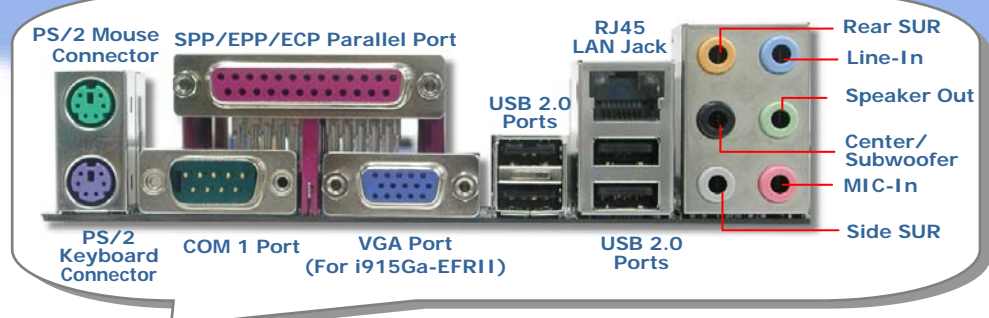
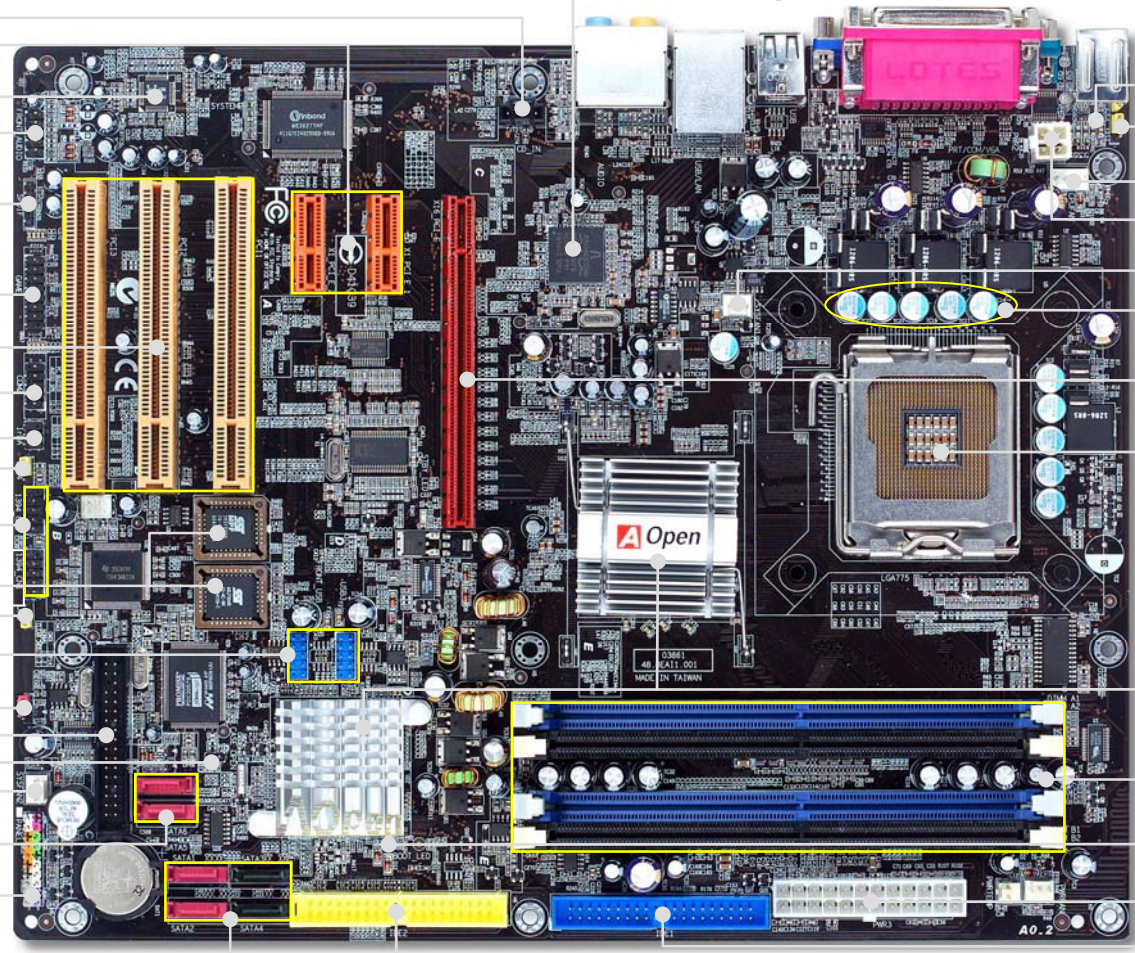


i915Ga-EFR11 / i915Pa-EFR11



- Broadcom Gigabit PCI Express LAN Chip
- CD_IN Connector
- PCI Express x1 Slots x2
- Onboard HD Audio Codec
- Front Audio Connector
- S/PDIF Connector
- Game Port Connector
- 32-bit PCI Expansion Slots x3
- COM2 Connector (For i915Ga-EFR11)
- IrDA Connector
- JP24 BIOS Rescue Jumper
- IEEE 1394 Connectors x2
- DieHard BIOS x2
- JP2 Speaker Output Jumper
- USB 2.0 Connectors x2
- JP14 CMOS Data Clear Jumper
- FDD Connector
- Case Open Connector
- SYSFAN2 Connector
- Serial ATA Ports x2 (Promise PDC20579)
- Supports 150 MB/s Transfer Rate
- Front Panel Connector
- Serial ATA Ports x4 (ICH6R)
- Supports 150 MB/s Transfer Rate



- Resetable Fuse
- JP28 PS2 KB/Mouse Wakeup Jumper
- CPUFAN Connector
- 4-pin 12V ATX Power Connector
- SYSFAN1 Connector
- Functional Polymer Capacitor
- PCI Express x 16 Graphics Slot (8.0GB/s)
- LGA 775 CPU Socket with Voltage and Frequency Auto-detection that supports Intel® FC-LGA4 CPU
- Intel® 915G / 915P Chipsets that support 800 MHz FSB, DDR2 533 and PCI Express x16
- 240-pin DIMMsx4 support 128bit Dual channel DDR2 533 Max. To 4GB
- BOOT LED
- ATX Power Connector
- IDE Connector (ICH6R) (ATA33/66/100 supported)
- IDE Connector (Promise PDC20579) (ATA66/100/133 supported)

AOpen reserves the right to revise all the specifications and information contained in this document, which are subject to change without notice.



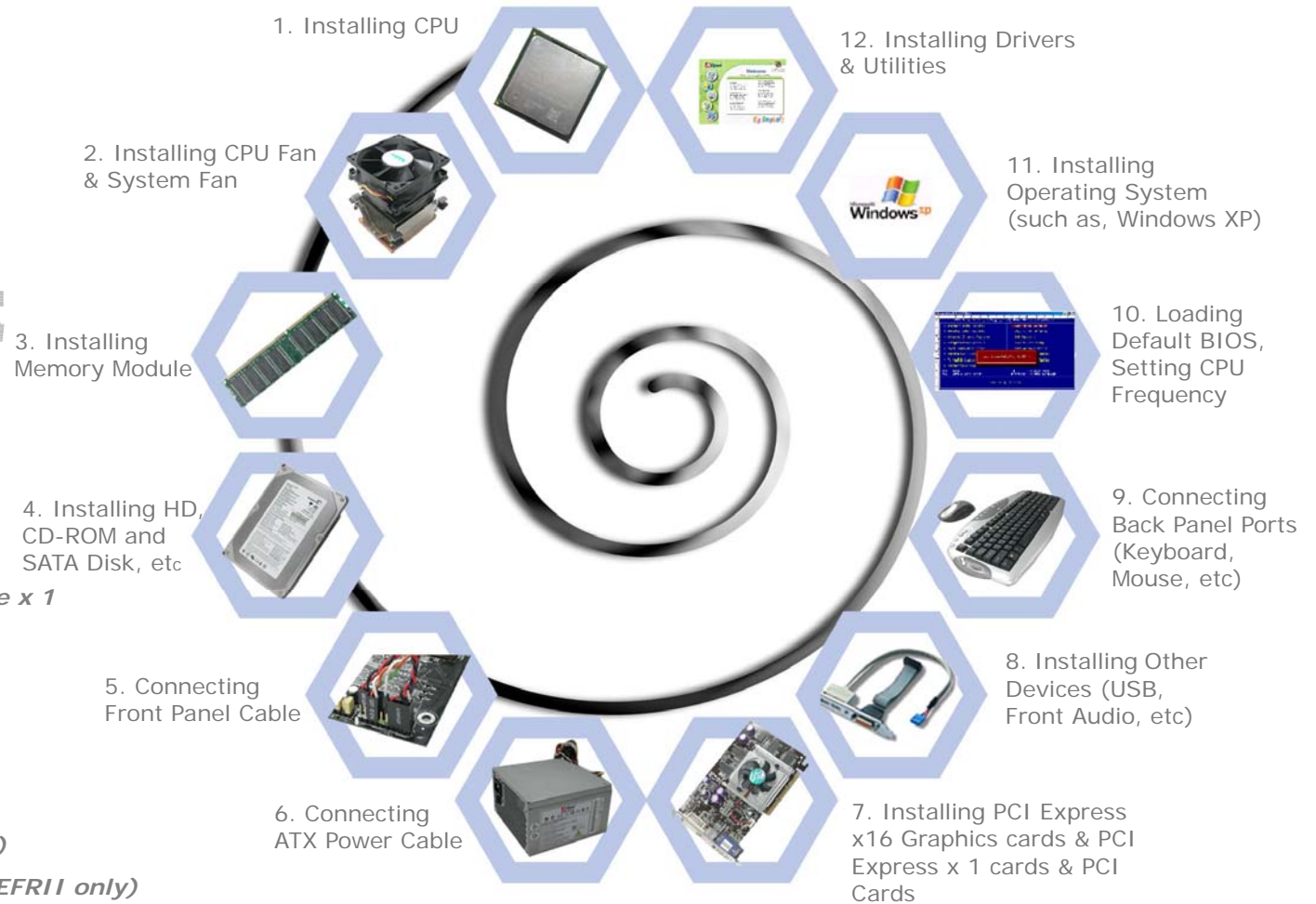
Before You Start

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.

Installing By Yourself

Accessory Checklist

- Easy Installation Guide x 1
- Enhanced Full Pictured Manual x 1
- Norton Anti-Virus CD Disc x 1
- Bonus Pack CD x 1
- Promise Serial ATA Driver Diskette x 1
- Intel ICH6R Serial ATA RAID Driver Diskette x 1
- 80-Wire ATA133 Cable x 1
- 40-Wire IDE Cable x 1
- Floppy Disk Cable x 1
- Serial ATA Cable x 2
- Serial ATA Power Cable x 2
- IEEE 1394 cable x 1 (for i915Pa-EFR11 only)
- USB2.0 + Game Port Cable x 1 (for i915Pa-EFR11 only)
- IEEE 1394 cable + USB2.0 cable x 1 (for i915Ga-EFR11 only)
- Game Port + COM2 cable x 1 (for i915Ga-EFR11 only)
- Back Panel I/O Shield x 1



PART NO:

DOC. NO: I915GAEFR11-EG-E0409C

 **Serial ATA**

 **High Definition Azalia**

 **PCI Express**

 **Gigabit LAN**

 **Hyper-Threading**

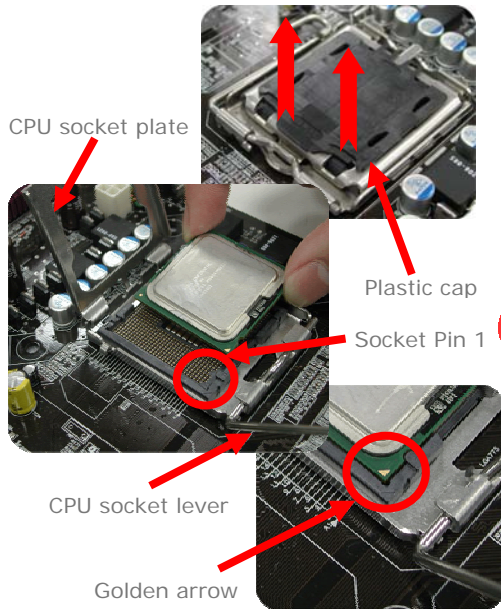
 **Dual Channel**

 **V4 Power Engine**

 **EzWin Flash**

1. Installing CPU

This socket supports FC-LGA4 CPU, which is the latest CPU package developed by Intel. Other forms of CPU package are impossible to be fitted in.



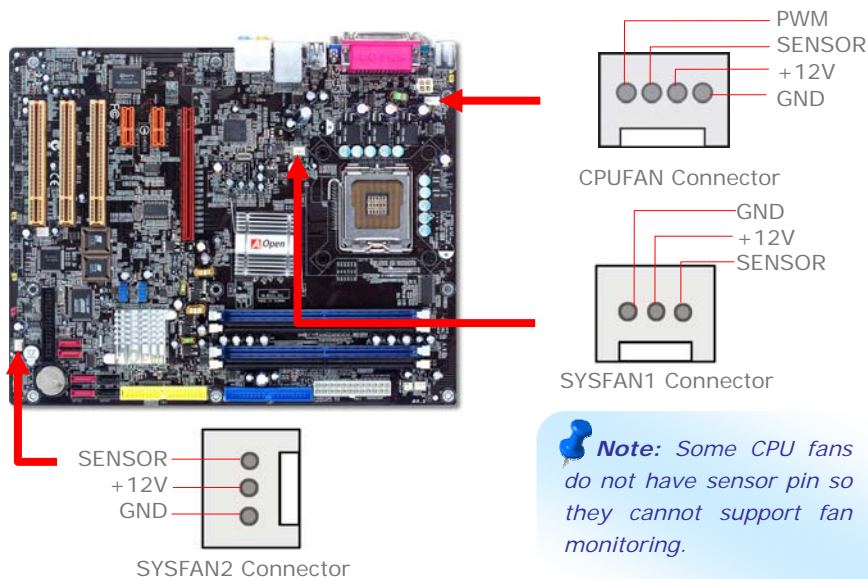
1. Pull CPU socket lever and plate up.
2. Remove plastic cap from CPU socket plate.
3. Locate Pin 1 in the socket and look for a golden arrow on the CPU upper interface. Match Pin 1 and golden arrow. Then insert the CPU into the socket.
4. Press down CPU socket plate and lever to finish CPU installation.

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

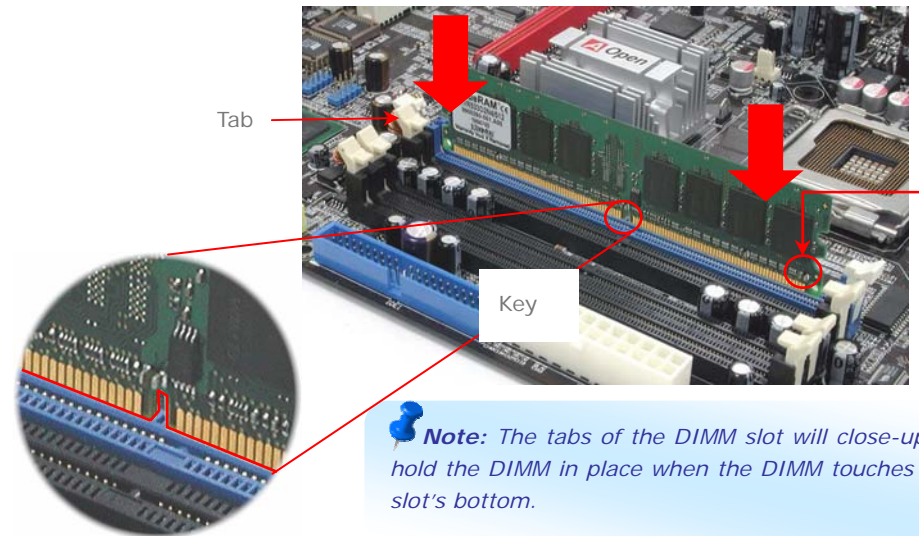
Plug in the CPU fan cable to the 4-pin CPUFAN connector. If you have chassis fan, you can also plug it in SYSFAN1 or SYSFAN2 connector.



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

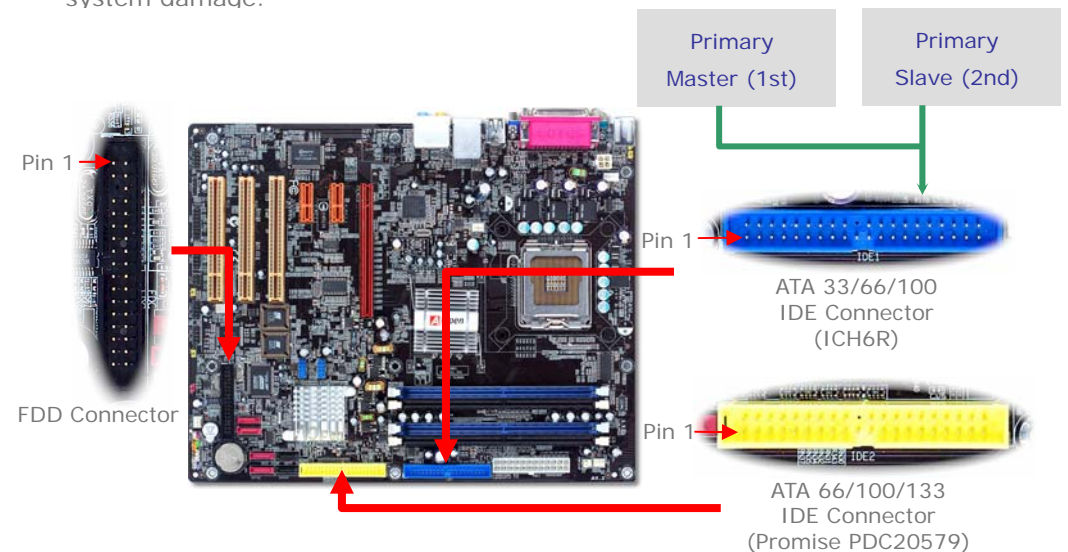
3. Installing Memory Modules

DIMM slots are designed in black 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.



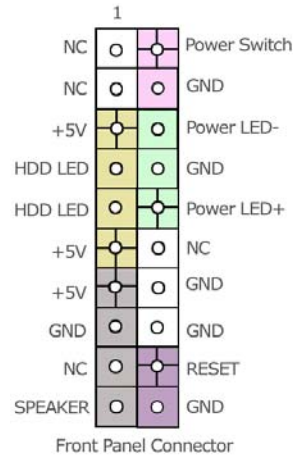
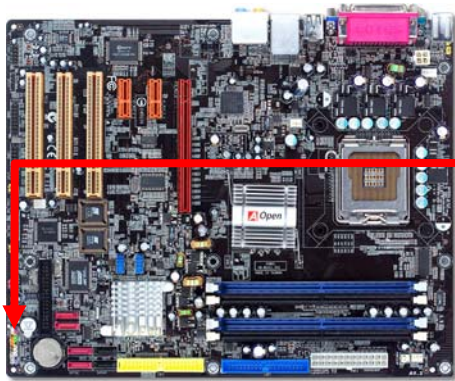
4. Connecting IDE and Floppy Cables

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



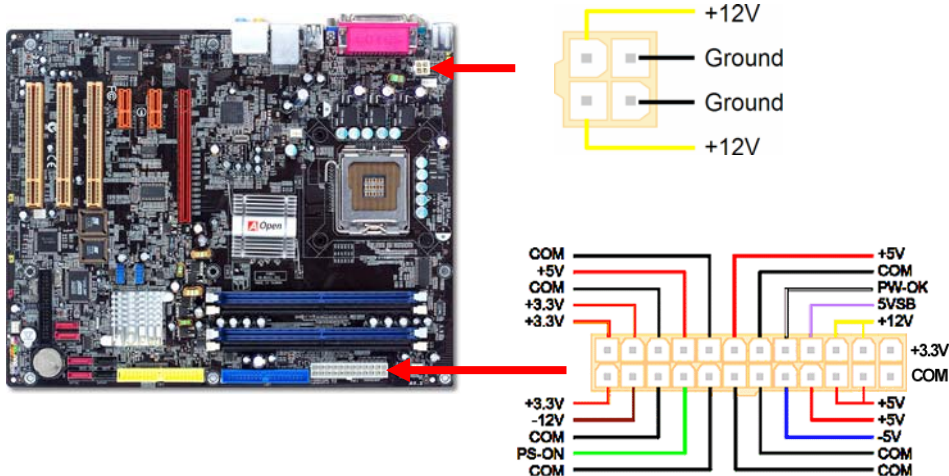
5. Connecting Front Panel Cable

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*



6. Connecting ATX Power Cable

This motherboard comes with a 24-pin ATX power connector and a 4-pin 12V 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.



7. 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 during POST (Power On Self Test). Choose "Load Setup Defaults" for recommended optimal performance.

Phoenix - AwardBIOS CMOS Setup Utility

- ▶ Standard CMOS Features
- ▶ Advanced BIOS Features
- ▶ Advanced Chipset Features
- ▶ Integrated Peripherals
- ▶ Power Management Setup
- ▶ PnP/PCI Configurations
- ▶ Silent BIOS/HW Monitor
- ▶ Frequency/Voltage Control

- Load Setup Defaults
- Load Turbo Defaults
- Set Password
- Save & Exit Setup
- Exit Without Saving
- Load EEPROM Defaults
- Save EEPROM Defaults
- ▶ Credits

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

8. AOpen Bonus Pack CD and EzInstall

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.

Install driver

Install utility

Browse

Read me

Exit CD

Click to install online manual

GO

Ez Install

Setting CPU Voltage & Frequency

Setting CPU Core Voltage

This motherboard supports Voltage ID (VID) function to detect CPU voltage automatically during power-on and the range is from 0.8375V to 1.6V. It's not necessary to set CPU core voltage.

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.

(Users do the overclocking at their 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	Processor Frequency	FSB	CPU Ratio	Cache
5 Series				
580	4.00G	800MHZ	20x	1MB L2
570	3.80G	800MHZ	19x	1MB L2
560	3.60G	800MHZ	18x	1MB L2
550	3.40G	800MHZ	17x	1MB L2
540	3.20G	800MHZ	16x	1MB L2
530	3.00G	800MHZ	15x	1MB L2
520	2.80G	800MHZ	14x	1MB L2
3 Series				
350	3.20G	533MHZ	24x	256K L2
345	3.06G	533MHZ	23x	256K L2
340	2.93G	533MHZ	22x	256K L2
335	2.80G	533MHZ	21x	256K L2

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.

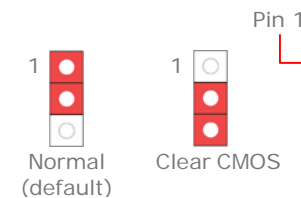
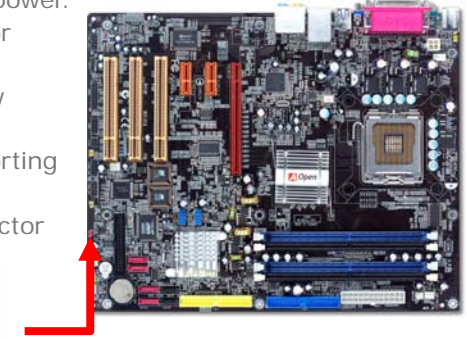
Note: Intel 915G / 915P chipset support LGA775 CPU. LGA775 CPU could detect the clock ratio automatically; you may not be able to adjust the clock ratio in BIOS manual.

Warning: Intel 915G / 915P chipset support maximum 800MHz (200MHz*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.

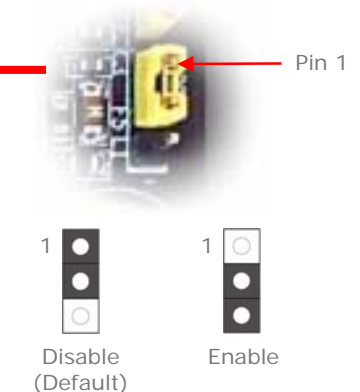


Tip: When should I Clear CMOS?

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

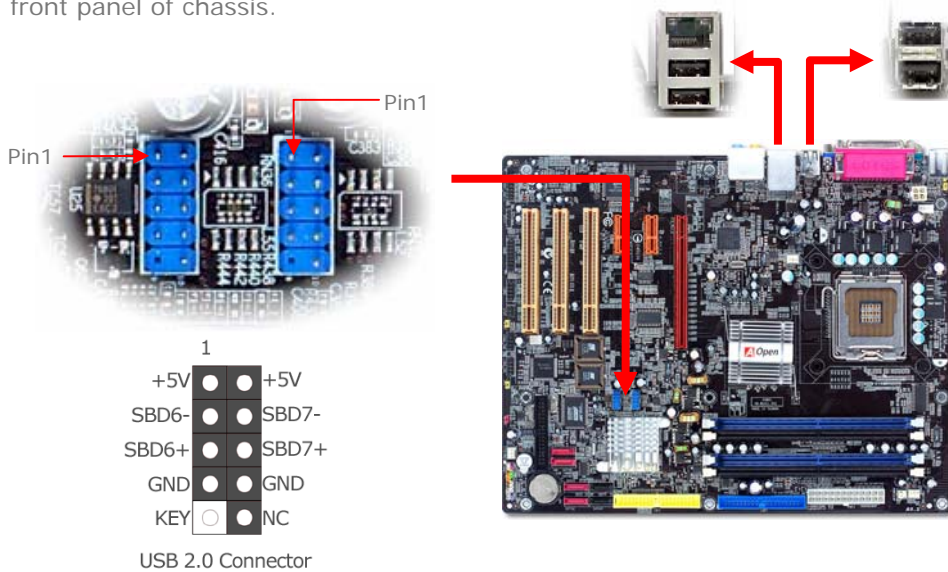
JP28 Keyboard/Mouse Wakeup Jumper

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.



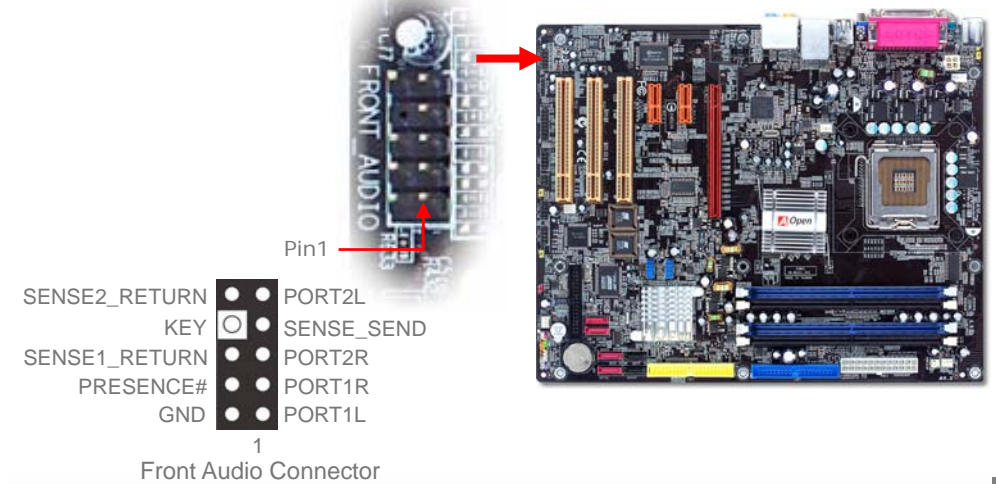
USB 2.0 Connectors

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.



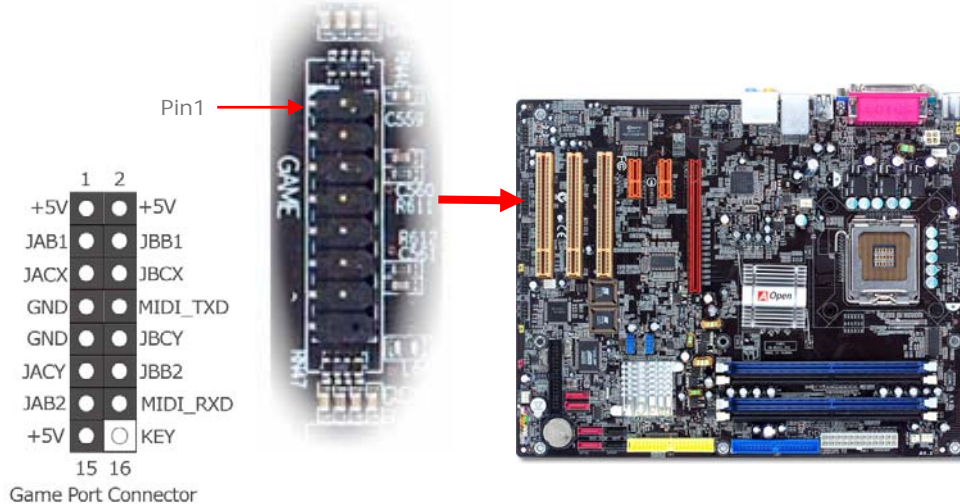
Front Audio Connectors

If the housing is designed with an audio port on the front panel, you'll be able to connect onboard audio to front panel through this connector. **Please be informed that to have front audio ports work properly, the front audio panel of the housing should be designed for High definition Audio jack. If the front audio panel is not designed for High Definition Audio jack, we strongly recommend you to connect the microphone to the back panel of the motherboard.**



Game port

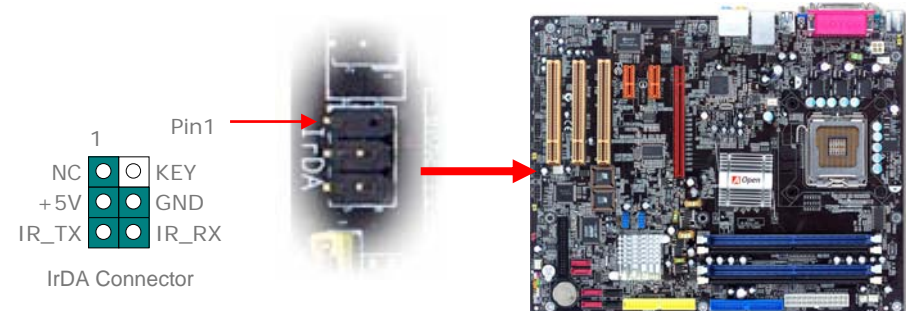
This motherboard comes with a game port (Joystick-Midi) for you to connect any midi devices or joysticks. To use this function you have to have a joystick module and connect it with a game port cable to this port on the motherboard.



IrDA Connector

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).

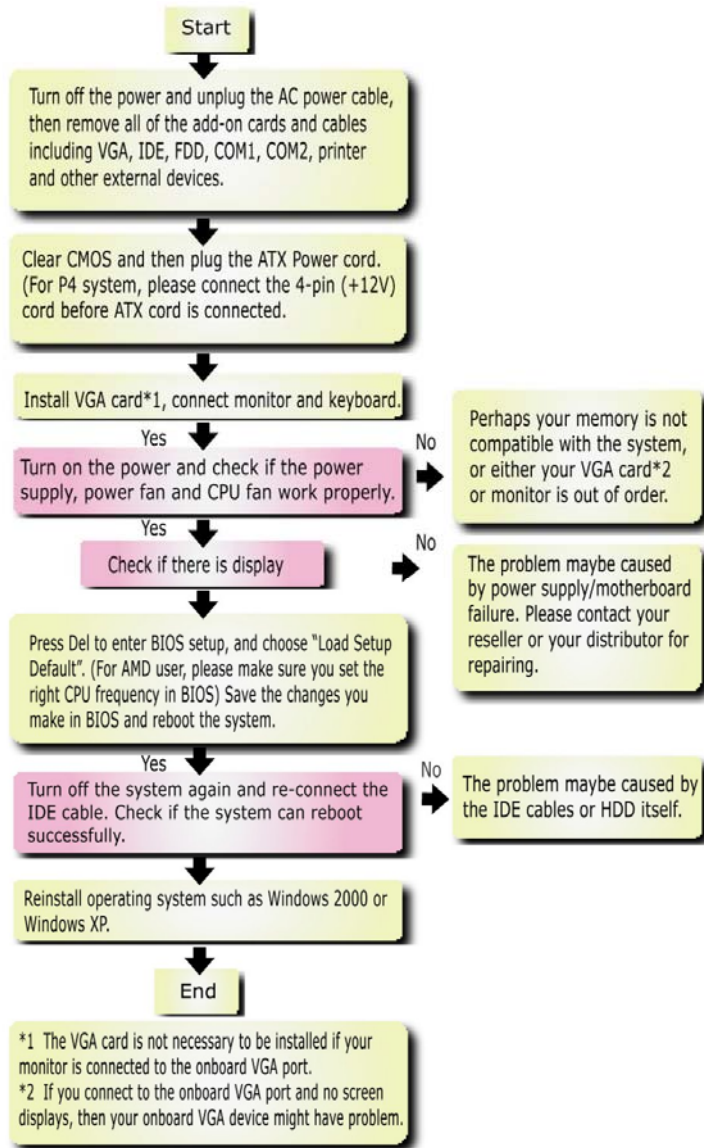
Install an infrared module onto the IrDA connector and enable the infrared function from BIOS Setup, UART Mode, you can use this function. Please make sure you connect correct orientation when plugging IrDA module.





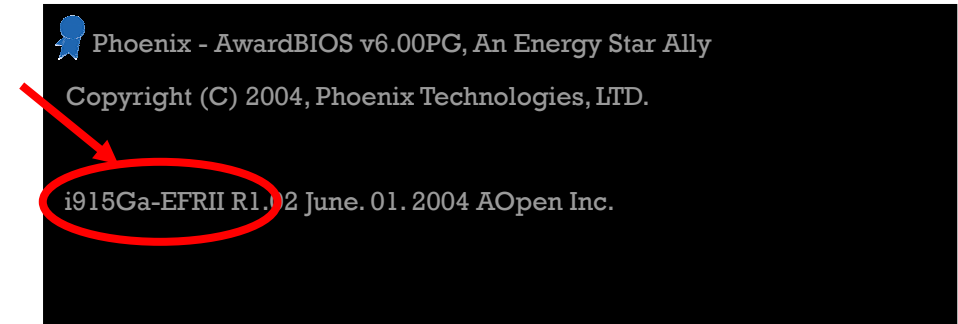
Troubleshooting

If you encounter any trouble to boot your 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:



i915Ga-EFR11 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:



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.

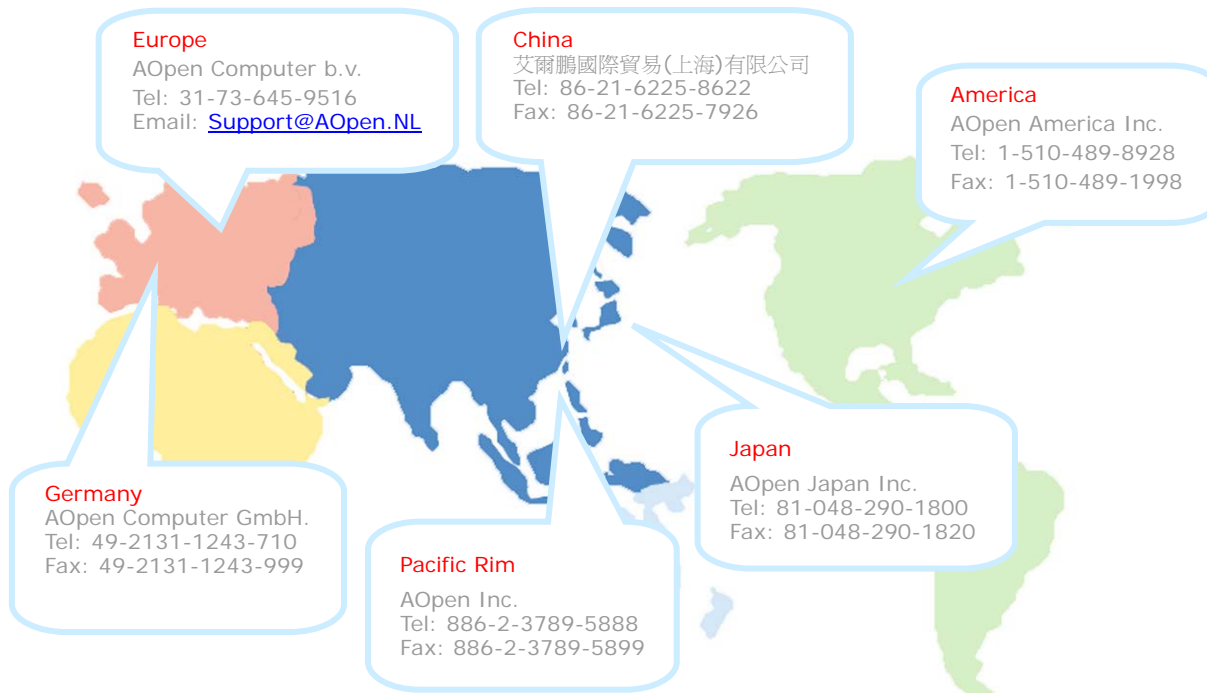


Technical Support

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!



Europe	Email: 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://aopen.jp/tech/index.html

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.