6-2. Main board

The main board determines the model name of your computer. Check the model name on a label located at the real of your computer before system expansion.

❶ PCI slot

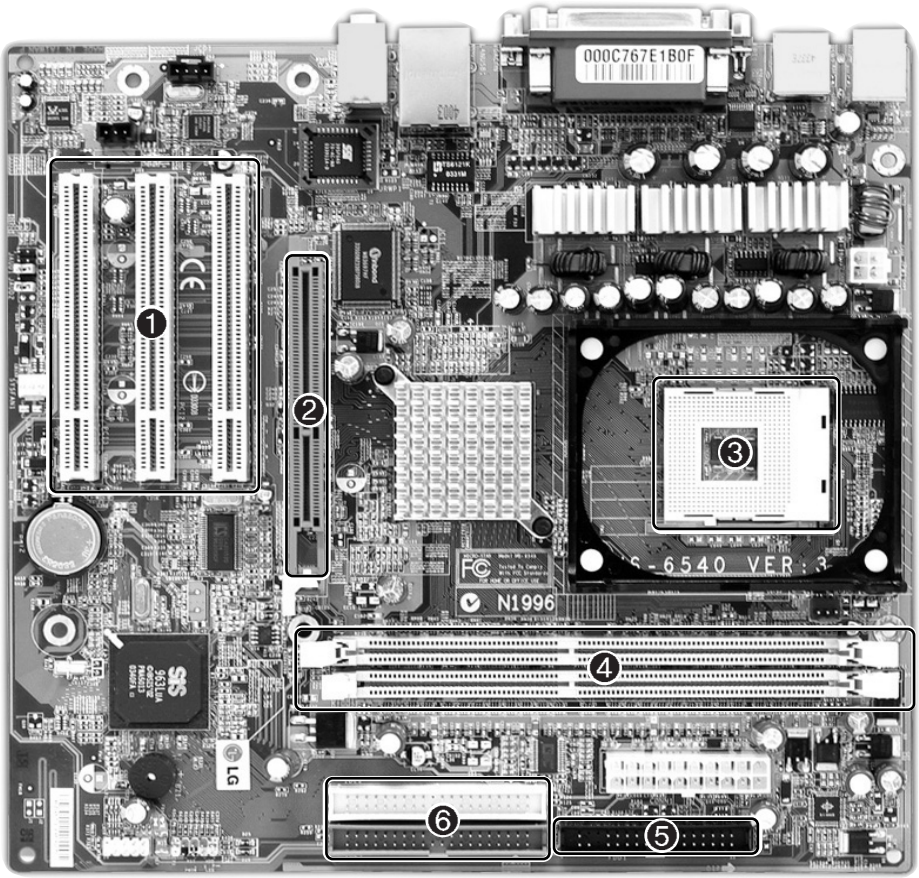
❷ AGP slot

❸ CPU socket

❹ Memory socket (DIMM)

❺ Floppy disk connector

❻ Hard disk/CD-ROM connector

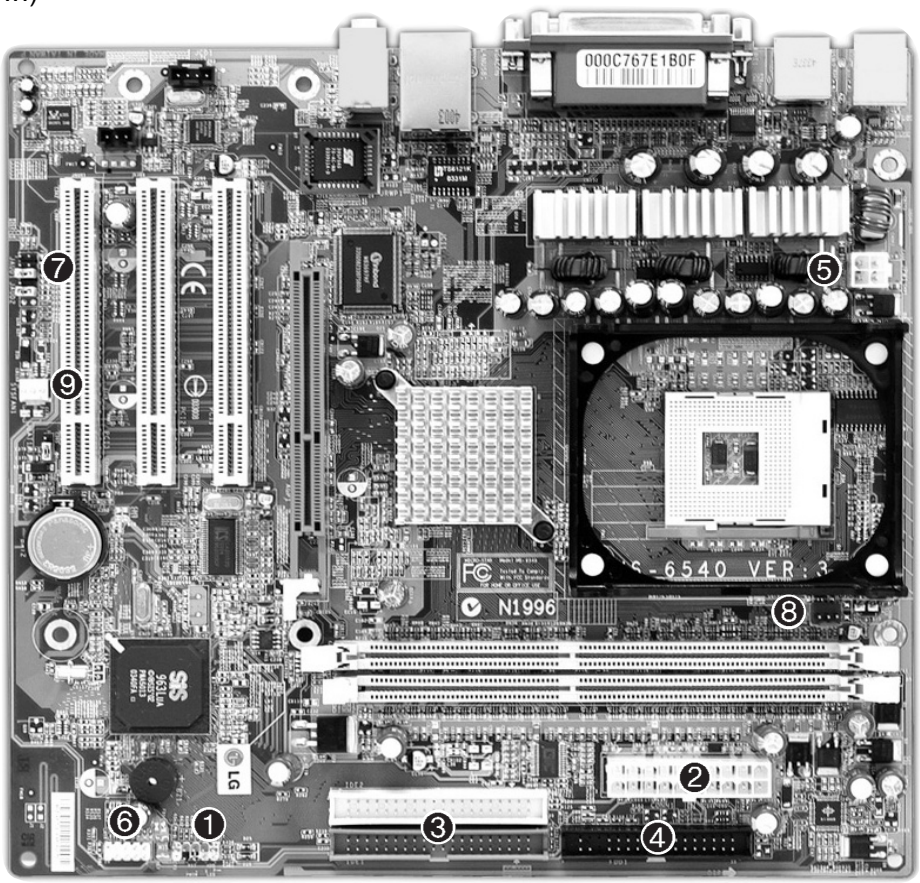


Note

■ The main board in your computer may look different from the picture.

6-3. Connectors

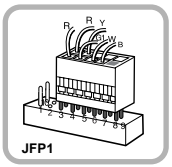
The peripheral devices are connected to the main board through the connectors shown below. (The main board in your computer may look different from the picture below.)



Caution

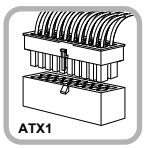
- Before removing the connector, check the status of connection and make a note.
- Aline the groove to the right direction when connecting floppy disk drive connector, hard disk/CD-ROM connector.
- Match the pin number with the color of cable. There is a risk of disfunction to the computer.
- Risk of explosin if battery is replaced by an incorrect type. dispose of used bayyeries according to the instructions.

❶ Power switch, power/ hard disk activity LED connector (JFP1)



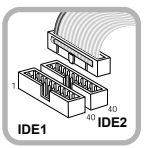
connects power switch and hard disk activity LED .

❷ Power connector (CONN1: 20 pins)



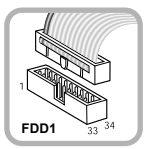
connects to the power.

❸ Hard disk/CD-ROM drive connectors (IDE1, IDE2: 40 pins)



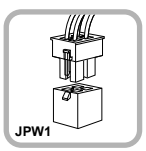
IDE connector connects hard disk and CD-ROM drive. If only one hard disk is connected, it should be connected to IDEI1hard disk connector.

❹ Floppy disk drive connector (FDD1: 34 pins)



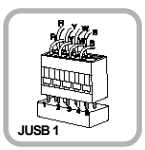
connects to the floppy disk drive.

❺ Power connector(JPW1: 4 pins)



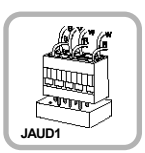
connects to the power supply.

❻ USB connector(JUSB1: 10 pins)



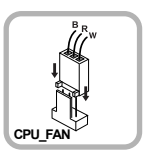
connects to the USB on the front of the computer.

❼ Audio connector(JAUD1: 7 pins)



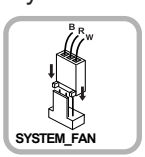
connects to the headphone and microphone jacks on the front of the computer.

❽ CPU fan(C_FAN1: 3 pins)



connects and supplies power to the CPU fan.

❾ System fan (S_FAN1: 3 pins)



connects and supplies power to the system fan at the bottom of the computer.

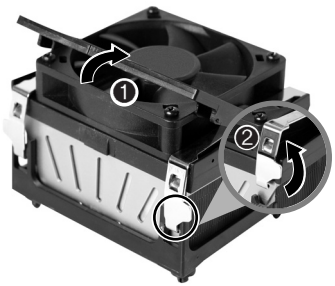
6-4 Replacing the CPU

The shape and replacement method of the CPU fan may be different depending on the model.

1 Clamps on both sides of the CPU fasten the fan tightly to the CPU socket. raise the handle❶, release the clamps, and then spread them outward❷.

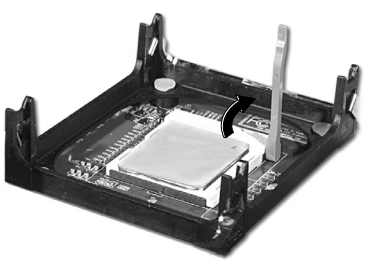
Caution

Align the groove to the right position, pins can easily be broken.

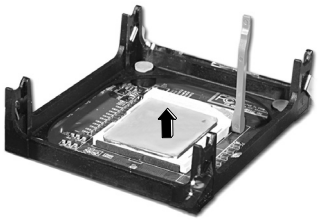


2 After releasing the clamps, lift and remove the CPU fan from the socket.

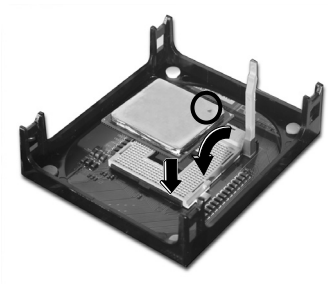
3 Raise the handle on the CPU socket to unlock the CPU.



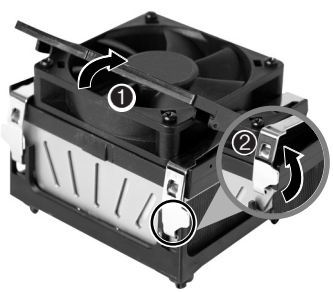
4 Lift the CPU straight up. Be careful not to damage the pins at the bottom of the CPU.



5 Align the identifying marks at the corners of the new CPU and socket, and carefully install the CPU in the socket. Lower the handle to lock the CPU in place.



6 ower the handle as shown picture❶ and lock the clamps as shown picture ❷.

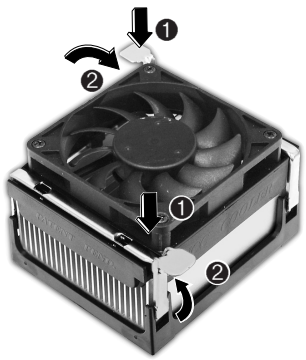


Caution

In a specific system, clamps are not fully open. Raise the CPU fan from the fully opened space. To assemble it, install from the opposite side.

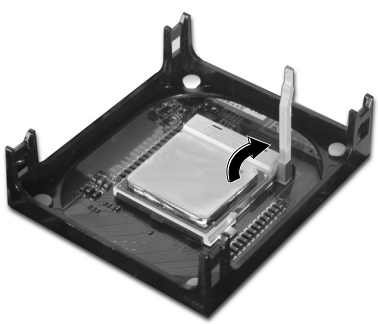
Replacing CPU

1 While pressing the both sides of the clamps as ❶, raise the fan to the direction of ❷ to release the clamps.

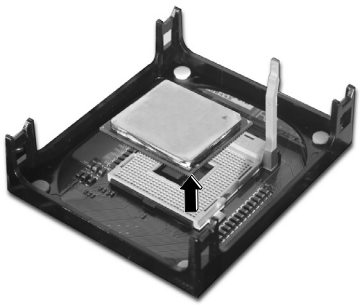


2 After releasing the clams, raise the CPU fan to remove.

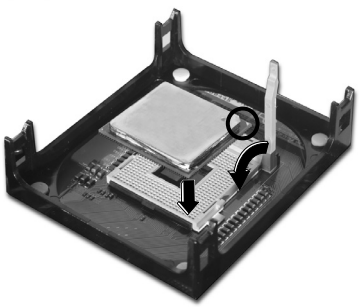
3 Release the CPU socket as the direction of arrow.



4 Raise the CPU as the direction of arrrow.



5 Gentely insert CPU in the right position and push the CPU socket to fasten.



6 Push the both side of clamps after align the grooves to the clamps.

Caution

Please gentely push the clamps not to make it broken.

6-5. Increasing the memory

If you run out of memory while using the computer, you may want to increase the amount of memory in your computer.

About Memory

Your computer uses DDR(Double Data Rate) SDRAM DIMM(Dual In-Line Memory Module) with 184 pins. Your computer supports Unbuffered DDR SDRAM DIMM of 128MB up to 1024MB in size in each socket, and 2048MB total.

Note

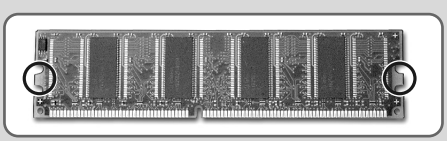
- Windows 95, 98SE, ME supports memory up to 512MB total. Increasing the memory beyond 512MB in these systems may cause errors while using the computer.

Before increasing the memory

- Always wear gloves to avoid injury when disassembling the computer
- Static electricity can damage memory modules be sure to minimize the static electricity when replacing memory.
- Make sure to replace the memory of the same type as the installed memory.
- DIMM is different from SIMM in that it is configured for 64 bit operation; there fore, your computer can operate with only one DIMM installed.

Note

- Use a 2.5V DDR SDRAM DIMM.(The shape of the memory may be different depending on the model) DDR SDRAM enhances the rate of data transmission of the SDRAM and looks different from SDRAM.



DDR

Caution

- Your computer supports PC2100/2700/3200 DDR memory.
- Use Unbuffered DDR SDRAM DIMM only to increase the memory.

FSB Frequency	Supported memory type
400/533/800MHz	PC2100/2700/3200–DDR SDRAM 266/333/400MHz

Purchasing a memory

Check the type of memory installed in your computer and refer to the memory configuration chart before purchasing a memory.

Specification: PC2100/2700/3200(184 pin DDR SDRAM DIMM)
Speed : 266MHz(133MHz X 2), 333MHz(166MHz X 2), 400MHz(200 X 20)
Size : 256MB, 512MB

Memory configuration chart

Total memory	DIMM 1	DIMM 2
256MB	256MB (One of two slots)	
512MB	256MB	256MB
	512MB (One of two slots)	
1024MB	512MB	512MB

Replacing the memory

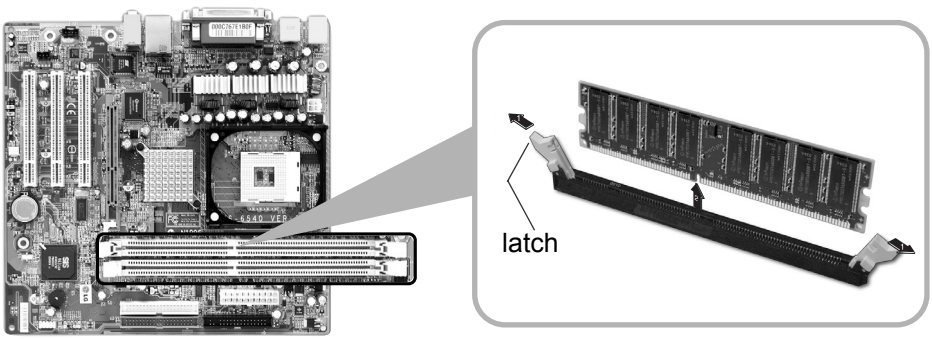
The main board configuration, memory socket, and the shape of memory may be different depending on the model.

1 Remove the screws on the real of the computer, and open the computer case.

Note

- Before opening the case, turn off the computer and peripheral devices, and remove the power cords.

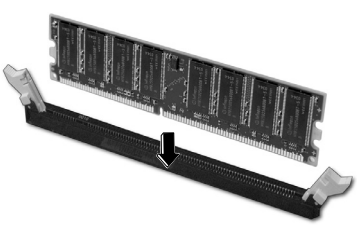
2 Pull the latch on each side of a memory socket to release the memory.



Installing a memory

1 Pull the latch on each side of a memory socket.

2 Align the notch at the bottom of the memory with a protrusion in the middle of the socket, and then insert the memory straight down.



Note

- Push the latch inward so that the memory is securely locked in the socket.

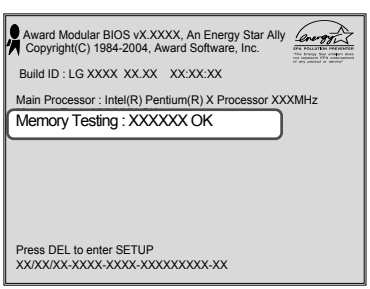
Checking the size of the installed memory

The computer automatically recognizes the newly installed memory; therefore, you do not need to change the system setup. Follow the instruction below to check the size of the installed memory.

1 Connect the power cord and other devices, and turn on the computer and monitor.

2 If the following screen appears, press **[Esc]**. POST screen appears.

3 If the following screen appears, press **[Pause]** key to pause the screen. Make sure **[Memory Testing : XXXXXX OK]** appears.



Note

■ To stop the logo screen for a moment, press **[Delete]** key ➡ Advanced BIOS Features ➡ Full Screen Logo Show Selectable, and then select Disable.

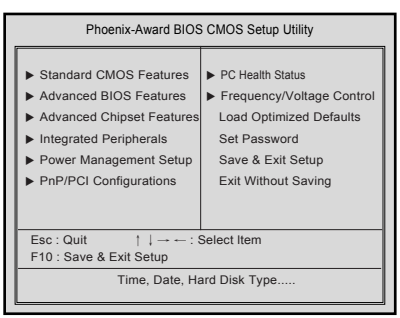
4 Press **[Esc]** to continue the startup.

Hard disk drive setup

1 Turn on the computer and monitor.

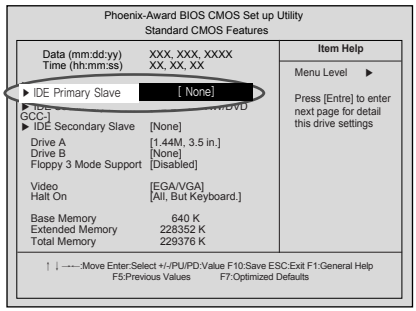
2 Press **[Delete]** key when the logo screen appears.

3 The CMOS Setup Utility opens.

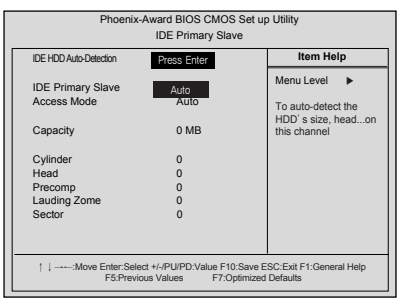


4 Use arrow **[↑],[↓],[←],[→]** keys to select **Standard CMOS Features**, and press **[Enter]**.

5 Use arrow [↑],[↓],[←],[→] keys to select **IDE Primary Slave**, and press **[Enter]**.



6 After setting **IDE Primary Slave** to **Auto** by pressing **[Enter]**, press **[Enter]** in **IDE HDD Auto-Detection** so the system automatically recognizes the newly installed slave hard disk drive.



7 Press **[F10]** to save the new setting.

8 If the following message appears, press **[Enter]**. The computer restarts.

SAVE to CMOS and EXIT(Y/N)? Y

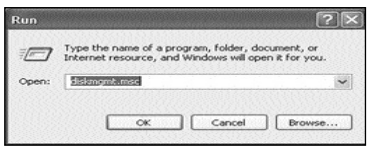
Hard disk setup (Hard disk with factory default setting)

Caution

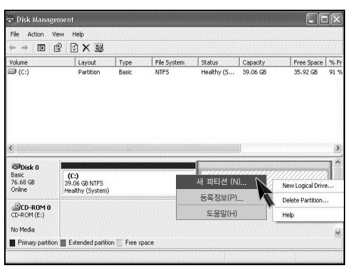
Be careful, Using <diskmgmt.msc> to divide partition delete data in a selected driver.

1 Click **[Start]** and **[Run]**.

2 Type '**diskmgmt.msc**' and press **[OK]**.



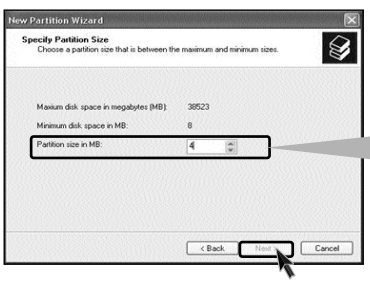
3 If the following window appears, select disk1. Click right button on the mouse to select New partition.



4 Click **[Next]** if the following message appears.

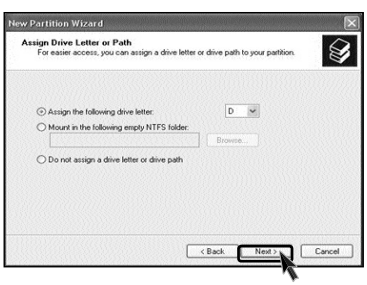
5 Select a partition and click **[Next]**.

6 Select the maximum size and click **[Next]**.

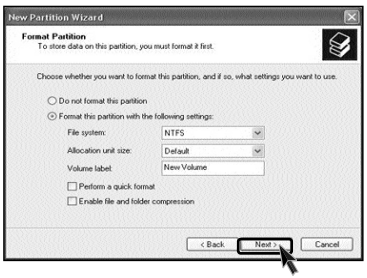


A selected space of the disk will be available to use.

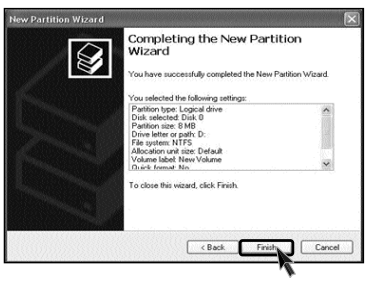
7 Click **[Next]** after selecting a drive value.



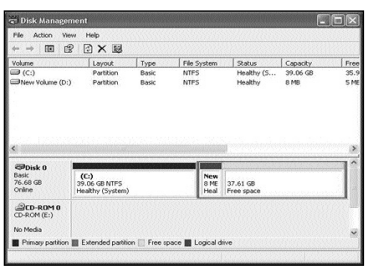
8 If the following window appears, select File system, Allocation unit size and Volume label ,and click [Next].



9 New Partition Wizard is complete, click [Finish].



10 After the format is complete, the hard disk operates normally.

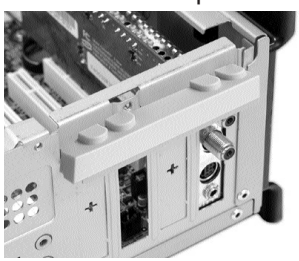


6-6.Installing expansion cards

When you are using the computer, you may need to install expansion cards to improve funtionality. The following instruction describes how to install expansion cards.

1 Refer to Opening the computer case to open the computer case cover.

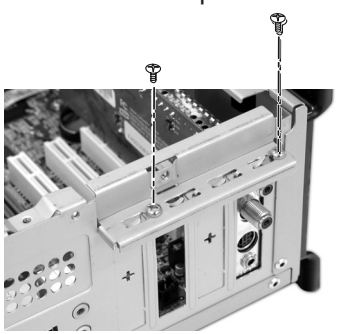
2 Remove the capas shown on the picture.



Warning

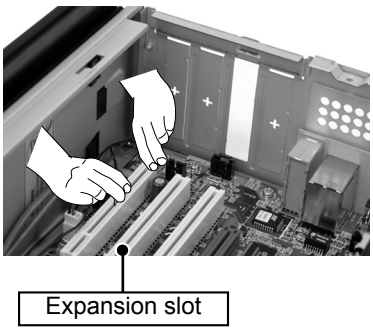
- Always use a screwdriver to open the case cover. There is the risk of injury.
- In order not to be injured when disassembling the computer, wear the gloves.

3 Remove 2 screws as shown on the picture.



4 Use the driver and remove the metal slot cover.
(Remove it, only when installing an additional extension card.)

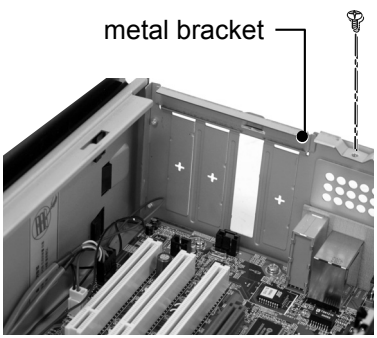
5 Hold the expansion card with both hands and align the expansion card and slot. Push down evenly to insert the card into the slot.



Caution

■ Incorrect installation of an expansion card may damage the main board and result in a computer malfunc tion.

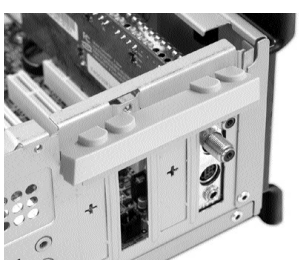
6 Fasten a screw after installing a metal bracket.



Warning

Using the computer without closing the case may result in fire, electric shock, injury, and/or damage to the computer.

7 Close the cap in the same position as you removed it.



8 Refer to Closing the computer case to close the case cover of the computer.

9 Install the driver program for the new expansion card.

Specifications *EH model

CPU	Intel Pentium 4 / Celeron mPGA478 type (2.4GHz or above)
System memory	256MB (up to 2GB) - If built-in VGA is used, maximum 32MB could be applied for the Video Frame Buffer and its size is controlled by the system automatically.
Cache memory	L1: 16KB/36KB/or above, L2: 128KB/256KB/512KB/1024KB/or above. Its size is different depending on the CPU.
Hard disk drive	40GB or above (E-IDE type)
Floppy disk driver	One 3.5inch 1.44MB drive
Keyboard	PS/2 keyboard (104keys)
Mouse	PS/2 mouse or USB (ball / wheel)
Video	Integrated or external AGP graphic
Sound	Built-in AC'97 audio. Support MIC-IN, SPEAKER-OUT and LINE-IN.(Support virtual 5.1 channel output)
LAN	Integrated 10/100Base-T Ethernet
USB	6ports (support USB 2.0)
Serial I/O	One RS-232C (9pins)
Front I/O	Two USB ports and audio ports (SPEAKER-OUT and MIC-IN)
Parallel I/O	One printer port (25pins)
Extension slot	Three PCI slots, one AGP slot and two memory DIMM slots
Product size	Width 136 x Height 354 x depth 378(mm)
Cable	Power cable length 1.8m
Power spec	Voltage: 100~127/200~240VAC Frequency: 50/60 Hz

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