This equipment has been designed for the normal use. It is certified to comply with Electron Wave Suitable Registration. The user this equipment in everywhere including residential areas.

180T

USER GUIDE

Notice

This equipment is one of first class quality. The LCD panel is composed of about 4 Million pixels and may have some faulty pixels. LCD panels with a maximum of 10 faulty pixels are classified as products of good quality. This standard is accepted by other manufacturers of LCD panels. An LCD panel without any faulty pixels is too expensive for the average customer. Our ”A” class panels have the least 5 faulty pixels. We guarantee that our panels will provide the user with high quality performance. Therefore, no product exchanges or refunds will be made in regards to this matter.

FCC Information

This device complies with Part 15 of the FCC Results. Operation is subject to the following two conditions:

(1) This Device may not cause harmful interface, and

(2) This device must accept any interference received, including interference that may cause undesired operation.

Note: This equipment has been tested and found to comply with the limits for CLASS B digital device, pursuant to Part 15 of FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. 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 correct the interference by one or more of the following measures:

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

WARNING

Changes or modifications not expressly approved by the manufacturer could void the user's authority to operate the equipment.

Safety Precautions

- Please observe all following rules for installation, usage, and services so as to not defeat the safeguards incorporated into this monitor.

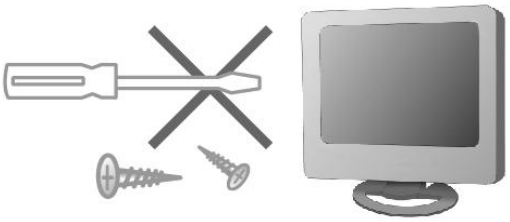
- Safety precautions are divided into Warning and Attention.

Warning : Please ensure that no water leaks or gets onto or into the LCD monitor. Accidental exposure to water may cause fire or electrical damage. If case occurs, please turn off and unplug the monitor. If there is smoke or abnormal noises, please contact the store or customer service center.

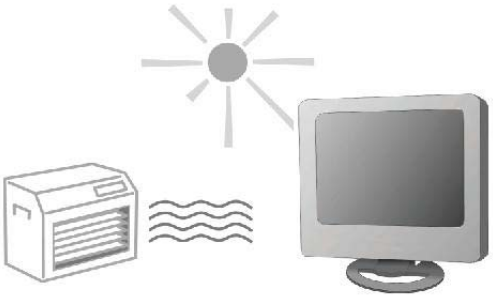
Attention ; Breaking the basic rules can cause injury can cause injury to yourself or damage to the equipment.

- Save the manual near to future users after you read it.

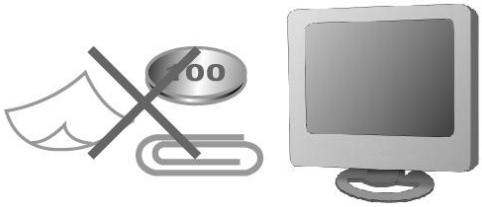
Do not open the monitor. Contact your dealer if the monitor is not operating properly.



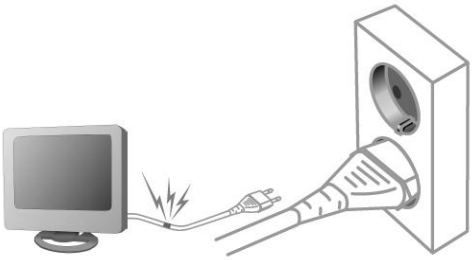
Do not place the monitor in direct sunlight or close to any heat source. -Product malfunction or fire hazard may occur.



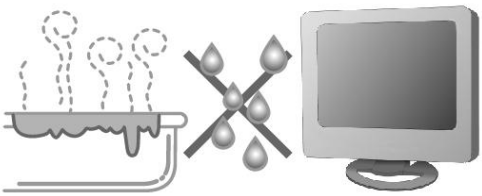
Do not drop metal objects like coins or hairpins into the monitor. -Electrical shock or fire hazard may result.



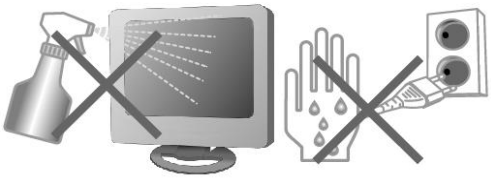
Provide a secure connection to the power supply and do not use damaged power cords or plugs. -Electrical shock or fire hazard may result.



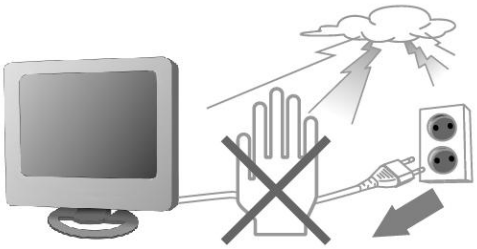
Do not place the monitor in exposed places or near water.



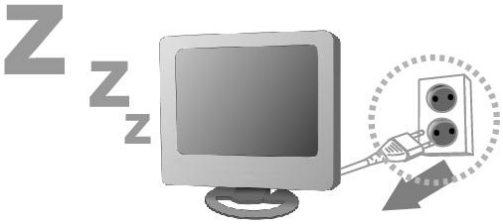
Do not clean the monitor with water or touch it with wet hands. -Electrical shock or fire hazard may result.



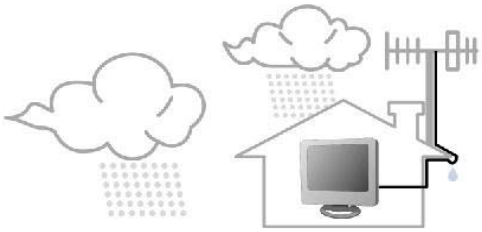
During lightening storms, unplug the monitor from the wall outlet and do not touch it. -Electrical shock or fire hazard may result



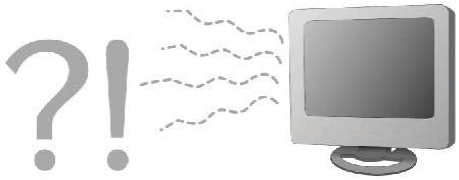
Not using the monitor for hours, unplug the monitor from the wall outlet. - Dust may cause heat, fire, shock or short circuit



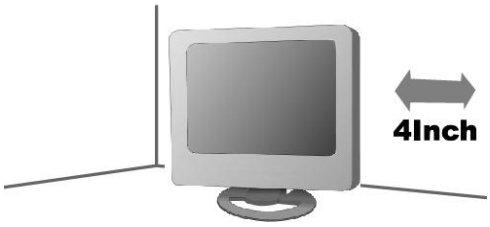
If you use an outdoor antenna, be ensure that no water leaks through connectors and get onto the monitor. - Any liquid spill on the TV may cause fire or electric shock



In case of any smoke or abnormal noise, immediately stop use of product and pull the power cord from the wall outlet. Then call your local dealer or service representative for assistance. -Any subsequent use may result in fire or electric shock.

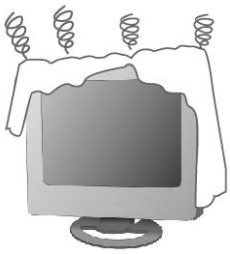


Install the monitor at the specified position from the wall to be well ventilated. - A rise in temperature of monitor may cause fire.

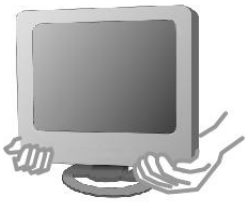


Install the monitor in stable place. - An unstable monitor may crash or fall. Personal injury, damage, or malfunction may result.

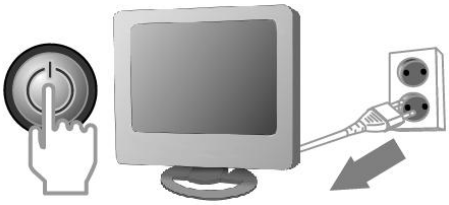
Do not block ventilation openings with any curtain or tablecloths. - The increase of inside temperature may cause fire



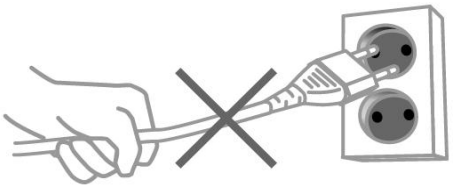
DO not drop the unit or make any scratch on the panel when you move the product. -Any scratch on the panel or drop of the product may cause functional failure.



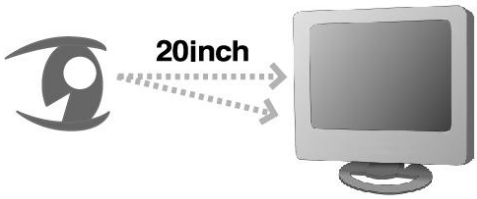
When moving the monitor, turn it off and disconnect all cables and the plug. - Product damage, electric shock, or fire hazard may result.



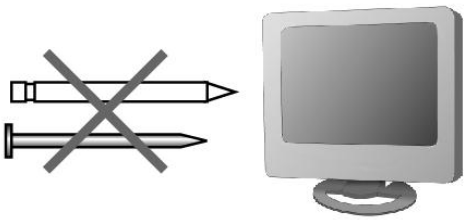
When disconnecting from the wall outlet, grab the plug. - Grabbing the cord may result in heat generation or fire hazard.



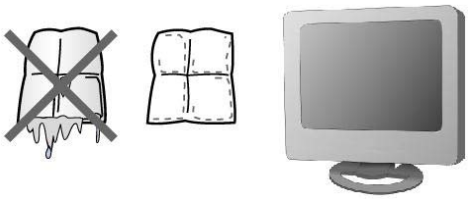
Keep your eyes 20 inch away from the screen and 0~15° down in relation to the screen. - Viewing at too close a position and wrong posture can weaken your eyes.



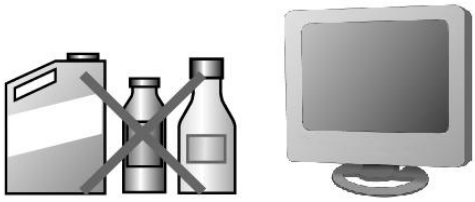
Do not press hard with your finger or scratch with sharp object on the surface of the LCD. -Any damage on the surface of the LCD may cause functional failure.



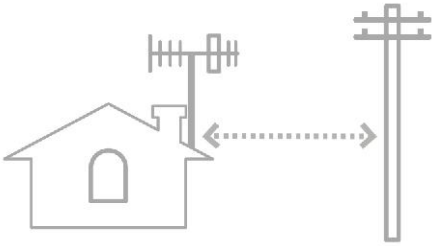
When you clean the monitor and the surface of LCD, be sure to pull the plug from wall outlet. Use soft cloth instead of using damp duster.



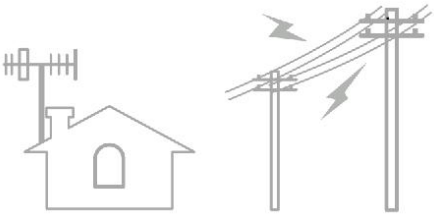
Do not use any chemicals such as industrial polisher, abrasive solution, wax, benzene, alcohol, or clearing detergents. - Chemical cleaners may fade, dissolve, or crack the monitor surface.



If you install outdoor antenna, be sure to install it at the distance from power wire. - If the antenna contacts with the power wire, it may cause electric shock.

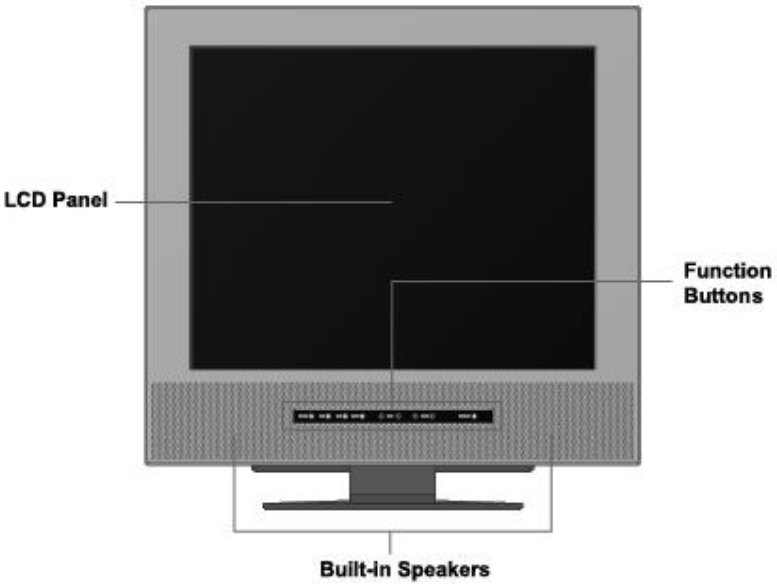


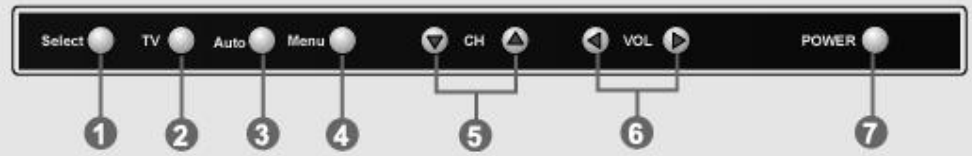
Be sure to keep the distance of the outdoors antenna so that it would not touch electric wire in case it falls by heavy wind. - If the antenna touches electric wire, it may cause injury and electric shock.



Operation and Controls

Front View

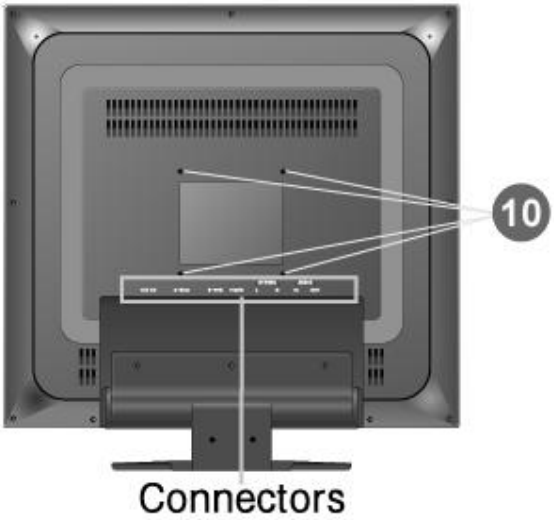


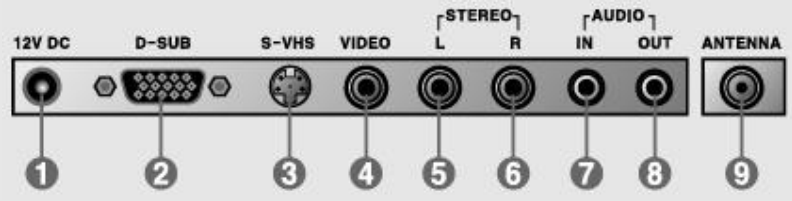


1. Select Button : Selects the input source. (PC / TV / AV1 / AV2).
2. TV Select Button.
3. Auto Button : Allows the monitor to self-adjust to the incoming video signal.
4. Menu Button : Use this button to open the OSD and activate a highlighted menu items.
5. Channel Buttons : Increases or decreases the channel number.
   Moves the selector up or down on the OSD.
6. Volume Buttons : Increases or decreases the level of speaker volume.
   Adjusts OSD Settings on the OSD.
7. Power Button : Turns ON/OFF the Monitor.

Operation and Controls

Rear View





1. Power In Terminal

Connect the DC Adaptor to the power terminal on the back of the monitor.

2. D-SUB Terminal

Connect the monitor D-SUB connector and the PC using the D-SUB signal cable.

3. S-Video Input Terminal

Connect S-Video cable to this input.

4. Composite Video Input Terminal

Connect video cable to this input.

5. Audio Input (Left) Terminal

Connect left audio cable to this input.

6. Audio Input (Right) Terminal

Connect right audio to this input.

7. PC Audio Input Terminal

Connect the audio output of the PC.

8. PC Audio Output Terminal

Connect the stereo speaker system to Audio output.

9. Antenna Input Terminal

Use to connect antennas (AIR/CATV) and VCR.

10. VESA HOLE for fixing on the wall.

Supports VESA mounting standard for use with various VESA mounting devices.

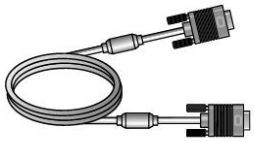
Basic Accessories

- Please make sure the following items are included with your monitor.

  If any items are missing, contact your dealer.

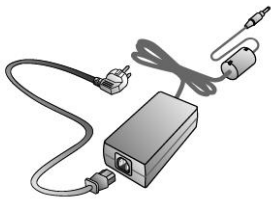
LCD Monitor

Quick Installation Guide

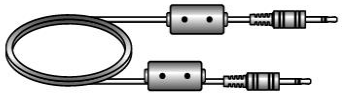


D-SUB Signal Cable

CD-ROM Title



Adaptor



Audio Cable

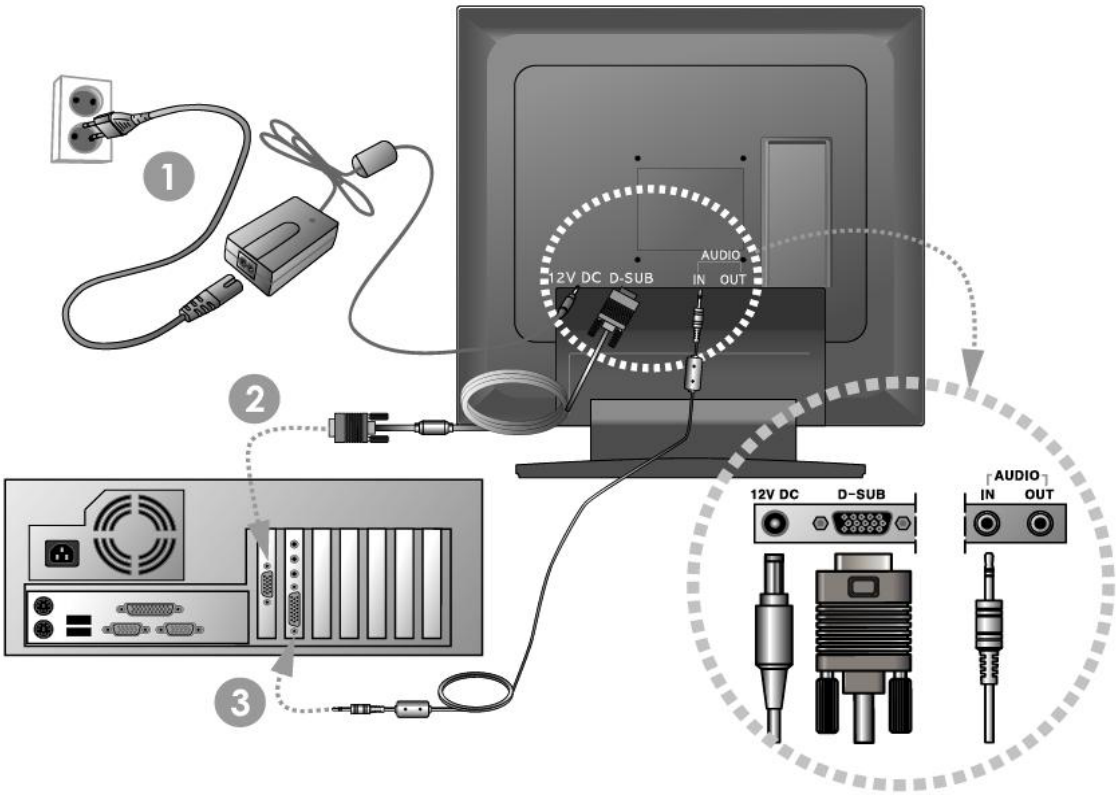
TV Tuner

Remote Controller

Batteries

Connection To the PC

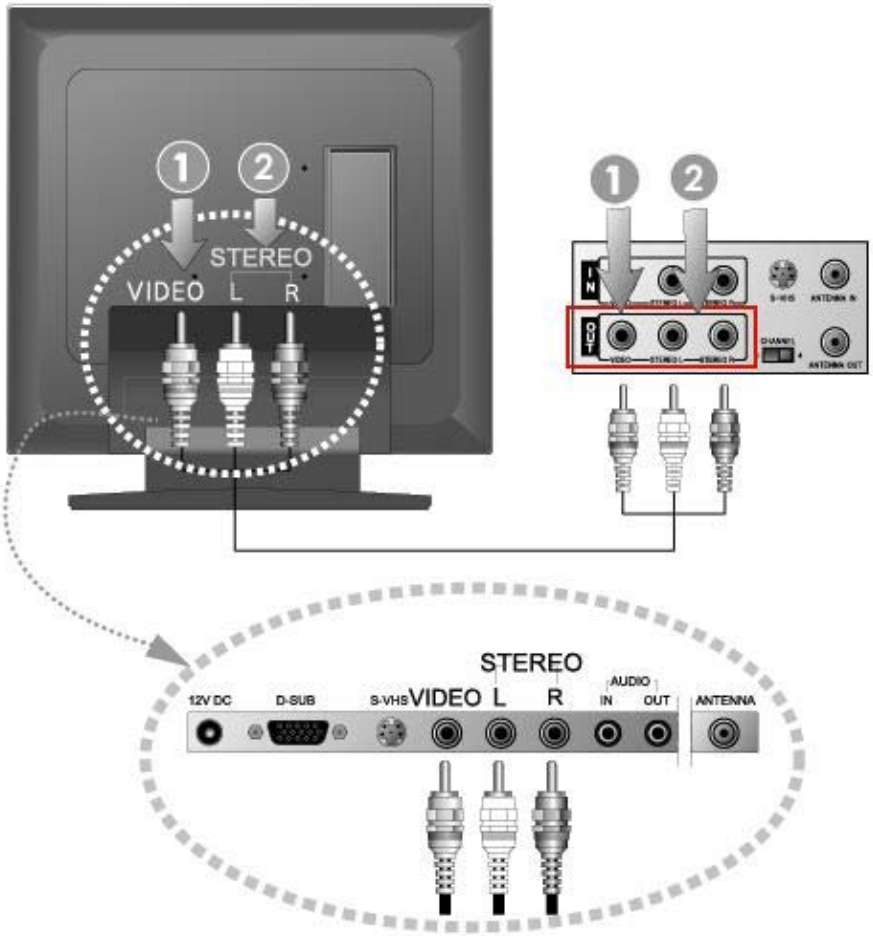
● Attention : Power off your Monitor before making any connections.



1. Power Connection : Connect the DC Adaptor to the power terminal on the back of the monitor.
2. Connection of PC : Connect the signal cable(D-SUB cable) to the monitor output socket of the computer and the other end to D-SUB on the back of the monitor.
3. AUDIO IN : Connect an audio cable to AUDIO IN on the back of the Monitor and the other end to AUDIO OUT terminal of the sound card on your computer.
   AUDIO OUT : Connect an audio cable to the AUDIO OUT of the back of the Monitor and the other end to to the external speakers.

Connection to the VCR

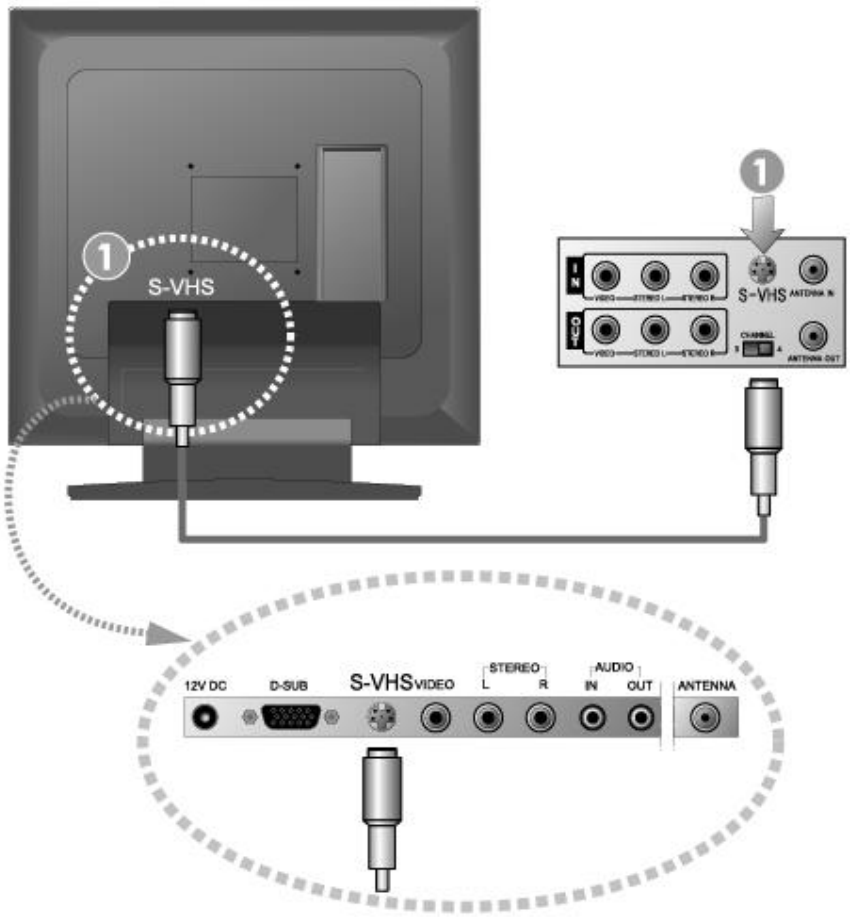
1. Connecting VIDEO 1



1) Connect RCA cable(Yellow) to VIDEO terminal on the back of the monitor and the other end to an appropriate external A/V device such as VCR, DVD.

2) Connect Audio RCA cable(White, Red) to STEREO terminal on the back of the monitor and the other end to an appropriate external A/V device such as VCR, DVD.

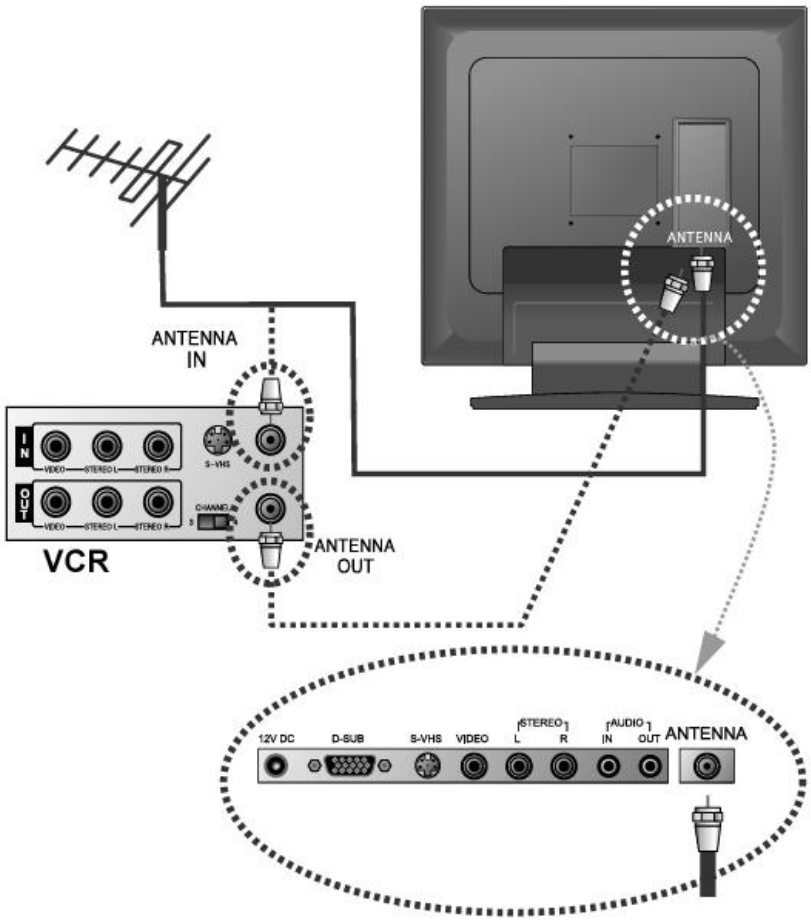
2. Connecting VIDEO 2



1) Connect S-VHS cable to an appropriate external A/V device such as VCR, DVD or Camcorder.

Connection to the TV Antenna

●Connect to TV Antenna : Connect an antenna(or CATV cable) to the antenna terminal on the back of the monitor.



Product Specification

1. Product Specification

SCREEN SIZE			389.0mm(H) x 317.2mm(V)
LCD SYSTEM	Resolution		1280(H) x 1024(V)
	Brightness		250cd/m^2
	Contrast ratio		350: 1
	Response time		30 msec
	Viewing angles		160° (H) / 160° (V)
VIDEO	PC Input max resolution		1280 X 1204 @ 75 Hz (SXGA)
	TV Color System		NTSC
	Video Color System		NTSC/PAL/SECAM
AUDIO	Built-in speakers		Left (2W), Right (2W)
REAR	Inputs	PC	15pin D-sub connector
		Composite Video	RCA Terminal(Yellow) X 1
		S-Video	Mini DIN 4-pin X 1
		Audio L/R	RCA Terminal(White) X 1, RCA Terminal(Red) X 1
		PC Audio	Audio Terminal X 1
	Antenna Input		75 ohm external input Terminal
	Audio Out		Audio Terminal X 1
	12V DC Input		Power Input Connector
FRONT	User Control Buttons		Power, Menu, Select, Auto, VOL Up/Down, Adjust Up/Down
	IR Receiver		Yes
Convenience	Sleep Timer		Yes
	Auto Channel Searching		Yes
	Smart Picture Control		Normal/Dynamic/Cinema/User
Power	Power management		VESA DPMS standard
	Source		12V/5A DC Adapter(AC 100~240V, 50/60Hz)
	Consumption		40W (standby: under 3W)

Plug & Play Level		VESA DDC 1/2B Compatible
Agency Approval		FCC, CE, VCCI, MIC,
Dimensions	W x L x H	409 X 380 X 169
Weights	Kg	4.4Kg (Net)

●This specification of the product might be changed without any notice.

2. Product's Display Specification

RESOLUTION	HORIZONTAL FREQUENCY (KHz)	VERTICAL FREQUENCY (Hz)	REPRESENTATIVE
640 X 350	31.500	70.0	640 X 350@70Hz - Dos Graphic Mode
640 X 480	31.500	60.0	640 X 480@60Hz - Industry Standard
640 X 480	35.014	66.7	640 X 480@66.6Hz - Mac Mode
640 X 480	37.860	72.8	640 X 480@72Hz - VESA Standard
640 X 480	37.500	75.0	640 X 480@75Hz - VESA Standard
720 X 400	31.545	70.0	720 X 400@70Hz - DOS Test Mode
800 X 600	35.156	56.2	800 X 600@56Hz - VESA Guidelines
800 X 600	37.879	60.3	800 X 600@60Hz - VESA Guidelines
800 X 600	48.077	72.1	800 X 600@72Hz - VESA Standard
800 X 600	46.875	75.0	800 X 600@75Hz - VESA Standard
800 X 600	46.534	69.9	800 X 600@70Hz - Mode
832 X 624	49.731	74.5	832 X 624@75Hz - Mac Mode
1027 X 768	48.363	60.0	1027 X 768@60Hz - VESA Guidelines
1027 X 768	56.475	70.0	1027 X 768@70Hz - VESA Standard
1027 X 768	57.647	72.0	1027 X 768@72Hz - SUN Mode
1027 X 768	60.024	75.0	1027 X 768@75Hz - VESA Standard
1280 X 1024	63.981	60.0	1280 X 1024@60Hz - VESA Standard
1280 X 1024	74.400	70.0	1280 X 1024@70Hz - Mode
1280 X 1024	79.976	75.0	1280 X 1024@75Hz - VESA Standard

Basic Explanation

The front part of panel of this model consists of following function buttons. Description for each of function button is shown below.

- Select Button

Displays a OSD of all of the available input source. (PC / TV / AV1 / AV2).

- Auto Button

Self adjusts the monitor settings on PC mode.

- Menu Button

Opens or Closes the OSD.

- Power Button

Turns ON/OFF the monitor.

- Adjust Buttons(,)

1. Moves the selector up or down on the OSD.
2. Increases or decreases the channel number.

- Volume Buttons(,)

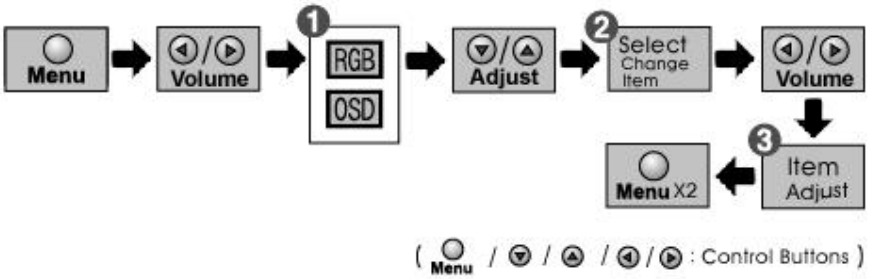
1. Adjusts OSD Settings on the OSD.
2. Increases or decreases the level of speaker volume.

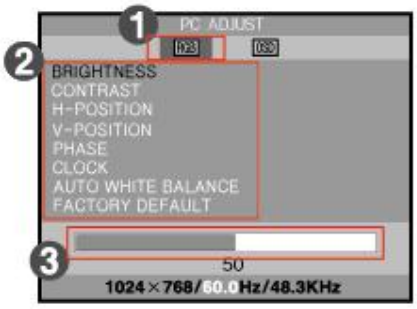
Basic Operations

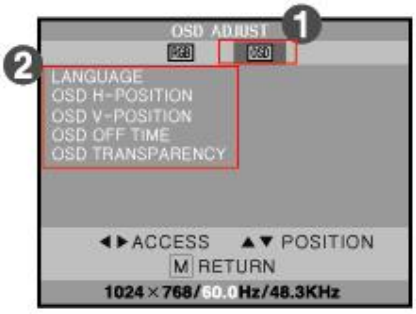
1. OSD Adjustment

- Set OSD value with the instructions described below.

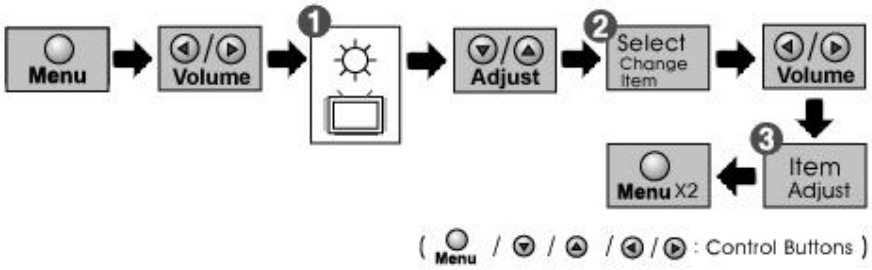
1) Adjustment procedure for PC Monitor Mode

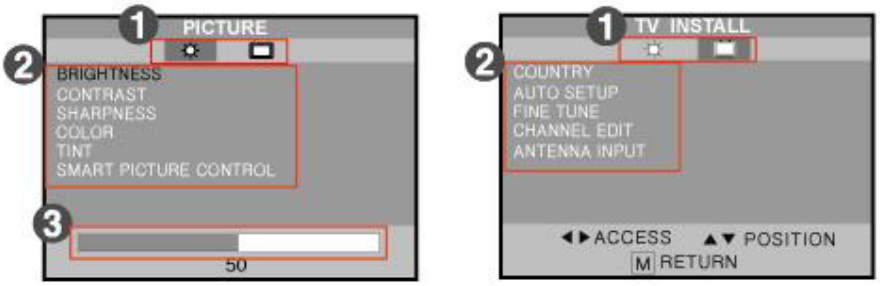




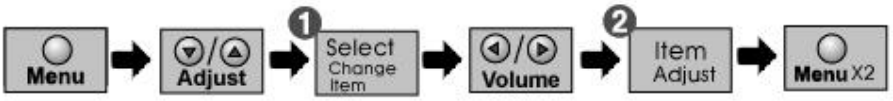


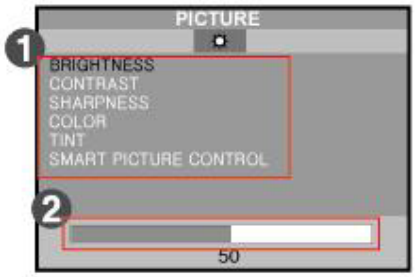
2) Adjustment procedure for TV Monitor Mode





3) Adjustment procedure for AV 1 / 2 Mode





2. Frequently used function

1) Monitor Auto adjustment function.

- Automatically adjusts the monitor settings on PC mode.

  Press the AUTO Button.

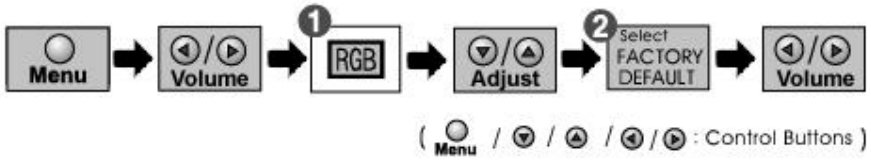
2) Adjust Speaker volume

- Increases or decreases the level of speaker volume.

  Press the ◀/▶buttons.

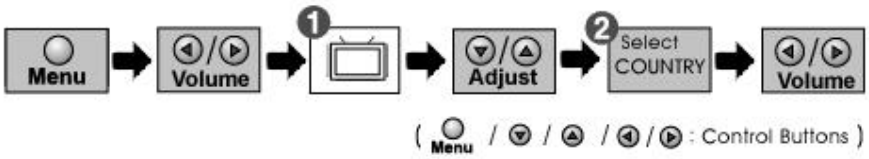
3) Reset Factory Default

- Screen parameters are replaced with the factory default values.



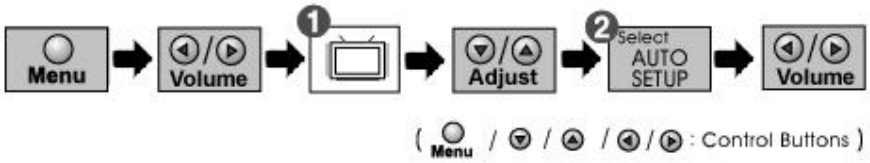
4) Select Country (**TV function**)

- Select a broadcasting system that is being used in your region.



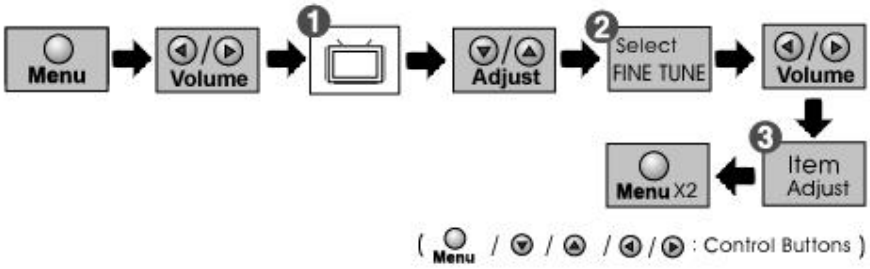
5) Auto Setup (**TV function**)

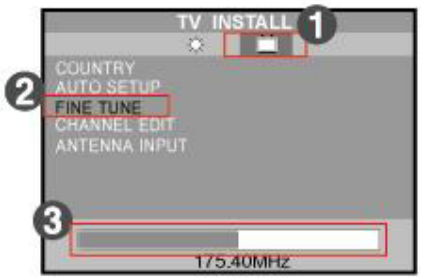
- Searches available channels and stores all automatically.



5) Fine Tune (**TV function**)

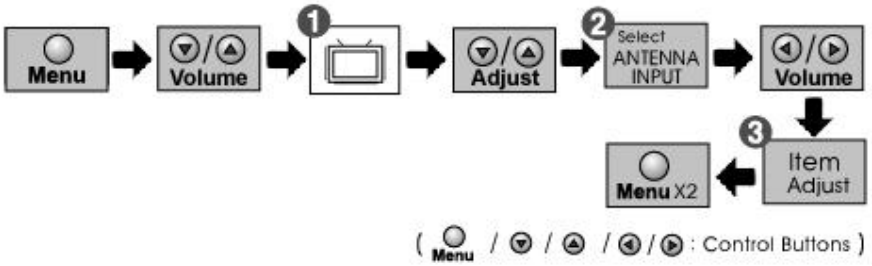
- Due to weak signals or a wrong antenna configuration, some of the channels may not be tuned correctly. With fine tune function, you can tune in each channel precisely which has a grainy picture.

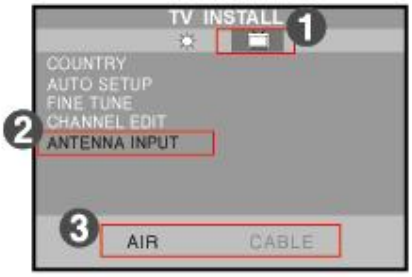




6) Antenna Input (**TV function**)

- Selects the desired source, between AIR and CABLE.


Menu
Volume
Adjust
Select
ANTENNA
INPUT
Volume
Item
Adjust
Menu X2
(Menu / / / / : Control Buttons)


TV INSTALL
COUNTRY
AUTO SETUP
FINE TUNE
CHANNEL EDIT
ANTENNA INPUT
AIR
CABLE

Description and Directories of All Menus

1. Menus when using PC Mode

1) PC ADJUST

- Brightness : Adjust to brighten or darken the picture.
- Contrast : The contrast control determines the white level of the picture.
- H-Position : Move the entire screen to the left or right.
- V-Position : Move the entire screen to the below or upper.
- PHASE : Fine tuning of the screen even though it is not easily distinguishable with naked eyes.
- CLOCK : Adjust the horizontal-size(size of horizontal screen)of the entire screen.
- Auto White Balance : Select this menu to use automatic color balance function.
- Factory Default : Screen parameters are replaced with the factory default values.

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2) OSD ADJUST

- Language : OSD language and appearance can be changed.
- OSD H-Position : You can change the horizontal position where the OSD menu appears on your monitor
- OSD V-Position : You can change the vertical position where the OSD menu appears on your monitor
- OSD Off Time : The OSD will automatically turn off if no adjustments are made for a certain time period.
- OSD Transparency : Changes the transparent(or opaque) status of the background of the OSD.

---

2. Menus when using TV Mode

1) PICTURE

- Brightness : Adjust to brighten or darken the picture.
- Contrast : The contrast control determines the white level of the picture.
- Sharpness : Adjust the sharpen or soften the picture.
- Color : Adjust to increase or decrease color intensity..
- Tint : Change the tone of the color.
- Smart Picture Control : Changes the picture setting that is defined for [NORMAL], [DYNAMIC], [CINEMA] or [USER] each.

---

2) TV INSTALL

- Country : Select a broadcasting system that is being used in your region.
- Auto Setup : Searches available channels and stores all automatically.
- Fine Tune : Due to weak signals or a wrong antenna configuration, some of the channels may not be tuned correctly. With fine tune function, you can tune in each channel precisely which has a grainy picture.
- Channel Edit : Channel Edit function helps edit those channels.
- Antenna Input : Select the desired source, between AIR and CABLE..

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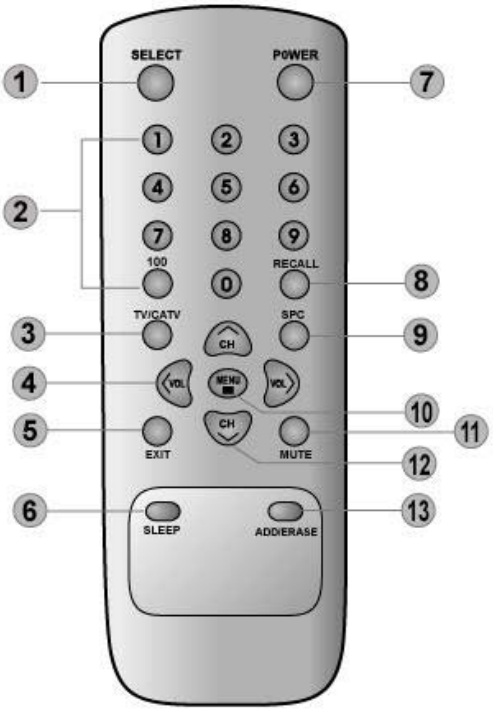
3. Menus when using AV 1(Composite) / AV 2 (S-VHS) Mode

1) PICTURE

- Brightness : Adjust to brighten or darken the picture.
- Contrast : The contrast control determines the white level of the picture.
- Sharpness : Adjust the sharpen or soften the picture.
- Color : Adjust to increase or decrease color intensity..
- Tint : Change the tone of the color.
- Smart Picture Control : Changes the picture setting that is defined for [NORMAL], [DYNAMIC], [CINEMA] or [USER] each.

Description on Remote Controller

(TV Only-Option)



1. **SELECT** Button : Displays a menu of all of the available input source. (PC / TV / AV1 / AV2).
2. **Number** buttons : Press to directly select channels.
3. **TV/CATV** Select Button : Press to convert reception modes between aerial and CATV.
4. **VOLUME UP/DOWN** Buttons : Adjusts the sound level or menu settings.
5. **EXIT** Button : To exit from the OSD
6. **SLEEP** Button : To select the length of time before the set automatically, switches to standby.
7. **POWER** Button : Press to turn the Monitor on and off.
8. **RECALL** Button : To display the current status: channel number and input mode.
9. **SPC (Smart Picture Controls)** Button : To access preset video settings (NORMAL, DYNAMIC, CINEMA, and USER)
10. **MENU** Button : To display or exit from the OSD.
11. **MUTE** Button : Switches the sound on or off.
12. **CHANNEL UP/DOWN** Buttons : Press to select channels or menu settings.
13. **ADD/ERASE** Button : Press to add and erase channels on your monitor.

Troubleshooting

In case of trouble, check these before calling the service center.

What you see...	Suggested Actions
Screen is black and power indicator is off	Ensure that the power cord is firmly connected and the Monitor is on.
Screen is black and power indicator is blinks.	Ensure that the signal cable is firmly connected to the PC or video sources. Ensure that the PC or video sources are turned on.
Screen position and size is incorrect.	Press the AUTO Button.
Image is not stable and may appear to vibrate.	Check that the display resolution and frequency from your PC or video board is an available mode for your Monitor. On your computer check : Control Panel -> Display -> Settings.
The image is too light or too dark.	Adjust the Brightness and Contrast.
Horizontal noise on the image.	Adjust the AUTO. Adjust the PHASE.
Picture OK, No Sound.	Check the Volume. Make sure that MUTE is not on and the volume level.
Vertical bars or stripes on the image.	Adjust the AUTO. Adjust the CLOCK.

Vocabulary

- **Dot pitch**

  The image on a monitor is composed of red, green and blue dots. The closer the dots, the higher the resolution. The distance between two dots of the same color is called the 'Dot Pitch'.

- **Horizontal Frequency**

  The time to scan one line connecting the right edge to the left edge of the screen horizontally is called Horizontal Cycle. The inverse number of the Horizontal Cycle is called Horizontal Frequency.

- **Vertical Frequency**

  The screen must be redrawn several times per second in order to create and display an image for the user. The frequency of this repetition per second is called Vertical Frequency or Refresh Rate.

- **Resolution**

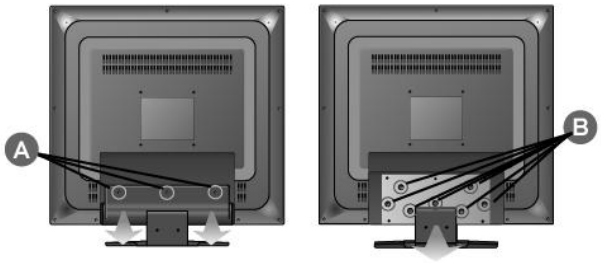
  The number of horizontal and vertical dots used to compose the screen image is called 'resolution'.

- **Plug and Play**

  This is a function that provides the best quality screen for the user by allowing the computer and the monitor to exchange information automatically.

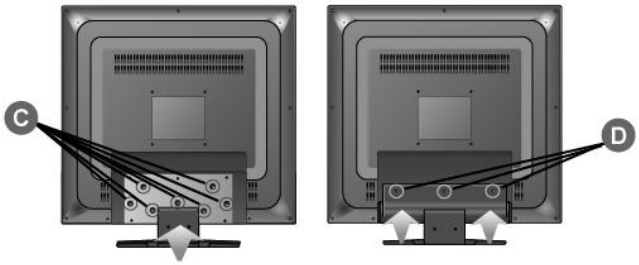
Mounting Device Separation & Union

1. Separation



1) Turn off your monitor and unplug its power cord.
2) Lay the monitor face-down ward on a flat surface with a cushion beneath it to protect the screen.
3) Remove the screws(A) and then remove the Mounting Device Cover from the monitor.
4) Remove the screws(B) and then remove the Mounting Device from the monitor.

2. Union



1) Align the Mounting Device with the holes(C) in the Rear Cover and secure it with the screws.
2) Cover the Mounting Device with the Mounting Device cover and secure it with screws(D).