

I-45C

I-45CV

Motherboard
Intel Socket 775

Installation Guide

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产品中有毒有害物质或元素的名称及含量

部件名称	有毒有害物质或元素					
	铅(Pb)	汞(Hg)	镉(Cd)	六价铬(Cr(VI))	多溴联苯(PBB)	多溴二苯醚(PBDE)
PCB 板	○	○	○	○	○	○
结构件	○	○	○	○	○	○
芯片及其他主动件	×	○	○	○	○	○
连接器	×	○	○	○	○	○
被动电子元件	×	○	○	○	○	○
焊接金属	○	○	○	○	○	○
线材	○	○	○	○	○	○
光盘	○	○	○	○	○	○
助焊剂、散热膏、标签及其他耗材	○	○	○	○	○	○

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1. Hardware Setup

1.1 Specifications

CPU

- LGA775 socket for Intel Core 2 Duo / Pentium Dual-Core / Pentium D / Pentium 4 / Celeron D Processor with 1333*¹/ 1066 / 800 / 533MHz FSB.
**¹ The FSB1333 CPU will operate in over-clocking mode. Under this situation, the PCIE frequency will also be over-clocked to 115MHz.*
 - Supports Intel Hyper-Threading Technology
-

Chipset

- Intel 945GC / ICH7
-

Memory

- 2x 240-pin DIMM slots support up to 4GB*² capacity
 - Supports Dual Channel DDR2 667/533*³/400 Un-buffered Non-ECC memory
**² Due to the chipset limitation, the actual memory size may be less than 4GB for the reservation of system usage under Windows XP and Windows Vista.*
**³ Due to the chipset limitation, the DDR2 533 memory module runs at 500MHz with FSB1333 CPU.*
-

Graphics

- Integrated Intel Graphics Media Accelerator 950 (GMA950)
-

LAN

- **I-45C:** Onboard GbE LAN
 - **I-45CV:** Onboard 10/100 LAN
-

Audio

- Onboard HD 5.1 Channel Audio CODEC
-

Serial ATA

- 4x SATA 3.0Gb/s
-

Expansion Slots

- 1x PCI-E X16 slot
 - 1x PCI-E X1 slot
 - 2x PCI slots
-

Internal I/O Connectors

- 1x Floppy port
 - 1x Ultra ATA 100 IDE connector
 - 4x SATA 3.0Gb/s connectors
 - 2x USB 2.0 headers
 - 1x FP-Audio header
 - 1x CD-In connector
-

Rear Panel I/O

- 1x PS/2 Keyboard connector
 - 1x PS/2 Mouse connector
 - 1x COM port
 - 1x LPT port
 - 1x VGA connector
 - 4x USB 2.0 connectors
 - 1x RJ-45 LAN connector
 - 1x 5.1-Channel Audio Connector
-

RoHS

- 100% Lead-free process and RoHS compliant
-

Miscellaneous

- Micro ATX form factor (244mm x 220mm)
-

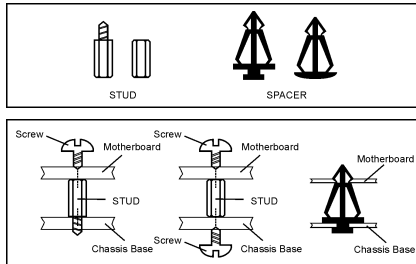
※ **Specifications and information contained herein are subject to change without notice.**

1.2 Choosing a Computer Chassis

- Choose a chassis big enough to install this motherboard.
- As some features for this motherboard are implemented by cabling connectors on the motherboard to indicators and switches or buttons on the chassis, make sure your chassis supports all the features required.
- If there is a possibility of adopting some more hard drives, make sure your chassis has sufficient power and space for them.
- Most chassis have alternatives for I/O shield located at the rear panel. Make sure the I/O shield of the chassis matches the I/O port configuration of this motherboard. You can find an I/O shield specifically designed for this motherboard in its package.

1.3 Installing Motherboard

Most computer chassis have a base with many mounting holes to allow the motherboard to be securely attached, and at the same time, prevent the system from short circuits. There are two ways to attach the motherboard to the chassis base: (1) with studs, or (2) with spacers.



Basically, the best way to attach the board is with studs. Only if you are unable to do this should you attach the board with spacers. Line up the holes on the board with the mounting holes on the chassis. If the holes line up and there are screw holes, you can attach the board with studs. If the holes line up and there are only slots, you can only attach with spacers. Take the tip of the spacers and insert them into the slots. After doing this to all the slots, you can slide the board into position aligned

with slots. After the board has been positioned, check to make sure everything is OK before putting the chassis back on.

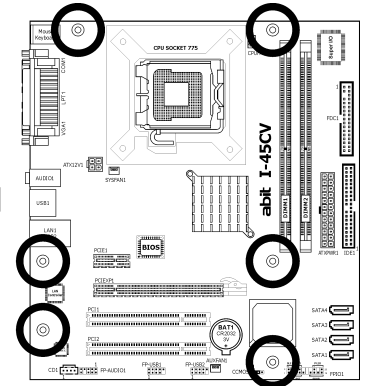
- ※ **Always power off the computer and unplug the AC power cord before adding or removing any peripheral or component. Failing to do so may cause severe damage to your motherboard and/or peripherals. Plug in the AC power cord only after you have carefully checked everything.**

To install this motherboard:

1. Locate all the screw holes on the motherboard and the chassis base.
2. Place all the studs or spacers needed on the chassis base and have them tightened.
3. Face the motherboard's I/O ports toward the chassis's rear panel.
4. Line up all the motherboard's screw holes with those studs or spacers on the chassis.
5. Install the motherboard with screws and have them tightened.

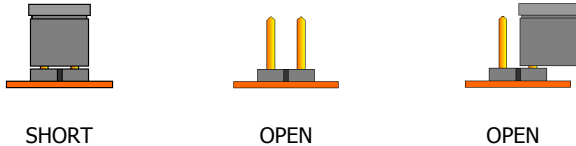
- ※ **To prevent shorting the PCB circuit, please REMOVE the metal studs or spacers if they are already fastened on the chassis base and are without mounting-holes on the motherboard to align with.**

This side faces
the chassis's rear
panel.



1.4 Checking Jumper Settings

For a 2-pin jumper, plug the jumper cap on both pins will make it CLOSE (SHORT). Remove the jumper cap, or plug it on either pin (reserved for future use) will leave it at OPEN position.



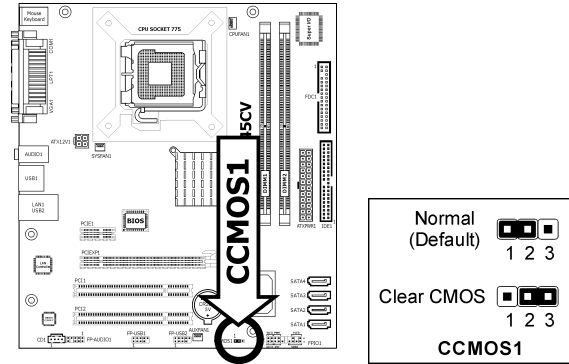
For a 3-pin jumper, pin 1~2 or pin 2~3 can be shorted by plugging the jumper cap in.



1.4.1 CMOS Memory Clearing Header and Backup Battery

The time to clear the CMOS memory occurs when (a) the CMOS data becomes corrupted, (b) you forgot the supervisor or user password preset in the BIOS menu, (c) you are unable to boot-up the system because the CPU ratio/clock was incorrectly set in the BIOS menu, or (d) whenever there is modification on the CPU or memory modules.

This header uses a jumper cap to clear the CMOS memory and have it reconfigured to the default values stored in BIOS.



- **Pin-1 and pin-2 shorted (Default):** Normal operation.
- **Pin-2 and pin-3 shorted:** Clear CMOS memory.

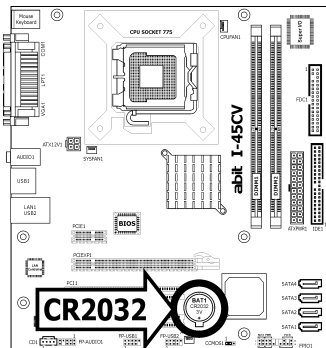
To clear the CMOS memory and load in the default values:

1. Power off the system.
2. Set pin-2 and pin-3 shorted by the jumper cap. Wait for a few seconds. Set the jumper cap back to its default settings --- pin-1 and pin-2 shorted.
3. Power on the system.
4. For incorrect CPU ratio/clock settings in the BIOS, press key to enter the BIOS setup menu right after powering on system.
5. Set the CPU operating speed back to its default or an appropriate value.
6. Save and exit the BIOS setup menu.

CMOS Backup Battery:

An onboard battery saves the CMOS memory to keep the BIOS information stays on even after disconnected your system with power source. Nevertheless, this backup battery exhausts after some five years. Once the error message like **"CMOS BATTERY HAS FAILED"**

or “**CMOS checksum error**” displays on monitor, this backup battery is no longer functional and has to be renewed.



To renew the backup battery:

1. Power off the system and disconnect with AC power source.
2. Remove the exhausted battery.
3. Insert a new CR2032 or equivalent battery. Pay attention to its polarity. The “+” side is its positive polarity.
4. Connect AC power source and power on the system.
5. Enter the BIOS setup menu. Reconfigure the setup parameters if necessary.

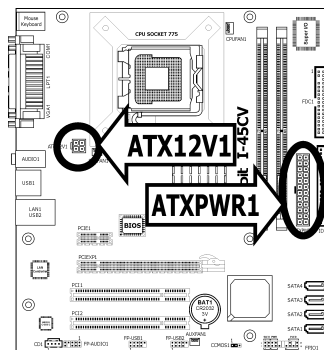
CAUTION:

- ✘ **Danger of explosion may arise if the battery is incorrectly renewed.**
- ✘ **Renew only with the same or equivalent type recommended by the battery manufacturer.**
- ✘ **Dispose of used batteries according to the battery manufacturer’s instructions.**

1.5 Connecting Chassis Components

1.5.1 ATX Power Connectors

These connectors provide the connection from an ATX power supply. As the plugs from the power supply fit in only one orientation, find the correct one and push firmly down into these connectors.



ATX 24-Pin Power Connector:

The power supply with 20-pin or 24-pin cables can both be connected to this 24-pin connector. Connect from pin-1 for either type. However, a 20-pin power supply may cause the system unstable or even unbootable for the sake of insufficient electricity. A minimum power of 300W or higher is recommended.

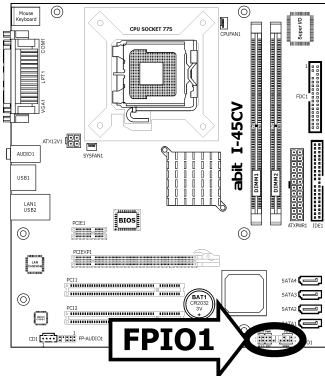
ATX 12V 4-Pin Power Connector:

This connector supplies power to CPU. The system will not start without connecting power to this one.

1.5.2 Front Panel Switches and Indicators Headers

This header is used for connecting switches and LED indicators on the chassis front panel.

Watch the power LED pin position and orientation. The mark "+" align to the pin in the figure below stands for positive polarity for the LED connection. Please pay attention when connecting these headers. A wrong orientation will only result in the LED not lighting, but a wrong connection of the switches could cause system malfunction.



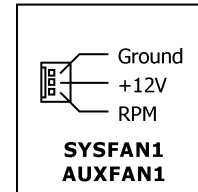
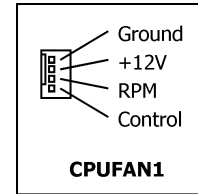
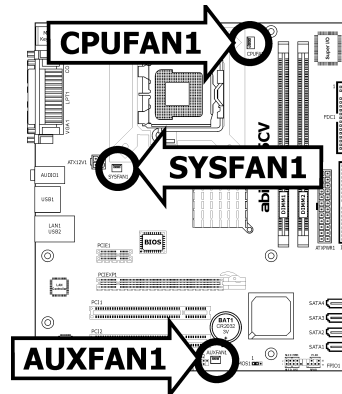
- **HLED (Pin 1, 3):**
Connects to the HDD LED cable of chassis front panel.
- **RST (Pin 5, 7):**
Connects to the Reset Switch cable of chassis front panel.
- **SPKR (Pin 13, 15, 17, 19):**
Connects to the System Speaker cable of chassis.
- **SLED (Pin 2, 4):**
Connects to the Suspend LED cable (if there is one) of chassis front panel.
- **PWR (Pin 6, 8):**
Connects to the Power Switch cable of chassis front panel.

- **PLED (Pin 16, 18, 20):**
Connects to the Power LED cable of chassis front panel.

1.5.3 FAN Power Connectors

These connectors each provide power to the cooling fans installed in your system.

- **CPUFAN1:** CPU Fan Power Connector
 - **SYSFAN1:** System Fan Power Connector
 - **AUXFAN1:** Auxiliary Fan Power Connector
- ※ These fan connectors are not jumpers. DO NOT place jumper caps on these connectors.



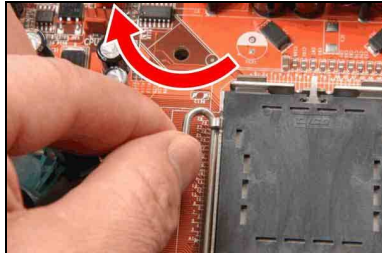
1.6 Installing Hardware

- ❖ **DO NOT scratch the motherboard when installing hardware. An accidental scratch of a tiny surface-mount component may seriously damage the motherboard.**
- ❖ **In order to protect the contact pins, please pay attention to these notices:**
 1. **A maximum 20 cycles of CPU installation is recommended.**
 2. **Never touch the contact pins with fingers or any object.**
 3. **Always put on the cap when the CPU is not in use.**

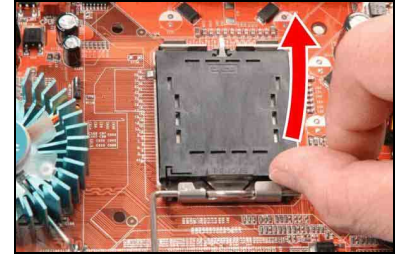
1.6.1 CPU Socket 775

- ❖ **The installation procedures vary with different types of CPU fan-and-heatsink assembly. The one shown here is served for demo only. For detailed information on how to install the one you bought, refer to its installation guidelines.**
- ❖ **Clear the CMOS memory after replacing CPU.**

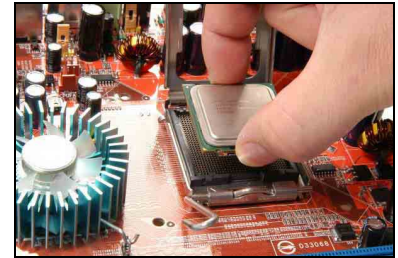
1. Place the board so that the lever-hook of the socket is on your left side. Use your left thumb and forefinger to hold the lever hook, pull it away from the retention tab. Rotate the lever to fully open position.



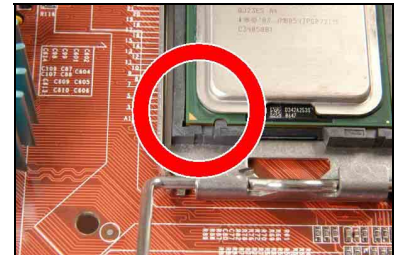
2. Use your right-thumb to raise the load plate. Lift it up to fully open position.



3. Use your right thumb and forefinger to grasp the CPU package. Be sure to grasp on the edge of the substrate, and face the Pin-1 indicator toward the bottom-left side. Aim at the socket and place the CPU package vertical down into the socket.

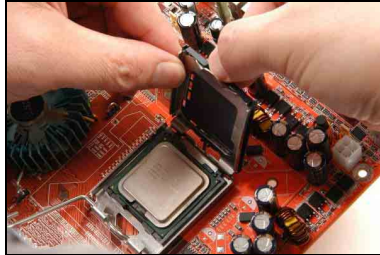


4. Visually inspect if the CPU is seated well into the socket. The alignment key must be located in the notch of package.



5. Use your left hand to hold the load plate, and use your right thumb to peel the cap off.

※ **The cap plays an important role in protecting contact pins. In order to prevent bent pin, PUT ON the cap after operation or testing.**



6. Lower the plate onto the CPU package. Engage the load lever while gently pressing down the load plate.



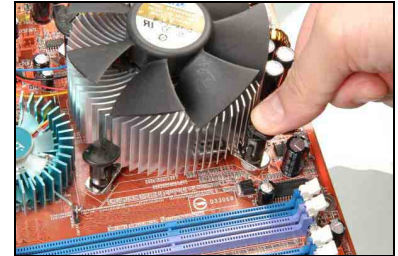
7. Secure the lever with the hook under retention tab.



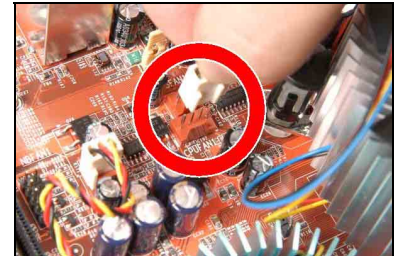
8. Place the heatsink and fan assembly onto the socket. Align the four fasteners toward the four mounting holes on the motherboard.



9. Press each of the four fasteners down into the mounting holes. Rotate the fastener clock-wise to lock the heatsink and fan assembly into position.

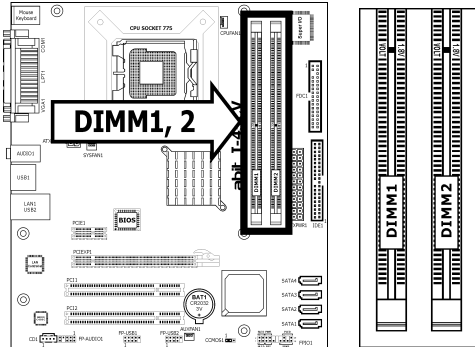


10. Attach the four-pin power plug from the heatsink and fan assembly to the CPU FAN connector.



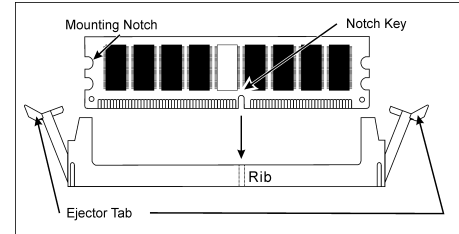
※ **A higher fan speed will be helpful for better airflow and heat-dissipation. Nevertheless, stay alert to not touch any heatsink since a high temperature generated by the working system is still possible.**

1.6.2 DDR2 Memory Slots



- Install DIMMs with the same CAS latency. To reach the optimum compatibility, obtain memory modules from the same vendor.
- ✳ **Usually there is no hardware or BIOS setup required after adding or removing memory modules, but you will have to clear the CMOS memory first if any memory module related problem occurs.**

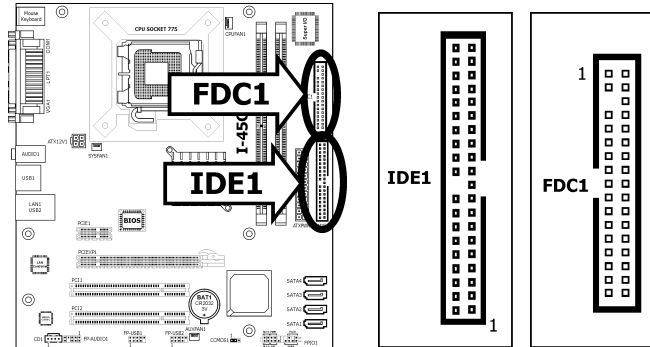
To install system memory:



1. Power off the computer and unplug the AC power cord before installing or removing memory modules.
 2. Locate the DIMM slot on the board.
 3. Hold two edges of the DIMM module carefully, keep away from touching its connectors.
 4. Align the notch key on the module with the rib on the slot.
 5. Firmly press the module into the slots until the ejector tabs at both sides of the slot automatically snap into the mounting notch. Do not force the DIMM module in with extra force as the DIMM module only fits in one direction.
 6. To remove the DIMM modules, push the two ejector tabs on the slot outward simultaneously, and then pull out the DIMM module.
- ✳ **Static electricity can damage the electronic components of the computer or optional boards. Before starting these procedures, ensure that you are discharged of static electricity by touching a grounded metal object briefly.**

1.7 Connecting Peripheral Devices

1.7.1 Floppy and IDE Disk Drive Connectors

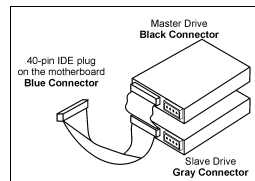


Connect the single end at the longer length of ribbon cable to the FDD on the board, the two connectors on the other end to the floppy disk drive in your system.

※ **The red line on the ribbon cable must be aligned with pin-1 on both the FDD port and the floppy connector.**

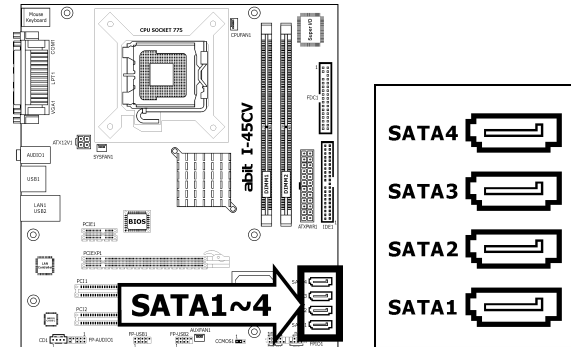
Connect the single end (blue connector) at the longer length of ribbon cable to the IDE port of this board, the other two ends (gray and black connector) at the shorter length of the ribbon cable to the connectors of your hard drives.

※ **Make sure to configure the "Master" and "Slave" relation before connecting two drives by one single ribbon cable. The red line on the ribbon cable must be aligned with pin-1 on both the IDE port and the hard-drive connector.**



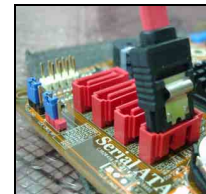
1.7.2 Serial ATA Connectors

Each SATA connector serves as one single channel to connect one SATA device by SATA cable.



To connect SATA device:

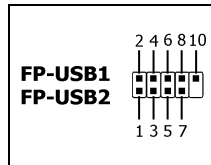
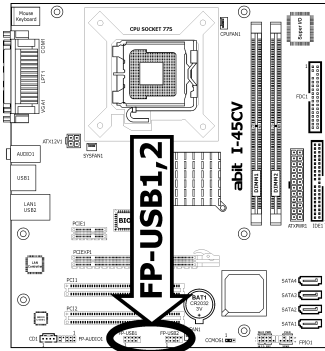
1. Attach either end of the signal cable to the SATA connector on motherboard. Attach the other end to the SATA device.
2. Attach the SATA power cable to the SATA device and connect the other end from the power supply.



※ **The motherboard in this photo is served for DEMO only, and may not be the same type or model as the one described in this manual.**

1.7.3 Additional USB 2.0 Port Headers

Each header supports 2x additional USB 2.0 ports by connecting bracket or cable to the rear I/O panel or the front-mounted USB ports of your chassis.

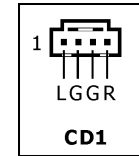
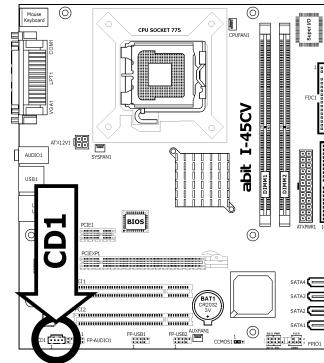


Pin	Pin Assignment	Pin	Pin Assignment
1	VCC	2	VCC
3	Data0 -	4	Data1 -
5	Data0 +	6	Data1 +
7	Ground	8	Ground
		10	NC

※ Make sure the connecting cable bears the same pin assignment.

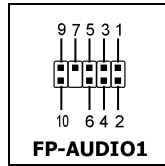
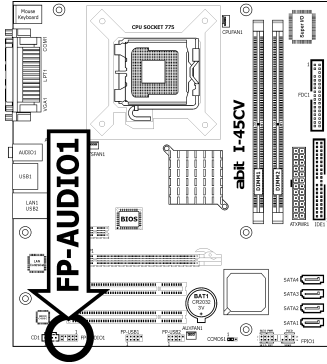
1.7.4 Internal Audio Connectors

This connector connects to the audio output of internal CD-ROM drive or add-on card.



1.7.5 Front Panel Audio Connection Header

This header provides the front panel connection for HD (High Definition) Audio, yet for AC'97 Audio CODEC connection, you must carefully check the pin assignment before connecting from the front panel module. An incorrect connection may cause malfunction or even damage the motherboard.



Pin	Pin Assignment (HD AUDIO)
1	MIC2 L
2	AGND
3	MIC2 R
4	AVCC
5	FRO-R
6	MIC2_JD
7	F_IO_SEN
9	FRO-L
10	LINE2_JD

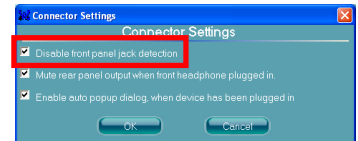
Pin	Pin Assignment (AC'97 AUDIO)
1	MIC In
2	GND
3	MIC Power
4	NC
5	Line Out (R)
6	NC
7	NC
9	Line Out (L)
10	NC

- ❗ Please do not connect the "Ground" cable or "USB VCC" cable from the front panel module to the Pin 4 "AVCC" of this header.

Driver Configuration for AC'97 audio connection:

The audio driver is originally configured to support HD Audio. For AC'97 audio connection, you may:

1. Right-click the "Realtek HD Audio Manager" icon in system tray.
2. Click "Audio I/O" tab, and then click "Connector Settings".
3. Click "**Disabled front panel jack detection**", and then click "OK" to confirm.

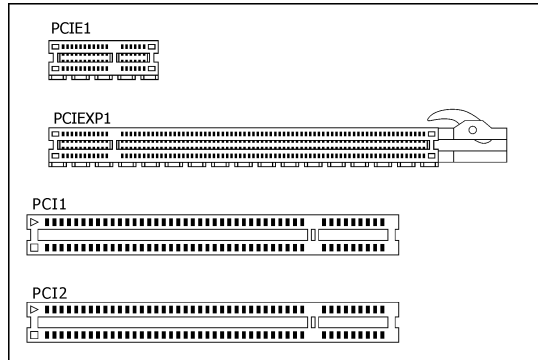
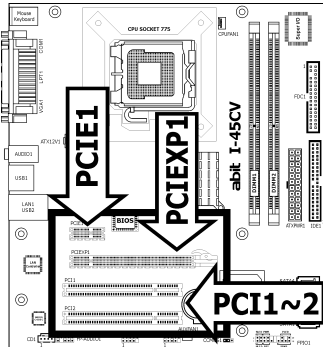


1.8 PCI and PCI Express X16, X1 Slots

Install PCI Express X16 graphics card into slot "PCIEXP1".

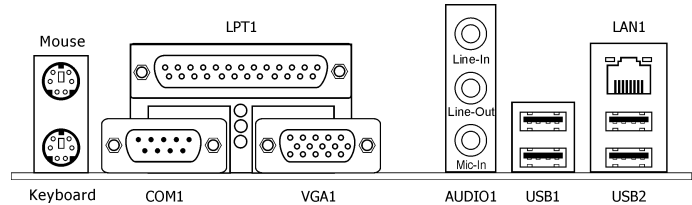
Install PCI Express X1 cards into slot "PCIE1".

Install PCI cards into slots "PCI1" and/or "PCI2".



1.9 Connecting Rear Panel I/O Devices

The rear I/O part of this motherboard provides the following I/O ports:



- **Mouse:** Connects to PS/2 mouse.
- **Keyboard:** Connects to PS/2 keyboard.
- **LPT1:** Connects to printer or other devices that support this communication protocol.
- **COM1:** Connects to external modem, mouse or other devices that support this communication protocol.
- **VGA1:** Connects to monitor input.
- **AUDIO1:**
 - Line-In:** Connects to the line out from external audio sources.
 - Line-Out:** Connects to the front left and front right channel.
 - Mic-In:** Connects to the plug from external microphone.
- **USB1/USB2:** Connects to USB devices such as scanner, digital speakers, monitor, mouse, keyboard, hub, digital camera, joystick etc.
- **LAN1:** Connects to Local Area Network.

2. BIOS Setup

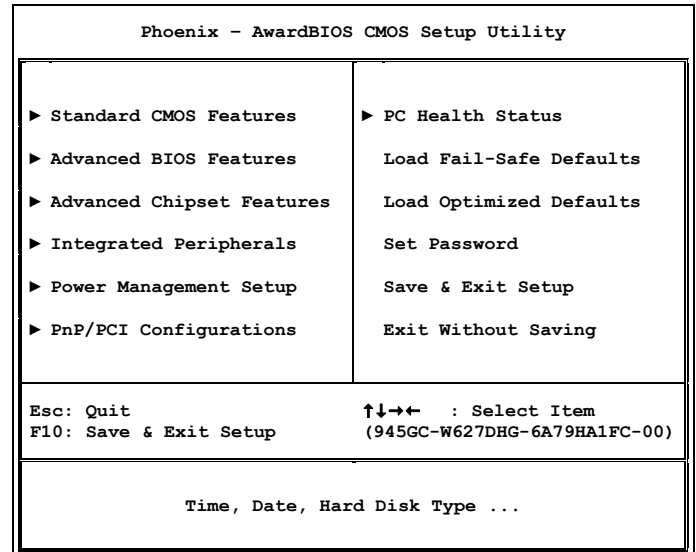
This motherboard provides a programmable EEPROM so that you can update the BIOS utility. The BIOS (Basic Input/Output System) is a program that deals with the basic level of communication between processor and peripherals. Use the BIOS Setup program only when installing motherboard, reconfiguring system, or prompted to "Run Setup".

After powering up the system, the BIOS message appears on the screen, the memory count begins, and then the following message appears on the screen:

PRESS DEL TO ENTER SETUP

If this message disappears before you respond, restart the system by pressing <Ctrl> + <Alt> + keys, or by pressing the Reset button on computer chassis. Only when these two methods fail should you restart the system by powering it off and then back on.

After pressing key, the main menu screen appears.



- ※ In order to increase system stability and performance, our engineering staff is constantly improving the BIOS menu. The BIOS setup screens and descriptions illustrated in this manual are for your reference only, and may not completely match with what you see on your screen.
- ※ Do not change the BIOS parameters unless you fully understand its function.

3. Driver & Utility

The "Driver & Utility CD" that came packed with this motherboard contains drivers, utilities and software applications required for its basic and advanced features.

Place the "Driver & Utility CD" into the CD-ROM drive in your system. The following installation auto-run screen appears. If not, browse the root directory of the CD-ROM via the File Manager, and double click the "AUTORUN" file.



- **[Drivers]:** Click this button to enter the driver installation menu.
- **[Q-Install]:** Click this button to install all the drivers needed for this motherboard at one stroke.
 - ※ **For Windows XP 64-bit and Windows 2003 32-bit/64-bit installation:**
You may escape the rest of the driver items in this menu after having finished this installation, but for operating systems "Windows XP 64-bit" and "Windows 2003 32-bit/64-bit", you must install the bus driver for **[Microsoft High Definition Audio]** first, and then install the following **[Realtek HD Audio Driver]** item separately to enable the audio function.
 - ※ **For Adobe Reader V8.0 installation in systems running versions of Windows prior to Windows XP:**
You should have your Internet Explorer upgraded to the version later than 6.0.2600.0 before installing Adobe Reader V8.0 from the download site:
<http://www.microsoft.com/downloads/details.aspx?familyid=1E1550CB-5E5D-48F5-B02B-20B602228DE6&displaylang=en>
- **[Manual]:** Click this button to enter the user's manual menu.
- **[Utility]:** Click this button to enter the utilities installation menu.
- **[abit Utility]:** Click to enter the installation menu of utilities exclusively developed by ABIT.
- **[Browse CD]:** Click this button to browse the contents of this "Driver & Utility CD".
- **[Close]:** Click this button to exit this installation menu.

4. Appendix

4.1 規格 (繁體中文)

處理器

- 支援具備 1333*¹/1066/800/533MHz 前端匯流排的 Intel Core 2 Duo / Pentium Dual-Core / Pentium D / Pentium 4 / Celeron D 處理器
**¹ FSB1333 的 CPU 速度是以超頻模式進行。在此情形下，PCIE 的頻率也會被超頻至 115MHz。*
- 支援 Intel Hyper-Threading 技術

晶片組

- Intel 945GC / ICH7

記憶體

- 2 條 240 針腳 DIMM 插槽，支援最大 4GB*² 記憶體容量
- 支援雙通道 DDR2 667/533*³/400 無緩衝非 ECC 記憶體
**² 因為晶片組的限制，在 Windows XP 與 Windows Vista 作業系統之下，為了保存系統的使用率，實際的記憶容量可能會小於 4GB。*
**³ 因為晶片組的限制，DDR2 533 記憶模組在 FSB1333 的 CPU 之下的速度只有 500MHz。*

圖形埠

- 整合 Intel Graphics Media Accelerator 950 (GMA950)

網路

- **I-45C:** 內建 GbE LAN
- **I-45CV:** 內建 10/100 LAN

音效

- 內建 5.1 聲道 HD 音效

Serial ATA

- 4 個 SATA 3.0Gb/s

擴充插槽

- 1 個 PCI-E X16 插槽
- 1 個 PCI-E X1 插槽
- 2 個 PCI 插槽

內部輸入/輸出接頭

- 1 個軟碟埠
- 1 個 Ultra ATA 100 IDE 接頭
- 4 個 SATA 3.0Gb/s 接頭
- 2 個 USB 2.0 接頭
- 1 個 FP-Audio 接頭
- 1 個 CD-In 接頭

後面板輸入/輸出接頭

- 1 個 PS/2 鍵盤接頭
- 1 個 PS/2 滑鼠接頭
- 1 個 COM 連接埠
- 1 個 LPT 連接埠
- 1 個 VGA 連接埠
- 4 個 USB 2.0 接頭
- 1 個 RJ-45 網路接頭
- 1 個 5.1 聲道音效接頭

RoHS

- 100%無鉛製程符合 RoHS 規範

其他

- Micro ATX 主機板規格 (244mm x 220mm)

※ 本手冊的規格與資訊若有變動，恕不另行通知。

4.2 规格 (简体中文)

处理器

- 支持具备 1333*¹/1066/800/533MHz 前端总线的 Intel Core 2 Duo / Pentium Dual-Core / Pentium D / Pentium 4 / Celeron D 处理器
- 支持 Intel 超线程技术
**¹ FSB1333 的 CPU 速度是以超频方式进行。在此情形下, PCIE 的频率也会被超频至 115MHz。*

芯片组

- Intel 945GC / ICH7

内存

- 2 条 240 针脚 DIMM 插槽支持最大 4GB*² 内存容量
- 支持双信道 DDR2 667/533*³/400 无缓冲非 ECC 内存
**² 因为芯片组的限制, 在 Windows XP 与 Windows Vista 操作系统之下, 为了保存系统的使用率, 实际的内存容量可能会小于 4GB。*
**³ 因为芯片组的限制, DDR2 533 内存模组在 FSB1333 的 CPU 之下的速度只有 500MHz。*

图形端口

- 整合 Intel Graphics Media Accelerator 950 (GMA950)

网络

- **I-45C:** 内建 GbE LAN
- **I-45CV:** 内建 10/100M LAN

音效

- 支持 5.1 声道 HD 音效

串行 ATA

- 4 个 SATA 3.0Gb/s

扩充插槽

- 1 个 PCI-E X16 插槽
- 1 个 PCI-E X1 插槽
- 2 个 PCI 插槽

内部输入/输出接头

- 1 个软盘端口
- 1 个 Ultra ATA 100 IDE 接头
- 4 个 SATA 3.0Gb/s 接头
- 2 个 USB 2.0 接头
- 1 个 FP-Audio 接头
- 1 个 CD-In 接头

后面板输入/输出接头

- 1 个 PS/2 键盘接头
- 1 个 PS/2 鼠标接头
- 1 个 COM 连接埠
- 1 个 LPT 连接埠
- 1 个 VGA 连接埠
- 4 个 USB 2.0 接头
- 1 个 RJ-45 网络接头
- 1 个 5.1 声道音效接头

RoHS

- 100%无铅制程符合 RoHS 规范

其它

- Micro ATX 主机板规格 (244mm x 220mm)

※ 本手册的规格与信息若有变动, 恕不另行通知。

4.3 Troubleshooting (How to Get Technical Support?)

4.3.1 Q & A

Q: Do I need to clear the CMOS before I use a new motherboard to assemble my new computer system?

A: Yes, we highly recommend that you clear the CMOS before installing a new motherboard. Please move the CMOS jumper from its default **1-2** position to **2-3** for a few seconds, and then back. When you boot up your system for the first time, follow the instructions in the user's manual to load the optimized defaults.

Q: If my system hangs when I update the BIOS or set the wrong CPU parameters, what should I do?

A: Whenever you update the BIOS or if the system hangs due to wrong CPU parameters setting, always clear CMOS jumper before booting up again.

Q: Why does the system fail to boot up again right after a mechanical power-off?

A: Please keep a 30-second interval between each mechanical power On/Off.

Q: Why does the system fail to boot up and nothing displays on the screen after I did some over-clocking or non-standard settings inside the BIOS?

A: It should not cause hardware or permanent damage to motherboard when BIOS settings were changed from default to over-clocking or non-standard status.

We suggest the following three troubleshooting methods to discharge CMOS data, recover the hardware default status, and then making the motherboard work again. There is no need to bother returning the motherboard to where you bought it from or go through an RMA process.

Step 1. Switch off the power supply unit and then switch it on again after one minute. If there is no power-switch on the power supply unit, disconnect its power cord for one minute and then reconnect. Press and hold the <Insert> key on the keyboard, and press the power-on button to boot up system. If it works, release the <Insert> key and hit key to enter the BIOS setup page to apply the correct settings. If the situation remains the same, repeat the procedures in Step 1 three times, or try Step 2.

Step 2. Switch off the power supply unit or disconnect the power cord. Open the chassis cover. Locate the CCMOS jumper near the button battery. Change the jumper position from default **1-2** to **2-3** for one minute to discharge the CMOS data, and then put it back to default **1-2** position. Close the chassis and switch on the power supply unit or plug in the power cord. Press the power-on button to boot up system. If it works, hit key to enter the BIOS setup page to do the correct settings. If the situation remains the same, try Step 3.

Step 3. The same procedure as Step 2, but while discharging the CMOS data, pull out the ATX power connectors from motherboard and remove the button battery during CMOS discharge.

Q: How to get a quick response for my request on technical support?

A: Please carry out a simple troubleshooting before sending "Technical Support Form":

System boot-up fails after the system had been assembled:

Check the motherboard's supporting specifications first to see if all the key components attached in your system can meet.

To do so, you may:

- Remove all the unnecessary add-on devices (except the CPU, VGA card, DRAM, and Power Supply), and then reboot.
- If the trouble still exists, try another VGA card of different brand/model to see if the system will start.
- If the trouble still exists, try another memory module of different brand/model.
- If the trouble still exists, try another CPU and Power Supply.

If the system runs successfully, shut it down and start re-installing the interface cards and devices that were previously installed in the system. Re-install and start the system one at a time until the system won't start.

Malfunction in the OS:

If the system hangs after resuming from S3 or some testing program, if the CPU cannot be recognized properly, if the display resolution mixed, or if a certain program cannot be executed, etc, you may:

- Upgrade the motherboard's latest BIOS version.
- Upgrade the add-on device's latest driver version.
- Check if there is any conflict in the "Control Panel/System Properties".

Q: How to fill in the "Technical Support Form"?

A: To fill in this "Technical Support Form", please refer to the following instructions:

- **Region:** Type in your country name.
- **E-mail:** Type in your contact E-mail information.
- **First name:** Type in your first name.
- **Last name:** Type in your last name.
- **Subject:** Type in the model name and the problem of your motherboard.
Example 1: AA8XE and SCSI 29160 malfunction
Example 2: AA8XE boot fails, POST code AF
Example 3: AA8XE (system hang when S3 resume)
- **Motherboard:** Type in the model name and revision number of your motherboard.
Example: AA8XE REV: 1.00
- **BIOS Version:** Type in the BIOS version of your motherboard. (You can find it on the screen during the POST sequence.)
- **CPU:** Type in the brand name and the speed (MHz) of your CPU. (Illustrate the over-clocking status if you had done so.)
Example: Intel 650 3.4GHz (OC FSB=220MHz)

- **Memory brand:** Type in the brand and model name of your memory module.
Example: Memory brand: Kingston (KVR533D2N4/1G)
- **Memory size:** Type in the size of your memory module.
Example: 512M* 4PCS
- **Memory configuration:** Type in the memory configuration in BIOS setting.
Example: Memory Timing: 2.5-3-3-7 @533MHz
- **Graphics information:** Note Graphics card's brand, model and driver version
- **Graphics card:** Type in the brand and model name of your graphics card.
Example: ATI RADEON X850 XT PE
- **Graphics driver version:** Type in the driver version of your graphics card
Example: Catalyst 5.12V
- **Power supply maker:** Type in the brand and model name of your power supply unit.
- **Power supply wattage:** Type in the power wattage of your power supply unit.
- **Storage devices:** Type in the brand and specifications of your HDD drive and quantity. Specify if it was inserted on IDE (Master or Slave) or SATA ports, including the RAID allocation status.
Example 1: WD Caviar WD600 60GB (on IDE2 master), Maxtor DiamondMax 10 SATA 300GB (on SATA 3)
Example 2: Maxtor DiamondMax 10 SATA 300GB *2 (on SATA 3, SATA 4 RAID 1)
- **Optical devices:** Type in the brand and specifications of your optical drives and quantity. Specify if it was inserted on IDE (Master or Slave) or SATA ports.
- **Other devices:** Indicate which add-on cards or USB devices you are *absolutely sure* relate to the problem. If you cannot identify the problem's origin, indicate all the add-on cards or USB devices inserted on your system.
Example: AHA 29160 (on PCI 2), Sandisk Cruzer mini 256MB USB Flash-disk.
- **Operating system:** Indicate which OS and language version
Example: Microsoft Windows XP SP2, English version
Example: Microsoft Media Center Edition 2005, Korean version
- **Problem description:** Describe the problem of your system configuration. Indicate the steps to duplicate problem if possible.
See the blank Technical Support Form, or visit our website to fill in the form on line (<http://www.abit.com.tw/page/en/contact/technical.php>).

Q. Is the motherboard dead? Do I need to return it to where I bought from or go through an RMA process?

A: After you have gone through the troubleshooting procedures, yet the problem still exists, or you find an evident damage on the motherboard, please contact our RMA center.
(http://www2.abit.com.tw/page/en/contact/index.php?pFUN_KEY=18000&pTITLE_IMG)

4.3.2 Technical Support Form

Region:	
E-mail:	
First name:	
Last Name:	
Subject:	
Motherboard:	
BIOS Version:	
CPU:	
Memory brand:	
Memory size:	
Memory configuration:	
Graphics card:	
Graphics driver version:	
Power supply maker:	
Power supply wattage:	
Storage devices:	
Optical devices:	
Other devices:	
Operating system:	
Problem description:	

4.4 Contact Information

Taiwan Head Office

Universal ABIT Co., Ltd.

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Marketing: market@abit.com.tw

North America, South America

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Latin America: raymond@abit-usa.com

RMA Center: <http://rma.abit-usa.com>

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Fax: +44-1438-226333

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Fax: 31-77-3204420

Chamber of Commerce Venlo – number 12062448

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Macedonia, Slovenia**

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Austria

Tel: 43-1-7346709

Fax: 43-1-7346713

Contact: office@abit-austria.at

Website: <http://www.abit-austria.at>

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Tel: +48-71-718-12-39

Fax: +48-71-718-12-38

Contact: gmorgiel@abit.com.tw

Turkey

Universal ABIT Turkey (Rep. office)

Tel: 90 532 211 6860

Iran

Universal ABIT (Rep. office)

No.50, Valiasr Computer Center, Valiasr St. Tehran
Iran

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Fax: 98-21-88941655

Contact: alireza_khoshdel@abit.com.tw

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400-820-0323

传真: 86-21-52573600

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market@abit.com.cn (市场部)

sales@abit.com.cn (销售部)

Website: <http://www.abit.com.cn>



UNIVERSAL ABIT Co., Ltd.

<http://www.abit.com.tw>

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Rev. 1.00

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