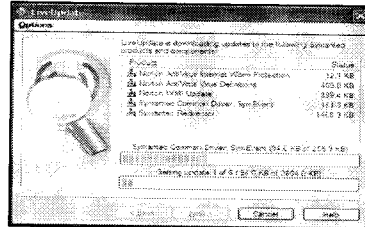
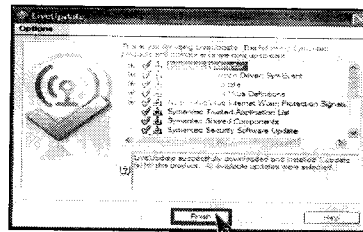


5 Downloading update-items online.



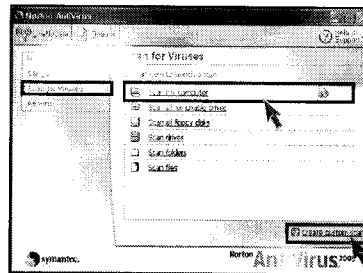
6 Click [Finish] . Norton Antivirus Update is complete.



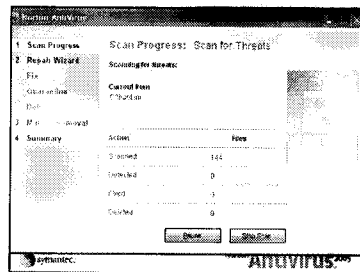
● Running Norton Antivirus

1 Click **[Start]**→**[All programs]**→**[Norton Antivirus]**→**[Norton AntiVirus2005]**.

2 Click **[Scan for virus]** and select an item to scan.

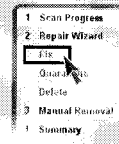


3 Norton AntiVirus is scanning virus.

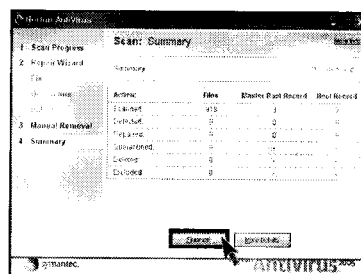


Note

■ If any virus is detected, click **[Fix]** to repair.



4 Click **[Finish]**. Virus scanning is complete.



3. System setup



The system setup saves your computer's hardware configurations in CMOS RAM. The system setup provides you with information, such as the size and type of your hard disk, size of the installed memory, date, and time.

3-1. Starting the system setup

You may want to use the CMOS Setup Utility in the following situations:

- Booting with a bootable floppy disk(page 50).
- Setting a password(page 51).
- Changing or removing the password(page 52).
- Recovering the factory default settings(page 54).



Caution

Do not change the system setup arbitrarily. Incorrect system setup may result in errors while using the computer.

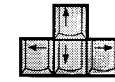
The menu and default factory settings of the CMOS Setup Utility may look different from this manual. They may have been changed to improve the performance of the system.

● Keys used in the CMOS Setup Utility

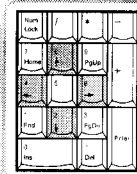
Keys	Function
[Enter]	Select the current item.
[Esc]	Close the current window or move to the previous window.
[↑],[↓],[←],[→]	Move up, down, left, and right.
+/-	Increase or decrease the value
[Page Up]	Increase or decrease the value.
[Page Down]	Increase or decrease the value.
[F10]	Save or exit the system setup.

Note

- Direction keys (arrow keys) move the cursor up, down, to the left and right. If Num Lock button is off, the arrow keys in the numeric keypad can be used just like the cursor control keys.

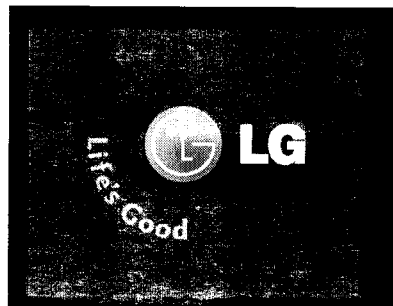


<Cursor keypad>

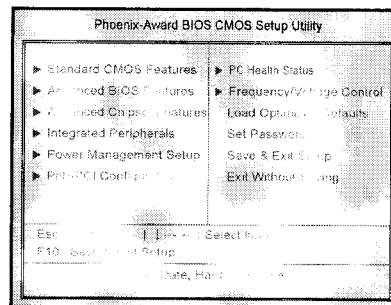


<Numeric keypad>

- 1 Turn on the computer and monitor.
- 2 When LG logo appears on the screen, press **[Delete]**.



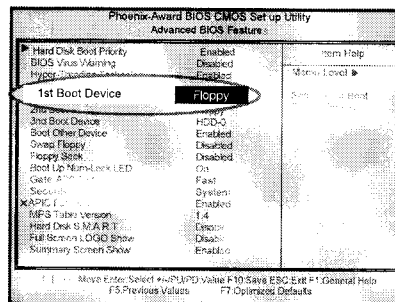
- 3 The CMOS Setup Utility window appears.



3-2. Booting with a bootable floppy disk

Follow the instruction below to set the floppy disk as start up disk.

- 1 Open the CMOS Setup Utility. Use the arrow keys to select **Advanced BIOS Features** and press **[Enter]**.
- 2 Use **[↑]**, **[↓]**, **[←]**, and **[→]** keys to select **1st Boot Device**. Use page up/down keys to select **Floppy**.



- 3 To save changes in System Setup, press the **[F10]** key.
- 4 When the following message appears, press **[Enter]**. The computer restarts.

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

3-3. Setting a password

If you want to protect the system setup from unauthorized users, follow the instruction below to set a password.

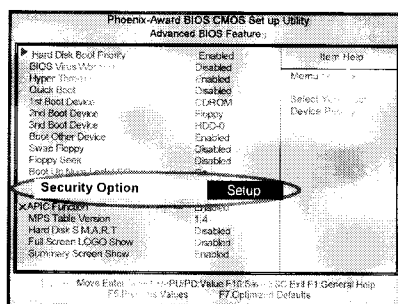
You can set a password in the CMOS Setup Utility program.



Caution

If you forget the password, you cannot gain access to your system. Be sure to write down the password in a safe place only you can refer to in case you forget the password.

- 1 Start the CMOS Setup Utility. Use the arrow keys to select **Advanced BIOS Features**, and then press [Enter].
- 2 Use the arrow keys to select **Security Option**. Use the Page Up and Page Down keys to select **Setup or System**, and then press [Enter].



Note

- If you select Setup in the Security Option, the computer asks for a password next time you try to enter the CMOS Setup Utility. If you select System, the computer asks for a password next time you start the computer and also when you try to enter the CMOS Setup Utility. Setting the System password prevents unauthorized users from using the computer or changing the system setup.

- 3 Use the arrow keys to select **Set Password**, and then press [Enter].



- 4 If the following message appears, enter the new password and then press **[Enter]**. A password must consist of characters A~Z and numbers 0~9, and has the maximum length of 8.

Enter Password :

- 5 If the following message appears, enter the password again, and then press **[Enter]**.

Confirm Password :

- 6 Press **[F10]** to save the new settings.

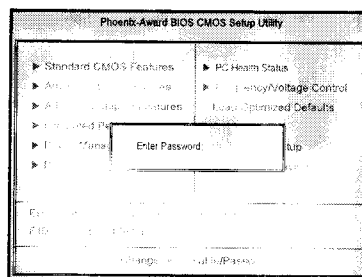
- 7 If the following message appears, press **[Enter]**. The computer restarts.

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

3-4. Changing or removing the password

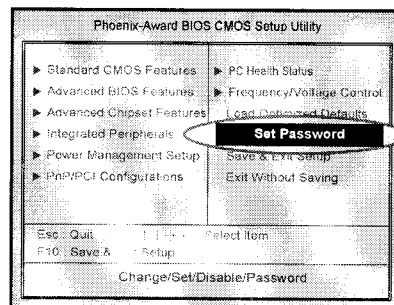
You must know the password to change or remove it.

- 1 Start the CMOS Setup Utility, enter your password, and then press **[Enter]**.



- To change the password, follow the instructions on Setting a password.
- To remove the password, follow the instructions below.

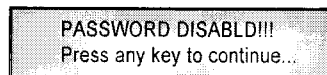
2 Use arrow keys to select **Set Password**, and then press **[Enter]**.



3 If the following message appears, press **[Enter]**.

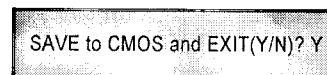


4 If the following message appears, press **[Enter]**.



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

6 If the following message appears, press **[Y]** key and **[Enter]**. The computer restarts.



3-5. Recovering the factory default settings

You can follow the instructions below to recover the factory default settings.

- 1 Start the CMOS Setup Utility. Use the arrow keys to select **Load Optimized Defaults** and press **[Enter]**.
- 2 If the following message appears, press **[Y]** key and then **[Enter]**. The factory default settings have been recovered.

Load Optimized Defaults (Y/N) ? Y

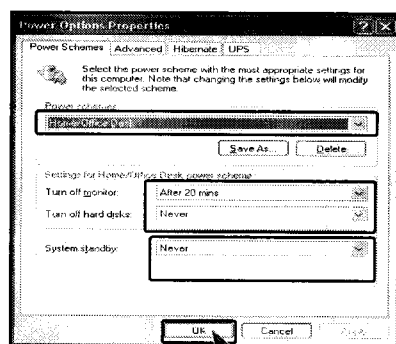
- 3 To save changes in System Setup, press the **[F10]** key.
- 4 If the following message appears, press **[Enter]**. The computer restarts.

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

3-6. Using Power saving function

You can use power saving function in Windows OS no matter how you set the BIOS setup.

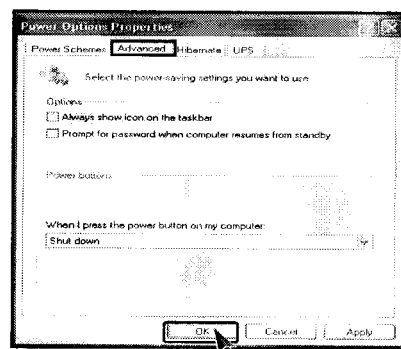
- 1 Click [Start]→[Control panel]→[Switch to classic view].
- 2 Double click Power option icon from the control panel.
- 3 Set the Power option properties and click [OK].



Warning

There are some devices which do not support the power saving function properly. If you have installed such devices, you should disable power saving function.

- 4 Click [Advanced] for setup if necessary and then click [OK].



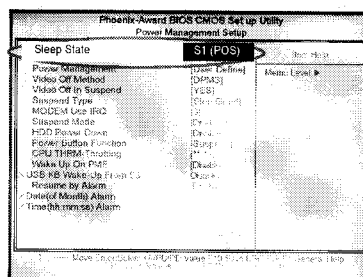
Note

- **Hibernation mode:** It saves data and turns off the power and then restores data when the system starts again.

Your computer support ACPI power saving and you can change Sleep State in the BIOS system setup. Set to S3(STR) to manage power more effectively in standby mode. Use the power button to exit standby mode. If you want to use a keyboard stroke or mouse movement to exit standby mode, change S3(STR) to S1(POS).

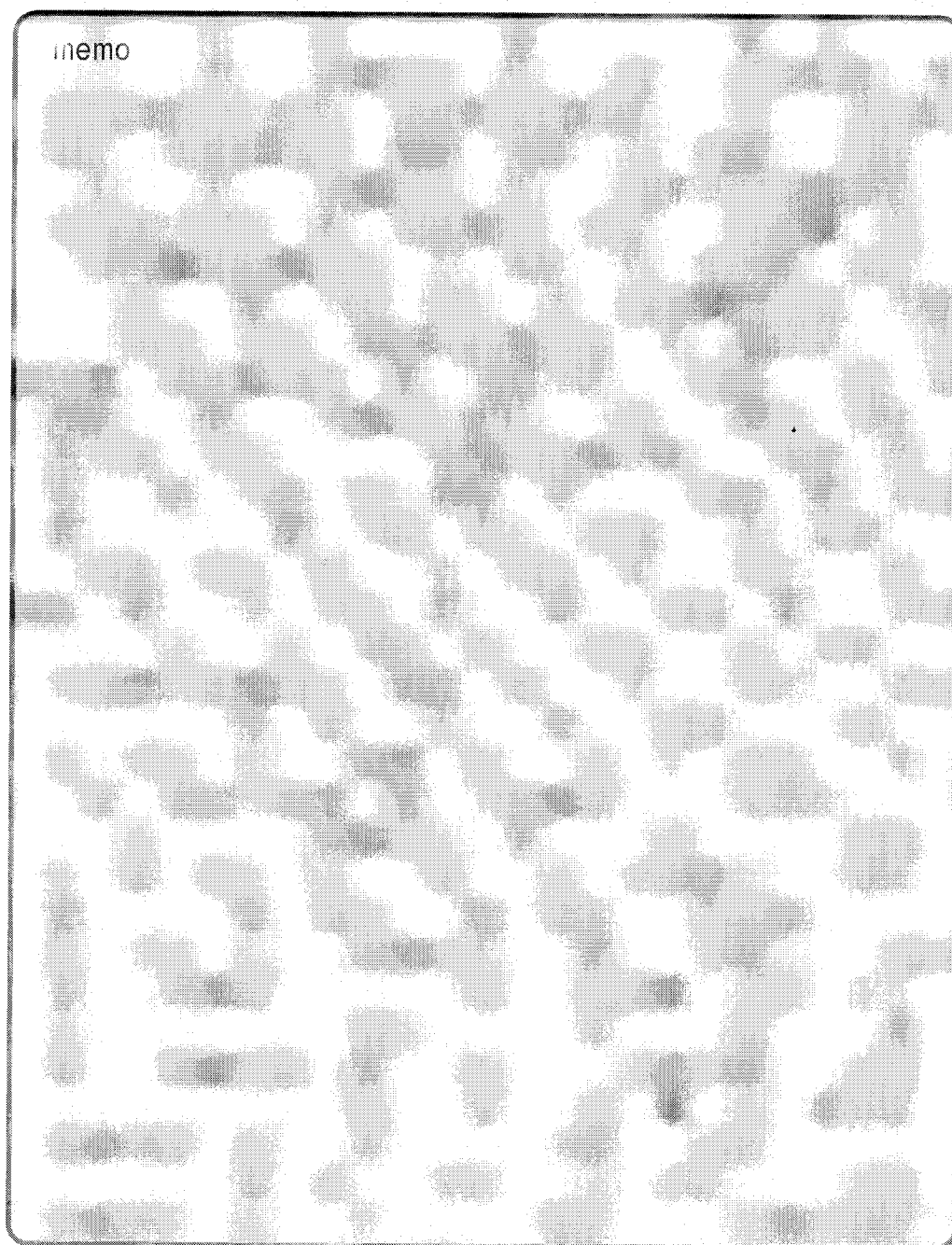
Note: S1(Power On Suspend), S3(Save to Ram)

- 1 Start the CMOS Setup Utility. Use the arrow keys to select **Power Management Setup** and then press **[Enter]**.
- 2 Use the arrow keys to select **Sleep State**, and PageUp and PageDown keys to set **S1(POS)**.



- 3 To save changes in System Setup, press the **[F10]** key.
- 4 If the following message appears, press **[Enter]**. The computer restarts.

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



4. System Recovery

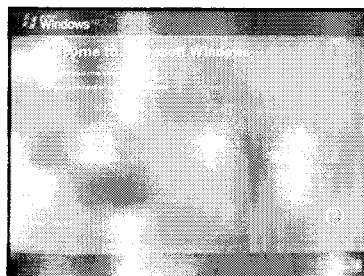


You can restore the system in two ways depending on the current status of the system. However, to restore the hard disk, you need to back up necessary software and data files in advance. After completing Windows installation, you need to register the User Properties when booting the system as if you did your new computer.

● Installation with Recovery CD

Installation

- 1 Back up the data stored in the computer.
- 2 Insert the Restore CD in the CD-ROM drive. When **"Press any key to boot from CD..."** message appears on the screen, press the [Enter] key.
- 3 Continue installation by following instructions on the screen.
- 4 After completing installation of Windows, remove the CD and restart the system. When the following screen appears, register the User Properties according to instructions on the screen.



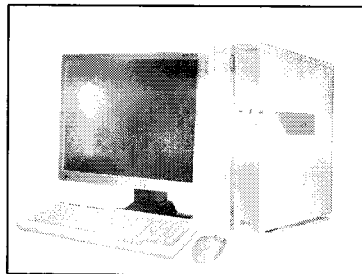
- 5 After the Windows operating system installation is complete, install the LG GILJABI CD (software installation CD) on your computer, and then you can use all application programs and device drivers.

● Installation of Windows XP Upgrade

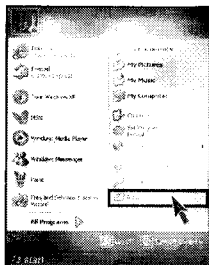
1. If Windows XP is already installed on the hard disk, you can upgrade existing Windows XP without formatting the hard disk.
2. In the case that Windows XP is already running on the hard disk, upgrade Windows XP as follows.

For Windows users

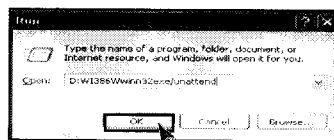
- 1 Turn on the system where Windows XP is installed.



- 2 Click the **[Start]** and **[Run]** button.



- 3 Insert the Restore CD, and input **D:\i386\winnt32.exe/unattend**. Then, click the **[OK]** button. (When the CD-ROM drive is D drive.)



Note

- To execute "winnt32.exe" without using "Unattend" option, you must input the product key attached on the computer. You also need to have the computer certified within 30 days after this.

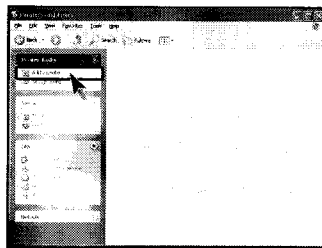
5. Reinstallation of Drivers



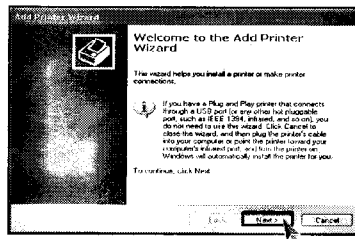
5-1. Reinstalling Printer Driver

You must install the printer driver after connecting the printer. Windows XP can automatically detect printer drivers. However, if Windows XP does not detect your printer driver, install the printer driver as follows.

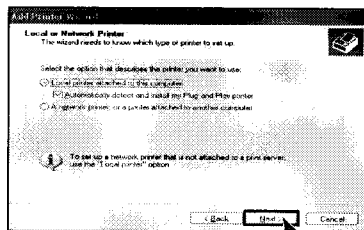
- 1 Select **[Start] → [Control Panel] → [Class Desktop]**.
- 2 Double click the **[Printer and Fax]** on the Control Panel window.
- 3 When the following screen appears, click the **[Add Printer]** button.



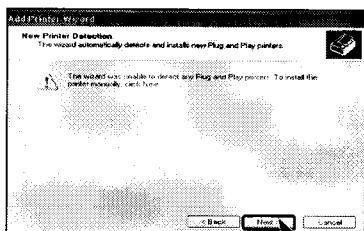
- 4 When the Add Printer Wizard appears, click the **[Next]** button.



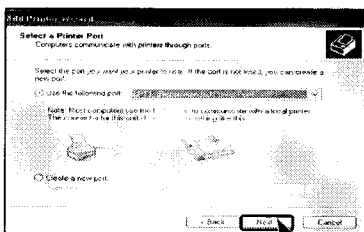
- 5 When the following screen appears, check the connection type of the printer - local or network. Then, select a printer and click the **[Next]** button.



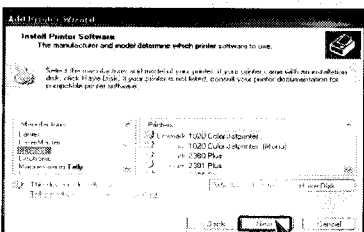
- 6 New Printer Detection screen will appear. Click the **[Next]** button.



- 7 When Set Printer Port screen appears, select LPT1 or LPT2 before clicking the **[Next]** button.



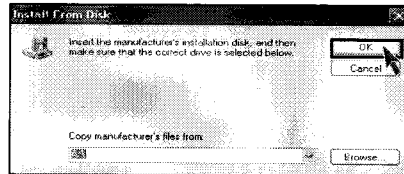
- 8 Select the manufacturer and model of your printer on the **Select Printer** screen. If your printer came with an installation disk, click **[Have Disk]**. If not, just click the **[Next]** button.





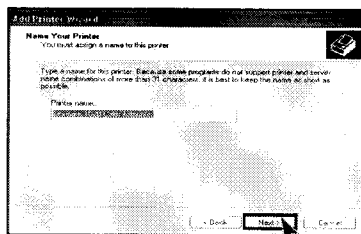
When **[Have Disk]** is selected.

- 9 Insert the diskette or driver CD in the driver and click the **[OK]** button.

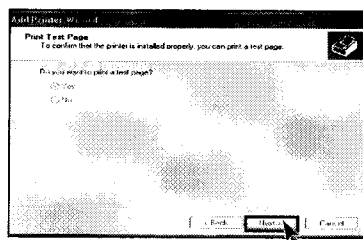


When **[Next]** is selected

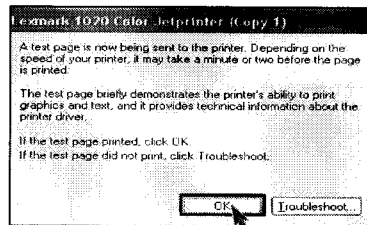
- 9 Name the printer, and click the **[Next]** button.



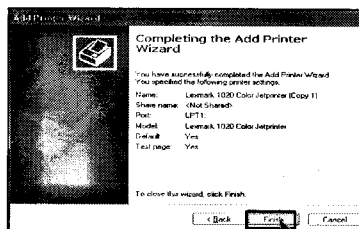
- 10 When **Print Test Page** screen appears, click the **[Yes]** and **[Next]**.



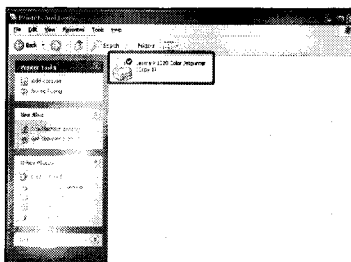
- 11 After the test page is properly printed out, click the **[OK]** button.



- 12 When the following screen appears, check the printer and click the **[Finish]** button.



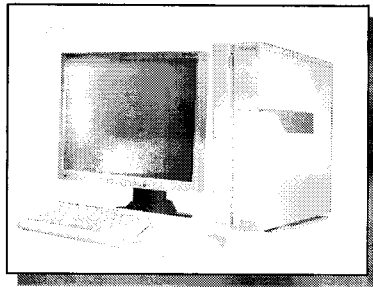
- 13 Now, the printer has been added.



5-2.Reinstalling Sound Driver

You must install a sound driver to listen to music files and CDs on the computer. A sound driver basically comes out with the computer. If it has to be reinstalled, however, follow the process below.

- 1 Turn on the computer and the monitor.



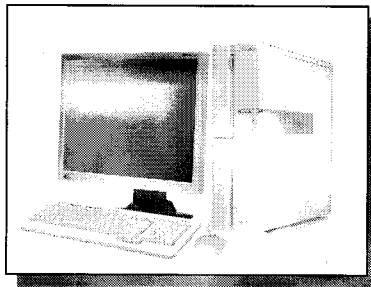
- 2 Insert LG GILJABI CD in the CD-ROM driver. Select the sound driver to install from the list.

- 3 The driver installation process will start. Follow instructions on the screen.

5-3.Reinstalling Video Driver

The video driver displays on the monitor data stored on the computer. The video driver is included in basic specification of the computer. However, in the case that it is necessary to reinstall the video driver, carry out the following process.

- 1 Turn on the computer and the monitor.



- 2 Insert LG GILJABI CD in the CD-ROM driver. Select the video driver to install from the list.

- 3 The driver installation process will start. Follow instructions on the screen.

Note

- When the computer uses the Intel Onboard Video, some games and programs that does not support Screen Rotation may not be executed on the screen. When this happens, disable the Screen Rotation.

6. System Expansion



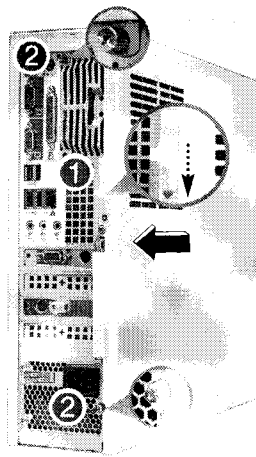
6-1. Opening the computer case

Always consult with your service representatives before opening the computer case.

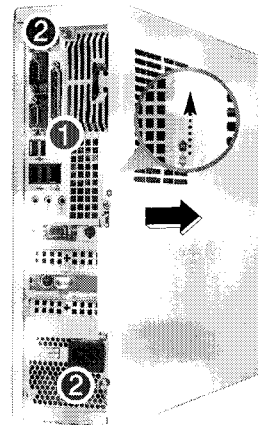
Follow the guidelines below when opening the case.

- Quit all running programs.
- Turn off the computer and monitor, and unplug and remove the power cords.
- Keep magnetic objects such as screw driver away from the parts inside the computer.
- Open the computer case in a safe, clean area.
- The static electricity can damage the parts inside the computer.*Touch a bare, unpainted metal part of the computer for 2~3 seconds to remove the static electricity before opening the computer case.
- Always wear gloves to avoid injury when disassembling the computer.

Opening and closing the computer case



Remove 3 screws from the cover and then push the cover as the direction of the arrow.



Push the cover in the direction of arrow as it aligns the groove of computer cover with body shown on the picture and fasten 3 screws.



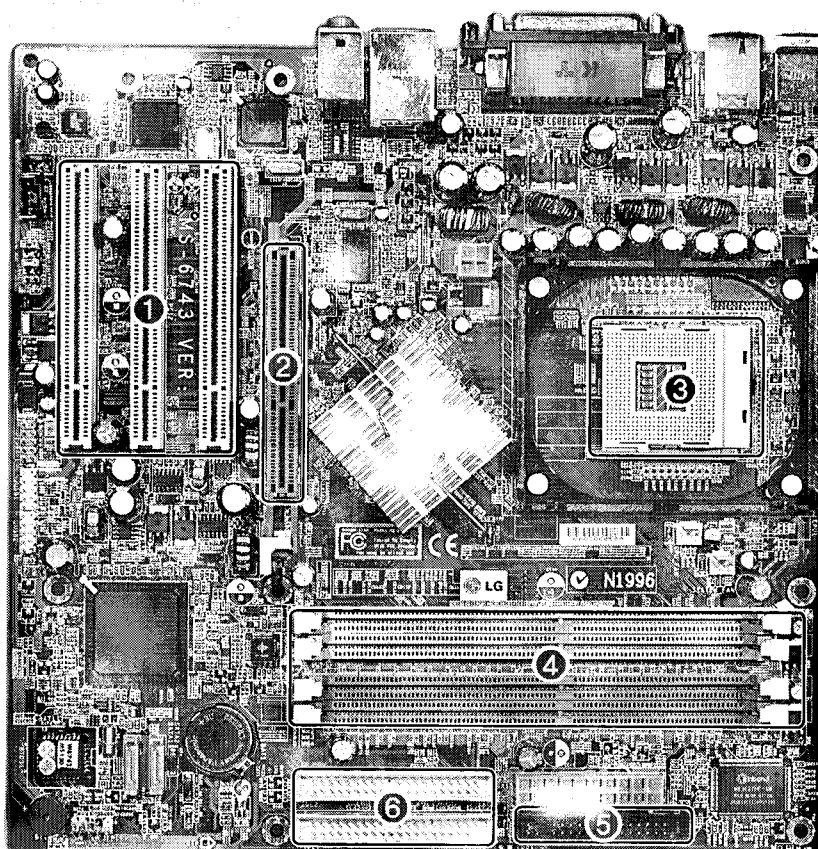
Warning

Make sure that there is no metallic object left inside the computer before closing the case. There is the risk of electric shock or fire.

6-2. Main board

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

- | | |
|--------------|------------------------------|
| ❶ PCI slot | ❷ Memory socket (DIMM) |
| ❸ AGP slot | ❹ Floppy disk connector |
| ❺ CPU socket | ❻ Hard disk/CD-ROM connector |

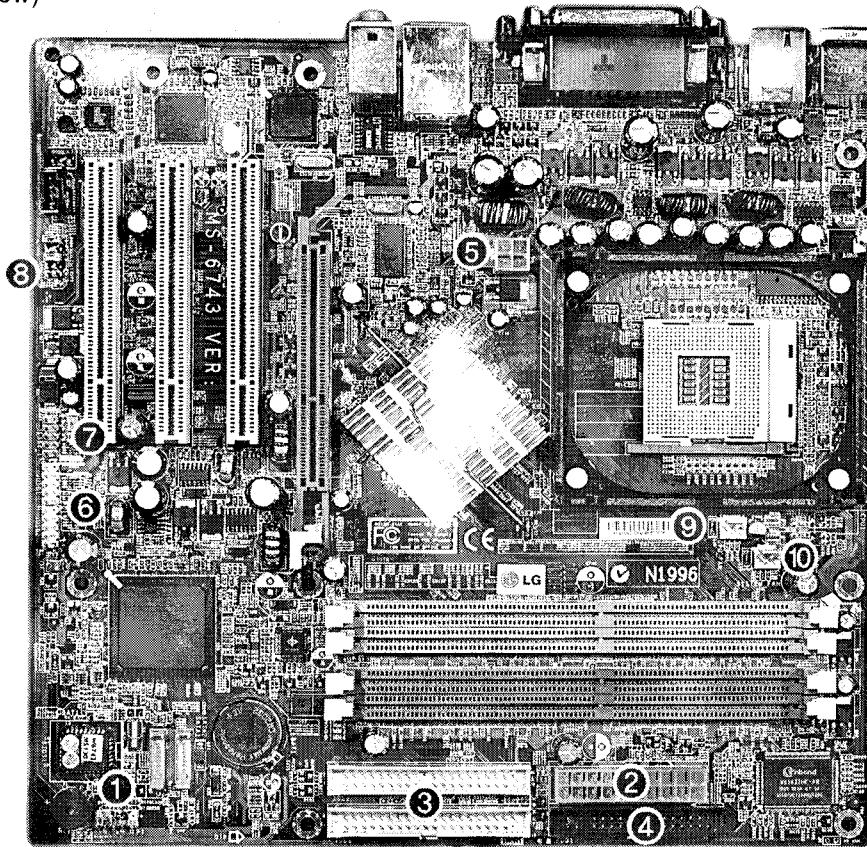


Note

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

6-3. Connectors

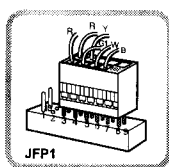
The peripheral devices are connected to the main board through the connectors shown below. (The main board in your computer may look different from the picture below)



Caution

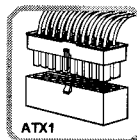
- Before removing the connector, check the status of connection and make a note.
- Align the groove to the right direction when connecting floppy disk drive connector, hard disk/CD-ROM connector.
- Match the pin number with the color of cable. There is a risk of disfunction to the computer.
- There is a risk of explosion if battery is replaced by an incorrect type. Dispose of used batteries according to the instructions.
- There is a risk of explosion if the backup(standby) RTC battery is replaced by an incorrect type.
- Dispose of used backup(standby) RTC battery according to your local ordinances or regulation.

- ① Power switch, power/ hard disk activity LED connector (JFP1)



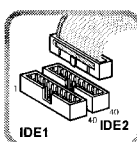
Connects power switch and hard disk activity LED.

- ② Power connector (CONN1: 20 pins)



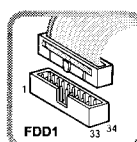
Connects to the power.

- ③ Hard disk/CD-ROM drive connectors (IDE1, IDE2: 40 pins)



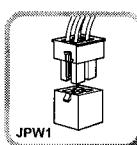
IDE connector connects hard disk and CD-ROM drive. If only one hard disk is connected, it should be connected to IDE1 hard disk connector.

- ④ Floppy disk drive connector (FDD1: 34 pins)



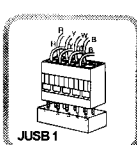
Connects to the floppy disk drive.

- ⑤ Power connector (JPW1: 4 pins)



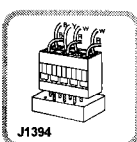
Connects to the power supply.

- ⑥ USB connector (JUSB1: 10 pins)



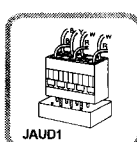
Connects to the USB on the front of the computer.

- ⑦ 1394 connector (J1394 : 7pins)



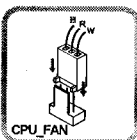
Connects to the IEEE 1394 on the front of the computer.

- ⑧ Audio connector (JAUD1: 7 pins)



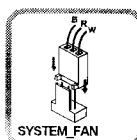
Connects to the head-phone and microphone jacks on the front of the computer.

- ⑨ CPU fan (CPU_FAN: 3 pins)



Connects and supplies power to the CPU fan.

- ⑩ System fan (System_FAN)



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

6-4 Replacing the CPU

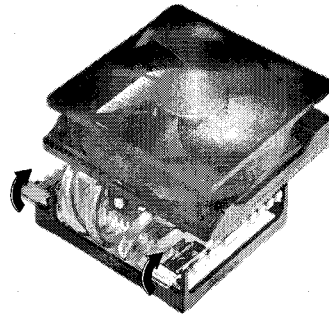
The shape and replacement method of the CPU fan may be different depending on the model.

- 1 Remove 4 screws and then disassemble the computer case as the arrow indicates.

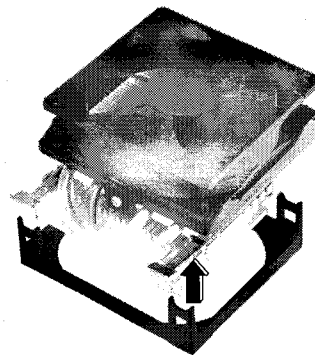


Caution

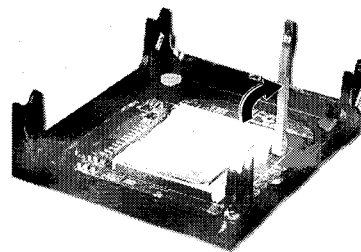
Align the groove to the right position, pins can easily be broken.



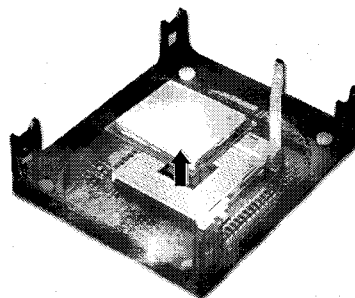
- 2 Clamps on both sides of the CPU fasten the fan tightly to the CPU socket. raise the handle 1, release the clamps, and then spread them outward 2.



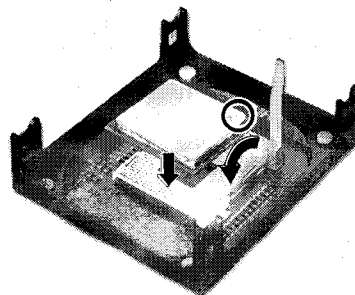
- 3 After releasing the clamps, lift and remove the CPU.



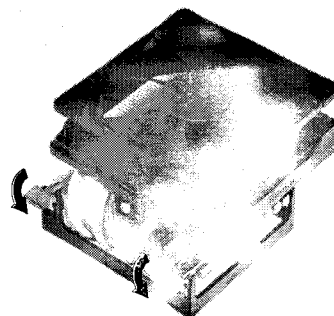
- 4 Raise the handle on the CPU socket to unlock the CPU.



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



- 6 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.

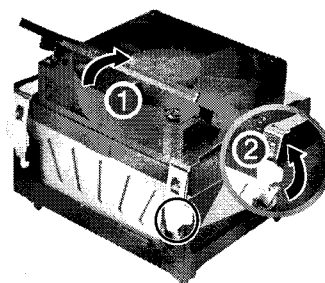


Caution

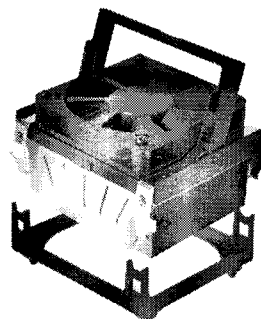
Always wear gloves to avoid injuries.

● Replacing CPU

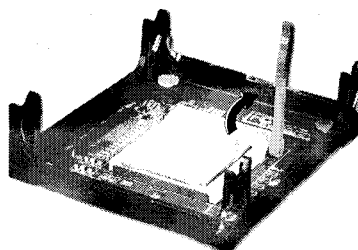
- 1 Clamps on both sides of the CPU fasten the fan tightly to the CPU socket. raise the handle 1, release the clamps, and then spread them outward 2.



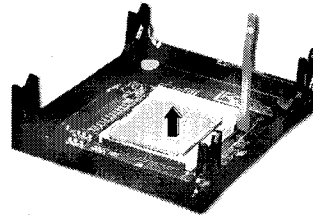
- 2 After releasing the clamps, lift and remove the CPU fan from the socket.



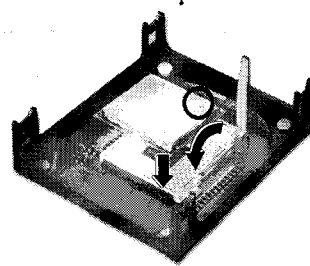
- 3 Raise the handle on the CPU socket to unlock the CPU.



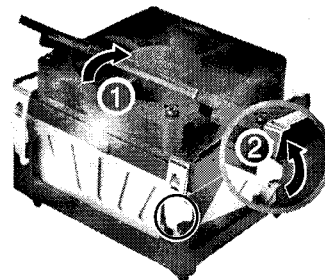
- 4 Lift the CPU straight up. Be careful not to damage the pins at the bottom of the CPU.



- 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 Lower the handle as shown picture 1 and lock the clamps as shown picture 2.



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.

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

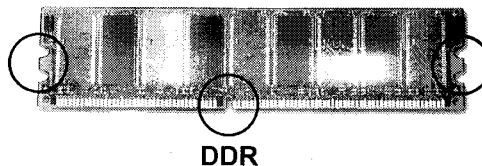
- Windows 95, 98SE, ME supports memory up to 512MB total. Increasing the memory beyond 512MB in these systems may cause errors while using the computer.

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; therefore, 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.





Caution

- Your computer supports PC2700/3200 DDR memory.
- Use Unbuffered DDR SDRAM DIMM only to increase the memory.
- Dual channel mode operates when each identical memory is installed in the same color of DIMM slot.

FSB Frequency	Supported memory type
533/800MHz	PC2700/3200-DDR SDRAM 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: PC2700/3200(184 pin DDR SDRAM DIMM)

Speed: 333MHz(166MHz X 2), 400MHz(200MHz X 2)

Size: 256MB, 512MB

Memory configuration chart

Total memory	DIMM 1	DIMM 2	DIMM 3	DIMM 4	DUAL/SINGLE
256MB	256				SINGLE
512MB	256MB		256MB		DUAL
		256MB		256MB	DUAL
	512 (1/4)				SINGLE
1024MB	256MB	256MB	256MB	256MB	DUAL
	512MB		512MB		DUAL
		512MB		512MB	DUAL
2048MB	512MB	512MB	512MB	512MB	DUAL

Note

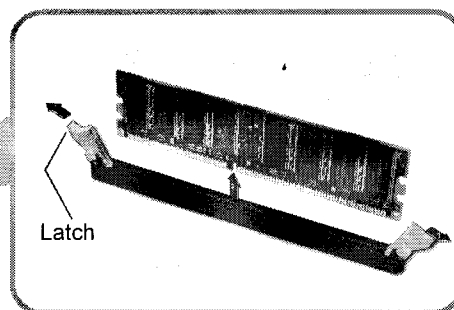
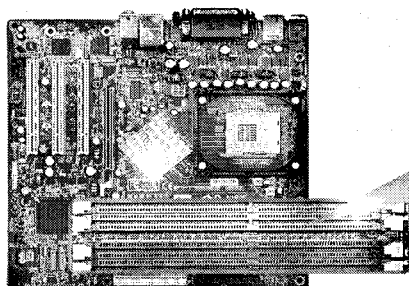
- Dual channel improves the efficiency of the system.
- Each identical memory should be used for dual channel setting.
- Dual channel setting is recommended.

Replacing the memory

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

Note

- Before opening the case, turn off the computer and peripheral devices, and remove the power cords.
- 1 Remove the screws on the rear of the computer, and open the computer case.
 - 2 Pull the latch on each side of a memory socket to release the memory.

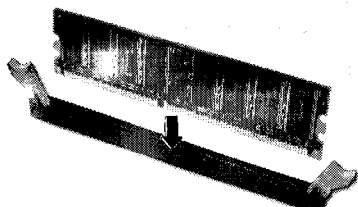


Installing a memory

- 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

- For dual channel system, each memory should be installed in independent slot (1&3 slot or 2&4 slot) when using DDR Memory.

It is recognized as a single channel if there is a difference between dual channel 1 and 3, 2 and 4.



Firmly push the latch to lock the memory.

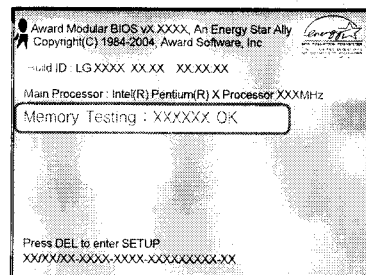
● Checking the size of the installed memory

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.
The following screen appears to inspect the status of the computer.
- 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 After check the memory, press **[Esc]**. Windows screen appears.

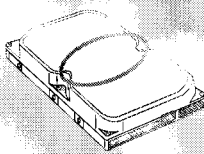
6-6. Adding a hard disk drive

Your computer supports up to 4 E-IDE controllers and 2 hard disk drives.

Before adding a hard disk drive

The following instruction describes the most typical configuration where your computer already has a master hard disk drive and you are adding a slave hard disk drive.

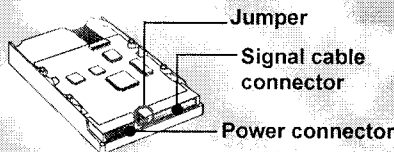
Note



- Check and write down the jumper settings, size, and number of cylinders, heads, and sectors of the hard disk drive where you can refer to when you use the system setup.
(Some hard disk drives do not have the information written on the drive)

Adding a hard disk drive

Note



- Prepare the hard disk you want to add.
- Purchase an E-IDE hard disk drive.
- Set the jumper setting in the slave hard to SL: Slave.
- The jumper settings differ from one hard disk drive to another, so make sure you follow the jumper setting information on top of the drive.



Caution

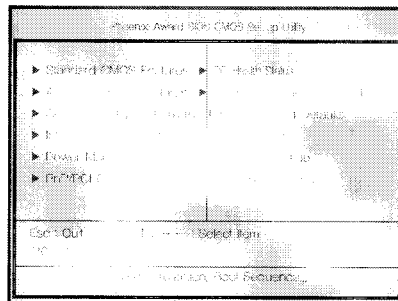
- Always wear gloves to avoid injury when disassembling the computer.
- If the master hard drive is set to CS(Cable Select), the slave drive must also be set to CS(Cable Select).
- Using screws other than the ones provided with the hard disk drive can damage the drive. Using longer or thicker screws can be fatal to the disk drive. A hard disk drive must be mounted securely in order to provide reliable performance.

● Hard disk drive setup

- 1 Turn on the computer and monitor.
- 2 Press **[Delete]** key when the logo screen appears.

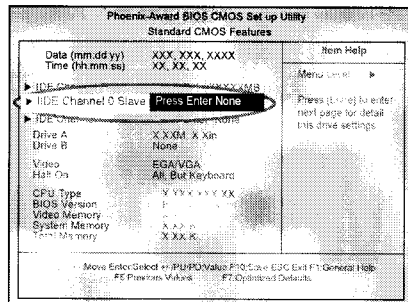


- 3 The CMOS Setup Utility opens.

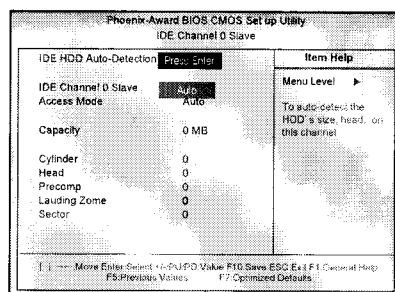


- 4 Use arrow **[↑]**, **[↓]**, **[←]**, and **[→]** keys to select **Standard CMOS Features**, and press Enter.

- 5 Use arrow [**↑**],[**↓**],[**←**], and [**→**] keys to select **IDE Channel 0 Slave**, and press [**Enter**].



- 6 After setting **IDE Channel 0 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

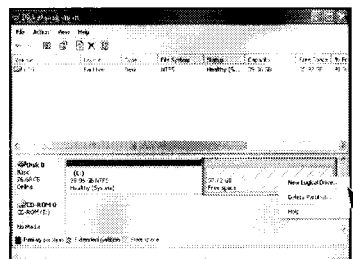
Be careful, Using <diskmgmt.msc> to divide partition delete data in a selected driver.

1 Click [Start] and [Run].

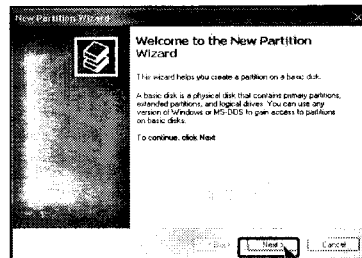
2 Type 'diskmgmt.msc' and press [OK].



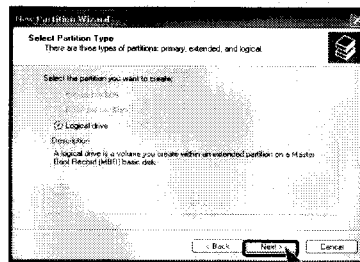
3 If the following window appears, select disk1. Click right button on the mouse to select New partition.



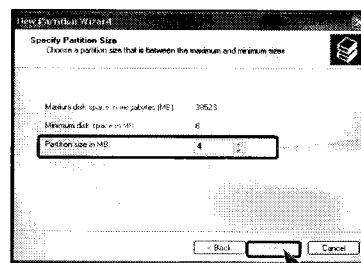
4 Click [Next] if the following message appears.



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

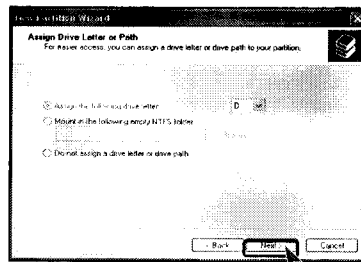


6 Select the maximum size and click **[Next]**.

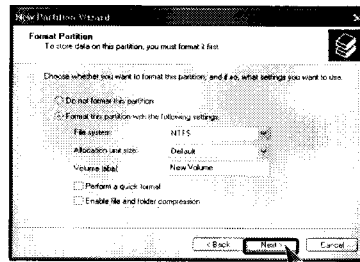


A selected space of the disk will be available to use.

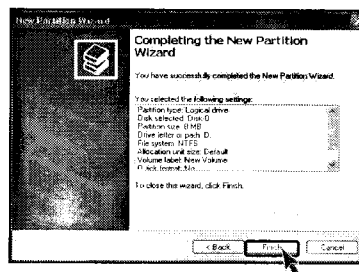
7 Click **[Next]** after selecting a drive value.



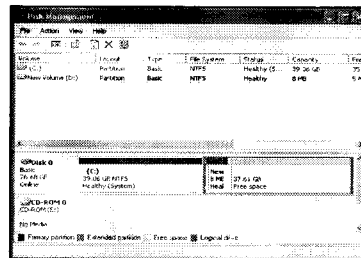
- 8 If the following window appears, select File system, Allocation unit size and Volume label, and click [Next].



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



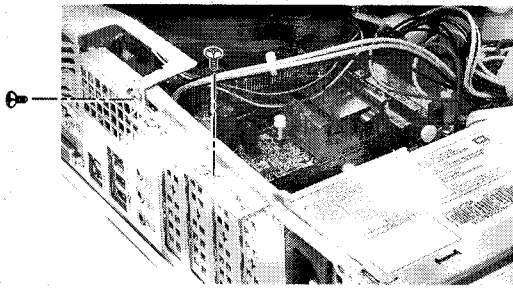
- 10 After the format is complete, the hard disk operates normally.



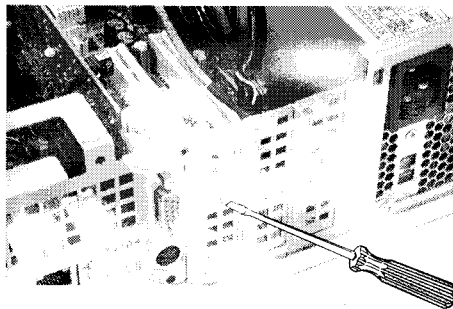
6-7. Installing an Expansion Card

You sometimes need to disassemble and reconfigure the computer to expand the performance. The following describes how to install an expansion card for this purpose.

- 1 Open the computer cover as described in **Opening the computer Cover on.**



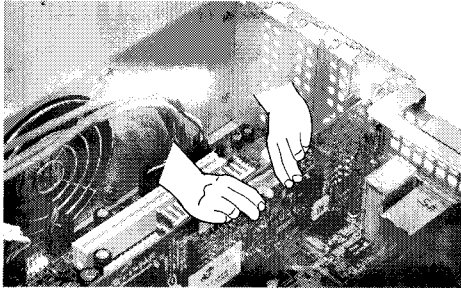
- 2 Remove the metallic slot cover to install the extension card using a proper tool (for example, + driver)
 - ※ Remove the slot cover only when installing an additional card.



Caution

This computer adopted a slim design, and general ATX products cannot be installed in this computer. Please prepare a slim-designed extension card. (Ask the dealer when purchasing an extension card.)

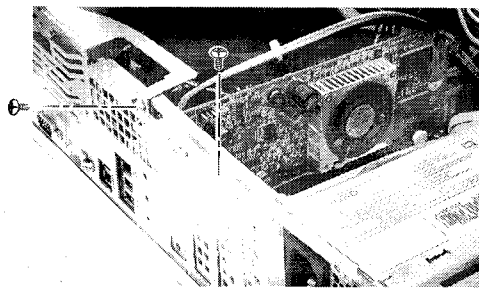
- 3 Grab the card with two hands, and insert the card in the extension slot in the right direction.



Caution

When the card is not properly installed, the card or the main board may get damaged or malfunction.

- 4 After a metallic bracket is completely installed, fix it with screws.



Warning

Close the computer cover before using the computer. Otherwise, an electric shock, injury, or breakdown may occur.

- 5 Put the computer cover as described in Closing the Computer Cover on.
- 6 installing a new card, you also need to install the driver of the corresponding card.



Specifications * GG model

※ Specifications below differ depending on the models.

CPU	Intel Pentium 4 / Celeron mPGA478 type (2.4GHz or above)
System memory	256MB (up to 2.0 GB) - If built-in VGA is used, maximum 16MB and minimum 1MB is applied for Video Frame buffer in DOS Mode, but Windows Mode automatically manages the video memory (up to 96MB depending on System Memory size).
Cache memory	L1: 8KB/16KB or above, L2: 128KB/256KB/512KB/1024KB or above.
Hard disk drive	40GB or above (E-IDE type)
Floppy disk drive	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	One 1394 port, Two USB ports and audio ports (SPEAKER-OUT and MIC-IN)
Parallel I/O	One printer port (25pins)
IEEE1394	One 1394(Front), One 1394(Rear)
Extension slot	One AGP
Product size	Width 95x Heigh 340 x Depth 380(mm)
Cable	Power cable length 1.8m
Power spec	100~127 / 200~240VAC, 5A/3A , 50/60Hz or 200~240VAC. 3A, 50/60Hz
Environmental ement	Temperature:Average temperature:77°F (25°C) Operating temperature:41°F~95°F (5~35°C) Storage temperature:-4°F~131°F (-25~55°C)/Humidity:Average humidity:60%(RH) Operating humidity:30%~80%(RH)/Storage humidity:30%~80%(RH)
Option mark	1394 port(Front/Rear)



-NOTE

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.



Caution

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

