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## 1.1 A Thank-you Note Before You Get Started

First of all, we would like to express our gratitude for purchasing our **AOpen** specially-designed XCcube. Once again, this bare-system 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 is for those who want to set up computer by themselves. In other words, this is a book for "Fresh drivers on the road." If you are already a veteran, this manual may not be suitable for you. It is our hope that novices can build up their own computer step by step.

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

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## 1.2 The Features Of This Manual

In this manual, you'll be able to learn how to:

 **set up a personal computer on your own.**


 **correctly and safely put everything together and learn something about hardware.**

 **learn some practical techniques that make doing the job easier.**

In addition, this manual DOES NOT offer you:

 **any sorts of back doors, such as overclocking.**

 **a great deal of hardware standard that are hard to comprehend.**

 **lengthy fanciful article or vague theories.**

Instead, this manual explains profound theories in simple language by colorful illustrations. Therefore, you will see the icons below frequently:



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 arrow shows the right direction the force should be imposed, or the correct assembling direction.

## 1.3 Preliminary Tools

"A workman must first sharpen his tools if he is to do his work well". Right before you start the assembly, there are some tools that can't be spared.

Firstly, the most frequently-used too is cross screwdriver by which most interior components are fixed. A suitable screwdriver can make the following job much easier. Being so, does any screwdriver apply? Actually a magnetic tip one is suggested. That is because in the process of setting up your PC, the situation is very likely to happen: you accidentally drop the screws into the interior of the computer. In case of this, a magnetic screwdriver helps attracting the fallen screws that are hard to reach by hands. Some screw holes are placed where hands can hardly reach. At this time, we need a magnetic screwdriver, too. In addition, the size of our tool also matters. Generally, the **domestic 107 cross screwdriver** is the most appropriate one.

I can get it done!!



When putting things together, it is necessary to adjust Jumper. In most cases, things can be done barehanded. But there comes a time always when your hands fail to reach in and fix the problem. You'll thank God with a pliers on hand which keeps you away from any annoying trouble for just setting one JUMPER.



### What is Jumper?

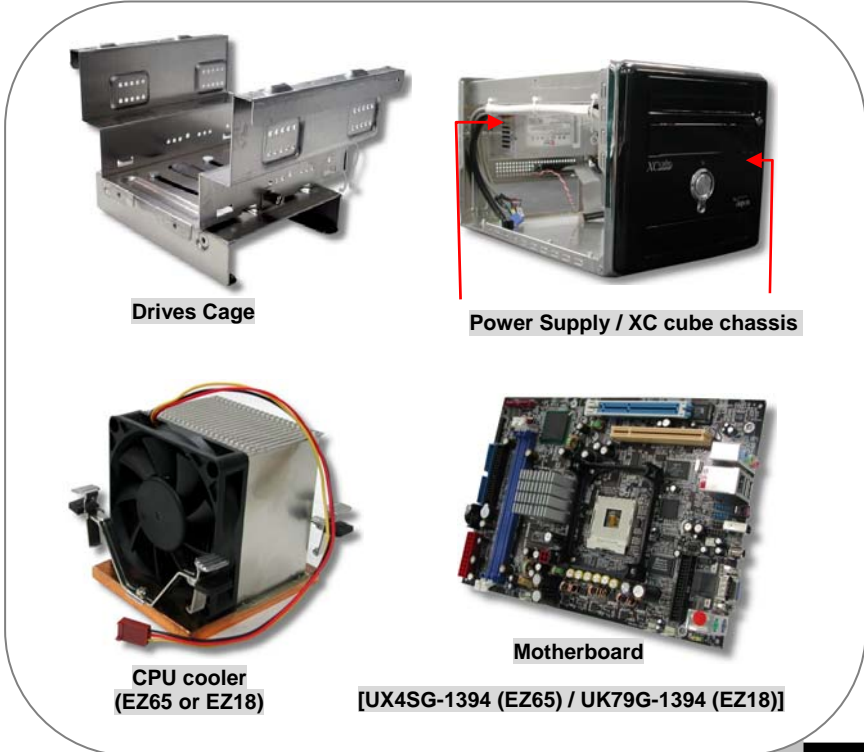
Jumper is something generally referred to "Jumping wire" that utilizes the short circuit of the pins to tune up some functions, such as FSB (front side bus), ratio, and sound switches adjusting.

## Chapter 2 What's In The Box?

### 2.1 What's In The Box?

Open the XCcube box, you will find components as follow:

- XCcube chassis / Drives Cage**
- Motherboard**
- Power Supply**
- CPU cooler**



## 2.2 Accessory

Beside main components, you are supposed to see the following accessories:

**Fixed screws:** After opening the accessory parcel, you'll see the following four different type of screws:



As shown in the picture, the threads on **NO.1** screw are wide and it has a hexagonal head



As shown in the picture, the **NO.3** screw's threads are wide as well but it has a round head.

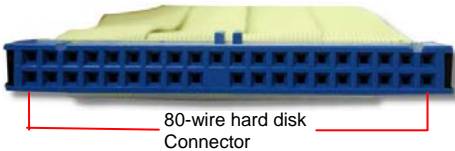


As shown in the picture, threads on **NO.2** screw are narrow and there is a ring on its head.

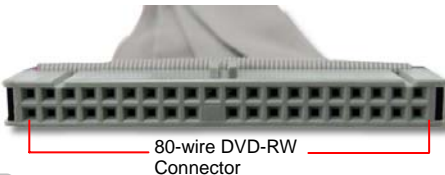


As shown in the picture, the **NO.4** screw's threads are wide as well but it has a flat head.

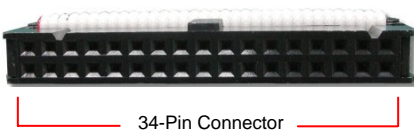
**IDE Cable:** a 80 -pin connector to connect the hard disk with IDE interface.



**IDE Cable:** a 80 -pin connector to connect the DVD-RW IDE interface.



**Disk Drive Cable:** a 34-pin connector to connect disk drive.

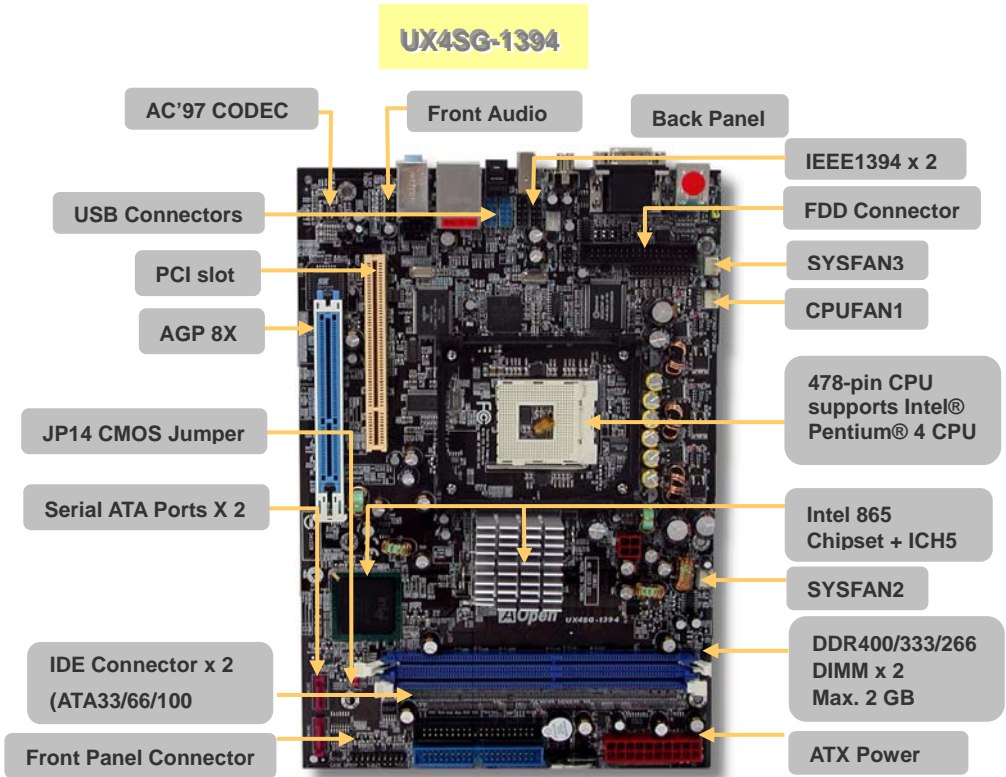


## 2.3 What Specification Do We Got here?

This XCcube comes with two type of motherboard for your selection. Let's take a brief look at what specification these two boards got.

For Intel lover, we provide **UX4SG-1394** here.

Please refer to the **Appendix** chapter for motherboard details.



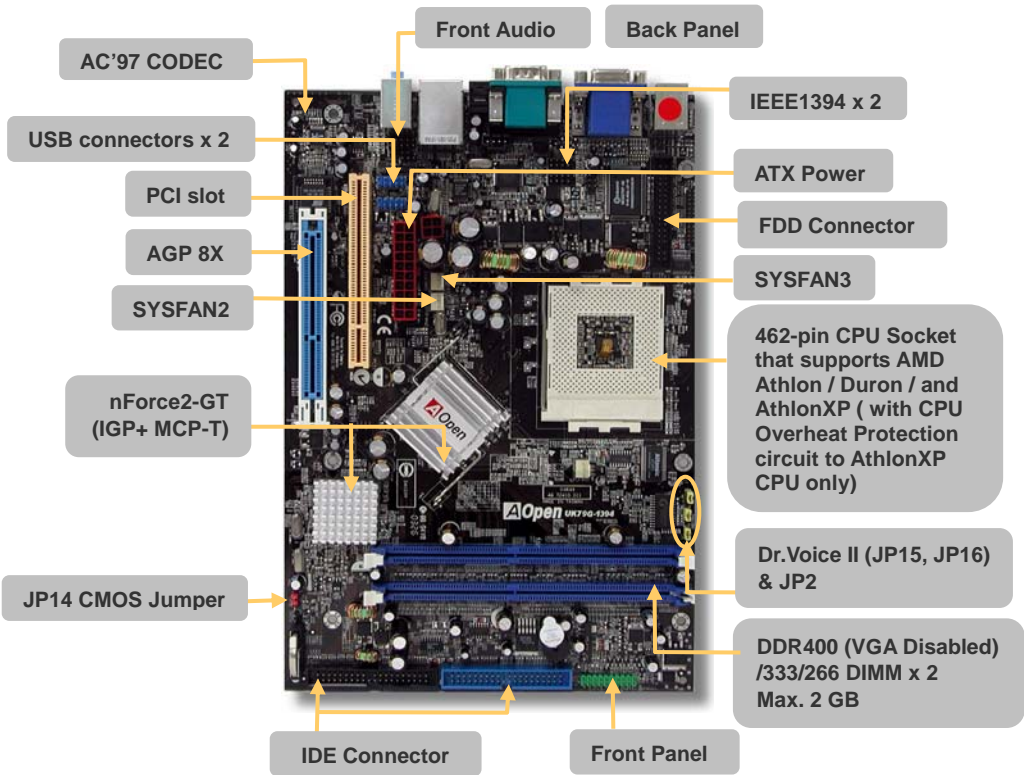
**Note:** Intel 865G chipset don't support Willamette or Celeron (0.18u) processors. Northwood processor would detect the clock ratio automatically, you may not be able to adjust the clock ratio in BIOS manually.



For Pro- AMD user, we provide **UK79G-1394**.

Please refer to the **Appendix** chapter for motherboard details.

**UK79G-1394**



## 2.4 What Features bundled here?

One of the advantages of AOpen motherboard is its inventive features, which bundled along with their models. Various features had been included in **UX4SG-1394** (EZ65) and **UK79G-1394** (EZ18) motherboard.

You may directly visit our technical website for details: <http://english.aopen.com.tw/tech/techinside>

### UX4SG-1394














### UK79G-1394



## Chapter 3 Start To Assemble

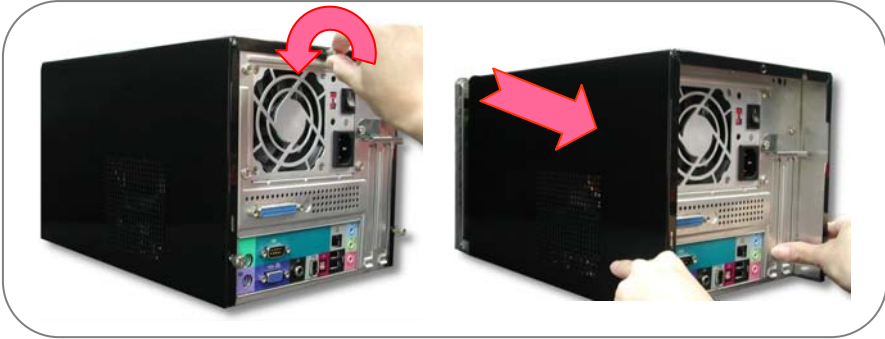
### 3.1 Features of XC cube

**AOpen XC cube**, designed as a Mini-PC, providing you as many advantages as it can. You may find that it is elegant among other traditional PC design that obviously highlighted your individual style and taste with different color panel provided. In addition to its unique appearance, AOpen XC cube is easy to move around in your house, suitable for decoration even in your living room. As light and crispy as it is, it is definitely your choice for a PC.

-  **Unique design that reflects your style and taste!**
-  **Color Panel changing that changes with your mood!**
-  **Space flexibility allows you to move it from living room or to your bedroom.**
-  **Silent Technology, PC that is quiet even in the middle of the night.**
-  **Easy Installation for any new hand assembling their first PC.**
-  **Mini housing which saves you almost 60% of housing space.**
-  **Hand-harmlessness design ensures you 100% security during assembling.**
-  **Equipped with a highly efficient power supply to keep your computer work smoothly in most cases.**
-  **Conform to FCC ClassB/DoC and CE standards to guarantee your health.**
-  **Teamed with high-efficiency motherboard to make your job a great deal easier.**
-  **Great extensible function where you can optionally purchase AGP/PCI interfaces with low-profile standards.**

## 3.2 Starting installing

1. Unscrew all screws on the chassis. Use your thumb to push the chassis backward to you.



2. Lift the chassis up. Here you may see the internal of the chassis.

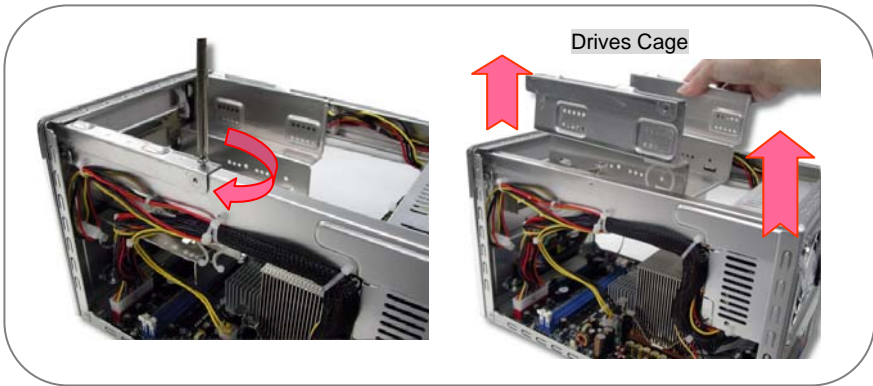


## 3.3 Cooler, Hard Disk, Floppy Drives and DVD-RW devices

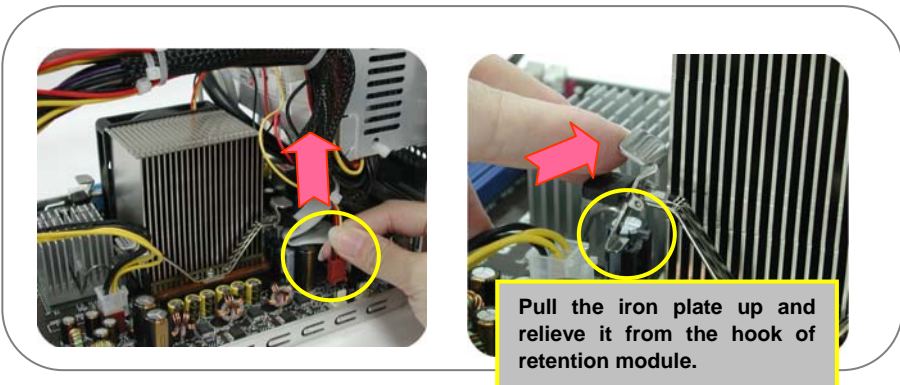
### 3.3.1 Taking Cooler out

Before installing hard disk, floppy drives and DVD-RW into the XC cube chassis, let's take the cooler out from chassis first.

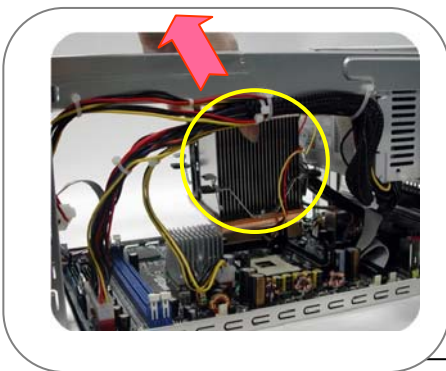
1. Take the screws off the chassis and then take the Drives Cage out.



2. For **EZ65 XC cube PC**, Before taking AOpen-made Cooler out, please disconnect its connector first. After that, unfasten AOpen-made Cooler.

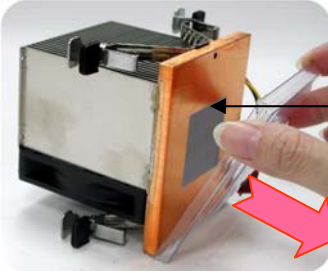


Take the cooler out of the chassis. Put it aside for later use then.



### Why AOpen Fan Cooler ?

After thermal testing and confirmation, we have chosen this model of AOpen cooler for fitting with XC cube. It has been tested with optimized air-flow and excellent heat dissipation function for our XC cube system. It is highly recommended **not** to use other branded cooler to go with XC cube.



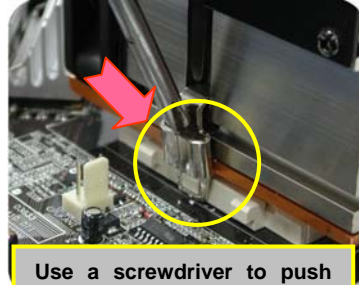
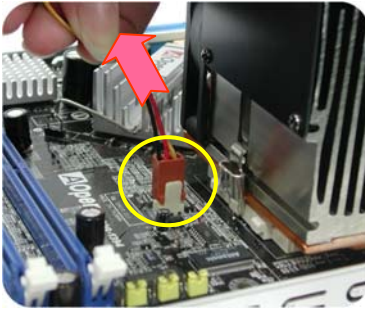
The bottom of Cooler had been protected with a plastic cover when shipped. Please take it off when you want to put the cooler on CPU.



**Where's the direction ?**

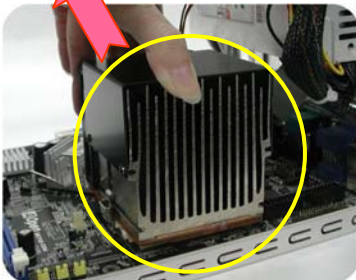
It would be a lot of problem if we have had installed the devices in the incorrect direction. Therefore, please kindly pay attention to the FRONT mark shown in the picture.

3. For **EZ18 XC cube PC**. Before taking AOpen-made Cooler out, please disconnect its connector first. After that, unfasten AOpen-made Cooler.



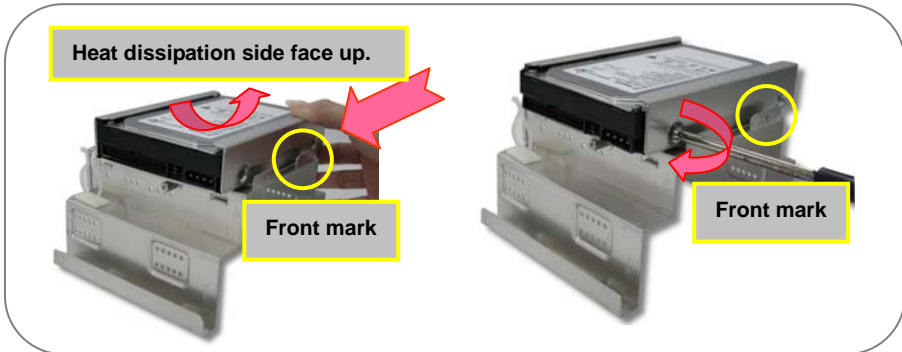
Use a screwdriver to push the iron lock down to relieve it from the socket.

Take the cooler out of the chassis. Put it aside for later use then.



### 3.3.2 Install Hard disk

After taking out Cooler, let's focus on Installing **Drives Cage**. Slide hard disk into the Drives Cage, and use screw no. 3 to screw it firmly to the cage.



### 3.3.3 Install Floppy Drive

1. Slide in the floppy drive as shown. Use screw no.2 to screw the 3<sup>rd</sup> and 6<sup>th</sup> hole separately.



### 3.3.4 Install DVD-RW Drive

1. Slide in the DVD-RW drive. Use screw no.2 to screw the DVD-RW firmly.



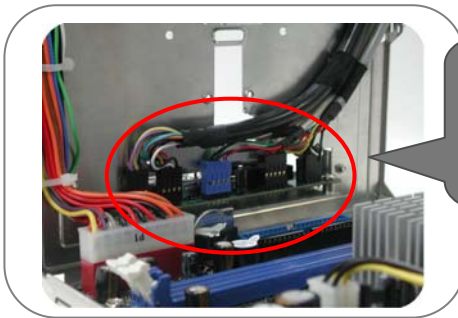


**Don't mess up screws!!**

Generally there are special screws for hard disk in the parcel when you buy a new hard disk. There will be no harm done using those screws. If no screws are attached, use those packed in the accessory parcel. Make sure to use the NO.2 screws. (See page 6)

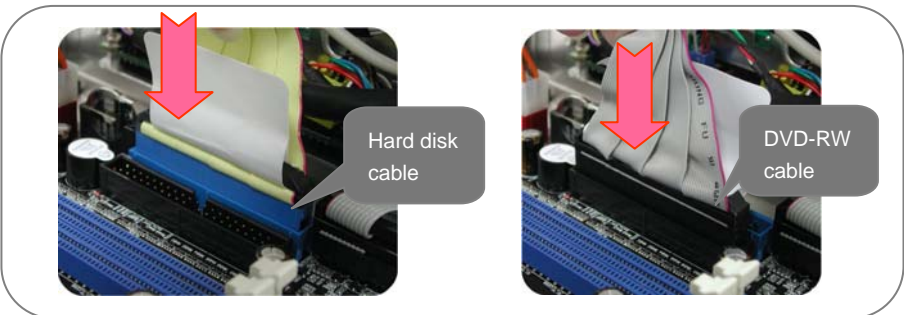
## 3.4 Cables and Connectors

1. Before connecting necessary cables and connector to motherboard, you may find most of the I/O panel connectors (IEEE1394, USB, Front Audio and S/PDIF) both at front panel and back panel on motherboard have had been connected properly as shown.



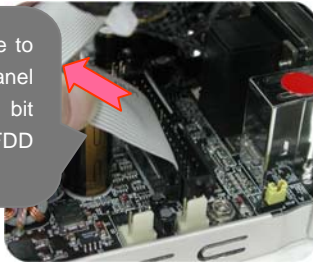
I/O connectors have had been inserted previously.

2. Connecting floppy cable, hard disk and DVD-RW cable on motherboard for later use.

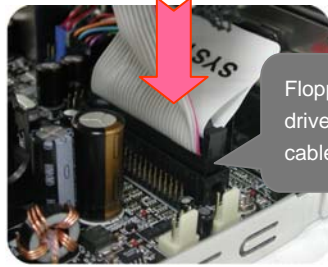




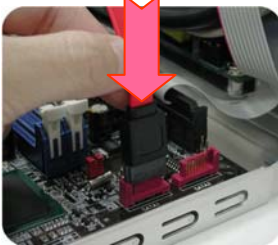
You might have to pull Front Panel Cable aside a bit to find the FDD connector.



Floppy drive cable



3. If you happen to have Serial ATA hard disk, this motherboard comes with Serial ATA connectors onboard as well. With EzColor design, you may easily find out the correct flame-red cable with the correct header. You may kindly install the Serial ATA cables onto Serial ATA headers.



Serial ATA Cables



As Serial ATA hard disk comes with different power connector, please use our bundled SATA power connector to connect the hard disk.



Power Connector

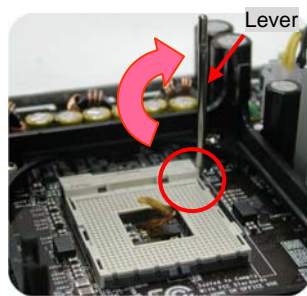
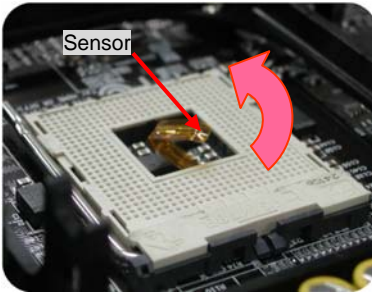


### Where is Pin1 ?

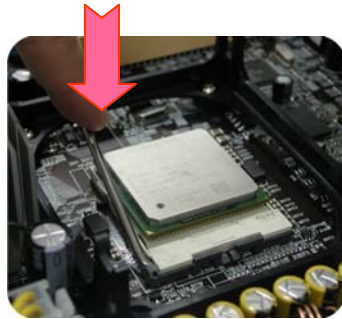
When connecting IDE cables, bear in mind to aim the red side of IDE cables at the first pin of the socket where there's an arrow mark on the motherboard. If you are still not sure, please refer to your motherboard manual.

### 3.5 Install CPU, CPU Cooler and CPU Fan Connector

1. Erect sensor up a bit (it might have been folded while shipped in with Cooler on top of it). After that, erect CPU socket lever up.



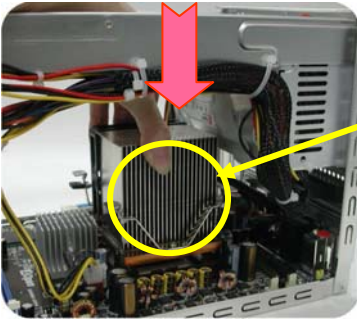
2. Install CPU onto the CPU bracket. Press the lever back to CPU socket.



3. And it's done.

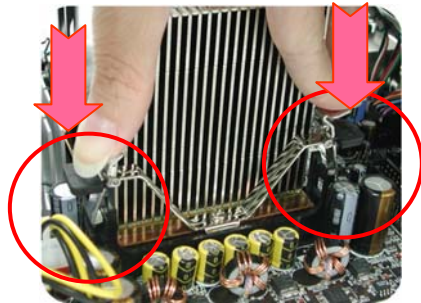
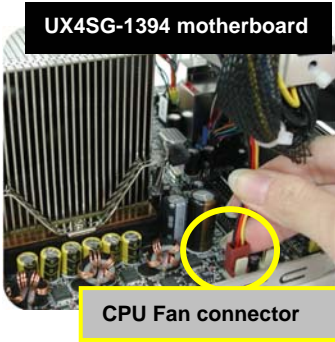


4. **For EZ65 XC cube.** Put CPU cooler firmly onto the CPU retention module.

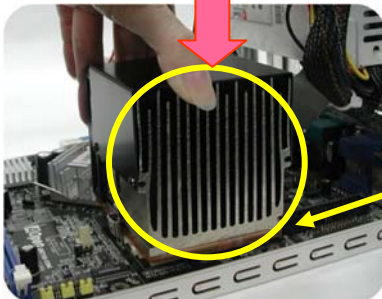


The vertical side of the Cooler must be faced to this side as shown.

Connect the fan cable onto the CPU FAN connector onboard. Evenly press the iron plate downward till you hear a “clip” sound

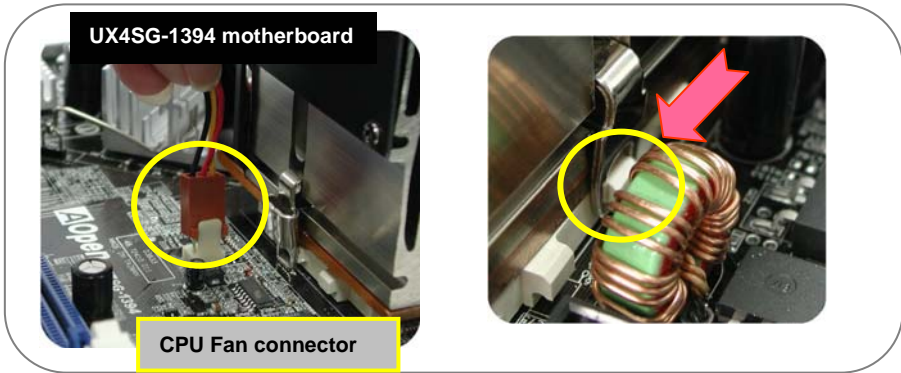


5. **For EZ18 XC cube.** Put CPU cooler firmly onto the CPU retention module.

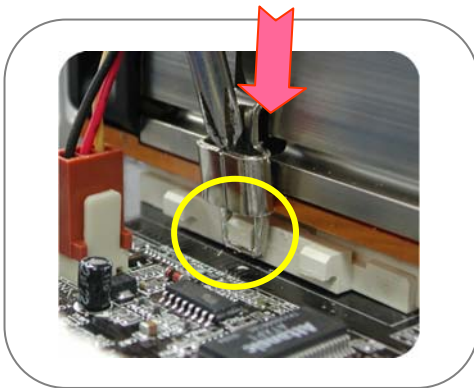


The vertical side of the Cooler must be faced to this side as shown.

Connect the fan cable onto the fan connector onboard. Lock the right iron plate of cooler to the socket as shown.

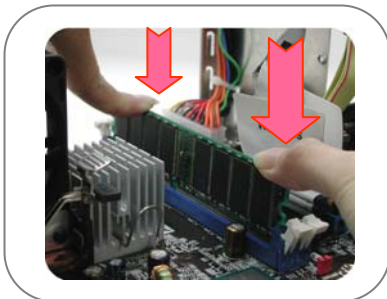


Use screwdriver to press the iron plate downward till the iron plate is firmly hooked to socket.



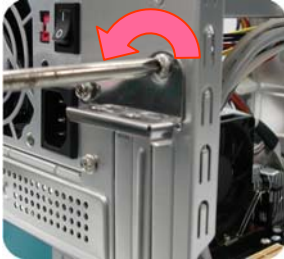
### 3.6 Connecting DRAM to DIMM Sockets

1. DIMM socket is designed in Sky Blue color, which is very easy to recognize. Install memory module evenly into DIMM.

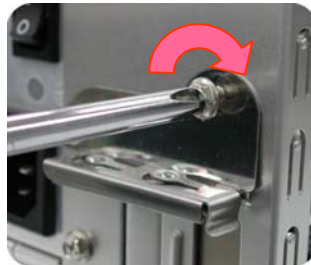
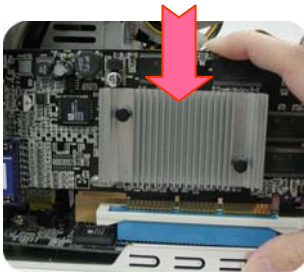


### 3.7 Insert AGP card or PCI card to motherboard

1. If you happen to have AGP card or PCI, you may insert them onto the AGP slot as shown. Screw the iron plate off the back panel, and use the screwdriver to pry it out.



2. After that, please plug in the AGP card. Screw the iron lock on top of the AGP slot will do.

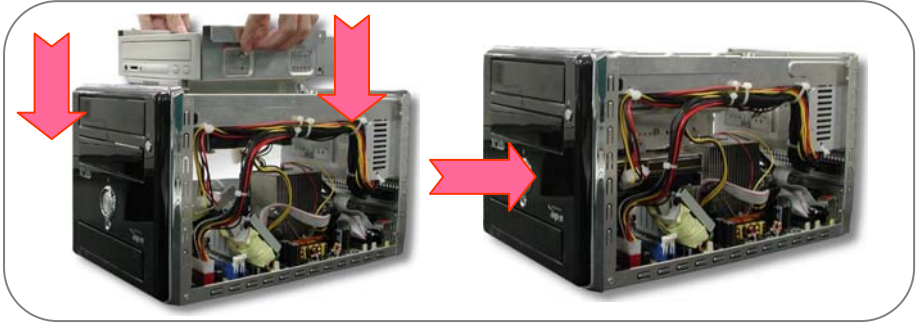


3. AGP card is done!



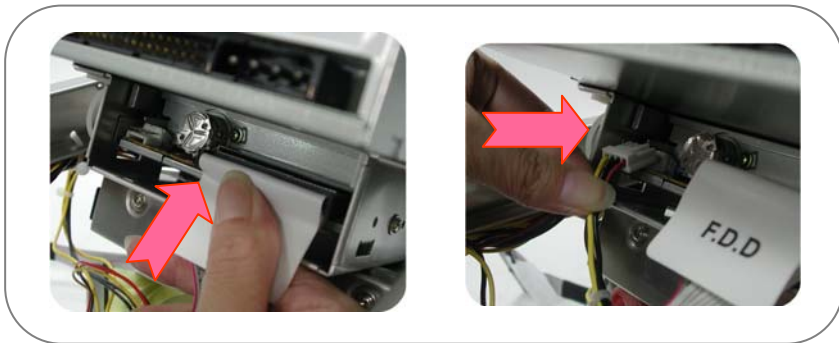
### 3.8 Putting Drives Cage back to Chassis

1. Putting all cables aside, and assemble the Drives Cage back to the chassis from top of the chassis.



2. Lift the Drive Cage up at 45 degree for better installing DVD-RW and Floppy Drive.

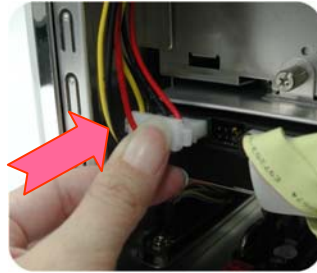
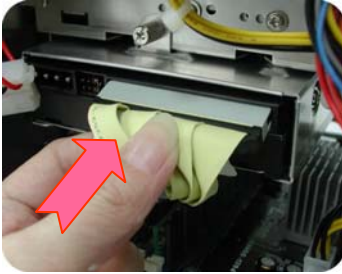
Connecting Floppy drive and its power cord to Drive Cage:



Connecting DVD-RW drive/power cord to Drive Cage:



Connecting hard disk/power cord to Drive Cage:



Lock the Drives Cage with screw No. 2.



## 3.9 All Set

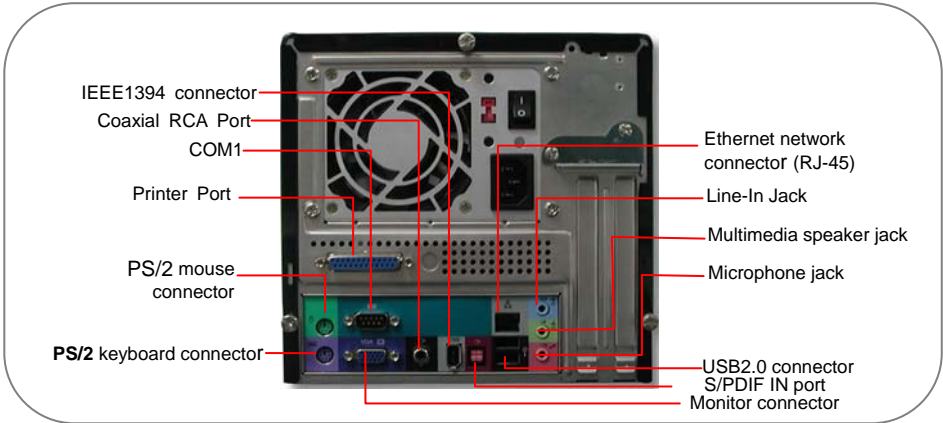
1. Assemble the housing back to the chassis. Screw the chassis back.



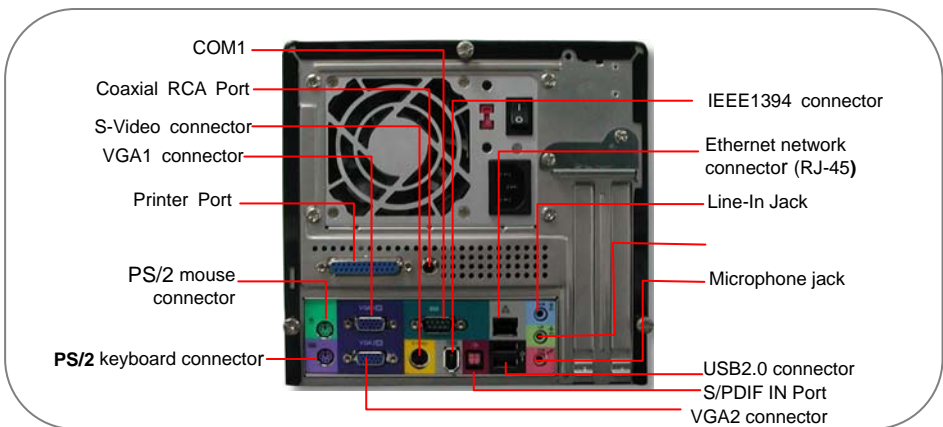
### 3.10 How about all external peripheral?

- Let's take a look at the Front Panel and Back Panel ports.

#### Back Panel – EZ65 XC cube

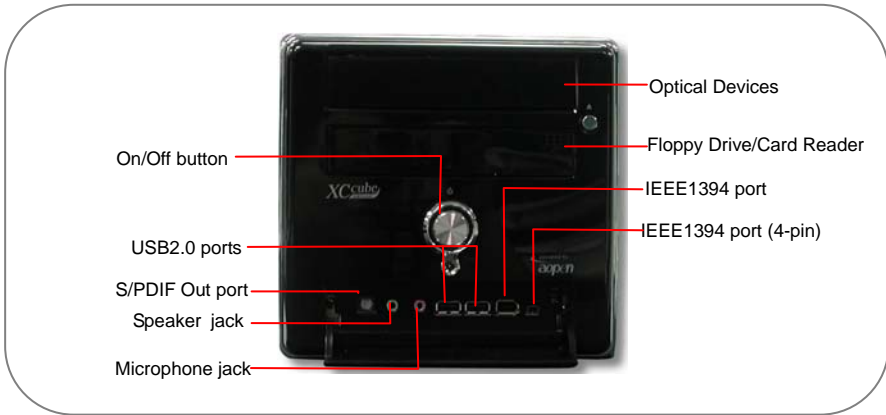


#### Back Panel – EZ18 XC cube





## Front Panel



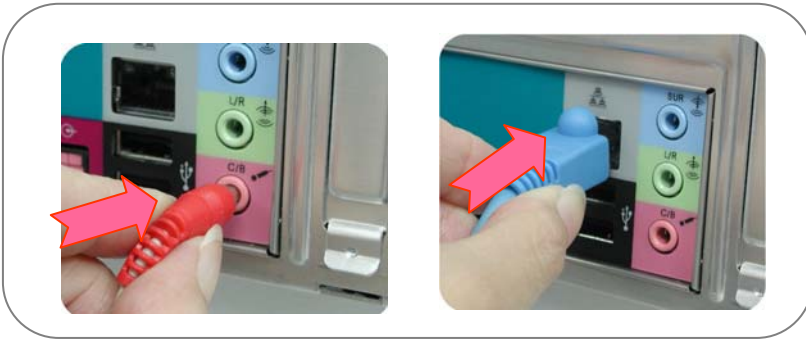
2. Connect **keyboard and mouse**.



3. Connect **monitor and tighten screws**



4. Connect **Microphone** (speaker or earphone) and **network cable**



5. Set proper **voltage** and connect **power supply cable**.

The voltage supplied by power outlet differs from countries or areas you dwell in. If the outlet is supplied by 110V, please set the switch to 115V. If the outlet is supplied by 220V, please set the switch to 230V.



Connect Power Cord Cable finally.



**[Note]**

Handwriting practice lines consisting of 12 horizontal rows of a wavy, dashed line pattern.



## Chapter 4 Turn On The Power!

### 1. Turn on the power.

Ok, all cables have been properly connected. Are you getting confident of assembling a computer by yourself? The final stage is to turn on the power to check what you have done so far. Now take a short break and have a drink. Then turn on the computer to see how things are going.



### 2. Set BIOS (Basic Input/Output System).

Not long after activating the power, you'll expect to see the following screen and a line of message saying " Press DEL to enter SETUP" at the bottom of the screen. Please press **Delete** button:



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

L210 R0.05 July.16.2003 AOpen Inc.

Main Processor : AMD Ahtlon(tm) XP 3000+  
Memory Testing : 491520K OK + 32M Shared Memory

DDR Dual Channel Enabled

	Default	Setting	Default	Setting
CPU	100MHz	166MHz	1.650V	1.650V
DRAM	333MHz	333MHz	AUTO	AUTO
AGP	66.67MHz	66.67MHz	1.53V	1.53V
PCI	33.33MHz	33.33MHz	3.30V	3.30V

Primary Master : ST30641A 3.01  
Primary Slave : None  
Secondary Master : None  
Secondary Slave : AOpen CD-RW CRW1232PRO 1.2G

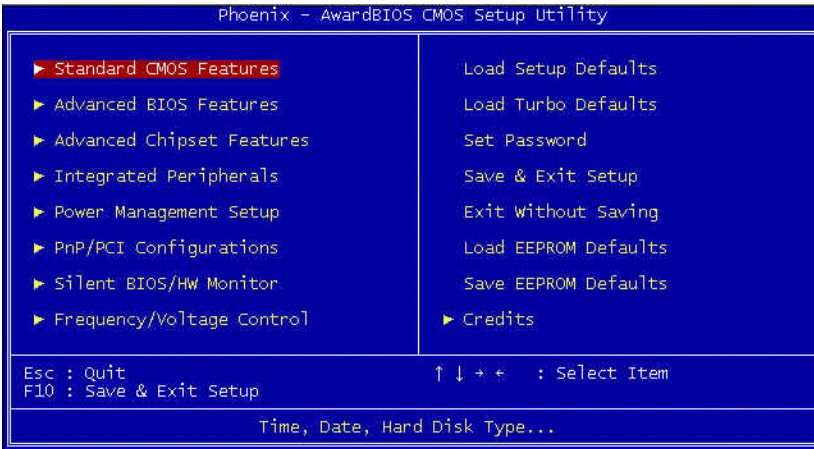
powered by aopen

Press DEL to enter SETUP ESC to skip memory test  
07/16/2003 nVidia GeForce 6461BABAC-00

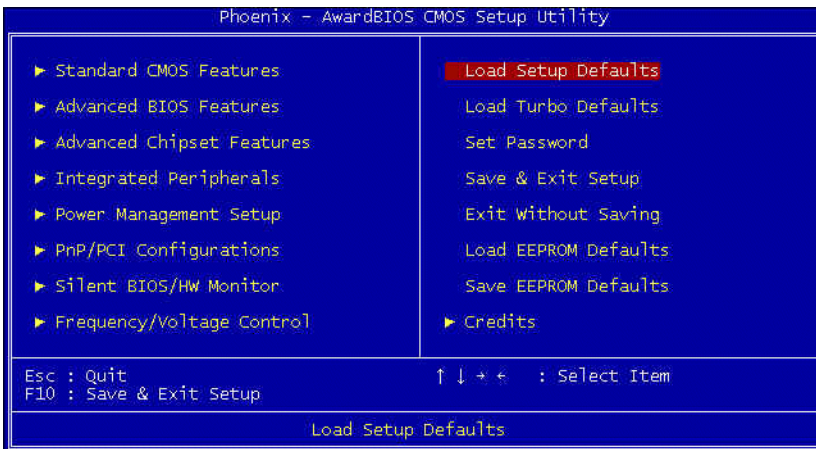
XCcube edition

www.aopen.com.tw

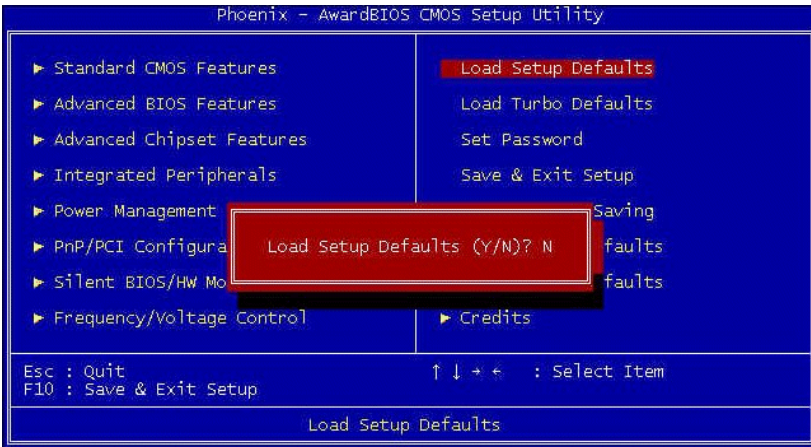
After pressing **Delete**, you'll see the following BIOS setup:



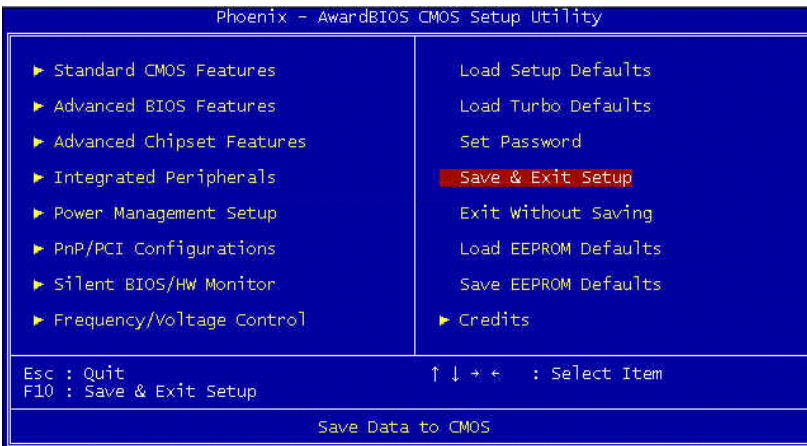
Now, you can move the cursor by using direction keys on the keyboard. Move the cursor to the option item "Load Setup defaults" and press **Enter**



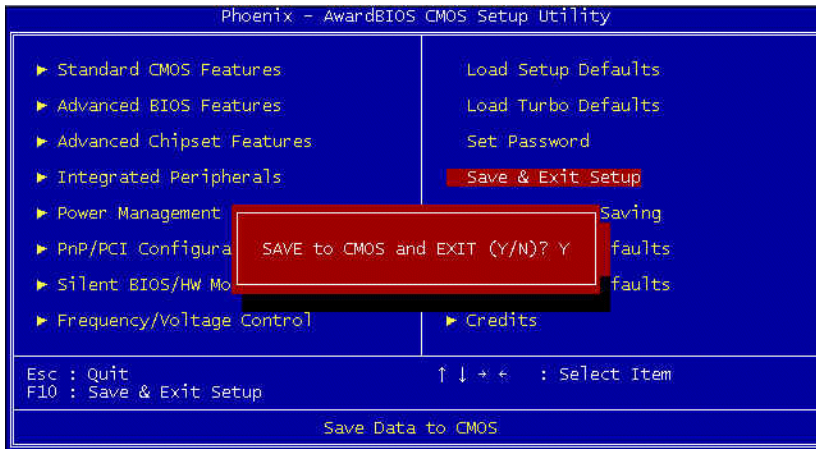
Then, the following dialogue screen will pop up to confirm the default BIOS values. Please press "Y" to confirm and then press **Enter**



Finally, move the cursor to "Save & Exit Setup" and press **Enter** to save the parameters and exit BIOS setup.



At the same time, type "Y" in the dialogue box and press **Enter** to exit.



Now everything is perfectly finished!!

# Chapter 5 Wonderful Feature Provided From AOpen

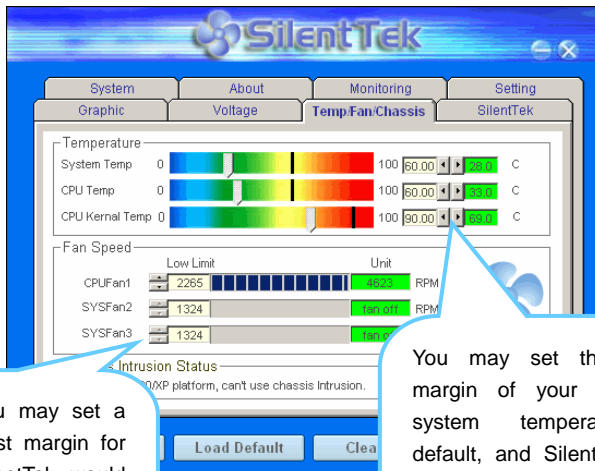
Except its unique appearance and its flexibility in moving, XC cube is equipped with many creative and practical features. Simply introduce one of our wonderful features -- SilentTek.

## 1. **SilentTek** Noise Reduction Technology



To get rid of unpleasant noise of the PC, SilentTek is definitely the best helping hand you could find. Instead of adding fans onto chipsets or any components with temperature getting higher with higher frequency given, SilentTek allows you to monitor your system temperature and control CPU fan and system fan or even CD-ROM speed control.

In "**Temp/Fan/Case**" page, you may get aware of the current temperature of CPU and the heat inside chassis. Also, you can check if fans are running properly.

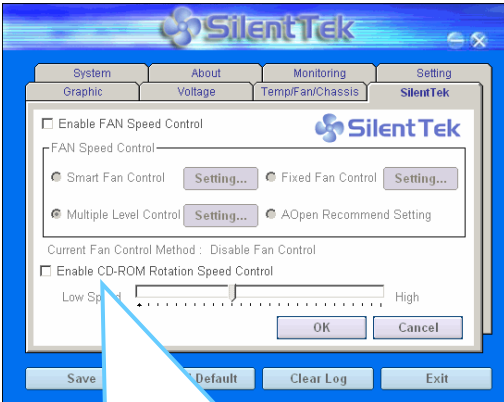


Of course, you may set a defaulted lowest margin for your fans. SilentTek would also pop up a message box to alarm you when the fan is rotating slower than this specified speed.

You may set the highest margin of your CPU and system temperature as default, and SilentTek would pop up a message box to alert you with alarm when the temperature goes beyond the specified margin.



The following page is surely the most important part of this utility. You may control the rotation speed of specific fans that you have got the options inside in this page.



1. **Smart FAN Control:** This is the default setting of SilentTek and can be used for any branded computer housing.
2. **Fixed FAN Control:** Under this setting, a desired fan speed is set fixed when operating.
3. **Multiple Level Control:** This is the most versatile setting that allows you to set fan speed in relation to temperature.
4. **AOpen Recommend Setting:** This setting is designed specifically for AOpen housing. A series of lab tests were conducted under the real world scenario to determine optimum fan speed to reduce noise level within CPU working condition and temperature.

**CD-ROM Rotation Speed Control:** by enabling the CD-ROM Rotation Speed Control, you can adjust the rotation speed of your CD-ROM. When you set the speed to high level, the CD-ROM will work at its fastest speed and it will run at basic required speed while you set the value to low speed.



**Note:**

Due to hundreds different brands of fan on the market, inaccuracy may happen in some cases when you had your rotation speed adjusted. It is still under the criterion, but please rest assured that it won't cause any problem to your system.

## Postscripts

First of all we would like to congratulate your successful computer DIY. Now you can install an operation system and some application software based on your personal requirements. However, these are beyond discussions of this manual which mainly aims to teach you correct understanding of DIY skills and enable you to assemble a computer step by step. As for the application part, you can find all varieties of books with comprehensive introduction in bookstores.

Having a computer of your own is a beginning to the era of information. If this computer is assembled yourself, it is uniquely meaningful to you. Through our introduction, you have learned the key components a computer needs and what details you need to pay attention to when assembling. We sincerely hope every customer who wants to assemble a computer on his or her own has a wonderful beginning!

*To learn more about AOpen XC cube, visit us at [xc.aopen.com.tw](http://xc.aopen.com.tw)*

*P/N:49.EZ101.0A1 Doc.no:EZ65EZ18B-OL-E0309A*

## Appendix

AOpen XC cube comes with two versions of motherboard for your selection, they are separately UX4SG-1394 (EZ65) and UK79G-1394 (EZ18). To get to know the details of them, please refer to their respective information as below.

### UX4SG-1394 Motherboard

#### Setting CPU Voltage and Frequency

##### Full-range Adjustable CPU Core Voltage

This motherboard supports CPU VID function. The CPU core voltage will be automatically detected and the range is from 1.1V to 1.85V. It is not necessary to set CPU Core Voltage.

##### Setting CPU Frequency

This motherboard is CPU jumper-less design, you can set CPU frequency through the BIOS setup, and no jumpers or switches are needed.

Northwood CPU	CPU Core Frequency	FSB Clock	System Bus	Ratio
Pentium 4 1.8G	1800MHz	100MHz	400MHz	18x
Pentium 4 2.0G	2000MHz	100MHz	400MHz	20x
Pentium 4 2.2G	2200MHz	100MHz	400MHz	22x
Pentium 4 2.2G	2200MHz	133MHz	533MHz	16x
Pentium 4 2.26G	2260MHz	133MHz	533MHz	17x
Pentium 4 2.4G	2400MHz	100MHz	400MHz	24x
Pentium 4 2.4G	2400MHz	133MHz	533MHz	18x
Pentium 4 2.53G	2530MHz	133MHz	533MHz	19x
Pentium 4 2.6G	2600MHz	200MHz	800MHz	13x
Pentium 4 2.66G	2660MHz	133MHz	533MHz	20x
Pentium 4 2.8G	2800MHz	133MHz	533MHz	21x
Pentium 4 2.8G	2800MHz	200MHz	800MHz	14x
Pentium 4 3.06G	3000MHz	200MHz	800MHz	15x
Pentium 4 3.20G	3200MHz	200MHz	800MHz	16x

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

**Note:** Intel 865G chipset don't support Willamette or Celeron (0.18u) processors. Northwood processor would detect the clock ratio automatically, you may not be able to adjust the clock ratio in BIOS manually.

### DIMM sockets

UX4SG-1394 allow you to install 128-bit dual channel DDR400, DDR333 or DDR266 memory up to 2GB. Only non-ECC DDR RAM is supported. Please install suitable modules; otherwise serious damage may occur on memory sockets or you RAM modules. **Please note that when you install DDR333 memory module and have your CPU FSB set at 800MHz, the memory can only run with the speed of DDR320. It is limitation of Intel.** For other limitation of CPU types, please see the table below.

Item	DDR266	DDR333	DDR400
CPU FSB 400MHz	V	X	X
CPU FSB 533MHz	V	V	X
CPU FSB 800MHz	V	⊖	V



### 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.



Normal  
(default)



Clear CMOS

Pin 1



### JP28 Keyboard/Mouse Wakeup Jumpers

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.



Pin 1

36



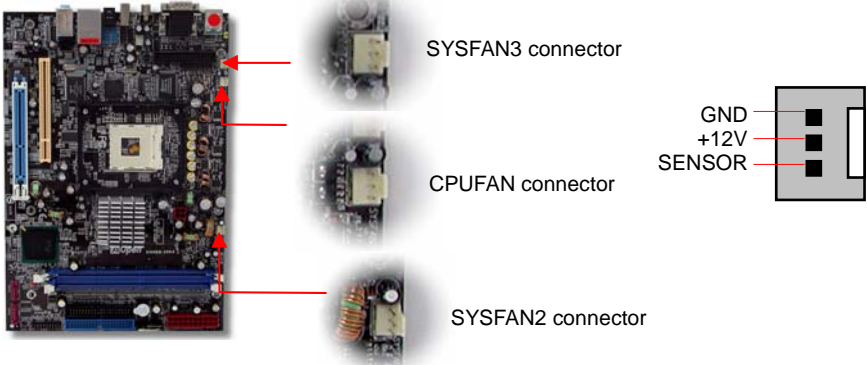
Disable  
(Default)



Enable

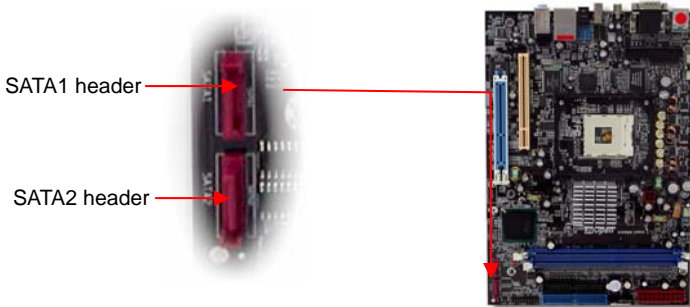
### CPU and System Fan Connector

Plug in the CPU fan cable to the 3-pin CPUFAN1 connector. If you have chassis fan, you can also plug it on SYSFAN2 or SYSFAN3 connector.



### Connecting Serial ATA Connector

To connect a Serial ATA disk, you must use a 7-pin serial ATA cable. Connect two ends of the serial ATA cable to the serial ATA header on the main board and the disk. Like every other traditional disk, you also have to connect a power cable. Please note that it is a jumper free implement; you don't need to set jumpers to define a master or slave disk. When connecting two serial ATA disks, the system will automatically take the one connected to "Serial ATA 1" header as a master disk.



## UK79G-1394 Motherboard

### Full-range Adjustable CPU Core Voltage

This motherboard supports CPU VID function. The CPU core voltage will be automatically detected and the range is from 1.1V to 1.85V. It is not necessary to set CPU Core Voltage.

### Setting CPU Frequency

This motherboard is CPU jumper-less design, you can set CPU frequency through the BIOS setup, and no jumpers or switches are needed.

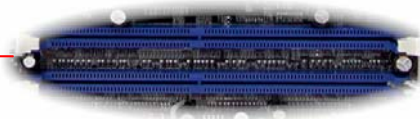
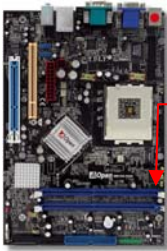
CPU	CPU Core Frequency	EV6 Bus Clock	Ratio
Athlon 1G	1GHz	200MHz	10.0x
Athlon 1.1G	1.1GHz	200MHz	11.0x
Athlon 1.2G	1.2GHz	200MHz	12.0x
Athlon 1.3G	1.3GHz	200MHz	13.0x
Athlon 1G	1GHz	266MHz	7.5x
Athlon 1.13G	1.13GHz	266MHz	8.5x
Athlon 1.2G	1.2GHz	266MHz	9.0x
Athlon 1.33G	1.33GHz	266MHz	10.0x
Athlon 1.4G	1.4GHz	266MHz	10.5x
AthlonXP 1500+	1.3GHz	266MHz	10.0x
AthlonXP 1600+	1.4GHz	266MHz	10.5x
AthlonXP 1700+	1.46GHz	266MHz	11.0x
AthlonXP 1800+	1.53GHz	266MHz	11.5x
AthlonXP 1900+	1.6GHz	266MHz	12.0x
AthlonXP 2000+	1.667GHz	266MHz	12.5x
AthlonXP 2100+	1.73GHz	266MHz	13x
AthlonXP 2200+	1.80GHz	266MHz	13.5x
AthlonXP 2400+	2.0GHz	266MHz	15x
AthlonXP 2600+	2.13GHz	266MHz	16x
AthlonXP 2700+	2.16GHz	333MHz	13x
AthlonXP 2800+	2.25GHz	333MHz	13.5x
Duron 800	800MHz	200MHz	8.0x
Duron 850	850MHz	200MHz	8.5x
Duron 900	900MHz	200MHz	9.0x
Duron 950	950MHz	200MHz	9.5x
Duron 1G	1GHz	200MHz	10.0x
Duron 1.1G	1.1GHz	200MHz	11.0x

**Note:** You have to adjust CPU FSB in BIOS after installing CPU; otherwise CPU will run at default speed of CPU FSR value

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

## DIMM sockets

This motherboard supports DDR400/333/266 with Maximum capacity up to 2GB (When enabling VGA onboard, memory can run max. up to 333MHz). Only Non-ECC DDR RAM is supported, otherwise, it will cause serious damage on memory sockets or SDRAM module. For over clocking purpose, you can adjust memory voltage in BIOS from 2.5V to 2.65V.



DIMMB1  
DIMMA1

## 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.



Normal  
(default)



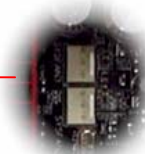
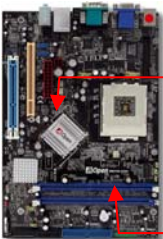
Clear CMOS

Pin 1



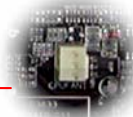
## CPU and System Fan Connector

Plug in the CPU fan cable to the 3-pin CPUFAN1 connector. If you have chassis fan, you can also plug it on SYSFAN2 or SYSFAN3 connector.

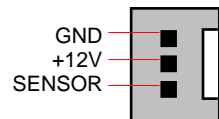


SYSFAN3 connector

SYSFAN2 connector

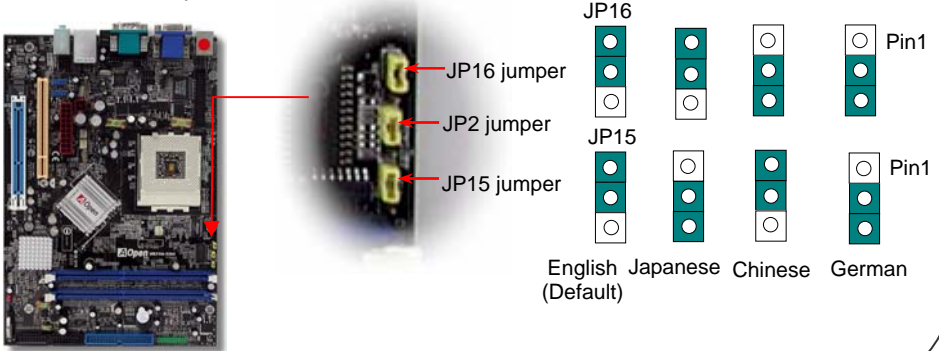


CPUFAN connector



**JP15/JP16 Dr. Voice Language Select Jumpers**

Dr. Voice is a great feature, which can identify the problems you may encounter in the operating system. It can clearly “tell you” whether the problem is caused from components or improper installation such as CPU, memory module, VGA, PCI add-on card, FDD, HDD or keyboard. Dr. Voice provides four language versions: English, German, Japanese and Chinese. You can select your preferred language by JP15 & JP16 jumpers. However, you may also set JP2 to choose making out voices from buzzer or speaker.



**JP2 Speaker Output Jumper**

This motherboard comes with another considerate option that allows you to turn off the voice from buzzer and speaker. You can choose not to be bothered by the warning made from Dr. Voice when it detects any error in operating system. You may also set JP2 to choose sending out voices from buzzer or speaker.

