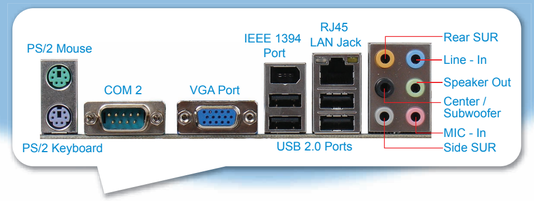
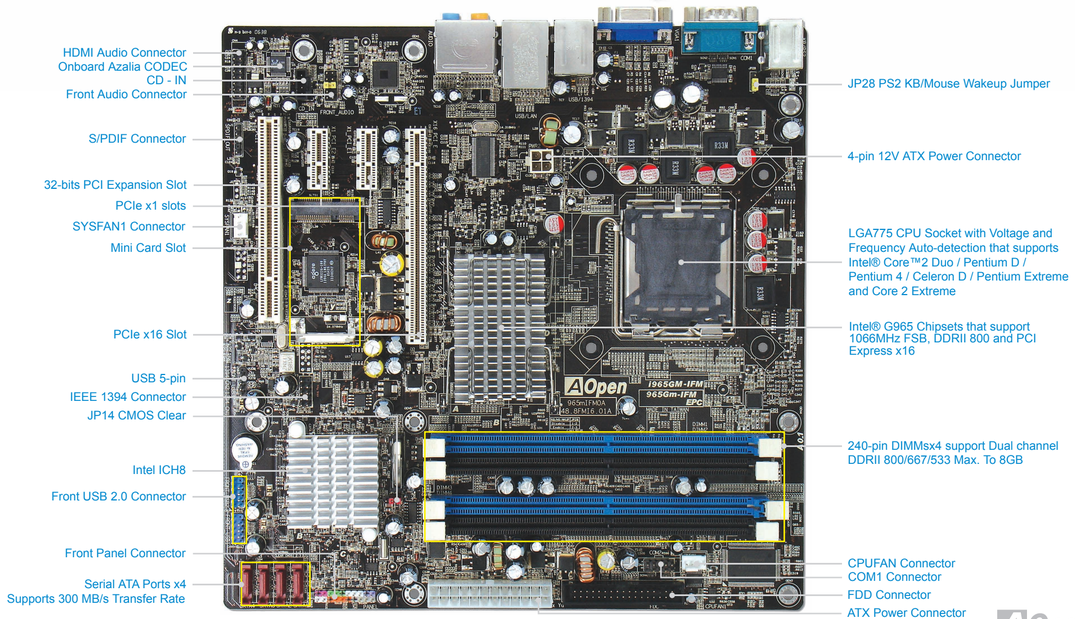
Easy Installation Guide

i965Gm-IFM





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.

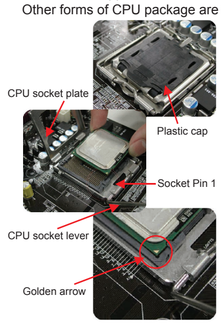
Accessory Checklist

- *2 x SATA Cables*
- *1 x SATA PWR Cable*
- *1 x FLOOPY Cable*
- *1 x EIG*
- *1 x Bonus CD*
- *1 x SATA to IDE Board*
- *1 x I/O bracket*

Part No.: 49.8FM01.EE20 Doc. No.: I965GMIFM-EG-E0702D

1. Installing CPU

This socket supports LGA-775 CPU, which is the latest CPU package developed by Intel. Other forms of CPU package are impossible to be fitted in



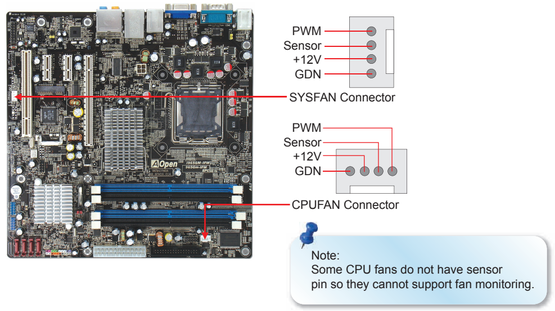
1. Pull CPU socket lever and plate up.
2. Remove plastic cap from CPU socket plate.
3. Locate Pin 1 in the socket and look for a golden arrow on the CPU upper interface. Match Pin 1 and golden arrow. Then insert the CPU into the socket.
4. Press down CPU socket plate and lever to finish CPU installation.

Warning:
If you do not match the CPU socket Pin 1 and CPU golden arrow well, you may damage the CPU. And please don't touch CPU socket pins when installing CPU.

Note:
It's strongly recommended by Intel to use thermal paste properly to avoid over-heat generated From Prescott CPU.

2. Installing CPU & System Fans

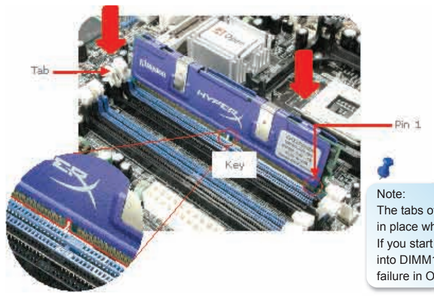
Plug in the CPU fan cable to the 4-pin CPUFAN connector. If you have chassis fan, you can also plug it in SYSFAN1 or connector.



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

3. Installing Memory Modules

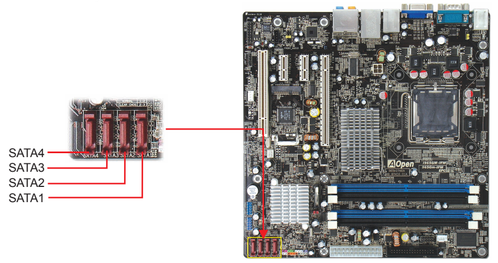
DIMM slots are designed in Electronic Blue and Navy Blue which are very easy to recognize. Insert the module straight down to the DIMM slot with both hands and press down firmly until the DIMM module is securely in place.



Note:
The tabs of the DIMM slot will clip to hold the DIMM in place when the DIMM touches the slot's bottom.
If you start the ME function, please insert your memory into DIMM1. Otherwise, you will meet ME function failure in OS. The behavior is following Intel Spec.

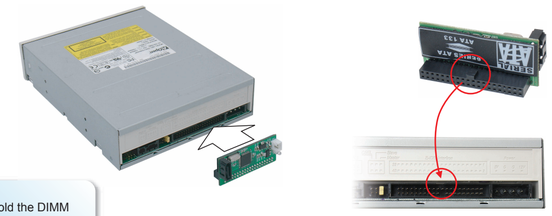
4. Connecting SATA & HDD Cable

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 serial ATA hard disks are installed on serial ATA ports, the one connected on SATA1 will be set as the first boot device automatically.



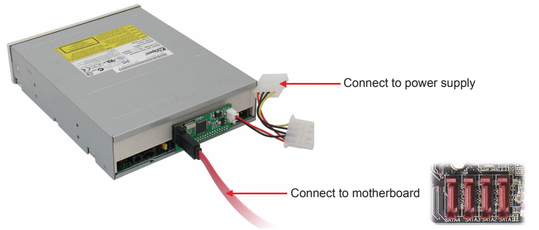
5. Installing Optical Device

To connect optical device, please use the bundled SATA to PATA board, check the slot key and plug in.



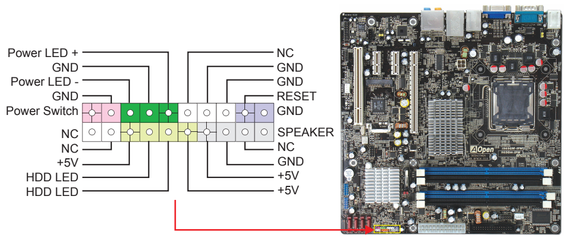
6. Installing Optical Device Cable

After connecting the board, please connect SATA cable to motherboard and plug the power cord to power supply



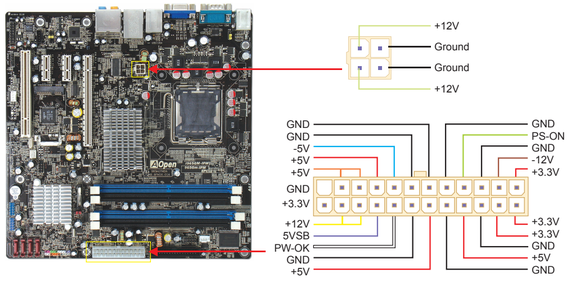
7. Connecting front Panel Cable

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.



8. Connecting ATX Power Cable

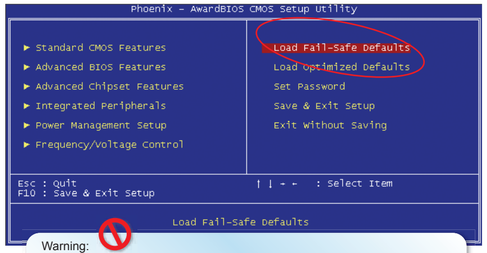
This motherboard comes with a 24-pin and 4-pin ATX power connector as shown below. Make sure you plug in the right direction. We strongly recommend you to insert the 4-pin connector before connecting the 24-pin connector.



9. Power-on and Loading BIOS Setup

Del

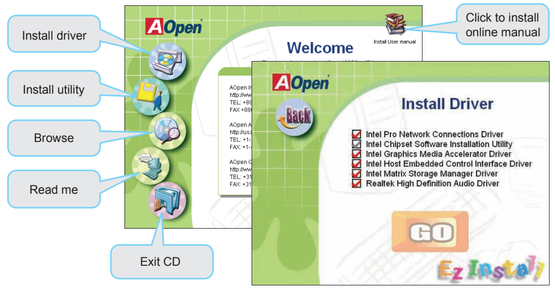
After you finish the setting of jumpers and connect correct cables. Power on and enter the BIOS Setup, press <Del> during POST (Power On Self Test). Choose "Load Fail-Safe Defaults" for recommended optimal performance.



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

10. AOpen Bonus Pack CD

You can use the autorun menu of Bonus CD disc. Choose the utility and driver from the icons at left side, and then click on the "GO" button to complete installation automatically.



Setting CPU Voltage & 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 CPU jumper-less design, you can set CPU frequency through 1MHz stepping CPU Overclocking in the BIOS. CPU Core Frequency = CPU FSB clock x CPU Ratio. However, all CPU now selling in the market belong to "Fixed Multiplier". That means users can not adjust the CPU Ratio but only change CPU FSB clock to achieve overclocking. (You do overclocking at your own risk!!)

BIOS Setup > Frequency / Voltage Control > CPU Speed Setup

CPU Ratio	8x, 10x… 24x, 25x, 26x, 27x, 28x
CPU FSB (Adjustment manually)	FSB = 100MHz-400MHz by 1MHz Stepping CPU Overclocking

Processor Number	Architecture	Clock Speed	Front Side Bus	L2 Cache	Ratio
Core 2 Quad QX6700	65nm Kentsfiled	2.66Ghz	1066Mhz	8MB	10
Core 2 Quad Q6600	65nm Kentsfiled	2.40Ghz	1066Mhz	8MB	9
Core 2 Duo X6800	65nm Conroe	2.93Ghz	1066Mhz	4MB	11
Core 2 Duo E6700	65nm Conroe	2.66Ghz	1066Mhz	4MB	10
Core 2 Duo E6600	65nm Conroe	2.40Ghz	1066Mhz	4MB	9
Core 2 Duo E6400	65nm Conroe	2.13Ghz	1066Mhz	2MB	8
Core 2 Duo E6300	65nm Conroe	1.86Ghz	1066Mhz	2MB	7
Core 2 Duo E4300	65nm Conroe	1.80Ghz	800Mhz	2MB	9
Pentium D 965	65nm Presler	3.73Ghz	1066Mhz	4MB	14
Pentium D 960	65nm Presler	3.60Ghz	800Mhz	4MB	18
Pentium D 950	65nm Presler	3.40Ghz	800Mhz	4MB	17
Pentium D 945	65nm Presler	3.40Ghz	800Mhz	4MB	17
Pentium D 935	65nm Presler	3.20Ghz	800Mhz	4MB	16
Pentium D 925	65nm Presler	3.00Ghz	800Mhz	4MB	15
Pentium D 915	65nm Presler	2.80Ghz	800Mhz	4MB	14
Pentium D 820	90nm Smithfield	2.80Ghz	800Mhz	2MB	14
Pentium D 805	90nm Smithfield	2.66Ghz	533Mhz	2MB	16

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.

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

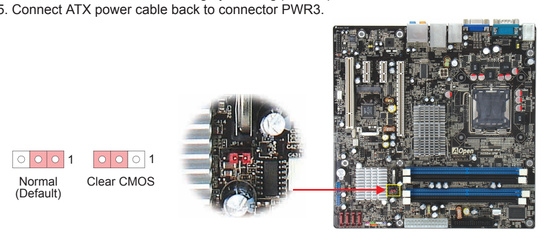
Note:
Intel G965 chipset support LGA 775 CPU. LGA 775 processor could detect the clock ratio automatically; you may not be able to adjust the clock ratio in BIOS manual.

Warning:
Intel G965 chipset support maximum 1066MHz (266MHz*4) system bus; higher clock setting may cause serious system damage.

JP14 Clear CMOS

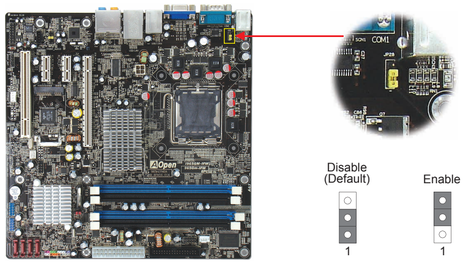
You can clear CMOS to restore system default setting. To clear the CMOS, follow the procedure below.

1. Turn off the system and unplug the AC power.
2. Remove ATX power cable from connector PWR3.
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 PWR3.



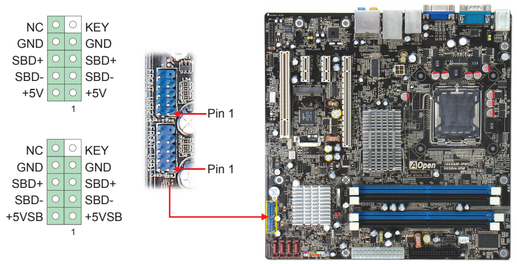
JP28 Keyboard/Mouse Wakeup Jumper

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



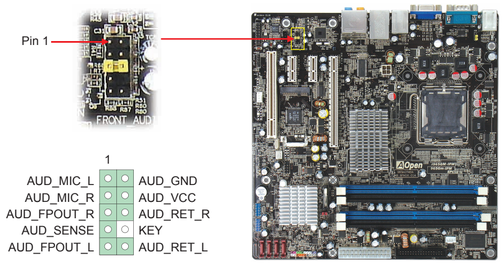
USB 2.0 Connectors

This motherboard provides eight 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 the Front USB connector to USB modules or front panel of chassis.



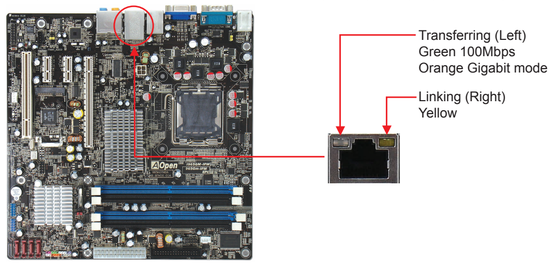
Front Audio Connectors

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.



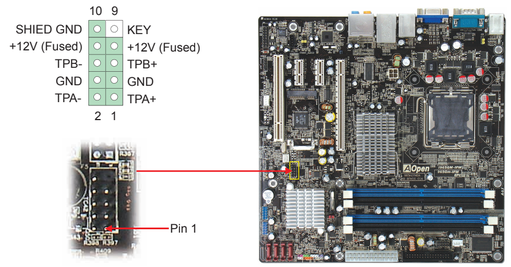
Gigabit LAN onboard

On the strength of Gigabit LAN controller on board, This motherboard provides 10/100/1000 Mbps Ethernet for office and home use. The Ethernet RJ45 connector is located on top of USB connectors. The right hand side LED indicates link mode, it lights in yellow whenever linking to network. The left hand side LED indicates the transfer mode and it lights in green when data is transferring in 100Mbps (never lights while in 10Mbps), but lights in orange when transferring in Gigabit’s mode. To enable or disable this function, you may simply adjust it through BIOS.



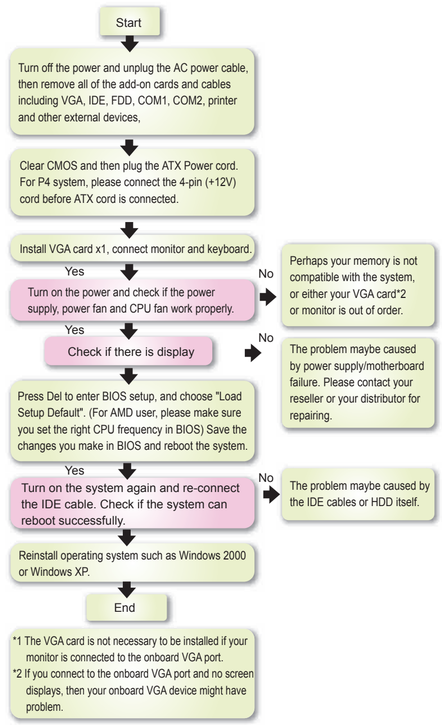
Connecting 1394

With IEEE1394 Chip on board (AGERE 1394), having its data transfer rate up to 400Mb/s, this interface can connect to devices that require high data transferring performance such as digital camera, scanner or others IEEE 1394 devices. Please use appropriate cables to connect IEEE1394 devices.



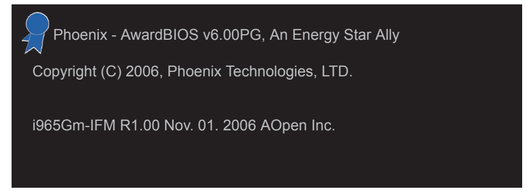
Troubleshooting

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



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:



i965Gm-IFM is model name of motherboard; R1.00 is BIOS version

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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:

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

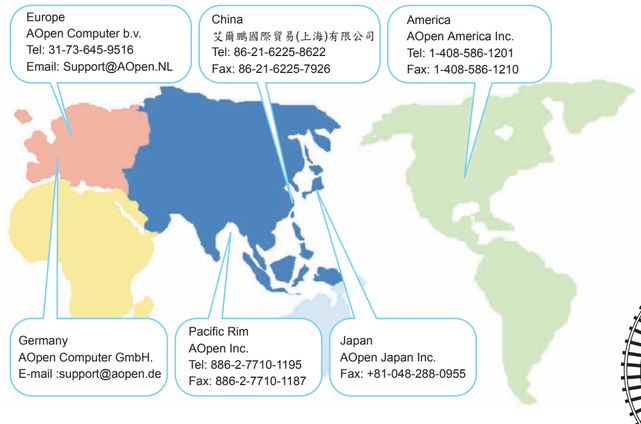
Phoenix-Award BIOS ERROR Message	
Beep Sound	Message
1 short(Beep)	System booting is normally.
1 long - 1 short(Beep)	DRAM ERROR
1 long - 2 short(Beep)	Display card or monitor connected error
1 long - 3 short(Beep)	Keyboard Error
Long(Beep) continuous	DRAM hasn't inset correctly.

Technical Support

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!



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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://global.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.