Memory Technology (DVMT) dynamically allocates system memory for use as video memory to ensure the most efficient use of available resources for maximum 2D/3D graphics performance.

The amount of video memory allocated depends upon the amount requested by the operating system. When the memory is no longer required, it is returned to the operating system for use by other applications or system functions. DVMT allocates memory based on system needs. This BIOS option allows you to adjust the amount of memory available for DVMT.

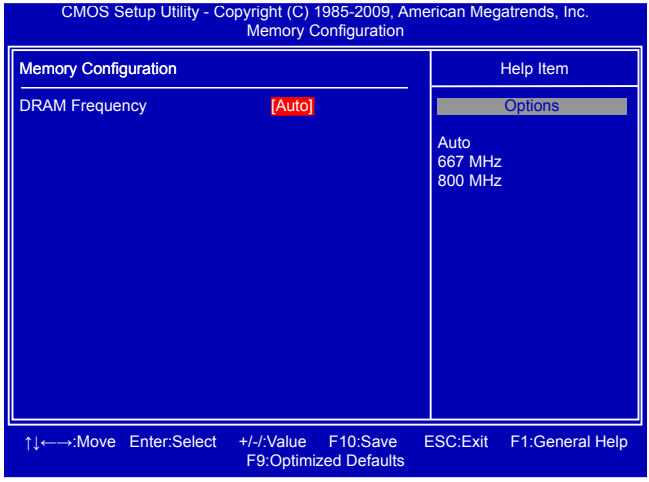
Fixed is a memory allocation method addition to the Unified Memory Architecture (UMA) concept, wherein a static amount of page-locked graphics memory is allocated during driver initialization. This fixed amount of memory will provide the user with a guaranteed graphics memory at all times, and will no longer be available to the OS.

DVMT is an enhancement of the UMA concept, where in the graphics driver allocates memory as needed for running graphics applications. If a user is not performing any graphics-intensive operations, most of the DVMT memory can be utilized by the OS for other uses. We recommend using DVMT setting for better overall system performance.

► DVMT/FIXED Memory

Select graphics memory size for Fixed or DVMT usage.

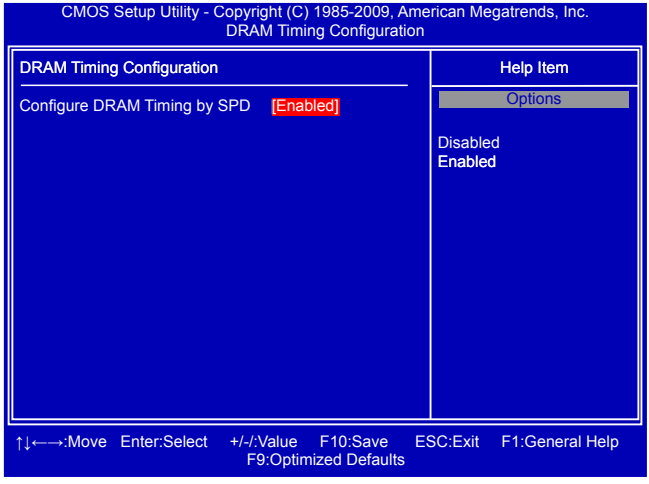
Memory Configuration



► **DRAM Frequency**

This item is used to set DRAM frequency. Setting values are: [Auto], [667 MHz], [800 MHz].

DRAM Timing Configuration



► **Configure DRAM Timing by SPD**

This item is used to enable/disable provision of DRAM timing by SPD device. The Serial Presence Detect (SPD) device is a small EEPROM chip, mounted on a DDR2 memory module. It contains important information about the module's speed, size, addressing mode and various other parameters, so that the motherboard memory controller (chipset) can better access the memory device.

Select [Enabled] for SPD enable mode.

Select [Disabled] to set the parameters by yourself.

The following 4 settings are valid only when the Configure DRAM Timing by SPD is set to [Disabled].

► **DRAM CAS# Latency**

This item controls the CAS latency. The CAS Latency is the number of clock cycles that elapse from the time the request for data is sent to the actual memory location until the data is transmitted from the module.

► **DRAM RAS# to CAS# Delay**

This item allows you to select a delay time (in clock cycles) between the CAS and RAS strobe signals.

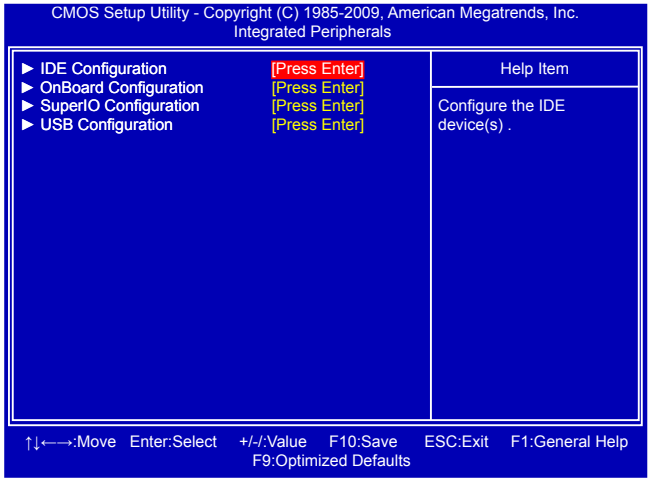
► **DRAM RAS# Precharge**

This item allows you to select the DRAM RAS precharge time (in clock cycles).

► **DRAM RAS# Activate to Precharge**

This item allows you to set the precharge delay time (in clock cycles).

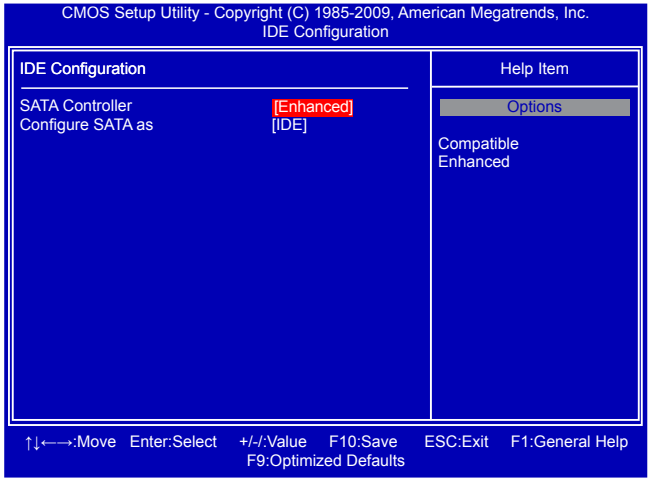
Integrated Peripherals



► **IDE Configuration / OnBoard Configuration / SuperIO Configuration / USB Configuration**

Press <Enter> to go to relative submenu.

IDE Configuration



► **SATA Controller**

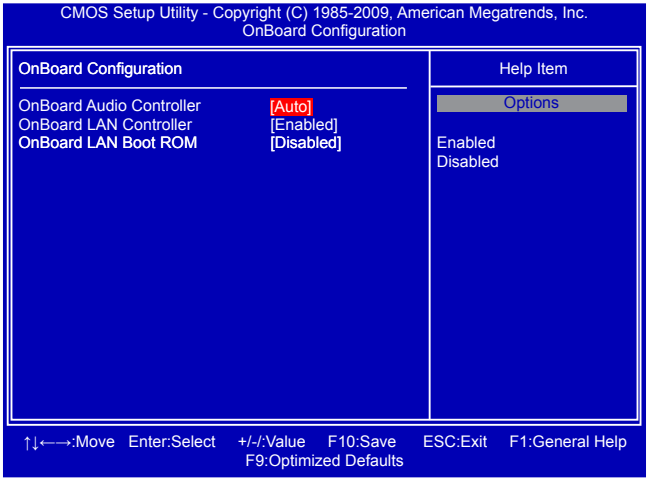
This item allows you to select the mode of the SATA ports. Setting values are: [Compatible], [Enhanced].

► **Configure SATA as**

This item allows you to set the operation mode of the SATA ports. Setting values are: [IDE],

[AHCI], [Disabled].

OnBoard Configuration



► **OnBoard Audio Controller**

This item is used to enable or disable the HDA controller.

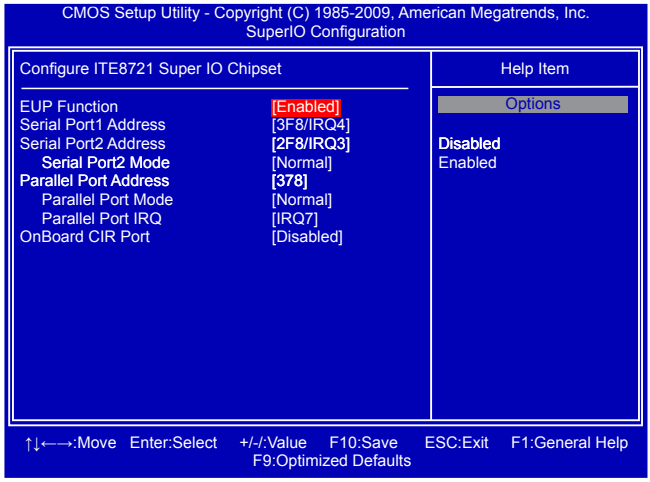
► **OnBoard LAN Controller**

This item is used to enable or disable the onboard LAN controller.

► **OnBoard LAN Boot ROM**

This item is used to enable or disable the onboard LAN boot optional ROM. A LAN boot ROM lets you set up a diskless workstation on the network. By installing a boot ROM in the network board, you can enable a client PC system on the network to be booted remotely.

SuperIO Configuration



► **EUP Function**

When enable, the suspend power of the NM10 Express chipset will be cut off in S5 suspend mode; when disable, the suspend power is always on.

► **Serial Port1 Address**

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

► **Serial Port2 Address**

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

► **Parallel Port Address**

This item is used to assign the I/O address for the onboard parallel port.

► **Parallel Port Mode**

This item is used to set parallel port mode.

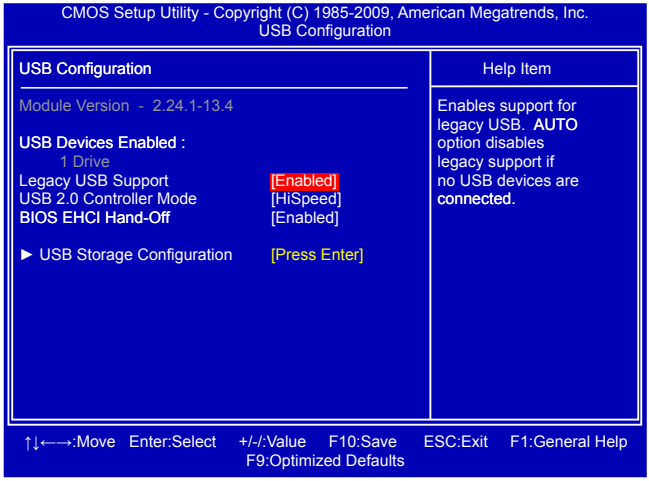
► **Parallel Port IRQ**

This item is used to assign interrupt request (IRQ) for the onboard parallel port.

► **OnBorard CIR Port**

This item is used to assign the I/O address for onboard infrared chip.

USB Configuration



► Legacy USB Support

This item is used to enable the support for USB devices on legacy OS. If you have a USB keyboard or mouse, set to auto or enabled.

► USB 2.0 Controller Mode

This item is used to set the transmission rate mode of USB 2.0. The available settings are : [HiSpeed] in 480Mbps; [FullSpeed] in 12Mbps.

► BIOS EHCI Hand-Off

Windows XP supports a number of features in the Enhanced Host Controller Interface (EHCI) specification, but there are a few features that are not implemented. Microsoft said preliminary support for EHCI BIOS handoff will be available in Windows XP SP2.

This item allows you to enable support for OS without EHCI hand-off feature.

This is a workaround for OS without EHCI hand-Off support .

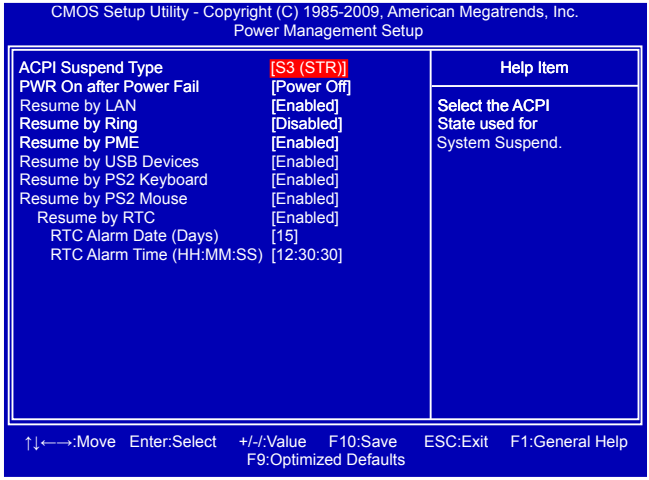
The EHCI ownership change should claim by EHCI driver.

If USB devices are connected to the computer, the following item will appear :

► USB Storage Configuration

After pressing <Enter>, you can set the reset delay for the USB storage device. There are many different emulation types of this USB device, such as floppy, hard disk and CDROM can be selected.

Power Management Setup



ACPI (Advanced Configuration and Power Interface) is an open industry standard interfaces enabling OS-directed configuration, power management, and thermal management of mobile, desktop, and server platforms. It defines five sleeping states, they are :

S1 - The S1 sleeping state is a low wake latency sleeping state. In this state, no system context is lost (CPU or chip set) and hardware maintains all system context. (also called **Power On Suspend**)

S2 - The S2 sleeping state is a low wake latency sleeping state. This state is similar to the S1 sleeping state except that the CPU and system cache context is lost (the OS is responsible for maintaining the caches and CPU context). Control starts from the processor's reset vector after the wake event.

S3 - The S3 sleeping state is a low wake latency sleeping state where all system context is lost except system memory. CPU, cache, and chip set context are lost in this state. Hardware maintains memory context and restores some CPU and L2 configuration context. Control starts from the processor's reset vector after the wake event. (also called **Suspend to RAM**)

S4 - The S4 sleeping state is the lowest power, longest wake latency sleeping state supported by ACPI. In order to reduce power to a minimum, it is assumed that the hardware platform has powered off all devices. Platform context is maintained. (also called **Suspend to Disk**)

S5 - The S5 state is similar to the S4 state except that the OS does not save any context. The system is in the "soft" off state and requires a complete boot when it wakes. Software uses a different state value to distinguish between the S5 state and the S4 state to allow for initial boot operations within the BIOS to distinguish whether or not the boot is going to wake from a saved memory image.

► **ACPI Suspend Type**

This item is used to set the energy saving mode of the ACPI function. When you select “S1 (POS)” mode, the power is always on and computer can be resumed at any time. When you select “S3 (STR)” mode, the power will be down after a period of time. The status of the computer before it entering STR will be saved in memory, and the computer can quickly return to previous state when the STR function wakes.

► **PWR On after Power Fail**

This item is used to set which state the PC will take with when it resumes after an AC power loss.

► **Resume by LAN**

This item is used to enable/disable the LAN device to generate a wake up.

► **Resume by Ring**

This item is used to enable/disable the modem of serial port to generate a wake up from an ACPI sleep state.

► **Resume by PME**

This item is used to enable/disable a PCI device to generate a wake up.

► **Resume by USB Devices**

This item is used to enable/disable the USB keyboard and mouse to generate a wake up.

► **Resume by PS2 Keyboard**

This item is used to enable/disable the PS2 keyboard to generate a wake up.

► **Resume by PS2 Mouse**

This item is used to enable/disable the PS2 mouse to generate a wake up.

► **Resume by RTC**

This item is used to enable/disable RTC alarm event to generate a wake up.
RTC is system real time clock.

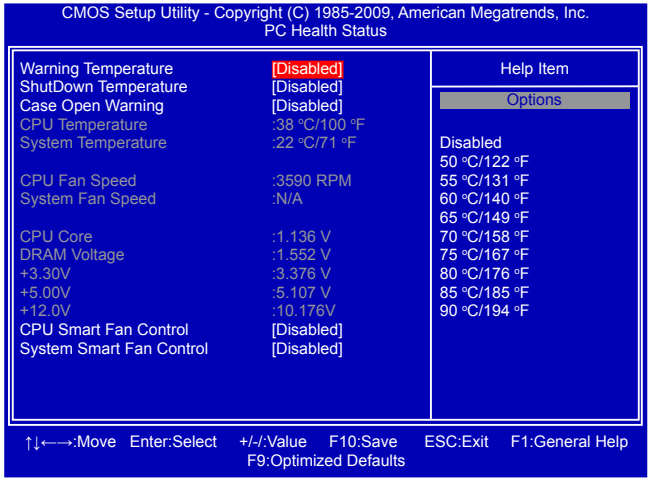
► **RTC Alarm Date(Days)**

When Resume by RTC is enabled, select a specific date to generate a wake up.

► **RTC Alarm Time (HH : MM : SS)**

When Resume by RTC is enabled, select a specific time to generate a wake up.

PC Health Status



► **Warning Temperature**

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

► **ShutDown Temperature**

This item is used to set the system temperature upper limit. When the temperature exceeds the set value, the system will shut down automatically.

► **Case Open Warning**

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

► **CPU/System Temperature**

The CPU/System temperature are automatically detected and displayed by the system.

► **CPU/System Fan Speed**

The CPU/System fan speed are automatically detected and displayed by the system.

► **CPU Core/DRAM Voltage/+ 3.30V/+5.00V/+12.0V**

The current voltages are automatically detected and displayed by the system.

► **CPU/System Smart Fan Control**

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

The following 4 settings are valid only when Smart Fan Control is set to [Enabled].

► **Fan OFF Temperature**

It allows you set a temperature value from which smart fan stops its operation.

► **PWM Start Temperature**

It allows you set a temperature value from which smart fan starts its operation.

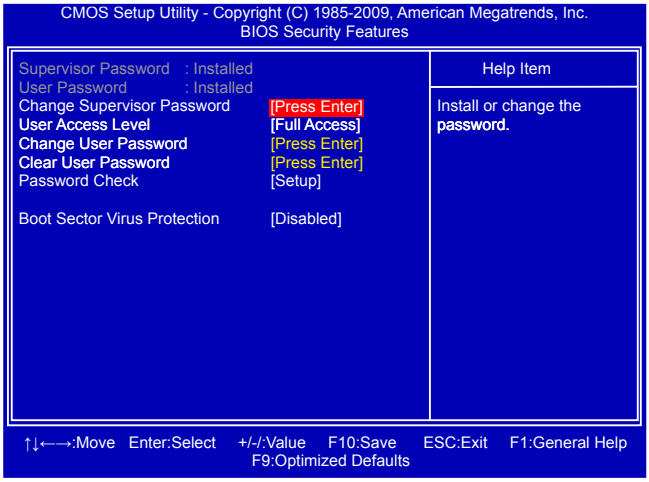
► **Start PWM Value**

It allows you to set an initial PWM value to drive the fan when the temperature reaches Start value and smart fan begins its operation. The higher PWM value can achieve the faster fan speed.

► **Slope PWM Value**

The slope controls the PWM value being stepped up or down versus temperature changes.

BIOS Security Features



► **Change Supervisor Password**

This item is used to install or change supervisor password. After you input Supervisor password, it then will ask you to input user password optionally.

If you have installed the supervisor password, the following items will appear:

► **User Access Level**

This item is used to set user access level.
The available settings are:
[No Access]: Prevent user access to the setup utility.
[View Only]: Allow access to the setup utility but the fields can not be changed.
[Limited]: Allow only limited fields to be changed, such as date and time.
[Full Access]: Allow any field to be changed except the supervisor password.

► **Change User Password**

This item is used to install or change user password.

► **Clear User Password**

This item will be displayed only when a User Password was set before. It is used to clear the user password.

► **Password Check**

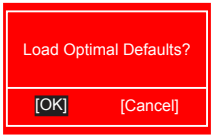
When it is set to [Setup], a password is required to enter the BIOS setup; select [Always], a password is required not only to enter BIOS setup, but also on each boot of your PC.

► **Boot Sector Virus Protection**

This item is used to enable/disable boot sector virus protection.

Load Optimal Defaults

Optimal defaults are the best settings of this motherboard. Always load the Optimal defaults after updating the BIOS or after clearing the CMOS values.



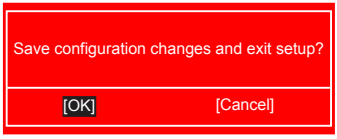
Select this option and press Enter, it will pop out a dialogue box to let you load the defaults. Select <OK> and then press <Enter> to load the defaults. Select <Cancel> and press <Enter>, it will not load.

By this default, BIOS have set the optimal performance parameters of system to improve the performances of system components. But if the optimal performance parameters to be set cannot be supported by your hardware devices (for example, too many expansion cards were installed), the system might fail to work.

Save & Exit Setup

When you select this option and press <Enter>, a message will be displayed in the center of the screen:

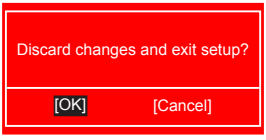
Select [OK] to save your changes to CMOS and exit the program, select [Cancel] or <ESC> to return to the main menu.



Exit Without Saving

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

Select [OK] to exit CMOS without saving your modifications, select [Cancel] or <ESC> to return to the main menu.



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
- Install driver and utility
- FOX ONE
- FOX LiveUpdate
- FOX LOGO
- FOX DMI

Note : Because each module is independent, so the section number will be reorganized and unique to each module, please understand.

Utility CD content

This motherboard comes with one Utility CD. You can simply put it into your CD/DVD-ROM drive, and the main menu will be displayed on your PC screen to guide you how to install.

1. Install Driver

Use these options to install all the drivers for your system. You should install the drivers in order, and you need to restart your computer after all the drivers have been installed.

A. Intel Chipset Driver
B. Realtek HDA Audio Driver
C. Realtek 811X LAN Driver
D. Intel VGA Driver

2. Software Utilities

Use these options to install additional software programs. FOX ONE is a very powerful user interface program which allows you to change your system setting without going to BIOS. Some auto features help user to improve (or overclock) your system without being a computer literate.

A. FOX ONE
B. FOX LiveUpdate
C. FOX LOGO
D. FOX DMI
E. Microsoft DirectX 9.0
F. Adobe Acrobat Reader
G. Norton Internet Security

Install driver and utility

1. Install Driver

You must click "Intel Chipset Driver" to install it first. After that, you can click "One Click Setup" to install all the other drivers left, or you can click on each individual driver to install it manually.

Manual Installation Step by Step

Automatic Installation by One Click.

Exit the program

Click to visit Foxconn's website

Select to Install Utilities

Select to Install Drivers

Browse CD

Drop to System Tray

2. Install Utility

You can select the specific utility to install.

FOX ONE

FOX ONE is a powerful utility for easily modifying system settings. It also allows users to monitor various temperature values, voltage values, frequencies and fan speeds at any time.

With FOX ONE, you can :

- Modify system performance settings, such as the CPU and memory bus speeds, CPU voltages, fan speeds, and other system performance options.
- Monitor hardware temperatures, voltages, frequencies and fan speeds.

CAUTION

Depending on hardware support, voltage monitoring and Fox Intelligent Stepping features are optional and only supported in some models. If the option is selectable, it also means the feature is supported.

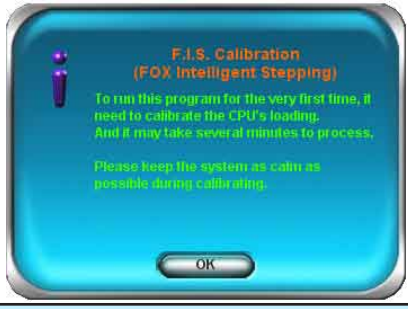
- Voltage Monitoring is supported only in FOX ONE Premium & Deluxe products.
- Fox Intelligent Stepping is supported only in FOX ONE Deluxe products.

Supporting Operating Systems :

- Windows 2000
- Windows 2003 (32-bit and 64-bit)
- Windows 7 (32-bit and 64-bit)
- Windows XP (32-bit and 64-bit)
- Windows Vista (32-bit and 64-bit)

Using FOX ONE :

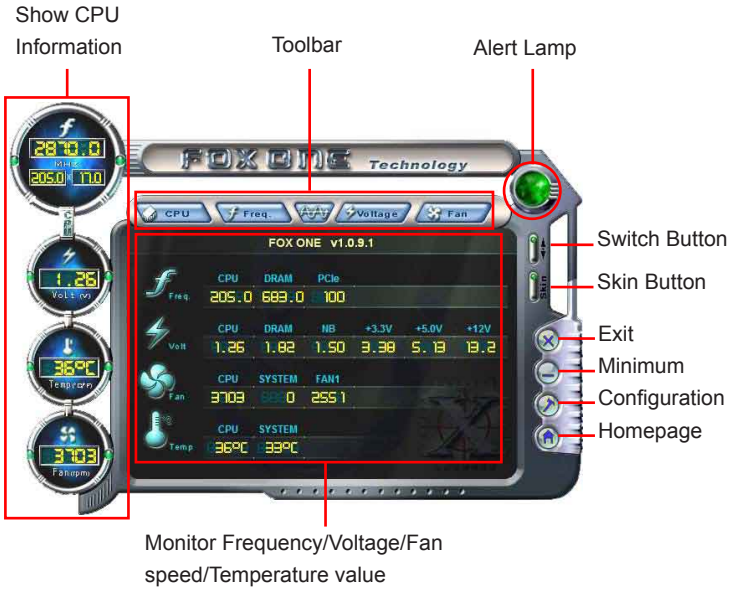
The very first time you run FOX ONE, F.I.S. Calibration function (FOX Intelligent Stepping) will require you to calibrate the CPU's loading. Click "OK" to proceed and start the Utility. F.I.S. is a feature of FOX ONE, which can automatically adjust your CPU clock based on your current system loading.



CAUTION

Before you running the FOX ONE program, the system parameters (such as CPU clock, voltage...etc.) are controlled by BIOS settings. After you run FOX ONE, it will take over, and the controlling right will be transferred to FOX ONE. Later, if you exit FOX ONE, then BIOS control will be back again.

1. Main Page



Toolbar

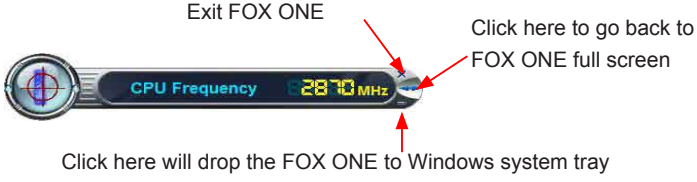
Use the toolbar to navigate to other pages.

Alert Lamp

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

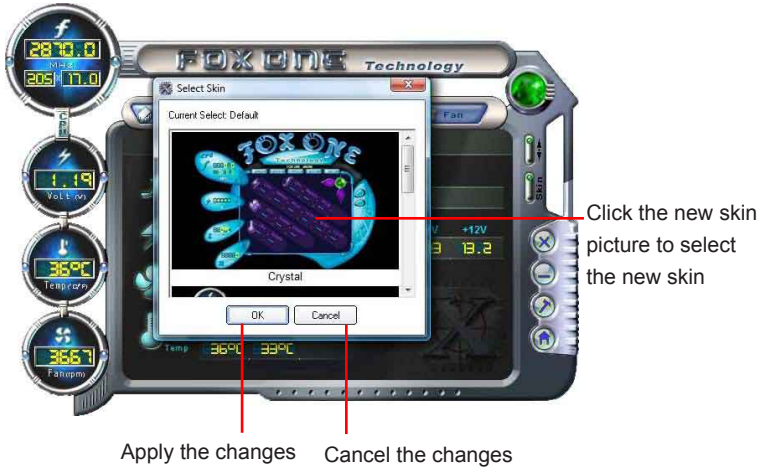
Switch Button

Click this button, it will simplify the whole FOX ONE control panel to a smaller information bar (i.e. Simple Mode) as depicted below, you can drag this bar to any place on your screen to help you monitoring system status.



Skin Button

There are more choices of FOX ONE screen panels. Click this button, you can select your favorite skin (FOX ONE Panel).



Exit

Click this button to exit the program.

Minimum

Click this button to drop the FOX ONE to Windows system tray located at the lower right corner of your screen.

Homepage

Click this button to visit Foxconn motherboard website :
http://www.foxconnchannel.com

Configuration

This menu allows you to configure :

1). Monitor interval (ms) :

This is to define the interval of different messages of system settings which are to be displayed on Simple Mode screen. Minimum value is 1 second.

2). Simple Mode :

To select which message of system settings are to be displayed in the Simple Mode. Messages such as CPU frequency, voltage...etc., they can be displayed one by one in Simple Mode.

3). F.I.S. Calibration (FOX Intelligent Stepping, Optional)

This function will re-calibrate the CPU's loading, and it may take several minutes to proceed. The FOX ONE calibration process will apply different loadings to your CPU, record PWM IC voltage together with the CPU clock running at these loadings, so it can define and estimate within a particular range of system loading, what the CPU clock should be.

Step 1 : Click Calibration icon, a message pops out to ask for continue. Select Yes.

Step 2 : After data is collected, it will ask you to restart your computer now.

Later on, when the FOX ONE program is activated, and F.I.S. feature (in CPU Page) is also enabled, FOX ONE will automatically adjust your CPU clock according to your system loadings. (Loadings are like Power Gaming, Data Mining...etc.)

2. CPU Page - CPU Control(Optional)

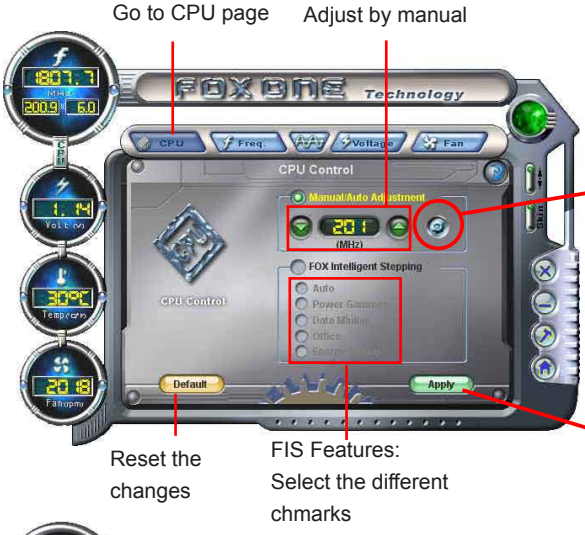
This page lets you select (or overclock) CPU clock to meet the current performance level of the system. The fastest and suitable CPU clock running for current system can be calculated by FOX ONE automatically or manually input by yourselves.

Manual :

You can press the up/down button to adjust your CPU clock.

Auto :

Click this button to let FOX ONE check the highest CPU clock you can use. System will raise the CPU clock step by step until it hangs, you can then push the RESET button on your PC panel to restart the system. When system restarts, run FOX ONE again, it will display a recommended highest CPU clock for you, click <Yes> to apply it.



You can see the system is raising CPU clock until the system hangs.
Push RESET button on the front panel of your system to restart the computer.

Run FOX ONE program again, it will inform you the previous test found that 255MHz is the recommended CPU clock for your system.
Click Yes to apply it to your system.

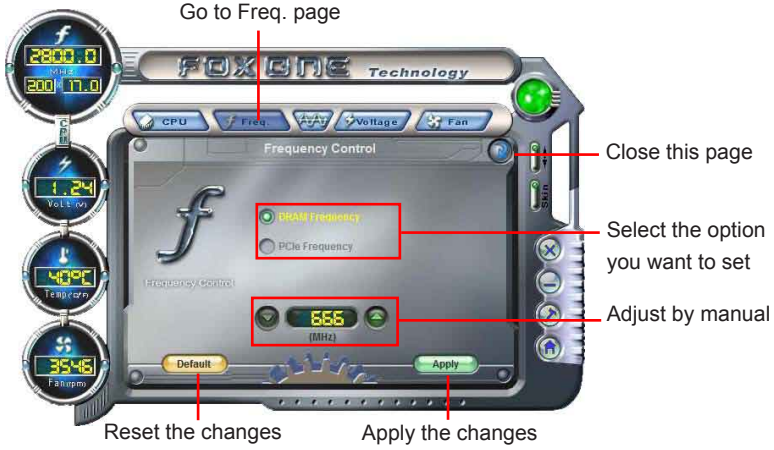
Now, your system is running at a CPU clock of 255MHz.

FOX Intelligent Stepping (F.I.S., Optional)

Select FOX Intelligent Stepping will allow your system to automatically adjust your CPU clock rate based on different system loadings. For example, if you select Power Gaming, CPU clock will be driven to run at its maximum speed. While in Energy Saving, CPU will lower down its speed to a minimum. The four benchmarks - Power Gaming, Data Mining, Office and Energy Saving, the references of their system loading were calculated and defined in the FIS Calibration option of Configuration menu. Select Auto, CPU will automatically adjust its clock according to current system loading.

3. Frequency Page - Frequency Control(Optional)

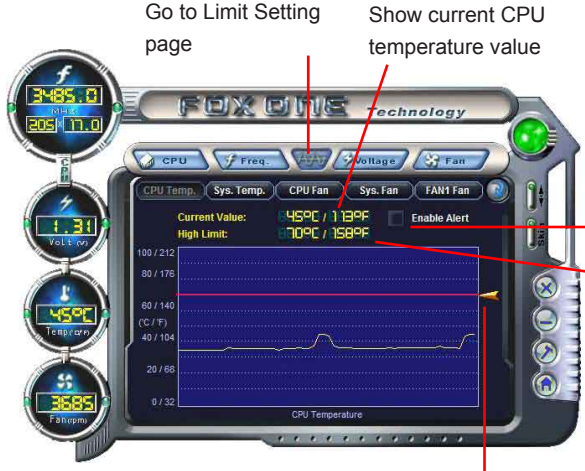
This page lets you set memory and PCI Express frequencies by manual.



4. Limit Setting

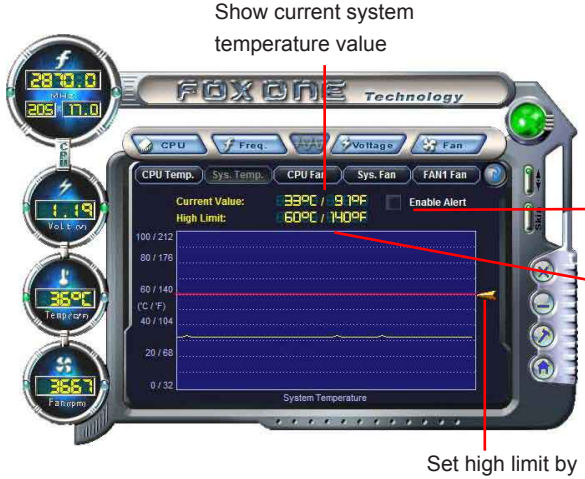
4.1 Limit Setting - CPU Temperature

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



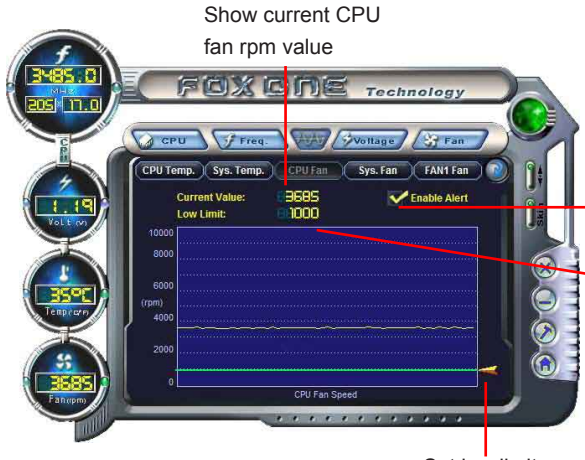
4.2 Limit Setting - System Temperature

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



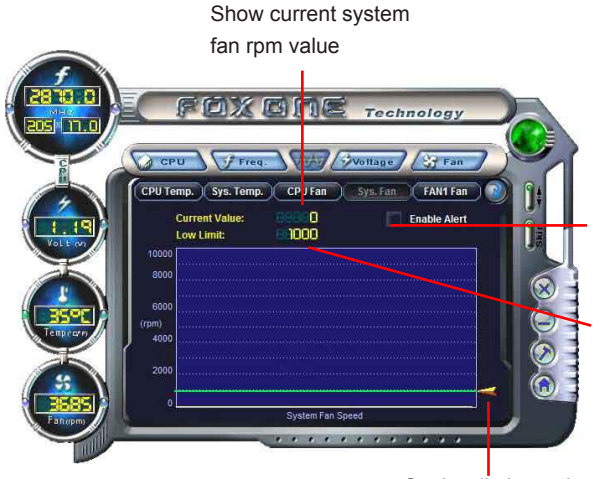
4.3 Limit Setting - CPU Fan

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



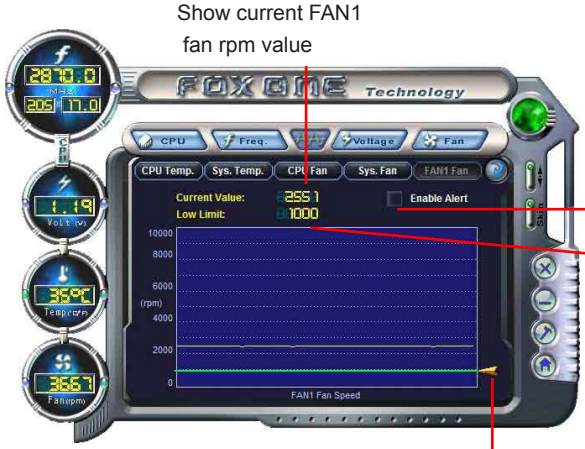
4.4 Limit Setting - System Fan

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



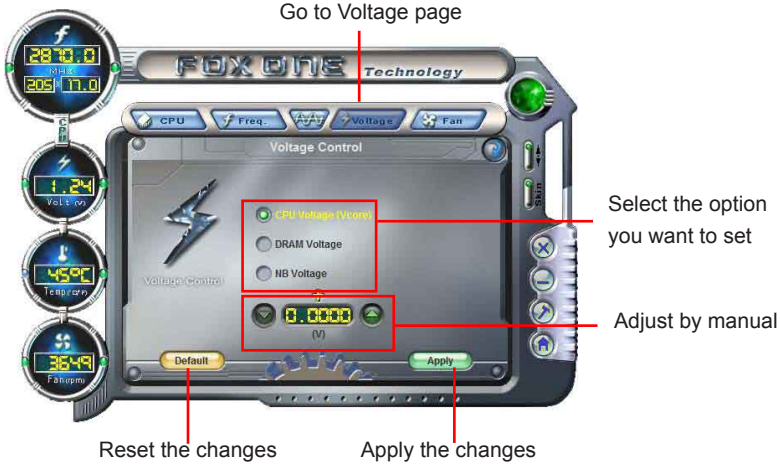
4.5 Limit Setting - FAN1 Fan

This page lets you to set FAN1 fan low limit rpm and enable the alert function.



5. Voltage Page - Voltage Control (Optional)

This page lets you set CPU voltage, memory voltage and North Bridge voltage manually. CPU voltage can be stepped up/down by a unit of 12.5mV, while memory is 0.05V/step, and North Bridge is 0.04V/step.



6. Fan Page - Fan Control

This page lets you enable Smart Fan function or set the fan speed by manual. When Smart Fan is selected, you must use a 4-pin CPU cooler in your system.

FOX LiveUpdate

FOX LiveUpdate is a useful utility to backup and update your system BIOS, drivers and utilities by local or online.

Supporting Operating Systems :

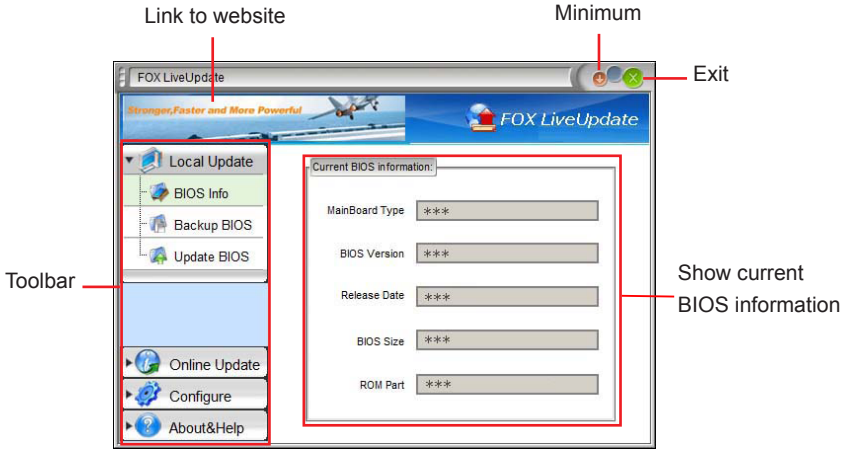
- Windows 2000
- Windows XP (32-bit and 64-bit)
- Windows 2003 (32-bit and 64-bit)
- Windows Vista (32-bit and 64-bit)
- Windows 7 (32-bit and 64-bit)

Using FOX LiveUpdate :

1. Local Update

1-1 Local Update - BIOS Information

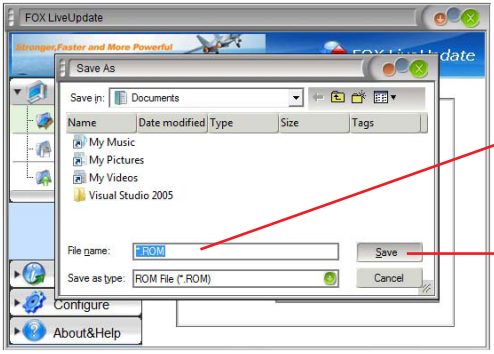
This page lets you know your system BIOS information.



*** : please refer to the physical motherboard for detail.

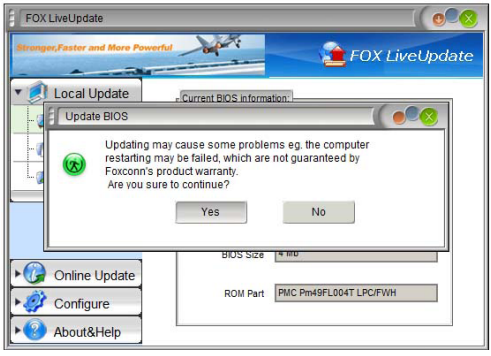
1-2 Local Update - Backup

This page can backup your system BIOS. You can click “Backup”, and key in a file name, then click “Save” to finish the backup operation. The extension of this backup file is ".BIN" for Award BIOS and ".ROM" for AMI BIOS. Default directory is "C:\Desktop\My Documents" in Windows XP and "Documents" in Vista. Make sure you can remember the file name together with the directory which it is stored, prevented that you may need them to recover your BIOS later.



1-3 Local Update - Update

This page helps you to update your BIOS from a local file. After click “Update”, An alert message will be displayed to ensure if you really want to continue, click “Yes” to confirm. A setup wizard will guide you to load a local BIOS file to finish the operation. You must remember from which directory to load your new BIOS file (with an extension of ".BIN" for Award BIOS, ".ROM" for AMI BIOS) before the setup wizard starts.



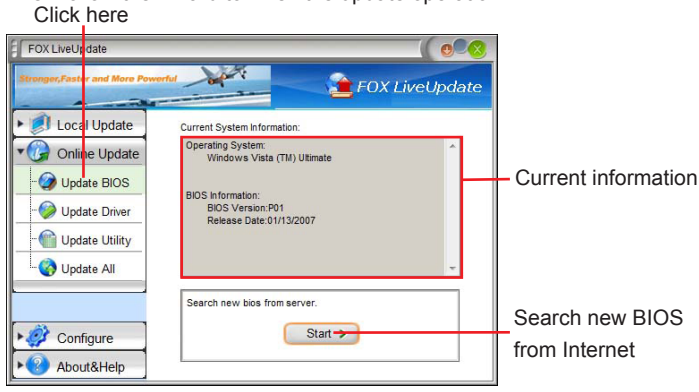
CAUTION

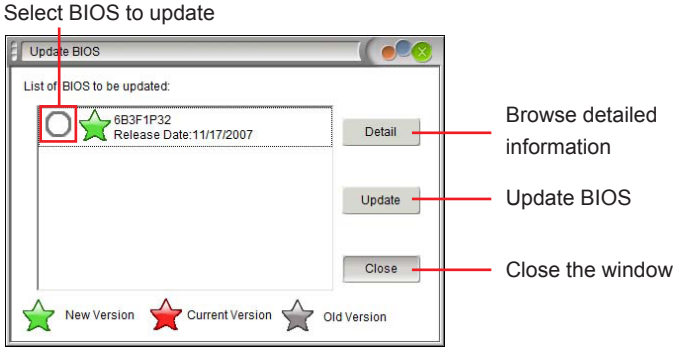
FOX LiveUpdate can automatically backup old BIOS before update. This feature can be enabled in the "Configure-System" setup. Please refer to "Configure-System" section for more detail. The default backup directory is C:\LiveUpdate_Temp, but the backup file name will be automatically generated. It is hard to find it out from a backup directory, and we recommend you using Explorer to check date/time message of this backup file to find it out and write its name down to remember it.

2. Online Update

2-1 Online Update - Update BIOS

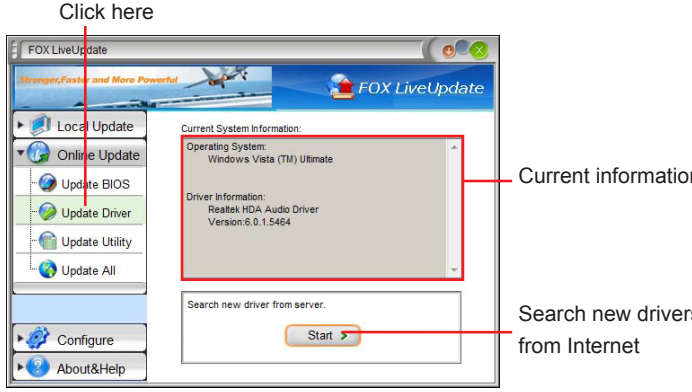
This page lets you update your system BIOS from Internet. Click “start”, it will search the new BIOS from Internet. Then follow the wizard to finish the update operation.

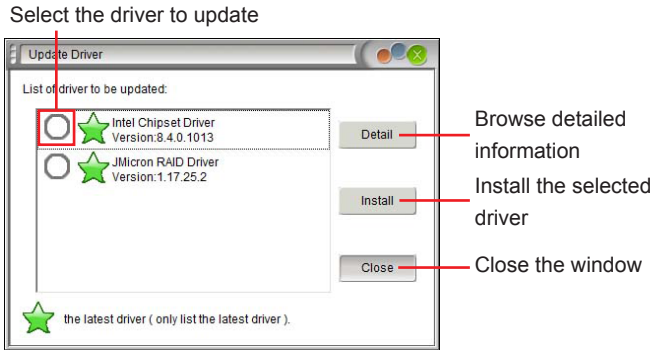




2-2 Online Update - Update Driver

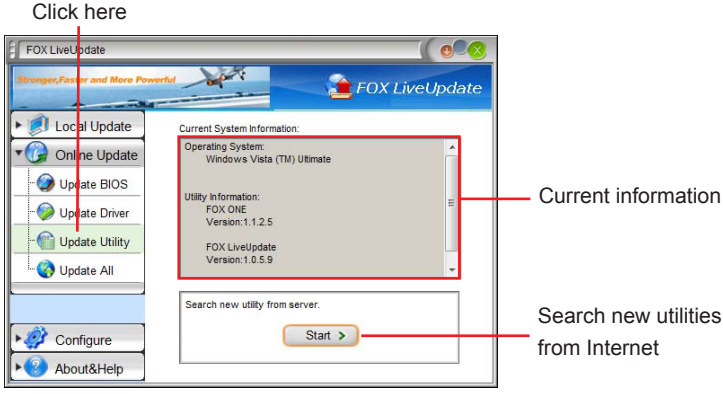
This page lets you update your system drivers from Internet. Click “start”, it will search the new drivers from Internet. Then follow the wizard to finish the update operation.

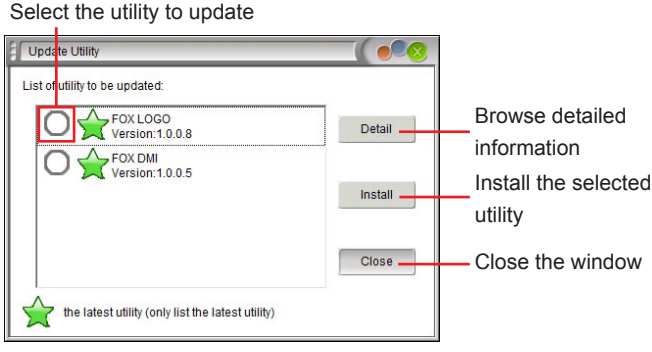




2-3 Online Update - Update Utility

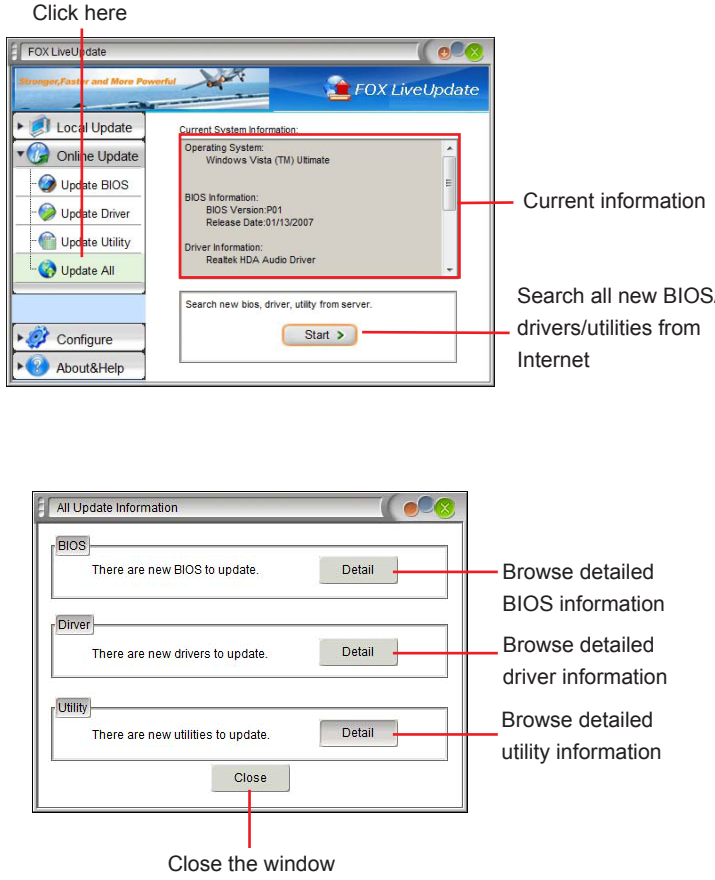
This page lets you update utilities from Internet. Click “start”, it will search the new utilities from Internet. Then follow the wizard to finish the update operation.





2-4 Online Update - Update All

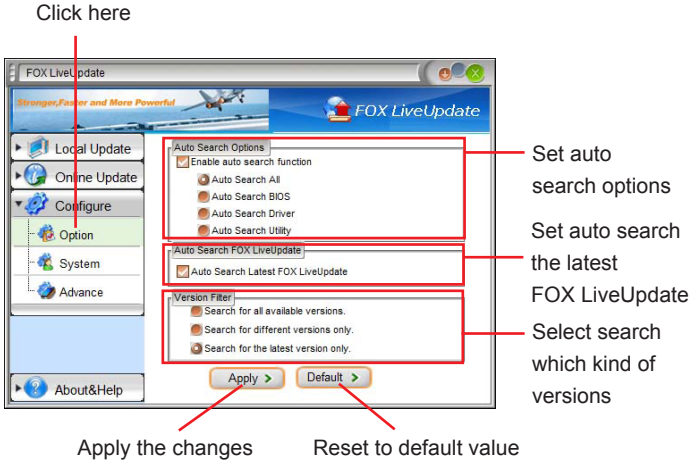
This page lets you update your system drivers from Internet. Click “start”, it will search all new BIOS/drivers/utilities from Internet. Then follow the wizard to finish the update operation.



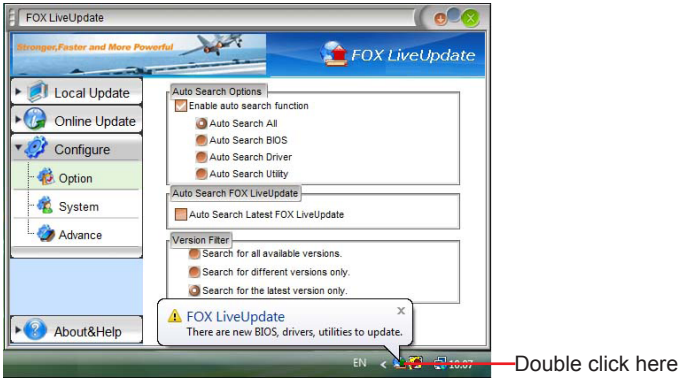
3. Configure

3-1 Configure - option

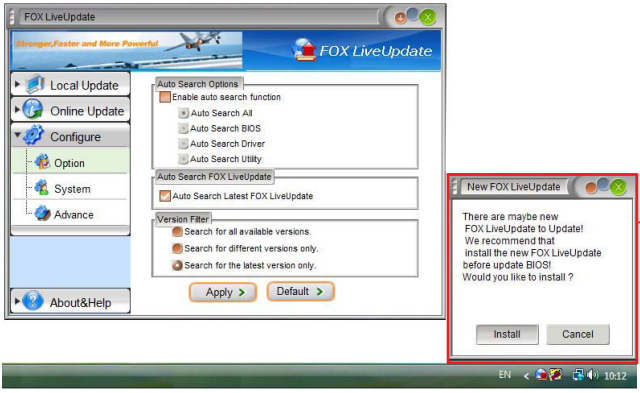
This page lets you set auto search options. After you enable the auto search function, FOX LiveUpdate will start its searching from Internet and if any qualified item found, it will pop out a message on the task bar to inform you to do the next step.



Double click on the icon as show below, you can see the detailed information.



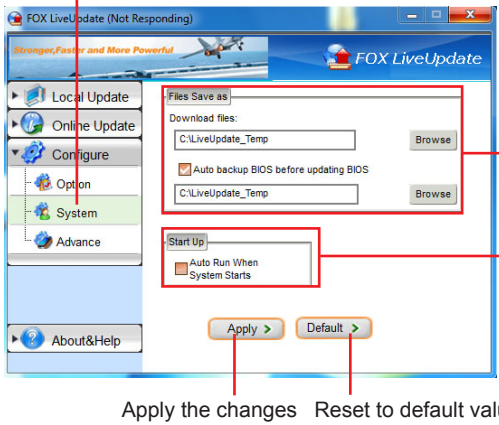
When you enable "Auto Search FOX LiveUpdate", if your FOX LiveUpdate version is older, it will auto search from internet and prompt you to install the new version.



Prompt you to install the new FOX LiveUpdate

3-2 Configure - System

This page lets you set the backup BIOS location and auto backup BIOS, determine if the FOX LiveUpdate can auto run when the system starts up.

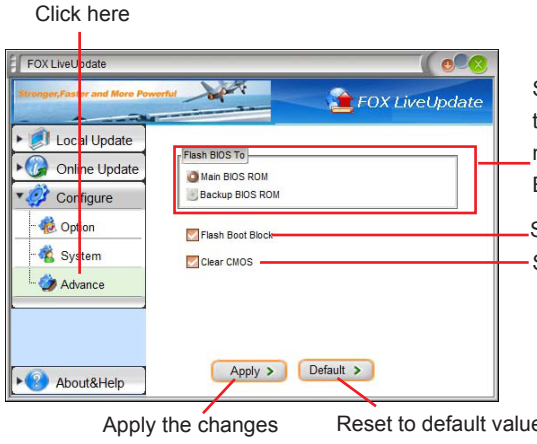


Set the location of download files or auto backup BIOS

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

3-3 Configure - Advance

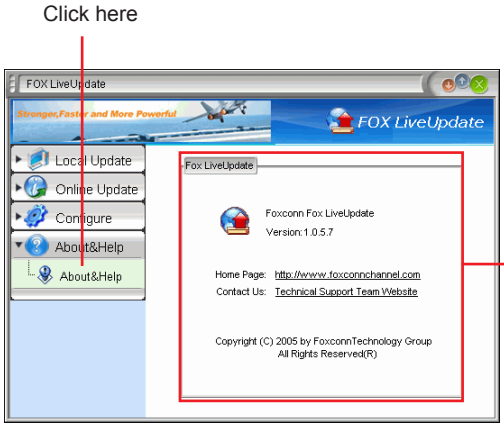
This page lets you select to flash BIOS / Boot Block and clear CMOS. If you choose Flash Boot Block, it means BIOS is not protective, and you must make sure the flash process is continuous and without any interruption.



We recommend that you should better keep the default setting unchanged to avoid any damage.

4. About & Help

This page shows some information about FOX LiveUpdate.



FOX LOGO

FOX LOGO is a simple and useful utility to backup, change and delete the boot time Logo. The boot Logo is the image that appears on screen during POST (Power-On Self-Test).

You can prepare a JPG image (1024x768) file, then use FOX LOGO to open it and change the boot time Logo. Boot time Logo will be displayed if you enable the BIOS "Quiet Boot" setting in "Advanced BIOS Features" menu.

Supporting Operating Systems :

- Windows 2000
- Windows XP (32-bit and 64-bit)
- Windows 2003 (32-bit and 64-bit)
- Windows Vista (32-bit and 64-bit)
- Windows 7 (32-bit and 64-bit)

Using FOX LOGO:

Main Page

When you change Logo or delete current Logo, the system will flash BIOS file automatically. During this time, please DO NOT shut down the application and the system, or the motherboard will be damaged seriously.

FOX DMI

FOX DMI is a full Desktop Management Interface viewer, and it provides three DMI data formats : Report, Data Fields and Memory Dump.
With DMI information, system maker can easily analyze and troubleshoot your mother-board if there is any problem occurred.

Supporting Operating Systems :

- Windows 2000
- Windows XP (32-bit and 64-bit)
- Windows 2003 (32-bit and 64-bit)
- Windows Vista (32-bit and 64-bit)
- Windows 7 (32-bit and 64-bit)

Using FOX DMI:

Please operate this utility as the comments shows.

Click here to select the type you want to view.

Click here to select the DMI Data format you need