



Table of Contents

I. GettingStart

1.1 A Thank-you Note Before You Get Started.....	4
1.2 The Features Of This Manual.....	5
1.3 Preliminary Tools.....	6
1.4 What's In The Box?.....	7
1.5 Accessory.....	8

II. Start To Assemble

2.1 Features of XC Cube.....	12
2.2 Starting Installing.....	13
2.3 Disassemble the power modulus.....	15
2.4. Disassemble the Driver bays.....	16
2.5 Install the HDD driver bay.....	17
2.6 Install Serial ATA hard disk.....	18
2.7 Slim Optical Drive Installation.....	19
2.8 Memory Installation.....	21
2.9 Install the Hard Disk cable to the motherboard.....	22
2.10 Install the Optical driver cable to the motherboard.....	22
2.11 Install CPU on Socket 479.....	23
2.12 Install CPU Cooler and CPU Fan Connector.....	23
2.13. Driver bays Installation.....	24
2.14 Install the Hard Disk cable and power cord.....	25
2.15 Install the Optical driver cable and power cord.....	25
2.16 Install the power modulus.....	26
2.17 Install the front panel.....	26
2.18 Install AGP/PCI/PCI-Express additional cards.....	27
2.19 Connect Keyboard and Mouse.....	28
2.20 Connect Monitor and tighten screws.....	28

2.21 Connect Microphone (Speaker or Earphone) and Network cable.....28

III. Turn On The Power

3.1 Turn on the power.....32
3.2 Set BIOS (Basic Input / Output System).....32
Postscripts.....36
Appendix.....37
Install OS into Serial ATA Hard Disk for UX661 Series.....37
RAID Driver Installation Guide for UX661 Series.....38
Introduction to Jumper Settings and Other Connectors.....40

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I. Getting Start



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 XC Cube. 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 XC Cube offers.



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:

Note Mark



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

Warning Mark



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

Force direction



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

Front Indicator



The blue arrow toward the Front Panel of the chassis that is easy to find out the relative position on each picture.



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 tool 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. Besides, a flat screwdriver is also essential for installing CPU on socket 479.



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.



1.4 What's In The Box?

Open the XC Cube box, you will find components as follow:

- ▶ XC Cube chassis / Drives Cage
- ▶ Motherboard (Pre-installed on XC Cube chassis.)
- ▶ AC to DC Adaptor (Optional)
- ▶ CPU cooler
- ▶ XC Cube User's Manual
- ▶ XC Cube "Easy Installation Guide"
- ▶ Accessory (In the accessory box)



XC Cube chassis / Drives Cage



AC to DC Adaptor (Optional)



CPU cooler



1.5 Accessory

Besides above-mentioned main component, you may see the attached accessory as below:

Fixed screw: The accessory package includes three kinds of the fixed screw for use.

1



The first kind of the screw is shorter and the screw head is flat. It's for fixing the slim ODD on the driver bays.

2



The second kind of the screw is longer and the screw head is flat. There are some lines in front of the screw and near the screw head is smoothly. It's for fixing the HDD on the driver bays.

3



The third kind of the screw is longest and the screw head is semicircle. It's for locking the adaptor of the rear slim ODD.

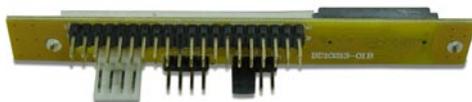
► **HDD cable:** The IDE cable of the 40 pin connector applies to connect with the IDE HDD.



► **ODD cable:** The IDE cable of the 40 pin connector applies to connect with the IDE ODD.



► **ODD adaptor:** This kind of the adaptor can transform slim ODD cable connector of the XC Cube Mini to the specifications of the standard IDE cable connector. It applies to connect with the IDE ODD cable.





► **ODD front panel and the same color label:** For the more beautiful appearance of the XC Cube Mini, we design the same color for the slim ODD front panel and the same color label of the XC Cube Mini. You can install it to the slim ODD to get the identical color tones and appearance.



If your slim ODD is GBAS standard specifications panel, you can exchange the panel of the XC Cube Mini. If it's not, then you can use the same color label to paste on the front panel to get the most beautiful outlook.



II. Start To Assemble



2.1 Features of XC Cube

AOpen XC Cube Mini, designed as a Mini-PC, provides 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 Mini 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 80% 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.



2.2 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.





If you don't want to install the slim ODD, you don't need to open the front panel of the XC Cube Mini.



When you start to take the Front Panel apart, please pay attention to the rib that is located at top of the both side panel. As the left picture shown, the first you can pull it apart toward the both side, then softly pull it away. Finally you can pull the Front Panel apart. Be careful not to break the rib.

3

After you open the front panel from the top of case, you can slide the front panel off.





2.3 Disassemble the power modulus

1

The first turn the screw off from the center of the power modulus in the case. Pull away the fixed clamp beside the modulus gently, then raise it about 30 degree. Finally take it out from the top of the case.



2

There are many connectors link with the motherboard in the power modulus of the XC Cube Mini. To avoid the breakdown, please don't disassemble the wire in the power modulus. Put the wire on the left side in the case, then start to install.





2.4. Disassemble the Driver bays

1

Turn the front panel of the XC Cube Mini face to myself. The first, turn the screw off in the driver bays, then push the driver bays backward, until the front driver bays away the fixed slot of the front panel.



2

Pull away the fixed clamp beside the driver bays gently, then raise it about 30 degree. Finally take driver bays out.

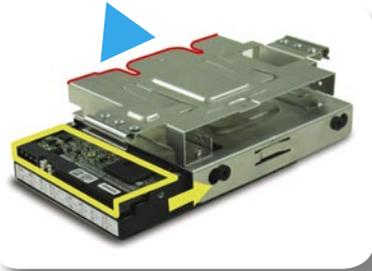




2.5 Install the HDD driver bay

1

As shown in the picture, take the faceplate of the HDD driver bay to face up, then push to the below space of the driver bay.



Pay attention to the red line as shown, it means the red line side must be face to the front XC Cube. The correct installation as shown, for linking the cable easily, the cable of the HDD driver bay must be located at left side of the driver bay.

2

Take the screw no.2 from the XC Cube package to screw to the four screw hole.

Please pay attention, don't break the rubber cushion. This is the special design from the AOpen, when you use the XC Cube Mini, you will always work quietly.

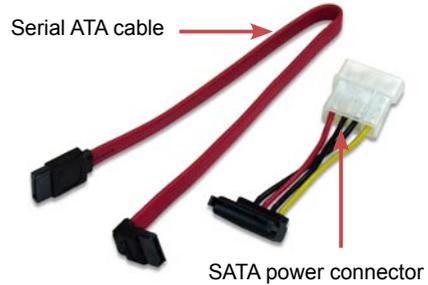




2.6 Install Serial ATA hard disk

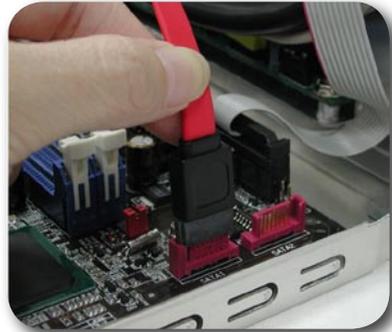
1

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



2

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.





2.7 Slim Optical Drive Installation



If you don't want to install the Slim Optical Drive, you can pass this step as below.



XC Cube Mini package include GBAS Slim Optical Drive faceplate, if you need to exchange it, you can follow the below steps.



Eject the disc tray by poking the enclosed thin stick into the eject hole.

Pull the disc tray out gently.



Take the disc tray face up, and then gently slide the faceplate of the disk tray off as the arrow shows. Please don't push too much to break it.

As shown in the picture, place the faceplate into the disk tray with a click to set up it complete.

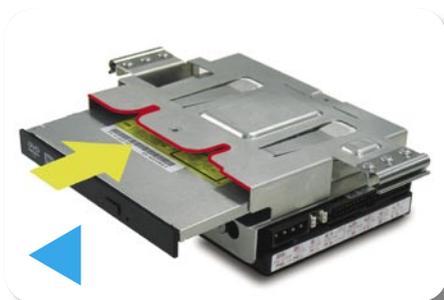


For another way to see the relative position, as the shown help you to correct install it.

- 1** As shown in the picture, take the XC Cube Mini enclosed adaptor, use the screw no.3 to screw to the connector of the rear slim ODD.



- 2** Take the slim ODD place to the top of the driver bays; please pay attention to the red line, the front panel of the slim ODD must be face to the front panel of the XC Cube Mini.



- 3** Use the XC Cube Mini enclosed screw no.1, let slim ODD lock to the top of the driver bays.



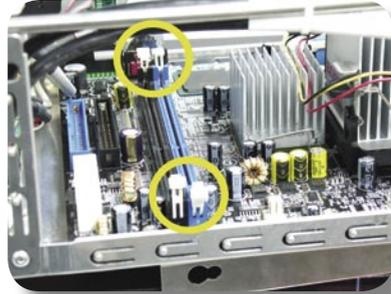


2.8 Memory Installation

For easy to recognize, the memory slot of the motherboard use blue color design, please install the memory into the slot.

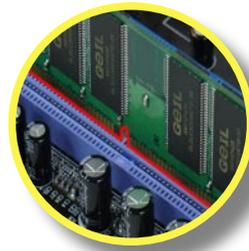
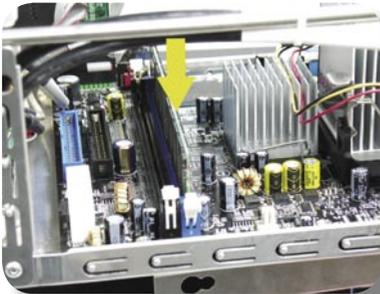
1

Pull the fixed shaft of the memory slot both side out.



2

Install the memory along with the slot, pay attention to the memory and memory slot, they both have “avoid wrong installation” setting. If you install to the wrong way, that can't be setting.



3

When you install the memory along with the slot, the both side fixed shaft will flip back for fix the memory.





2.9 Install the Hard Disk cable to the motherboard

For the XC Cube Mini special design, before you install the driver bays, you can connect the HDD driver bay cable and IDE hander of the Motherboard. You can refer to the “Easy Installation Guide” to understand the position. Please pay attention to the red cable should aline with the pin 1 of the connector.



2.10 Install the Optical driver cable to the motherboard

For the XC Cube Mini special design, before you install the driver bays, you can connect the ODD driver bay cable and IDE hander of the Motherboard. You can refer to your “Easy Installation Guide” to understand the position. Please pay attention to the red cable should aline with the pin 1 of the connector.



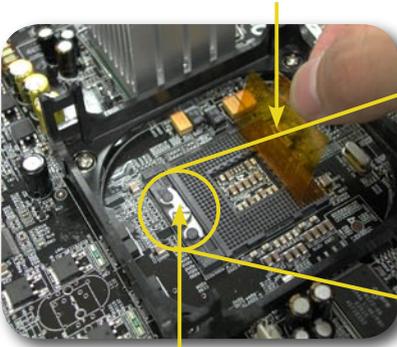


2.11 Install CPU on Socket 479

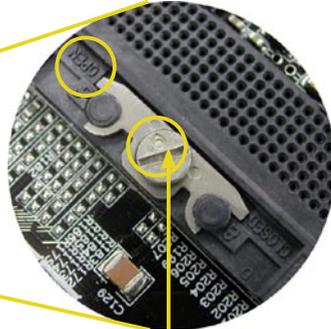
1

Remove plastic membrane from CPU socket and make sure the drop-shaped indicator on socket screw aims at open direction (the default is open).

Plastic membrane



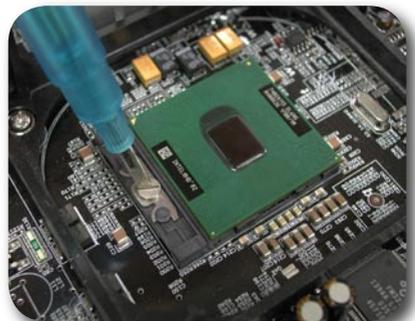
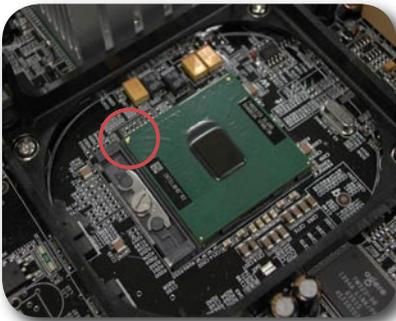
Socket screw



Drop-shaped indicator

2

Match socket Pin 1 and golden arrow, and gently put CPU onto CPU socket. Then lock socket screw clockwise to finish CPU installation.



2.12 Install CPU Cooler and CPU Fan Connector

There is a certain direction for the installation of cooler for optimized air-flow performance within chassis. For details, please refer to "Easy Installation Guide".



2.13. Driver bays Installation

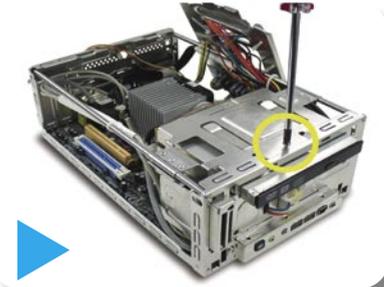
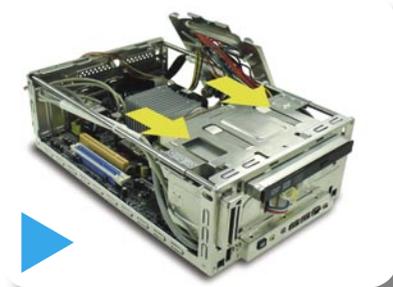
1

Let the front driver bays downward about 30 degree, pull the both side fixed clamp away, to combine with the fixed beam of the XC Cube Mini both side case.



2

Push the driver bays to the front case, until combine with the fixed seat of the front panel in the case, then screw it tightly for fix the driver bays.





2.14 Install the Hard Disk cable and power cord

1

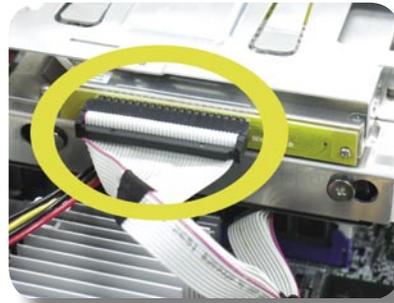
As shown in the right picture, it's a vertical view of the XC Cube Mini, the cable connector of the HDD place to the left side of the case, connect with the cable and power cord. If the position is not correct, you won't set up the cable and power cord.



2.15 Install the Optical driver cable and power cord

1

As shown in the picture, take the power cord link to the power hander of the adaptor, then link to the ODD cable. Please pay attention to the red cable should connect with the pin 1 of the connector.

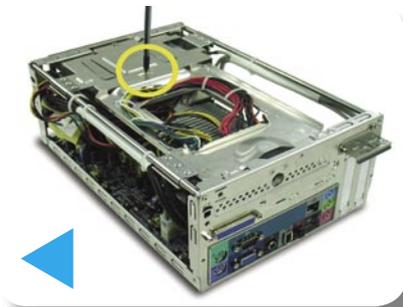
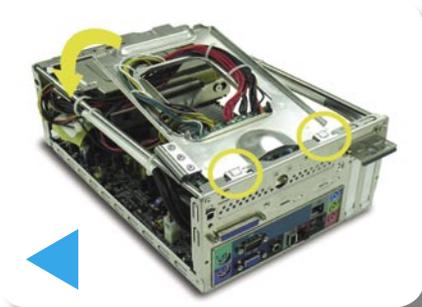




2.16 Install the power modulus

1

Take the power modulus about 30 degree angles, let rear rib align the slot of the rear XC Cube Mini, press downward gently and screw it tightly. Finally it will set up the power modulus.



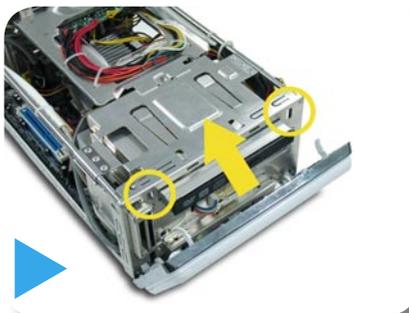
2.17 Install the front panel



If you want to install the slim ODD, please follow the below steps.

1

There are four ribs inside the front panel of the XC Cube Mini. After loose the ribs, push the front panel outside to the inside, then slide the front ODD off. It should align the hole of the front case. Take the front panel from bottom to top and combine with the XC cube Mini.





2.18 Install AGP/PCI/PCI-Express additional cards

1

If you want to install the AGP/PCI-Express or PCI additional cards, please follow the below shown to set up it. The first, take out the fixed screw, then turn to the left side and pull the above faceplate up.



2

Pull the additional cards faceplate of the rear XC Cube Mini up, then set up the additional cards. Please pay attention; the AGP/PCI/PCI-Express additional cards have different slot specifications. You can refer to the “Easy Installation Guide” to understand the different kinds of the additional cards.



3

Until now, you have already finished all of the installation inside the case. Please refer to the “2.2 starting installing”, use the opposite way to install the case, then lock the screw tightly.



2.19 Connect Keyboard and Mouse



2.20 Connect Monitor and tighten screws



2.21 Connect Microphone (Speaker or Earphone) and Network cable





There are different equipments in the rear faceplate of the case, please refer to the "Easy Installation Guide" to understand more information.

Finally, take the hander of the power transformer connect to the room socket, then the direct current output to the plug, link to the direct current input hander of the rear XC Cube Mini. Then finish all of the installation, prepare to open the power.



III. Turn On The Power



3.1 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



3.2 Set BIOS (Basic Input / Output System)

1

Not long after activating the power, you'll see the following screen. Please press <Delete> button to get into BIOS. If you would like to see the POST screen, you may just press <Tab> button.

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

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

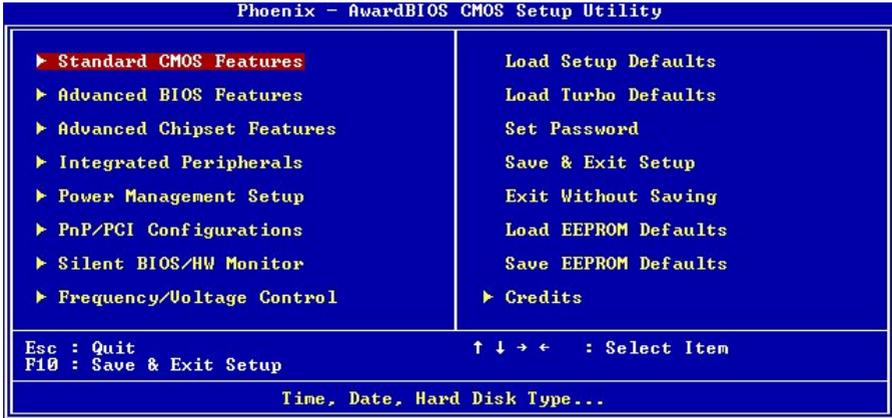
XCcube
edition
www.aopen.com.tw

Press DEL to enter SETUP, ESC to skip memory test
07/16/2003-nVidia-nForce-6A61BABAC-00
```



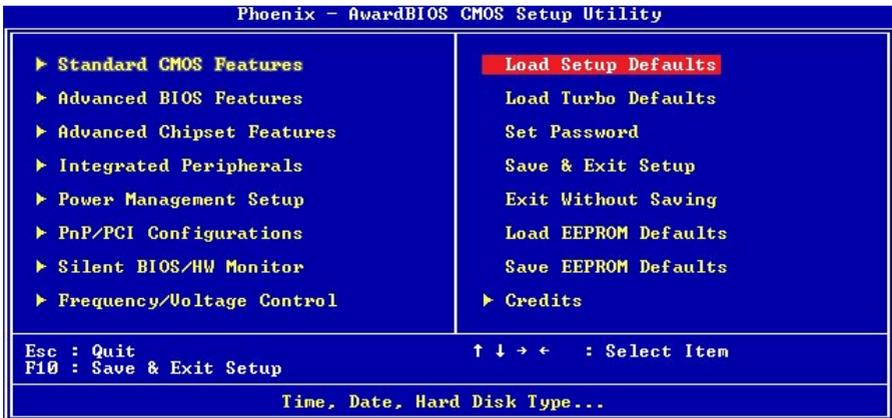
2

After pressing <Delete>, you'll see the following BIOS setup.



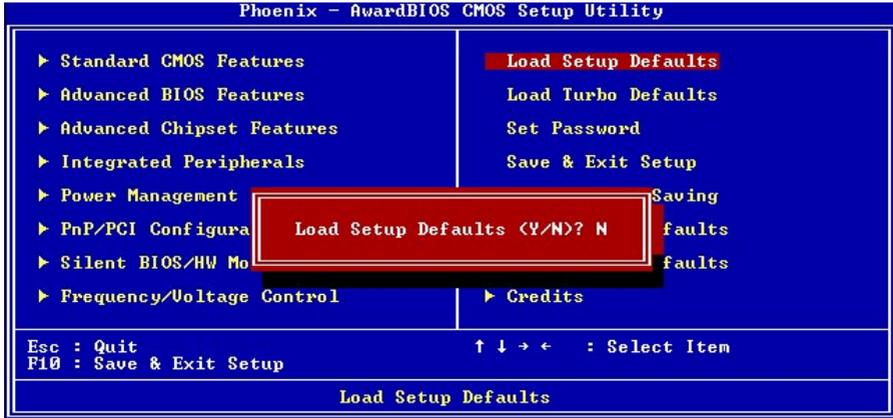
3

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>



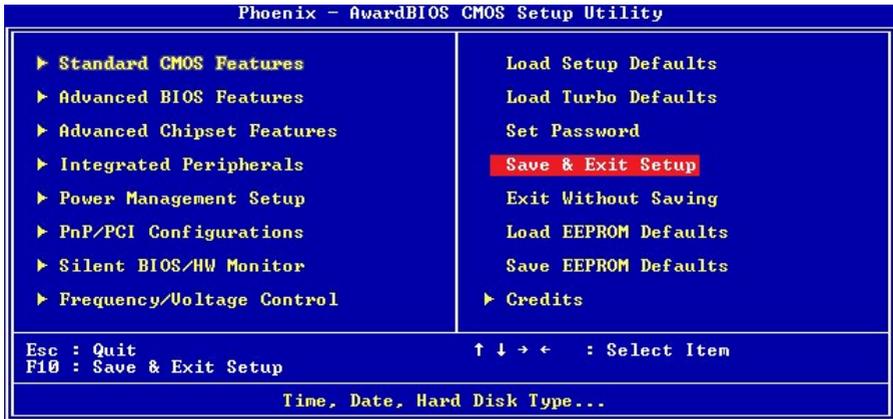
3

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



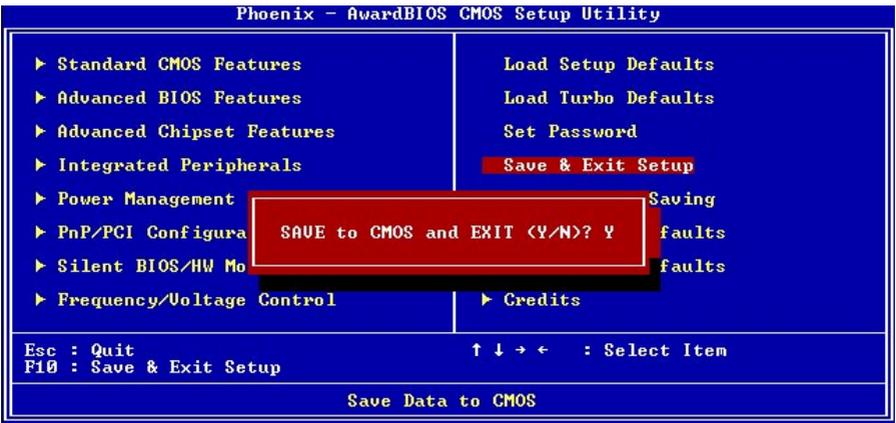
4

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





5 At the same time, type <Y> in the dialogue box and press <Enter> to exit.



Now everything is perfectly finished!!



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 <http://xc.aopen.com.tw>



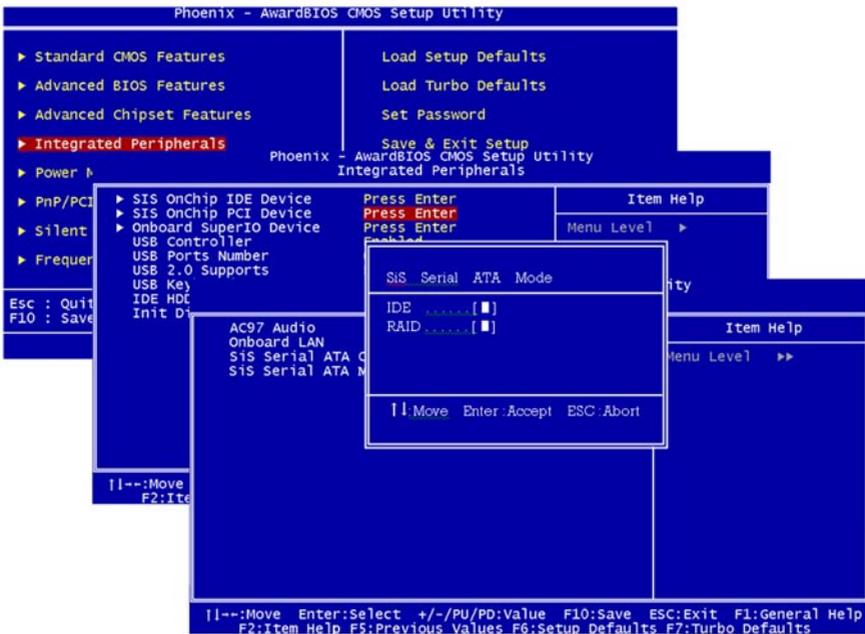
Appendix



Install OS into Serial ATA Hard Disk for UX661 Series

UX661 is equipped with powerful SiS 964 chip with Serial ATA function. Please notice that when installing OS into Serial ATA hard disk, there will be some limitations due to the limitation of SiS 964 chip. Please carefully follow the installation guides below to install Windows 2000/XP or Windows 98SE/ME.

1. Power on and then press **<Delete>** to enter BIOS during POST (Power On Self Test).
2. Select **Integrated Peripherals > SIS OnChip PCI Device > SIS Serial ATA Mode**.
3. For installing Windows 2000/XP, please select **"IDE"** mode; Floppy drive is not necessary.
4. For installing Windows 98SE/ME, please select **"RAID"** mode; Floppy Drive is not necessary, but make sure FDD is disabled in BIOS or FDD is correctly connected to motherboard.
5. Finally, press **<F10>** to save the setting and exit BIOS setup.





RAID Driver Installation Guide for UX661 Series

By the strength of SiS 964 chip, UX661 provides RAID 0 and 1 functions. User could build RAID in Windows 2000 or Windows XP. For enabling RAID function, it's needed to install driver from Floppy drive. Please connect Floppy drive to motherboard before starting to install OS. Of course, user needs to install two Serial ATA hard disks to motherboard too.

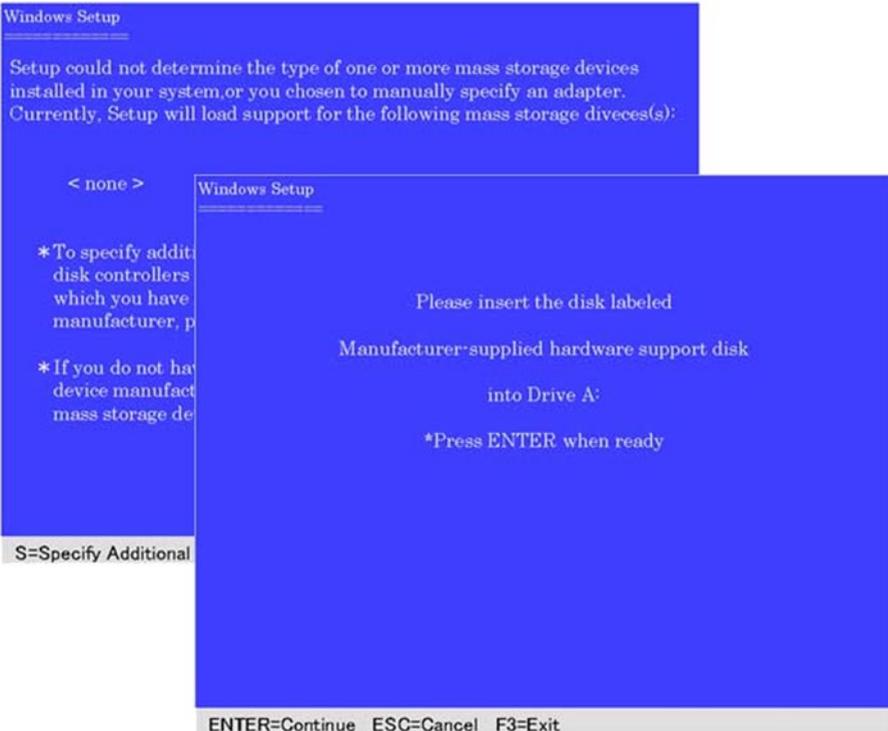
1

First start OS installation, and then press <F6> while you are presented with the sentence <Press F6 if you want to install a third party SCSI or RAID driver...>.

Press F6 if you need to install a third party SCSI or RAID driver...

2

Press <S> when "Windows Setup" is generated. Then insert SiS 964 RAID driver diskette into Floppy and press <Enter>.





3

Select the driver for your OS (Windows 2000 or Windows XP) and press <Enter> to install the driver.



4

For more information of RAID installation, please refer to the file "964_180umh030.pdf" in the Utility CD.

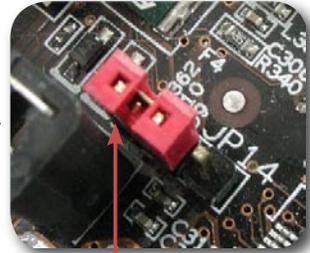
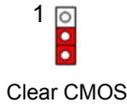


Introduction to Jumper Settings and Other Connectors

JP14 Clear CMOS

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

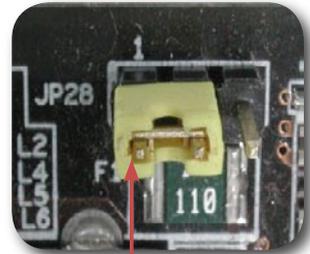
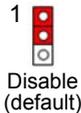
1. Turn off the system and unplug the AC power.
2. Remove ATX power cable from connector PWR2.
3. Locate JP14 and short pins 2-3 for a few seconds.
4. Return JP14 to its normal setting by shorting pin 1 & pin 2.
5. Connect ATX power cable back to connector PWR2.



Pin 1

JP28 Keyboard / Mouse Wakeup Jumper

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