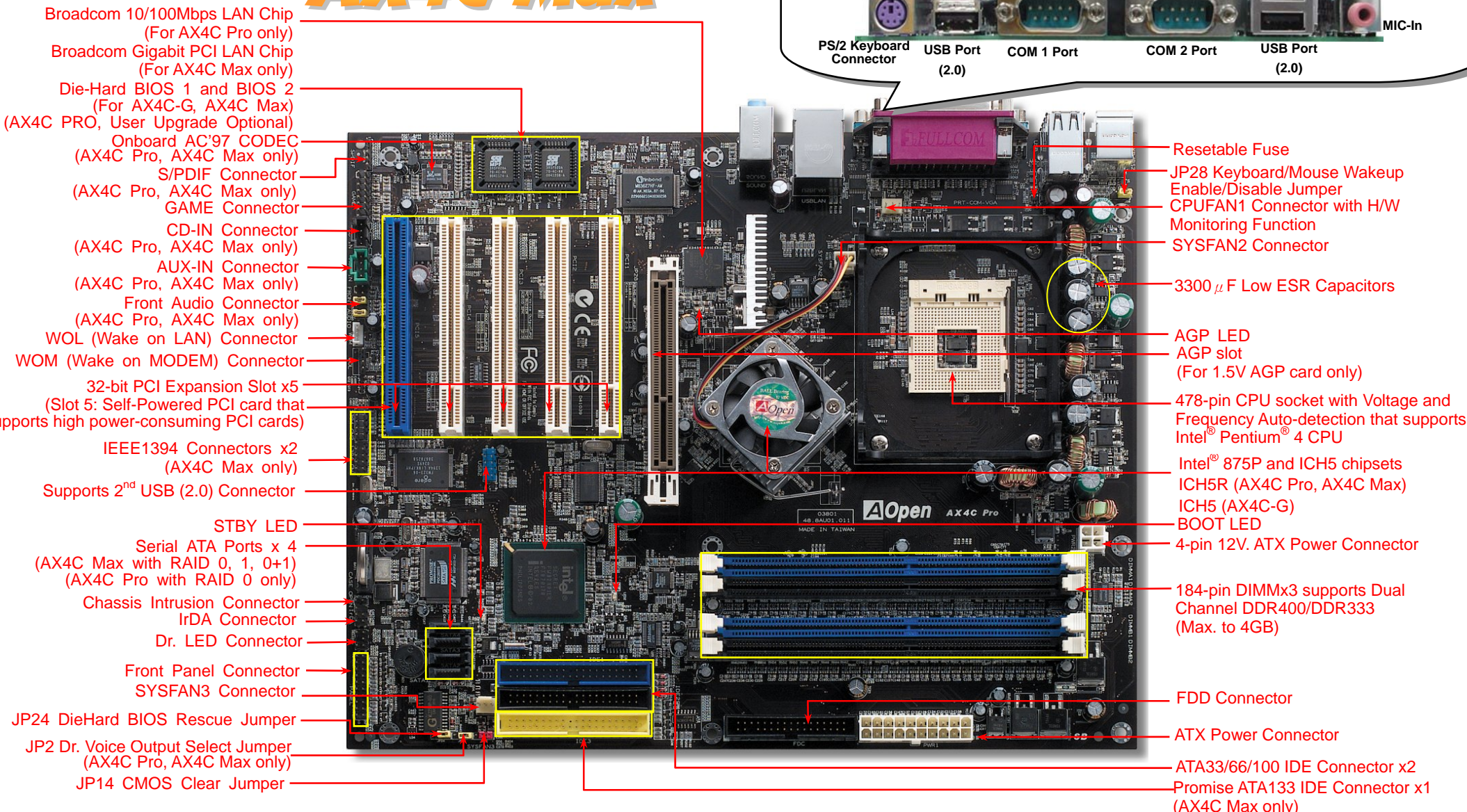
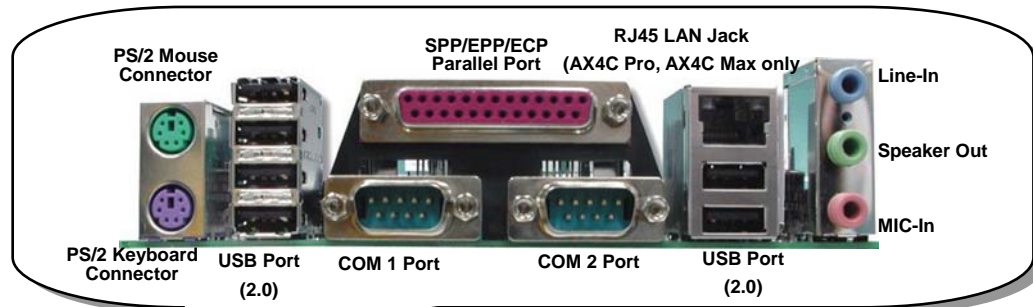


# AX4C-G AX4C Pro AX4C Max

## Easy Installation Guide



# Before You Start

Everything you need to boot this motherboard is included in this Easy Installation Guide. For more information, a complete **Online User's Manual** can be found in the **Bonus Pack CD Disc**. Thanks for the help of saving our earth.

## Accessory Checklist

- ✓ This Motherboard x1
- ✓ This Easy Installation Guide x1
- ✓ Enhanced Full Pictured Manual x1 (AX4C Pro, AX4C Max only)
- ✓ EzRestore Guide x 1
- ✓ 40-Wire IDE Cable x 1 (AX4C Pro, AX4C Max only)
- ✓ 80-wire IDE Cable x1
- ✓ IEEE1394 Cable x1 (AX4C Max only)
- ✓ Two Ports USB2.0 Cable x 1 (AX4C Max only)
- ✓ S/PDIF Cable x1 (AX4C Max only)
- ✓ Floppy Disk Drive Cable x1
- ✓ IO Shield x 1
- ✓ Serial ATA Cable x1 (AX4C-G, AX4C Pro), x2 (AX4C Max only)
- ✓ Serial ATA Power Cable x1 (AX4C Max only)
- ✓ Norton Anti-Virus CD x 1
- ✓ Bonus Pack CD x1



PART NO: 49.8AU01.EE1

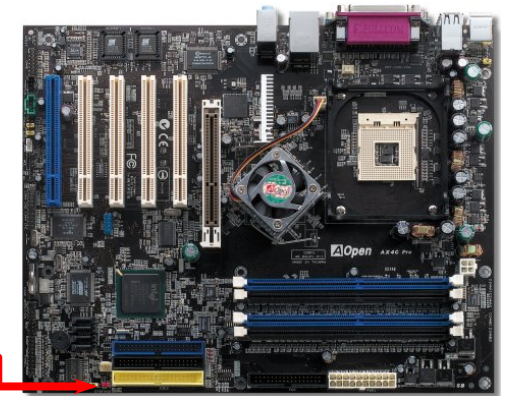
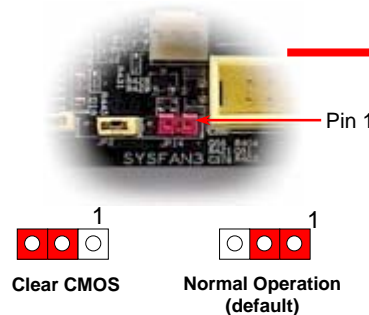


DOC. NO: AX4CMAX-EG-E0312B

## 1. 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.

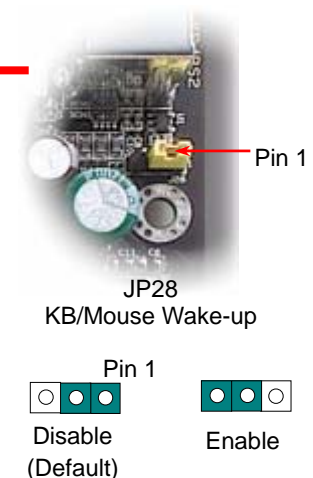


**Tip: When should I Clear CMOS?**

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

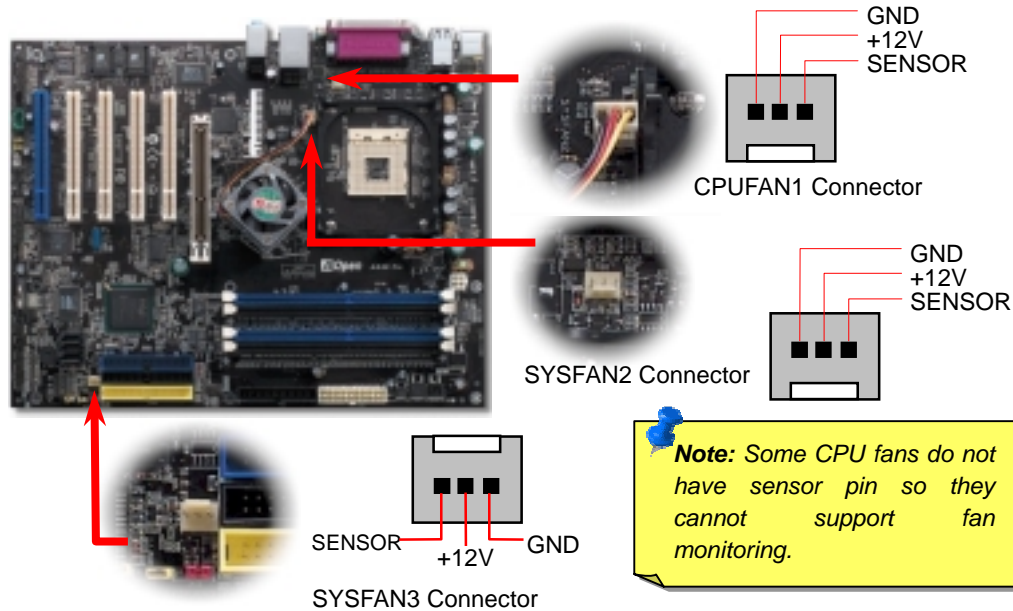
## 2. JP28 Keyboard/Mouse Wake-up Enable/Disable Jumper

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 installed. The factory default setting is set to "Disable"(1-2), and you may enable this function by setting the jumper to 2-3.

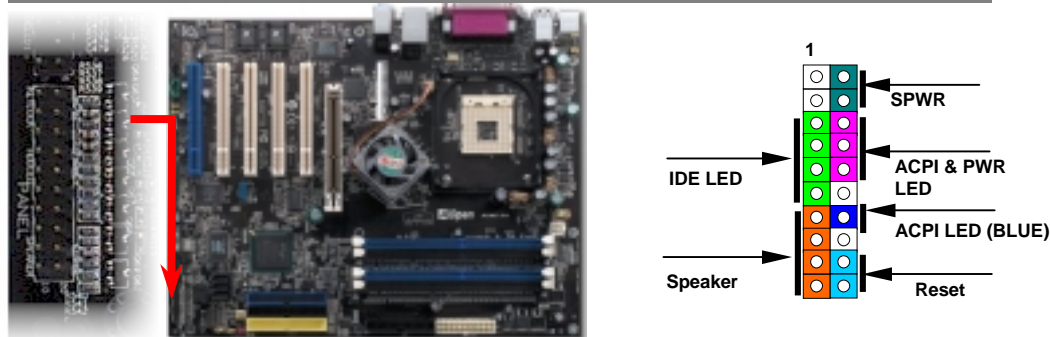


### 3. Installing CPU & System Fan

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.

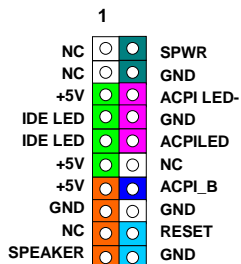


### 4. Connecting Front Panel Cable



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 ATX housing. It is 2-pin female connector from the housing front panel. Plug this connector to the soft-power switch connector marked **SPWR**.



### 5. Setting CPU Voltage & Frequency

#### CPU Core Voltage Auto Detectable

This motherboard supports CPU VID function. The CPU core voltage will be automatically detected and the range is from 1.1V to 1.925V. 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.

**BIOS Setup > Frequency / Voltage Control > CPU Speed Setting**

**Core Frequency = CPU FSB Clock \* CPU Ratio**

CPU Ratio	8x, 9x, 10x... 21x, 22x, 23x...39x
CPU FSB	133~ 200MHz
IMHz Stepping CPU Overclocking	100~ 400MHz

Northwood CPU	CPU Core Frequency	FSB Clock	System Bus	Ratio
Pentium 4 1.6G	1600MHz	133MHz	533MHz	12x
Pentium 4 1.7G	1700MHz	133MHz	533MHz	13x
Pentium 4 2.26G	2260MHz	133MHz	533MHz	17x
Pentium 4 2.4G	2400MHz	133MHz	533MHz	18x
Pentium 4 2.53G	2530MHz	133MHz	533MHz	19x
Pentium 4 2.66G	2660MHz	133MHz	533MHz	20x
Pentium 4 2.80G	2800MHz	133MHz	533MHz	21x
Pentium 4 3.0G	3000MHz	200MHz	800MHz	15x
Pentium 4 3.06G	3060MHz	133MHz	533MHz	23x

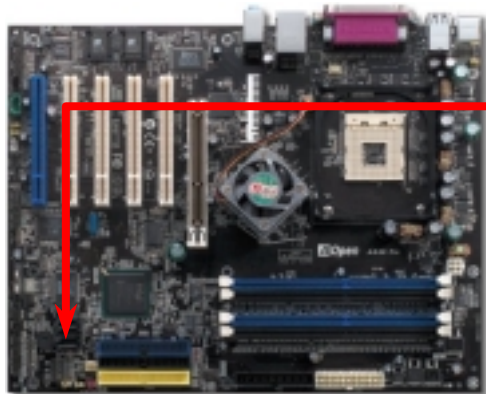
**Warning:** Intel® 875P chipset supports maximum 800MHz (200MHz\*4) system bus and 66MHz AGP clock; higher clock setting may cause serious system damage.

**Note:** Since the latest processor, Northwood, would detect the clock ratio automatically, you may not be able to adjust the clock ratio in BIOS manually.

**Tip:** The North Bridge of Canterwood does supports "Turbo mode", which is used to lower latency paths from FSB to system memory that enhances the system performance, when it is set at FSB800 and DDR400 mode.

## NEW! Serial ATA Supported (With RAID support on AX4C Pro, AX4C Max only)

This motherboard comes with integrated Serial ATA controller in chip, aiming to provide you an even faster transfer rate of 150 Mbytes/second. Integrated in North Bridge, this motherboard also comes along with RAID function that supports RAID 0, while AX4C MAX supports extra RAID 0+1 with Promise PDC20378 by ATA133 IDE connector. Please be noted that Hot-Plug in is not allowed.



Serial ATA Ports

Motherboard	SATA 1 & 2	SATA 3 & 4
AX4C-G	RAID 0	
AX4C Pro	RAID 0	
AX4C Max	RAID 0	RAID 0, 1, 0+1 (With ATA133)

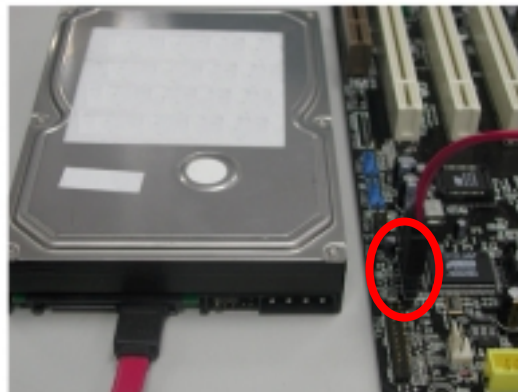


## 7. Connecting Serial ATA Disk

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 connecting two serial ATA disks, the system will automatically take the one connected to "Serial ATA 1" header as a master disk.

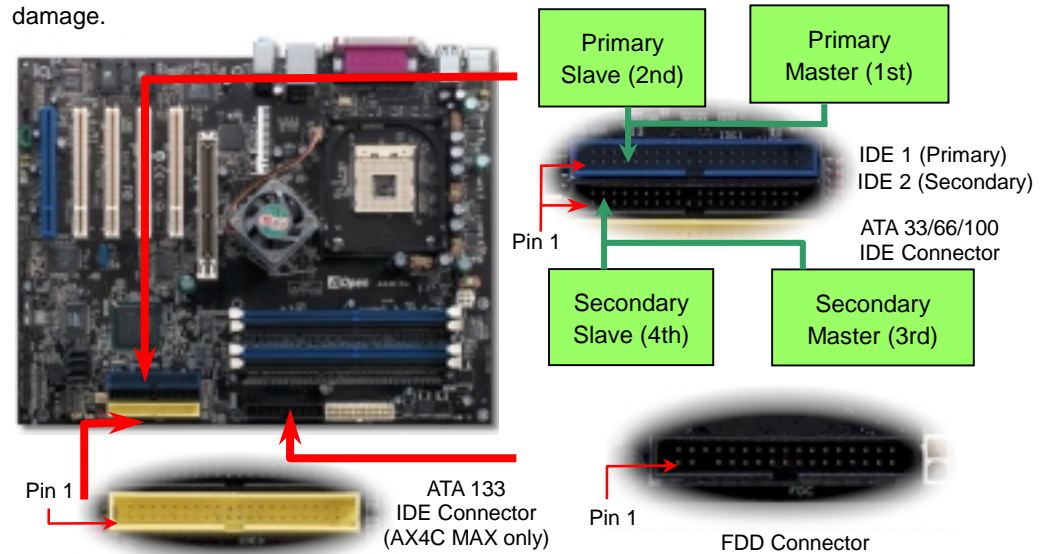


Serial ATA cable



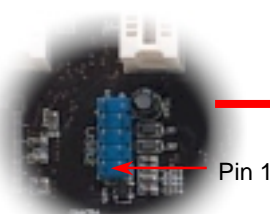
## 8. Connecting IDE and Floppy Cables

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



## 9. Support Eight USB2.0 Connectors

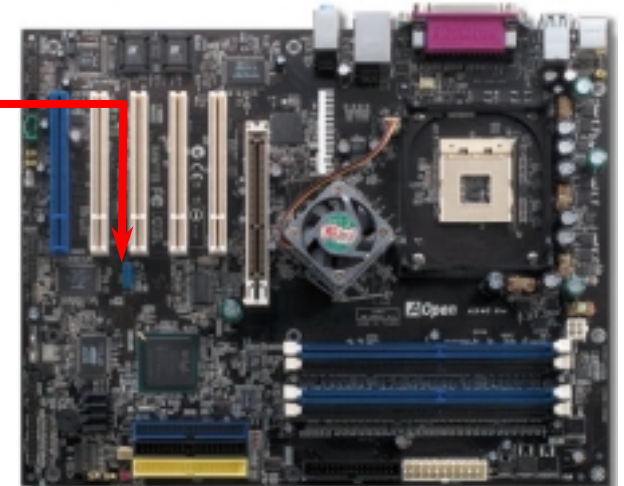
This motherboard provides eight USB2.0 connectors. Compared to traditional USB 1.0/1.1 with the speed of 12Mbps, USB 2.0 has a fancy speed up to 480Mbps, which is 40 times faster than the traditional one.



USB2 Connector

NC	KEY
GND-	GND
SBD3+	SBD2+
SBD3-	SBD2-
+5V	+5V

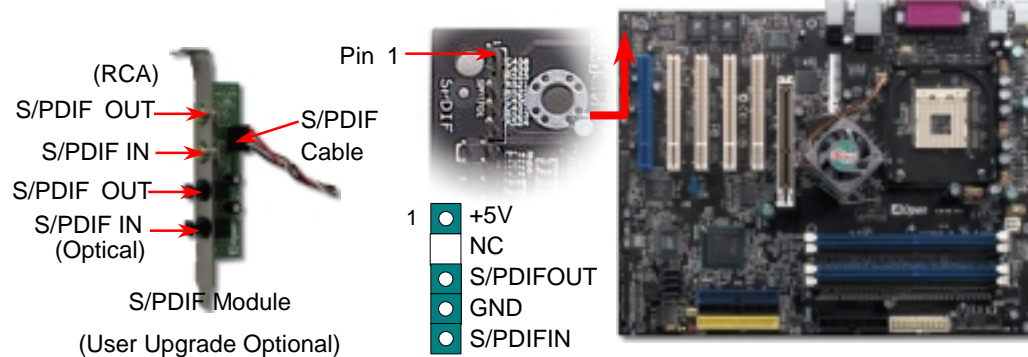
USB2 Connector



**NEW!**

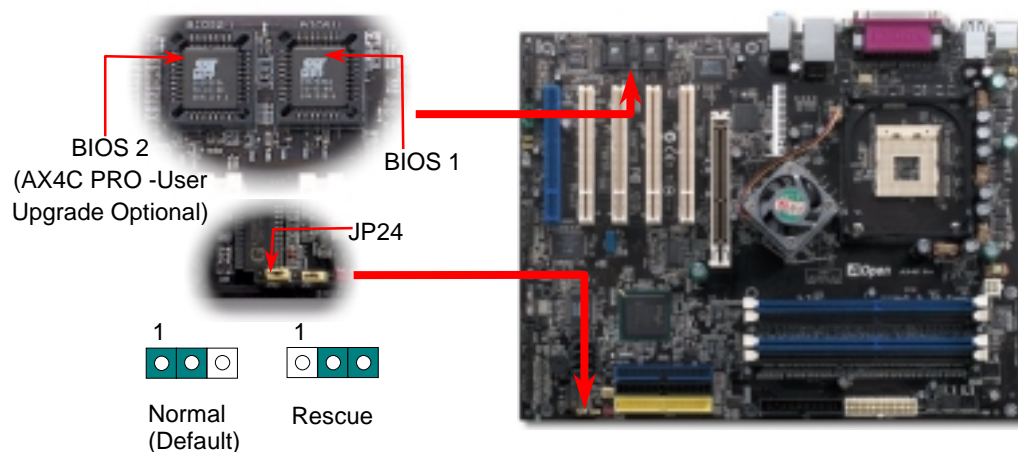
## 10. S/PDIF (Sony/Philips Digital Interface) Connector (AX4C Pro, AX4C Max only)

S/PDIF (Sony/Philips Digital Interface) is a newest audio transfer file format, which provides impressive audio quality through optical fiber and allows you to enjoy digital audio instead of analog audio. Normally there are two S/PDIF outputs as shown, one for RCA connector, the most common one used for consumer audio products, and the other for optical connector with better audio quality. Through a specific audio cable, you can connect the S/PDIF connector to other end of the S/PDIF audio module, which bears S/PDIF digital output. However, you must have a S/PDIF supported speaker/amplifier/decoder with S/PDIF digital input to connect to the S/PDIF digital output to make the most out of this function.



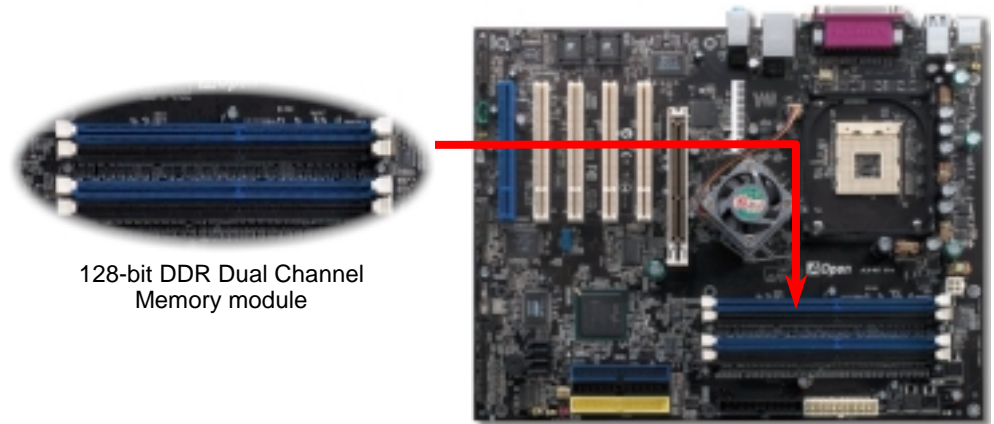
## 11. DieHard BIOS II (For AX4C-G, AX4C Max) (AX4C Pro, User Upgrade Optional)

Many viruses have been found that they may destroy bios code and data area lately. This motherboard implements a very effective hardware protection method without any software or BIOS coding involved, therefore it is 100% virus free. You may restore the originally mounted BIOS with 2<sup>nd</sup> BIOS ROM by setting JP24 to pin 2-3 if it fails to work properly.



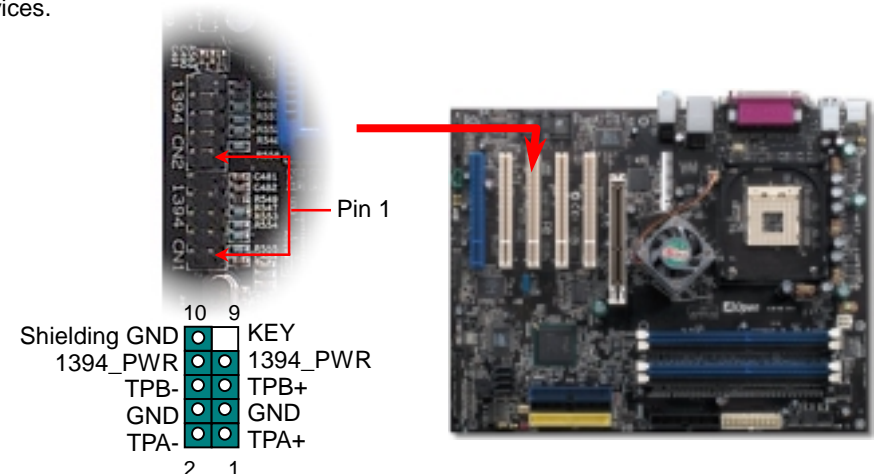
## 12. Memory Module (128-Bit DDR Dual Channel)

In the past, we used to have 64-bit memory bandwidth for memory access. No matter how many memory modules have been installed, though capacity added, the speed of access remains the same. With 128-bit dual channel introduced, it doubles the memory bandwidth up to 5.4GB in advanced 128-bit mode. This motherboard supports DDR400/333 with Maximum capacity up to 4GB.



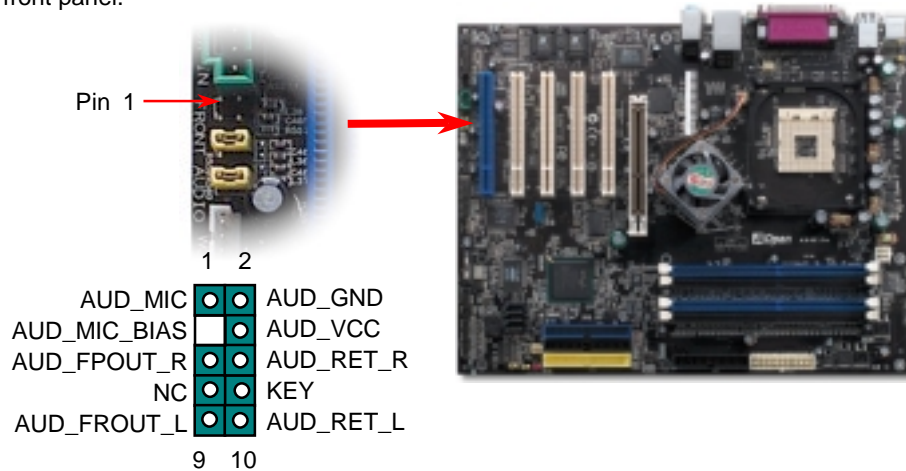
## 13. Connect IEEE1394 Connector (AX4C Max only)

With AGERE 1394 Control chip (with AGERE FW323), the IEEE 1394 provides data transfer rate up to 400Mb/s, and USB just has 12Mbps. Hence, the IEEE 1394 interface can connect with the devices that need high data transferring performance, such as digital camera, scanner or others IEEE 1394 devices. Please use the proper cable to connect with devices.



## 14. Front Audio Connector

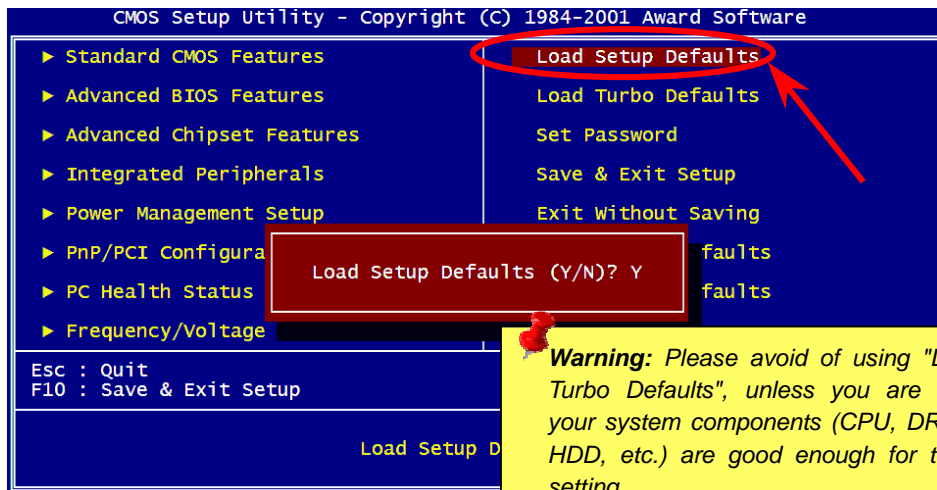
If the housing has been designed with an audio port on the front panel, you'll be able to connect onboard audio to front panel through this connector. By the way, please remove 5-6 and 9-10 jumper caps from the Front Audio Connector before connecting the cable. Please do not remove these 5-6 and 9-10 yellow jumper caps if there's no audio port on the front panel.



## 15. Power-on and Load BIOS Setup



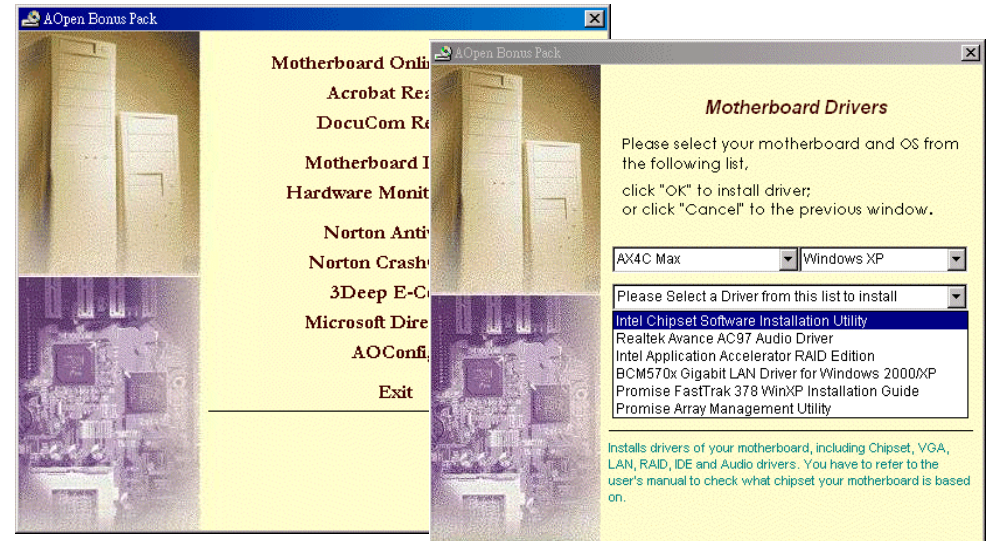
After you finish the setting of jumpers and connect correct cables. Power on and enter the BIOS Setup, press <Del> during POST (Power On Self Test). Choose "Load Setup Defaults" for recommended optimal performance.



**Warning:** Please avoid of using "Load Turbo Defaults", unless you are sure your system components (CPU, DRAM, HDD, etc.) are good enough for turbo setting.

## 16. AOpen Bonus Pack CD

You can use the autorun menu of Bonus CD disc. Choose the utility and driver and select model name.



## 17. BIOS Upgrade under Windows Environment

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

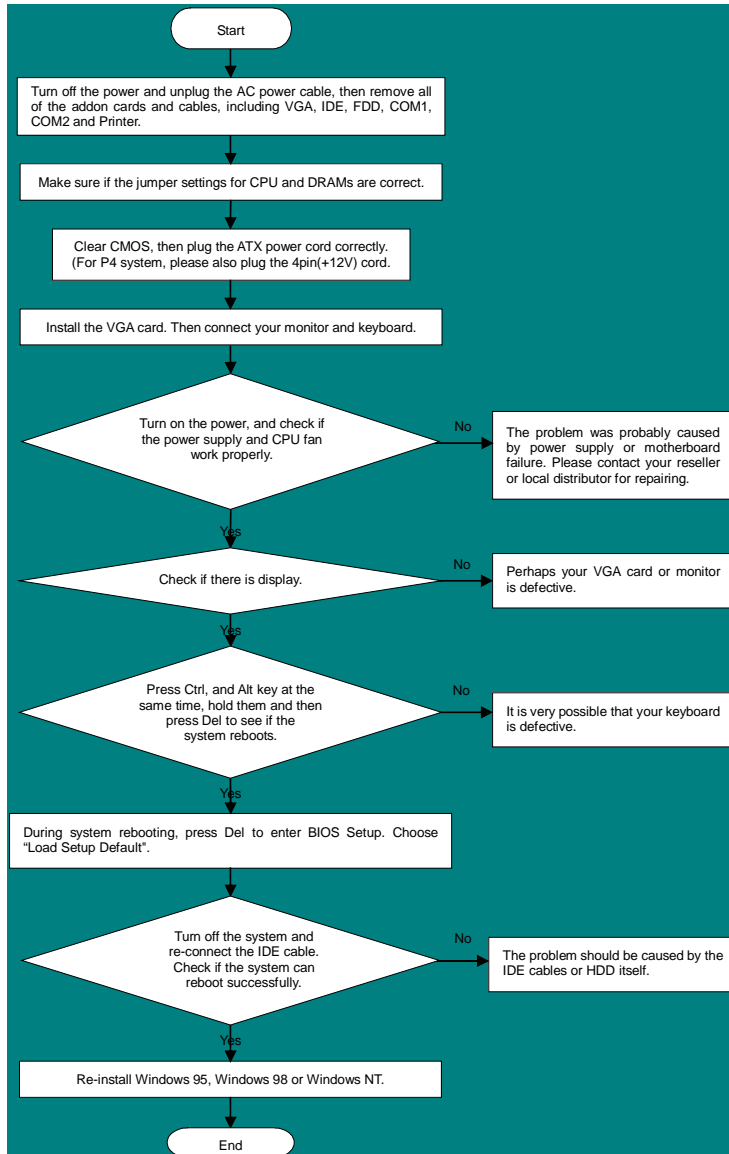
1. Download the new version of BIOS package zip file from AOpen official web site. (ex: <http://english.aopen.com.tw>)
2. Unzip the download BIOS package (ex: WAX4CMAX102.ZIP) with WinZip (<http://www.winzip.com>) in Windows environment.
3. Save the unzipped files into a folder, for example, WAX4CMAX102.EXE & WAX4CMAX102.BIN.
4. Double click on the WAX4CMAX102.EXE, EzWinFlash will detect the model name and BIOS version of your motherboard. If you had got the wrong BIOS, you will not be allowed to proceed with the flash steps.
5. You may select preferred language in the main menu, then click [Start Flash] to start the BIOS upgrade procedure.
6. EzWinFlash will complete all the process automatically, and a dialogue box will pop up to ask you to restart Windows. You may click [YES] to reboot Windows.
7. Press <Del> at POST to enter BIOS setup, choose "Load Setup Defaults", then "Save & Exit Setup". Done!

**Warning:** The upgrade of new BIOS will permanently replace your original BIOS content after flashing. The original BIOS setting and Wi2000/WinXP PnP information will be refreshed and you probably need to re-configure your system.



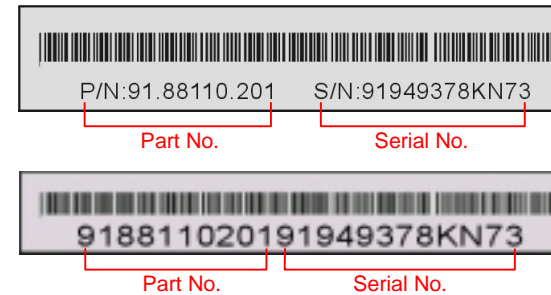
## Troubleshooting

If you encounter any trouble to boot your system, follow the procedures accordingly to resolve the problem.



## Part Number and Serial Number

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:



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

## 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:



AX4C Max is model name of motherboard; R1.00 is BIOS version



## Technical Support

Dear Customer,

Thanks for choosing AOpen products. To provide the best and fastest service to our customer is our first priority. However, we receive numerous emails and phone-calls worldwide everyday, it is very hard for us to serve everyone on time. We recommend you follow the procedures below and seek help before contact us. With your help, we can then continue to provide the best quality service to more customers.

Thanks very much for your understanding!

AOpen Technical Supporting Team

Pacific Rim  
AOpen Inc.  
Tel: 886-2-3789-5888  
Fax: 886-2-3789-5899

Europe  
AOpen Computer b.v.  
Tel: 31-73-645-9516  
Email: Support@AOpen.NL

China  
艾爾鵬國際貿易(上海)有限公司  
Tel: 86-21-6225-8622  
Fax: 86-21-6225-7926

Germany  
AOpen Computer GmbH.  
Tel: 49-2131-1243-710  
Fax: 49-2131-1243-999

America  
AOpen America Inc.  
Tel: 1-408-232-1200  
Fax: 1-408-232-1280

Japan  
AOpen Japan Inc.  
Tel: 81-048-290-1800  
Fax: 81-048-290-1820

Web Site: [www.aopen.com](http://www.aopen.com)

E-mail: Send us email by going through the contact form below.

English <http://english.aopen.com.tw/tech/default.htm>

Japanese <http://aopen.jp/tech>

Chinese <http://www.aopen.com.tw/tech/default.htm>

German <http://www.aopencom.de/tech/default.htm>

Simplified Chinese <http://www.aopen.com.cn/tech/default.htm>

1

**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/downloads>

2

**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://english.aopen.com.tw/tech/report/default.htm>

3

**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/>

4

**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/downloads>

5

**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/>

6

**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.

7

**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.