

CD Audio-In (DX34 Only)
FAX-VOICE (DX34 Only)

AC97 CODEC Chip
(DX34 Only)

WOL (Wake On LAN)
Connector

Intel 82559 10/100
LAN Controller

AGP Pro Slot

32 Bit PCI Slot x 5

4Mbit Flash BIOS

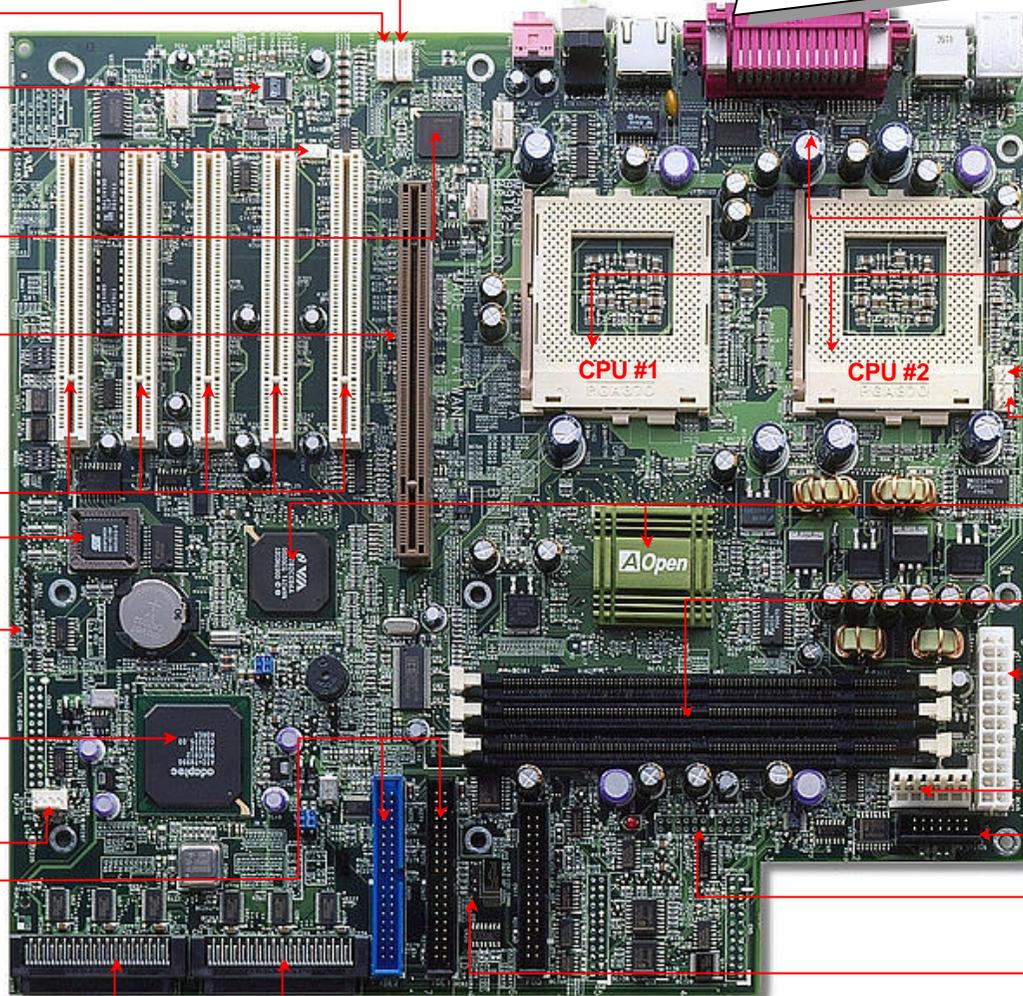
SCSI HDD LED Connector

Adaptec Ultra3 SCSI Controller
(DX34Plus Only)

System Fan Connector

ATA/66 IDE Connector

Dual Channel Ultra3
SCSI Connector
(DX34Plus)



Low ESR Capacitor

Dual CPU Sockets

Thermal Sensor Connector

CPU Fan Connector

VIA Apollo Pro 133A Chipset

PC-133 DIMM Slot x 3

SSI ATX Power Connector

AGP Pro Power Connector

Redundant SPS Connector

Front Panel Connector

BP (Backplane) Connector

CPU #1

CPU #2

AOpen

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!

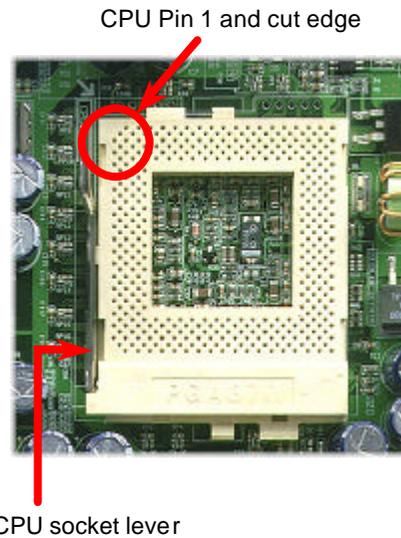
Accessory Checklist

- **Hard Drive IDE Cable x 1**
- **Driver CD x 1**
- **Norton Anti-Virus CD x1**
- **ASM Lite CD x 1**
- **IO Bracket for SV320 x 1**
- **IO Bracket for Open Market Housing x 1**
- **SCSI Utility Diskette Pack x 1 (DX34 Plus)**
- **Ultra 160 SCSI 68 pin Cable x 1 (DX34 Plus)**
- **CD In Cable x 1 (DX34)**
- **Screw Pack x 1**
- **User Manual x 1**
- **This Easy Installation Guide x 1**

PART NO: 90.50F30.002

DOC. NO: DX34-EG-E0104C

1. Installing CPU

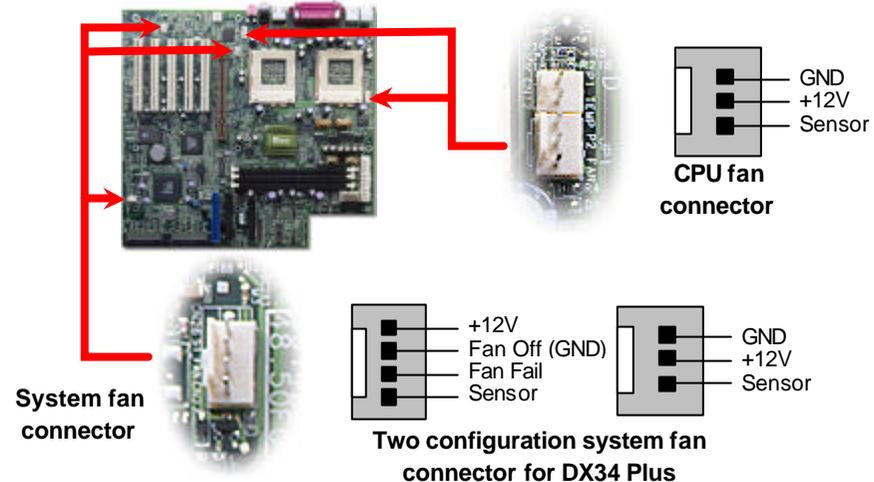


1. Pull up the CPU socket level and up to 90-degree angle.
2. Locate Pin 1 in the socket and look for a (golden) cut edge on the CPU upper interface. Match Pin 1 and cut edge. Then insert the CPU into the socket.
3. Press down the CPU socket level and finish CPU installation.

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

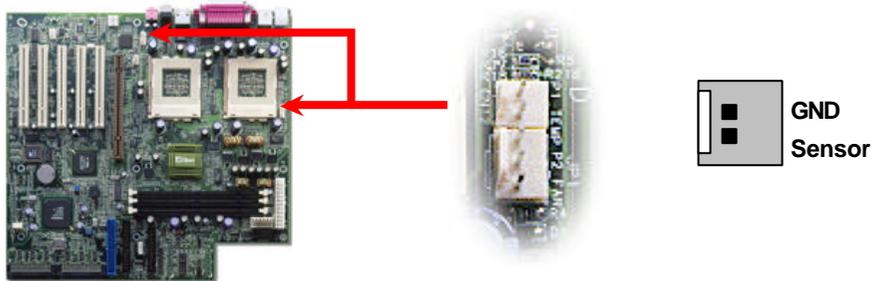
2. Installing CPU & Housing Fan

Plug in the CPU fan cable to the **CPU FAN** connector and housing fan cable to the **Housing Fan** connector. For DX34 Plus, we provide two configurations of system fan connector for better compatibility with different housing. Please do take care of the type of connector on your motherboard.



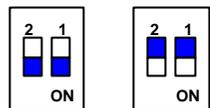
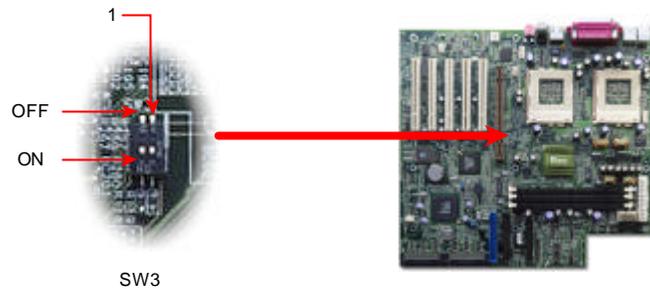
3. Installing Thermal Sensor

The Thermal Sensor Connector (CN12 & CN1) provides you to use the thermal sensor to detect the CPU temperature of the components on the motherboard.



4. SW3 Select CPU Type

This motherboard supports DUAL processors for Intel PentiumII / Pentium!!!, and Celeron CPU (applied to PPGA package only, must lower than 300MHz). Please refer to the following table for detail. It is not recommended to change the default setting, unless the system fails to boot and you're trying to troubleshoot.

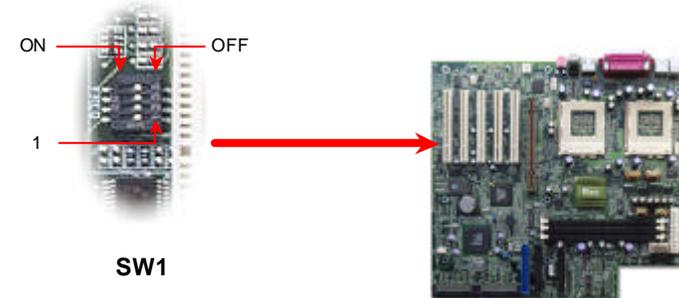


(Default)

	Processor	CPU Package	Configuration
Single Processor	PentiumII	All	Default
	Pentium!!!		
	Celeron		
Dual Processor	PentiumII	All	Default
	Pentium!!!	PPGA	Set the SW3 to OFF
	Celeron		
	Celeron	FC-PGA	Not Supported

5. SW1 Setting CPU FSB Frequency & Ratio

When you are using the Intel® engineer sample CPU with DX34/DX34Plus, the SW1 allows you select the CPU ratio from 2x to 9.5x. You can adjust the SW1 to get the correct CPU working ratio and frequency.

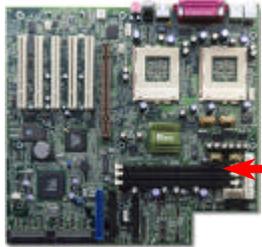


Warning: We strongly recommend you do not overclocking your CPU and system for get more system reliability.

Bit1	Bit2	Bit3	Bit4	Ratio	Frequency (FSB100)	Frequency (FSB133)
On	On	On	On	X2	200	266
On	Off	On	On	X2.5	250	333
On	On	Off	On	X3	300	400
On	Off	Off	On	X3.5	350	466
On	On	On	Off	X4	400	533
On	Off	On	Off	X4.5	450	600
On	On	Off	Off	X5	500	667
On	Off	Off	Off	X5.5	550	733
Off	On	On	On	X6	600	800
Off	Off	On	On	X6.5	650	866
Off	On	Off	On	X7	700	933
Off	Off	Off	On	X7.5	750	1000
Off	On	On	Off	X8	800	1066
Off	Off	On	Off	X8.5	850	1133
Off	On	Off	Off	X9	900	1200
Off	Off	Off	Off	X9.5	950	1266

6. Install DIMM Modules

This motherboard has three 168-pin [DIMM sockets](#) that allow you to install PC100 or [PC133](#) memory up to 1.5GB. This motherboard supports not only SDRAM but also VCM and Registered DRAM.

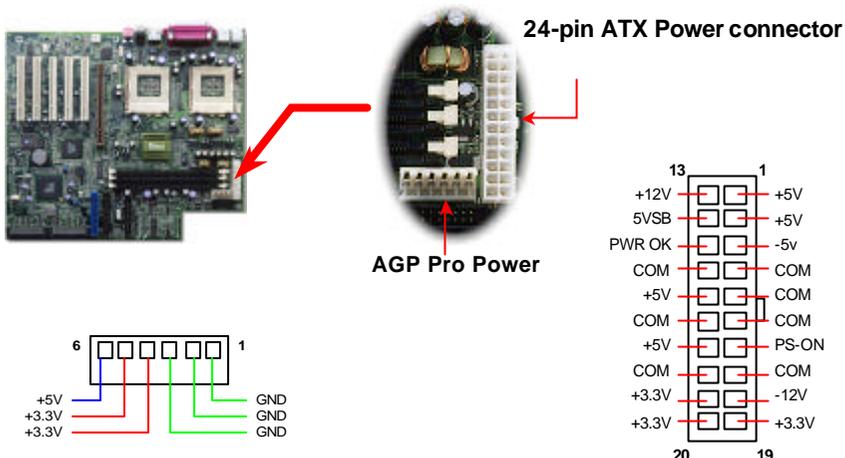


Tip: The driving capability of new generation chipset is limited due to the lack of a memory buffer (to improve performance). This makes DRAM chip count an important factor to take into consideration when you install DIMMs. Unfortunately, there is no way that the BIOS can identify the correct chip count, you need to calculate the chip count by yourself.



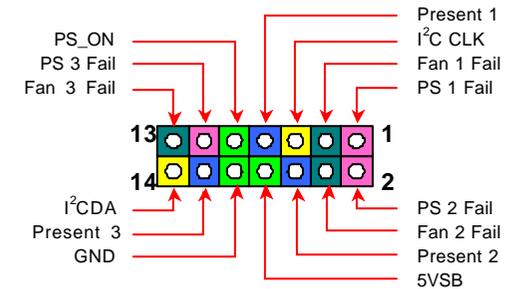
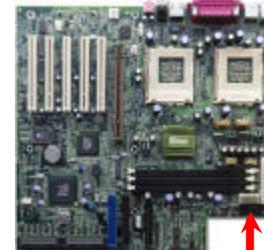
7. Connecting ATX and AGP Pro Power Connector

The DX34 / DX34Plus uses Intel® SSI (Server System Infrastructure) type 24-pin ATX power connector. The 6-pin AGP Pro Power connector provides extra +5V and +3.3V power for AGP Pro VGA card. Make sure you plug in the right direction.



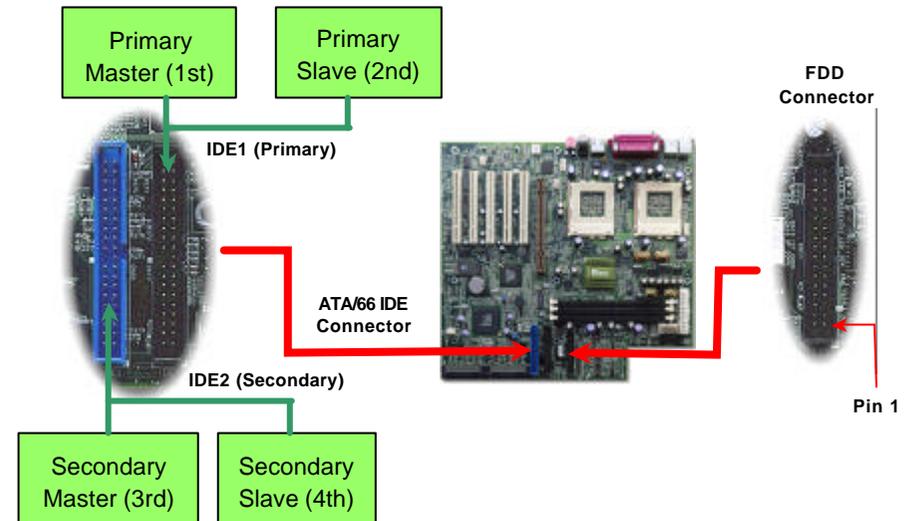
8. Connecting Redundant SPS Connector

This motherboard implements Redundant SPS connector to provide better expansibility on superior server. It is feasible to install an additional 337-watts power supply module (optional) in a hot-swappable redundant configuration, which enables a fully-configure system to continue running even if one power module fails.



9. Connecting IDE & FDD Cable

Connect 34-pin floppy cable and 40-pin ATA66 or ATA33 IDE cable to floppy connector FDC and IDE connector **IDE1**, **IDE2**. Pin1 of cable is normally marked with red color. Be careful of the pin1 orientation. Wrong orientation may cause system damage.



10. Connecting 68-pin Ultra3 SCSI Cable (DX34 Plus)

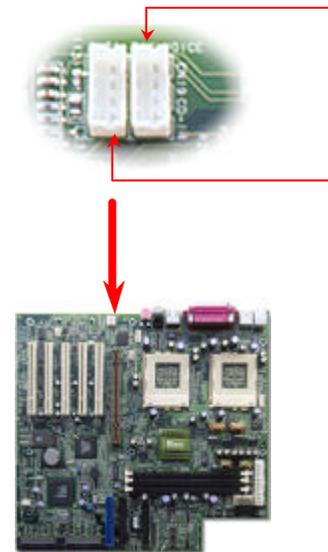
The DX34Plus provides two 68-pin Ultra Wide/Ultra 2/3 SCSI connectors for 16-bit or 16-bit differential SCSI devices.



12. CD-IN & FAX-Voice Connector (Applied to DX34)

If you have installed the CD-ROM drive in the system, the CD-In Connector (CN19) can be connected to audio output connector of internal CD-ROM drive.

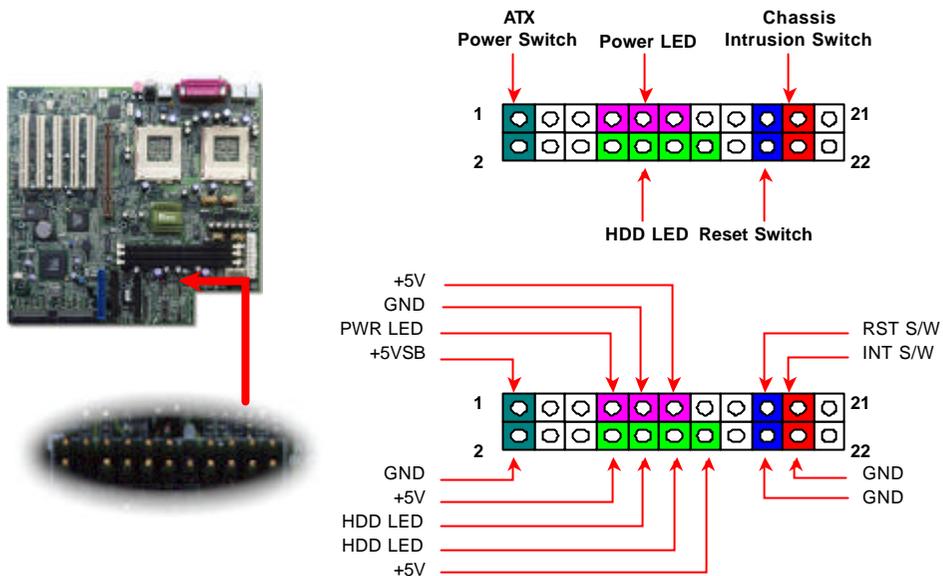
This FAX-VOICE connector (CN21) can let the fax sound of Modem device speak out from external speaker by connected .to internal Modem card.



Connector	Pin1	Pin2	Pin3	Pin4
CD-IN	Left	GND	GND	Right
FAX-Voice	MIC-IN	GND	GND	Phone

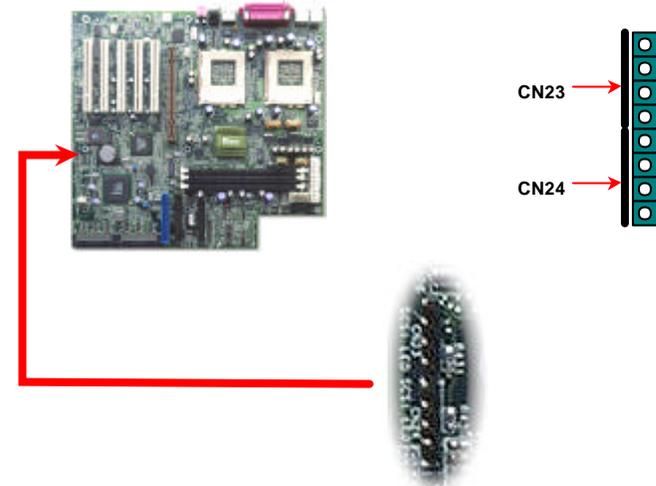
11. Connecting Front Panel Connector

Attaching such as power LED, reset switch, power switch connector, etc.... to corresponding pins.



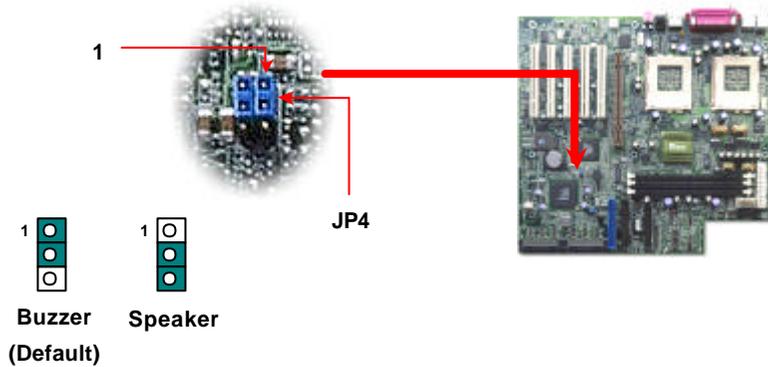
13. Connecting SCSI LED Connector

The 4-pin SCSI LED connector can be connected to the SCSI hard disk control card activity LED connector. Read or write activity by devices connected to the SCSI card will cause the LED lighting up.



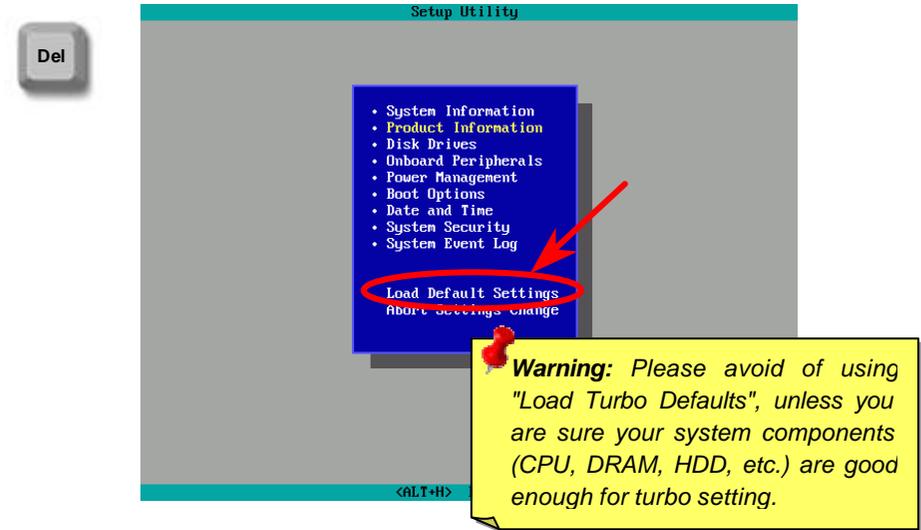
14. Select Buzzer or Ext. Speaker

There is one jumper cap over pin1 and pin2 of JP4 for internal buzzer. If you want to use external case-mounted speaker instead of internal buzzer, please remove jumper cap to short pin2 and pin3.



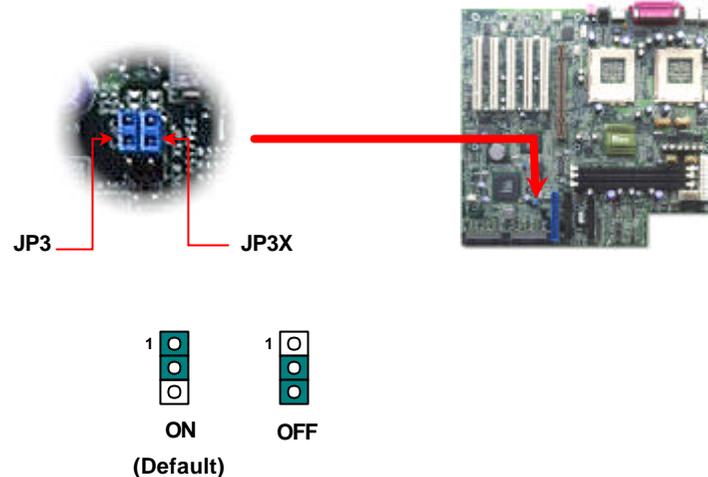
16. Power-On and Load BIOS Setup

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



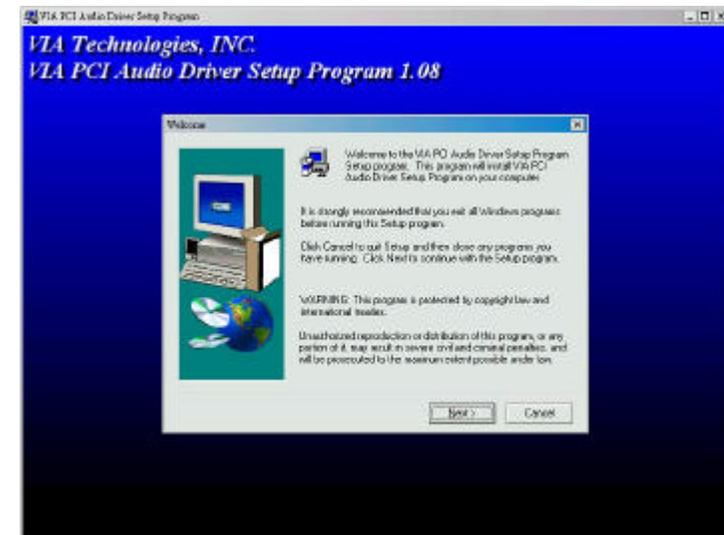
15. SCSI Channel Terminator Control (DX34 Plus only)

The **JP3/JP3X** allows you to enable or disable the on-board SCSI Channel A and B terminator control function. The SCSI **Channel A** is controlled by **JP3**; the **Channel B** is controlled by **JP3X**.



17. Installing Onboard Sound Driver

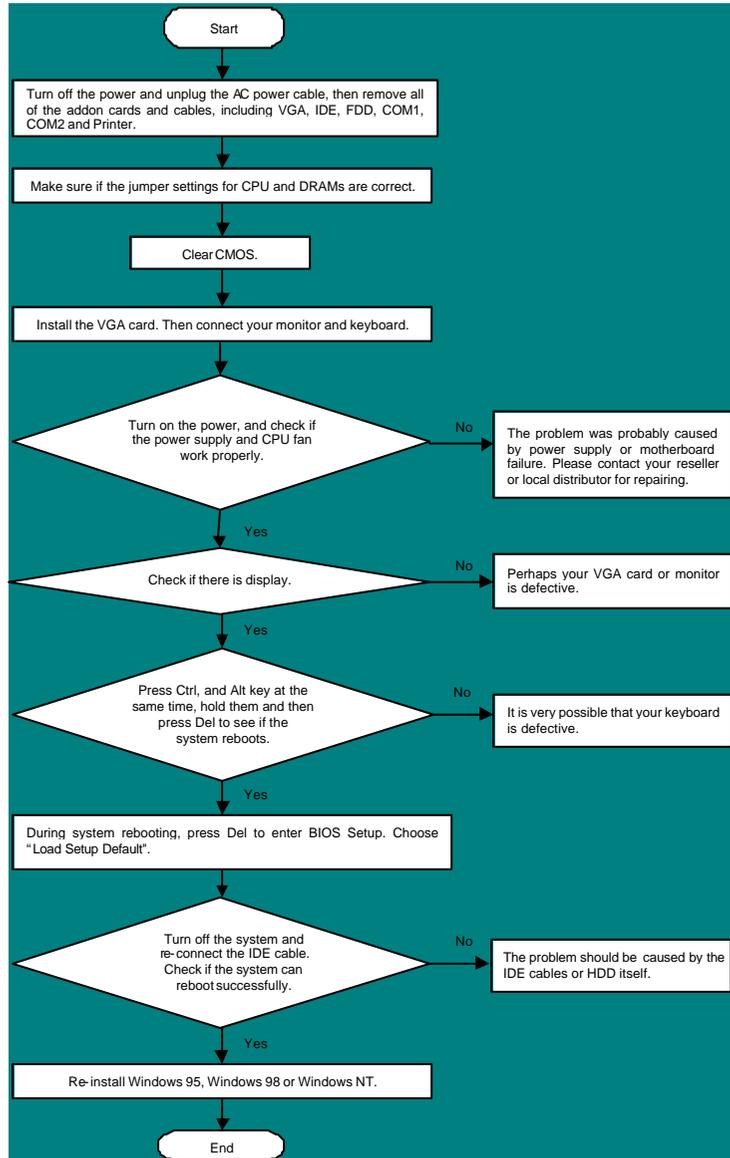
This motherboard comes with an AD 1885 AC97 CODEC. You can find the audio driver from the Bonus Pack CD disc autorun menu.





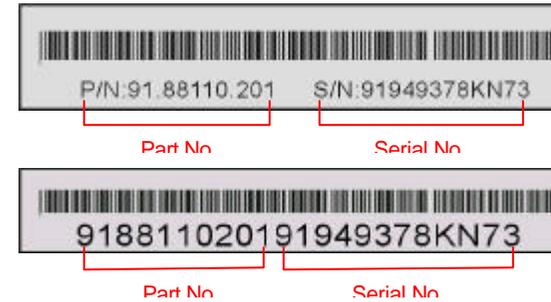
Troubleshooting

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.



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: 886-2-2696-1333
Fax: 886-2-8691-2233

Europe
AOpen Computer b.v.
Tel: 31-73-645-9516
Fax: 31-73-645-9604

China
艾? ? ? 上海(股)有限公司
Tel: 49-2102-157700
Fax: 49-2102-157799

Germany
AOpen Computer GmbH.
Tel: 49-2102-157700
Fax: 49-2102-157799

America
AOpen America Inc.
Tel: 1-510-498-8928
Fax: 1-408-922-2935, 1-408-432-0496

Web Site: www.aopen.com

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

English <http://www.aopen.com.tw/tech/contact/techusa.htm>

Japanese <http://www.aopen.co.jp/tech/contact/techjp.htm>

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

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

French <http://france.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/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/tech/report/default.htm>

3

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

4

Download Software: Check out this table to get the latest updated BIOS/utility and drivers.
<http://www.aopen.com/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/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 efficient n 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.