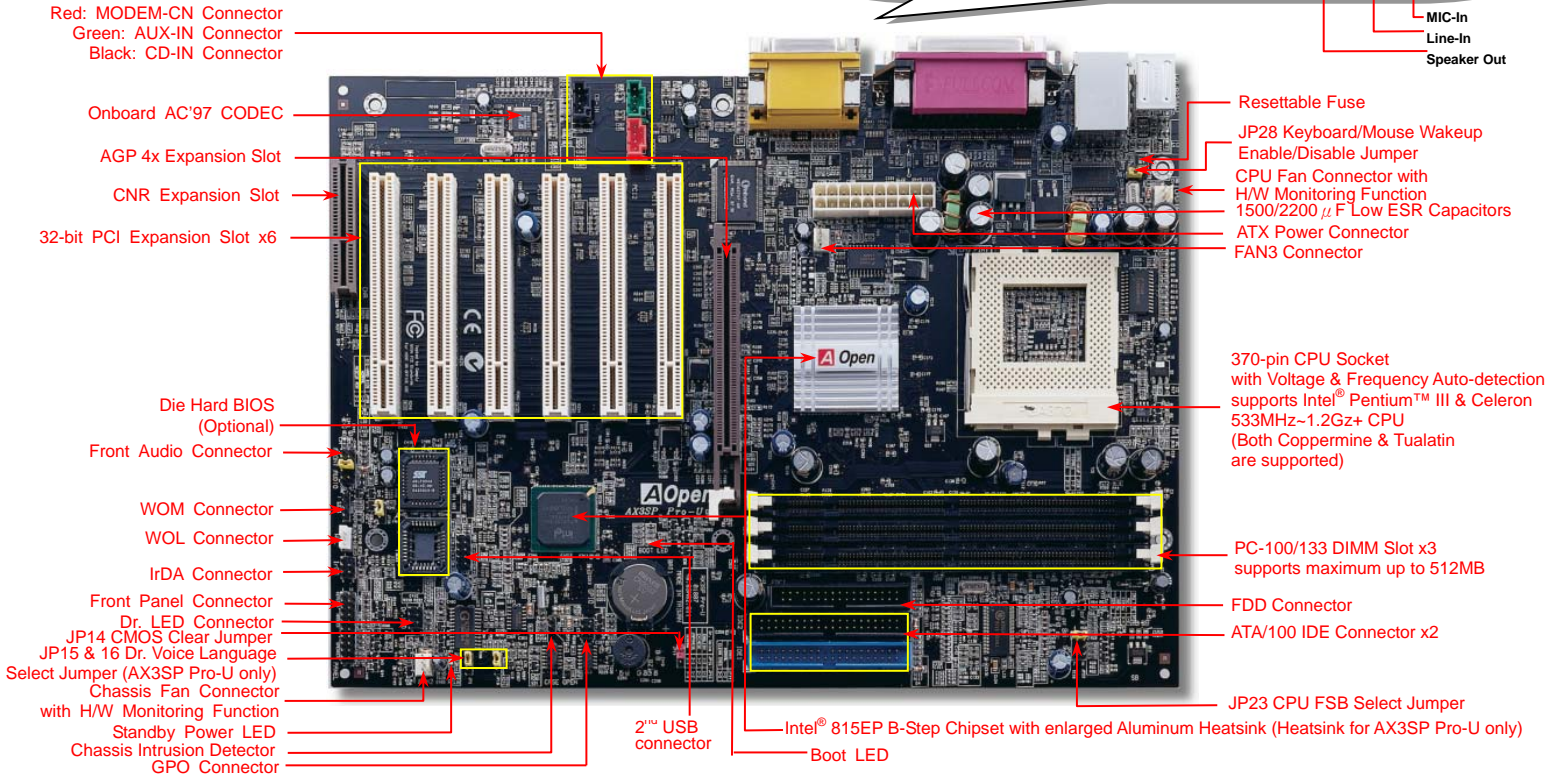
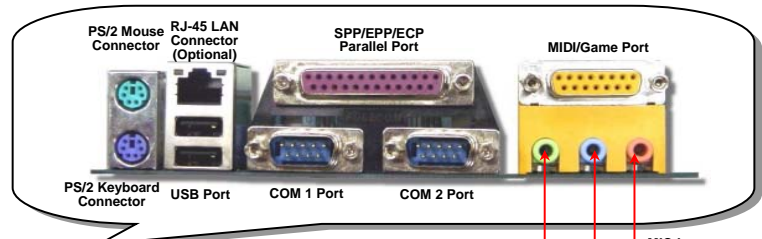


AX3SP-U AX3SP Pro-U

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

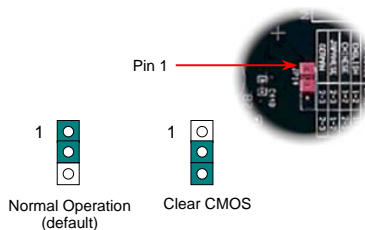
- 40-wire IDE Cable x1
- 80-wire IDE Cable x1
- Floppy Cable x1
- Bonus Pack CD x1
- NORTON AntiVirus CD x1
- User Manual x1 (AX3SP Pro-U only)
- This Easy Installation Guide x1

PART NO: 49.89H10.E01 DOC. NO: AX3SPPU-EG-E0106A

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 pins 1 & pin2.
5. Connect ATX power cable back to connector PWR2.

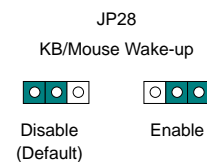


Tip: When should I Clear CMOS?

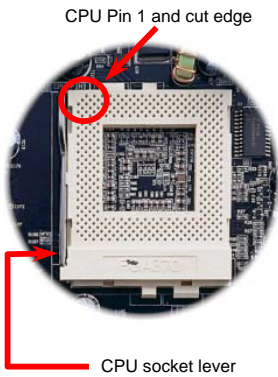
1. Boot fail because of overclocking...
2. Forget password...
3. Troubleshooting...

2. Enable/Disable Keyboard/Mouse Wake-Up

This motherboard provides keyboard/mouse wake-up function. You can use the JP28 to enable or disable this function.



3. Installing CPU

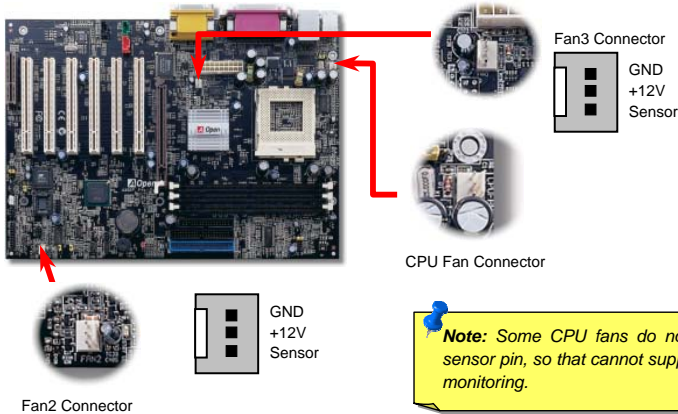


1. Pull up the CPU socket lever and up to 90-degree angle.
2. Locate Pin 1 in the socket and look for a (golden) cut edge on the CPU upper interface. Match Pin 1 and cut edge. Then insert the CPU into the socket.
3. Press down the CPU socket lever and finish CPU installation.

Note: If you do not match the CPU socket Pin 1 and CPU cut edge well, it may damage the CPU.

4. Installing CPU & Housing Fan

Plug in the CPU fan cable to the 3-pin CPU FAN connector. If you have chassis fan, you can also plug it on FAN2 or FAN3 connector.



Note: Some CPU fans do not have sensor pin, so that cannot support fan monitoring.

5. Setting CPU Voltage & Frequency

Setting CPU Core Voltage

This motherboard supports CPU VID function. The CPU core voltage will be automatically detected and the range is from 1.05V to 1.825V. It is not necessary to set CPU Core Voltage

Setting CPU Frequency

CPU frequency can be set through the BIOS setup.

BIOS Setup > Frequency / Voltage Control > CPU Speed Setting

Core Frequency = CPU FSB Clock * CPU Ratio

| | |
|---|--|
| CPU Ratio | 3x, 3.5x, 4x, 4.5x, 5x, 5.5x, 6x, 6.5x, 7x, 7.5x, 8x, 8.5x, 9x, 9.5x, 10x, 10.5x, 11x, 11.5x, and 12x |
| CPU FSB (By BIOS table) | 66.6, 66.8, 68.3, 70, 75, 80, 83, 100, 100.2, 103, 105, 110, 115, 120, 124, 133.3, 133.6, 137, 140, 145, 150, 160, 166.5 and 200 MHz |
| CPU FSB (1 MHz Stepping by manual Adjustment) | FSB = 66, 66-83MHz FSB = 100, 75-124MHz FSB = 133, 100-248MHz |

| CPU | CPU Core Frequency | FSB Clock | Ratio |
|-------------------|--------------------|-----------|-------|
| Celeron 533 | 533MHz | 66MHz | 8x |
| Celeron 566 | 566MHz | 66MHz | 8.5x |
| Celeron 600 | 600MHz | 66MHz | 9x |
| Pentium III 600E | 600MHz | 100MHz | 6x |
| Pentium III 650E | 650MHz | 100MHz | 6.5x |
| Pentium III 700E | 700MHz | 100MHz | 7x |
| Pentium III 750E | 750MHz | 100MHz | 7.5 |
| Pentium III 800E | 800MHz | 100MHz | 8x |
| Pentium III 850E | 850MHz | 100MHz | 8.5x |
| Pentium III 533EB | 533MHz | 133MHz | 4x |
| Pentium III 600EB | 600MHz | 133MHz | 4.5x |
| Pentium III 667EB | 667MHz | 133MHz | 5x |
| Pentium III 733EB | 733MHz | 133MHz | 5.5 |
| Pentium III 800EB | 800MHz | 133MHz | 6x |
| Pentium III 866EB | 866MHz | 133MHz | 6.5 |
| Pentium III 933EB | 933MHz | 133MHz | 7x |
| Pentium III 1G | 1GHz | 133MHz | 7.5x |
| Pentium III 1.13G | 1.13GHz | 133MHz | 8.5x |
| Pentium III 1.2G | 1.2GHz | 133MHz | 9x |

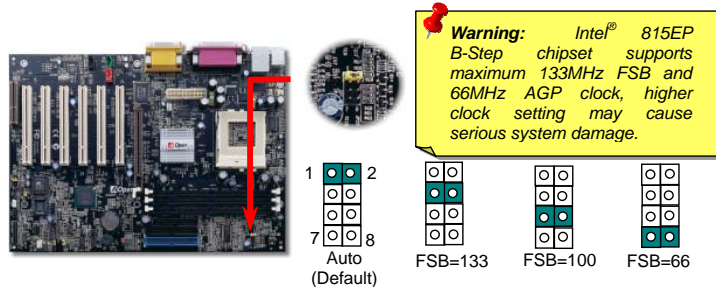
Warning: Intel® 815EP B-Step chipset supports maximum 133MHz FSB and 66MHz AGP clock, higher clock setting may cause serious system damage.

Tip: If your system hangs or fails to boot because of overclocking, simply use <Home> key to restore the default setting or you can wait the AOpen "Watch Dog Timer" reset the system in five seconds and system will auto-detect hardware again.

Warning: To avoid possible CPU damage caused by overheating, an automatic shutdown of system had been especially designed on this motherboard. System would be automatically power off when this motherboard with implementation of THERMTRIP circuit detected a CPU temperature above 135 degree for 4 seconds.

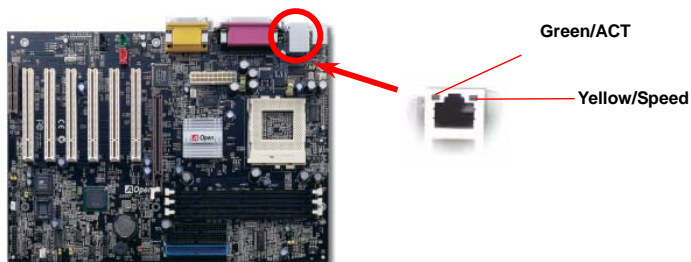
6. JP23 FSB/PCI Clock Ratio

This jumper is used to specify the relationship of PCI and FSB clock. Generally speaking, if you are not overclockers, we recommend you to set at the default setting. By the way, this motherboard also provides "1MHz Stepping Adjustment" feature for overclockers. You can adjust CPU FSB frequency via BIOS setup program. Based on the CPU type, the adjustment range has three level: 66~83 (FSB=66MHz, such as Celeron™ 533), 75~124 (FSB=100, such as Pentium® III 800E), 100~248 (FSB=133, such as Pentium® III 933EB) MHz for your choosing. If you fix the CPU FSB frequency by JP23, the "1MHz Stepping Adjustment" range will be changed and following JP23 setting.



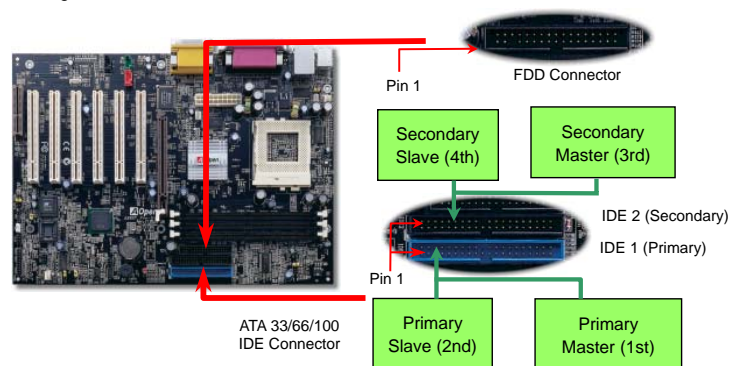
7. Support 10/100 Mbps LAN onboard (Optional)

Intel 815EP B-Step (Solano Series) includes a fast Ethernet controller on chip. On the strength of Intel 82562ET/EM PHY on board, which is a highly-integrated Platform LAN Connect device, it provides 10/100M bps Ethernet for office and home use, the Ethernet RJ45 connector is located on top of USB connectors. The green LED indicates the link mode, it lights when linking to network and blinking when transferring data. The orange LED indicates the transfer mode, it will light when transferring data in 100Mbps mode.

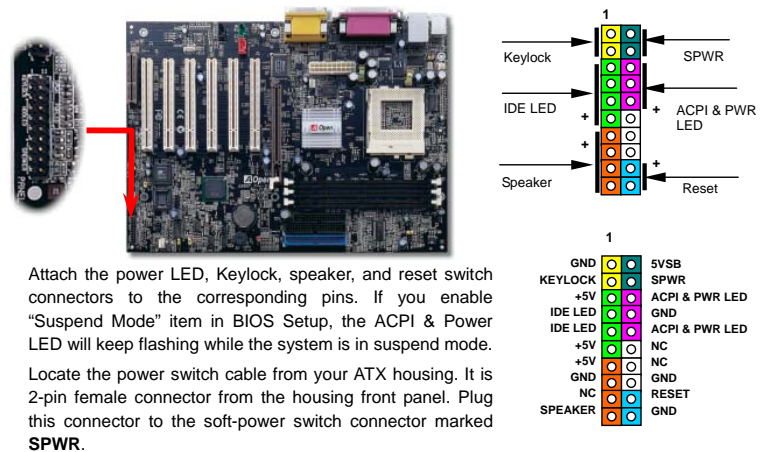


8. Connecting IDE and Floppy Cables

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

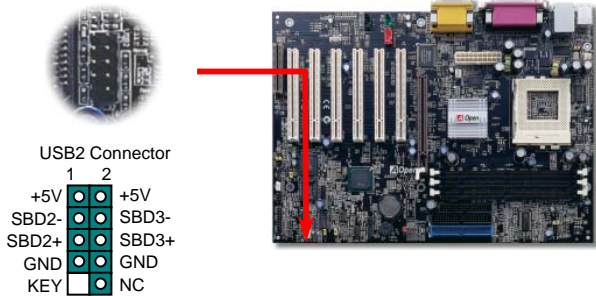


9. Connecting Front Panel Cable

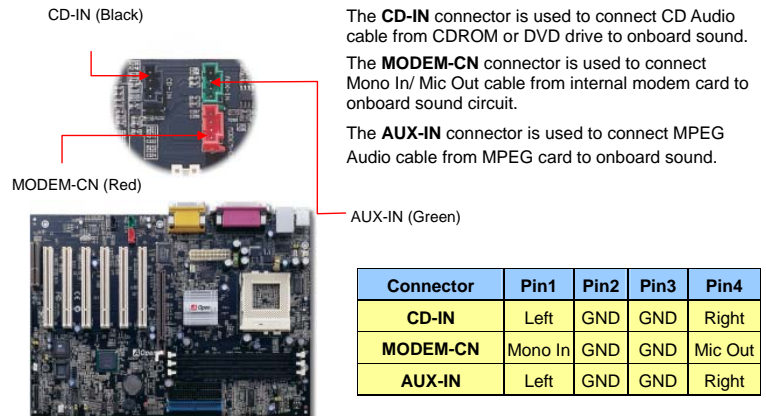


10. Support 2nd USB Port

This motherboard provides four [USB](#) connectors to connect USB devices, such as mouse, keyboard, modem, printer, etc. There are two connectors on the PC99 back panel. You can use proper cable to connect the other USB connector to the back plane or front panel of chassis.



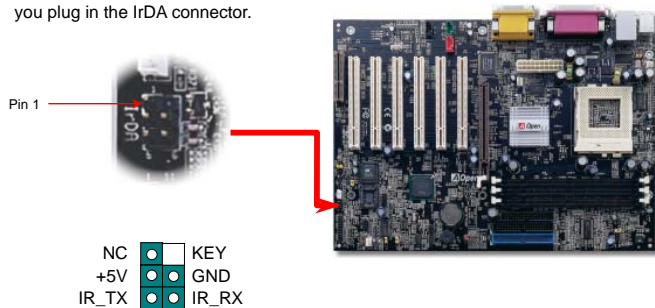
12. Connecting CD / MODEM / AUX Connector



11. Connect IrDA Connector

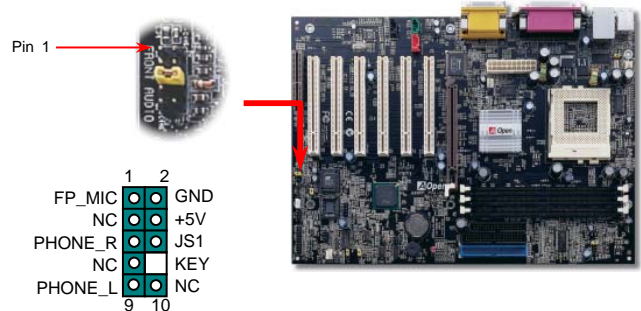
The IrDA connector can be configured to support wireless infrared module, with this module and application software such as Laplink or Windows 95 Direct Cable Connection, the user can transfer files to or from laptops, notebooks, PDA devices and printers. This connector supports HPSIR (115.2Kbps, 2 meters) and ASK-IR (56Kbps).

Install the infrared module onto the **IrDA** connector and enable the infrared function from BIOS Setup, UART mode select, make sure to have the correct orientation when you plug in the IrDA connector.



13. Front Audio

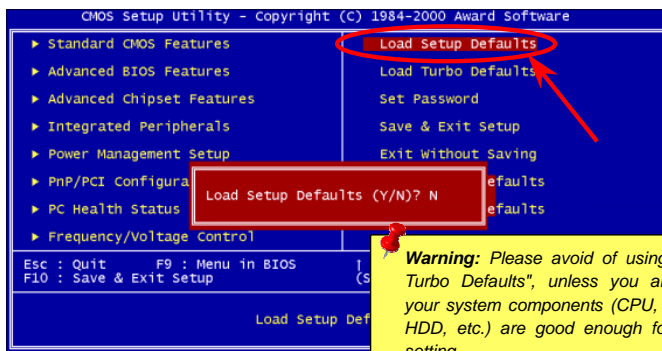
If the housing has been designed with an audio port on the front panel, you'll be able to connect onboard audio to front panel through this connector. By the way, please remove the jumper cap from the Front Audio Connector before you connect the cable. Do not remove this yellow jumper cap if housing without an audio port on the front panel.



14. Power-on and Load BIOS Setup

Del

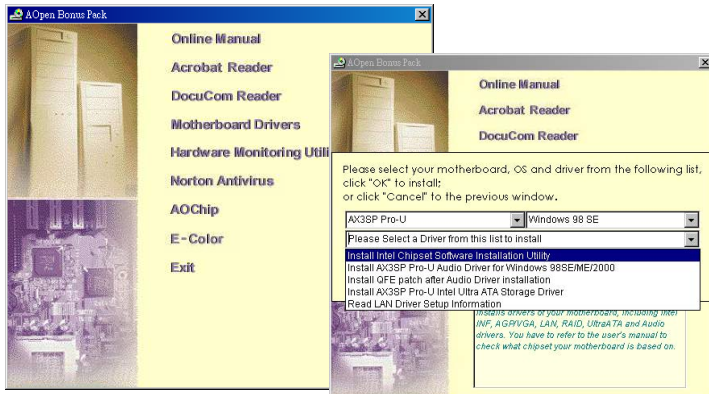
After you finish the setting of jumpers and connect correct cables. Power on and enter the BIOS Setup, press during POST (Power On Self Test). Choose "Load Setup Defaults" for recommended optimal performance.



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.

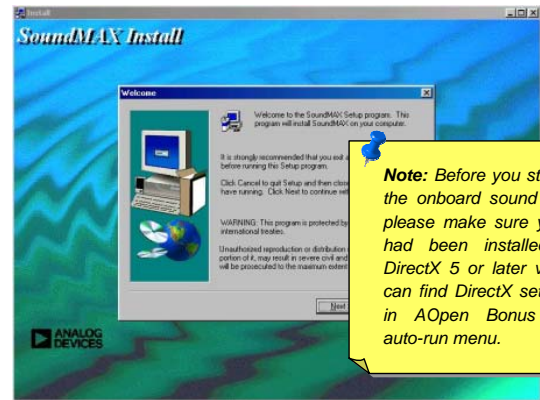
15. AOpen Bonus Pack CD

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



16. Installing Onboard Sound Driver

This motherboard comes with an AD 1885 AC97 CODEC, you can find the audio driver from the Bonus Pack CD disc auto-run menu.



Note: Before you start installing the onboard sound chip driver, please make sure your system had been installed Microsoft DirectX 5 or later version. You can find DirectX setup program in AOpen Bonus Pack CD auto-run menu.

17. BIOS Upgrade

AOpen Easy Flash is more user-friendly than traditional flash method. The BIOS binary file and flash routine are combined together and you simply run a single file to complete the flash process.

- Download new BIOS upgrade zipped file from AOpen's web site. For example, AX3SPPU102.ZIP.
- Run shareware PKUNZIP (<http://www.pkware.com>) which supports miscellaneous operation systems to extract the binary BIOS file and the flash utility. Or Winzip (<http://www.winzip.com/>) in Windows environment.
- Save the unzipped file into a bootable floppy disk. For example, AX3SPPU102.BIN & AX3SPP102.EXE
- Reboot the system to DOS mode without loading any memory handler (such as EMM386) or device driver. It needs around 520K free memory space.
- Execute A:> AX3SPPU102 and the program will do the rest of it.

DO NOT turn off the power during FLASH PROCESS until you are asked to!!

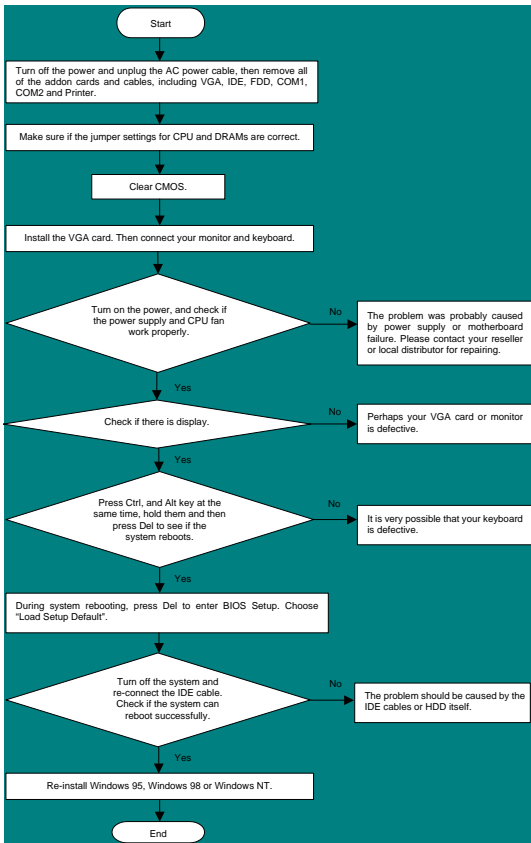
- Reboot system and press to enter BIOS Setup, Choose "Load Setup Defaults", then "Save & Exit Setup" and finish the BIOS upgrade.

Warning: The upgrade of new BIOS will permanently replace your original BIOS content after flashing. The original BIOS setting and Win95/Win98 PnP information will be refreshed and you probably need to re-configure your system.



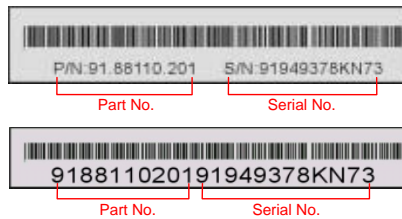
Troubleshooting

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



Part Number and Serial Number

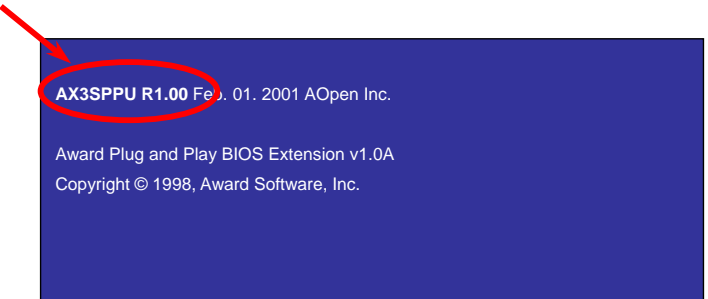
The Part Number and Serial number are printed on bar code label. You can find this bar code label on the outside packing, on ISA/CPU slot or on component side of PCB. For example:



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:



AX3SPPU 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

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

French <http://aofr.aopen.com.tw/tech/contact/techfr.htm>

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

1

Online Manual: Please check the manual carefully and make sure the jumper settings and installation procedure are correct.
<http://www.aopen.com.tw/tech/download/manual/default.htm>

2

Test Report: We recommend to choose board/card/device from the compatibility test reports for assembling your PC.
<http://www.aopen.com.tw/tech/report/default.htm>

3

FAQ: The latest FAQ (Frequently Asked Questions) may contain a solution to your problem.
<http://www.aopen.com.tw/tech/faq/default.htm>

4

Download Software: Check out this table to get the latest updated BIOS/utility and drivers.
<http://www.aopen.com.tw/tech/download/default.htm>

5

News Group: Your problem probably had been answered by our support engineer or professional users on the news group.
<http://www.aopen.com.tw/tech/newsgrp/default.htm>

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 more efficiently. Important reference for you if next time you want to buy something else from them.

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.