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## 1.1 Safety Precautions

Read and follow the content of the Safety Precautions carefully so that you will not cause damages to yourself or the system. Before you install or remove any components on the motherboard, please make sure to disconnect the power first in case of damaging motherboard or other components.

1. Pay attention to the warnings and notes in this manual to avoid causing unexpected damages.
2. If you want to wipe the system with a wet cloth, make sure the power cord is disconnected. We strongly suggest not wiping the system with chemical detergent or sprayed detergent.
3. When moving the system, do not put the system on uneven, unsteady or slanting surfaces.
4. Do not put water cups or beverages near the PC system to protect the system from being damaged by liquids.
5. There are ventilating holes on the backboard of the computer case to dissipate heat from the machine. You should pay attention to the position of the PC so that the ventilating holes will not be blocked. And please not put your PC on somewhere is not sturdy. – For examples, rug or bed mattress. Ensure smooth air flow for heat dissipation.
6. Before plugging on power, make certain the electric voltage in your area complies with that of the PC. If you are uncertain, consult your PC dealer or power electricity Service Company first.
7. Do not place your PC on power cords. Do not leave the power lines in tangles which may cause people to stumble.
8. It normally takes several power sockets to meet the need of a PC system. Make sure the extension power line is capable of handling the total power load for all equipment. In other words, the combined amperage of all electrical appliances on the same extension line must not exceed the strength of electric currents or the fuse of the extension line.
9. When your PC system runs into problems, do not try to fix it unless you possess adequate technical know-how concerning hardware installation and system maintenance. It would advisable to seek assistance from qualified maintenance personnel so as to avoid improper disassembling.
10. When encountering the following more dangerous situations, unplug the power to shut down the system and then seek help from professional technicians to fix the problems:

- \* When liquids find their way into the equipment.
- \* When the PC is soaked by rain.
- \* When power cords or power sockets are damaged.
- \* When the PC system falls to the ground and is damaged.
- \* When some problems cannot be solved even after you installed the system according to the manual or the troubleshooting procedures.



## Disposal Instruction

For better protection of our earth, please don't throw this electronic device into municipal trash bin when discarding. To minimize pollution and ensure utmost protection of the global environment, please recycle the product.

For more information about the collection and recycling of Waste Electrical and Electronic Equipment (WEEE) , you are invited to visit our homepage at [www.aopen.com](http://www.aopen.com) under "Green Products".

## 1.2 A Thank-you Note Before You Get Start

First of all, we would like to express our gratitude for purchasing AOpen products. Once again, this motherboard is designed uniquely to meet all your personal needs with our great industry-designing ability and our everlasting perseverance to the quality of all our products.

This manual will introduce you how this motherboard is installed. Please keep it well for your future reference. If you lost your printed manual, you may also go to our website at <http://www.aopen.com> to download the updated file.

Now, we would like to invite you to personally experience this user-friendly manual and all of the powerful functions this AOpen product offers.

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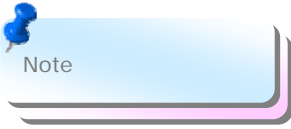
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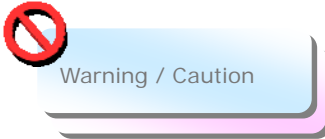
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## 1.3 Features of This Manual

To help you grab the useful information of this motherboard and aware of certain conditions that you might need to know, you will see the icons below frequently:



This contains knowledge you should know in process of assembling, or some helpful tips.



Please be careful when you see this mark. It highlights mistakes that occur often during assembling, or something you need to pay attention to.



This tip tells you some useful information that will make your installation smoothly.

## 1.4 Safety Information



Please wear a wrist strap and attach it to a metal part of the system unit before handling a component. Alternatively, you can also touch an object that is of ground connection or with metal surface.



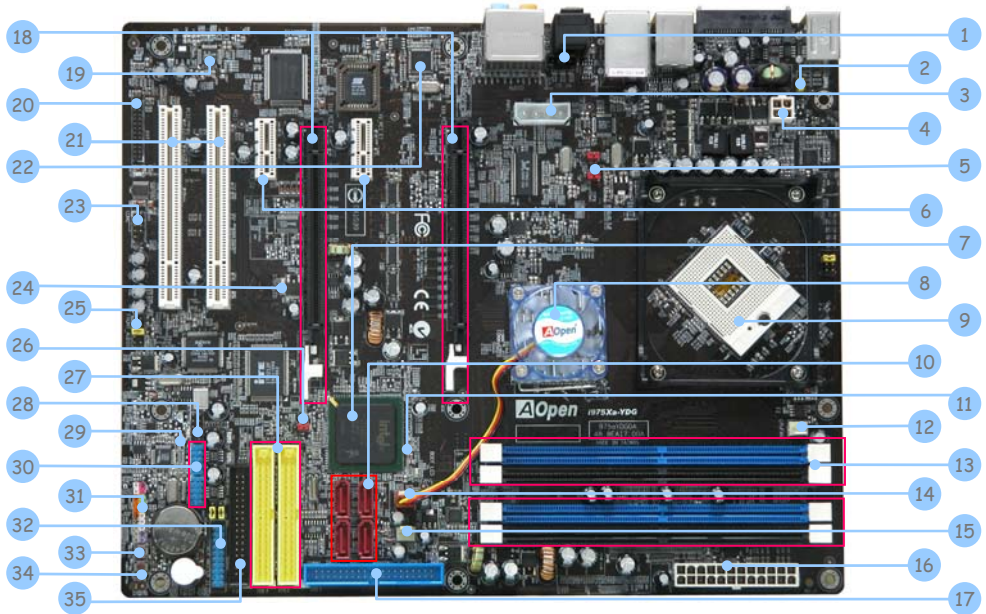
Always unplug the power before you make any jumper setting.



Before you install or remove any components on the motherboard, please make sure to disconnect the power first in case of damaging motherboard or other components.

# Chapter 2 Introduction to This Motherboard

## 2.1 How does your motherboard look like?



1. CD_IN Connector	19. Realtek HDA CODEC
2. JP28 PS2 KB/Mouse Wakeup Jumper	20. Printer Connector
3. 1x4 Peripheral Connector	21. 32-bit PCI Expansion Slot x 2
4. 4-pin 12V ATX Power Connector	22. Marvell Gigabit LAN Chip
5. J4, J5 Front Side Bus Frequency Jumper	23. COM connector
6. PCI Expressx1 Slot x 2	24. Stand By LED
7. Intel ICH7 Chipset	25. Front Audio Connector
8. Intel 975X Chipset	26. JP14 CMOS Data Clear Jumper
9. 479-pin CPU Socket supporting Intel Yonah Core Duo / Solo Processors	27. ATA133 IDE connector x 2
10. Serial ATA II connector x 4	28. IEEE 1394 Connector
11. Boot LED	29. Power Master II Ready LED
12. CPU FAN connector	30. USB 2.0 Connector x 2
13. 240-pin DIMM x 4 support DDR II 667MHz	31. Front Panel Connector
14. System FAN1 Connector	32. Power Master II Connector
15. Power FAN connector	33. Reset Switch Connector
16. 24-pin ATX power connector	34. Power Switch Connector
17. ATA100 IDE connector	35. FDD Connector
18. PCI Expressx16 Graphics Slot x 2	

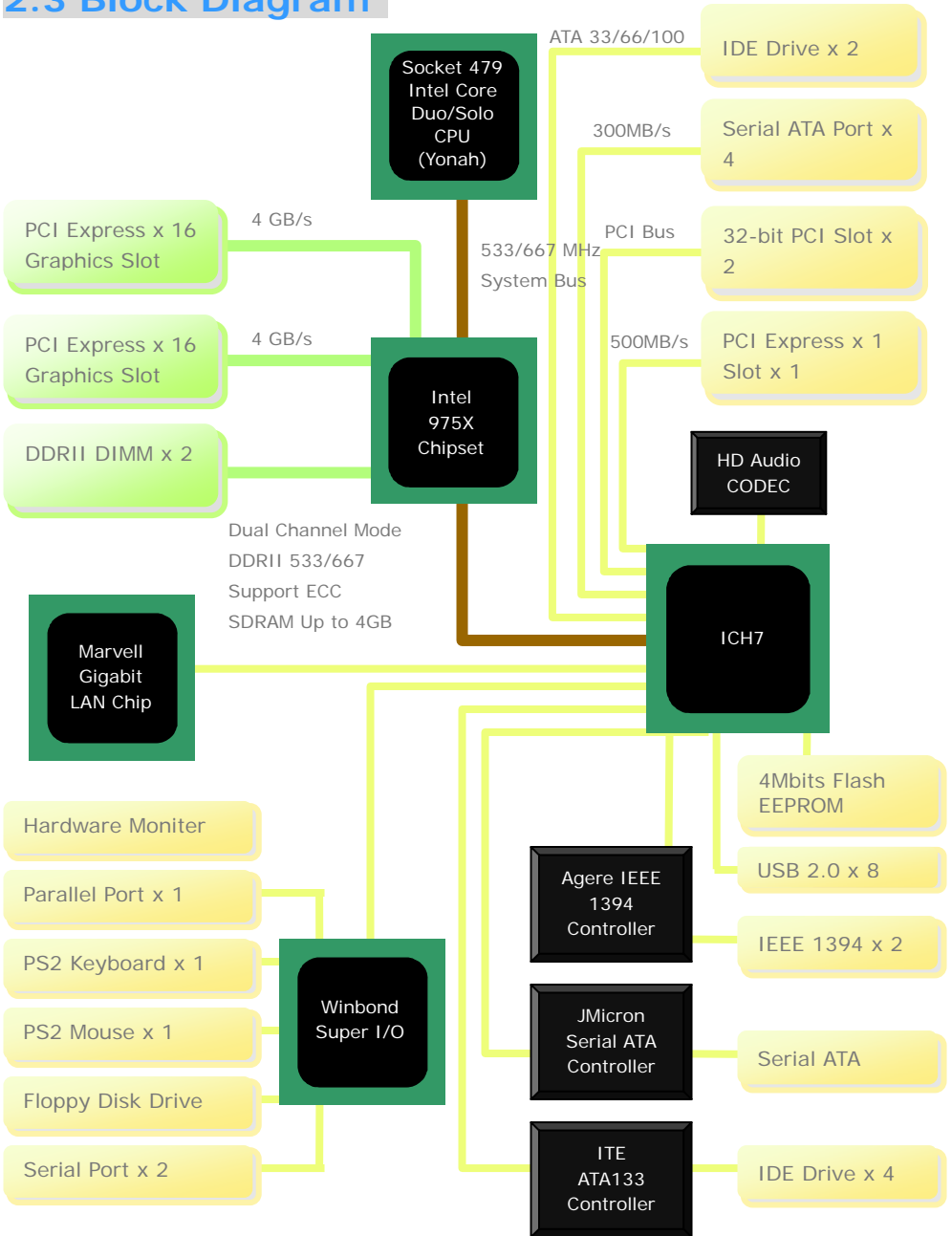


## 2.2 Specification

Here is the main function of your motherboard.

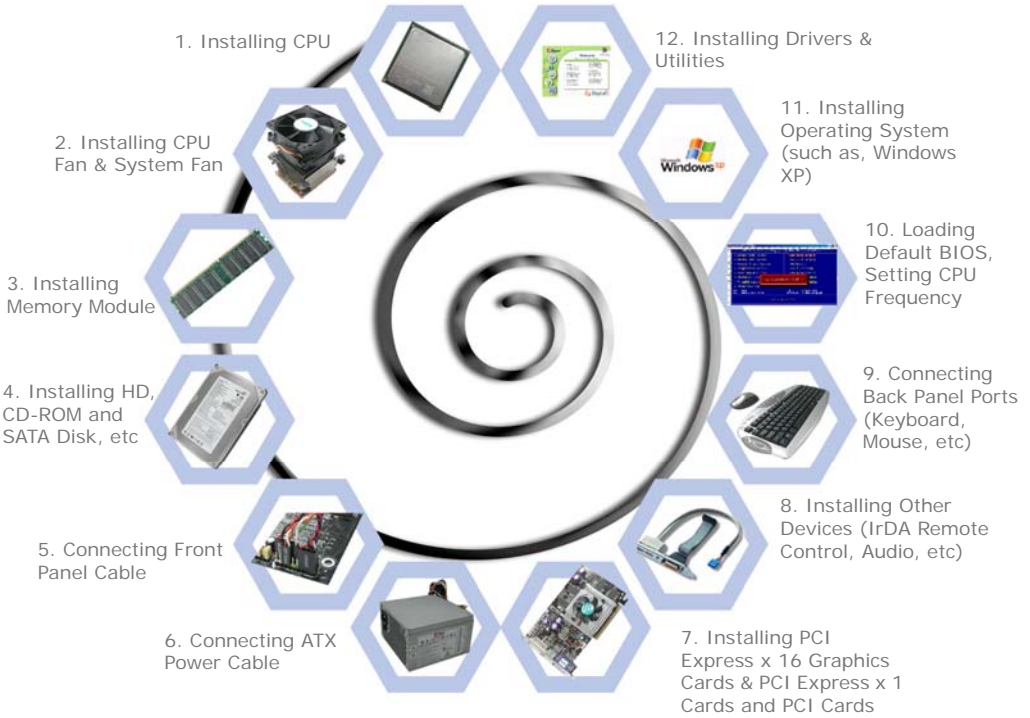
Models	i975Xa-YDG
CPU	Intel Yonah Core Duo/Solo Processor Socket 479 533/667MHz
Chipset	Intel 975X/ICH7
Main Memory	Dual Channel Mode DDRII DIMM x 4, DDRII 533/667MHz Support ECC DIMM Type : 256/512MB & 1GB Max Memory : 4GB
Graphics	Dual PCI Expressx16 Graphics Slots Support Dual Graphics Cards ATi Crossfire Mode
IDE	Integrated ATA100 and Serial ATA II Controller JMicron External Serial ATA II Control Chip ITE IDE ATA133 control chip [Support RAID 0, 1, 0+1] Max Disk: 144,000,000GB [by 48 bits LBA Spec.]
LAN	Integrated Marvell Gigabit PCI Express Ethernet Chip
Sound	Intel High Definition Audio on-board Support 7.1 Channel
USB	Integrated in Chipset, USB 2.0 x 8 Port
IEEE 1394	Agere 1394 Control Chip
Slots	PCI Express x 16 Graphics Slot x 2 PCI Express x 1 Slot x 2 PCI Slot x 2
Back Panel I/O	PS/2 Keyboard x 1, PS/2 Mouse x 1 Hot Plug SATA Connector x 1 USB Port x 4, LAN Port x 1, IEEE 1394 x 1, SP/DIF_In x 1, SP/DIF_Out x 1 Speaker_Out x 1 Line_In x 1, MIC_In x 1 Side Surround x 1, Rear Surround x 1 Center/Subwoofer x 1
On Board Connector	Floppy Drive Connector x 1 IDE Channel: ATA100 x 1 IDE Channel: ATA133 x 2 Serial ATA II Channel x 4 Front Panel x 1 Front Audio x 1 CPU FAN x 1 System FAN x 1 Power FAN x 1 CD_IN x 1, COM Connector x 1 Printer Connector x 1 IEEE 1394 x 1 USB2.0 Connector x 2 Power Master II Connector x 1 Reset Switch Connector x 1 Power Switch Connector x 1
BIOS	Award PnP 4Mb Flash ROM BIOS
Board Size	305 mm x 244 mm

## 2.3 Block Diagram



# Chapter 3 Hardware Installation

## 3.1 Quick Installation Procedure

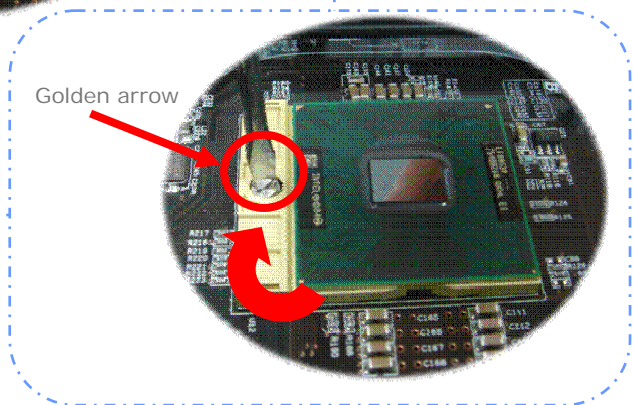
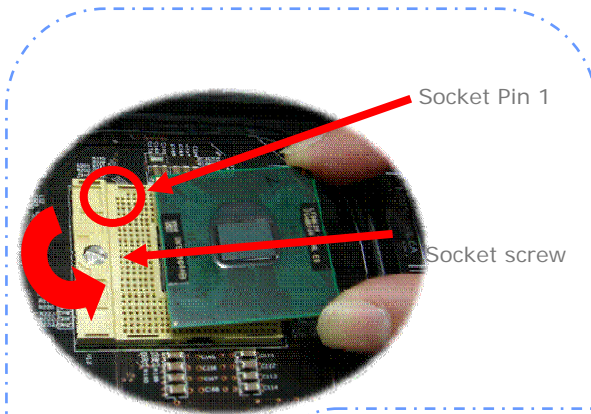


## 3.2 Installation You Have to Know

### Installing CPU

This socket supports uFCPGA & uFCBGA package CPU, which is the latest CPU package developed by Intel. It is for Yonah core CPU, other forms of CPU package are impossible to be fitted in.

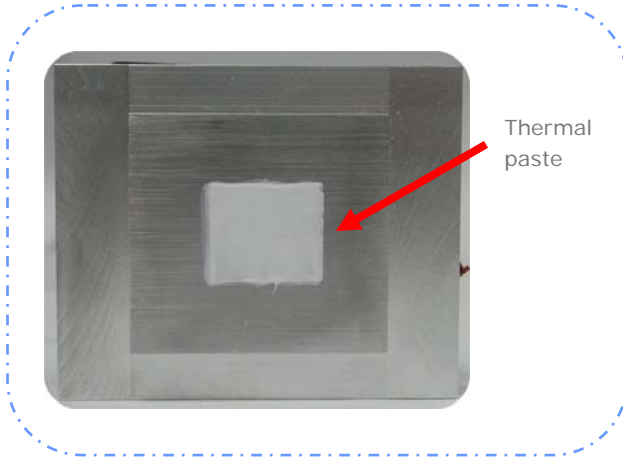
1. Unscrew the socket screw counter-clockwise.
2. Locate Pin 1 in the socket and look for a golden arrow on the CPU upper interface. Match Pin 1 and golden arrow. Then insert the CPU into the socket.
3. Lock the CPU socket screw clockwise to fasten CPU.



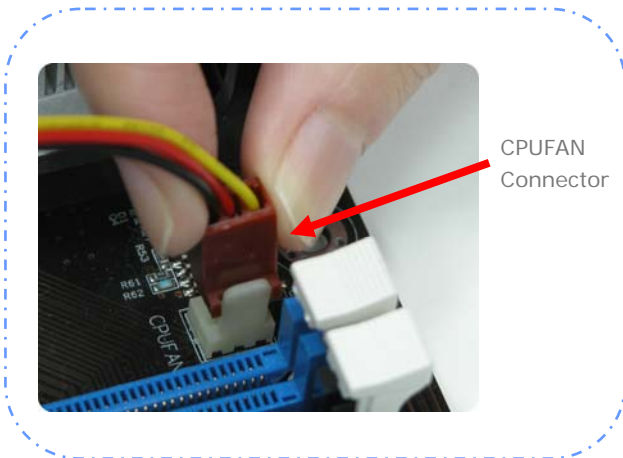
## Installing CPU Cooler

This motherboard comes with a special CPU cooler designed by AOpen, please follow the following steps to install CPU cooler.

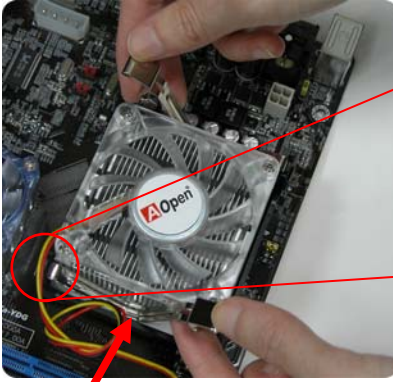
1. Please apply thermal paste on the bottom of CPU cooler.



2. Gently put CPU cooler onto the CPU retention module.
3. Connect cooler's fan power cable onto CPUFAN connector.



4. Install two cooler fixing sticks into CPU retention module.

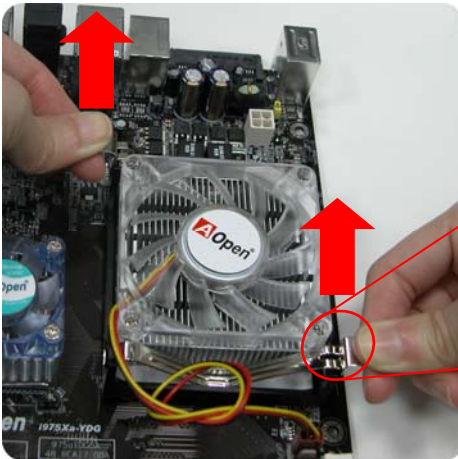


Fixing stick



**Note:** Make sure that the sticks have hooked CPU retention module firmly.

5. Push the iron plate of cooler fixing stick up a bit.



Iron plate



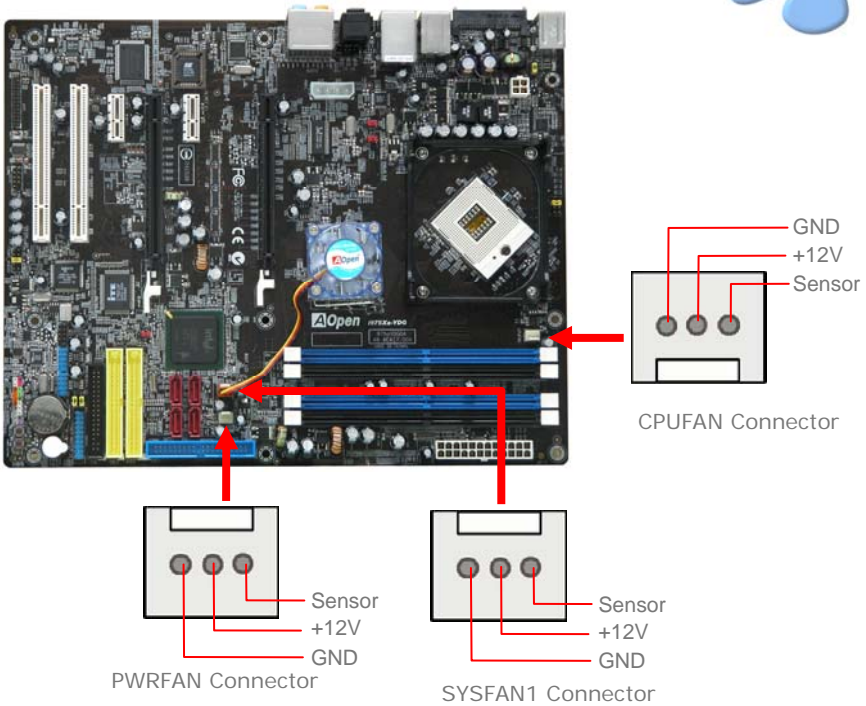
6. Then press iron plate downward till you hear a “clip” sound.



**Note:** Make sure that the iron plate have hooked CPU retention module firmly.

## Installing CPU and System Fans

Plug the CPU fan cable to the 3-pin CPU FAN connector. If you have chassis fan, you can also plug it in and SYSFAN and PWRFAN connector.

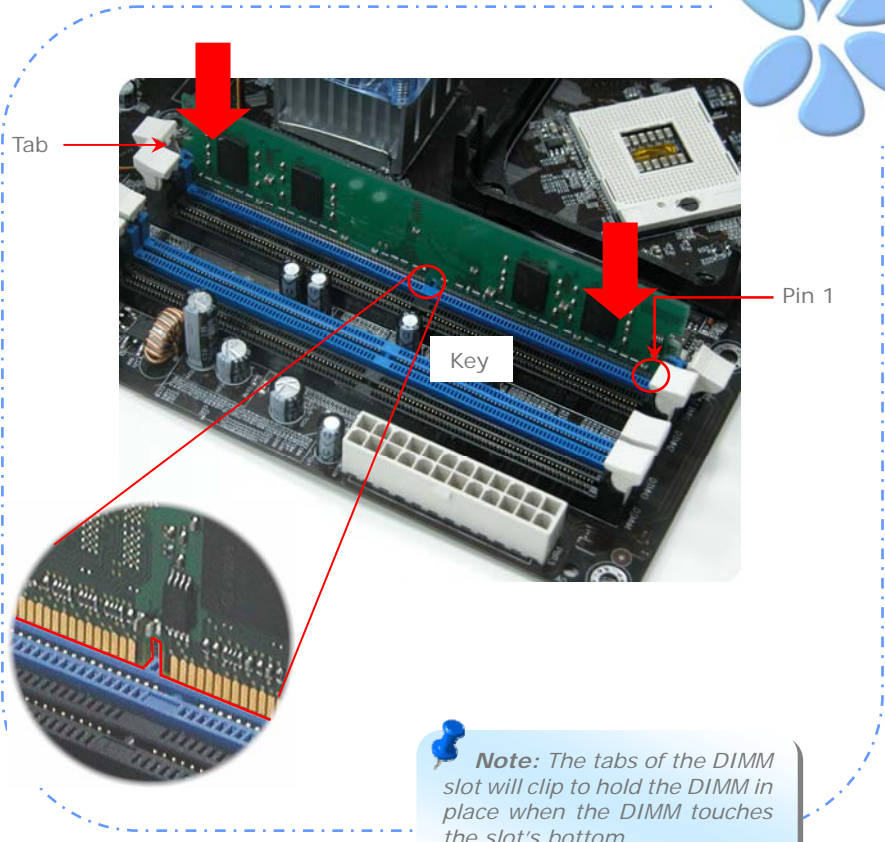


**Note:** Some CPU FANS do not have sensor pin so that they cannot support fan monitoring.



# Installing Memory Modules

DIMM slots are designed in black and navy blue which are very easy to recognize. Insert the module straight down to the DIMM slot with both hands and press down firmly until the DIMM module is securely in place.



**Note:** The tabs of the DIMM slot will clip to hold the DIMM in place when the DIMM touches the slot's bottom.

**! Limitation:** Due to the implementation of SLI function that required to reserve buffers of memory, this board with Intel Yonah CPU can not support up to 4GB memory address.).

## Maximum the Performance of the Dual Channel

To obtain the highest performance of Dual Channel, the configuration of DIMM must meet the following conditions.

### Matched DIMM configuration in each channel

- Same density (256MB~1GB)  
As long as you insert memory modules of same density into Channel 1 (DIMM1 & DIMM3) and Channel 2 (DIMM2 & DIMM4), dual channel mode will be enabled.  
 $\text{DIMM1} + \text{DIMM3} = \text{DIMM2} + \text{DIMM4}$   
Ex: if you insert 1GB memory module into DIMM1 and DIMM3, dual channel Mode will be enabled when  $\text{DIMM2} + \text{DIMM4} = 1\text{GB}$
- Same DRAM bus width (x8 or x16)
- Either single-sided or double-sided



**Note:** Using memory modules of different chip will cause system unstable.

When dual channel mode is successfully enabled, the screen will show "Dual Channel Mode Enabled" while entering POST screens.

```
Phoenix - AwardBIOS v6.00PG, An Energy Star Ally
Copyright (C) 1984-2003, Phoenix Technologies, LTD.

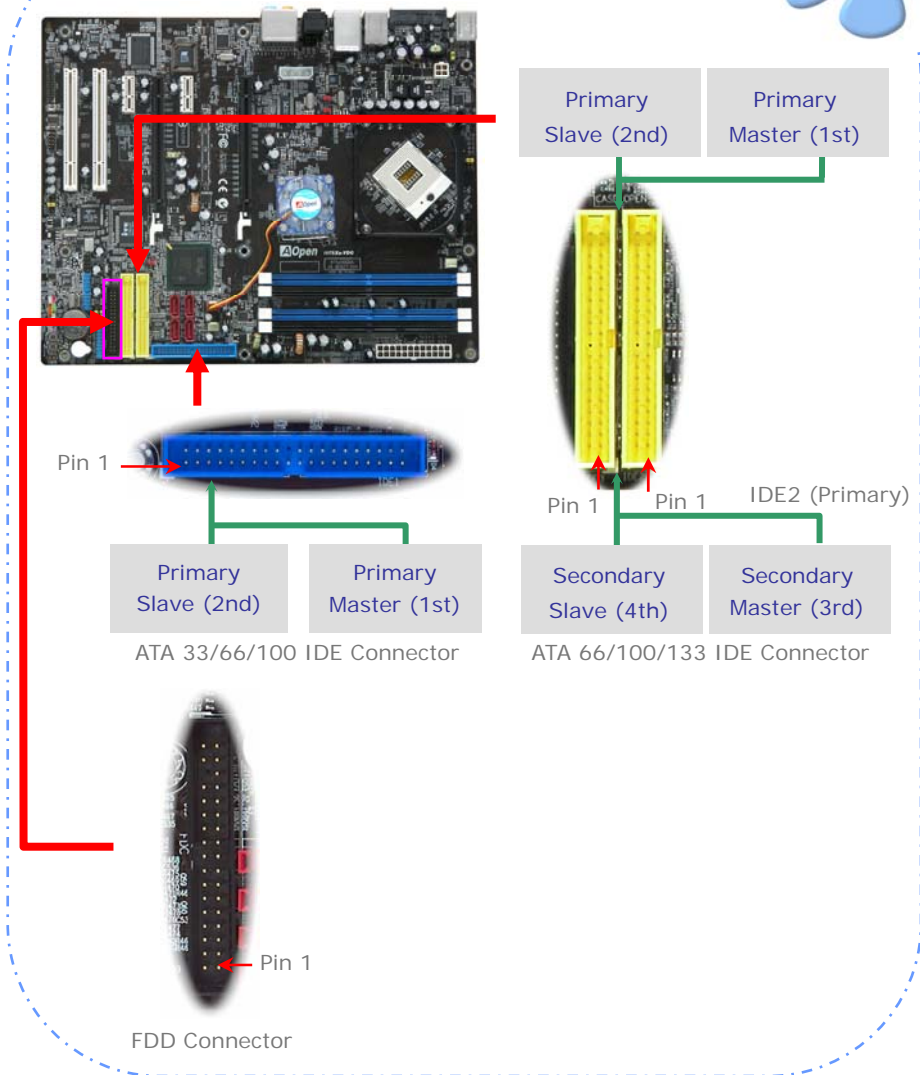
i975Xa-YDG R1.00 Feb. 24.2006 AOpen Inc.

Main Processor   : Intel(R) Pentium(R) M CPU   000   @ 2.19GHz(199x11), 2 CPUs
Memory Testing  : 1047552K
CPU Brand Name  : Intel(R) Pentium(R) M CPU   000   @ 1.03GHz

Memory Frequency For DDR2 667 (Dual Channel Mode Enabled)
IDE Channel 0 Master : Maxtor 6E040L0 1MB/1500
IDE Channel 0 Slave  : None
IDE Channel 2 Master : None
IDE Channel 2 Slave  : None
IDE Channel 3 Master : None
IDE Channel 3 Slave  : None
```

## Connecting IDE and Floppy Cables

Connect the 34-pin floppy cable and 40-pin, 80-wire IDE cable to floppy connector and IDE connector. Be careful of the pin1 orientation. Wrong orientation may cause system damage.



## Connecting Front Panel Cable

Attach the power LED, speaker and reset switch connectors to the corresponding pins. If you enable "Suspend Mode" item in BIOS Setup, the ACPI & Power LED will keep flashing while the system is in suspend mode.

Locate the power switch cable from your housing, which is a 2-pin female connector from the housing front panel. Plug this connector to the soft-power switch connector marked SPWR.

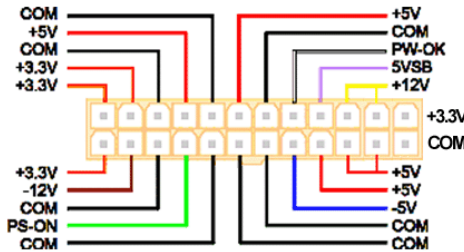
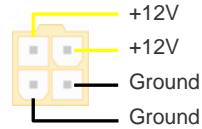
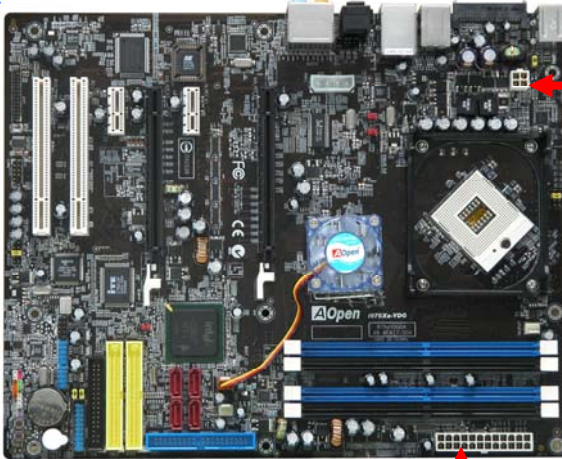


	1		
NC			Power Switch
NC			GND
+5V			Power LED-
HDD LED			GND
HDD LED			Power LED+
+5V			NC
+5V			GND
GND			GND
NC			RESET
SPEAKER			GND

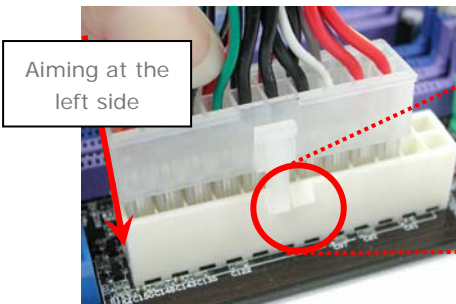
Front Panel Connector

## Connecting ATX Power Cables

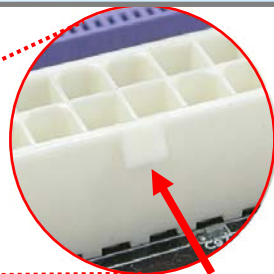
This motherboard comes with a 24-pin and 4-pin ATX power connector as shown below. Make sure you plug them in the right direction. We strongly recommend you to insert the 4-pin connector before connecting the 20-pin connector.



**Note:** Please aim the power plug at the **left side** of the 24-pin ATX power connector when the foolproof design faces you as shown.



Aiming at the left side



Foolproof



## 3.3 Other Installation for Your Reference

### Setting CPU Voltage and Frequency

#### Setting CPU Core Voltage

This motherboard supports Voltage ID (VID) function to detect CPU voltage automatically during power-on.

#### Setting CPU Frequency

i975Xz-YDG is CPU jumper-less design, you can set CPU frequency through 1MHz stepping CPU Overclocking in the BIOS. CPU Core Frequency = CPU external frequency x CPU Ratio. However, all CPU now selling in the market belong to "Fixed Multiplier". That means users can not adjust the CPU Ratio but only change CPU FSB clock to achieve overclocking.

(Users do the overclocking at their own risk!!)

#### BIOS Setup > Frequency / Voltage Control > CPU Bus Frequency

Processor Number	Architecture	Clock Speed	Front Side Bus	Cache	Ratio
Core Duo T2700	65nm	2.33GHz	667MHz	2MB L2	14
Core Duo T2600	65nm	2.16GHz	667MHz	2MB L2	13
Core Duo T2500	65nm	2GHz	667MHz	2MB L2	12
Core Duo T2400	65nm	1.83GHz	667MHz	2MB L2	11
Core Duo T2300	65nm	1.66GHz	667MHz	2MB L2	10
Core Solo T1400	65nm	1.83GHz	667MHz	2MB L2	11
Core Solo T1300	65nm	1.66GHz	667MHz	2MB L2	10

**Note:** With CPU speed changing rapidly, there might be faster CPU on the market by the time you received this installation guide. This table is kindly for your references only.



**Tip:** When you fail to over-clock, you could:

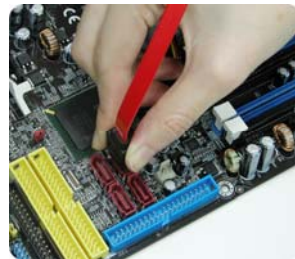
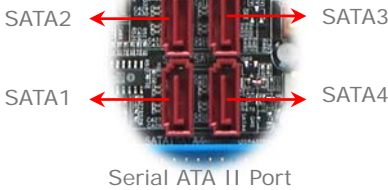
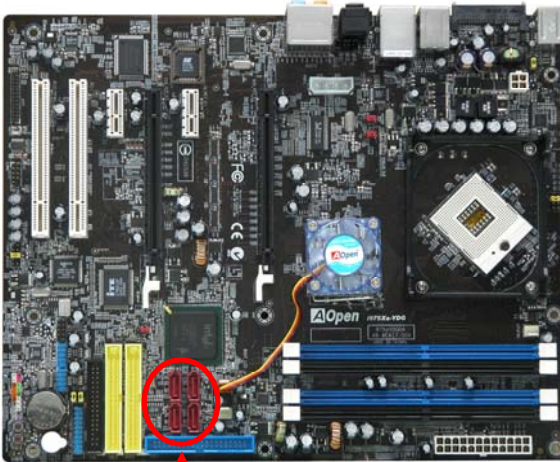
1. Clear CMOS (JP14) to restore the default setting.
2. After turning power on, press "Home" immediately until the screen appears.



**Warning:** Intel 975X chipset support maximum 667MHz (166MHz\*4) system bus; higher clock setting may cause serious system damage.

## Connecting Serial ATA

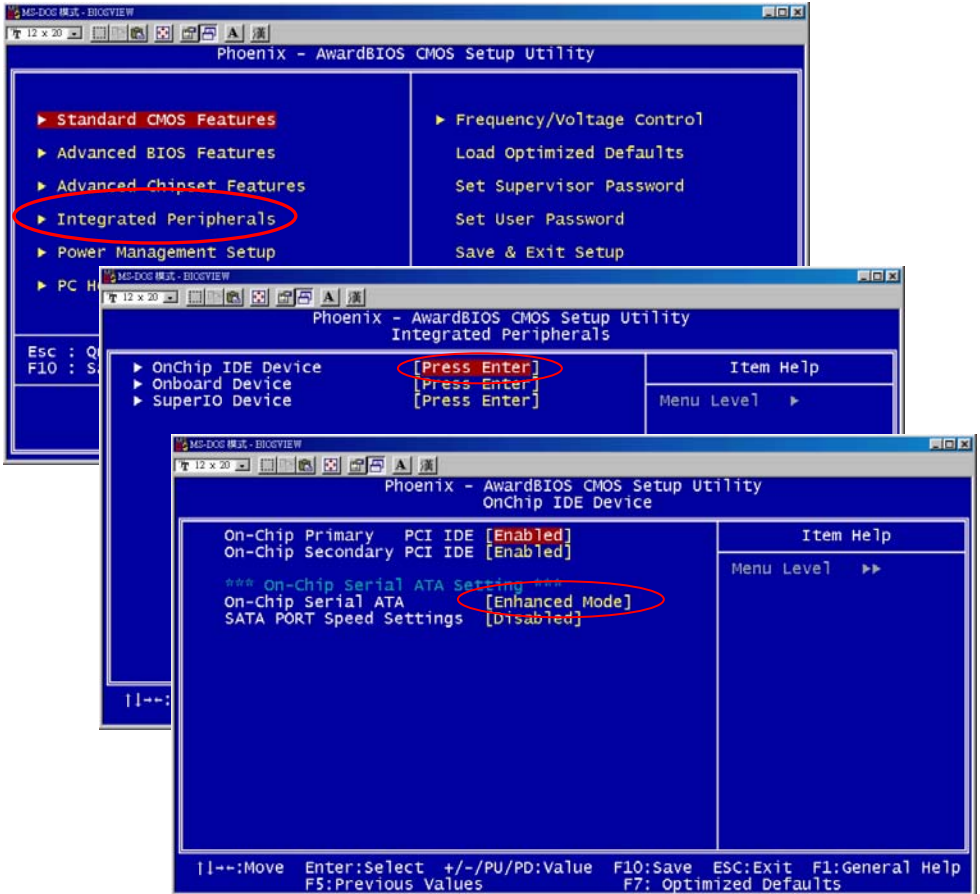
To connect a serial ATA disk, you have to have a 7-pin serial ATA cable. Connect two ends of the serial ATA cable to the serial ATA header on the motherboard and the disk. Like every other traditional disk, you also have to connect a power cable. Please be noted that it is a jumper free implement; you don't need to set jumpers to define a master or slave disk. When serial ATA hard disks are installed on serial ATA ports, the one connected on Port0 (SATA1) will be set as the first boot device automatically.



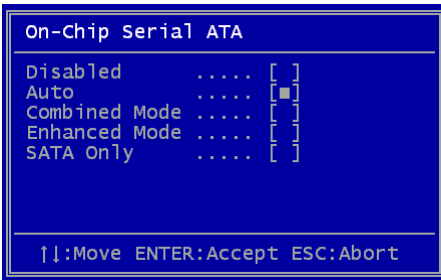
## Adjusting your Hard Disk Setting

Except its original 1 set of parallel IDE, this motherboard supports the latest serial ATA hard disk. If you are unable to find your newly installed serial ATA hard disks on your operating system after having them installed, the problem may lie in the BIOS setting. You can simply adjust BIOS settings to have them work properly.

After installing your hard disks properly, you can directly go to BIOS setting screen for adjustment. Simply pressing **"Integrated Peripherals → OnChip IDE Device → On-Chip Serial ATA"** to choose your preferable mode. If you have no intention of changing its original setting, the default would be **"Auto"**.







If you desire to change the default setting, press Enter for selection list:

**Disabled:** You can choose this item if there are only traditional IDE hard disks had been installed on your system. Disabling this item will also cancel the detection of serial ATA hard disks during POST, which will theoretically speed up your boot-up time a little bit; however,

please remember to re-adjust the setting here if you want to use serial ATA hard disk later.

**Auto:** This is factory default setting on this motherboard. Basically, if your system functions properly, it is no necessary to change it. The system will automatically recognize PATA (IDE) as primary..

**Combined Mode:** If you have traditional IDE hard disks and serial ATA hard disks installed at the same time, then you can choose this mode. Under this mode, you can randomly choose either IDE hard disks or serial ATA had disk as your first boot device. But please note, IDE will exist with serial ATA in a mapping way, which means it will occupy one of the serial Channel and leave you one serial Channel only. When PATA Mode is set to primary, SATA3 and SATA4 will be set to secondary, and when PATA Mode is set to secondary, SATA1 and SATA2 will be set to primary.

**Enhanced Mode:** If you are using the latest operating system (say, Windows XP, Windows.NET Server), it is highly recommended that you select Enhanced Mode. Under this mode the system will detect all six devices (traditional IDE x 2, Serial ATA x 4) completely and function perfectly. But please note that PATA Mode is set to primary under this mode.

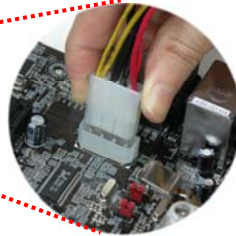
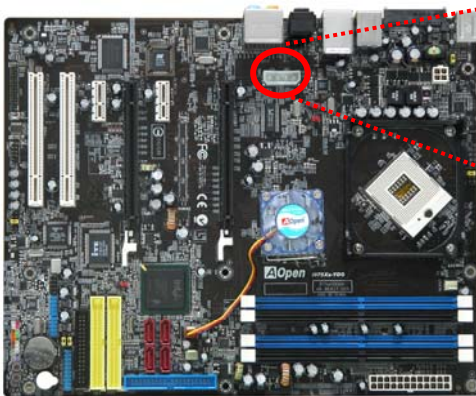
**Note:** *According to practical lab tests of us, there are no obvious problems or mistakes happened when we set this mode under Windows2000 operating system; however, it is not recommended by Intel.*

**SATA Only:** You may select this mode if you install serial ATA hard disks only.

## Adjusting your Hot Plug Hard Disk Setting

### External Hot Plug SATA HDD:

1. Plug SATA cable to onboard External
2. Plug SATA cable to SATA HDD

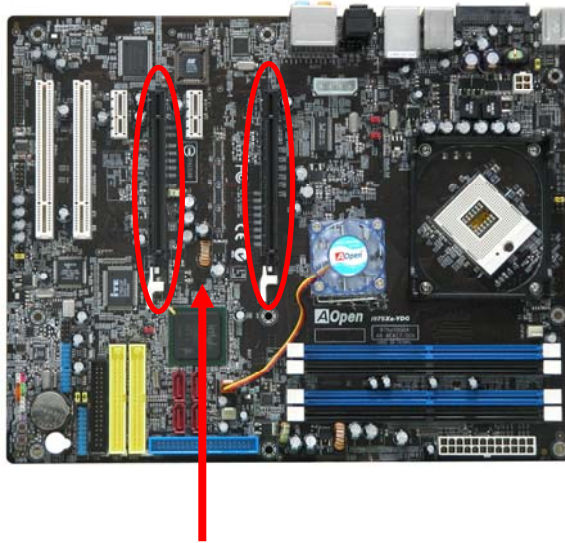


## Connecting PCI express x16 Graphics Slot

This motherboard provides a PCI Express x 16 Graphics slot, a black slot having the latest PCI Express x 16 specification on motherboard. The PCI Express x 16 is a bus interface targeted for high-performance 3D graphic. Traditionally AGP used both rising and falling edge of the 66MHz clock for 8X AGP, and the data transfer rate could achieve 2.1GB/s. Now PCI Express x 16 is moving to higher data transfer rate, which is upgraded to 8.0GB/s (250MB/s x 16 x 2, it's 4.0GB/s per direction)..

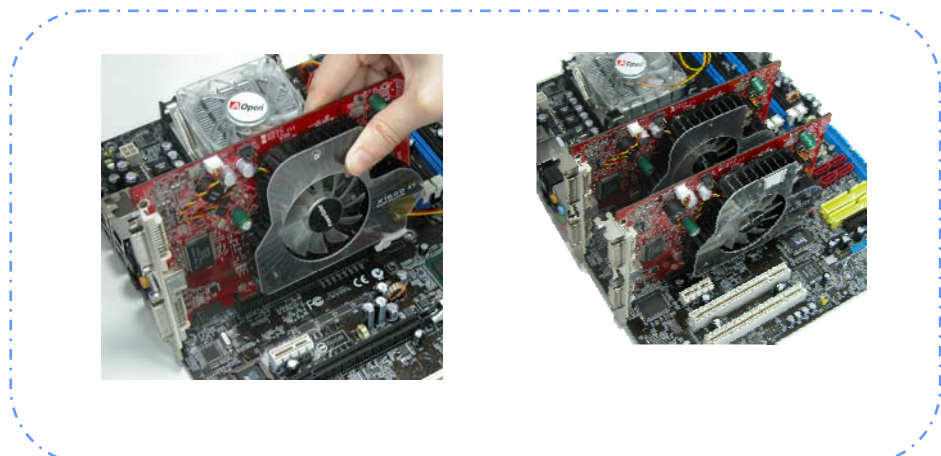
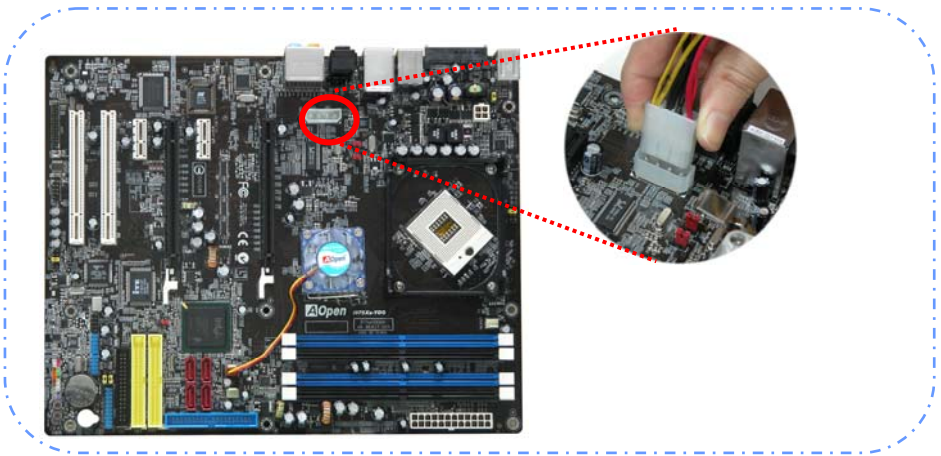


PCIex16



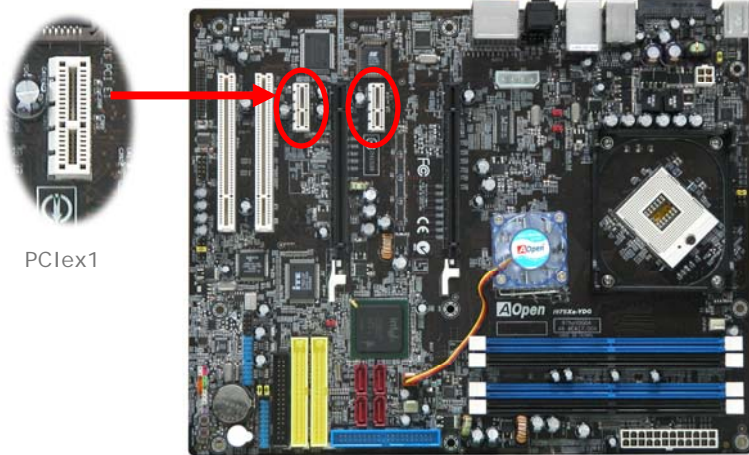
JP3 ~ JP12

1. Please plug ATX 4Pin Power to the onboard 4 Pins peripherals connector. It is recommended and must plug while you want to use one or two PCI Express VGA. This power can provide extra power from power supply to make sure all peripherals run well. It is POWER IN connector.
2. Plug PCI Express VGA card properly
3. This MB allow you plug two PCI Express x 16 VGA cards



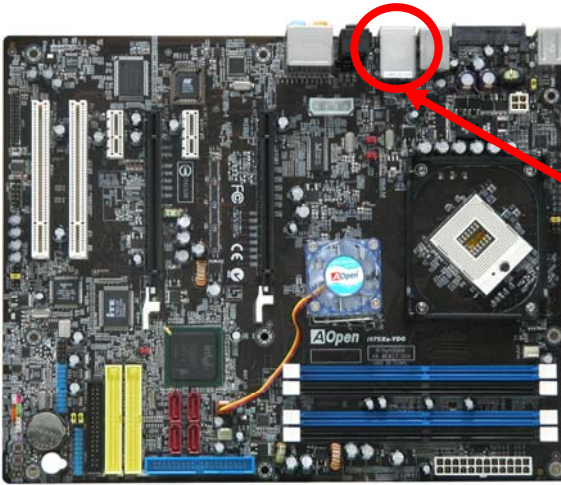
## Connecting PCI Express x 1 Slot

This motherboard provides one PCI Express x 1 slot, which is located between the PCI Express x 16 and traditional PCI slot. In order to go with the step of today's and tomorrow's processors, PCI Express x 1 provides higher I/O bandwidth. The transfer data rate could achieve 500MB/s concurrently (it's 250MB/s per direction), which is nearly 4 times faster than the traditional PCI. You could install any PCI Express x 1 device in these slots for your preference.



## 10/100/1000Mbps LAN Supported

On the strength of Marvell Gigabit LAN controller on board, this motherboard provides 10/100/1000Mbps Ethernet for office and home use. The Ethernet RJ45 connector is located on the top of USB connectors. The right hand side LED indicates link mode; it lights in yellow when linking to network. The left hand side LED indicates the transfer mode and will light in green when data is transferring at 100Mbps (never lights while at 10Mbps), but will light in orange when transferring in Gigabit's mode. To enable or disable this function, you may simply adjust it through BIOS. To enable LAN wakeup function, you have to set the "Wake on PCI Card" enable in the BIOS "Power Management Setup" section.



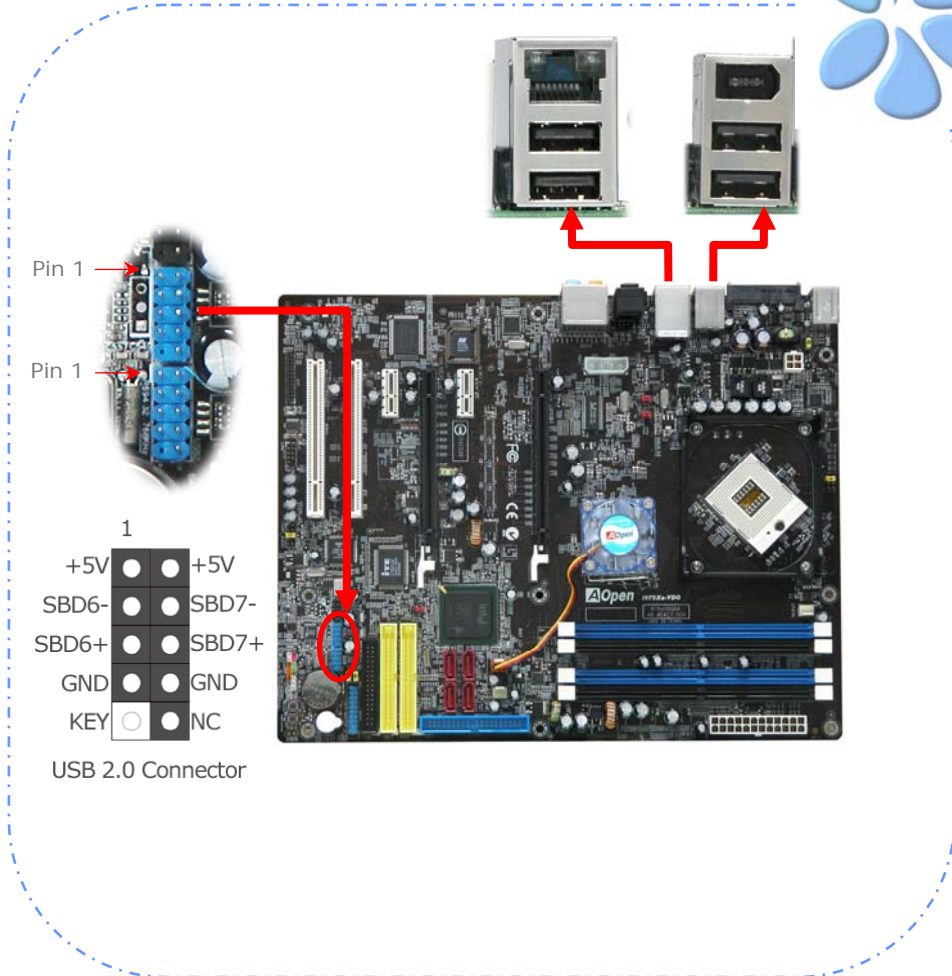
Speed LED (Left)  
Green 100Mbps  
Orange Gigabit mode



ACT LED (Right)  
Yellow

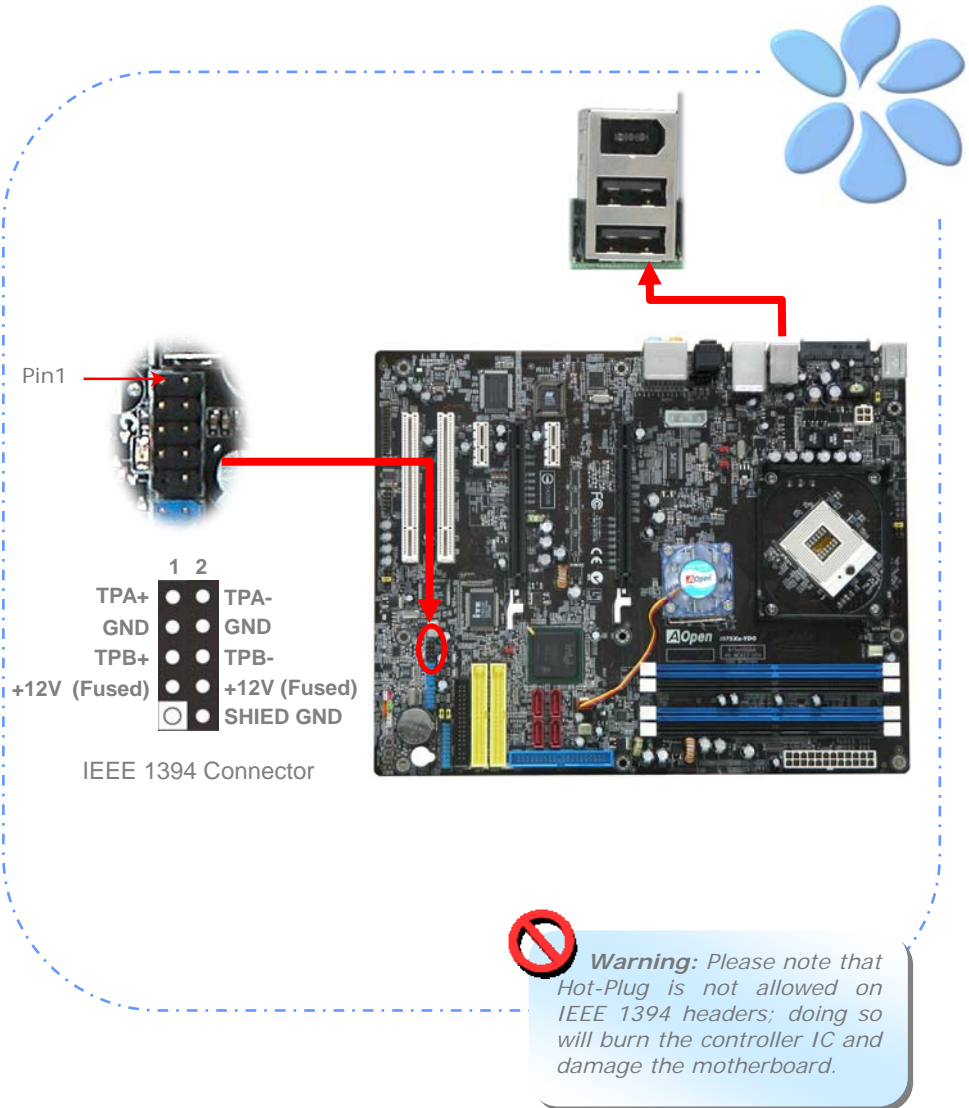
## Connecting USB2.0

This motherboard provides eight USB 2.0 ports to connect USB devices such as mouse, keyboard, modem, printer, etc. There are four ports on the back panel. You can use proper cables to connect Front USB connector to USB modules or chassis front panel.



## Connecting 1394

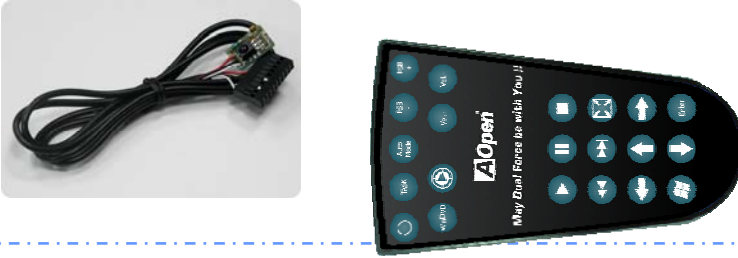
With IEEE1394 Chip on board (AGERE 1394), having its data transfer rate up to 400Mb/s, this interface can connect to devices that require high data transferring performance such as digital camera, scanner or others IEEE 1394 devices. Please use appropriate cables to connect IEEE1394 devices.





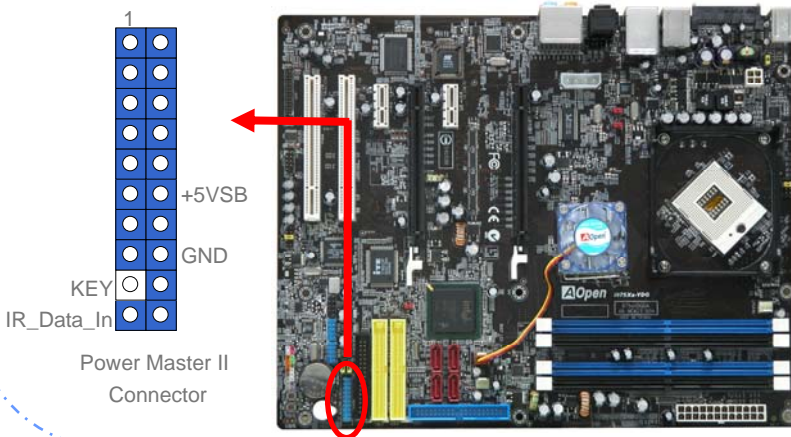
## Connecting IR

### 1. Take IR\_Receiver and IR\_Remote Control from package

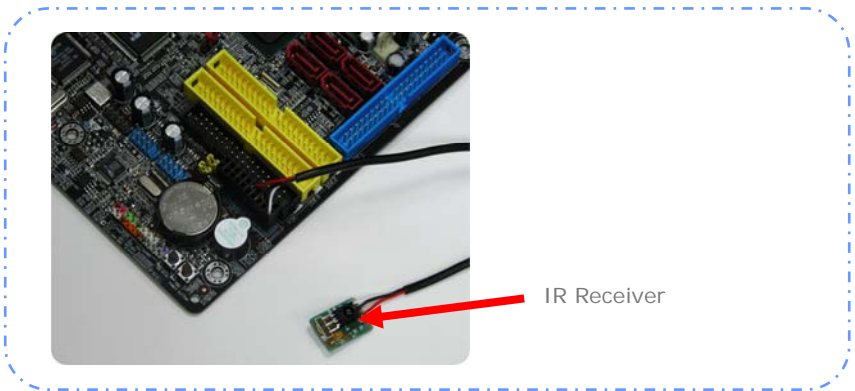


### 2. Install IR\_Receiver

(1) Install IR\_Receiver Connector on the Power Master II Connector

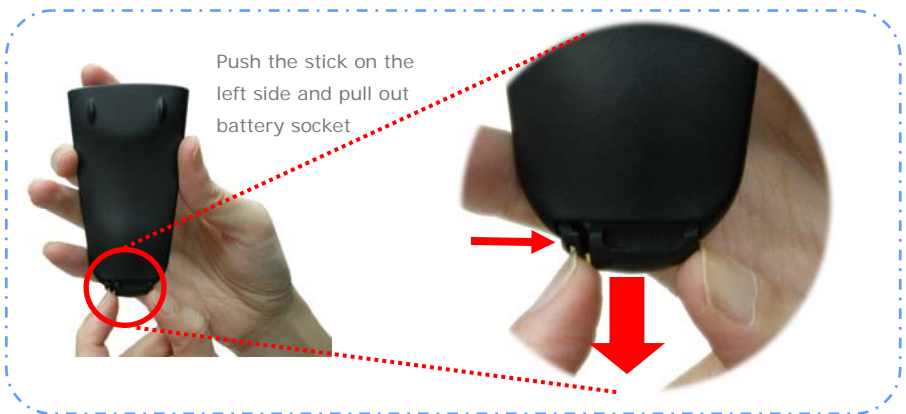


- (2) Install IR\_Receiver on the front panel of case, the receiver should not have any block on it. So it can receive IR signal without interfere.

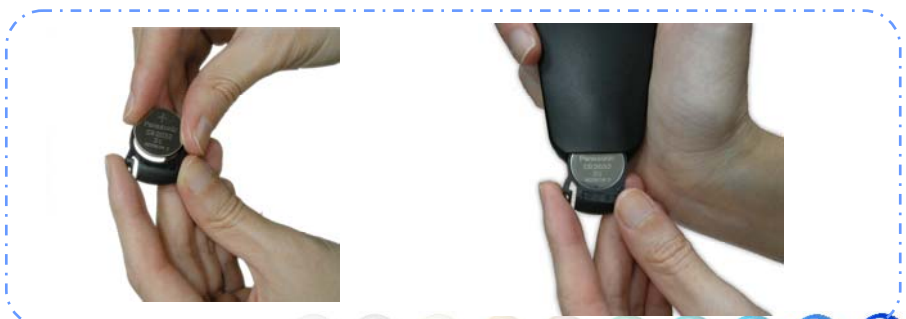


### 3. Remote Control Installation:

- (1) Pull out Remote Control's battery socket



- (2) Place battery into battery socket and plug into remote control togetherly

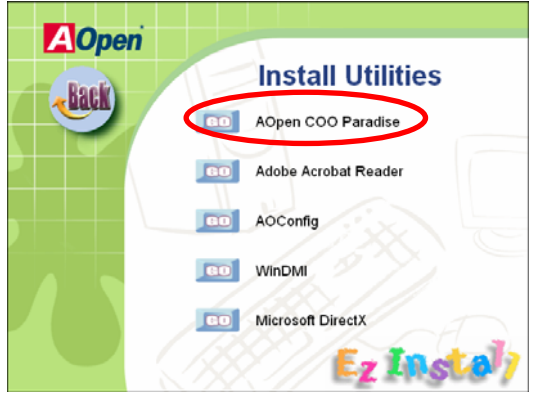


#### 4. Install AOpen COO Paradise Utility

- (1) Put AOpen Bonus Pack CD into Optical driver, there will show screen with "EZInstall", Select "Install Utilities". In "Install Utilities", click "AOpen COO Paradise"

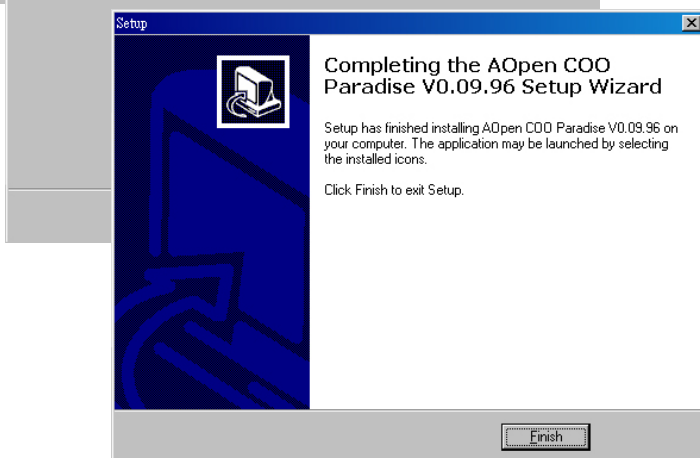
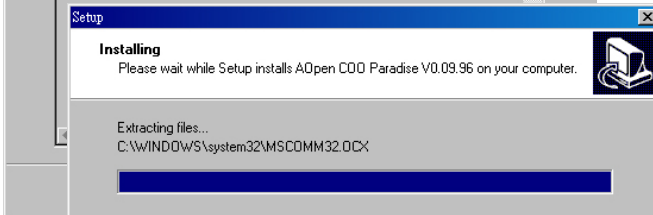
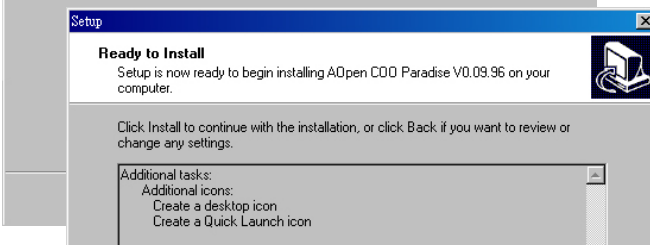
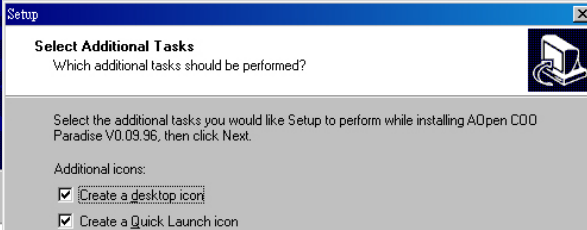
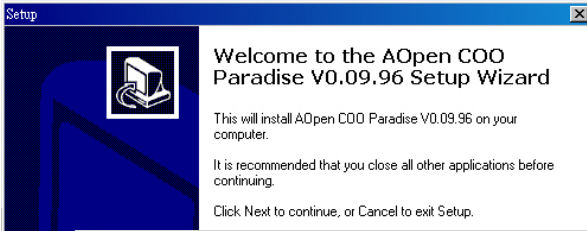


Press the icon will prompt the "Install Utility" page. You may also press "Back" to return to the Main page.

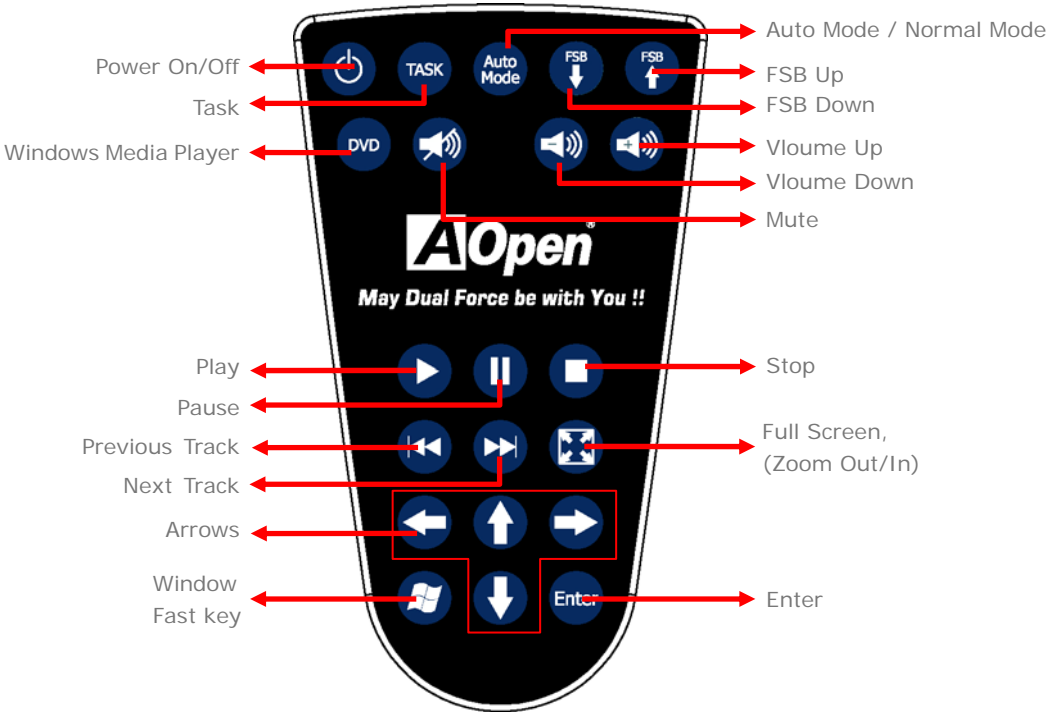


- (2) After installation, you can find icon on the desk with AOpen COO Paradise Utility





## 5. Remote Control picture



AOpen remote control can help you to make convenience life. You can

### 1). Power On/Off control for PC

- One can use remote control to power on the machine and shut down the machine with one click on remote control.

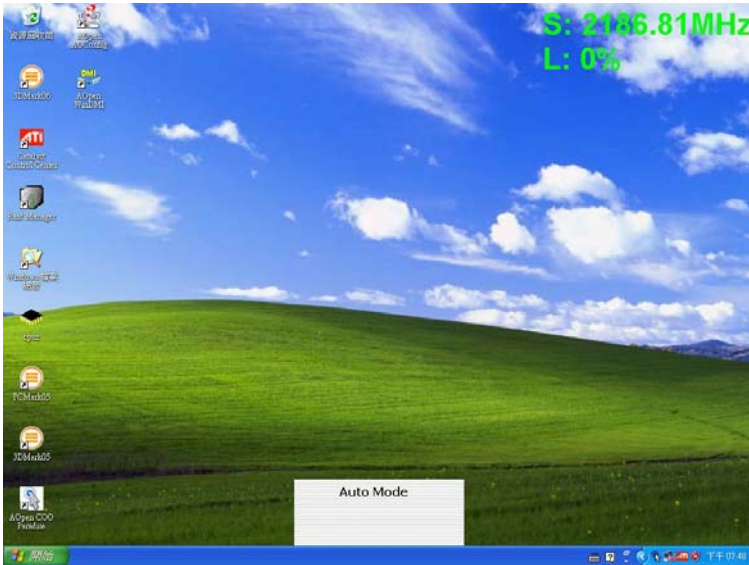
### 2). Over-clocking

- User can use this remote control to make over-clocking with 1MHz step per click. Especial under game environment, user can click to increase performance instantly. No need to shut down machine and power on again to enter BIOS setup. Over-clocking using AOpen remote control is very convenience and instant solution.

### 3). Window Media player control to play DVD, VCD

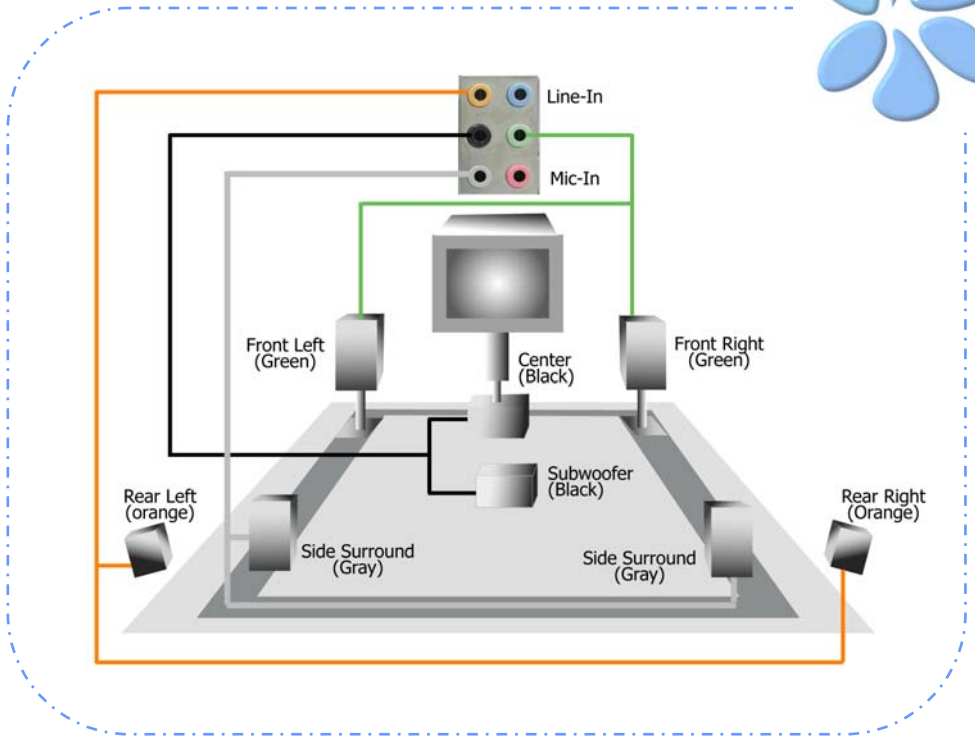
- With AOpen remote control on hand. User can enjoy AV program with one thumb click. Media player is ready for it. You can enjoy MP3/ VCD, even DVD if your system provided DVD decoder through window media player.

Below picture show you the AOpen COO Paradise utility which it brings clear information for you while you are over-clocking.



## Super 7.1 Channel Audio Effects

This motherboard comes with an ALC880 CODEC, which supports the latest 7.1 Channel with high quality of audio effects, bringing you a brand new audio experience. This motherboard provides 7.1 Channel ports shown as below. Picture represents the standard location of all speakers in 7.1 Channel sound tracks. Please connect the plug of your front speakers to the green "Speaker out" port , rear surround speakers to orange port, side surround speakers to gray port and both of the center and subwoofer speakers to black port on the back panel.



## Connecting Front Audio

If the housing is designed with an audio port on the front panel, you'll be able to connect onboard audio to front panel through this connector. By the way, please remove the jumper cap from the Front Audio Connector before you connect the cable. Do not remove this yellow jumper cap if your housing doesn't have an audio port on the front panel.



Pin1



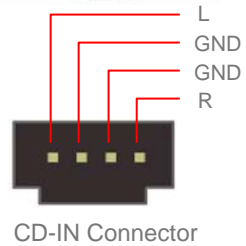
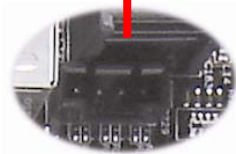
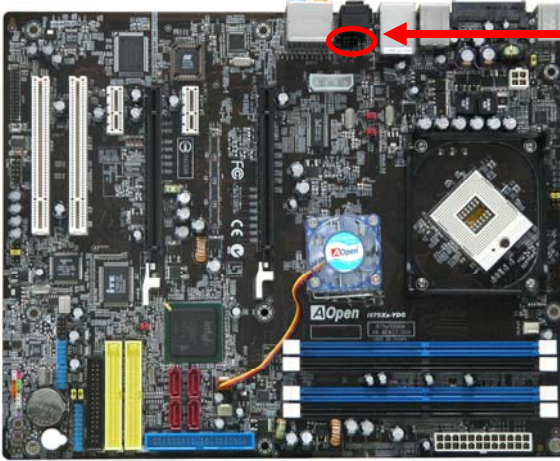
	1		
AUD_MIC_L	●	AUD_GND	
AUD_MIC_R	●	FRONT_IO_Plug	
AUD_FPOUT_R	●	AUD_RET_R	
FRONT_IO_SENSE	○	KEY	
AUD_FPOUT_L	●	AUD_RET_L	

Front Audio Connector



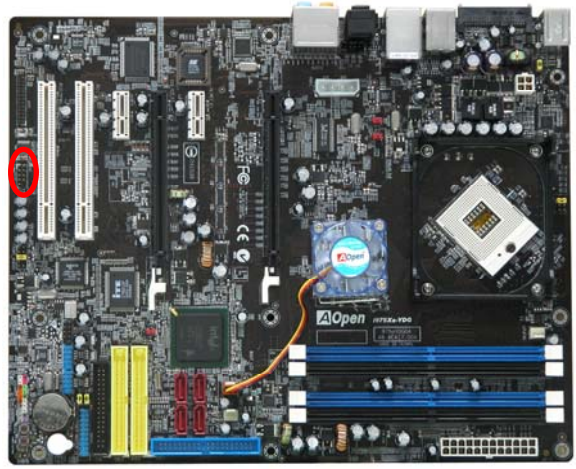
## Connecting CD\_IN

This connector is designed to connect CD Audio cable from CDROM or DVD drive to onboard sound.



## Connecting COM1

This motherboard provides two serial ports. All of them are on the left of PCI132 slot. With proper cable, you can connect it to the back panel of chassis.



	1			
DCD#	●	●	SIN	
SOUT	●	●	DTR#	
GND	●	●	DSR	
RTS#	●	●	CTS#	
R1#	●	○		

COM1 Connector

## Colored Coded Back Panel

The onboard I/O devices have PS2 Keyboard/Mouse, Serial ATA II, RJ-45 LAN Jack, IEEE 1394 Ports, USB Ports, S/PDIF\_Out, S/PDIF\_In and Audio Connector, ect. The view angle of drawing shown here is from the back panel of the housing.



### **PS/2 Keyboard:**

For standard keyboard which use a PS/2 connector.

### **PS/2 Mouse:**

For PC-Mouse which use a PS/2 connector.

### **Serial ATA:**

To connect with Serial ATA Hardware Drive Disk.

### **IEEE 1394 Port:**

Available for connecting IEEE 1394 interface devices.

### **USB Port:**

Available for connecting USB devices.

### **RJ-45 LAN Port:**

To connect Ethernet for home or office use.

### **S/PDIF Out:**

An optical S/PDIF output to send signals via the digital outputs.

### **S/PDIF In:**

An optical S/PDIF input to record from the digital inputs.

### **Side Surround:**

For side surround speaker.

### **Center/Subwoofer:**

For center & subwoofer speaker.

### **Rear Surround:**

For rear speaker.

### **Line-In:**

Comes from the signal sources, such as CD/Tape player.

### **Speaker Out:**

To External Speaker, Earphone or Amplifier.

### **MIC-In:**

To connect with Microphone

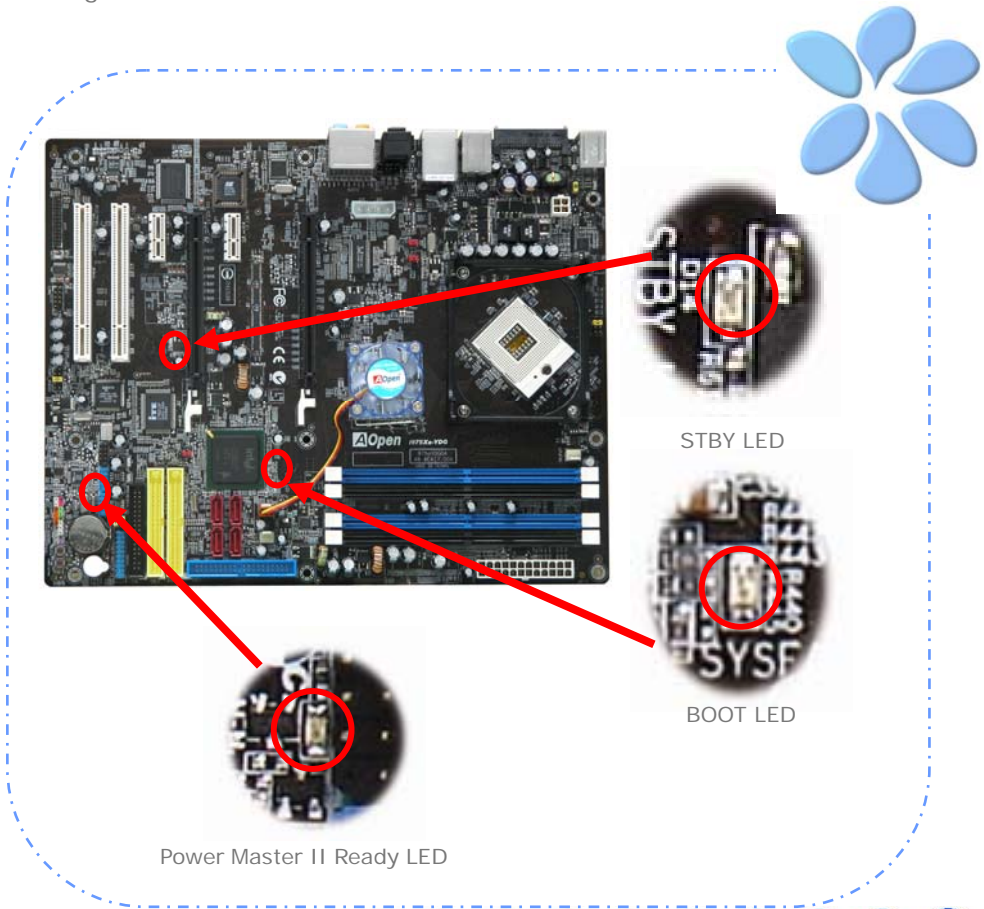
## LED Indication

LED indication including Standby LED and BOOT LED are AOpen's considerate designs that aim at providing you friendly system information.

**STBY LED** will light up when power is provided to the motherboard, giving you a convenient indication check the system power status in circumstances such as power on/off, stand-by mode and RAM power status during Suspend to RAM mode.

**BOOT LED** will keep blinking when you power the system on and when your system is under POST (Power-On Self Test). After POST diagnoses everything all right and finishes the booting, the LED will stay on otherwise it will remain flashing to warn you that mistakes have occurred during POST.

**Power Master II Ready LED** will light up while Power Master Function is working.

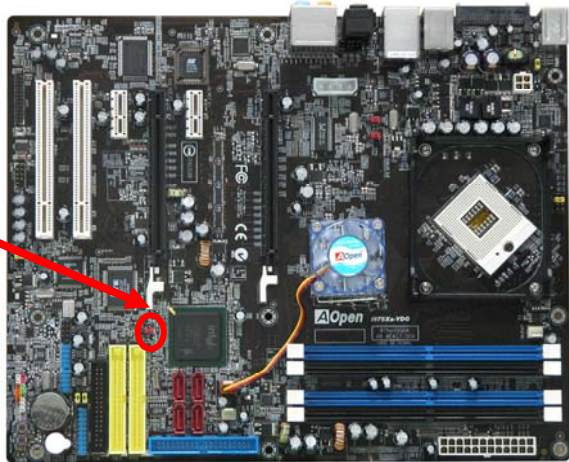
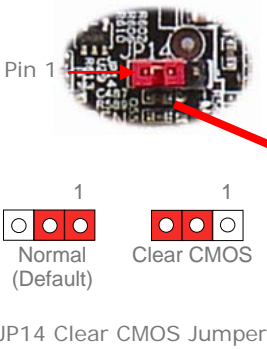


## 3.4 Jumper Settings

### JP14 Clear CMOS

You can clear CMOS to restore system default setting. To clear the CMOS, follow the procedure below.

1. Turn off the system and unplug the AC power.
2. Remove ATX power cable from connector PWR2.
3. Locate JP14 and short pins 2-3 for a few seconds.
4. Return JP14 to its normal setting by shorting pin 1 & pin 2.
5. Connect ATX power cable back to connector PWR2.



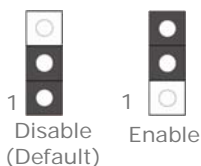
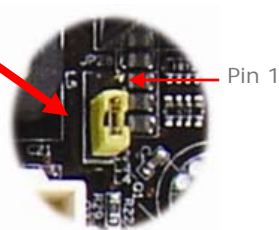
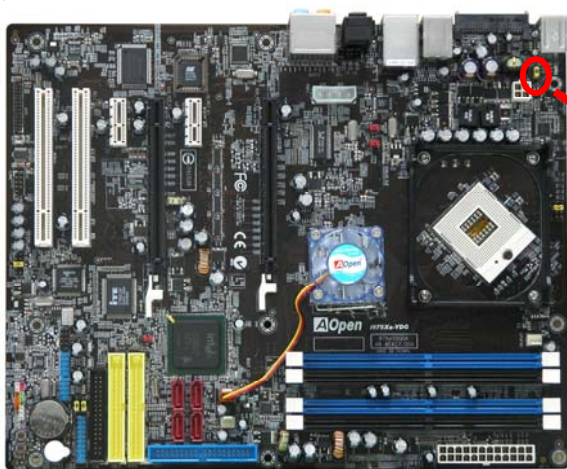
Tip: When should I Clear CMOS?

1. Boot fails because of overclocking...
2. Forget password...
3. Troubleshooting...

JP28 Keyboard/

Mouse Wakeup Jumper

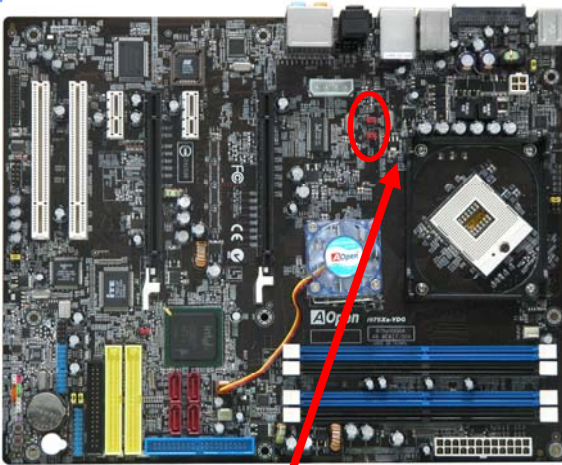
This motherboard provides keyboard / mouse wake-up function. You can use JP28 to enable or disable this function, which could resume your system from suspend mode with keyboard or mouse. The factory default setting is "Disable" (1-2), and you may enable this function by setting the jumper to 2-3.



JP28 PS2 KB/Mouse Wakeup Jumper

JP4 and JP5 Front Side  
 Bus Clock Frequency  
 Jumper

Front Side Bus, FSB is also known as the Processor Bus, Memory Bus, or System Bus and connects the CPU with the main memory and is used to connect to other components within the computer.



Front Side Bus Frequency Jumper

JP4    1

JP5    1

Normal  
 (Default)

JP4    1

JP5    1

FSB 800MHz  
 (Take off Jumpers)  
 Over-Clocking

# Chapter 4 Special Features and Utilities

## 4.2 Other Useful Features

With excellent design ability of R&D team, AOpen boasts for its various powerful and handy features that come with our product like follows. You are welcomed to visit our technical website to learn more about those features.

<http://english.aopen.com.tw/tech/techinside>





# Chapter 5 Setting BIOS

## 5.1 Introduction

System parameters can be modified by going into BIOS Setup menu; this menu allows you to configure the system parameters and save the configuration into the 128 bytes CMOS area (normally in the RTC chip or in the main chipset).

The Phoenix-Award BIOS™ that installed in the Flash ROM of the motherboard is a custom version of an industry standard BIOS. The BIOS provides critical low-level support for standard devices such as hard disk drives, serial and parallel ports.

AOpen's R&D engineering team had optimized most BIOS settings of this motherboard. However, some default settings of BIOS cannot fine-tune those sections that controlled by chipset. Therefore, this chapter is intended to guide you and help you to configure some other settings.

To enter BIOS setup menu, press <Del> when POST (Power-On Self Test) screen is shown on your monitor.

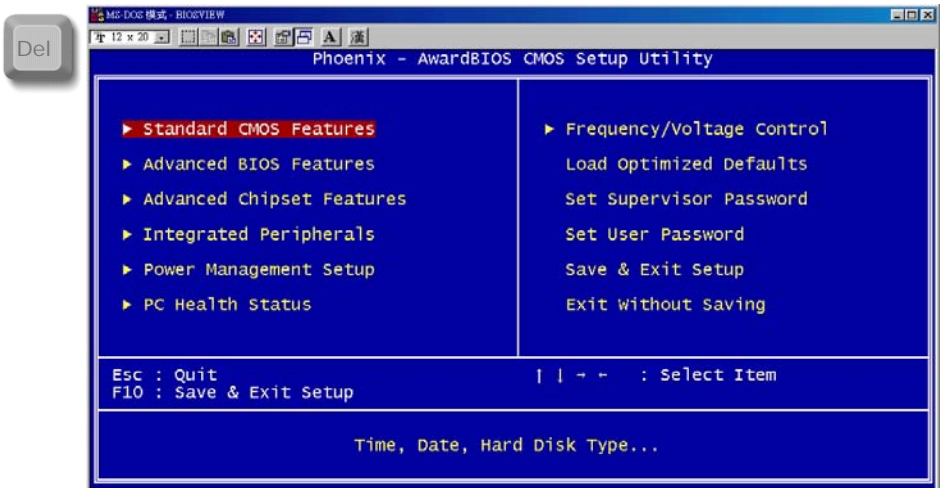
## 5.2 How To Use Phoenix-Award™ BIOS Setup Program

Generally, you can use arrow keys to highlight items that you want to choose, press <Enter> key to select, and use <Page Up> and <Page Down> keys to change setting values. You can press <Esc> key to quit Phoenix-Award™ BIOS setup program. The following table provides details about how to use keyboard in the Phoenix-Award™ BIOS setup program.

Key	Description
Page Up or +	Change setting to next value or increase the value.
Page Down or -	Change setting to previous value or decrease value.
Enter	Select the item.
Esc	In main menu: Quit without saving any changes. In sub menu: Exit current menu to main menu.
Up Arrow	Highlight previous item.
Down Arrow	Highlight next item.
Left Arrow	Move the light bar to left side of menu.
Right Arrow	Move the light bar to right side of menu.
F10	Save changed settings and exit setup program.

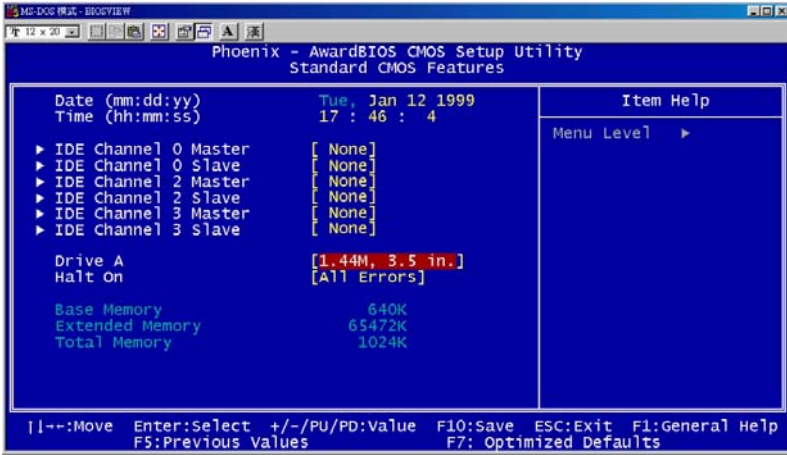
## 5.3 How To Enter BIOS Setup

After finishing the jumper settings and connecting cables, you can power on and enter the BIOS Setup. Press <Del> during POST (Power-On Self Test) and choose "Load Setup Defaults" for recommended optimal performance.



## Standard CMOS Features

The "Standard CMOS Setup" sets the basic system parameters such as the date, time, and the hard disk type. Use the arrow keys to highlight an item and <PgUp> or <PgDn> to select the value for each item.



### Standard CMOS Features > Date

To set the date, highlight the Date parameter. Press <PgUp> or <PgDn> to set the current date. The date format is month, date, and year.

### Standard CMOS features > Time

To set the time, highlight the Time parameter. Press <PgUp> or <PgDn> to set the current time in hour, minute, and second format. The time is based on the 24 hour military clock.

### Standard CMOS features > IDE Channel 0 Master

### Standard CMOS features > IDE Channel 0 Slave

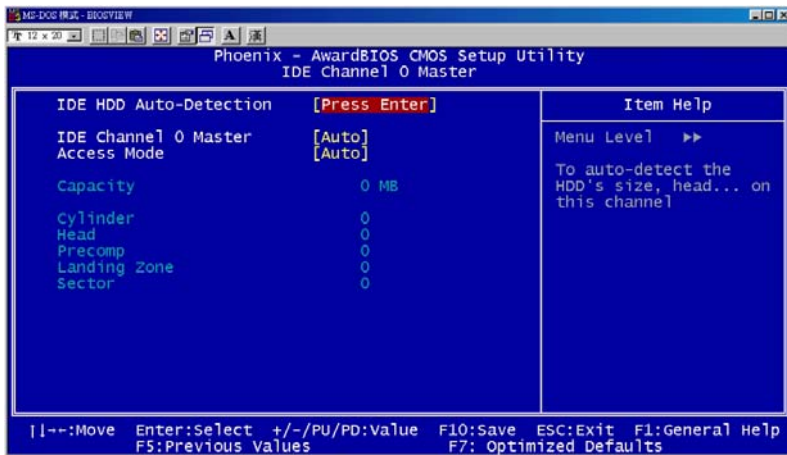
### Standard CMOS features > IDE Channel 2 Master

### Standard CMOS features > IDE Channel 2 Slave

### Standard CMOS features > IDE Channel 3 Master

### Standard CMOS features > IDE Channel 3 Slave

This item lets you select the IDE hard disk parameters that your system supports. These parameters are Size, Number of Cylinder, Number of Head, Start Cylinder for Pre-compensation, Cylinder number of Head Landing Zone and Number of Sector per Track. The default setting is **Auto**, which enables BIOS to automatically detect the parameters of installed HDD (Hard Disk Drive) at POST (Power-On Self Test). If you prefer to enter HDD parameters manually, select Manual.



### Standard CMOS features > IDE Channel 0 Master > IDE HDD Auto-Detection

Press "Enter" to auto-detect parameters of HDD

### Standard CMOS features > IDE Channel 0 Master > IDE Channel 0 Master (Slave)

Define the parameters of IDE devices in Channel 0 (Master or Slave). Available options:

- **None:** if there is no device, please select "None" for speeding boot up.
- **Auto:** enable BIOS to auto-detect parameters of IDE device. (Default)
- **Manual:** allow users to define parameter of IDE device.

### Standard CMOS features > IDE Channel 0 Master > Access Mode

Set the using mode of HDD. Available options: **CHS / LBA / Large / Auto** (default). User can select the mode according to the label on HDD.

- **Cylinder:** Enter cylinder number
- **Head:** Enter head number
- **Precomp:** Write precompensation
- **Landing Zone:** Location of head
- **Sector:** Sector Number

### Standard CMOS features > Drive A

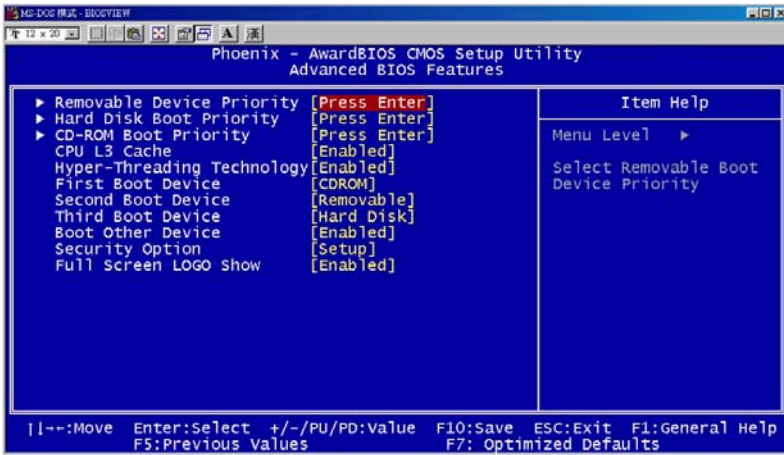
This item allows user select the floppy drive type. Available items: **None / 360KB 5.25" / 1.2MB 5.25" / 720KB 3.5" / 1.44MB 3.5" / 2.88MB 3.5"**

### Standard CMOS features > HaltOn

This parameter enables you to control the system stops in case of Power-On Self Test (POST) error. Available items: **No errors / All errors / All, But Keyboard / All, But Diskette / All, But Disk/Key**

## Advanced BIOS Features

This screen appears when you select the option "Advanced BIOS Features" from the main menu.



Advanced BIOS Features > Removable Device Priority

Advanced BIOS Features > Removable Device Priority > Floppy Disks

Advanced BIOS Features > Hard Disk Boot Priority

- Ch0 M.: MAXTOR 6L080J4
- Bootable Add-in Cards

Advanced BIOS Features > CD-ROM Boot Priority

This parameter allows you to specify the system boot up search sequence.

Advanced BIOS Features > First Boot Device

Advanced BIOS Features > Second Boot Device

Advanced BIOS Features > Third Boot Device

This parameter allows you to specify the system boot up search sequence.

Available options:

- **Removable:** Floppy, USB, ZIP...etc
- **Hard Disk:** Hard Disk Drives
- **CD-ROM:** CD-ROM, DVD-ROM...etc
- **LAN:** LAN Card with boot ROM
- **Disabled**

Advanced BIOS Features > Boot Other Device

This parameter allows you to enable other system boot up devices that is not described above.

### **Advanced BIOS Features > Security Option**

The “**System**” option limits access to both the System boot and BIOS setup. A prompt asking you to enter your password appears on the screen every time you boot the system.

The “**Setup**” option limits access only to BIOS setup.

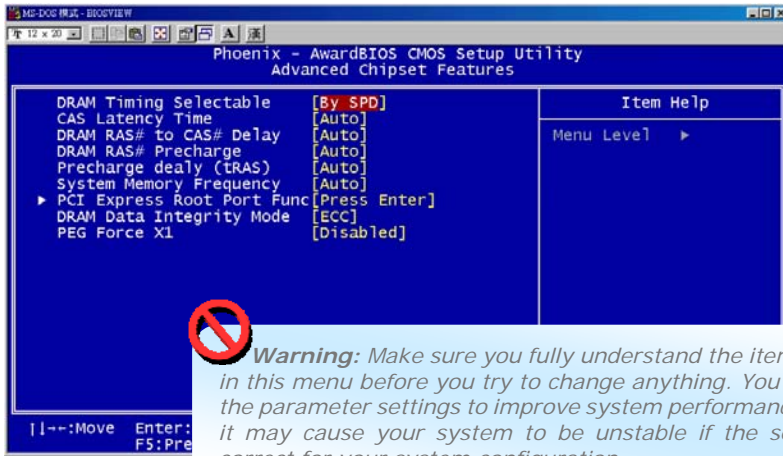
To disable the security option, select Password Setting from the main menu, don't type anything and just press <Enter>

### **Advanced BIOS Features > Full Screen Logo Show**

Available options: **Disabled**, **Enabled**

## Advanced Chipset Features

The "Advanced Chipset Features" includes settings for the chipset dependent features. These features are related to system performance.



**Warning:** Make sure you fully understand the items contained in this menu before you try to change anything. You may change the parameter settings to improve system performance. However, it may cause your system to be unstable if the setting is not correct for your system configuration.

### Advanced Chipset features > DRAM Timing Selectable

Available options:

- **By SPD:** System will define timing according to default of Dram. (Default)
- **Manual:** Allow user to define timing himself.

### Advanced Chipset features > CAS Latency Time

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

Available options: **5, 4, 3, 6, Auto**

### Advanced Chipset features > DRAM RAS# to CAS# Delay

This field lets user to insert a timing delay between the CAS and RAS strobe signals, used when RAM is written to, read from, or refreshed. Fast gives faster performance; and Slow give more stable performance. This field applies only when synchronous DRAM is installed in the system.

Available options: **2, 3, 4, 5, 6 Auto**

### Advanced Chipset features > DRAM RAS# Precharge

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

Available options: **2, 3, 4, 5, 6, Auto**

**Advanced Chipset features > Precharge dealy (tRAS)**

Select the operating system that is active to precharge delay.

Available options: **4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15**

**Advanced Chipset features > System Memory Frequency**

This item is used to set DRAM timing.

Available options: **DDRII533 MHz, 667 MHz, Auto**

**Advanced Chipset features > PCI Express Root Port Func**

**Advanced Chipset features > DRAM Data Integrity Mode**

**Advanced Chipset features > PEG Force X1**

This item is used to select display first from onboard VGA or PCI ExpressGraphic card.

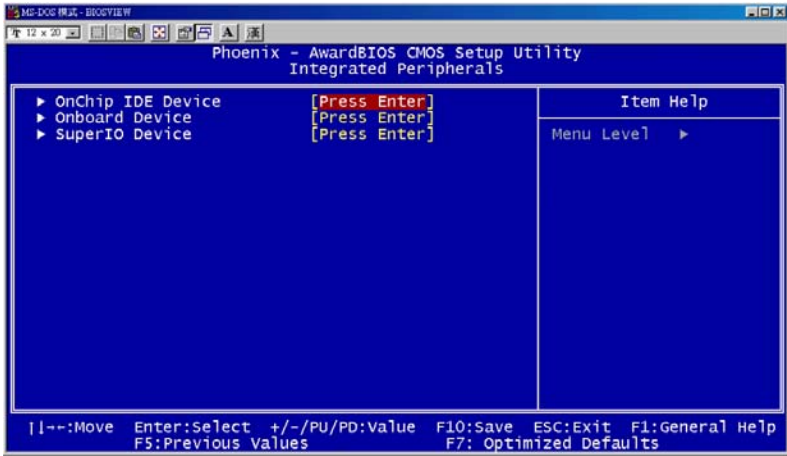
Available options: **Disabled, Enabled**



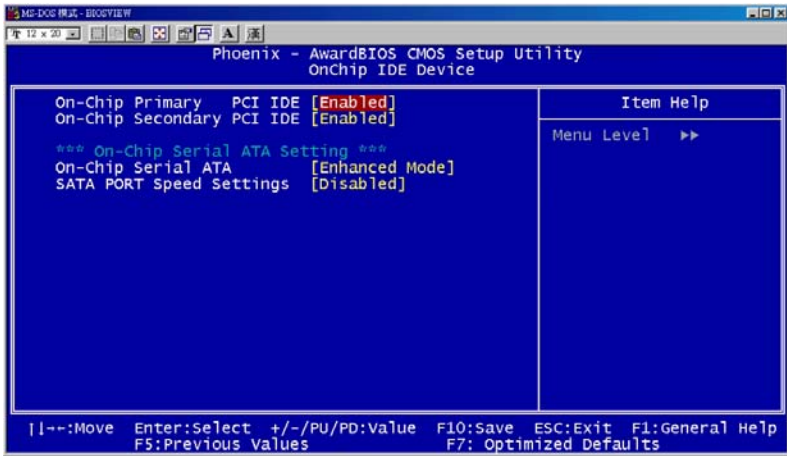


# Integrated Peripherals

This submenu appears if you select the option "Integrated Peripherals" from the main menu. This option allows you to configure the I/O features.



## Integrated peripherals > OnChip IDE Device



## Integrated peripherals > OnChip IDE Device > On-Chip Primary PCI IDE

This item allows you to select work mode on PATA .

Available options:

- **Disabled:** Disabled PATA Controller
- **Enabled:** Enabled PATA Controller

## Integrated peripherals > OnChip IDE Device > On-Chip Secondary PCI IDE

This item allows you to select work mode on PATA .

Available options:

- **Disabled:** Disabled PATA Controller
- **Enabled:** Enabled PATA Controller

## Integrated peripherals > OnChip IDE Device > On-Chip Serial ATA

This item allows you to select work mode between SATA.

Available options:

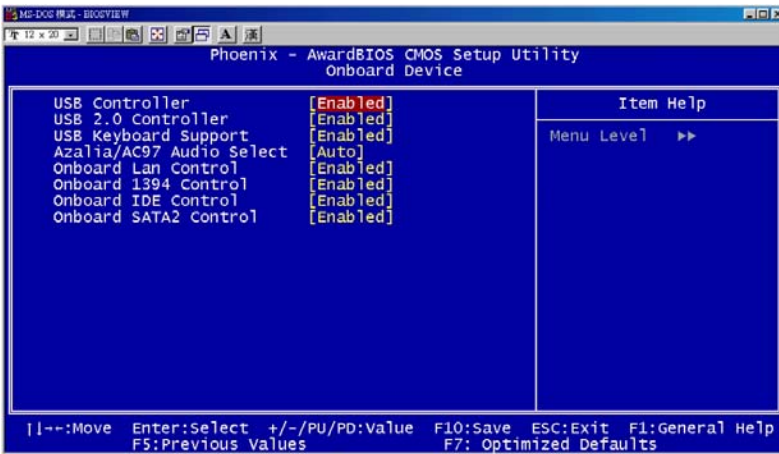
- **Disabled:** Disabled SATA Controller
- **Auto:** Auto arrange by BIOS
- **Combined Mode:** PATA and SATA are combine. Max. of 2 IDE drives in each channel.
- **Enhanced Mode:** Enable both SATA and PATA. Max. of 6 IDE drives are supported.
- **SATA only:** SATA is operating in legacy mode..

## Integrated peripherals > OnChip IDE Device > PATA IDE Mode

When On-chip SATA is selected to "**Combined Mode**" , this item allows you to set PATA to primary or secondary.

## Integrated peripherals > OnChip IDE Device > SATA Port Speed Settings

Available options: **Disabled, Force GENI, Force GENII**



## Integrated peripherals > Onboard Device > USB Controller

This item lets you enable or disable the USB controller.

Available options: **Disabled, Enabled**

## Integrated peripherals > Onboard Device > USB 2.0 Controller

This item lets you enable or disable the USB 2.0 controller.

## Integrated peripherals > Onboard Device > USB Keyboard Support

This item lets you enable or disable the USB keyboard driver within the onboard BIOS. The keyboard driver simulates legacy keyboard command and let you use USB keyboard during POST or after boot if you don't have USB driver in the operating system.

## Integrated peripherals > Onboard Device > Azalia/AC97 Audio Select

This item is used to enable or disable the onboard audio.

## Integrated peripherals > Onboard Device > Onboard LAN Control

This item lets you enable or disable onboard LAN.

## Integrated peripherals > Onboard Device > Onboard 1394 Control

This item lets you enable or disable onboard 1394.

## Integrated peripherals > Onboard Device > Onboard IDE Control

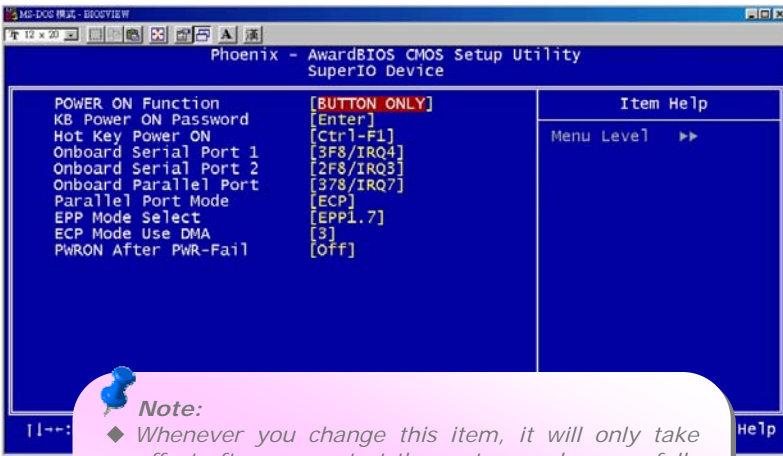
This item lets you enable or disable onboard IDE.

## Integrated peripherals > Onboard Device > Onboard SATA2 Control

This item lets you enable or disable onboard SATA.

## Integrated peripherals > SuperIO Device

This item allows you to set SuperIO device.



### Note:

- ◆ Whenever you change this item, it will only take effect after you restart the system and successfully boot the Windows or DOS.
- ◆ Wake on Mouse function applies to PS/2 mouse only.
- ◆ If you set a password but forget it, please clear CMOS.

*If you want to use Wake on Mouse function in DOS, it is necessary to install the DOS driver of the mouse.*

## Integrated peripherals > SuperIO Device > Power ON Function

This item is used to select Wake on Keyboard/Mouse mode.

- **Password:** Disable the function of power button and let the system can only be powered on through the preset keys (like a password).
- **Hot Key:** If selecting this option, you also need to specify the hot key from "Hot Key Power On" item.
- **Any Key:** This function allows you wake up the system by clicking any key.
- **Button Only:** Disable Wake on KB/MS function. You can boot up your system by power button only.

## Integrated peripherals > SuperIO Device > KB Power ON Password

You can specify 1-5 keys as a password.

## Integrated peripherals > SuperIO Device > Hot Key Power On

If you select "Hot Key" option in "Power On Function" Item, you need to specify a hot key here.

## Integrated peripherals > SuperIO Device > Onboard Serial Port 1

This item allows you to assign address and interrupt for the board serial port. The default is "3F8/IRQ4".

## Integrated peripherals > SuperIO Device > Onboard Serial Port 2

This item allows you to assign address and interrupt for the board serial port. The default is "2F8/IRQ3".

## Integrated peripherals > SuperIO Device > Onboard Parallel Port

This item controls the onboard parallel port address and interrupt. Available options: **378/IRQ7, 278/IRQ5, 3BC/IRQ7, Disabled**

## Integrated peripherals > SuperIO Device > Parallel Port Mode

This item lets you set the parallel port mode. The mode options are SPP (Standard and Bidirection Parallel Port), EPP (Enhanced Parallel Port) and ECP (Extended Parallel Port). Available options:

- **SPP (Standard and Bidirection Paralell Port):** SPP is the IBM AT and PS/2 compatible mode.
- **EPP (Enhanced Parallel Port):** EPP enhances the parallel port throughput by directly writing/reading data to/from parallel port without latch.
- **ECP (Extend Parallel Port):** ECP supports DMA and RLE (Run Length Encoded) compression and decompression.
- **ECP + EPP**
- **Normal**

## Integrated peripherals > SuperIO Device > EPP Mode Select

This item lets you select EPP mode protocol.

### **Integrated peripherals > SuperIO Device > ECP Mode Use DMA**

This item lets you set the DMA channel of ECP mode.

Available options: **3, 1**

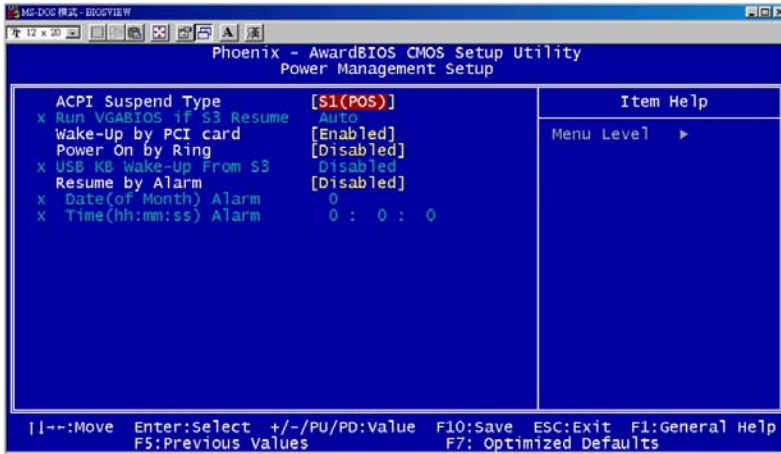
### **Integrated peripherals > SuperIO Device > PWRON After PWR-Fail**

A traditional ATX system should remain at power off stage when AC power resumes from power failure. This design is inconvenient for a network server or workstation, without an UPS, that needs to keep power-on. This item is used to solve this problem. Selecting On enabling system to automatically power-on after AC power resumes; in the other hand, the system will remain power-off if you select Off. If Former-Sts (former status) option is selected, the system will power-on or power-off based on the original state.

Available options: **Former-Sts, On, Off**

## Power Management Setup

The Power Management Setup screen enables you to control the motherboard green features. See the following screen.



### Power Management > ACPI Suspend Type

This function allows you to select suspend types. S1 is Power On Suspend and S3 is Suspend to RAM.

Available Options: **S1, S3, S1 & S3**

### Power Management > Run VGABIOS if S3 Resume

### Power Management > Wake-up by PCI Card

This is a function of PCI specification 2.2. PCI bus supports standby current to PCI card and PCI card can wakeup system if it detects certain activity.

Available options: **Disabled, Enabled**

### Power Management > Power On by Ring

The option lets you specify enable or disable Wake On Modem Ring function.

Available options: **Disabled, Enabled**

### Power Management > USB KB Wake-Up From S3

The USB KB wake-up from S3 support USB Keyboard wake up under S3 mode.

Available options: **Disabled, Enabled**

### Power Management > Resume by Alarm

The Wake Up Timer is more like an alarm, which wakes up and powers on your system at a pre-defined time for a specific application. It can be set to wake up everyday or on specific date within a month. The date/time is accurate to within a second. This option lets you enable or disable the RTC Wake Up function.

Available options: By **Date, By Week, Disabled**

## Power Management > Date (of Month) Alarm

This item is displayed when you enable the Wake On RTC Timer option. Here you can specify what date you want to wake up the system. For Example, setting to 15 will wake up the system on the 15th day of every month.



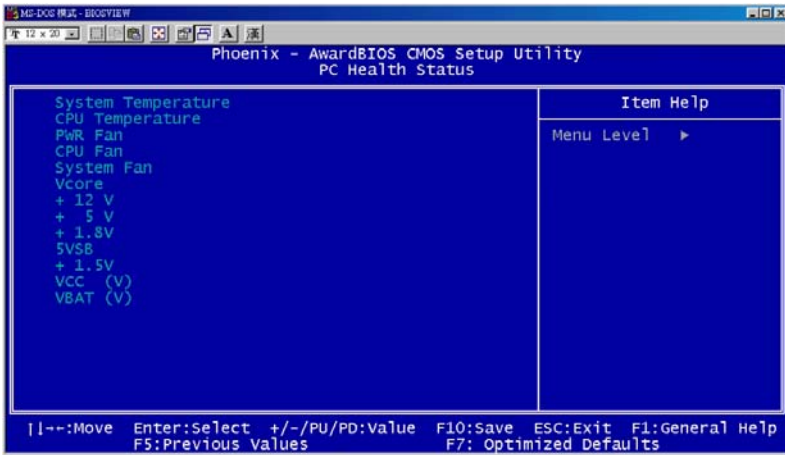
**Tip:** Setting this item to 0 will wake up the system on the specified time (which can be set in the Wake On RTC Timer) every day.

## Power Management > Time (hh:mm:ss) Alarm

This item is displayed when you enable the Wake On RTC Timer option. Here you can specify what time you want to wake up the system.

## PC Health Status

The PC Health Status can bring PC important safety parameters for detect Health of your system.



PC Health Status > System Temperature

PC Health Status > CPU Temperature

PC Health Status > PWR Fan

PC Health Status > CPU Fan

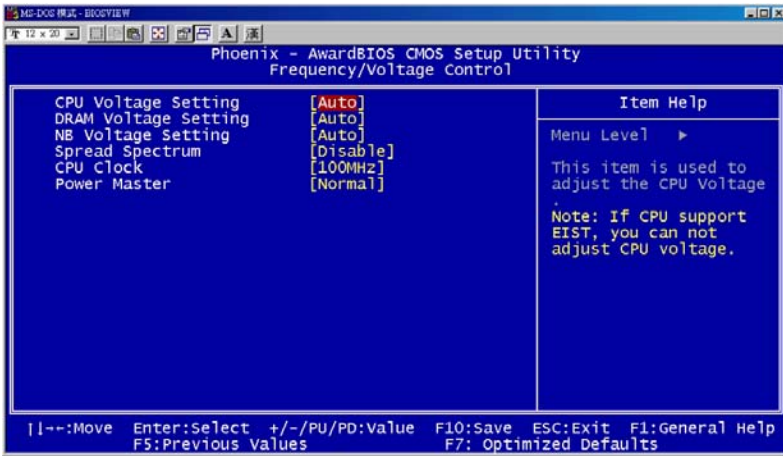
PC Health Status > System Fan

PC health status bring you on the **System temperature**, **CPU temperature**, **System Fan**, **CPU Fan**, **PWR Fan**, **Vcore**, **5VSB**, **VCC**, **VBAT** – these important system parameters for you to check the health status of your system.



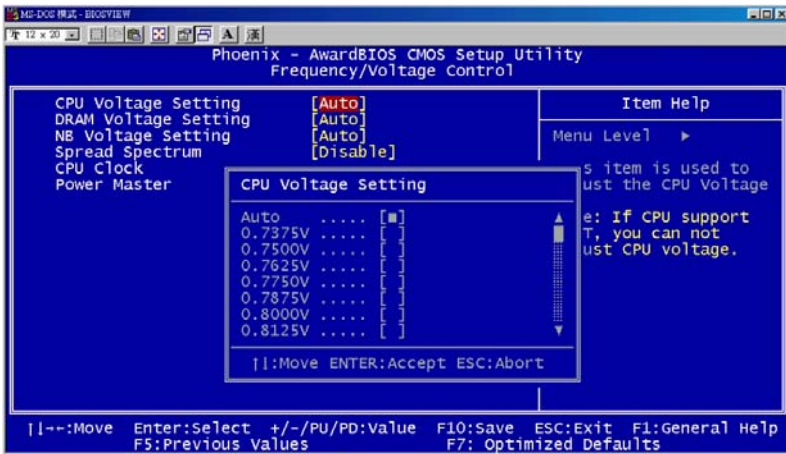
## Frequency/Voltage Control

This submenu allows you to configure the CPU and memory clock.

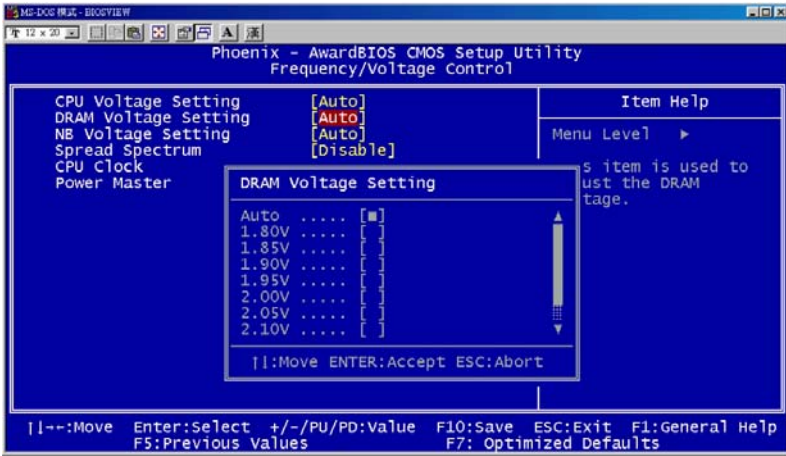


### Frequency/Voltage Control > CPU Voltage Setting

This item allows user to adjust CPU Vcore voltage, BIOS will determine the adjustable value according to the CPU installed.



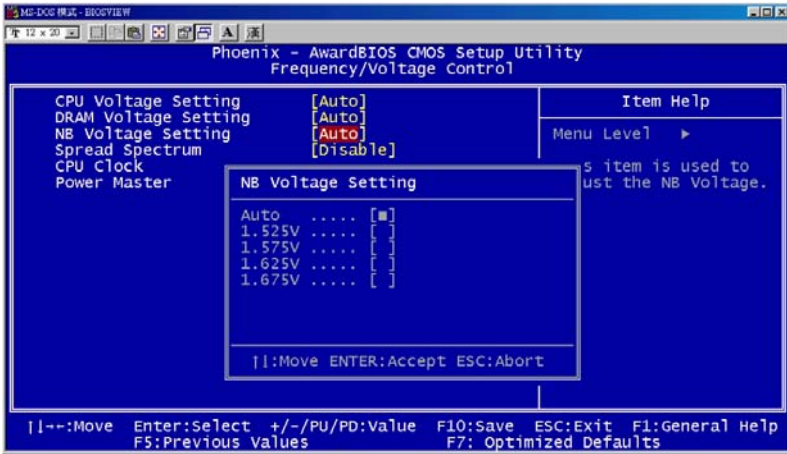
## Frequency/Voltage Control > DRAM Voltage Setting



## Frequency/Voltage Control > NB Voltage Setting

This item allows user to adjust North Bridge voltage, BIOS will determine the adjustable value according to the North Bridge default.

Available options: **Auto, 1.525V, 1.575V, 1.625V, 1.675V**



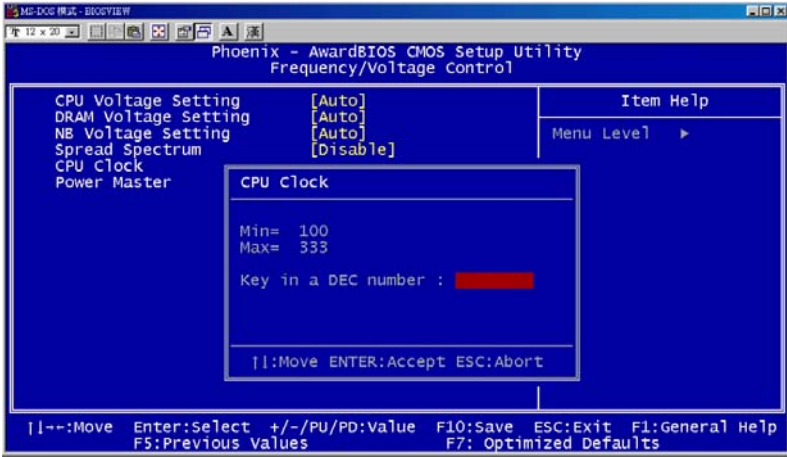
## Frequency/Voltage Control > Spread Spectrum

This item is used to set the value of clock Spread Spectrum. BIOS will determine the adjustable value according to the CPU installed, not all items will be showed.

Available options: **Disable, -0.5%, -1.0%, +0.25%, +0.5%**

## Frequency/Voltage Control > CPU Clock

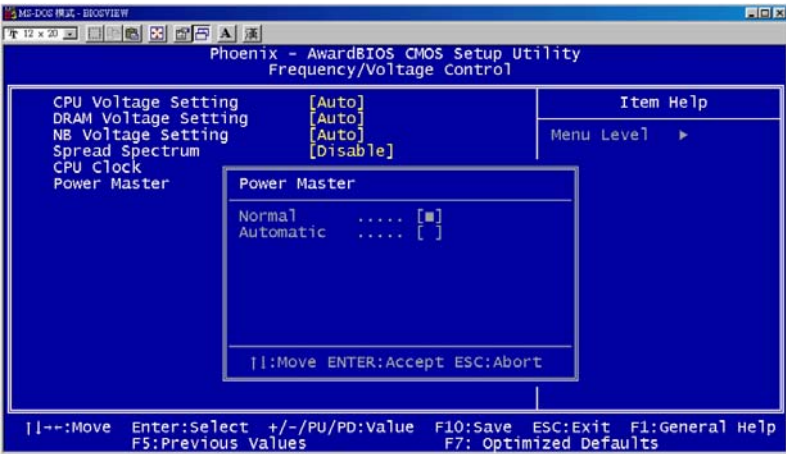
This item shows the CPU Clock of status. You can adjust the clock according it. Available options: **166MHz ~ 199MHz**



**Tip:** When you fail to overclock, you could: Clear CMOS (JP14) to restore the default setting. After turning power on, press

## Frequency/Voltage Control > Power Master

Please press the Del button after you start the computer, then you can enter the BIOS setting page. Once you get into BIOS setting page, please select the Frequency/voltage control to set up the Power Master.



## Frequency/Voltage Control > Power Master > Automatic Mode

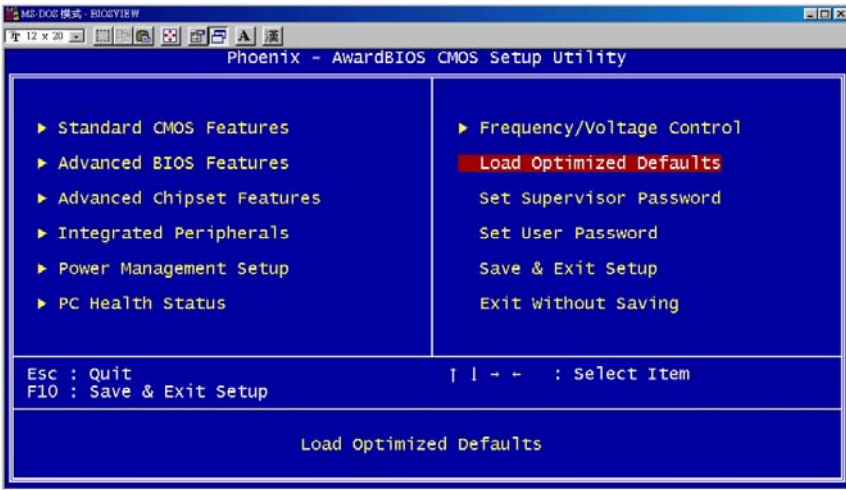
Once you enable this mode, Power Master will detect your processor true loading automatically. When the processor loading is heavy, Power Master will raise your processor's clock frequency to meet your requirement. On the contrary, when the processor is in low loading, Power Master will drop the clock frequency to reduce the noise from processor fan.

## Frequency/Voltage Control > Power Master > Normal Mode

When you choose this mode, Power Master will be turned off. The processor clock frequency will always keep at the original speed.

## Load Optimized Defaults

The "Load Optimized Defaults" option loads optimized settings for optimum system performance. All the product verification, compatibility/reliability test report and manufacture quality control are based on "Load Optimized Defaults". We recommend using these settings for normal operation. "Load Optimized Defaults" is not the slowest setting for this motherboard. If you need to verify an unstable problem, you may manually set the parameter in the "Advanced BIO Features" and "Advanced Chipset Features" to get slowest and safer setting.



## Set Supervisor Password

Supervisor Password prevents unauthorized use of your computer. If you set a password, the system prompts for the correct password before boot or access to Setup.

To set a password:

1. At the prompt, type your password. Your password can be up to 8 alphanumeric characters. When you type the characters, they appear as asterisks on the password screen box.
2. After typing the password, press.
3. At the next prompt, re-type your password and press again to confirm the new password. After the password entry, the screen automatically reverts to the main screen.

To disable the password, press "**Enter**" when being prompted to enter the password. The screen displays a message confirming that the password has been disabled.

## Set User Password

User Password can authorize users check only. It cannot modify the BIOS setting inside.

To set a password:

1. At the prompt, type your password. Your password can be up to 8 alphanumeric characters. When you type the characters, they appear as asterisks on the password screen box.
2. After typing the password, press.
3. At the next prompt, re-type your password and press again to confirm the new password. After the password entry, the screen automatically reverts to the main screen.

To disable the password, press "**Enter**" when being prompted to enter the password. The screen displays a message confirming that the password has been disabled.

## Save & Exit Setup

This function automatically saves all CMOS values before leaving Setup.

## Exit without Saving

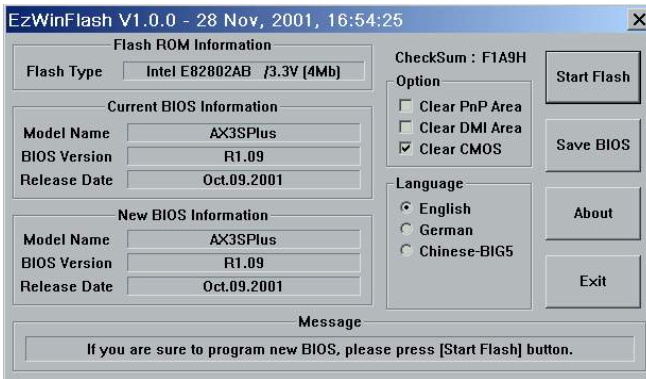
Use this function to exit Setup without saving the CMOS value changes. Do not use this option if you want to save the new configuration.

## 5.4 BIOS Upgrade under Windows environment



With outstanding R&D ability of AOpen, we now bring you a whole new BIOS Flash wizard ---- EzWinFlash. With an eye to convenience for users, EzWinFlash combines the BIOS binary code and flash module together, so the only thing you have to do is just clicking on the utility you downloaded from web and let it help you complete the flash process automatically. EzWinFlash detects your motherboard and checks the BIOS version cleverly to prevent your system from any possible failure. Moreover, EzWinFlash has been taken into consideration to go with any windows platform you might be using, no matter if you're using Windows 95/98, 98SE/ME, NT4.0/2000, or Windows XP.

In the meanwhile, in order to provide a much more user-friendly operating environment, AOpen EzWinFlash is natively designed to have multi-language function to provide easier way for user in changing BIOS setting.



**Caution:** You are taking a risk of BIOS flash failure when you update your system. If your motherboard is working stable, and there are no major bugs to be fixed by a latter BIOS revision, we recommend that you **DO NOT** upgrade your BIOS. If you intent on upgrade **PLEASE MAKE SURE** you get the right BIOS revision for your motherboard model so as to avoid any possible failure.

**Note:** The model name on this BIOS picture is for reference only. It may not be the same model with your motherboard.





You may accomplish BIOS upgrade procedure with EzWinFlash according to following steps, and it's STRONGLY RECOMMENDED to close all applications before you start the upgrades.

Download the latest version of BIOS package zip file from AOpen official web site. (Ex: <http://english.aopen.com.tw/>)

Unzip the downloaded BIOS package (ex: WSGMAXII102.ZIP) with WinZip (<http://www.winzip.com>) in Windows environment.

Save the unzipped files into a folder, for example, WSGMAXII102.EXE & WSGMAXII102.BIN.

Double click WSGMAXII102.EXE; EzWinFlash will detect the model name and BIOS version of your motherboard. If you collect wrong BIOS, you will not be allowed to proceed with the flash steps.

You may select a preferred language in main menu, then click [Start Flash] to begin the BIOS upgrade procedure.

EzWinFlash will complete all the process automatically, and a dialogue box will pop up to ask you to restart Windows. Click [YES] to reboot Windows.

Press <Del> at POST to enter BIOS setup screen; choose "Load Setup Defaults", then "Save & Exit Setup". Done!

It is strongly recommended NOT to turn off the power or run any applications during FLASH PROCESS.



**Warning:** The new BIOS upgrade will permanently replace your original BIOS setting when flashing. You may need to reconfigure the BIOS setting before your system goes back to work as normal.

# Chapter 6 Installing Drivers



You may think that installing drivers and utilities would be a repeated task of going through those installation wizards and steps-by-steps. Now, you will be surprised with how “Ez” EzInstall could do. Without wizards or steps, all you have to do is to do one click and then it’s done. Click and done. Yes. EzInstall makes installation easy and even foolproof!

After putting in the CD, you will be prompted with AOpen welcome page and our branches information.

First, click on the install driver ICON at left side for necessary drivers.

Second, click on the install utility ICON at left side for preferred utilities.

Practically, it’s done. But you may also browse CD contents, Readme to get more information or just exit the CD installation.

The screenshot shows the AOpen EzInstall welcome screen. On the left side, there is a vertical menu with five icons and corresponding callout boxes: 'Install driver' (with a CD icon), 'Install utility' (with a folder icon), 'Browse CD Contents' (with a magnifying glass icon), 'Readme' (with a document icon), and 'Exit CD' (with a CD icon). The main area of the screen features the AOpen logo at the top left, a 'Welcome' message, and contact information for various branches. A callout box labeled 'Click to install online manual' points to a stack of books icon in the top right corner. Another callout box labeled 'AOpen branches information' points to the contact information section.

**AOpen**

**Welcome**

Install User manual

Thank you for choosing AOpen I915Ga-HFS

Contact us

AOpen Inc. http://www.aopen.com.tw TEL: +886-2-3789-5888 FAX +886-2-3789-5899	AOpen Computer GmbH. http://www.aopen.com.de TEL: +49-1805-559191 FAX: +49-2102-157799
AOpen America Inc. http://english.aopen.com.tw TEL: +1-510-489-8928 FAX: +1-510-489-1998	AOpen Japan Inc. http://www.aopen.co.jp TEL: +81-048-290-1800 FAX: +81-048-290-1820
AOpen Computer B.V. http://www.aopen.nl TEL: +31-73-645-9516 FAX: +31-73-645-9604	AOpen International Co., Ltd. http://www.aopen.com.cn TEL: +86-21-6225-8622 FAX: +86-21-6225-7926

**Ez Install**

Install driver

Install utility

Browse CD Contents

Readme

Exit CD

Click to install online manual

AOpen branches information



## 6.1 Installing Drivers

As you may see from the Installing driver page, EzInstall had picked up necessary for your motherboard. All you have to do is just click on the **“GO”**, and no more steps afterward, of all listed drivers, grey checks indicate necessary drivers; you cannot click them off. Red checks can be disabled if you don't want to install them now.



Press the icon will prompt the **“Install Driver”** page. You may also press **“Back”** to return to the Main page.



Once clicking **“GO”**, EzInstall will run the installing procedure automatically, and prompt a reboot dialog (Some drivers or utilities may skip the reboot part).

## 6.2 Installing Utilities

Installing Utilities is virtually the same as installing drivers. AOpen provides you many friendly and powerful utilities to manage your system. You may find lots of fabulous utilities listed there, and all you have to do is to click on the “GO”, then it will install the utilities to your system right away without complicated steps.



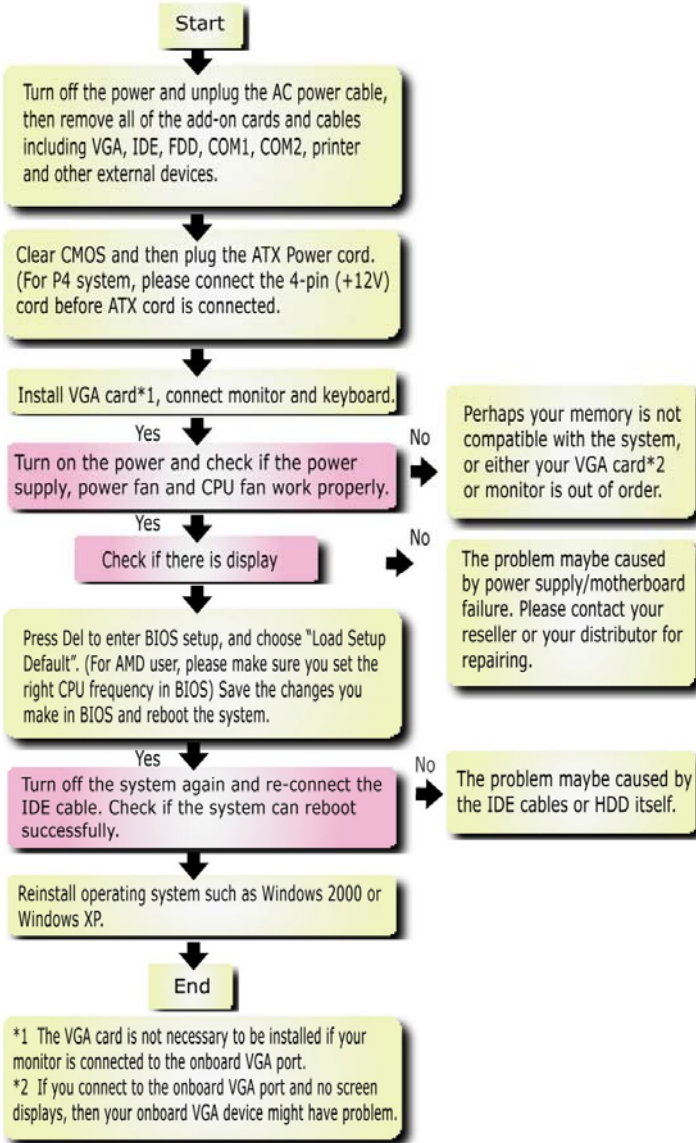
Press the icon will prompt the “**Install Utilities**” page for your selection. You may also press “**Back**” to get back to the Main page.



# Chapter 7 Troubleshooting



## Troubleshooting



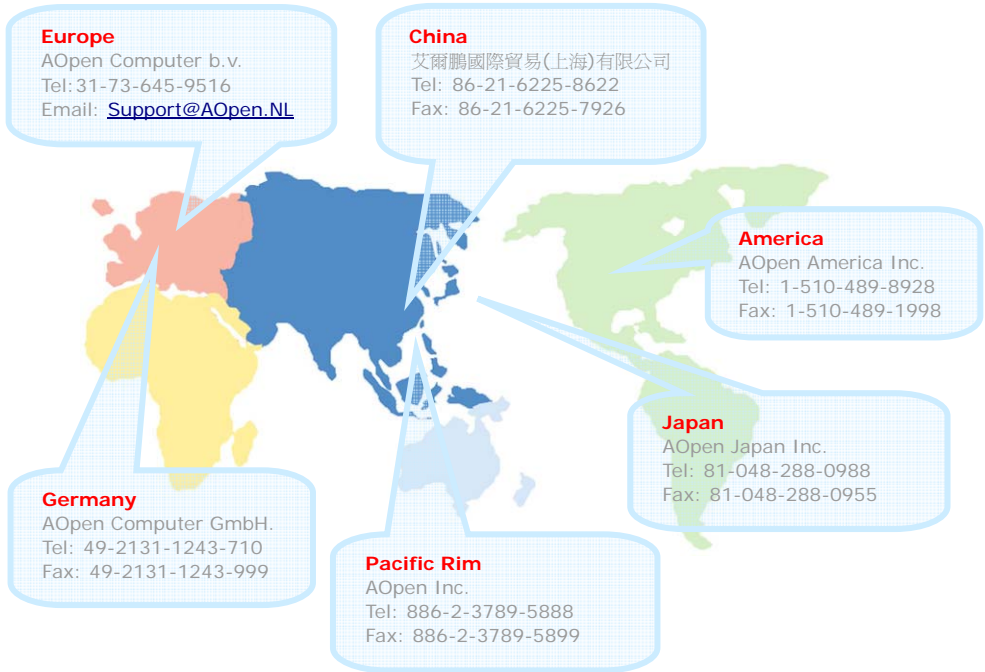
# Chapter 8 Technical Support

Dear Customer,

Thanks for choosing AOpen products. We invite you to register at <http://www.aopen.com> to become a Gold Member of Club AOpen so as to ensure quality service in the future. In order to maintain the best service to every customer of us, we recommend you to follow the procedures below and seek help from our branches according to the region you buy the product. With your help, we can then continue to provide efficient and the best quality service to every customer.

Thanks very much for your understanding!

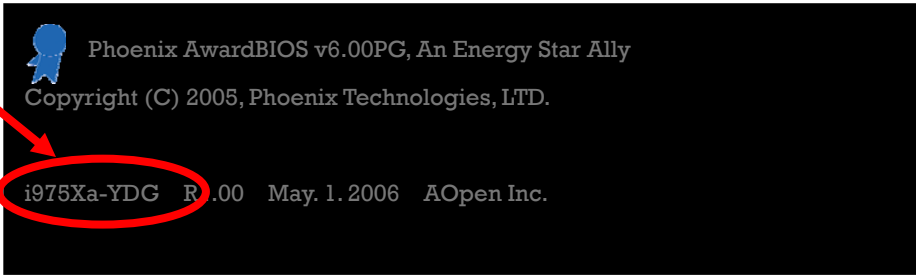
AOpen Technical Supporting Team



Europe	<a href="http://www.aopen.nl/tech/default.htm">http://www.aopen.nl/tech/default.htm</a>
Pacific Rim:	<a href="http://www.aopen.com.tw/tech/default.htm">http://www.aopen.com.tw/tech/default.htm</a>
China:	<a href="http://www.aopen.com.cn/tech/default.htm">http://www.aopen.com.cn/tech/default.htm</a>
Germany:	<a href="http://www.aopencom.de/tech/default.htm">http://www.aopencom.de/tech/default.htm</a>
America:	<a href="http://usa.aopen.com/tech/default.htm">http://usa.aopen.com/tech/default.htm</a>
Japan:	<a href="http://aopen.jp/tech/index.html">http://aopen.jp/tech/index.html</a>

## Model Name and BIOS Version

Model name and BIOS version can be found on upper left corner of first boot screen (POST screen). For example:



i975Xa-YDG is model name of motherboard; R1.00 is BIOS version

## Register Your Motherboard

Thanks for choosing AOpen product, please register this motherboard at <http://club.aopen.com.tw/productreg/> to become a Gold member of Club AOpen, and to ensure high service quality and priority from AOpen. You will also have a chance to play slot machine game to win prize from AOpen. Please prepare the following information before you start: Model Name, Part Number (P/N), Serial Number (S/N) and Purchase Date. The Part Number and Serial number are printed on bar code label. You can find this bar code label on the outside packing or on component side of PCB. For example:



Part No.

Serial No.

P/N: 91.88110.201 is part number, S/N: 91949378KN73 is serial number.

Phoenix-Award BIOS ERROR Message	
Beep Sound	Message
1 short(Beep)	System booting is normally.
1 long - 1 short(Beep)	DRAM ERROR
1 long - 2 short(Beep)	Display card or monitor connected error
1 long - 3 short(Beep)	Keyboard Error
Long(Beep) continuous	DRAM hasn't inset correctly.



# Technical Support

Online Manual: To download manual, please log on and then select your preferred language. Under "Type" directory, choose "Manuals" to go to our manual database. You can also find the manual and EIG in AOpen Bonus Pack.  
<http://download.aopen.com.tw/>

Test Report: We recommend you to choose board/card/device from the compatibility test reports for assembling your PC. It may prevent incompatibility problems.  
<http://global.aopen.com.tw/tech/report/default.htm>

FAQ: Here we list problems that users often encounter and FAQ (Frequently Asked Questions). You may select your preferred language after log on, and may be able to find a solution to your problem.  
<http://club.aopen.com.tw/faq/>

Download Software: After log on and having language selected, you may get the latest updated BIOS/utility and drivers you need under "Type" directory. In most case, newer versions of drivers and BIOS have solved earlier bugs or compatibility problems.  
<http://download.aopen.com.tw/>

eForum: AOpen eForum is provided to discuss our products with other users, in which your problem probably had been discussed before or will be answered. After log on, you may select your preferred language under "Multi-language".  
<http://club.aopen.com.tw/forum>

Contact Us: Please prepare detail system configuration and error symptom before contacting us. The part number, serial number and BIOS version are also very helpful.

Contact Distributors/Resellers: We sell our products through resellers and integrators. They should know your system configuration very well and should be able to solve your problem efficiently and provide important reference for you.

