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Trademark:

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Version:

User's Manual V1.0 for P4M800P7MA 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>

Declaration of conformity



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
P4M800P7MA

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 \leq 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 \leq 16A
- EN 55024/A2:2003 Information technology equipment-Immunity characteristics limits and methods of measurement

Signature :

Place / Date : TAIPEI/2005

Printed Name : James Liang

Position/ Title : Assistant President

Declaration of conformity



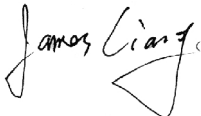
Trade Name: Foxconn
Model Name: **P4M800P7MA**
Responsible Party: PCE Industry Inc.
Address: 458 E. Lambert Rd.
Fullerton, CA 92835
Telephone: 714-738-8868
Facsimile: 714-738-8838

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 : 2005

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 **Warning:**

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.

 **Warning:**

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.

This manual is suitable for motherboard of P4M800P7MA.
Each motherboard is carefully designed for the PC user
who wants diverse features.

- L with onboard 10/100M LAN
- K with onboard Gigabit LAN
- 6 with 6-Channel audio
- 8 with 8-Channel audio
- E with 1394 function
- S with SATA function
- 2 with DDR2 function
- R with RAID function

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

For example:



On the black mark of the PPID label, it means the
motherboard supports 6-Channel Audio(-6), 1394 port(-E),
onboard 10/100M LAN (-L), SATA function(-S).

Chapter 1

Thank you for buying Foxconn's P4M800P7MA series motherboard. This series of motherboard is one of our new products, and offers superior performance, reliability and quality, at a reasonable price. This motherboard adopts the advanced VIA® P4M800 Pro+ VT8237R Plus chipset, providing users a computer platform with a high integration-compatibility-performance price ratio.

This chapter includes the following information:

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

Main Features

Size

- mATX form factor of 9.6 inch x 9.6 inch

Microprocessor

- supports Intel® Pentium® 4, Pentium® 4 Extreme Edition, Celeron® D, Pentium® D processor in an LGA775 package
- Supports FSB at 533 MHz/800 MHz

Chipset

- VIA® P4M800 Pro + VT8237R Plus

System Memory

- Two 184-pin DIMM slots and two 240-pin DIMM slots
- Supports DDR 333/400 and DDR2 533/400
- Supports 128/256/512/1024 Mb technology up to 2GB

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 480 Mbps transmission rate

Onboard Serial ATA (-S)

- 150 MBps transfer rate
- Supports two S-ATA devices
- Supports RAID 0, RAID 1, JBOD

Onboard 1394 (-E)(optional)

- Supports hot plug
- With rate of transmission up to 400Mbps
- Self-configured addressing
- Can connect with 2 independent 1394 units synchronously at most, such as HDD, CD-ROM

Chapter 1 Product Introduction

Onboard LAN (-L)(-K)(optional)

- Supports 10/100/1000(-K)(optional) Mbit/sec Ethernet
- LAN interface built-in on board

Onboard Audio (-6)

- AC'97 2.3 Specification Compliant
- Supports SPDIF output
- Onboard Line-in jack, Microphone jack, Line-out jack
- Supports 6-Channel audio (setting via software)

Onboard Graphics

- Supports integrated VGA display function (S3 Graphics UniChrome™ Pro)

AGP 8X

- AGP 8X (AGP 3.0) is the VGA interface specification that enabled enhanced graphics performance with high bandwidth speeds up to 2.12 GB/s

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)

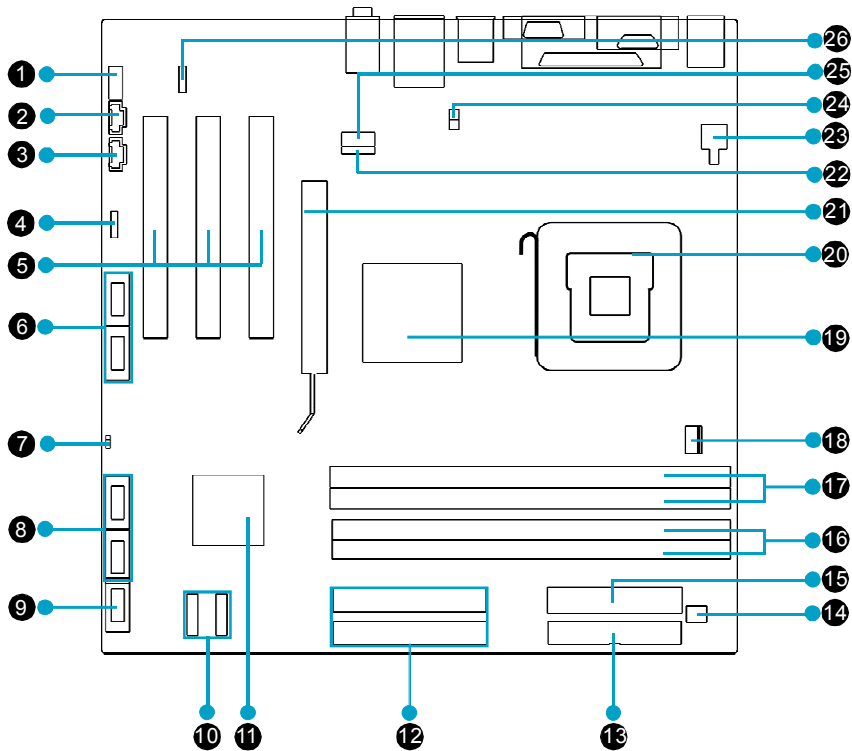
Expansion Slots

- Three PCI slots
- One AGP slot

Advanced Features

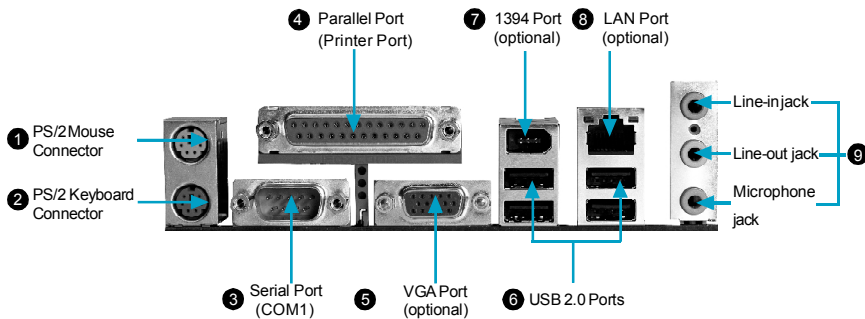
- PCI 2.3 specification compliant
- Supports Windows 2000/XP soft-off
- Supports PC Health function (capable of monitoring system voltage, CPU temperature, system temperature, and fan speed)

Motherboard Layout



- | | |
|--------------------------------|---|
| 1. Front Audio Connector | 14. System Fan Connector |
| 2. CD_IN Connector | 15. 24-pin ATX Power Connector |
| 3. AUX_IN Connector | 16. DDR DIMM Slots |
| 4. Speaker Connector | 17. DDR2 DIMM Slots |
| 5. PCI Slots | 18. CPU Fan Connector |
| 6. 1394 Headers (optional) | 19. North Bridge: P4M800 Pro |
| 7. Clear CMOS Jumper | 20. CPU Socket |
| 8. Front USB Connectors | 21. AGP 8X Slot |
| 9. Front Panel Connector | 22. IrDA Header (optional) |
| 10. SATA Connectors | 23. 4-pin ATX 12V Power Connector |
| 11. South Bridge: VT8237R Plus | 24. Chassis Intruder Connector (optional) |
| 12. HDD Connectors | 25. COM2 Connector |
| 13. FDD Connector | 26. S/PDIF OUT Connector (optional) |

Rear I/O Ports



9 Line-in jack, Line-out jack, Microphone jack

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

Chapter 2

This chapter introduces the hardware installation process, including the installation of the CPU, 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

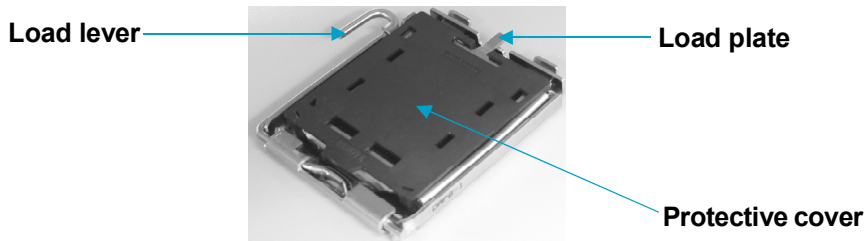
CPU

This motherboard supports single processor in an LGA775 package.

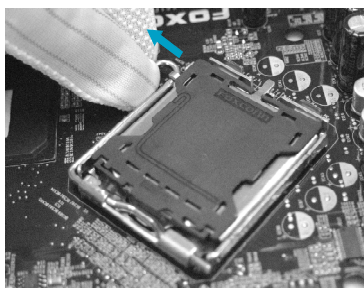
For the detailed CPU vendor list qualified on this motherboard, please visit the website: <http://www.foxconnchannel.com>

Installation of CPU

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

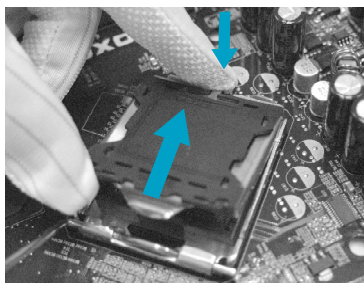


1. Use thumb and forefinger to hold the hook of the load lever and pull the lever down and away from socket to unlock it. Lift the load lever.

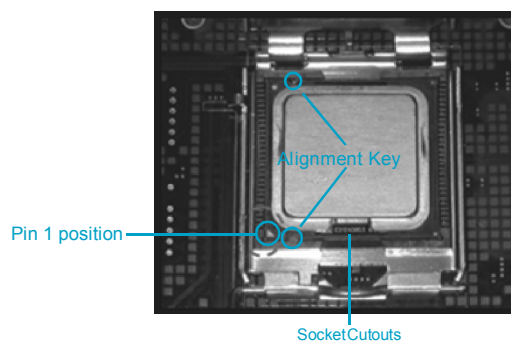


2. Push down the rear tab with your forefinger to bring the front end of the load plate up slightly. Open the load plate with thumb. Be careful not to touch the contacts.

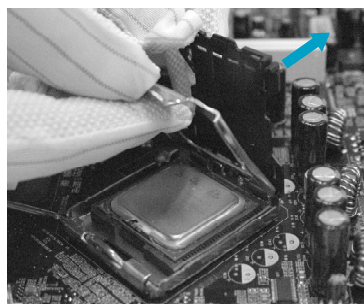
Chapter 2 Installation Instructions



3. Hold CPU with thumb and forefinger. Ensure fingers align to socket cutouts. Match the CPU triangle marker to Pin 1 position as shown below. The alignment key also provides the orientation directed function. Lower the CPU straight down without tilting or sliding the CPU in the socket.

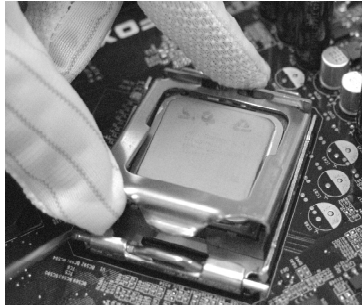


4. After installing the CPU, remove the protective cover from load plate. The protective cover is used to protect the contacts of the socket. Do not discard the protective cover. Always replace the socket cover if the CPU is removed from the socket.



Chapter 2 Installation Instructions

5. Close the load plate, and slightly push down the tongue side.



6. Lower the lever and lock it to the load plate, then the CPU is locked completely.



 **Note :**

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

Memory

This motherboard includes two 184-pin slots with 2.6V for DDR and two 240-pin slots with 1.8V for DDR2. DIMM1 and DIMM2 slots (blue) support 256 Mb, 512 Mb and 1 Gb DDR2 technologies for x8 and x16 devices; DIMM3 and DIMM4 (yellow) slots support 256 Mb, 512 Mb and 1 Gb DDR technologies for x8 and x16 devices. You must install at least one memory bank to ensure normal operation.

i Attention:

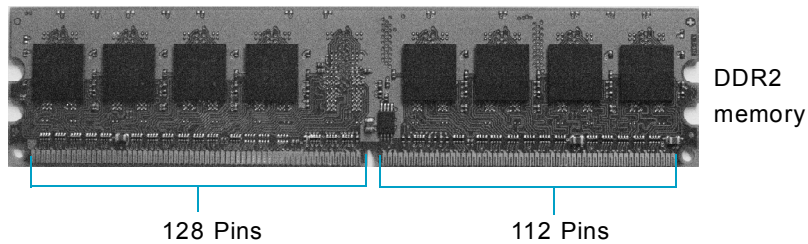
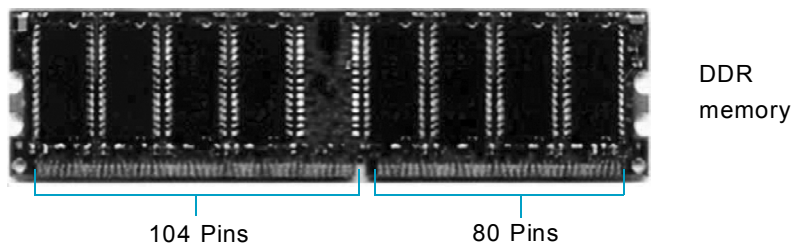
1. Before you install memory modules, please make sure that all DIMMs in one system are of the same type (e.g. all DDR or all DDR2, not mixed).
2. If DDR and DDR2 memory banks are installed simultaneously or all four sockets are populated with DIMMs, the buzzer will alarm for memory error warning and power-on failure may result.

For the latest memory modules support list, please visit the website:

<http://www.foxconnchannel.com>

Installation of DDR/DDR2 Memory

1. There is only one gap in the middle 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.



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

Warning :

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

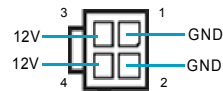
Power Supply

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.

4-pin ATX_12V Power Connector: PWR2

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

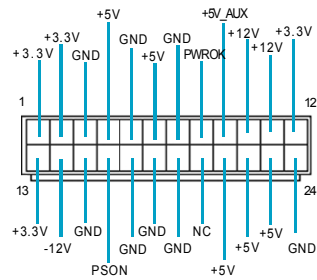
4-pin ATX_12V power connector



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



Align the connector



Note: We strongly recommended you use 24-pin power supply. If you want to use 20-pin power supply, you need to align the ATX power connector according to the right picture.

Other Connectors

This motherboard includes connectors for FDD, IDE HDD, USB, CPU fan, system fan and others.

FDD Connector: FLOPPY

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

HDD connectors: PIDE1 & SIDE1

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

Attention:

Ribbon cables are directional, therefore, make sure to always connect with the cable on the same side as pin 1 of the PIDE1/SIDE1 or FDD connector on the motherboard.

Chapter 2 Installation Instructions

Front Panel Connector: FP1

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

Hard Disk LED Connector (HDD_LED)

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

Reset Switch (RESET)

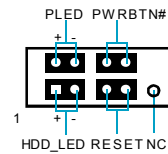
Attach the connector to the Reset switch on the front panel of the case; the system will restart when the switch is pressed.

Power LED Connector (PLED)

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

Power Switch Connector (PWRBTN#)

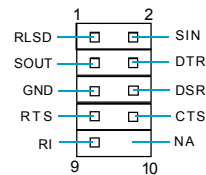
Attach the connector to the power button of the case. Pushing this switch allows the system to be turned on and off rather than using the power supply button.



FP1

COM2 Connector: COM2

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

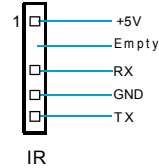


COM2

Chapter 2 Installation Instructions

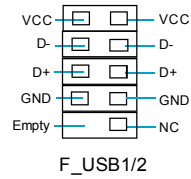
IrDA Header: IR (optional)

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



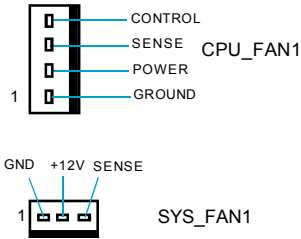
USB Headers: F_USB1, F_USB2

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



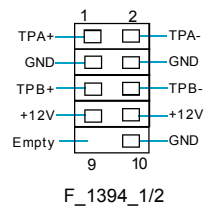
Fan Connectors: CPU_FAN1, SYS_FAN1

The speed of CPU_FAN1 and SYS_FAN1 can be detected and viewed in “PC Health Status” section of the CMOS Setup. These fans will be automatically turned off after the system enters suspend mode.



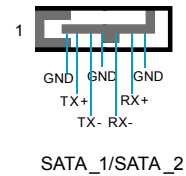
1394 Header: F_1394_1, F_1394_2 (optional)

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 rear panel of the chassis.



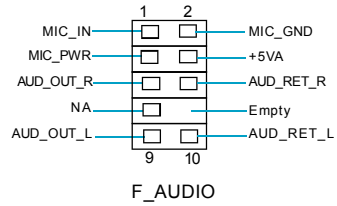
S-ATA Connectors: SATA_1, SATA_2

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



Audio Interface: F_AUDIO

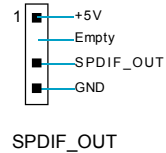
The audio interface provides two kinds of audio output choices: the Front Audio, the Rear Audio. Their priority is sequenced from high to low (Front Audio to Rear Audio). If headphones are plugged into the front panel of the chassis (using the Front Audio), then the Line-out (Rear Audio) on the rear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



S/PDIF Out Connector: SPDIF_OUT

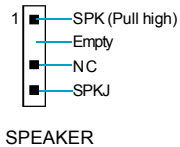
The S/PDIF out connector is capable of providing digital audio to external speakers or compressed AC3 data to an external Dolby digital decoder.

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



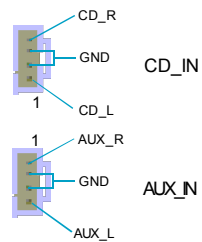
Speaker Connector: SPEAKER

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



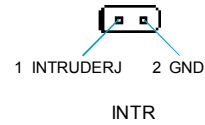
Audio Connectors: CD_IN, AUX_IN

CD_IN, AUX_IN is Sony standard CD audio connector, it can be connected to a CD-ROM drive through a CD audio cable.



Chassis Intruder Connector: INTR(optional)

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 "Chassis Intrusion" to "Enabled" in the "PC Health Status" section of the CMOS Setup. Save and exit, then boot the operating system once to make sure this function takes effect.



Expansion Slots

This motherboard includes three 32-bit master PCI bus slots, one AGP slot.

PCI Slots

The expansion cards can be installed in the three PCI slots. When you install or take out such cards, you must make sure that the power plug has been pulled out. Please read carefully the instructions provided for such cards, and install and set the necessary hardware and software for such cards, such as the jumper or BIOS setup.

AGP Slot

This motherboard has an AGP slot that supports 1.5V AGP cards. AGP is an interfacing specification designed to display 3D images. It provides a specialized 66MHz, 32-bit channel to allow the graphic controller to directly access the master memory and supports 4X and 8X speeds.

Warning:

The motherboard may be damaged if a 3.3V AGP card is used. Make sure that your AGP card is 1.5V specification. Note the notches on the card golden fingers to ensure that they fit the AGP slot on your motherboard.

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 expansion cards.
3. Remove the bracket opposite the slot that you intend to use.
4. Align the card connector with the slot and press firmly until the card is completely seated in the slot.
5. Secure the card to the chassis with the screw you removed earlier.







For the detailed AGP 8X VGA 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 contents carefully prior to modifying any jumper settings.

Description of Jumpers

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


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


Clear CMOS Jumper: CLS_CMOS

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

How to clear CMOS?

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

Normal Status
(Default) 

Clear CMOS 

Clear CMOS Jumper

Warning:

- Disconnect the power cable before adjusting the jumper settings.
- 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
- ❖ BIOS Features
- ❖ Advanced BIOS Features
- ❖ Advanced Chipset Features
- ❖ Integrated Peripherals
- ❖ Power Management Setup
- ❖ PnP/PCI Configurations
- ❖ PC Health Status
- ❖ Load Fail-Safe Defaults
- ❖ 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 key to enter the Award BIOS CMOS Setup Utility.

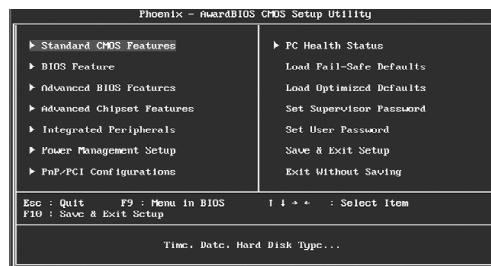
Press TAB to show POST Screen, DEL to enter SETUP.

Note:

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

Main Menu

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



Main Menu

The items in the main menu are explained as below:

Standard CMOS Features

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

BIOS Features

The special features can be set up through this menu.

Advanced BIOS Features

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

Advanced Chipset Features

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

Integrated Peripherals

All onboard peripherals can be set up through this menu.

Power Management Setup

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

PnP/PCI Configurations

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

PC Health Status

This will display the current status of your PC.

Load Fail-Safe Defaults

The default BIOS settings can be loaded through this menu.

Load Optimized Defaults

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

Set Supervisor Password

The supervisor password can be set up through this menu.

Set User Password

The user password can be set up through this menu.

Save & Exit Setup

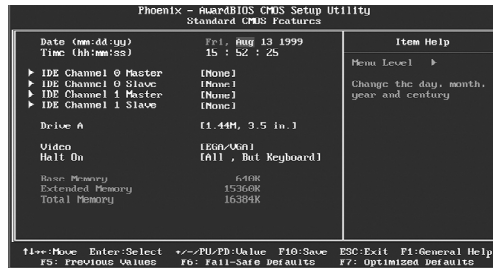
Save CMOS value settings to CMOS and exit setup.

Exit Without Saving

Abandon all CMOS value changes and exit setup.

Standard CMOS Features

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



Standard CMOS Features Menu

Date

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

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

Month—month from Jan. to Dec..

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

Year—year, set up by users.

Time

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

IDE Primary/Secondary Master/Slave

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

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

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

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

Drive A

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

Video

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

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

Halt On

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

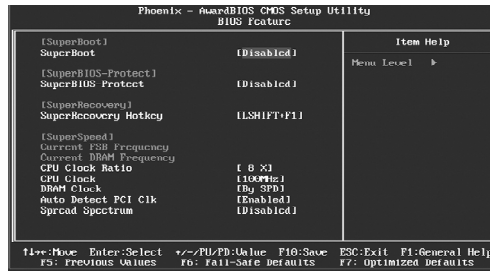
All Errors	Whenever the BIOS detects a nonfatal error, the system will stop and you will be prompted.
No Errors	The system boot will not stop for any errors that may be detected.
All, But Keyboard	The system boot will not stop for a keyboard error; but it will stop for all other errors.
All, But Diskette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

Memory

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

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

BIOS Features



BIOS Features Menu

❖ [SuperBoot] SuperBoot

SuperBoot allows system-relevant information to be stored in CMOS upon the first normal start-up of your PC, and the relevant parameters will be restored to help the system start up more quickly on each subsequent start-up. The available setting values are: Disabled and Enabled.

❖ [SuperBIOS-Protect] SuperBIOS-Protect

SuperBIOS-Protect function protects your PC from being affected by viruses, e.g. CIH. The available setting values are: Disabled and Enabled.

❖ [SuperRecovery] SuperRecovery Hotkey

SuperRecovery provides the users with an excellent data protection and HDD recovery function. There are 12 optional hotkey and the default hotkey is LSHIFT+F12.

❖ [SuperSpeed]

Current FSB/DRAM Frequency

It shows the current clock frequency of the front side bus/DRAM. (read only)

CPU Clock Ratio

This option is used to set the ratio of an unlocked CPU. Using different CPU, the setting values are different.

CPU Clock

This option is used to set the CPU clock.

DRAM Clock

This option is used to set the DRAM clock.

Auto Detect PCI Clk

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

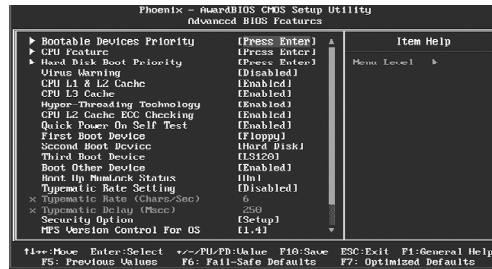
Spread Spectrum

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

Warning:

Be sure your selection is right. CPU overclock will be dangerous!
We will not be responsible for any damages caused.

Advanced BIOS Features



Advanced BIOS Features Menu

❖ Bootable Devices Priority

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

❖ CPU Feature

Press enter to set the items of CPU feature.

❖ Hard Disk Boot Priority

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

❖ Virus Warning

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

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

❖ CPU L1 & L2 Cache

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

❖ CPU L3 Cache

This option is used to enable or disable the L3 CPU cache. The available setting values are: Disabled and Enabled.

❖ **Hyper-Threading Technology**

This option is used to turn on or off the Hyper-Threading function of the CPU. The available setting values are: Disabled and Enabled.

Note: This function will not be displayed until a CPU that supports Hyper-Threading has been installed.

❖ **CPU L2 Cache ECC Checking**

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

❖ **Quick Power On Self Test**

Enable this option to shorten the power on testing (POST) and have your system start up faster. The setting values are: Disabled and Enabled.

❖ **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. The setting values are: Disabled and Enabled.

❖ **Boot Up NumLock Status**

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

❖ **Typematic Rate Setting**

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

❖ **Typematic Rate (Chars/Sec)**

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

❖ **Typematic Delay (Msec)**

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

❖ **Security Option**

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

❖ **MPS Version Control For OS**

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

❖ **OS Select For DRAM > 64MB**

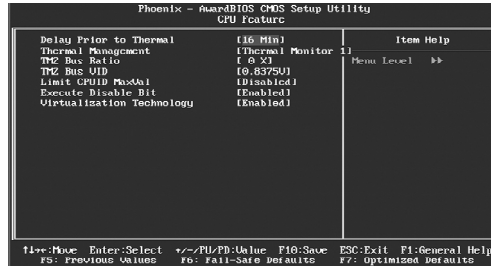
This option is only required if you have installed more than 64 MB of memory and you are running the OS/2 operating system. Otherwise, leave this option at the default.

❖ **Full Screen LOGO Show**

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

❖ **Small Logo (EPA) Show**

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



CPU Feature Menu

❖ Delay Prior to Thermal

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

❖ Thermal Management

This option is used to manage Prescott CPU thermal.

❖ TM2 Bus Ratio

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

❖ TM2 Bus VID

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

❖ Limit CPUID MaxVal

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

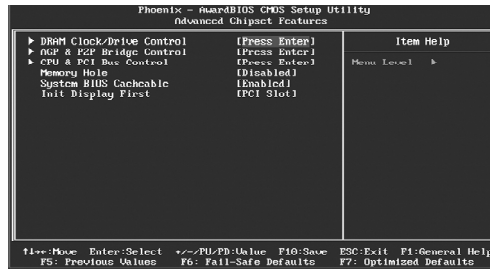
❖ Execute Disable Bit

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

❖ Virtualization Technology

When enabled, a VMM can utilize the additional hardware capabilities provided by vendor pool technology.

Advanced Chipset Features



Advanced Chipset Features Menu

❖ DRAM Clock/Drive Control

Press enter to set the items about DRAM Clock/Drive.

❖ AGP & P2P Bridge Control

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

❖ CPU & PCI Bus Control

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

❖ Memory Hole

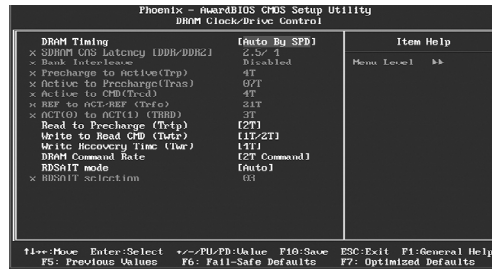
This option is used to select memory hole. The setting values are: Disabled, 15M-16M.

❖ System BIOS Cacheable

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

❖ Init Display First

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



DRAM Clock/Drive Control Menu

❖ **DRAM Timing**

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

❖ **SDRAM CAS Latency [DDR/DDR2]**

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

❖ **Bank Interleave**

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

❖ **Precharge to Active (Trp)**

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

❖ **Active to Precharge(Tras)**

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

❖ **Active to CMD<Trcd>**

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

❖ **REF to ACT/REF (Trfc)**

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

❖ **ACT(0) to ACT(1) (TRRD)**

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

❖ **Read to Precharge (Trtp)**

This option is used to set Read to Precharge (Trtp).

❖ **Write to Read CMD (Twtr)**

This option is used to set Write to Read CMD (Twtr).

❖ **Write Recovery Time (Twtr)**

This option is used to set Write Recovery Time (Twtr).

❖ **DRAM Command Rate**

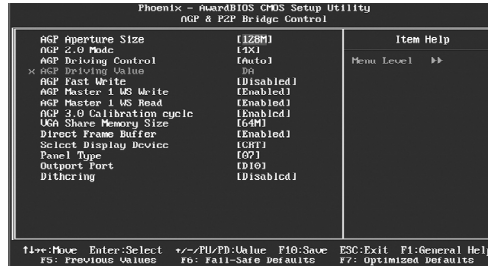
This setting controls the SDRAM command rate. Selecting 1T allows SDRAM signal controller to run at 1T (T=clock cycles) rate. Selecting 2T makes SDRAM signal controller run at 2T rate. 1T is faster than 2T.

❖ **RDSAIT mode**

This option is used to set RDSAIT mode.

❖ **RDSAIT selection**

When **RDSAIT mode** is set as manual, this option will be modified. It is used to set RDSAIT selection.



AGP & P2P Bridge Control Menu

❖ **AGP Aperture Size**

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

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

❖ **AGP 2.0 Mode**

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

❖ **AGP Driving Control**

This option is used to set AGP driving.

❖ **AGP Driving Value**

When **AGP Driving Control** is set as manual, this option will be modified. It is used to key in a HEX number.

❖ **AGP Fast Write**

This option enables or disables the AGP Fast Write feature. The Fast Write technology allows the CPU to write directly to the graphics card without passing anything through the system memory and improves the AGP 4X speed. Select “Enabled” only when your AGP card supports the feature. The setting values are: Disabled and Enabled.

❖ **AGP Master 1 WS Write**

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

❖ **AGP Master 1 WS Read**

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

❖ **AGP 3.0 Calibration cycle**

This option allows you to enable or disable the AGP 3.0 calibration cycle. This cycle ensures that the on-die termination impedance signal swing and slew rate of the AGP signals are calibrated on a periodic basis to ensure signal integrity. It is recommended to keep this setting enabled.

❖ **VGA Share Memory Size**

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

❖ **Direct Frame Buffer**

This option is used to enable or disable direct frame buffer.

❖ **Select Display Device**

This option is used to select display device.

❖ **Panel Type**

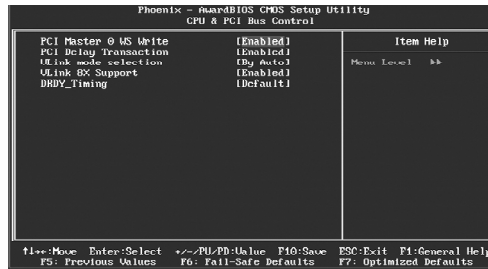
This option is used to select panel type from Min. (0000) to Max. (000F).

❖ **Output Port**

This option is used to select output port.

❖ **Dithering**

This option is used to enable or disable dithering function.



CPU & PCI Bus Control Menu

❖ PCI Master 0 WS Write

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

❖ PCI Delay Transaction

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

❖ VLink mode selection

This option allows you to select VLink mode.

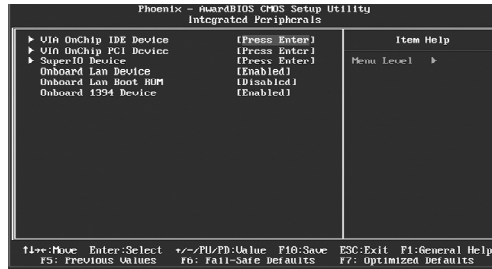
❖ VLink 8X Support

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

❖ DRDY_Timing

This option allows you to select DRDY_Timing.

Integrated Peripherals



Integrated Peripherals Menu

❖ VIA OnChip IDE Device

Press enter to set onchip IDE device.

❖ VIA OnChip PCI Device

Press enter to set onchip PCI device.

❖ SuperIO Device

Press enter to set onboard SuperIO device.

❖ Onboard Lan Device

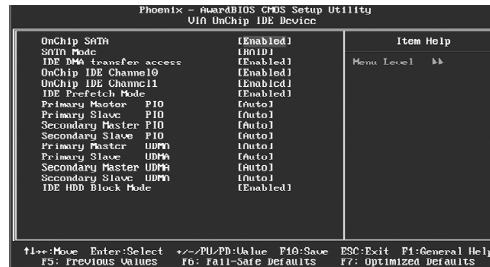
This option is used to enable or disable onboard LAN device. The setting values are: Disabled and Enabled.

❖ Onboard Lan Boot ROM

The option enables or disables the initialization of the onboard LAN Boot ROM during bootup. The setting values are: Disabled and Enabled.

❖ Onboard 1394 Device

This option is used to enable or disable Onboard 1394 Device. The setting values are: Disabled and Enabled.



VIA OnChip IDE Device Menu

❖ **OnChip SATA**

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

❖ **SATA Mode**

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

❖ **IDE DMA transfer access**

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

❖ **OnChip IDE Channel0/1**

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

❖ **IDE Prefetch Mode**

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

❖ **Primary/Secondary Master/Slave PIO**

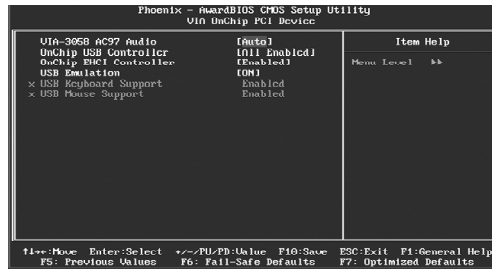
These four items let you assign which kind of PIO (Programmed Input/Output) is used by IDE devices. Choose Auto to let the system auto detect which PIO mode is best or select a PIO mode from 0-4.

❖ **Primary/Secondary Master/Slave UDMA**

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

❖ **IDE HDD Block Mode**

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



VIA OnChip PCI Device Menu

❖ VIA-3058 AC97 Audio

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

❖ OnChip USB Controller

This option is used to set onchip USB controller.

❖ OnChip EHCI Controller

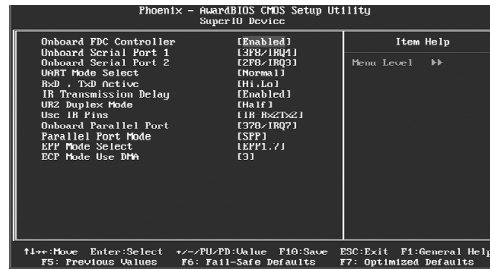
This option is used to enable or disable onchip EHCI controller. The setting values are: Disabled and Enabled.

❖ USB Emulation

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

❖ USB Keyboard/Mouse Support

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



SuperIO Device Menu

❖ Onboard FDC Controller

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

❖ Onboard Serial Port1/2

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

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

❖ UART Mode Select

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

❖ RxD,TxD Active

This option is used to set the RxD and TxD parameters. It is recommended to keep the default setting.

❖ IR Transmission Delay

This option is used to set whether the IR Transmission Delay is enabled. The available setting values are: Disabled and Enabled.

❖ 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.

❖ Use IR Pins

It is recommended not to change the default setting.

❖ Onboard Parallel Port

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

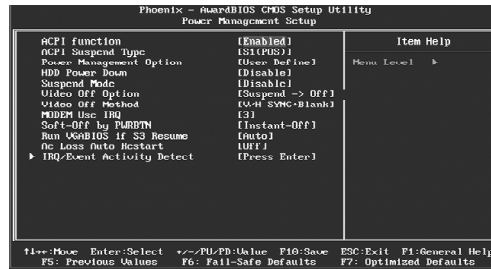
❖ **Parallel Port Mode**

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

❖ **ECP Mode Use DMA**

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

Power Management Setup



Power Management Setup Menu

❖ ACPI function

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

❖ ACPI Suspend Type

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

❖ Power Management Option

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

❖ HDD Power Down

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

❖ **Suspend Mode**

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

❖ **Video Off Option**

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

❖ **Video Off Method**

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

❖ **MODEM Use IRQ**

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

❖ **Soft-Off by PWRBTN**

This option is used to set the power down method. This function is only valid for systems using an ATX power supply.

When “Instant-Off” is selected, press the power switch to immediately turn off power.

When “Delay 4 Sec” is selected, press and hold the power button for four seconds to turn off power.

❖ **Run VGABIOS if S3 Resume**

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

❖ **Ac Loss Auto Restart**

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

❖ **IRQ/Event Activity Detect**

Press Enter to set IRQ/Event Activity Detect.

❖ **HDD & FDD**

When on of HDD & FDD, any activity from one of the listed system peripheral devices or IRQs wakes up the system. The setting values are: OFF, ON.

❖ **PCI Master**

When on of PCI master, any activity from one of the listed system peripheral devices or IRQs wakes up the system. The setting values are: OFF and ON.

❖ **PowerOn by PCI Card**

If “Enabled” any PCI interrupt will wake up the system. The setting values are: Disabled and Enabled.

❖ **Modem Ring Resume**

This option is used to set the system to be waked up by the modem ring. The setting values are: Disabled and Enabled.

❖ **RTC Alarm Resume**

This option is used to set alarm to power on the system by the date (1-31) or time (hh:mm:ss). The setting values are: Disabled and Enabled.

❖ **Date (of Month)**

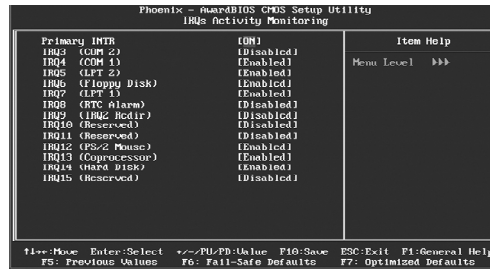
This option is used to set the timing for the start-up day of the month. The setting values contain 0 – 31.

❖ **Resume Time (hh:mm:ss)**

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

❖ **IRQs Activity Monitoring**

Press enter to set the items of IRQs activity monitoring.



IRQs Activity Monitoring Menu

❖ Primary INTR

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

❖ IRQ3 (COM2)

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

❖ IRQ4 (COM1)

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

❖ IRQ5 (LPT2)

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

❖ IRQ6 (Floppy Disk)

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

❖ IRQ7 (LPT1)

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

❖ IRQ8 (RTC Alarm)

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

❖ IRQ9 (IRQ2 Redir)

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

❖ **IRQ10 (Reserved)**

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

❖ **IRQ11 (Reserved)**

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

❖ **IRQ12 (PS/2 Mouse)**

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

❖ **IRQ13 (Coprocessor)**

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

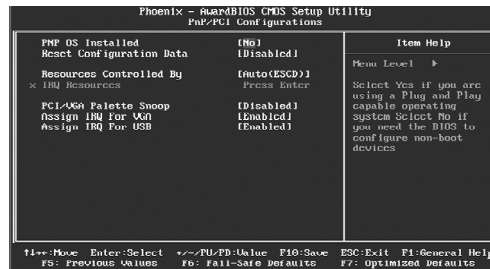
❖ **IRQ14 (Hard Disk)**

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

❖ **IRQ15 (Reserved)**

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

PnP/PCI Configurations



PnP/PCI Configurations Menu

❖ PNP OS Installed

Set this field to “Yes” if you are running Windows 95, which is PnP compatible. It is recommended to keep the default setting. The setting values are: No, Yes.

❖ Reset Configuration Data

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

❖ Resources Controlled By

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

❖ IRQ Resources

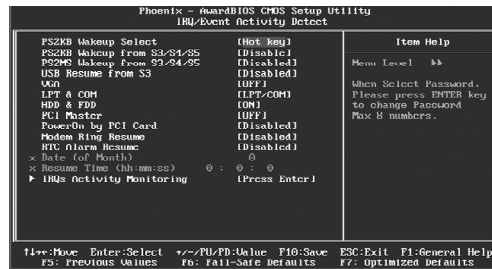
Press the <Enter> key, then manually set IRQ resources.

❖ 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.

❖ Assign IRQ For VGA/USB

This option is used to set whether BIOS will assign IRQ for VGA/USB. The setting values are: Disabled and Enabled.



IRQ/Event Activity Detect Menu

❖ PS2KB Wakeup Select

This option is used to select which action will wake up PS/2 keyboard from S3/S4/S5 status. Use <PgUp> or <PgDn> to select the desired item. The setting values are: Hot key, Password.

❖ PS2KB Wakeup from S3/S4/S5

This option is used to select which hotkey will wake up by PS/2 keyboard from S3/S4/S5 status or disable it. The setting values are: Disabled, Ctrl + F1~F12, Power, Wake, Any Key.

❖ PS2MS Wakeup from S3/S4/S5

This option is used to enable or disable the system to be waken up by PS/2 mouse from S3/S4/S5 status. The setting values are: Disabled and Enabled.

❖ USB Resume from S3

This option is used to enable or disable the USB to be resume from S3. The setting values are: Disabled and Enabled.

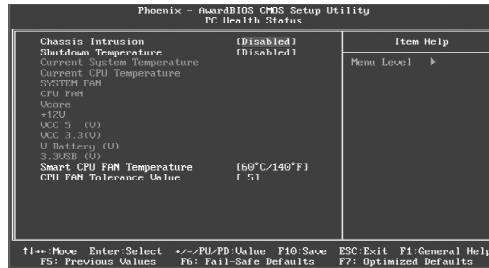
❖ VGA

When on of VGA, any activity from one of the listed system peripheral devices or IRQs wakes up the system. The setting values are: ON and OFF.

❖ LPT & COM

When on of LPT & COM, any activity from one of the listed system peripheral devices or IRQs wakes up the system. If select "NONE", cannot wake up the system. The setting values are: NONE, LPT, COM and LPT/COM.

PC Health Status



PC Health Status Menu

❖ Chassis Intrusion

This option is used to enable or disable chassis intrusion 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.

❖ Current System/CPU Temperature

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

❖ SYSTEM/CPUFAN

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

❖ Vcore/ +12V/VCC 5(V)/VCC 3.3(V)/V Battery(V)/3.3VSB (V)

The current voltages will be automatically detected by the system.

❖ Smart CPU FAN Temperature

This option is used to set smart CPU fan temperature.

❖ CPU FAN Tolerance Value

This option is used to set CPU fan tolerance value.

Load Fail-Safe Defaults

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

Load Optimized Defaults

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

Set Supervisor/User Password

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

Enter Password:

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

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

Password Disabled!!!
Press any key to continue ...

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

Under the menu “Advanced BIOS Features”, if you select “Setup” from the Security Option, you will be prompted to enter a password only when you enter the CMOS setting program.

Save & Exit Setup

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

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

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

Exit Without Saving

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

Quit Without Saving (Y/N)?N

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

Chapter 4

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

This chapter includes the following information:

- ❖ Utility CD content
- ❖ Start to install drivers

Utility CD content

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



1. Install Driver

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

- | | |
|-----------------|----------------|
| A. VIA 4in1 | B. DirectX 9.0 |
| C. Audio Driver | D. VGA Driver |
| E. LAN Driver | F. VIA RAID |

2. Accessories

Use this option to install additional software programs.

- | | |
|-----------------------------|-----------------------|
| A. SuperUtility | B. Adobe Reader |
| C. Norton Internet Security | D. Create RAID Floppy |

3. Manual

Click here to browse user manual content.

4. Browse CD

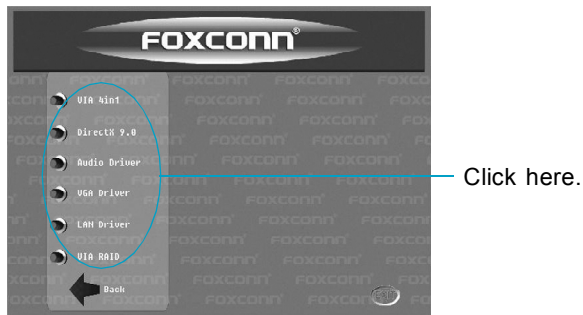
Click here to browse CD content.

5. Homepage

Click here to visit Foxconn motherboard homepage.

Start to Install drivers

Select <Install Driver>, and click to enter the install driver screen. You can select the driver that you want to install and begin the setup steps.



Note:

1. Install the latest service pack firstly if your OS is Windows XP or Windows 2000.
2. Follow the CD screen order to install your motherboard drivers.

Chapter 5

This chapter will introduce how to use attached software.

This chapter provides the following information:

- ❖ SuperStep
- ❖ SuperLogo
- ❖ SuperUpdate

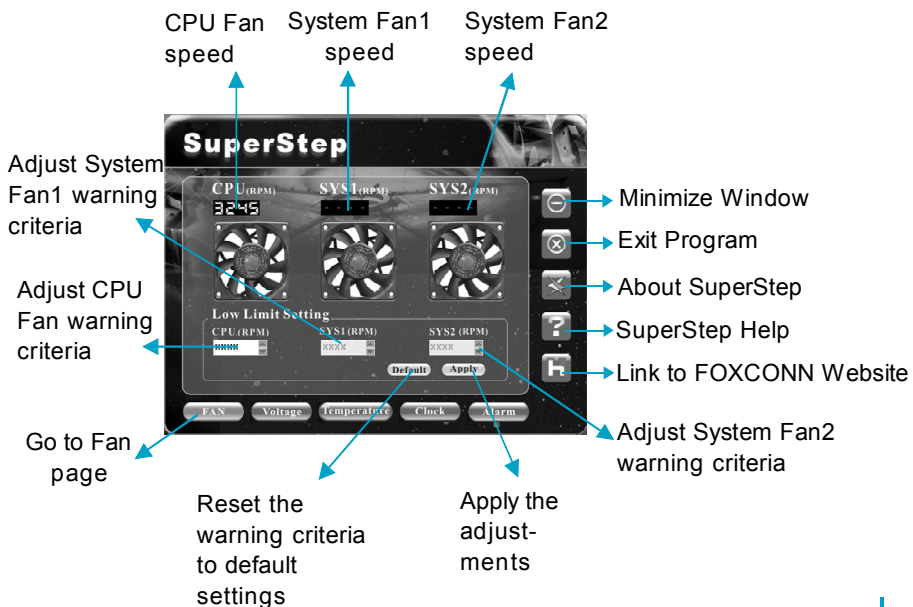
SuperStep

SuperStep is a utility that allows users to change the frequency of the CPU. It also displays system health information including CPU temperature, CPU voltage, and PCI clock.

SuperStep features:

1. Supports Win2000 and WinXP.
2. Automatic alarm mechanism when system runs irregularly.
3. Adjusts the CPU frequency to speed up your system and achieve better system performance.
4. Simple and easy to operate, with a user-friendly graphics interface.

Using SuperStep:



SuperStep

	Value(V)	High(V)	Low(V)
CPU Vcore:	X.XX	X.XXX	X.XXX
VDDR:	X.XX	X.XXX	X.XXX
+3.3V:	X.XX	X.XXX	X.XXX
+5V:	X.XX	X.XXX	X.XXX
+12V:	X.XX	X.XXX	X.XXX
-12V:	- - - - -	X.XXX	X.XXX
.5V:	- - - - -	X.XXX	X.XXX
5VSB:	X.XX	X.XXX	X.XXX
VBAT:	X.XX	X.XXX	X.XXX

Buttons: Voltage, Temperature, Clock, Alarm

Annotations:

- Adjust voltages warning criteria (upper limit)
- Current voltage readings
- Go to Voltage page
- Reset the warning criteria to default settings
- Apply the adjustments
- Adjust voltages warning criteria (Lower limit)

SuperStep

CPU Temperature: 0°C to 100°C scale, Upper Temperature Threshold: XX.XX

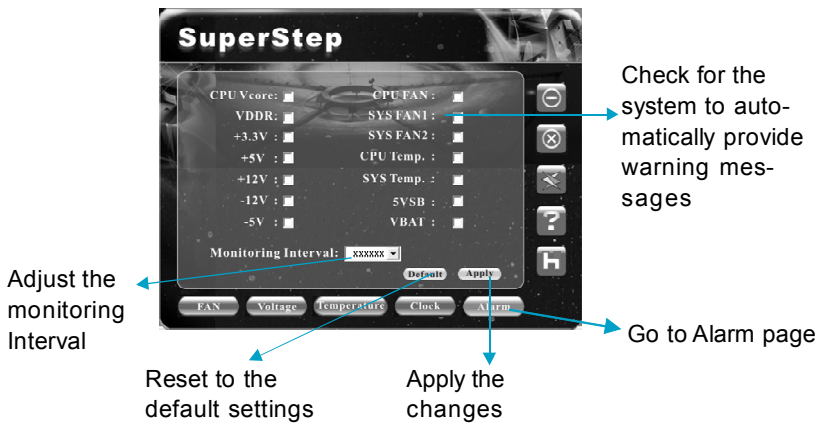
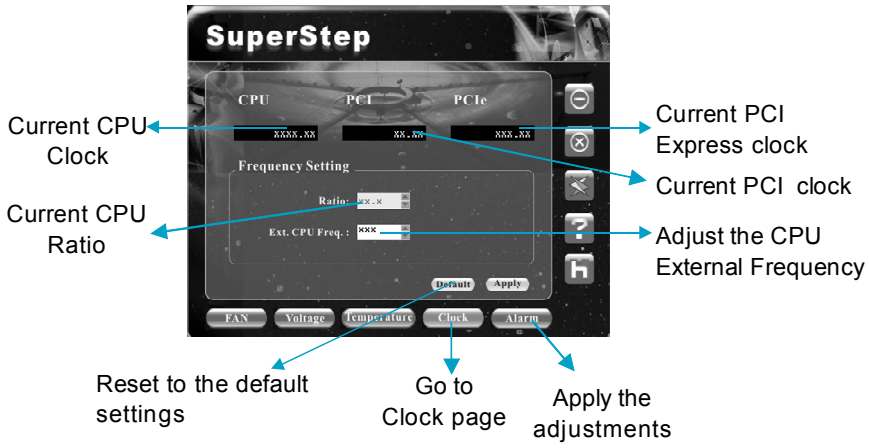
System Temperature: 0°C to 100°C scale, Upper Temperature Threshold: XX.XX

Buttons: Temperature, Clock, Alarm

Annotations:

- Adjust CPU temperature warning criteria
- Adjust system temperature warning criteria
- Current CPU Temperature
- Current system Temperature
- Reset the warning criteria to default settings
- Go to Temperature page
- Apply the adjustments

Chapter 5 Directions for Bundled Software



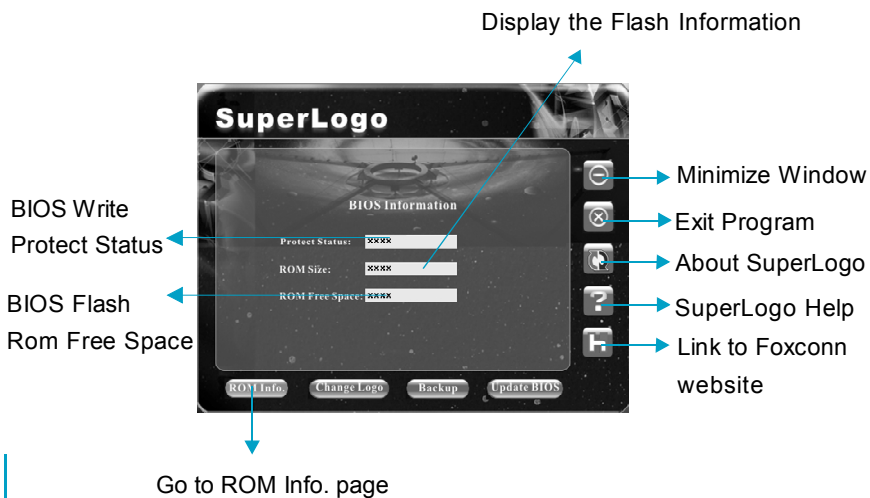
SuperLogo

SuperLogo is a Windows utility that allows users to change the BIOS sign on logo. The utility is able to replace and backup the BIOS logo, and update and backup the BIOS image within the Windows environment.


SuperLogo features:

1. Supports Win2000 and WinXP.
2. Supports 4Mb size flash parts, flash write method is independent with flash type.
3. Simple and easy to operate, with a user-friendly graphics interface.
4. Supports BMP and JPEG graphic format files. The best color is 16 or 256 colors. The best resolution is 136x84 for top-right logo and 640x480 or 800x600 for full screen logo.

Using SuperLogo:



Chapter 5 Directions for Bundled Software



Full screen mode

Top-Right mode

Boot without logo

Follow the Wizard to complete the

Go to Change Logo page

Detailed description: This screenshot shows the 'SuperLogo' interface at 'Step 1: Select Logo Position'. The screen has a dark background with a central panel. On the left, there are three radio button options: 'Full screen' (selected), 'Top right', and 'None'. Each option has a small preview of the logo placement. On the right side of the screen, there is a vertical toolbar with icons for back, forward, home, and help. At the bottom, there are four buttons: 'ROM Info', 'Change Logo', 'Backup', and 'Update BIOS'. A 'Next>>' button is located at the bottom right of the central panel.



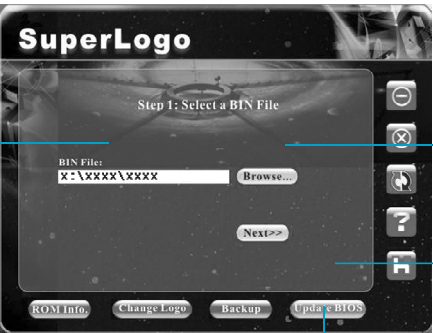
Backup whole BIOS image

Backup Logo

Follow the Wizard to complete the backup function

Go to Backup page

Detailed description: This screenshot shows the 'SuperLogo' interface at the 'Select Backup Object' screen. The central panel has two radio button options: 'BIOS' (selected) and 'Logo'. The 'Next>>' button is at the bottom right of the central panel. The bottom toolbar is the same as in the previous screenshot.



BIOS image file location

Browse a BIN file for updating BIOS

Follow the Wizard to complete the BIOS function

Go to Update BIOS page

Detailed description: This screenshot shows the 'SuperLogo' interface at 'Step 1: Select a BIN File'. The central panel features a text input field labeled 'BIN File:' containing 'X:\XXXX\XXXX' and a 'Browse...' button to its right. Below the input field is a 'Next>>' button. The bottom toolbar is the same as in the previous screenshots.

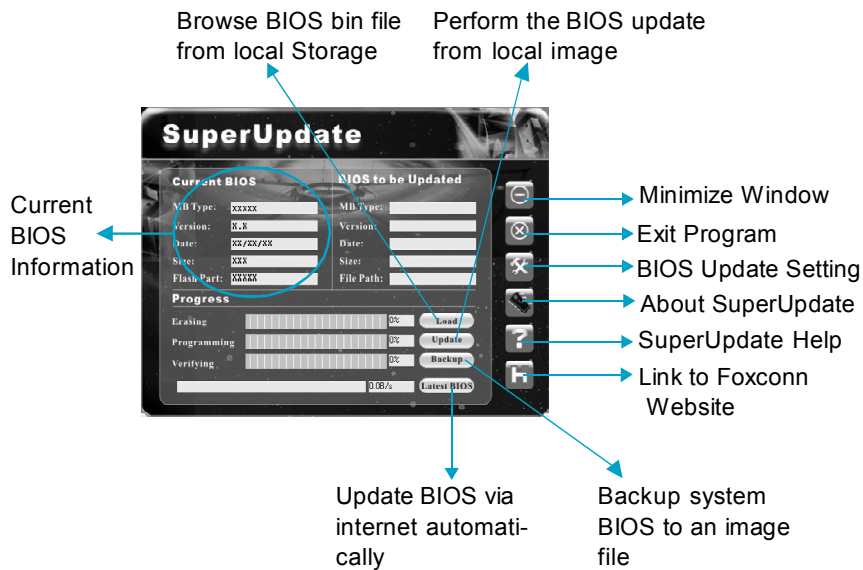
SuperUpdate

SuperUpdate is a Windows utility that allows users to backup and upgrade the system BIOS from local or Internet.

SuperUpdate features:

1. Supports Win2000 and WinXP.
2. Supports 4Mb size flash parts; flash write method is independent of flash type.
3. Simple and easy to operate, with a user-friendly graphics interface.

Using SuperUpdate:



Chapter 6

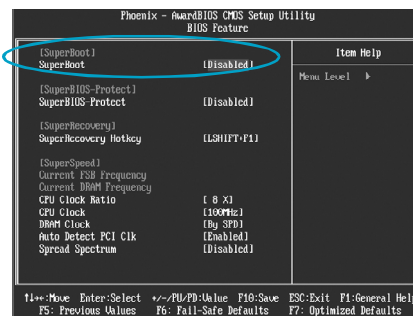
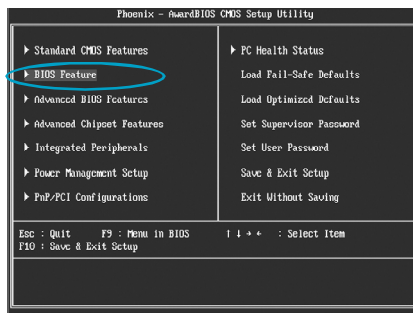
This chapter will introduce special functions of BIOS and how to use them in detail. It can further exert the max potential of motherboard to bring you super-value enjoyment.

This chapter introduces the following special functions of BIOS:

- ❖ SuperBoot
- ❖ SuperBIOS-Protect
- ❖ SuperRecovery
- ❖ SuperSpeed

SuperBoot

SuperBoot technology greatly reduces the long boot process time of computers. A BIOS without SuperBoot has to perform many routines every time when the system starts, such as checking the system core and initializing system peripherals. Now with SuperBoot, a PC can bootup without any unnecessary. SuperBoot is quite easy to use: choose the right option in CMOS setup (refer to BIOS features), SuperBoot saves the information when the PC boots up the first time, and restores the parameters for the system, thus letting the PC boot freely and rapidly.

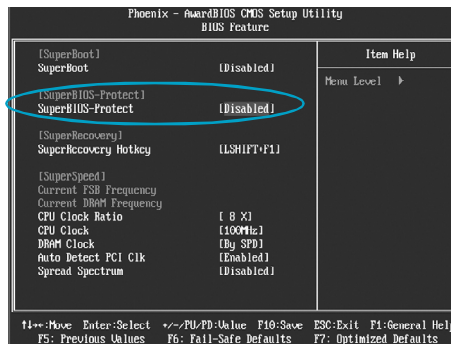
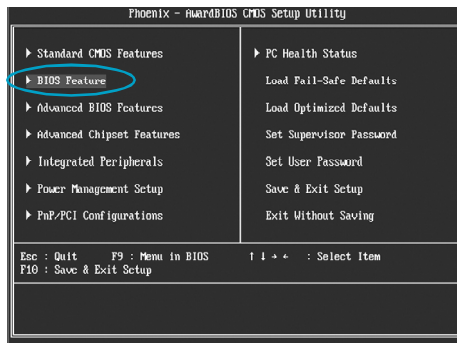


Notes:

1. If the previous boot was not completed then the BIOS will perform a normal POST, even if SuperBoot is enabled.
2. No matter whether SuperBoot is enabled or not, the BIOS will perform a normal POST if the CMOS fails.

SuperBIOS-Protect

The BIOS of the motherboard is contained inside the Flash ROM. Severe viruses, such as the CIH virus, are so dangerous that they may overwrite the BIOS. If the BIOS has been damaged, the system will be unable to boot. We provide the following solution which protects the system BIOS from being attacked by such viruses.



The way to implement this function, set “SuperBIOS-Protect” as “Enabled”, the BIOS will be protected.

SuperRecovery

SuperRecovery is an easy-to-operate tool for backing up or recovering your hard disk data. It offers simplified user interfaces with hotkey access and allows you to experience unprecedented high security and reliability with extra functions, such as hotkey launch, and powerful anti-virus protection.

Features:

1. Password Protection:

You can set a password for each HDD.

2. Data Protection:

Hidden partitions can only be accessed during data back up or recovery. Even reformatting the disk using FDISK or PQMAGIC will not allow access to the disk. This means that data backed up in a hidden partition is very secure.

3. Intelligent Menu:

Unavailable items will be displayed in gray. For example, if you haven't divided a hidden partition, items like "Release Hidden Partition", "Back up" and "Recovery" will be displayed in gray and can't be selected. And, when you select an item, the related information will appear on the bottom of the screen.

Disclaimer:

Please study this software program's specification carefully before using it. The vendor should not be liable for any damage arising out of or in connection with the use of this program, including liability for lost profit or data, or any other damage whatsoever.

System Requirements:

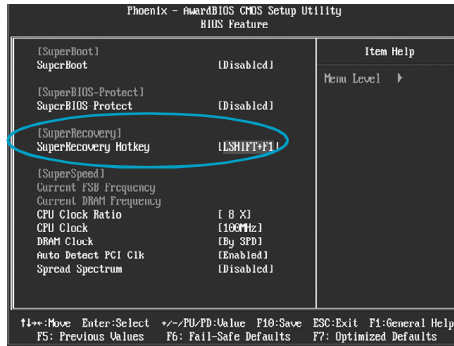
1. ATA5 or above compliant IDE HDD.
2. FAT16, FAT32, NTFS files system.
3. PS/2 keyboard or USB keyboard.

Hotkey Selection:

You should enter the CMOS setup interface first by pressing during POST (Power On Self Test). Then select the "SuperRecovery Hotkey" option to adjust the hotkey settings in the "BIOS Features" menu.

There are 12 options: LSHIFT (Left Shift)+F1~F12. LSHIFT+F12 is the default.

Chapter 6 Special BIOS Functions



Hard Disk Selection:

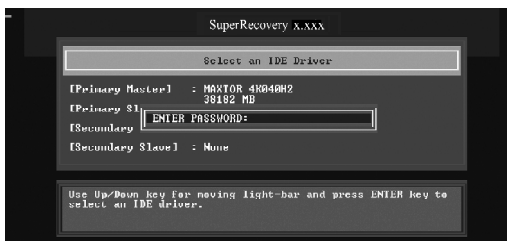
The hard disk selection menu will be displayed after you press the hotkey, listing all the IDE HDDs installed in your system. You can switch the highlight bar to make a selection and press <Enter> to confirm it.

Attention:

1. Make sure that you have selected a HDD before entering the main menu.
2. Make sure that the HDD you selected is ATA5 or higher. For HDDs lower than ATA5, there will be a "No Support" message in the HDD list menu listing beside the name of it.
3. Only one HDD can be operated at a time.

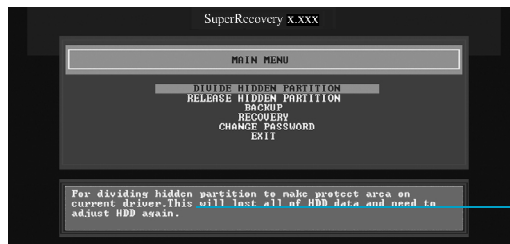


Note: If you have assigned a password to the selected HDD, you will be prompted to provide it before proceeding.



Main Menu:

Select a HDD to enter main menu. There are five function items, “Divide Hidden Partition”, “Release Hidden Partition”, “Backup”, “Recovery” and “Change Password”. You can switch the highlight bar to make a selection on the operation which should be performed on the HDD and confirm your selection by pressing <Enter>. The following operation will be performed on the disk you selected.



On-line help message

Divide Hidden Partition:

1. What is a Hidden Partition?

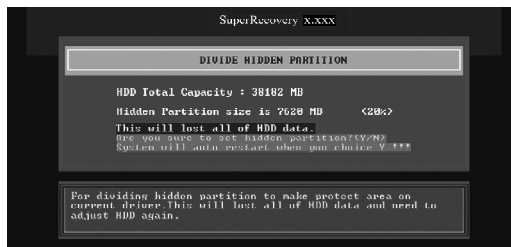
SuperRecovery can be used to divide a hidden partition, which is to be reserved for backing up HDD data. The partitioning will erase all the old data saved in the HDD, to make sure that the following operations can be continued. Once the division is done, any future variation to the HDD will never affect the hidden partition, such as virus, causing turbulence, windows system breaking down or data loss. SuperRecovery can recover all the data backed up in hidden partition, letting you easily get your computer on track again.

2. Divide Hidden Partition:

- A. Enter a percentage of the HDD total capacity or an actual size in MB as the size of the hidden partition, such as “30%” or “3000”. Press <Enter> to confirm your input. As the average rate of compression is 50% or so, you are suggested to divide 30% of the total as the capacity of the hidden partition.
- B. The system will then prompt you to Enter <Y> or <N> for confirmation. Press <Y> to restart the computer, and the division for hidden partition will go into effect after the system is restarted.

Attention :

1. All the HDD data will be cleared by the partitioning process, so it is better to do the division on an empty HDD.
2. At the same time, the overall HDD capacity will decrease in order to make space for the hidden partition, which will become unavailable for normal use.



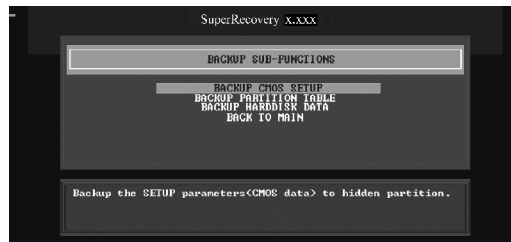
Release Hidden Partition:

This is used to release the hidden partition. If you choose this item and press <Y> to confirm, the system will be restarted to release the hidden partition. But the released partition is still unavailable for you after the system is restarted. It's necessary for you to enable it by using FDISK, PQMAGIC, or some other tools.



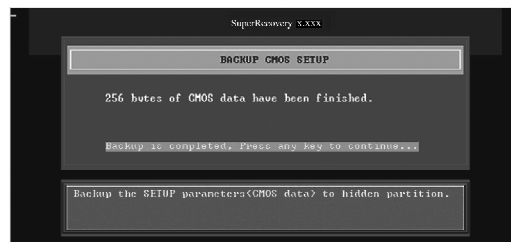
Backup:

Select BACKUP to enter the Backup interface, where you can find the following three sub-function items: “BACKUP CMOS SETUP”, “BACKUP PARTITION TABLE” and “BACKUP HARDDISK DATA”. Switch the highlight bar by pressing the arrow keys to make a selection and then press <Enter> to confirm your choice.



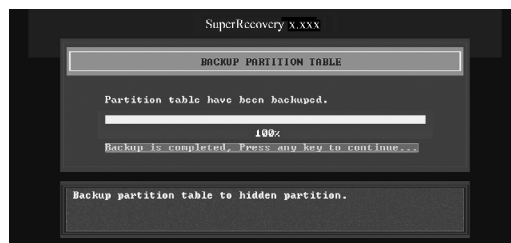
1. Backup CMOS Setup:

- A. Support backing up of the CMOS data.
- B. The backing up or recovery of CMOS data should be done on a motherboard of the same type.



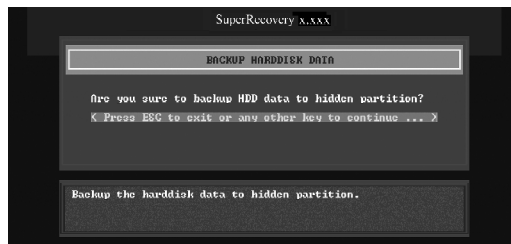
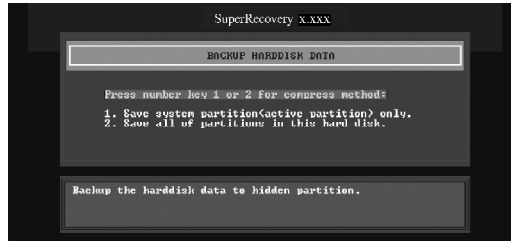
2. Backup Partition Table:

This function can help to backup all partition tables including extended partitions.



3. Backup Hard disk Data:

A. If there are active partitions (system partition), you can choose to backup an active partition or the whole disk. But only one can be taken between the two choices. Old data will be replaced by the newly backed up data.



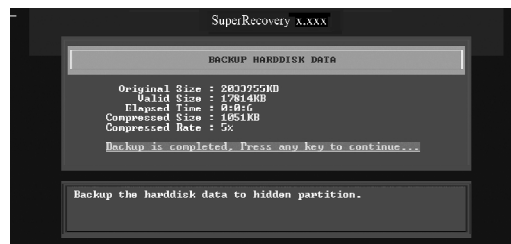
B. Backing up with the progress bar showing.



Chapter 6 Special BIOS Functions

- C. A report with all the critical data on this operation will be displayed after the backup is completed.

Original Size: The data size loaded in selected partition;
Valid Size: The size of valid data.
Elapsed Time: How long the procession cost.
Compressed Size: The size of data after compression.
Compressed Rate: Compressed Size/Valid Size.

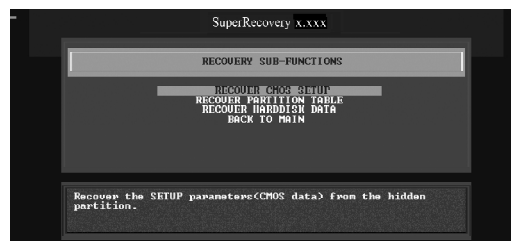


4. Back to Main:

This item is used to exit the Backup interface.

Recovery:

Select RECOVERY to enter the Recovery interface. You will see the following sub-function items: RECOVER CMOS SETUP, RECOVER PARTITION TABLE and RECOVER HARDDISK DATA. You can switch the highlight bar by pressing the arrow keys to make a selection and press <Enter> to confirm your selection.



1. Recover CMOS Setup:

This function is used to restore the latest backup of CMOS settings you made.



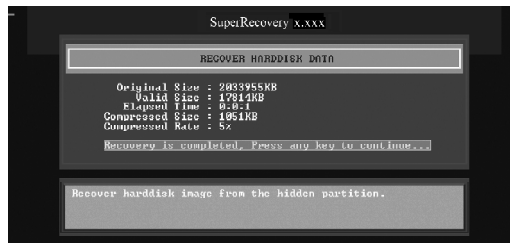
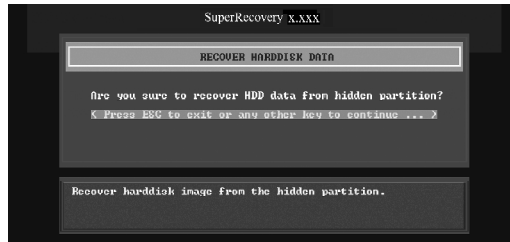
2. Recover Partition Table:

This function is used to recover all partition tables including extended partitions.



3. Recover Hard disk Data:

This item is used to restore the backed up data from the hidden partition.



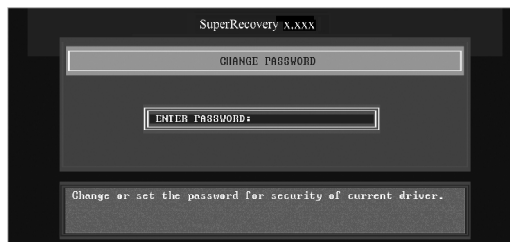
4. Back to Main:

This item is used to exit the Recovery interface.

CHANGE PASSWORD Introduction:

Select CHANGE PASSWORD to enter the Change Password interface.

- A. Enter the old password first. Press <Enter> if password is null.
- B. Enter the new password. Then enter the same again to confirm it.
- C. Press <Enter> for null password.
- D. The password will be saved in the hidden partition.

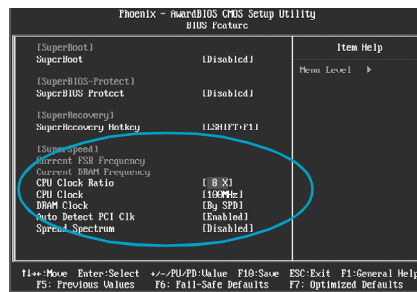
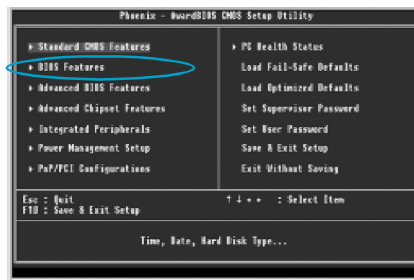


SuperSpeed

SuperSpeed is a powerful and efficient easy technology for PC DIY fans. It offers a friendly interface. Users can set the CPU Clock easily in the BIOS setup.

Procedures:

1. Correctly install your CPU.
2. Plug in other configurations and restore the system.
3. Switch on power to the system and press the key to enter BIOS Setup.
4. Enter the <BIOS Features>\<SuperSpeed> menu to set the CPU clock.
5. Save and exit BIOS Setup; your system will now boot successfully.



BIOS provides you with a set of basic values for your processor selection instead of the jumper settings. The processor speed can be manually set from the <BIOS Features> menu screen.

⚡ Warning:

Be sure your selection is right. CPU overclock can be dangerous!
We will not be responsible for any damage caused.