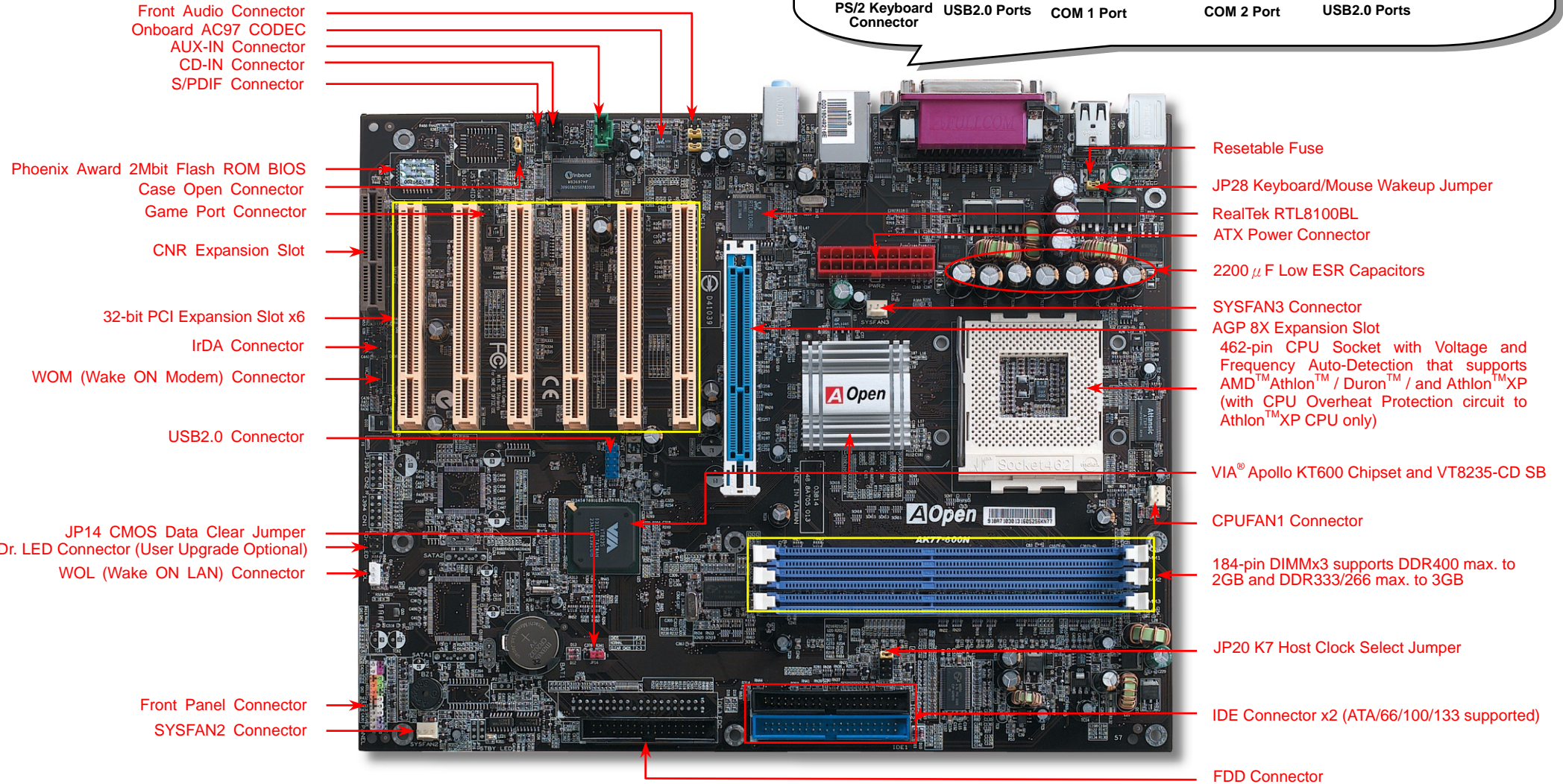
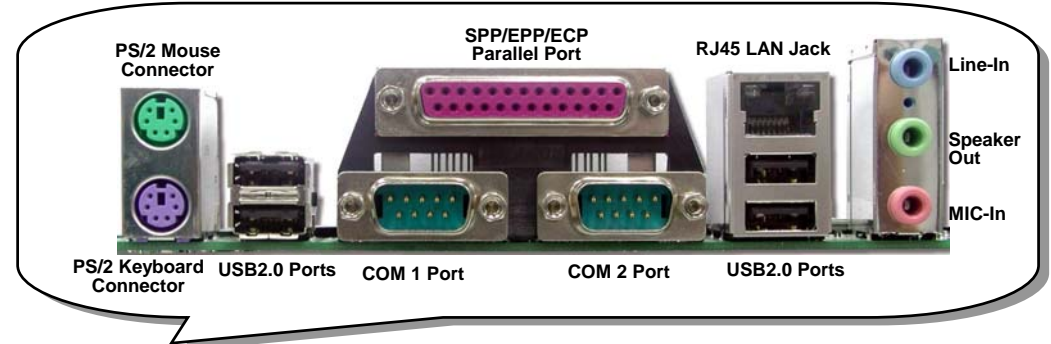


AK77-600N

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**. Thanks for the help of saving our earth.

Accessory Checklist

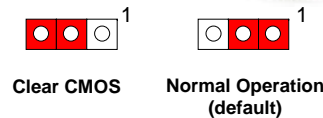
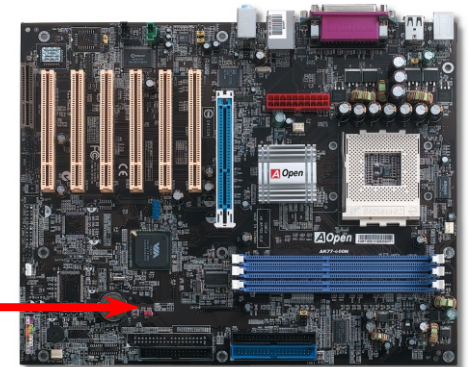
- ✓ This Easy Installation Guide x 1
- ✓ EzRestore Guide x 1
- ✓ 80-Wire IDE Cable x 1
- ✓ Floppy Drive Cable x 1
- ✓ Bonus Pack CD x 1
- ✓ I/O Shield x 1
- ✓ Norton Anti-Virus CD x 1



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.

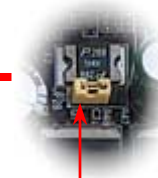
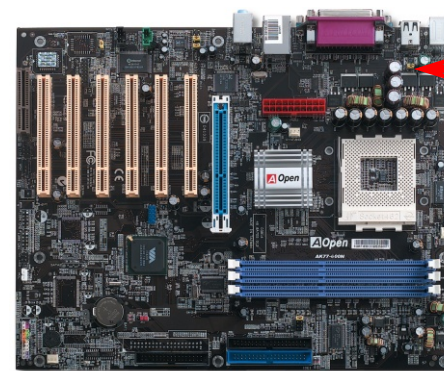


Tip: When should I Clear CMOS?

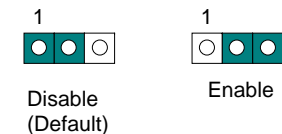
1. Boot fail because of overclocking...
2. Forget password...
3. Troubleshooting...

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.

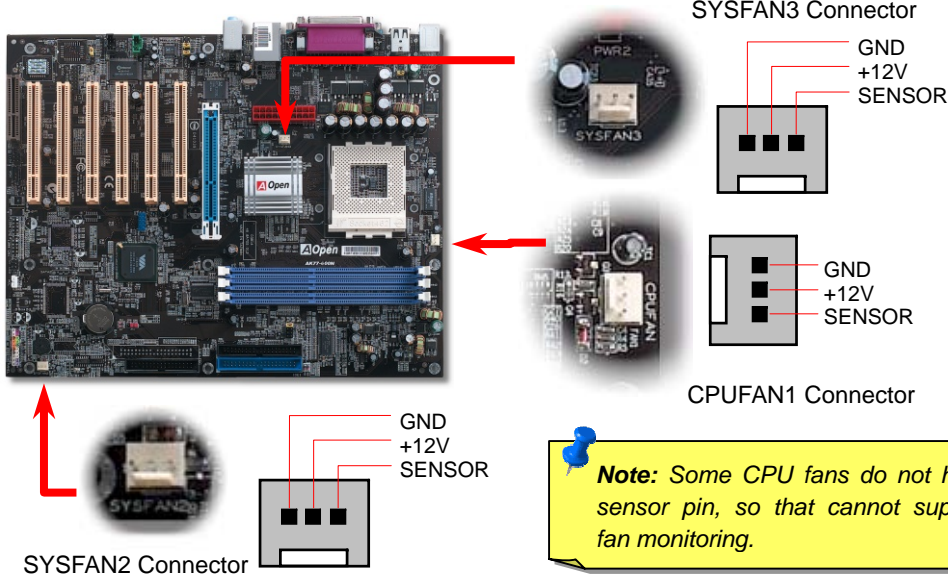


Pin 1



3. Installing CPU & Housing Fan

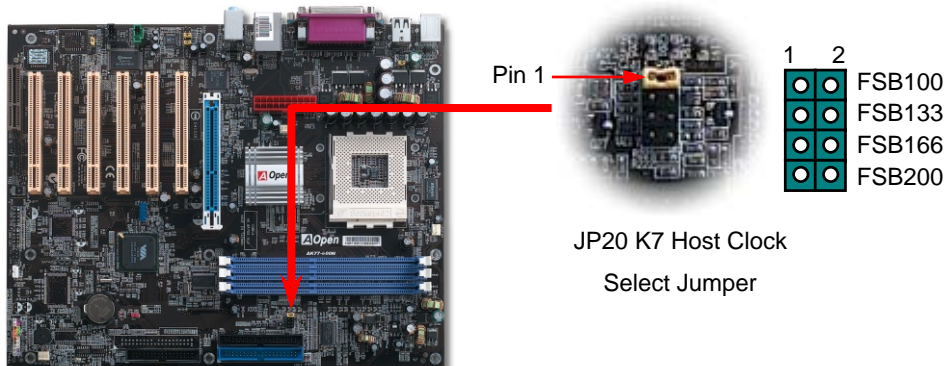
Plug in the CPU fan cable to the 3-pin **CPUFAN1** connector. If you have chassis fan, you can also plug it on **SYSFAN2** or **SYSFAN3** connector.



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

4. JP20 K7 Host Clock Selection

This jumper is used to specify the relationship of PCI and FSB clock. Generally speaking, if you are not an over-clocker, we recommend you to set it to the default setting. Additionally, this motherboard also provides “**1MHz Stepping Adjustment**” feature for overclockers to adjust CPU FSB frequency via BIOS setup program. Based on the CPU type, the adjustment range has four levels: 100~129, 130~160, 161~191 and 200-250MHz for your choosing. If you fix the CPU FSB frequency by JP20, the “1MHz Stepping Adjustment” range will be changed and following the JP20 setting.



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 1.1V 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.

BIOS Setup > Frequency / Voltage Control > CPU Speed Setup

Core Frequency = CPU FSB Clock * CPU Ratio

CPU Ratio	From 5x to 18x step 0.5x
CPU FSB (By manual Adjustment)	FSB=100, 100~129 by 1MHz stepping adjustment technology FSB=133, 130~160 by 1MHz stepping adjustment technology FSB=166, 161~191 by 1MHz stepping adjustment technology FSB=200, 200~250 by 1MHz stepping adjustment technology

CPU	CPU Frequency	Core	EV6 Bus Clock	Ratio
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 2500+ (Barton)	1.833GHz		333MHz	11x
AthlonXP 2600+	2.13GHz		266MHz	16x
AthlonXP 2600+	2.08GHz		333MHz	12.5x
AthlonXP 2700+	2.16GHz		333MHz	13x
AthlonXP 2800+ (Barton)	2.083GHz		333MHz	12.5x
AthlonXP 3000+ (Barton)	2.167GHz		333MHz	13x
AthlonXP 3200+ (Barton)	2.2GHz		400MHz	11x

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.

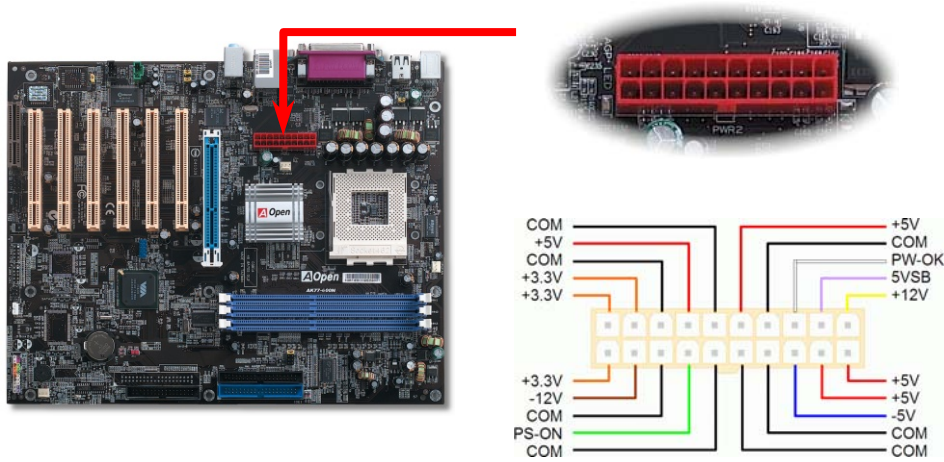
Warning: VIA[®] Apollo KT600 chipset supports 200MHz FSB (with performance reaches maximum 400MHz EV6 system bus) and 66MHz AGP clock, higher clock setting may cause serious system damage.

Warning: Supposed you have had adjusted CPU ratio on your current CPU, and you plan to replace a new CPU. Please use <Home> key or Clear CMOS to restore the default setting when changing a new CPU, because the system will still implement the previous CPU setting on the new one.

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 ABS” reset the system in five seconds and system will auto-detect hardware again.

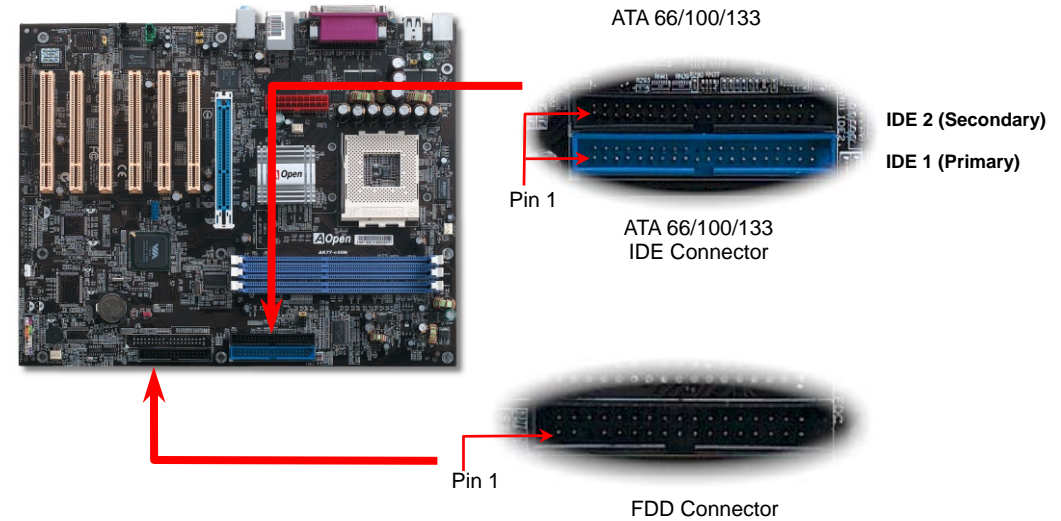
6. Connecting ATX Power Connector

The ATX power supply uses a 20-pin connector shown below. Make sure you plug in the right direction.



8. Connecting IDE, Floppy Cables

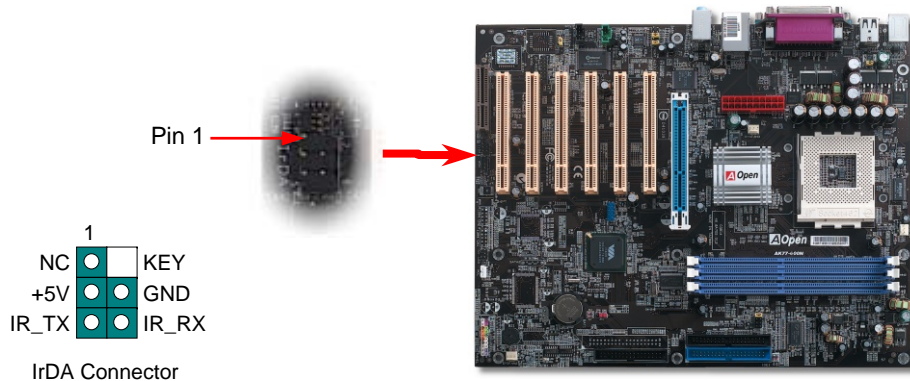
Connect 34-pin floppy cable and 40-pin IDE cable to floppy connector FDD connector. Be careful of the pin1 orientation. Wrong orientation may cause system damage.



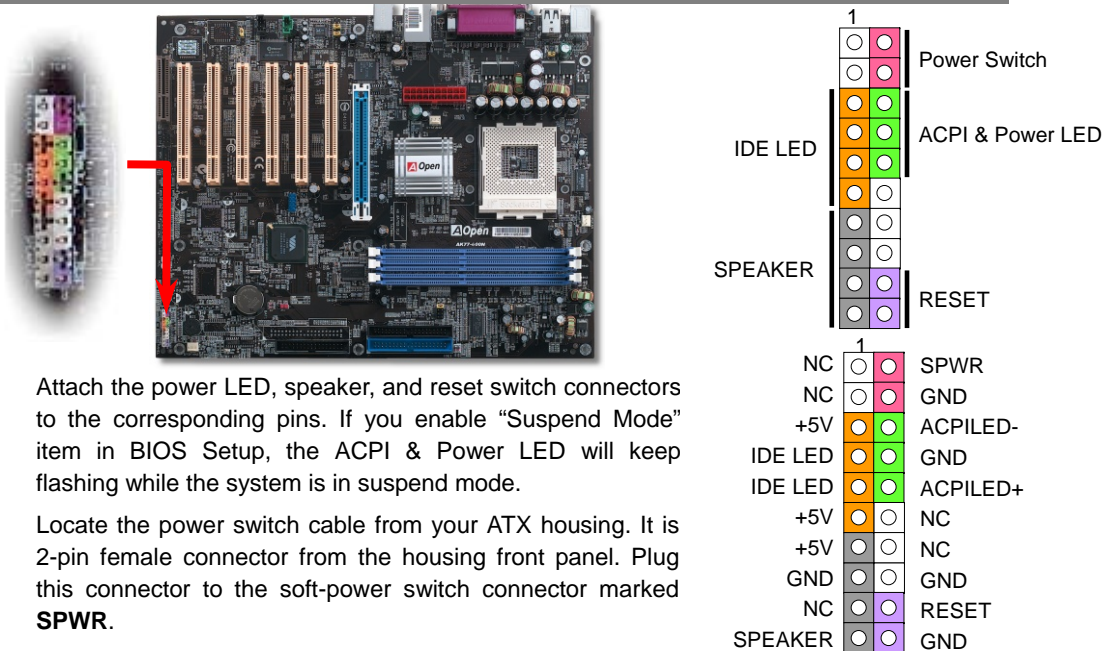
7. Connecting IrDA Connector

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.



9. Connecting Front Panel Cable

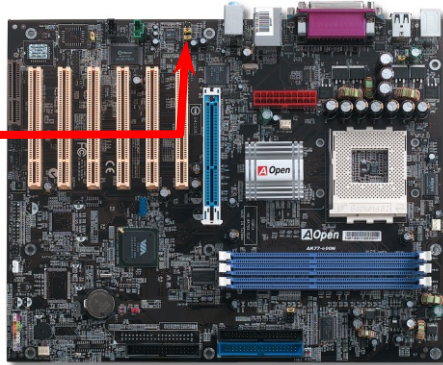
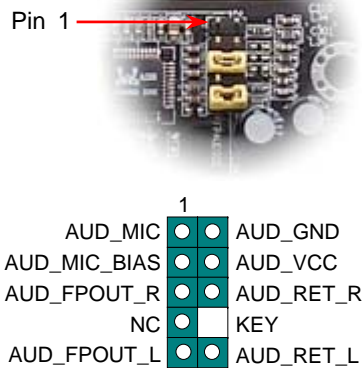


Attach the power LED, speaker, and reset switch connectors to the corresponding pins. If you enable "Suspend Mode" item in BIOS Setup, the ACPI & Power LED will keep flashing while the system is in suspend mode.

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**.

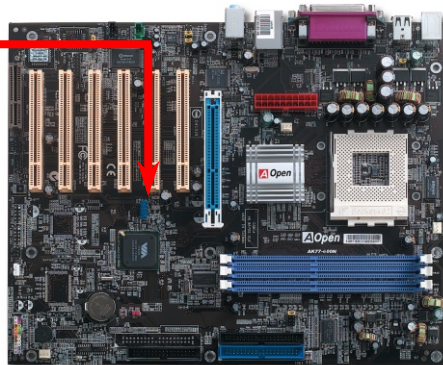
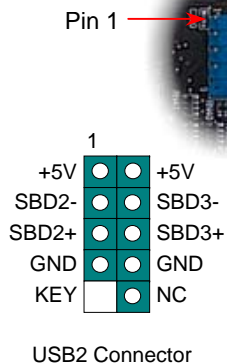
10. Front Audio Connector

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.



11. Support Six USB 2.0 Ports

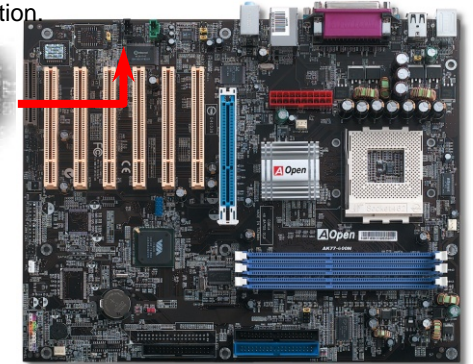
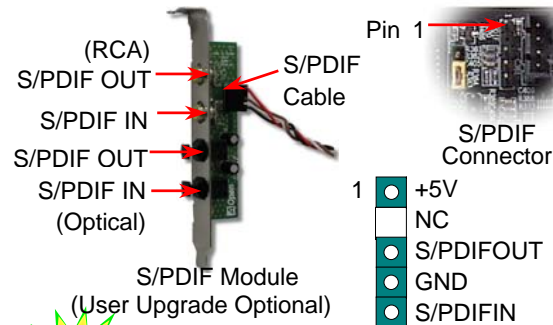
This motherboard provides six USB ports to connect USB devices, such as mouse, keyboard, modem, printer, etc. There are four connectors on the PC99 back panel. You can use proper cables to connect the other USB connectors to the USB modules or front panel of chassis. Compared to traditional USB 1.0/1.1 with the speed of 12Mbps, USB 2.0 has a fancy speed up to 480Mbps, which is 40 times faster than the traditional one.



NEW!

12. S/PDIF Connector

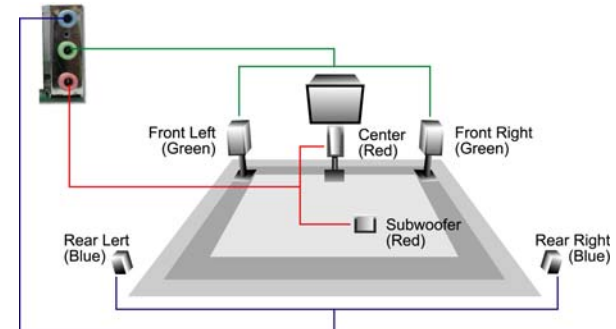
S/PDIF (Sony/Philips Digital Interface) is a newest audio transfer file format, which provides impressive audio quality through optical fiber and allows you to enjoy digital audio instead of analog audio. Through a specific audio cable, you can connect the S/PDIF connector to other end of the S/PDIF audio module, which bears S/PDIF digital output. 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. Same as outputs, you can also connect RCA or optical audio products to input connectors on the module and have the voice or music come out from your computer. However, you must have a S/PDIF supported speaker/amplifier/decoder with S/PDIF digital input/output to connect to the S/PDIF digital input/output to make the most out of this function.



NEW!

13. Super 5.1 Channel Audio Effect

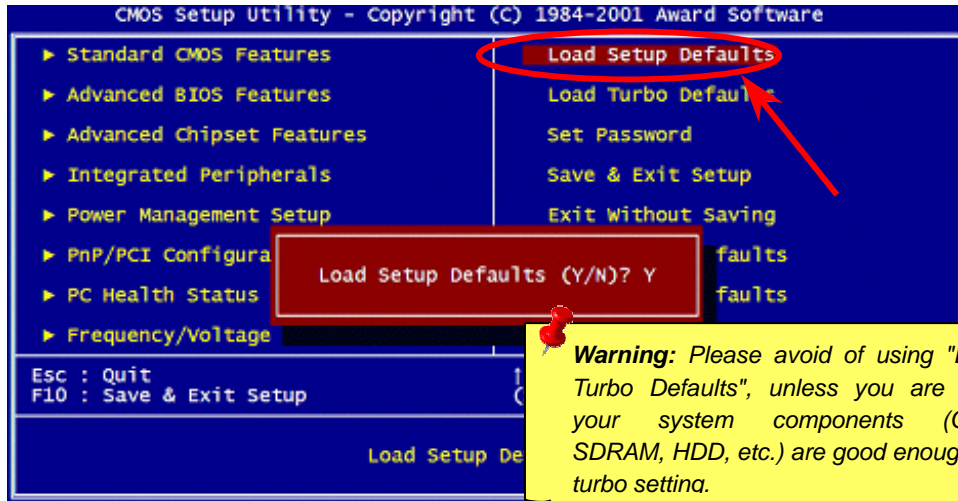
This motherboard comes with an ALC650 CODEC, which supports high quality of 5.1 Channel audio effects, bringing you a brand new audio experience. On the strength of the innovative design of ALC650, you're able to use standard line-jacks for surround audio output without connecting any external module. To apply this function, you have to install the audio driver in the Bonus Pack CD as well as an audio application supporting 5.1 Channel. Picture bellow represents the standard location of all speakers in 5.1 Channels sound track. Please connect the plug of your front speakers to the green "Speaker out" port, rear speakers' plug to the blue "Line in" port and both of the center and subwoofer speakers to the red "MIC in" port.



14. Power-on and Load BIOS Setup

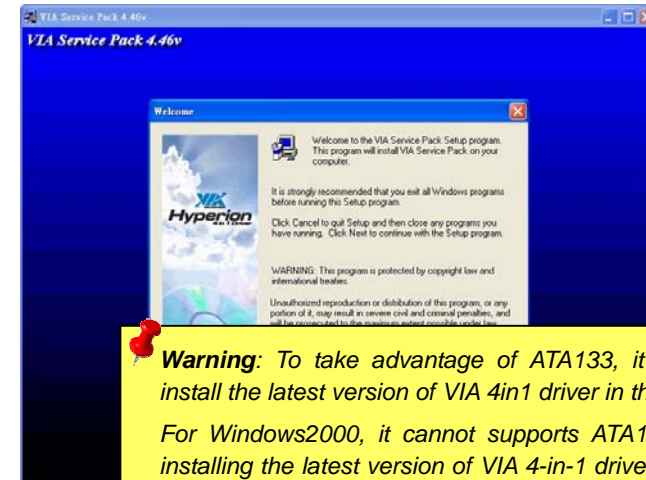
Del

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.



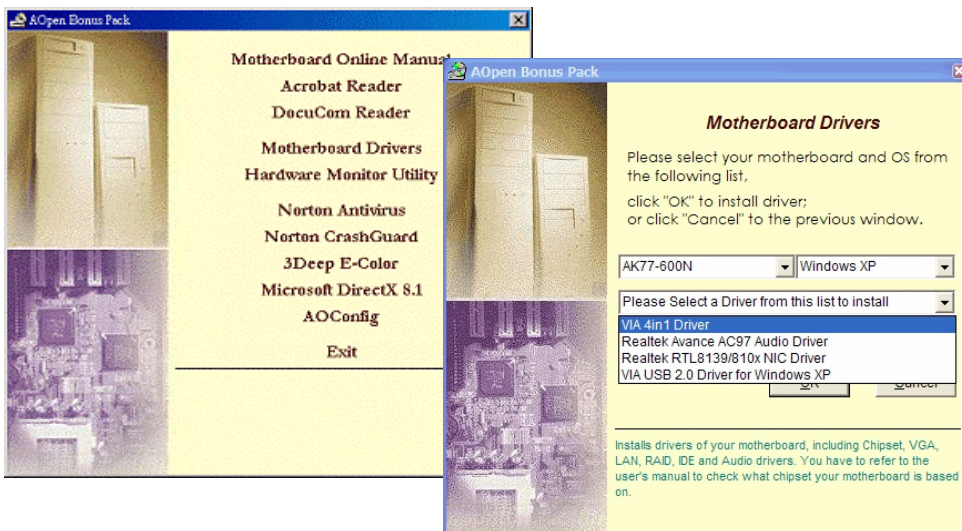
16. Installing VIA 4in1 Driver

You can install the VIA 4 in 1 driver (IDE Bus master (For Windows NT use), VIA ATAPI Vendor Support Driver, VIA AGP, IRQ Routing Driver (For Windows 98 use), VIA Registry (INF) Driver) from the Bonus Pack CD disc auto-run menu.



15. 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.

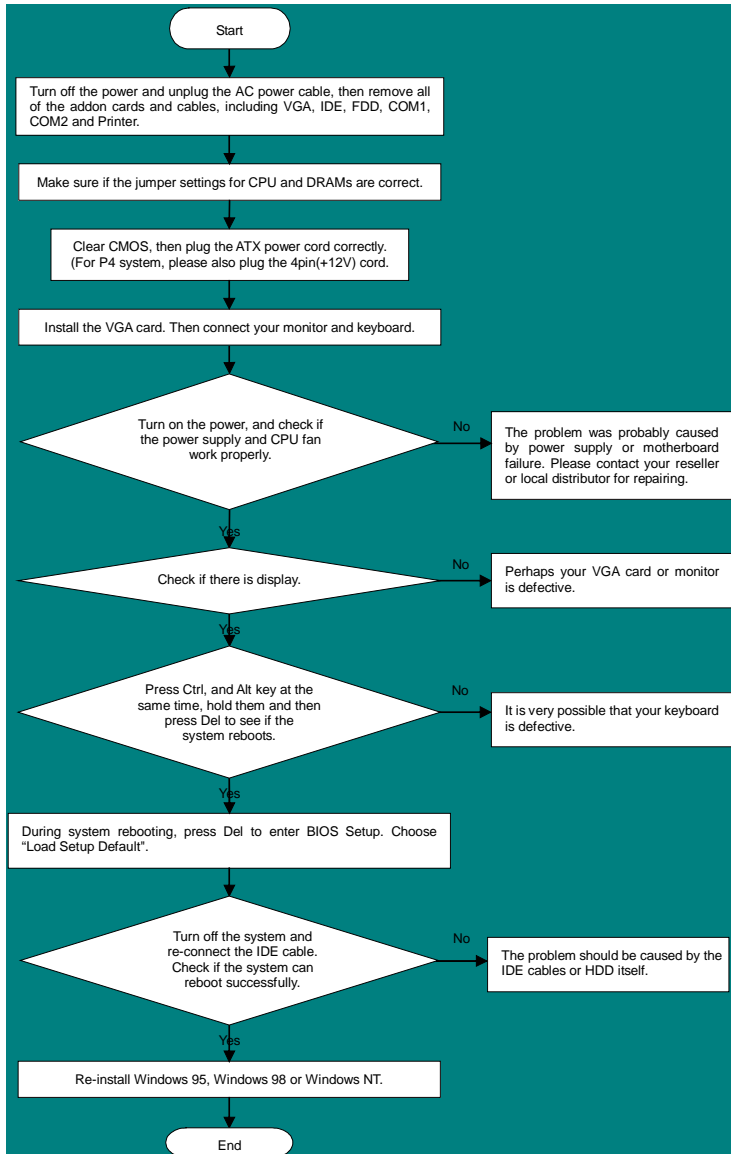
1. Download the new version of BIOS package zip file from AOpen official web site. (ex: <http://english.aopen.com.tw/>)
2. Unzip the download BIOS package (ex: WAK77600N102.ZIP) with WinZip (<http://www.winzip.com>) in Windows environment.
3. Save the unzipped files into a folder, for example, WAK77600N102.EXE & WAK77600N102.BIN.
4. Double click on the WAK77600N102.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 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 Win2000/WinXP PnP information will be refreshed and you probably need to re-configure your system.



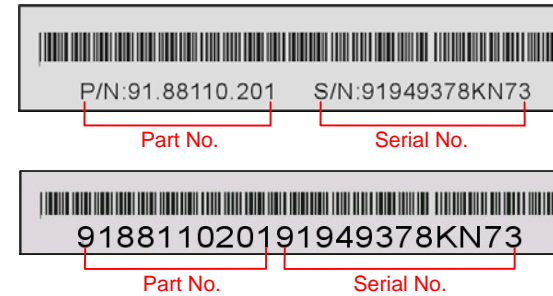
Troubleshooting

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 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:



AK77-600N is model name of motherboard; **R1.02** 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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China 艾爾鵬國際貿易(上海)有限公司 Tel: 86-21-6225-8622 Fax: 86-21-6225-7926	America AOpen America Inc. Tel: 1-510-489-8928 Fax: 1-510-489-1998
Germany AOpen Computer GmbH. Tel: 49-2131-1243-710 Fax: 49-2131-1243-999	Japan AOpen Japan Inc. Tel: 81-048-290-1800 Fax: 81-048-290-1820

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