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## 1.1 A Thank-you Note Before You Get Start

First of all, we would like to express our gratitude for purchasing AOpen products. Once again, this motherboard 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 will introduce you how this motherboard is installed. Please keep it well for your future reference. If you lost your printed manual, you may also go to our website at <http://www.aopen.com> to download the updated file.

Now, we would like to invite you to personally experience this user-friendly manual and all of the powerful functions this AOpen product offers.

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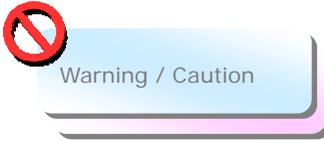
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## 1.2 Features of This Manual

To help you grab the useful information of this motherboard and aware of certain conditions that you might need to know, you will see the icons below frequently:



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



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



This tip tells you some useful information that will make your installation smoothly.

## 1.3 Safety Information



Please wear a wrist strap and attach it to a metal part of the system unit before handling a component. Alternatively, you can also touch an object that is of ground connection or with metal surface.



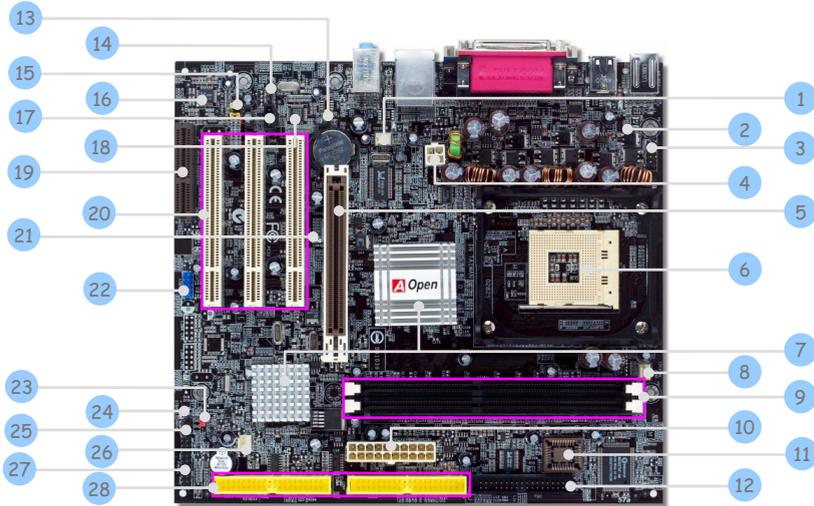
Always unplug the power before you make any jumper setting.



Before you install or remove any components on the motherboard, please make sure to disconnect the power first in case of damaging motherboard or other components.

# Chapter 2 Introduction to This Motherboard

## 2.1 How does your motherboard look like?



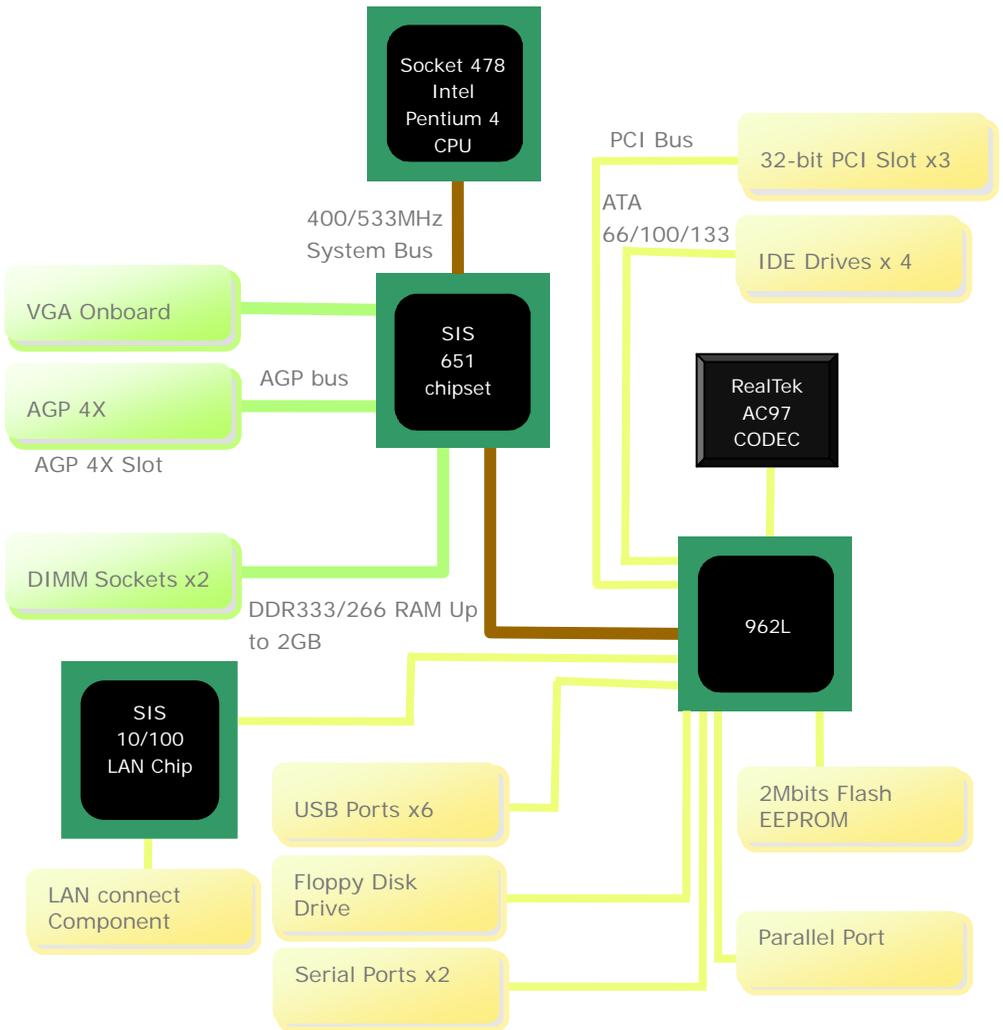
1. SYSFAN1 Connector	15. Front Audio Connector
2. Resettable Fuse	16. Onboard AC'97 CODEC
3. COM2 Connector	17. CD_IN Connector
4. 4-pin 12V ATX Power Connector	18. SIS 10/100Mbps LAN Chip
5. AGP 4X Expansion Slot	19. CNR Expansion Slot
6. 478-pin CPU socket supporting Intel P4 CPU	20. 32-bit PCI Expansion Slots X 3
7. SIS 651/962L Chipsets	21. AGP Protection LED
8. CPUFAN Connector	22. USB 2.0 Connector
9. 184-pin DIMMs X 2	23. JP14 CMOS Data Clear Jumper
10. ATX Power Connector	24. STBY LED
11. DieHard BIOS Lite	25. IRDA Connector
12. FDD Connector	26. SYSFAN2 Connector
13. JP28 PS2 KB/Mouse Wakeup Jumper	27. Front Panel
14. S/PDIF Connector	28. Connector IDE Connectors x 2

## 2.2 Specification

Here is the main function of your motherboard.

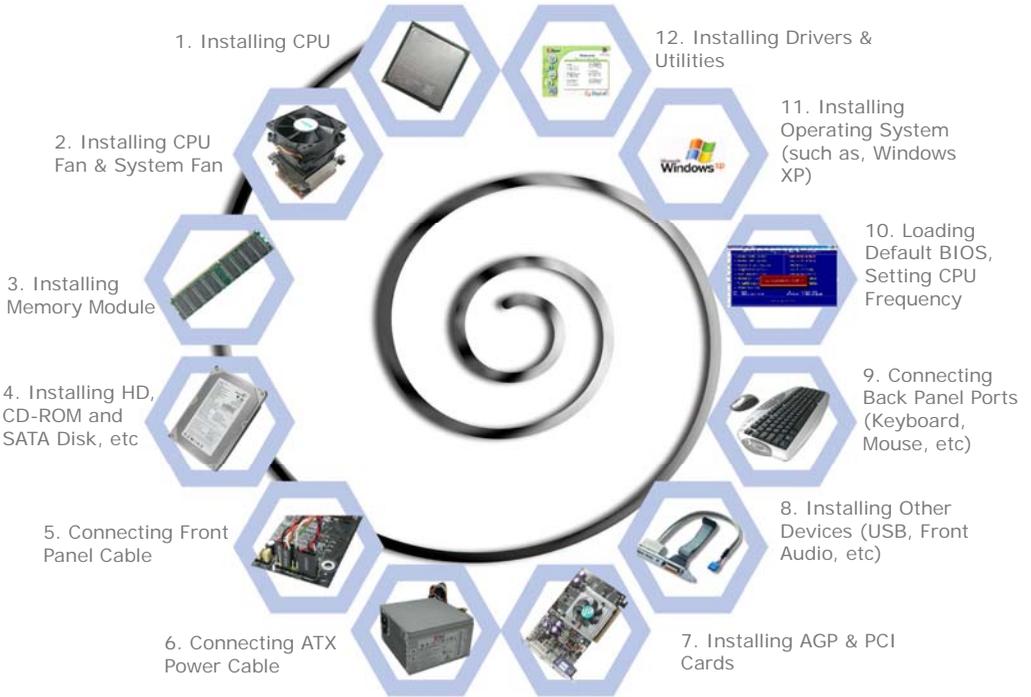
Models	s651m
CPU	Intel Pentium 4 CPU Socket 478 400/533MHz
Chipset	Intel 651/962L
Main Memory	Dual Channel Mode DDR 266/333MHz DDR DIMM x 2 DIMM Type : 64/128/256/512MB & 1GB Max Memory : 2GB
Graphics	Integrated VGA Engine in chipset 4X AGP slot
IDE	Integrated ATA133 Controller Max Disk: 144,000,000GB [by 48 bits LBA Spec.]
LAN	SIS 10/100Mbps LAN
Sound	Realtek AC'97 CODEC onboard, support 2.1 Channel
USB	Integrated in chipset, USB 2.0 x 6
Slots	AGP x 1 PCI x 3
Back Panel I/O	PS/2 Keyboard x 1, PS/2 Mouse x 1 USB Port x 4, LAN Port x 1, VGA Port x 1 COM Port x 1, Printer Port x 1 Speaker_Out x 1, Line_In x 1 MIC_In x 1
On Board Connector	Front Panel x 1 Front Audio x 1 CPU FAN x 1, System FAN x 1, Chassis FAN x 1 COM2 x 1 CD_IN x 1 IrDA x 1 S/PDIF x 1 USB Port x 2
BIOS	Award PnP 2Mb Flash ROM BIOS
Board Size	244 mm x 220 mm

## 2.3 Block Diagram



# Chapter 3 Hardware Installation

## 3.1 Quick Installation Procedure



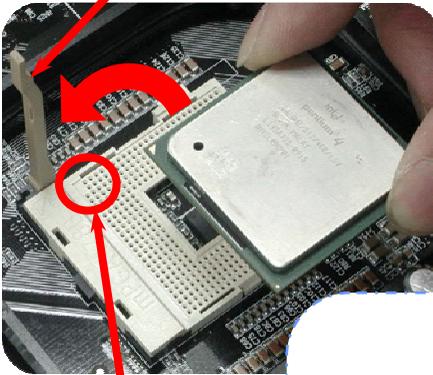
## 3.2 Installation You Have to Know

### Installing CPU

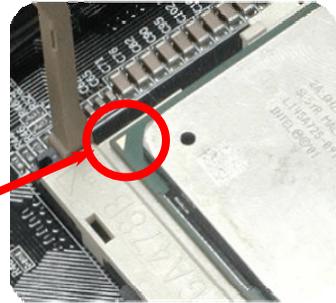
This socket supports FC-PGA2 package CPU, which is the latest CPU package developed by Intel. Other forms of CPU package are impossible to be fitted in.

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 arrow on the CPU upper interface. Match Pin 1 and golden arrow. Then insert the CPU into the socket.
3. Press down the CPU socket lever to finish CPU installation.

CPU socket lever



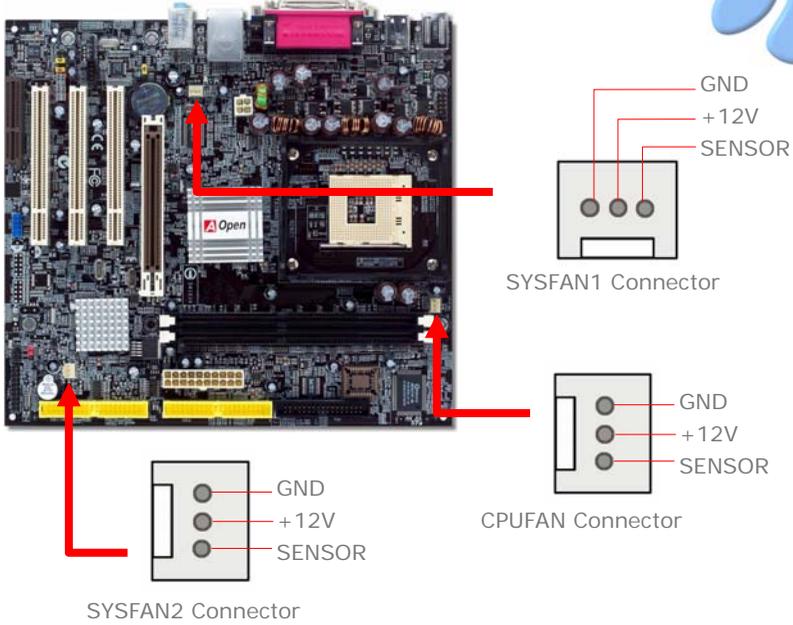
Socket Pin 1



Golden arrow

## Installing CPU and System Fans

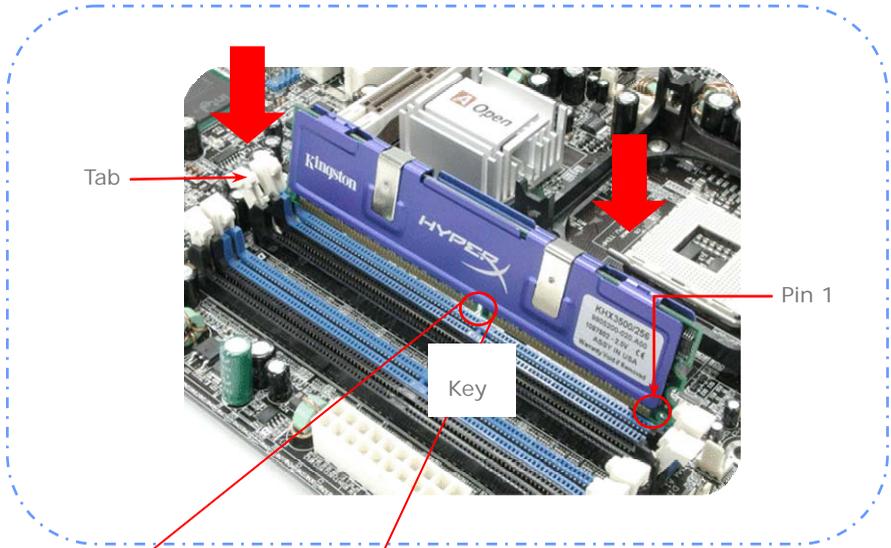
Plug the CPU fan cable to the 3-pin CPUFAN connector. If you have chassis fan, you can also plug it in SYSFAN1 or SYSFAN2 connector.



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

## Installing Memory Modules

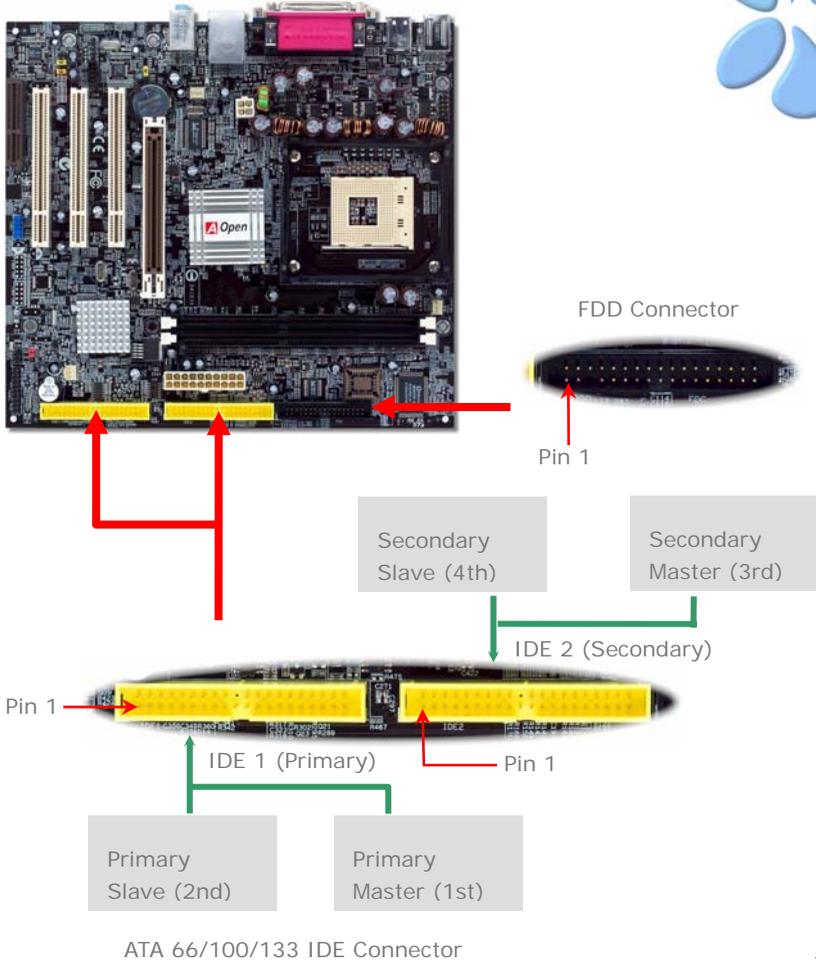
DIMM slots are designed in black which are very easy to recognize. Insert the module straight down to the DIMM slot with both hands and press down firmly until the DIMM module is securely in place.



**Note:** The tabs of the DIMM slot will clip to hold the DIMM in place when the DIMM touches the slot's bottom.

## Connecting IDE and Floppy Cables

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



## 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, which is a 2-pin female connector from the housing front panel. Plug this connector to the soft-power switch connector marked SPWR.

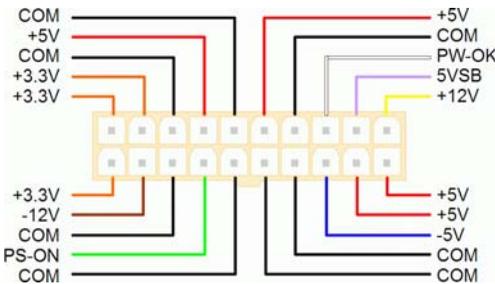
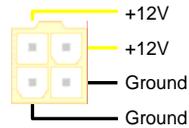
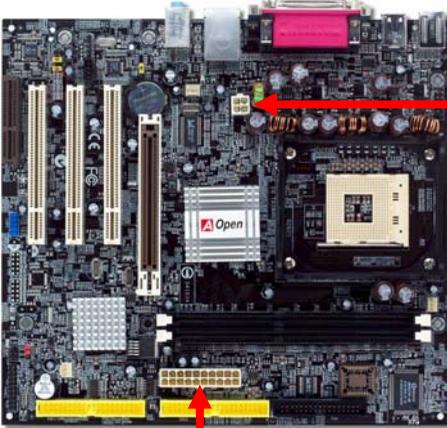


1		
NC		Power Switch
NC		GND
+5V		Power LED-
HDD LED		GND
HDD LED		NC
+5V		NC
+5V		GND
GND		GND
NC		RESET
SPEAKER		GND

Front Panel Connector

## Connecting ATX Power Cables

This motherboard comes with a 20-pin and 4-pin ATX power connector as shown below. Make sure you plug them in the right direction. We strongly recommend you to insert the 4-pin connector before connecting the 20-pin connector.



## 3.3 Other Installation for Your Reference

### Setting CPU Voltage and Frequency

#### Setting CPU Core Voltage

This motherboard supports Voltage ID (VID) function to detect CPU voltage automatically during power-on.

#### Setting CPU Frequency

This motherboard is of CPU jumper-less design; you can set CPU frequency by 1MHz stepping CPU Overclocking in the BIOS. ***CPU Core Frequency = CPU FSB clock x CPU Ratio.*** However, all CPU now sold in market belong to "Fixed Multiplier". That means users can not adjust the CPU Ratio but change CPU FSB clock to achieve overclocking only.

***BIOS Setup > Frequency / Voltage Control > CPU Speed Setup  
(Users will do the overclocking at their own risks!!)***

Northwood CPU	CPU Core Freq.	FSB Clock	System Bus	Ratio
Pentium 4 1.8G	1800MHz	100MHz	400MHz	18x
Pentium 4 2.0G	2000MHz	100MHz	400MHz	20x
Pentium 4 2.2G	2200MHz	100MHz	400MHz	22x
Pentium 4 2.2G	2200MHz	133MHz	533MHz	16x
Pentium 4 2.26G	2260MHz	133MHz	533MHz	17x
Pentium 4 2.4G	2400MHz	100MHz	400MHz	24x
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 2.8G	2800MHz	133MHz	533MHz	21x
Pentium 4 3.06G	3066MHz	133MHz	533MHz	23x

Note: With CPU speed changing rapidly, there might be faster CPU on the market by the time you received this installation guide. This table is kindly for your references only.



#### **Warning:**

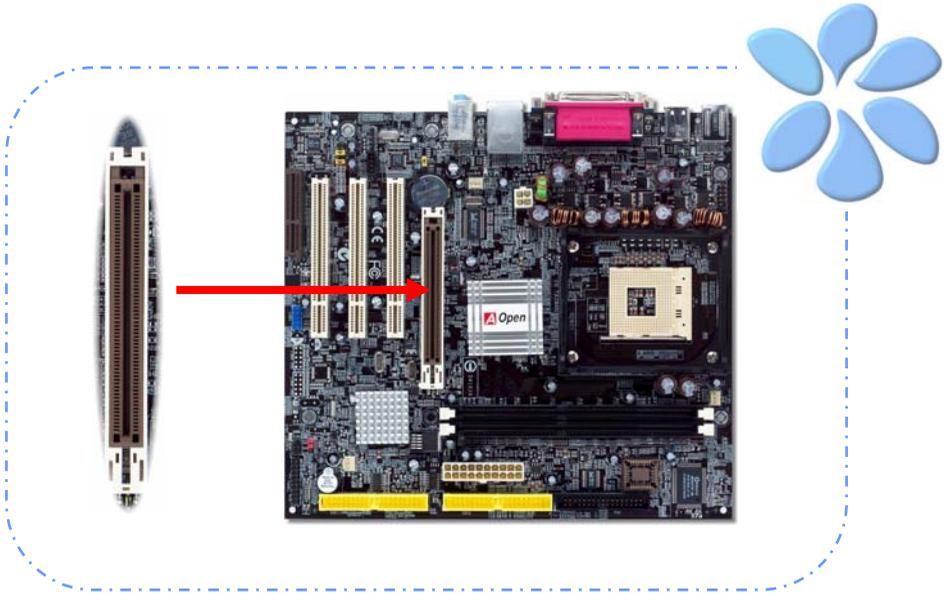
*SIS 651 chipset support maximum 533MHz (133MHz\*4) system bus and 66MHz AGP clock; higher clock setting may cause serious system damage.*

<b>CPU Ratio</b>	8x, 10x... 20x, 21x, 22x, 23x, 24x
<b>CPU FSB (Adjustment manually)</b>	FSB = 100MHz-248MHz by 1MHz Stepping CPU Overclocking



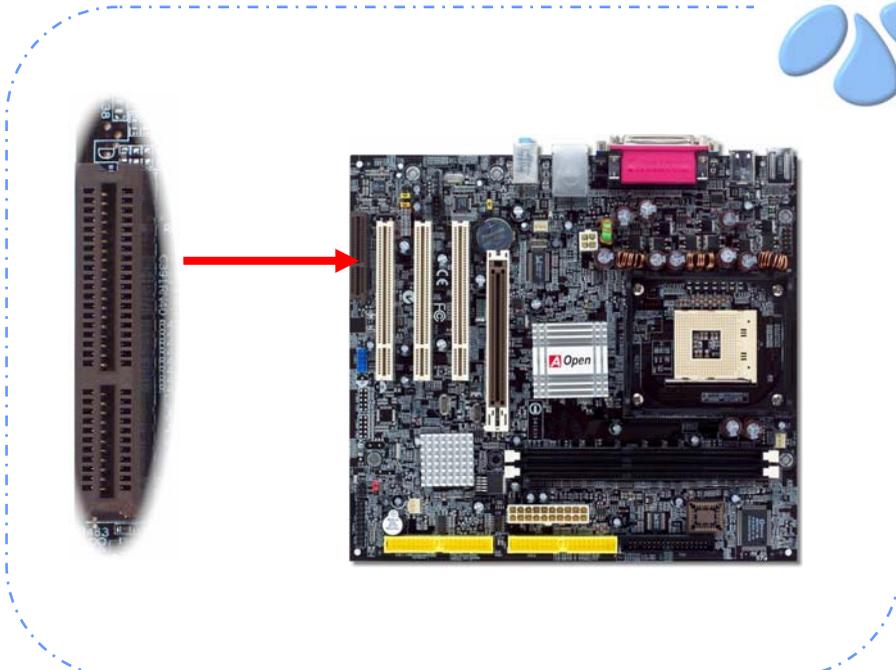
## Connecting AGP 4X Expansion Slot

s651m provide an AGP 4X slot. The AGP 4X is a bus interface targeted for high-performance 3D graphic, and the data transfer rate could achieve  $66\text{MHz} \times 4\text{bytes} \times 4 = 1056\text{MB/s}$ .



## Connecting CNR (Communication and Network Riser) Expansion Slot

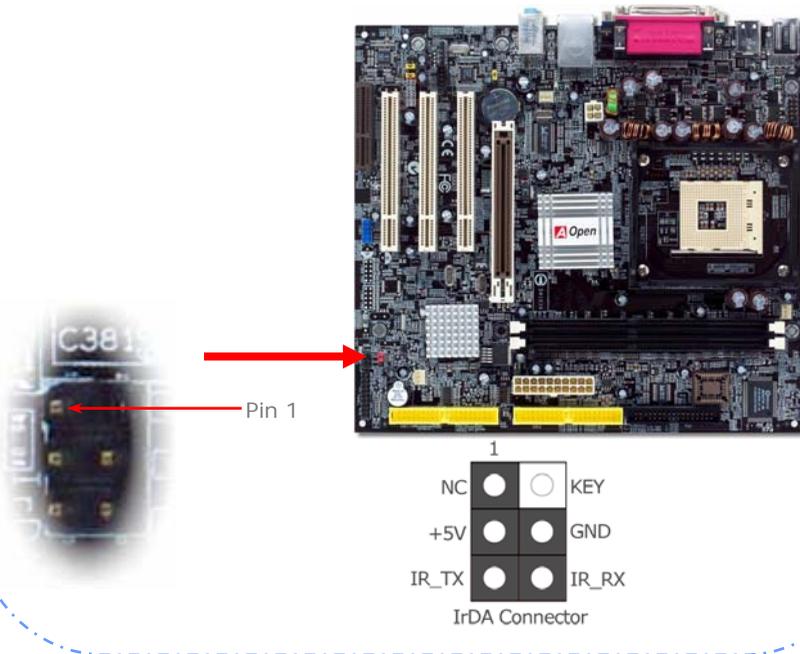
CNR is a riser card specification to replace the AMR (Audio/Modem Riser) that supports V.90 analog modem, multi-channel audio, and phone-line based networking. Owing to CPU computing power getting stronger, the digital processing job can be implemented in main chipset and share CPU power. The analogy conversion (CODEC) circuit requires a different and separate circuit design, which is put on CNR card. This motherboard implements sound CODEC on board, but reserves CNR slot for the option of modem function. Note that you can still use PCI modem card. Please note that if you want to use CNR audio card on CNR slot, you must disable the sound output of CODEC from BIOS to prevent the CODEC from making out noises at the same time.



## Connecting IrDA

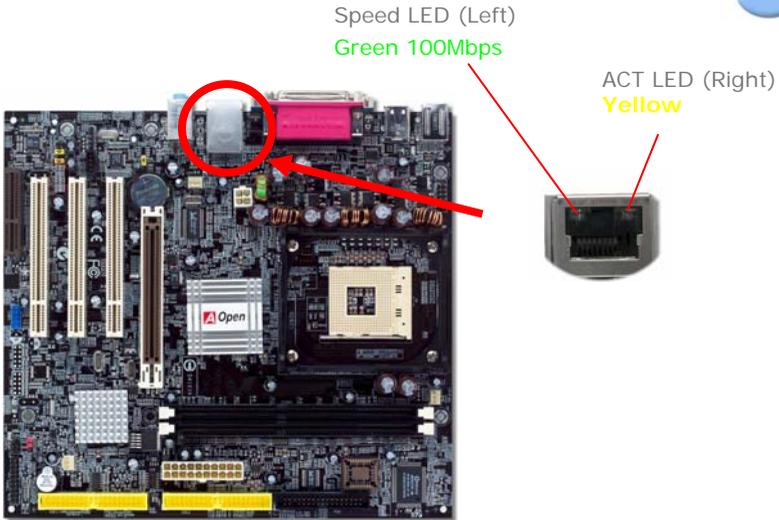
The IrDA connector can be configured to support wireless infrared module, with this module and application software such as Laplink or Windows Direct Cable Connection, user can transfer files to or from laptops, notebooks, PDA devices and printers. This connector supports both HPSIR (115.2Kbps, 2 meters)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

Install an infrared module onto the IrDA connector and enable the infrared function from BIOS Setup, UART Mode, you can use this function. Please make sure you connect correct orientation when plugging IrDA module.



## 10/100Mbps LAN Supported

On the strength of 10/100Mbps LAN controller on board, this motherboard provides 10/100Mbps Ethernet for office and home use. The Ethernet RJ45 connector is located on the top of USB connectors. The right hand side LED indicates link mode; it lights in yellow when linking to network. The left hand side LED indicates the transfer mode and will light in green when data is transferring at 100Mbps (never lights while at 10Mbps). To enable or disable this function, you may simply adjust it through BIOS. To enable LAN wakeup function, you have to set the "Wake on PCI Card" enable in the BIOS "Power Management Setup" section.

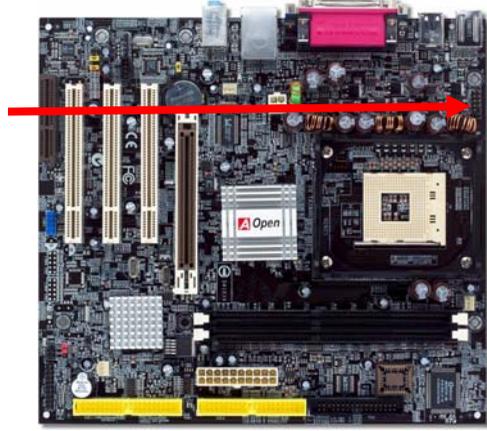


## Connecting COM2

This motherboard provides two serial ports. One of them is on back panel connector, and the other is on the upper left of board between PCI slots. With proper cable, you can connect it to the back panel of chassis.



Pin 1



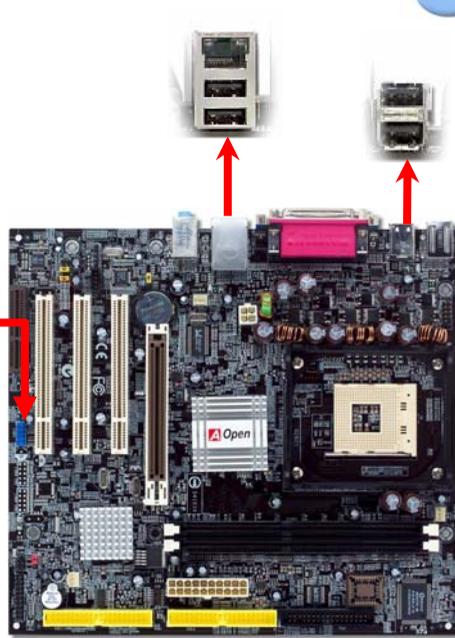
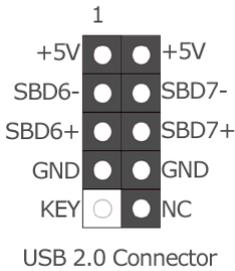
	1		
DCD#	●	●	SIN
SOUT	●	●	DTR#
GND	●	●	DSR#
RI#	●	●	CTS#
RTS#	●	○	

## Connecting USB2.0

This motherboard provides six USB 2.0 ports to connect USB devices such as mouse, keyboard, modem, printer, etc. There are four ports on the back panel. You can use proper cables to connect Front USB connector to USB modules or chassis front panel.



Pin 1



## Connecting Front Audio

If the housing is 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 your housing doesn't have an audio port on the front panel.



Pin1

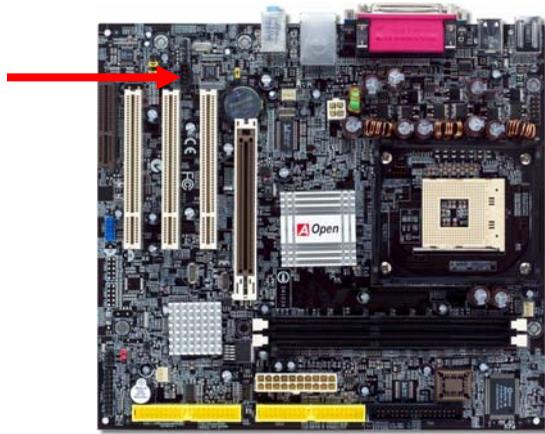
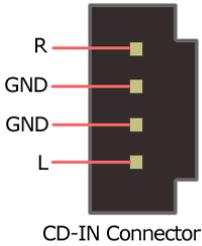


	1		
AUD_MIC	●	●	AUD_GND
AUD_MIC_BIAS	●	●	AUD_VCC
AUD_FPOUT_R	●	●	AUD_RET_R
NC	●	○	KEY
AUD_FPOUT_L	●	●	AUD_RET_L

Front Audio Connector

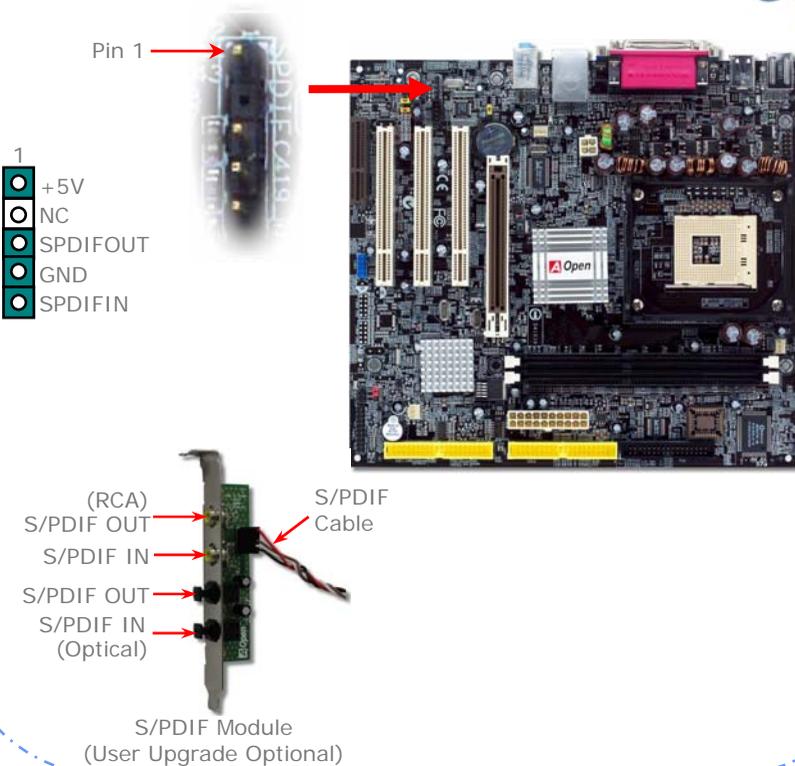
## Connecting CD\_IN

This connector is designed to connect CD Audio cable from CDROM or DVD drive to onboard sound.



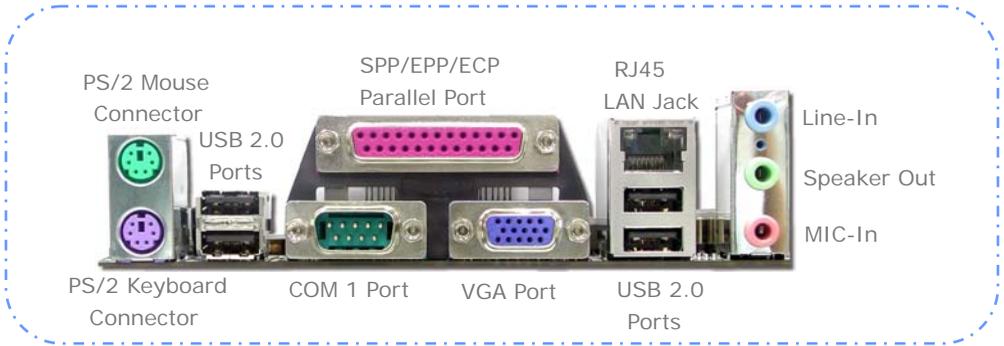
## Connecting S/PDIF (Sony/Philips Digital Interface)

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.



## Colored Coded Back Panel

The onboard I/O devices have PS/2 Keyboard, PS/2 Mouse, RJ-45 LAN Connector, COM1, VGA port, Printer, USB, AC'97 sound and game ports. The view angle of drawing shown here is from the back panel of the housing.



**PS/2 Keyboard:**

For standard keyboard, which use a PS/2 plug.

**PS/2 Mouse:**

For PC-Mouse, which use a PS/2 plug.

**USB Port:**

Available for connecting USB devices.

**Parallel Port:**

To connect with SPP/ECP/EPP printer.

**COM1 Port:**

To connect with pointing devices, modem or others serial devices.

**RJ-45 LAN Port:**

To connect Ethernet for home or office use.

**VGA Connector:**

To connect with PC monitor.

**Speaker Out:**

To External Speaker, Earphone or Amplifier.

**Line-In:**

Comes from the signal sources, such as CD/Tape player.

**MIC-In:**

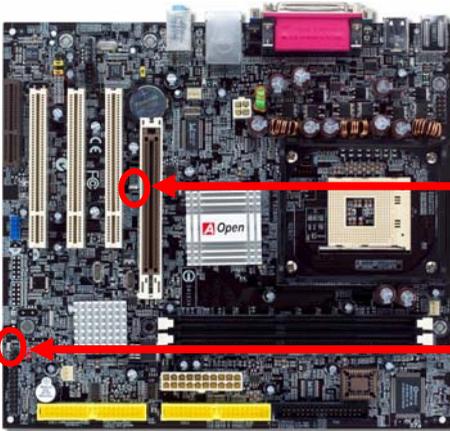
For Microphone

## LED Indication

LED indication are AOpen's considerate designs that aim at providing you friendly system information.

**STBY LED** will light up when power is provided to the motherboard, giving you a convenient indication check the system power status in circumstances such as power on/off, stand-by mode and RAM power status during Suspend to RAM mode.

**AGP LED** aims to protect your motherboard from being damaged by over voltage of AGP card. When AGP Protection Technology is implemented, this motherboard will automatically detect the voltage of AGP card and prevent your chipsets from being burnt out.



AGP LED

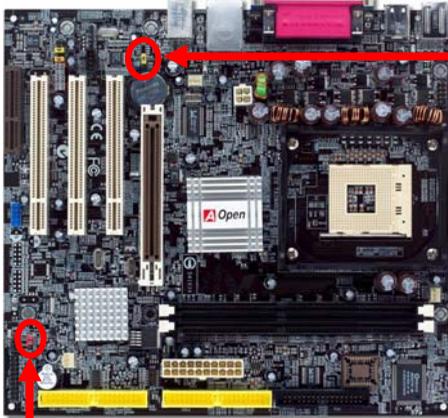
STBY LED



## 3.4 Jumper Settings

JP28 Keyboard / Mouse  
Wakeup Jumper

This motherboard provides PS2 keyboard / mouse wake-up function.



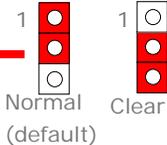
JP28 PS2 KB/Mouse  
Wakeup Jumper



Disable  
(Default)



Enable



JP14 Clear CMOS Jumper

Normal  
(default)

Clear CMOS

JP14 Clear CMOS Data

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.

# Chapter 4 Special Features and Utilities

## Other Useful Features

With excellent design ability of R&D team, AOpen boasts for its various powerful and handy features that come with our product like follows. You are welcomed to visit our technical website to learn more about those features.

<http://english.aopen.com.tw/tech/techinside>



# Chapter 5 Setting BIOS

## Introduction

System parameters can be modified by going into BIOS Setup menu; this menu allows you to configure the system parameters and save the configuration into the 128 bytes CMOS area (normally in the RTC chip or in the main chipset).

The Phoenix-Award BIOS™ that installed in the Flash ROM of the motherboard is a custom version of an industry standard BIOS. The BIOS provides critical low-level support for standard devices such as hard disk drives, serial and parallel ports.

AOpen's R&D engineering team had optimized most BIOS settings of this motherboard. However, some default settings of BIOS cannot fine-tune those sections that controlled by chipset. Therefore, this chapter is intended to guide you and help you to configure some other settings.

To enter BIOS setup menu, press <Del> when POST (Power-On Self Test) screen is shown on your monitor.



**Note:** *Because BIOS code is the most often changed part on motherboard, the BIOS information contained in this manual may be different from the BIOS version that comes with your motherboard.*

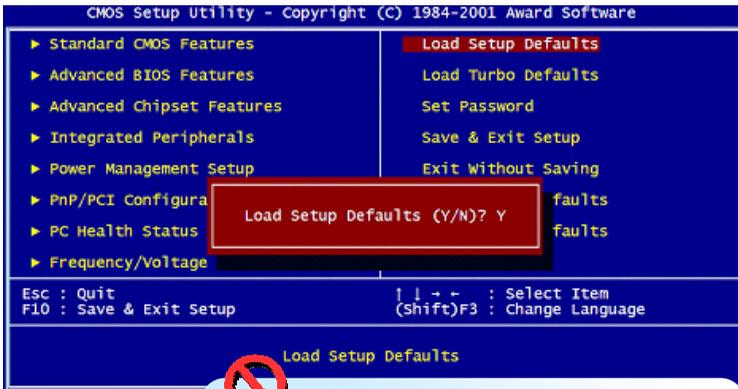
## How To Use Phoenix-Award™ BIOS Setup Program

Generally, you can use arrow keys to highlight items that you want to choose, press <Enter> key to select, and use <Page Up> and <Page Down> keys to change setting values. You can press <Esc> key to quit Phoenix-Award™ BIOS setup program. The following table provides details about how to use keyboard in the Phoenix-Award™ BIOS setup program. Alternatively, it's strongly recommended to install AOpen's newest WinBIOS Utility to get more detailed description, further powerful functions and advanced setting of BIOS.

Key	Description
Page Up or +	Change setting to next value or increase the value.
Page Down or -	Change setting to previous value or decrease value.
Enter	Select the item.
Esc	In main menu: Quit without saving any changes. In sub menu: Exit current menu to main menu.
Up Arrow	Highlight previous item.
Down Arrow	Highlight next item.
Left Arrow	Move the light bar to left side of menu.
Right Arrow	Move the light bar to right side of menu.
F6	Load Setup Default setting value from CMOS.
F7	Load turbo setting value from CMOS.
F10	Save changed settings and exit setup program.

## How To Enter BIOS Setup

After finishing the jumper settings and connecting cables, you can power on and enter the BIOS Setup. Press <Del> during POST (Power-On Self Test) and choose "Load Setup Defaults" for recommended optimal performance.



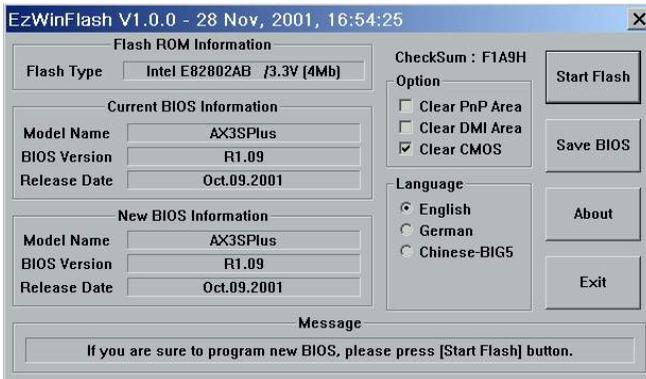
**Warning:** Please avoid of using "Load Turbo Defaults", unless you are certain your system components (CPU, SDRAM, HDD, etc.) are good enough for turbo setting.

## BIOS Upgrade under Windows environment



With outstanding R&D ability of AOpen, we now bring you a whole new BIOS Flash wizard ---- EzWinFlash. With an eye to convenience for users, EzWinFlash combines the BIOS binary code and flash module together, so the only thing you have to do is just clicking on the utility you downloaded from web and let it help you complete the flash process automatically. EzWinFlash detects your motherboard and checks the BIOS version cleverly to prevent your system from any possible failure. Moreover, EzWinFlash has been taken into consideration to go with any windows platform you might be using, no matter if you're using Windows 95/98, 98SE/ME, NT4.0/2000, or Windows XP.

In the meanwhile, in order to provide a much more user-friendly operating environment, AOpen EzWinFlash is natively designed to have multi-language function to provide easier way for user in changing BIOS setting.



**Caution:** You are taking a risk of BIOS flash failure when you update your system. If your motherboard is working stable, and there are no major bugs to be fixed by a latter BIOS revision, we recommend that you **DO NOT** upgrade your BIOS. If you intent on upgrade **PLEASE MAKE SURE** you get the right BIOS revision for your motherboard model so as to avoid any possible failure.

**Note:** The model name on this BIOS picture is for reference only. It may not be the same model with your motherboard.



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

Download the latest version of BIOS package zip file from AOpen official web site. (Ex: <http://english.aopen.com.tw/>)

Unzip the downloaded BIOS package (ex: WS651M102.ZIP) with WinZip (<http://www.winzip.com>) in Windows environment.

Save the unzipped files into a folder, for example, WS651M102.EXE & WS651M102.BIN.

Double click WS651M102.EXE; EzWinFlash will detect the model name and BIOS version of your motherboard. If you collect wrong BIOS, you will not be allowed to proceed with the flash steps.

You may select a preferred language in main menu, then click [Start Flash] to begin the BIOS upgrade procedure.

EzWinFlash will complete all the process automatically, and a dialogue box will pop up to ask you to restart Windows. Click [YES] to reboot Windows.

Press <Del> at POST to enter BIOS setup screen; choose "Load Setup Defaults", then "Save & Exit Setup". Done!

It is strongly recommended NOT to turn off the power or run any applications during FLASH PROCESS.



**Warning:** The new BIOS upgrade will permanently replace your original BIOS setting when flashing. You may need to reconfigure the BIOS setting before your system goes back to work as normal.

## Vivid BIOS technology



Have you been fed up with the conservative and immutable POST screen? Let's rule out the tradition idea that POST screen are stiff and frigid, and let AOpen show you the newly developed VividBIOS to experience the lively vivid colorful POST screen!

Unlike earlier graphic POST screen which could occupy the whole screen and mask text information during POST, AOpen VividBIOS deals with graphics and texts separately, and makes them running simultaneously during POST. With this innovative design, VividBIOS now brings you a beautiful and sleek 256 colors screen without missing any important information shown on POST screen.

In addition, the limited space of BIOS ROM is another big issue. When all of the traditional BIOS can only show space-consuming and uncompressed Bitmap, AOpen has considerably tuned the BIOS to next generation, to recognize the smaller-sized GIF format and even dynamic-showing GIF animation.



Vivid BIOS shares the same fundamental technology with Open JukeBox CD Player, you may use the same EzSkin utility to change your VividBIOS screen or to download your favorite Open JukeBox skin. If you see this little logo shown beside



your model name on the motherboard download page, <http://english.aopen.com.tw/tech/ezskin/vivid.htm>, it is assured that your motherboard supports this innovative feature!

# Chapter 6 Installing Drivers



You may think that installing drivers and utilities would be a repeated task of going through those installation wizards and steps-by-steps. Now, you will be surprised with how “Ez” EzInstall could do. Without wizards or steps, all you have to do is to do one click and then it’s done. Click and done. Yes. EzInstall makes installation easy and even foolproof!

After putting in the CD, you will be prompted with AOpen welcome page and our branches information.

First, click on the install driver ICON at left side for necessary drivers.

Second, click on the install utility ICON at left side for preferred utilities.

Practically, it’s done. But you may also browse CD contents, Readme to get more information or just exit the CD installation.

The screenshot shows the AOpen EzInstall welcome page. On the left side, there is a vertical menu with five icons: a CD/DVD drive, a yellow folder, a magnifying glass over a CD, a blue folder, and a CD/DVD drive. Callouts point to these icons with the following text: "Install driver", "Install utility", "Browse CD Contents", "Readme", and "Exit CD".

At the top right, there is a callout pointing to a small icon of a person reading a manual, with the text "Click to install online manual".

The main content area features the AOpen logo at the top left, the word "Welcome" in large blue letters, and the text "Thank you for choosing AOpen s651 m" and "Contact us". Below this, there are three columns of contact information for different branches:

Contact us		
AOpen Inc. http://www.aopen.com.tw TEL: +886-2-3789-5888 FAX: +886-2-3789-5899	AOpen Computer GmbH. http://www.aopencom.de TEL: +49-2131-1243-710 FAX: +49-2131-1243-999	AOpen Japan Inc. http://www.aopen.co.jp TEL: +81-048-290-1800 FAX: +81-048-290-1820
AOpen America Inc. http://english.aopen.com.tw TEL: +1-408-232-1200 FAX: +1-408-232-1280	AOpen International Co., Ltd. http://www.aopen.com.cn TEL: +86-21-6225-8622 FAX: +86-21-6225-7926	
AOpen Computer B.V. http://www.aopen.nl TEL: +31-73-645-9516 FAX: +31-73-645-9604		

At the bottom right, there is a callout pointing to the contact information, with the text "AOpen branches information".

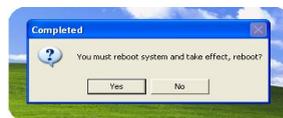
The EzInstall logo is visible at the bottom right of the page.

## 6.1 Installing Drivers

As you may see from the Installing driver page, EzInstall had picked up necessary for your motherboard. All you have to do is just click on the "GO", and no more steps afterward, of all listed drivers, grey checks indicate necessary drivers; you cannot click them off. Red checks can be disabled if you don't want to install them now.



Press the icon will prompt the "Install Driver" page. You may also press "Back" to return to the Main page.



Once clicking "GO", EzInstall will run the installing procedure automatically, and prompt a reboot dialog (Some drivers or utilities may skip the reboot part).

## 6.2 Installing Utilities

Installing Utilities is virtually the same as installing drivers. AOpen provides you many friendly and powerful utilities to manage your system. You may find lots of fabulous utilities listed there, and all you have to do is to click on the “GO”, then it will install the utilities to your system right away without complicated steps.

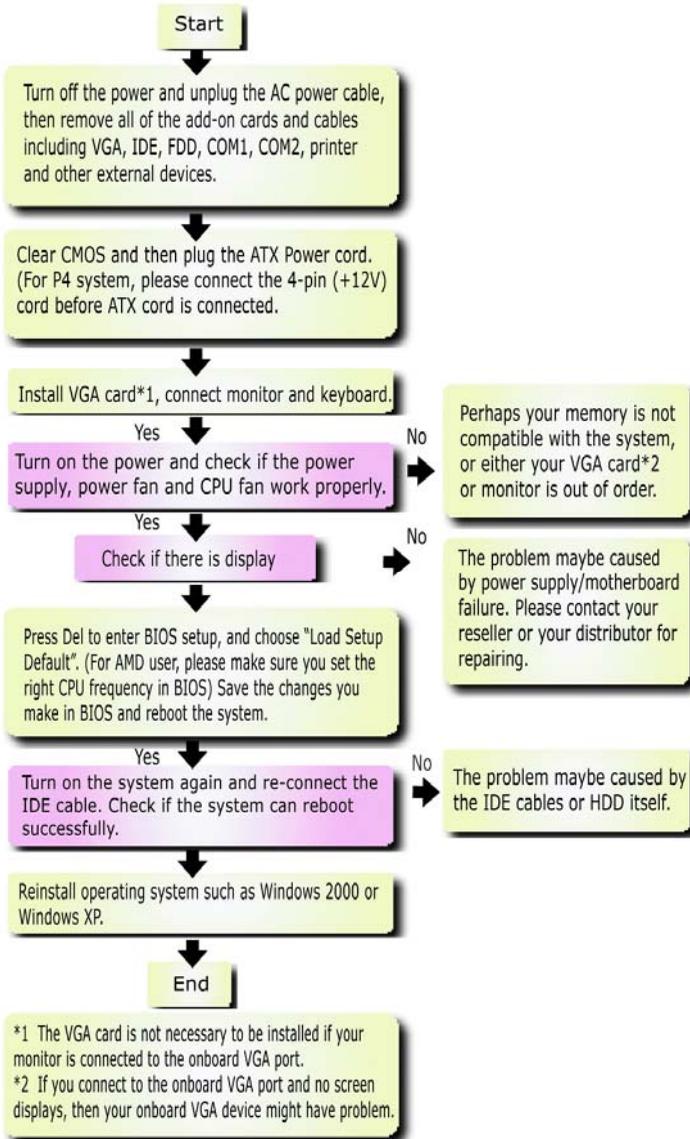


Press the icon will prompt the “**Install Utilities**” page for your selection. You may also press “**Back**” to get back to the Main page.





## Troubleshooting



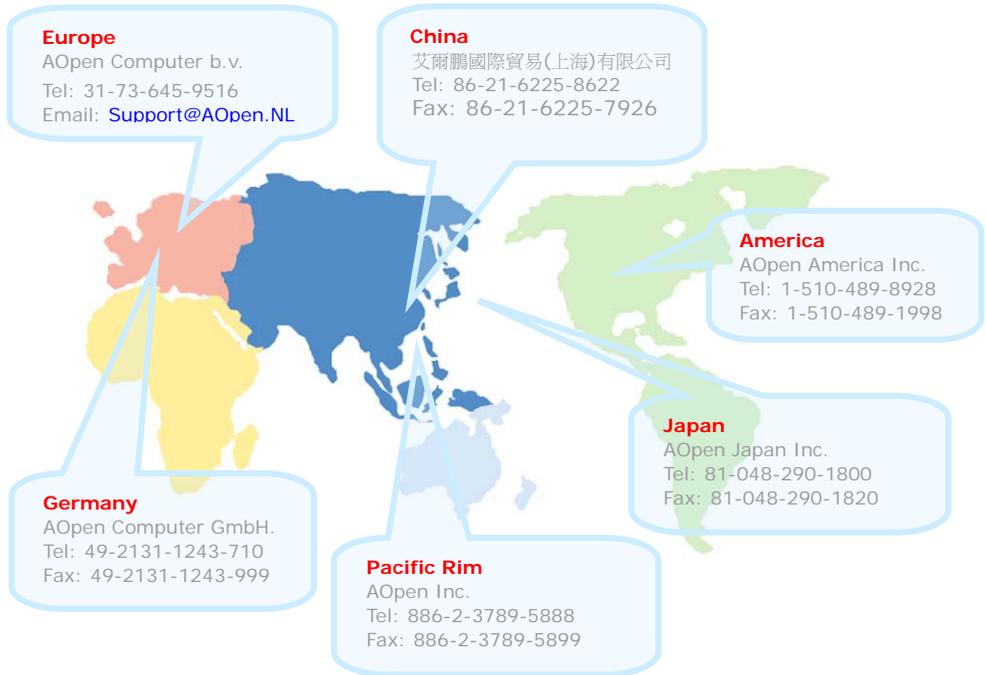
# Chapter 8 Technical Support

Dear Customer,

Thanks for choosing AOpen products. We invite you to register at <http://www.aopen.com> to become a Gold Member of Club AOpen so as to ensure quality service in the future. In order to maintain the best service to every customer of us, we recommend you to follow the procedures below and seek help from our branches according to the region you buy the product. With your help, we can then continue to provide efficient and the best quality service to every customer.

Thanks very much for your understanding!

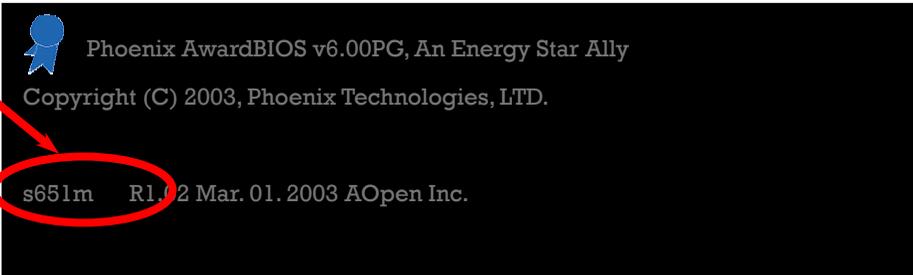
AOpen Technical Supporting Team



Europe Email: [Support@AOpen.NL](mailto:Support@AOpen.NL)  
Pacific Rim: <http://www.aopen.com.tw/tech/default.htm>  
China: <http://www.aopen.com.cn/tech/default.htm>  
Germany: <http://www.aopencom.de/tech/default.htm>  
America: <http://usa.aopen.com/tech/default.htm>  
Japan: <http://www.aopen.co.jp/tech/default.htm>

## 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:



s651m is model name of motherboard; R1.02 is BIOS version

## Register Your Motherboard

Thanks for choosing AOpen product, please register this motherboard at <http://club.aopen.com.tw/productreg/> to become a Gold member of Club AOpen, and to ensure high service quality and priority from AOpen. You will also have a chance to play slot machine game to win prize from AOpen. Please prepare the following information before you start: Model Name, Part Number (P/N), Serial Number (S/N) and Purchase Date. 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:



Part No.

Serial No.

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

### Phoenix-Award BIOS ERROR Message

Beep Sound	Message
1 short(Beep)	System booting is normally.
1 long - 1 short(Beep)	DRAM ERROR
1 long - 2 short(Beep)	Display card or monitor connected error
1 long - 3 short(Beep)	Keyboard Error
Long(Beep) continuous	DRAM hasn't inset correctly.



# Technical Support

**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>

**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>

**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/>

**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>

**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>

**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.

**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.

