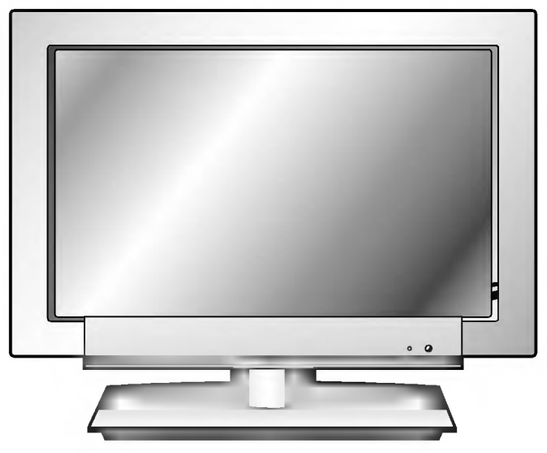
LG

LCD MONITOR



Please read this manual carefully before operating your set.
Retain it for future reference.
Record model number and serial number of the set.
See the label attached on the back of the set and quote this information to your dealer when you require service.

Model number :
Serial number :



Multimedia Display

This LCD monitor can be connected to a PC in place of the PC Monitor.

The LCD Display panel

The panel is composed of 2.9 million individual cells and a few defective cells are likely to appear as coloured dots on the screen as a result of the manufacturing process. This tolerance of upto six defective cells has been adopted by all panel manufacturers and therefore would not be considered as reason for exchange or refund.

FCC NOTICE

- **A Class B digital device**

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

Warning

This is a class B product. In a domestic environment this product may cause radio interference, in which case the user may be required to take adequate measures.

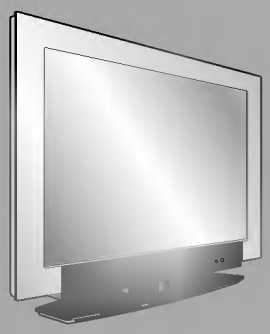




Table of Contents

First step
Safety instructions 4

Monitor Overview
Front Panel Controls 12
Connection Panel Overview 13
Remote Control Key Functions 14
Accesories/Optinal extra.....16
Using the remote control 17

Equipment Connections and Setup
VCR Setup.....18
Cable TV Setup 20
External AV Source Setup 21
DVD Setup.....22
DTV Setup 23
Connecting to a wireless transmitter(option) 24
Connecting to a wireless receiver(option) 25
PC Setup 26

Basic Features Setup and Operation
Turning on the Monitor 29
Checking features.....30

Sleep Timer
Setting Sleep Timer 31

Picture & Sound
Auto picture control 32
Adjusting picture appearance.....33
Auto Sound Control 34
Adjusting Sound: Bass, Treble, Balance 35

Special Features
Selecting language for the menus.....36
Adjusting color temperature 37
Using the screen saver function.....38
Setting picture format 39
Using the Zoom in/out function 40
Moving the picture 41
Picture In Picture(PIP) function 42
Zoom in/out main picture.....44
Twin picture function.....45
Using the screen options.....47
PC Mode feature check.....48
PC Mode adjustment.....49
External control device setup 51

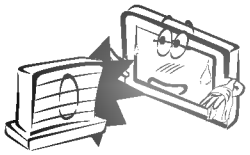
Others
Troubleshooting check list 59
Note 61
Product specifications.....63

Safety Instructions

⚠WARNING

Do not place the Monitor in direct sunlight or near heat sources such as radiators, fires and stove etc.

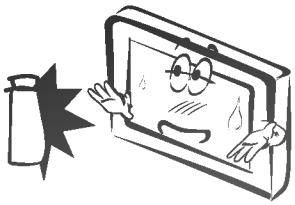
- This may cause a fire hazard !



⚠NOTES

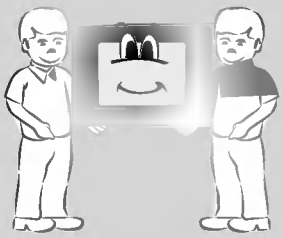
Do not place inflammable materials beside the monitor

- This may cause a fire hazard !



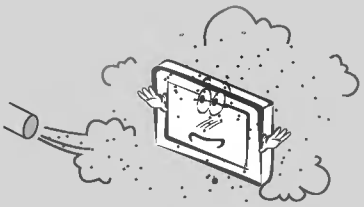
⚠NOTES

When unpacking or moving the Monitor two people will be necessary to lift it safely.



Do not place the monitor where it might be exposed to dust.

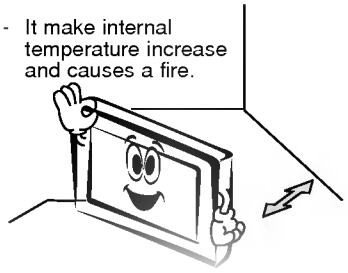
- This may cause a fire hazard !



⚠NOTES

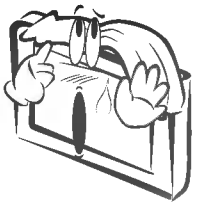
Ensure good ventilation around the monitor. The distance between the monitor and the wall should be more than 10cm.

- It make internal temperature increase and causes a fire.



Do not cover the vent grilles of the monitor.

- This may cause a fire hazard !



* Safety instructions have two kinds of information as illustrated below.

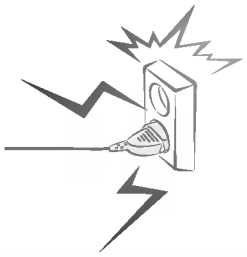
⚠WARNING **The violation of this instruction may cause serious injuries and even death.**

⚠NOTES **The violation of this instruction may cause light injuries or damage of the product.**

⚠ **Take care of danger that may happen under specific condition.**

⚠NOTES

Disconnect from the mains and remove all connections before moving.



Do not place the monitor close to sources of steam or oil such as a humidifier.

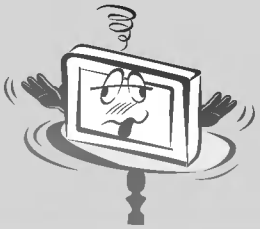
- This may create a fire hazard or an electric shock hazard !



⚠NOTES

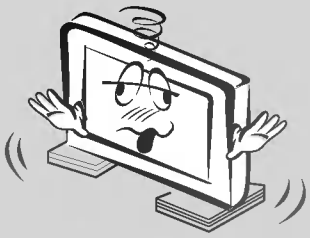
When installing the monitor on a table, be careful not to place it near the edge.

- This may cause the monitor to fall causing serious injury to a child or adult and serious damage to the monitor.
- **Surely use a fitting table or rack.**



Only use the monitor on a level and stable surface.

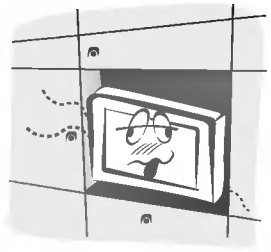
- It may fall down or be upset.



⚠NOTES

Do not place the monitor directly on a carpet, rug or place where ventilation is restricted.

- This would cause its internal temperature to increase and might create a fire hazard !



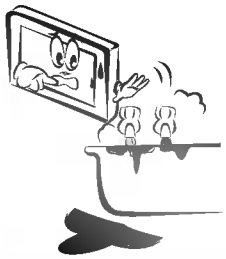
Safety Instructions

Outdoor Installation

⚠WARNING

Do not use the Monitor in a damp place such as a bathroom where it is likely to get wet.

- This may cause a fire or an electric shock hazard !

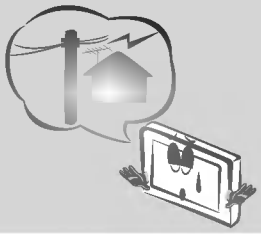


Outdoor Installation

⚠WARNING

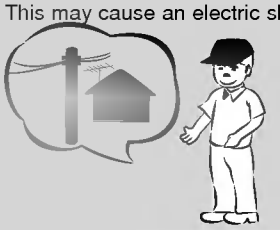
In case of using a receiver (VCR, Digital Set Top Box), do not place an antenna in the vicinity of power lines.

- This may cause an electric shock.



In case of using a receiver (VCR, Digital Set Top Box), contact your service center to construct an antenna because it needs skilled man.

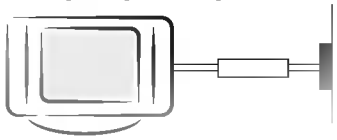
- This may cause an electric shock.



⚠WARNING

Earth wire should be connected.

- If the earth wire is not connected, there is possible a danger of electric shock caused by the current leakage.
- If grounding methods are not possible, a separate circuit breaker should be employed and installed by a qualified electrician.
- Do not connect ground to telephone wires, lightning rods or gas pipe.



The mains plug should be inserted fully into the power outlet to avoid a fire hazard !

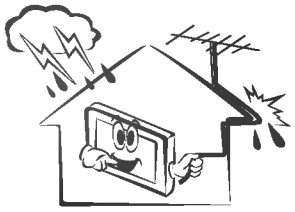
- This may cause a fire hazard !



⚠ WARNING

In case of using a receiver (VCR, Digital Set Top Box), Bend antenna cable between inside and outside building to prevent rain from flowing in.

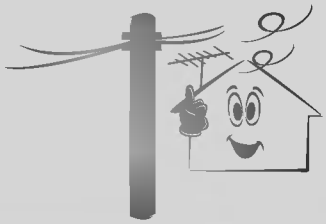
- This may cause water damaged inside the Monitor and could give an electric shock.



⚠ NOTES

In case of using a receiver (VCR, Digital Set Top Box), there should be enough distance between an outside antenna and power lines to keep the former from touching the latter even when the antenna falls.

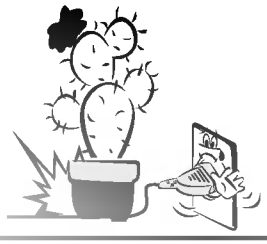
- This may cause an electric shock.



⚠ NOTES

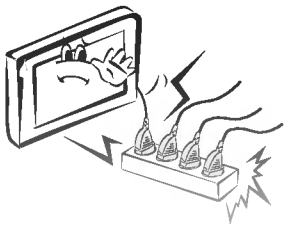
Do not place heavy objects on the power cord

- This may cause a fire or an electric shock hazard !



Do not use too many plugs on the Mains multi-outlet.

- It may result in overheating of the outlet and causes a fire hazard !



Never touch the power plug with a wet hand

- This may cause an electric shock hazard !

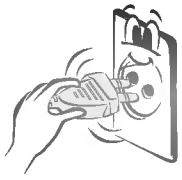


Safety Instructions

⚠NOTES

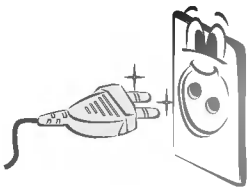
Hold the plug firmly when unplugging. If you pull the cord the cord may be damaged.

- This may cause a fire hazard !



Prevent dust collecting on the power plug pins or outlet.

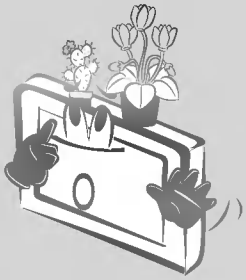
- This may cause a fire hazard !



⚠WARNING

Do not place anything containing liquid on top of the monitor such as flowerpot, cup, cosmetics or candle.

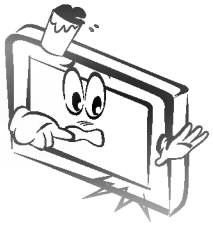
- This may cause a fire hazard !



⚠WARNING

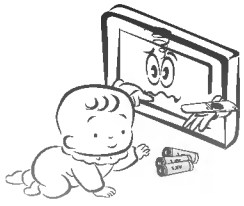
If water is spilt into the monitor unplug it from the mains supply outlet immediately and consult your Service Agent.

- This may cause an electric shock hazard !



Dispose of used batteries carefully and safely.

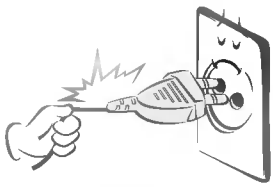
- In the case of a battery being swallowed by a child please consult a doctor immediately.



⚠ NOTES

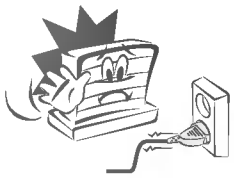
Do not plug when the power cord or the plug is damaged or the connecting part of the power outlet is loose.

- This may cause a fire or an electric shock hazard !



Ensure the power cord does not come into contact with sharp or hot objects such as a heater.

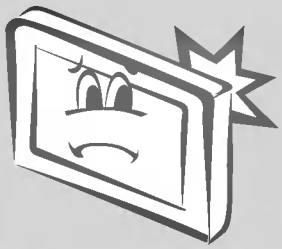
- This may cause a fire or an electric shock hazard !



⚠ NOTES

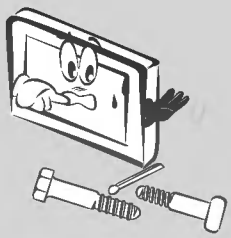
In case of impact shock or damage to the monitor switch it off and unplug it from the outlet and contact your service center.

- This may cause a fire or an electric shock hazard !



Do not allow any objects to fall into the monitor.

- This may cause an electric shock hazard !



⚠ NOTES

Do not drop the monitor or allow impact shock.

- This may cause mechanical failure or injury !

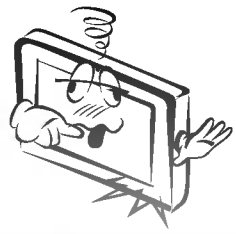


Safety Instructions

⚠WARNING

In the event that an image does not appear on the screen please switch it off and unplug it from the mains suuply and contact your Service Centre.

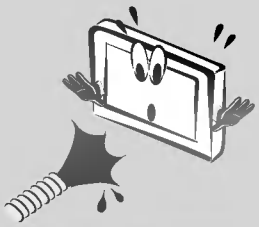
- This may cause a fire or an electric shock hazard !



⚠WARNING

Do not use water while cleaning the Monitor

- This may cause damaged the Monitor or an electric shock hazard.



In the unlikely event of smoke or a strange smell from the Monitor, switch it off ,unplug it from the wall outlet and contact your dealer or service centre.

- This may cause a fire or an electric shock hazard !



⚠WARNING

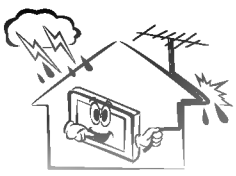
Do not attempt to service the Monitor yourself. Contact your dealer or service centre.

- This may cause damage to the Monitor and could give an electric Shock as well as invalidating the warranty !



In the event of a lightning or thunder storm unplug the Monitor and aerial from the wall outlet.

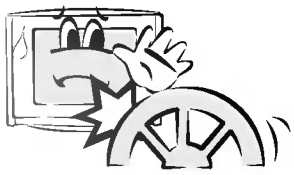
- This will prevent damage to the Monitor and possible electric shock.



⚠WARNING

Do not watch the monitor while driving or walking.

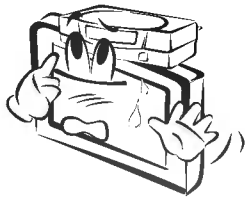
- This may cause an accident.



⚠NOTES

Do not place heavy objects on the Monitor.

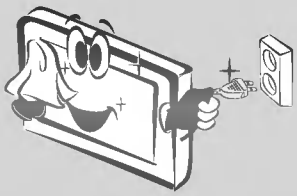
- This may cause serious injury to a child or adult.



⚠NOTES

Unplug this product from the wall outlet before cleaning. Do not use liquid cleaners or aerosol cleaners.

- This may cause damage to the Monitor or cause an electric shock hazard !



Contact the service center once a year to clean the internal part of the monitor.

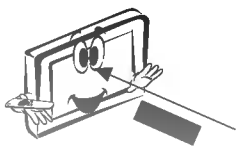
- - Accumulated dust can cause mechanical failure.



⚠NOTES

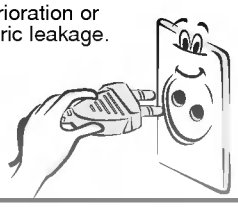
The distance between eyes and the screen should be about 1.5m.

- If not, eyes will strain.



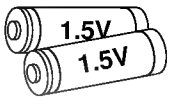
Unplug the Monitor from the wall outlet when it is left unattended and unused for long periods of time.

- Accumulated dust may cause a fire or an electric shock from deterioration or electric leakage.



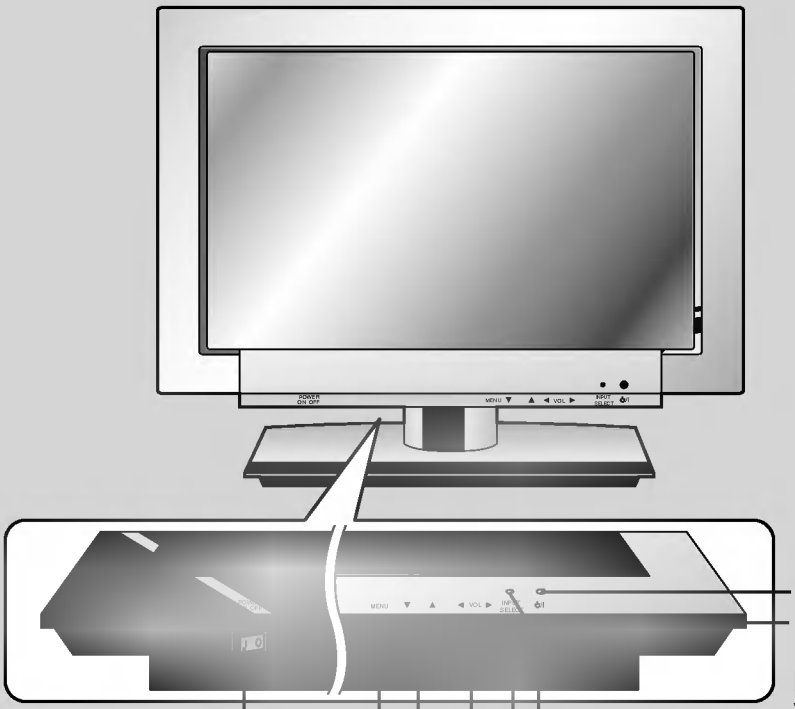
Only use the specified batteries.

- This make cause damaged the Monitor or could give an electric shock.



Front Panel Controls

<Front Panel Controls>



Remote control sensor

Power standby indicator
Illuminates orange in stand-by mode, Illuminates green when the Monitor is turned on

Main power button

MENU button

VOLUME (F ,G) buttons

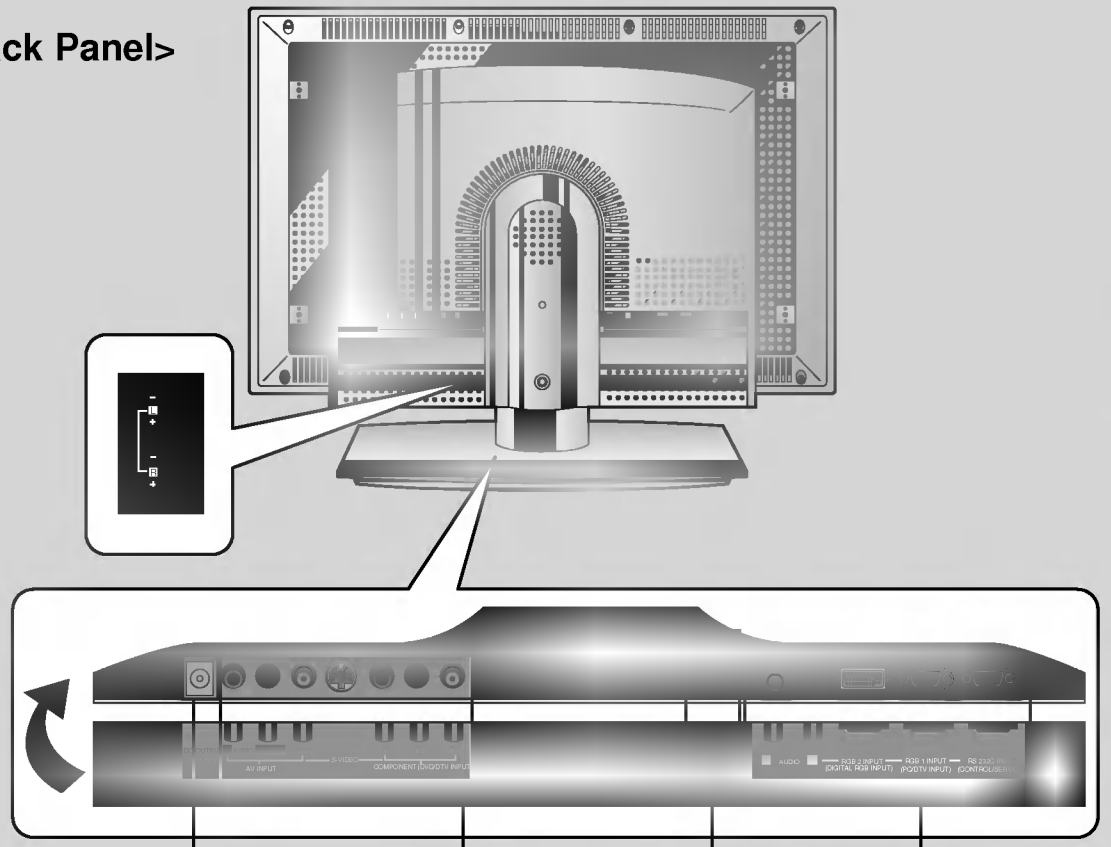
D ,E buttons

Sub power button

INPUT SELECT button

Connection Panel Overview

<Back Panel>



DC OUTPUT (DC 12V) jack
- The DC OUTPUT jack is optional item.

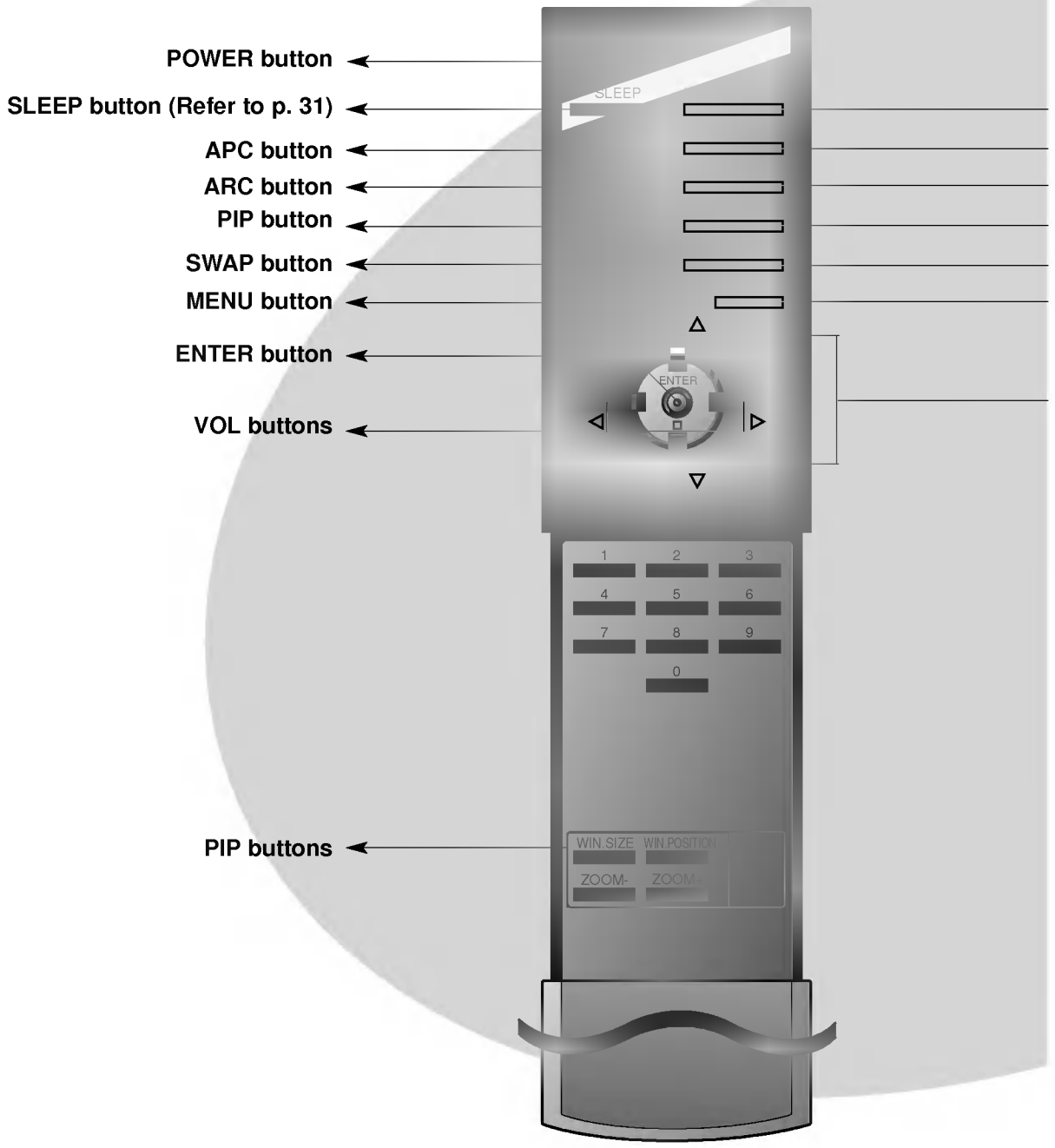
A/V Input / COMPONENT (DVD/DTV) INPUT jacks / S-video

AC INPUT jack

Audio Input sound (R)(L)jacks
RGB-1 (PC/DTV INPUT)
RGB-2 (DIGITAL RGB INPUT) jack / RS-232C jacks
- Input RGB2(Digital RGB) when input signal supporting DVI-D.
- You can use it from jacks.

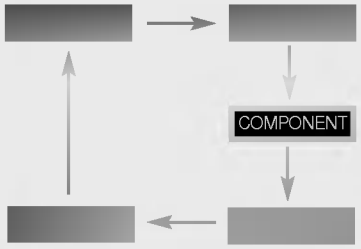
Remote Control Key Functions

- When using the remote control aim it at the remote control sensor on the Monitor.



input select button on the remote control

Each press of this button changes the mode as shown below.



INPUT SELECT button

DASP button (Refer to p. 34)

PIP ARC select button

TWIN PICTURE button (Refer to p. 42~46)

SUB INPUT button

MUTE button
switches the sound on or off.

UP/DOWN buttons

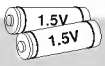
Accesories/Optional extras

Accesories


Remote control


Owner's Manual


Power cord



Alkaline batteries


PC sound cable


D-sub 15 pin cable

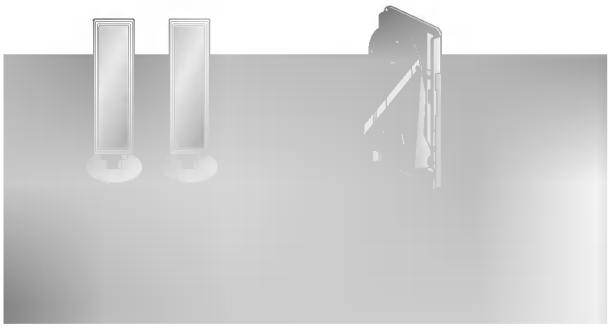

video cable


DVI computer cable

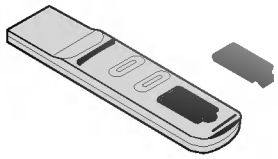

Speaker cable


A/V wireless
transmitter-receiver
(option)

Optional Extras



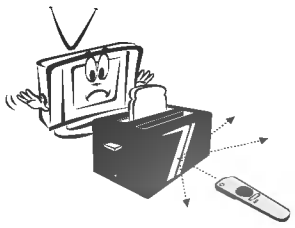
Using the remote control



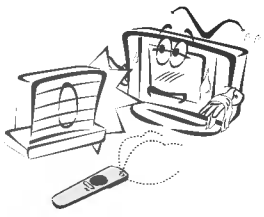
- Open the battery compartment cover on the back of the remote control and insert the batteries with correct polarity, match "+" with "+", and match "-" with "-".
- Install two 1.5V "AAA" alkaline batteries. Don't mix used batteries with new batteries.

Notes for using the remote control

Make sure these are no objects between the remote control and its sensor.



Don't place the remote control near a heater or damp place. Strong impact on the remote control may cause operation failure.

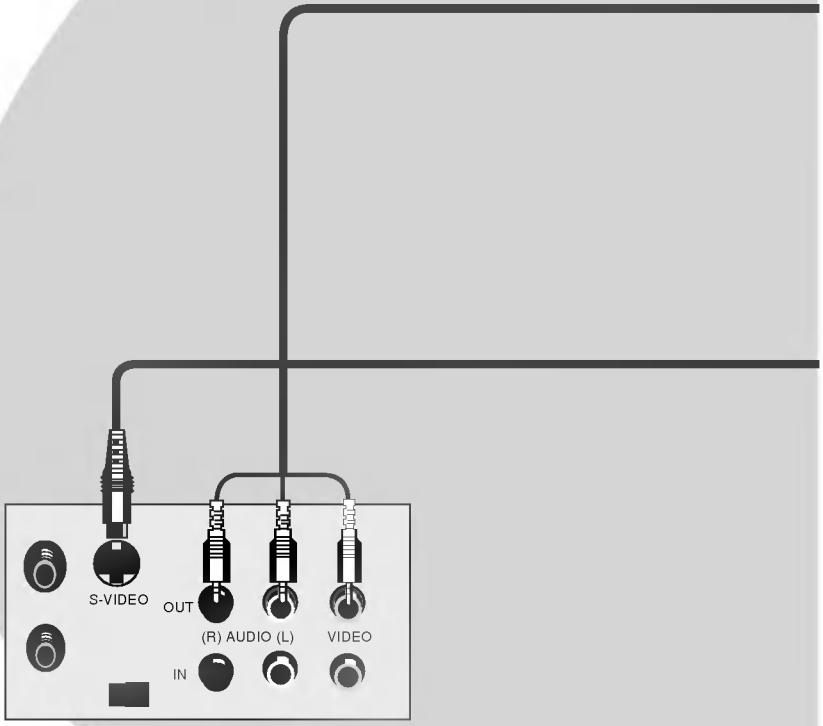


Signal from the remote control may be disturbed by sun light or other strong light. In this case, turn the set to other direction.

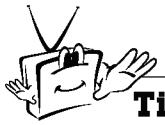


VCR Setup

- **As shown below, when connecting the Monitor to a VCR, match the colors of AV input jacks on the Monitor with the output jacks on the VCR: Video = yellow, Audio (Left) = white, Audio (Right) = red.**
- **If you have a mono VCR, connect the audio cable from the VCR to the AUDIO (L/MONO) input of the Plasma Monitor.**
- **If you connect an S-VIDEO VCR to the S-VIDEO input, the picture quality is improved, compared to connecting a regular VCR to the Video input.**
- **Avoid having a fixed image remain on the screen for a long period of time. A frozen still picture from a VCR (or if a CH label is displayed) displayed on the screen for prolonged periods will result in an image ghost remaining even when you change the image. Avoid prolonged display of a still image.**

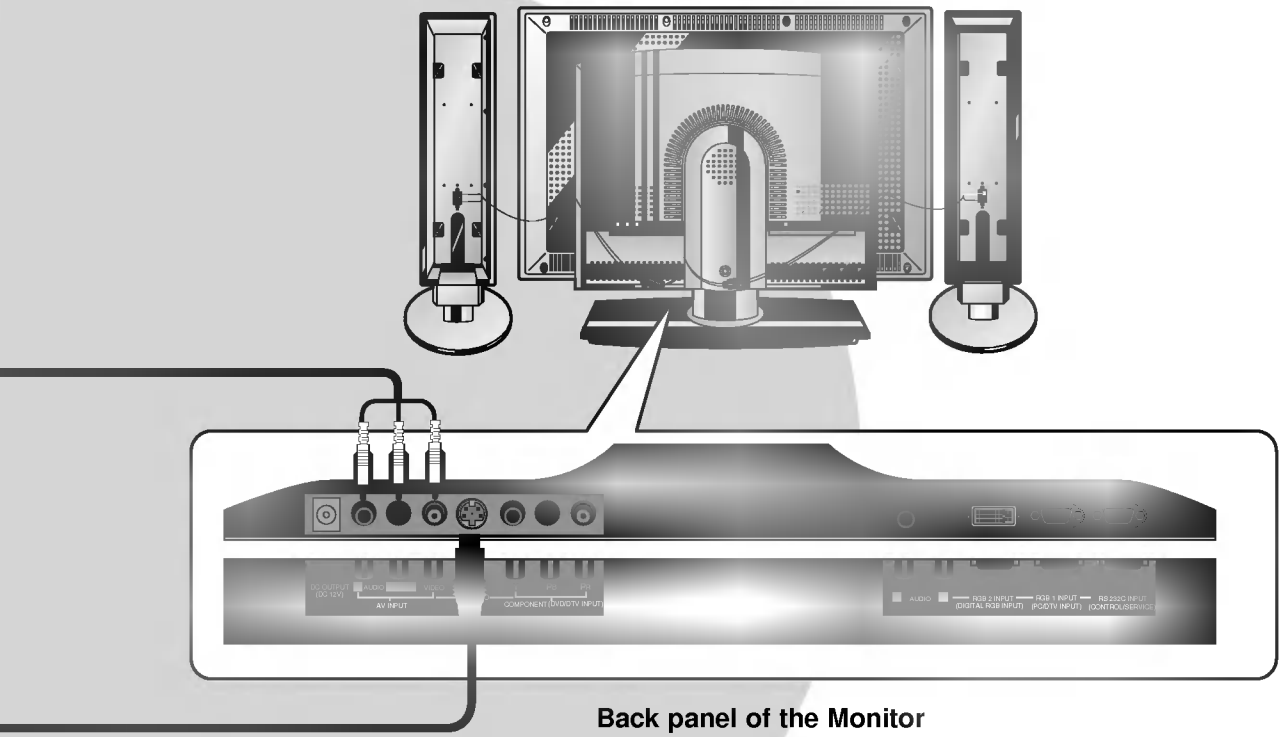


Back panel of VCR



Tips

- To avoid picture noise (interference), leave an adequate distance (20 inches or more) between the VCR and monitor.



Back panel of the Monitor

To watch VCR

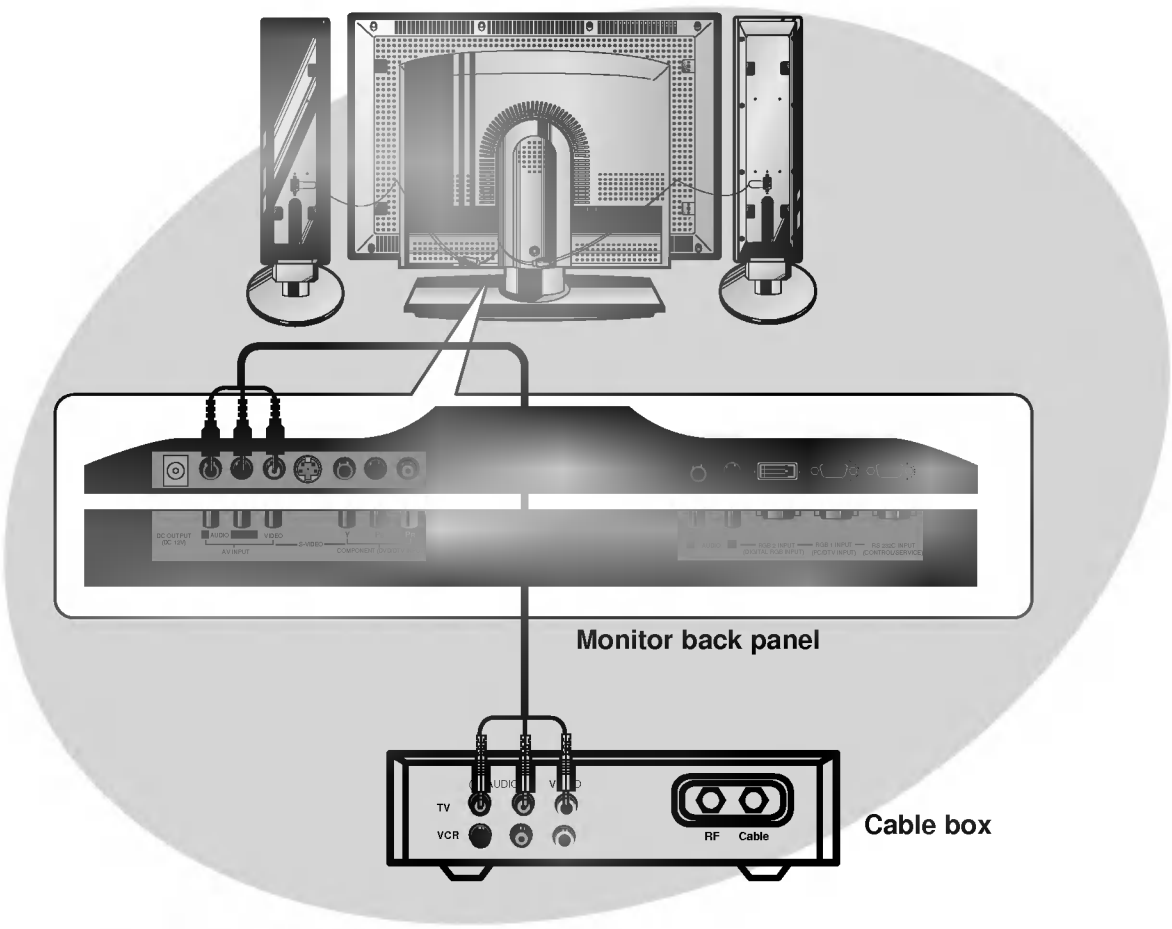
INPUT SELECT

1 Press **INPUT SELECT** button on the remote control and select **VIDEO**. (When connecting with S-Video, select the **S-VIDEO**.)

2 Insert a video tape into the VCR and press the **PLAY** button on the VCR. See VCR owner's manual.

Cable TV Setup

- **After subscribing to a cable TV service from a local provider and installing a converter, you can watch cable TV programming. This monitor cannot display TV programming without a TV tuner or cable TV converter box.**



To watch cable TV

1 Press **INPUT SELECT** button on the remote control and select **VIDEO** source.

INPUT SELECT

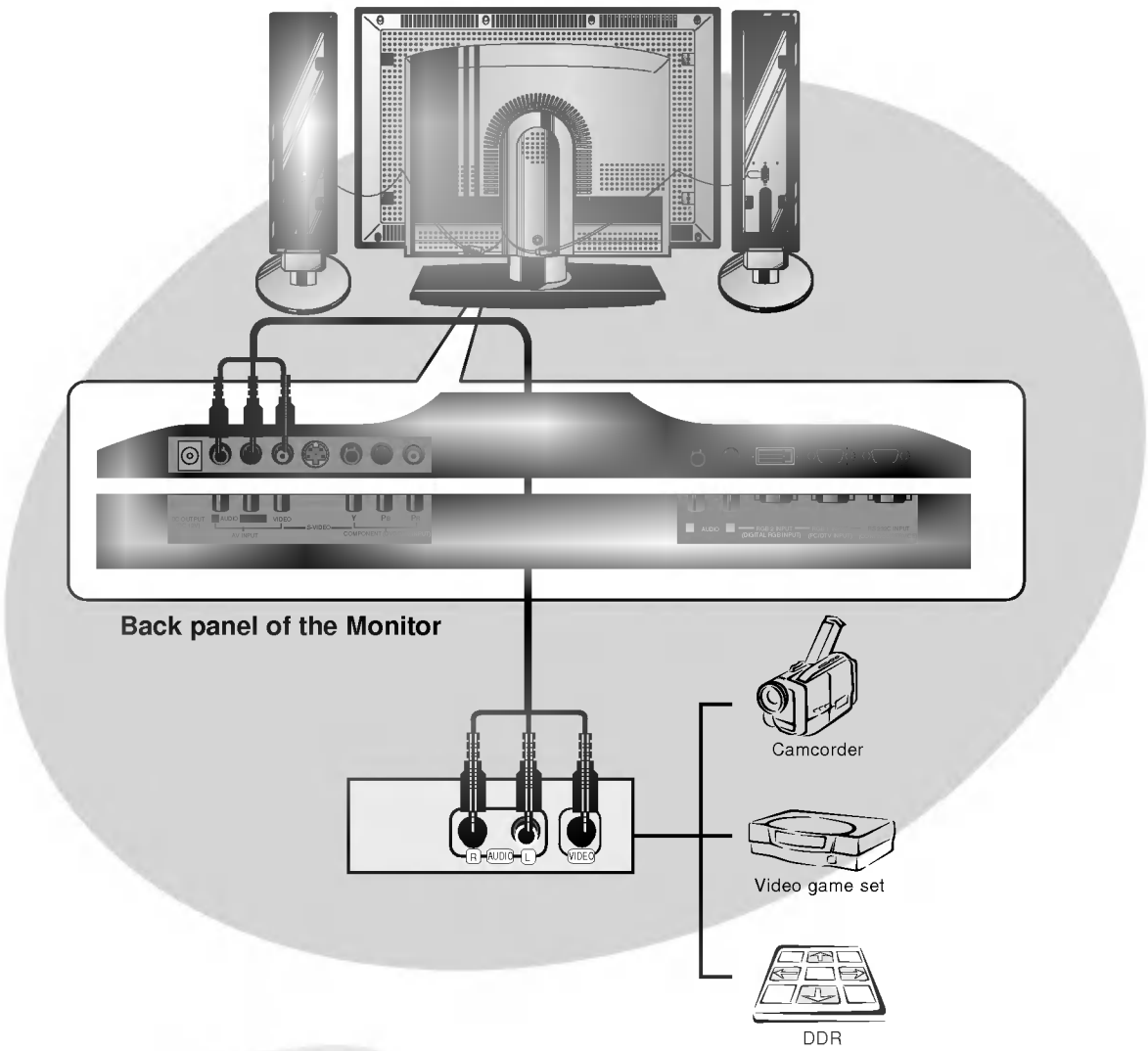
2 Tune to cable service provided channels using the cable box.

Tips

- For further information regarding cable TV service, contact your local cable TV service provider(s).

External AV Source Setup

- **As shown below, when connecting the Monitor to an external source, match the colors of AV input jacks on the Monitor with the output jacks on the audio/video equipment: Video = yellow, Audio (Left) = white, Audio (Right) = red.**



To watch external AV source

1 Press **INPUT SELECT** button on the remote control of the monitor to select **VIDEO**.

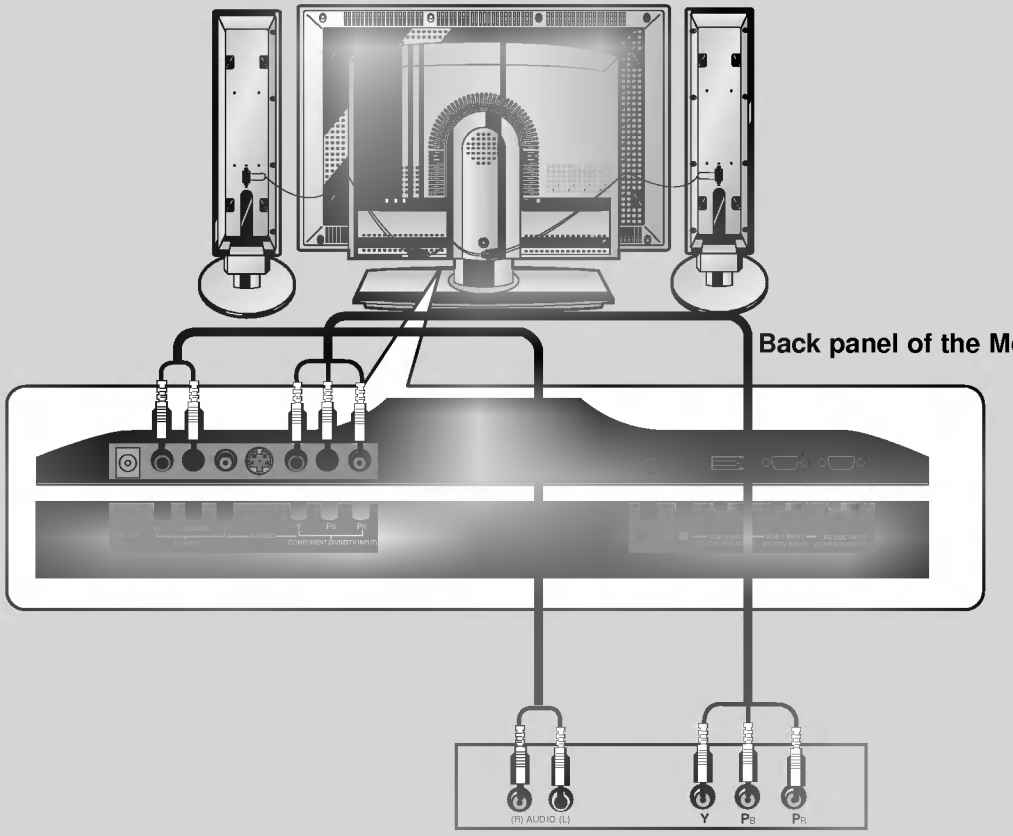
INPUT SELECT

2 Operate the corresponding external equipment. See external equipment operating guide.

DVD Setup

How to connect a DVD (digital video disk player)

- Connect DVD video inputs to Y, P_B, P_R of COMPONENT (DVD/DTV INPUT) and audio inputs to Audio jacks of AV INPUT.
- Component Input is available to 480i, 480p, 720p, 1080i mode.



Back panel of a DVD player

How to use

- Press **INPUT SELECT** button on the remote control of the monitor to select **COMPONENT**. Use the DVD player according to its owner's manual.
- Turn on the DVD player, and insert a DVD.

- **Component Input ports**
  Connect DVD player jacks to Monitor Component input jacks as indicated below.

Component input jacks on the Monitor	Y

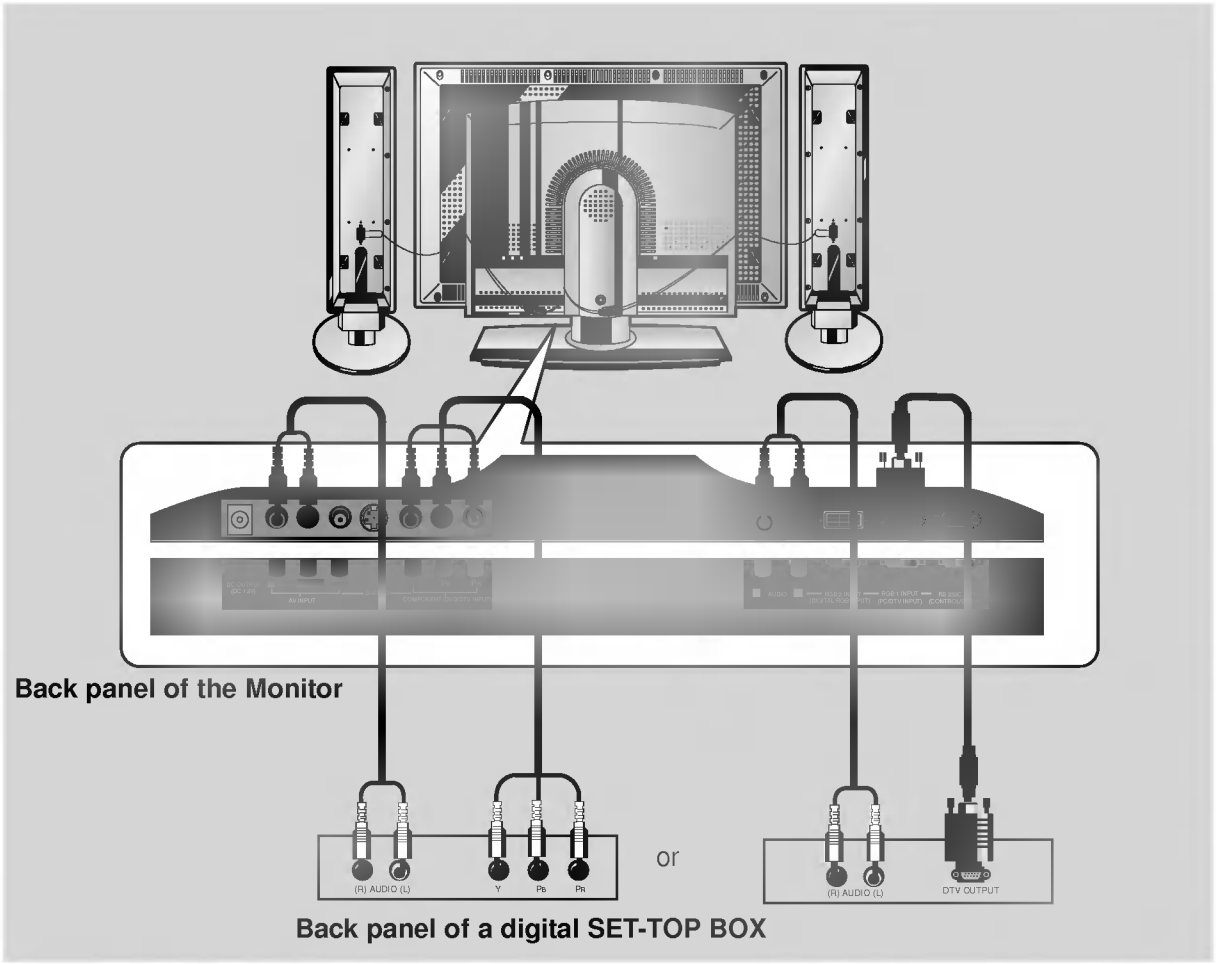
Video output jacks of DVD player	Y	Pb
	Y	B-Y
	Y	Cb
	Y	P_B

DTV Setup

- **To watch digitally broadcast programs, purchase/connect a digital SET-TOP BOX.**

How to connect

- You can use either the Monitor's COMPONENT (DVD/DTV INPUT) inputs or the single RGB1(PC/DTV INPUT) for video connections, depending on your Set Top Box connectors. Then, make the corresponding Audio connections.
- DTV Input is available to 480p, 720p, 1080i mode.

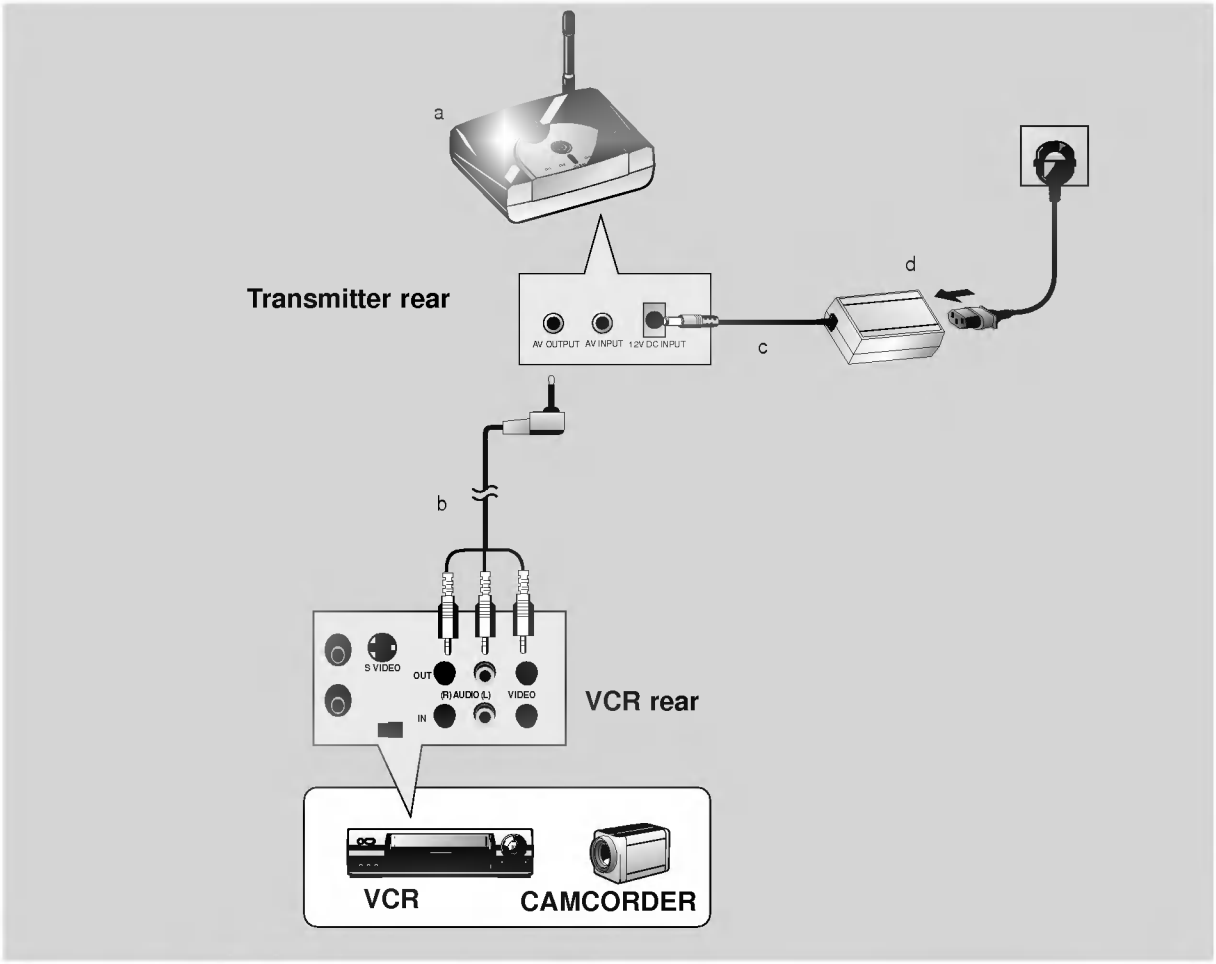


How to use

- Turn on the digital SET-TOP BOX.
  (Refer to the owner's manual for the digital SET-TOP BOX.)
- Press **INPUT SELECT** button on the remote control to select **COMPONENT** or **RGB1**.

Connecting to a wireless trasmitter (option)

- **Only adjust this function in some models.**
- When connecting the wireless transmitter with external equipments, match the colors of connecting ports (Video - yellow, Audio(L) - white, Audio(R) -red).
- If you have a mono VCR, connect the audio cable from the VCR to the AV input of the wireless AV transmitter.
- See the wireless trasmitter-receiver operating guide for installation and connection etc.



How to connect

a. Turn the power button of a transmitter on, and adjust desired channel with channel button and the Place the wireless AV transmitter toward the wireless receiver.

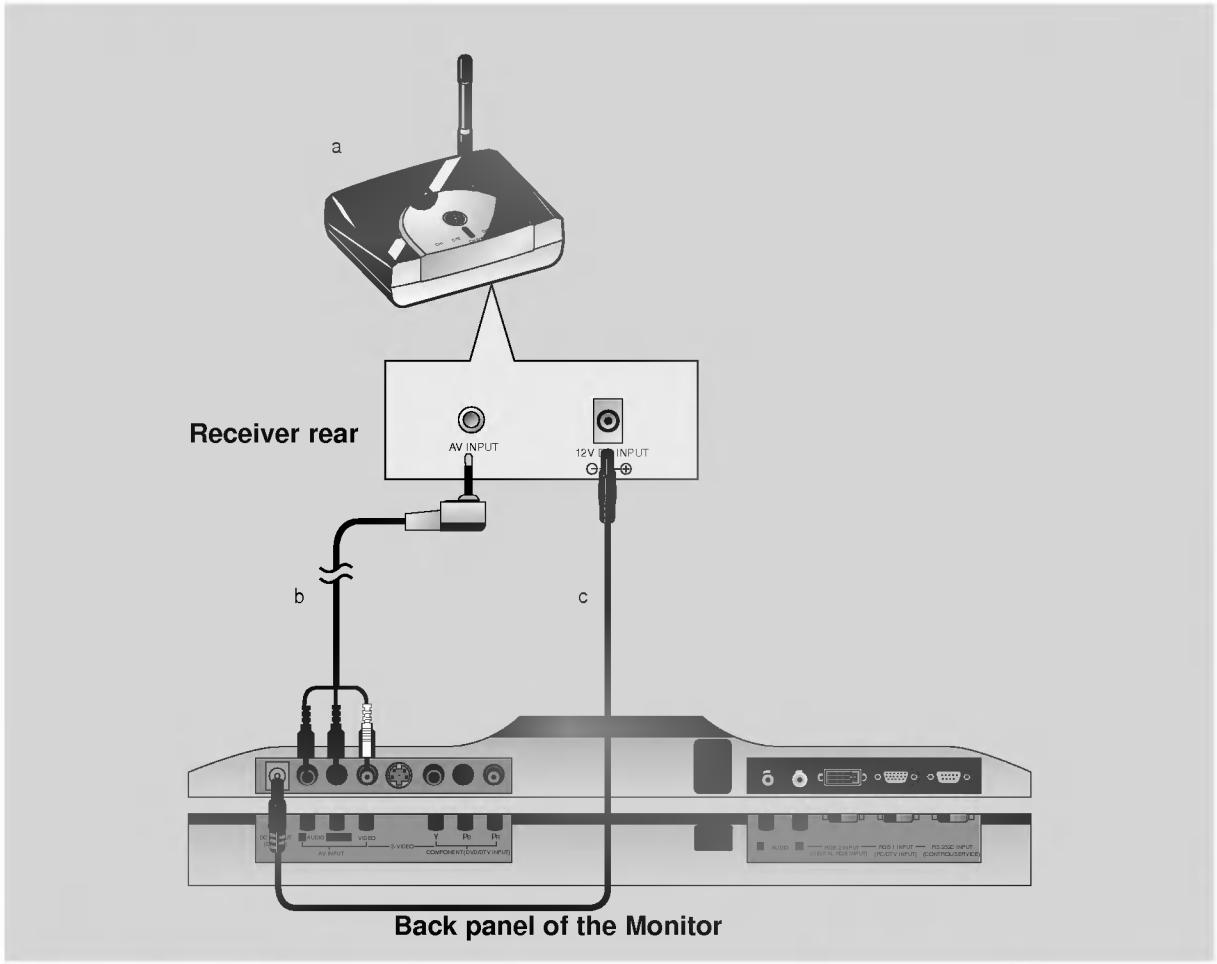
b. Connect the output ports of the VCR to the AV OUTPUT port of the wireless AV transmitter.

c. Connect the adaptor to the DC input of the wireless AV transmitter .

d. Connect the power plug to the wall outlet socket after connecting the power cord to the adaptor.

Connecting to a wireless receiver (option)

- **Only adjust this function in some models.**
- When connecting the wireless receiver with external equipments, match the colors of connecting ports (Video - yellow, Audio(L) - white, Audio(R) -red).



How to connect

a. Turn the power button of a receiver on, and adjust channel number same to the channel number of a transmitter with the channel button. Place the wireless AV receiver toward the wireless transmitter.

b. Connect the AV input ports of the Monitor to the AV INPUT port of the receiver.

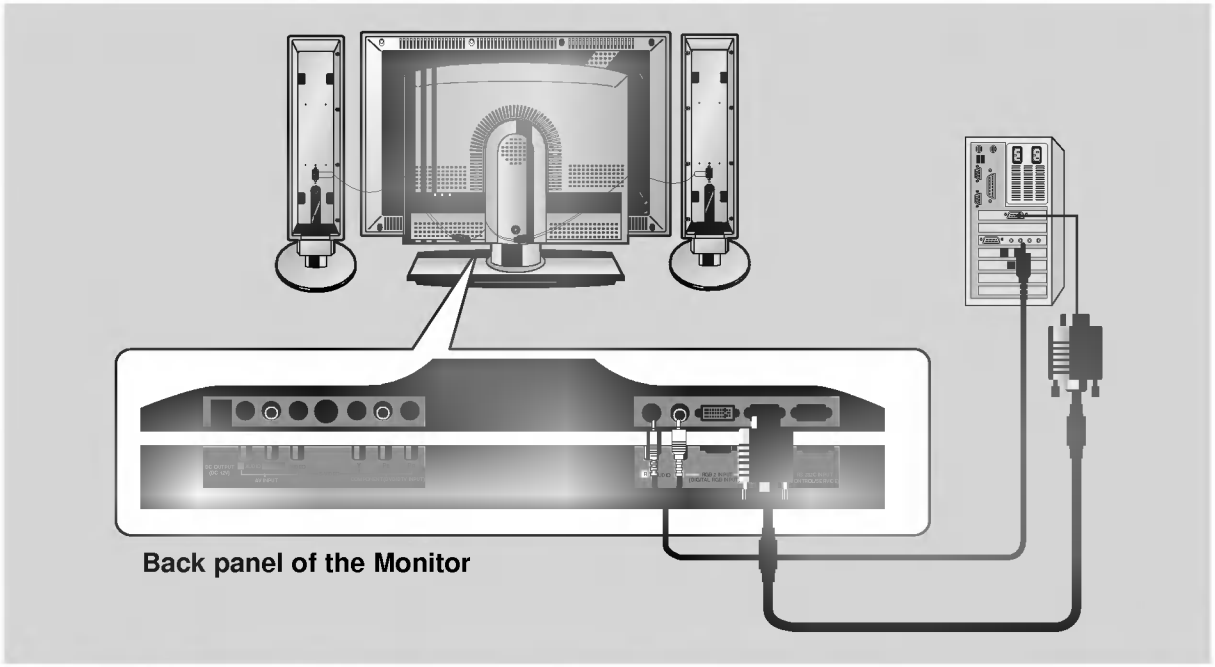
c. Connect the DC output of the monitor to DC input of the wireless receiver with DC cable.

PC Setup

- **You can easily connect the Plasma Display to your PC for outstanding image and sound.**

Setup Instructions to Connect a PC to your Monitor

- To setup this monitor in your PC window environment, select Normal, Standard or Default Monitor. This monitor does not support Plug and Play function
- The screen does not display when the resolution is over UXGA.
- Connect the signal cable from the monitor Output port on the PC to the RGB1(PC/DTV INPUT) port on the Monitor.
- Connect the audio cable from the PC to the Audio ports of the Monitor.
- If your PC computer is equipped with a sound card, adjust the sound output on the PC.
- Select the display resolution of the PC to 1024X768 for the best picture. This monitor's resolution is 1280X768.



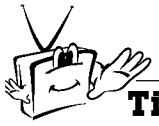
Back panel of the Monitor



On the remote control

PC Setup

- First, turn on the PC computer and press the **ON/OFF** button on the Monitor to apply power to it. Second, turn on the display by pressing the ⏻/| button on the Monitor or by pressing the **POWER** button on the Monitor's remote control.
- Use the **INPUT SELECT** button on the remote control to select the RGB1 input source.
- Set the resolution output of the PC to SXGA or under (1280 x 1024, 75Hz).

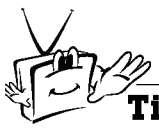


Tips

- Avoid keeping a fixed image on the Monitor's screen for a long period of time. The fixed image may become permanently imprinted on the screen; use a screen saver when possible.
- Change the resolution of PC to displayable mode (Refer to page 27) and connect to RGB1 Input (PC/DTV Input) jacks of the monitor.

Monitor Image Display Specifications (RGB1)

Resolution	Horizontal Frequency (KHz)	Vertical Frequency (Hz)
640x350	31.468	70.09
	37.861	85.08
720x400	31.469	70.08
	37.927	85.03
640x480	31.469	59.94
	37.861	72.80
	37.500	75.00
	43.269	85.00
	53.011	100.04
	64.062	120.00
800x600	35.156	56.25
	37.879	60.31
	48.077	72.18
	46.875	75.00
	53.674	85.06
	56.000	90.00
	64.016	100.00
1024x768	48.363	60.00
	56.476	70.06
	60.023	75.02
	68.677	84.99
1152x864	54.348	60.05
	67.500	75.00
	77.487	85.05
1280x960	60.000	60.00
	75.000	75.00
1280x1024	63.981	60.02
	79.976	75.02
832x624(MAC)	49.725	74.55

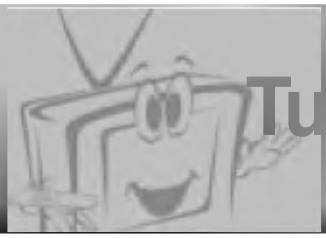


Tips

- Synchronization input form : separate
- Dos mode may not work depending on video card if using a DVI-I cable.

Monitor Image Display Specifications (RGB2)

Resolution	Horizontal Frequency (KHz)	Vertical Frequency (Hz)
640x350	31.468	70.09
	37.861	85.08
720x400	31.469	70.08
	37.927	85.03
640x480	31.469	59.94
	37.861	72.80
	37.500	75.00
	43.269	85.00
800x600	35.156	56.25
	37.879	60.31
	48.077	72.18
	46.875	75.00
	53.674	85.06
1024x768	48.363	60.00
	56.476	70.06
	60.023	75.02
	68.677	84.99
1152x864	54.348	60.05
	67.500	75.00
	77.487	85.05
1280x960	60.000	60.00
	75.000	75.00
1280x1024	63.981	60.02
832x624(MAC)	49.725	74.55



- **When using the remote control, aim it at the sensor on the Monitor.**

1. Connect power cord correctly.

2. Press the main **ON OFF** button on the Monitor. At this moment, the Monitor is switched to standby mode. Press the ⏻/I or **INPUT SELECT** button on the Monitor or press the **POWER** or **INPUT SELECT** button on the remote control and then the Monitor will be turned on.

1. **If the Monitor is turned off with the remote control button.**

   Press the ⏻/I or **INPUT SELECT** button on the Monitor or press the **POWER** or **INPUT SELECT** button on the remote control and then the Monitor will be turned on.

2. **If the Monitor is turned off with the ON OFF button on the Monitor**
   - Press the main **ON OFF** button on the Monitor to turn on the Monitor.

3. **If the Monitor is turned off with the remote control and also the ON OFF button on the Monitor**
   - Press the main **ON OFF** button on the Monitor and then press the ⏻/I or **INPUT SELECT** button on the Monitor or press the **POWER** or **INPUT SELECT** button on the remote control and then the Monitor will be turned on.



Tips

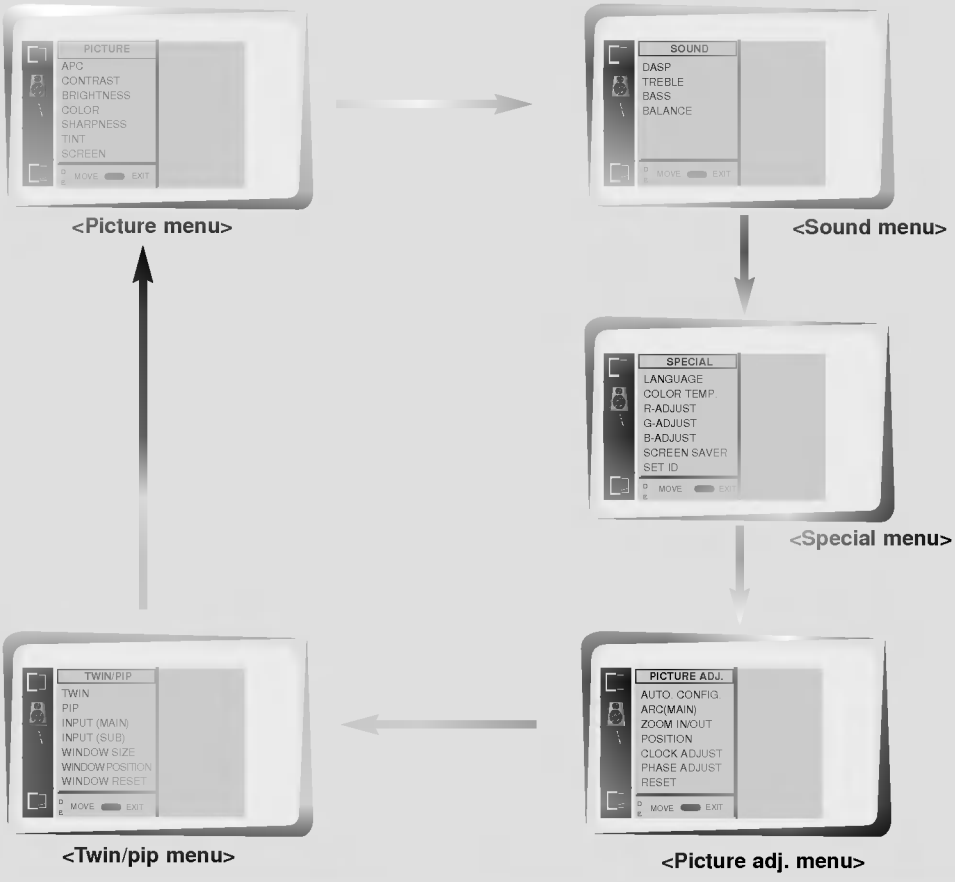
- **Adjusting volume level**
  The volume(G) button increases the sound and the volume(F) button reduces the level of sound.

- **Use the remote control to make adjustments.**
- **Select VIDEO input source.**

1 Press the **MENU** button.

2 Press the **UP/DOWN** button.

• Each press will cycle through the menus shown below.



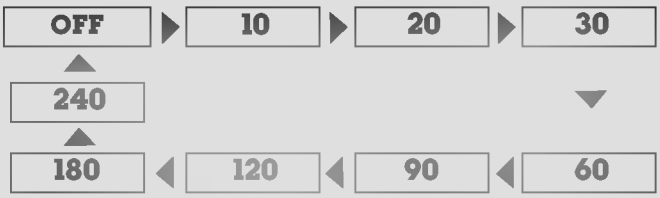
<Picture menu> <Sound menu> <Special menu> <Picture adj. menu> <Twin/pip menu>

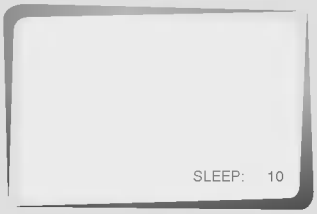
3 Press the **VOL** (G) button to select a feature to adjust, and then press the **UP/DOWN** buttons to adjust the selected item.

• Press the **MENU** button to exit.

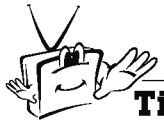


Press the **SLEEP** button to set sleep time.
Each time you press **SLEEP** button, the next pre-set setting time is changed as follows:





- To release sleep time setting, press the **SLEEP** button repeatedly to select **OFF**.



Tips

- To check remaining sleep time after setting, press the **SLEEP** or **ENTER** button just once.
- If you turn the Monitor off after setting the sleep timer, the setting is erased. The sleep timer will then have to be set again.

Auto picture control

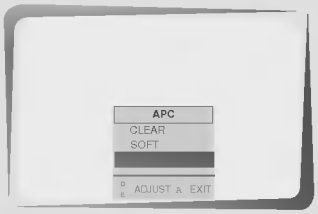
Use APC to set the Monitor for the best picture appearance

APC (Auto Picture Control)



1 Press the **APC** button.

2 Press the **APC** or **UP/DOWN** buttons to select your desired picture condition.



- Each press of **APC** button or **UP/DOWN** buttons changes the screen display as shown below.

CLEAR ⟷ **SOFT** ⟷ **USER**

- You can also select **CLEAR**, **SOFT** or **USER** in the **PICTURE** menu.

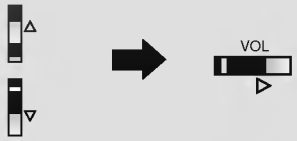
Adjus



Press the **MENU** button and then press the **UP/DOWN** button to select **PICTURE** menu.
Press the **VOL** (G) button.



1 Press the **UP/DOWN** button to select **CONTRAST** and then press the **VOL** (G) button.

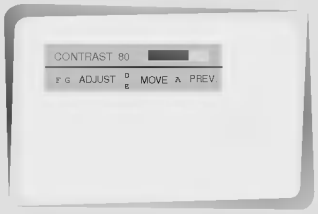




2 Use the **VOL** buttons to make appropriate adjustments and then press the **ENTER** button.

- Press the **UP/DOWN** buttons to select other items.





- Adjust **BRIGHTNESS**, **COLOR**, **SHARPNESS** and **TINT** in the same way.

DASP (Digital Auto Sound Processing)

- This function lets you enjoy the best sound without any manual adjustment because the Monitor automatically selects the appropriate audio tone levels based on the program content.

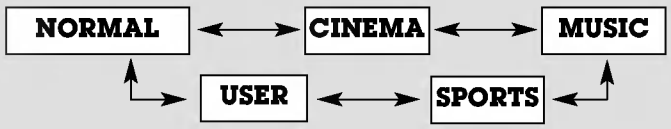


1 Press the **DASP** button.

2 Press the **DASP** or **UP/DOWN** button to select a sound setup.



- Each press of **DASP** or **UP/DOWN** buttons changes the screen display as shown below.



- You can also select **NORMAL**, **CINEMA**, **MUSIC**, **SPORTS** or **USER** in the **SOUND** menu.



Press the **MENU** button and then press the **UP/DOWN** button to select **SOUND** menu.
Press the **VOL** (G) button.



1 Press the **UP/DOWN** button to select **TREBLE** and then press the **VOL** (G) button.





2 Use the **VOL** buttons to make appropriate adjustments and then press the **ENTER** button.

- Press the **UP/DOWN** buttons to select other items.



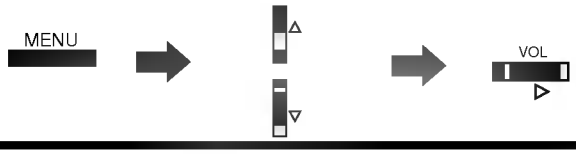


- Adjust **BASS** and **BALANCE** in the same way.

Selectin

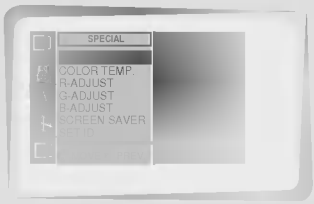


Press the **MENU** button and then press the **UP/DOWN** button to select **SPECIAL** menu.
Press the **VOL** (G) button.



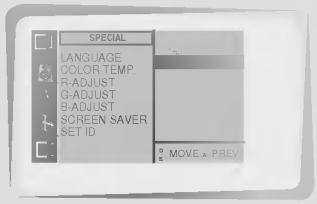
1 Press the **UP/DOWN** button to select **LANGUAGE** and then press the **VOL** (G) button.





2 Press the **UP/DOWN** button to select the desired language.



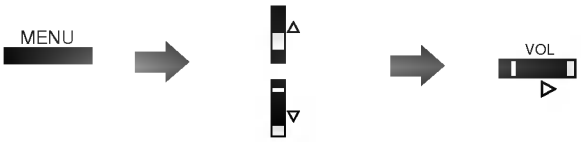


3 Press the **ENTER** button.

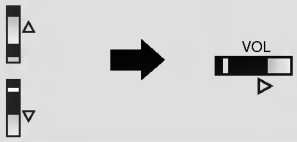


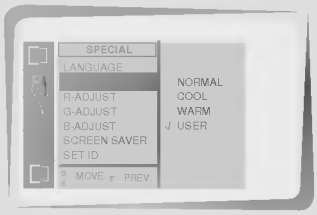


Press the **MENU** button and then press the **UP/DOWN** button to select **SPECIAL** menu.
Press the **VOL** (G) button.



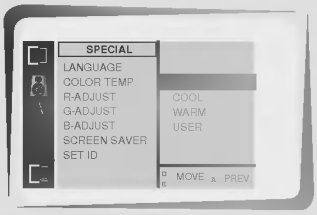
1 Press the **UP/DOWN** button to select **COLOR TEMP.** and then press the **VOL** (G) button.





2 Press the **UP/DOWN** button to select your desired color temperature and then press the **ENTER** button.





3 Press the **UP/DOWN** button to select **R-ADJUST**, **G-ADJUST** and **B-ADJUST** in the same way.



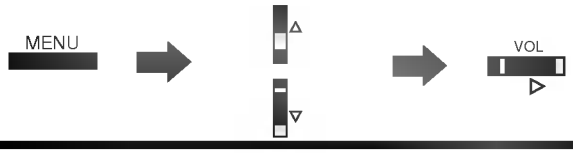
- Press the **VOL** (F) button again to move other menu.

Using t

- **Prolonged display of a still image may cause a permanent image to be 'burnt' on the screen**
- **If you select Screen Saver "ON", to prevent the permanent image, the picture moves a little by the sequence of "Right-Bottom-Left-Up" every 10 minutes.**
- **"SCREEN SAVER" function will help to prevent the effect of the permanent image but it is possible to permanently burn the screen with a prolonged still image !**

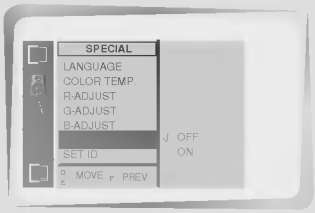


Press the **MENU** button and then press the **UP/DOWN** button to select **SPECIAL** menu.
Press the **VOL** (G) button.



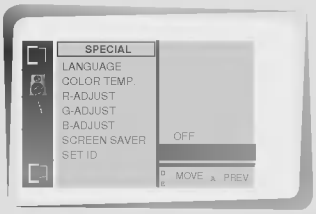
1 Press the **UP/DOWN** button to select **SCREEN SAVER** and then press the **VOL** (G) button.





2 Press the **UP/DOWN** button to select **ON** and then press the **ENTER** button.





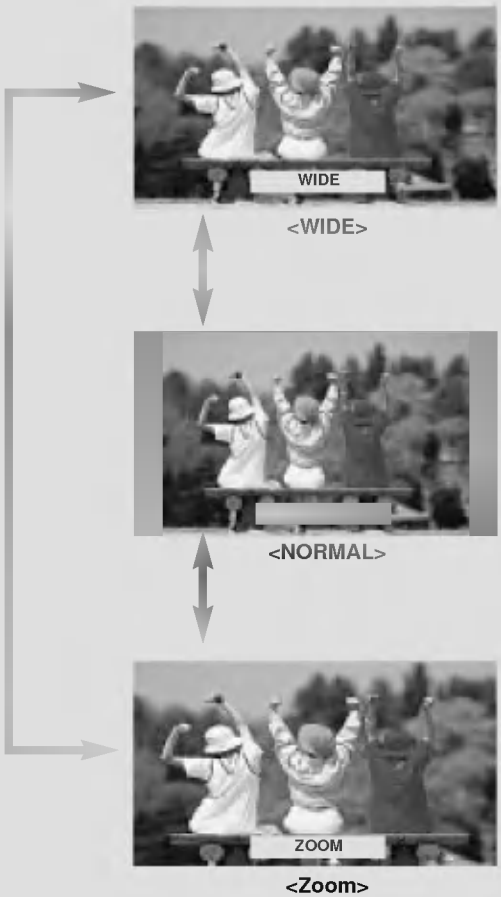
• Press the **VOL** (F) button again to move other menu.

- **Wide and normal size are possible in RGB1(PC) and RGB2 mode, and Wide, normal and zoom size are possible in RGB1(DTV) mode.**



Press the **ARC** button to select a desired picture format.

- Each time you press **ARC** buttons, you can select **WIDE**, **NORMAL** or **ZOOM** alternatively.



- You can also select **WIDE**, **NORMAL** or **ZOOM** in the **PICTURE** menu.

Using

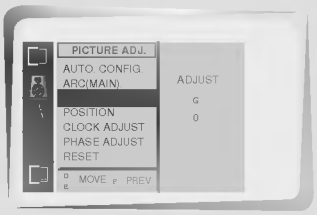


Press the **MENU** button and then press the **UP/DOWN** button to select **PICTURE ADJ.** menu.
Press the **VOL** (G) button.



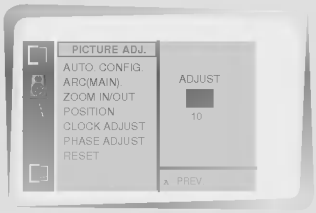
1 Press the **UP/DOWN** button to select **ZOOM IN/OUT** and then press the **VOL** (G) button.





2 Press the **VOL** buttons to adjust desired zoom in or out.





- You can zoom in on the image upto 50x.

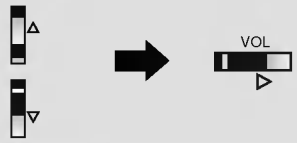
- **Adjust the screen with 'ZOOM IN/OUT' function to use the 'POSITION' function.**

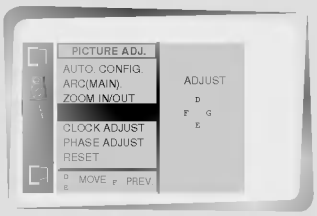


Press the **MENU** button and then press the **UP/DOWN** button to select **PICTURE ADJ.** menu.
Press the **VOL** (G) button.



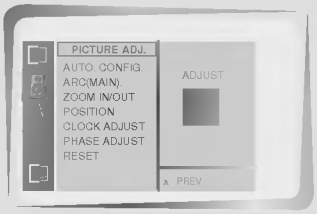
1 Press the **UP/DOWN** button to select **POSITION** and then press the **VOL** (G) button.





2 Press the **VOL** buttons or **UP/DOWN** button to adjust to the desired picture position.





Initializing

- To initialize the adjusted value, select "**RESET**" with the **UP/DOWN** button and then press the **VOL**(G) button.

Picture

- **PIP/TWIN PICTURE will let you view two seperate inputs on your monitor screen at the same time.**
- **Color of main picture may be different from PIP's in PIP/TWIN PICTURE.**
- **When the main picture is RGB1/DTV(more than 480p)/RGB2, the sub picture is Video/S-video/DVD(480i) and when the main picture is Video/S- video/DVD(480i), the sub picture is RGB1/DTV(more than 480p)/RGB2.**

How to use the PIP

Press the **PIP** button.

PIP

- It you press the PIP button again, the function is off.



Adjusting the size of sub picture

Press the **WIN. SIZE** button to select the size of sub picture.



- Press **VOL**(F , G) button to adjust desired size.

WIN.SIZE

- WIN. SIZE doesn't work when there is no signal in sub-picture.

Press the **PIP ARC** button in PIP.

PIP ARC

- Each time you press **PIP ARC** button, you can change the pip size.

NORMAL ⟷ **WIDE**





Moving the sub picture

Press the **WIN. POSITION** button in PIP.

- Press the **VOL**(F , G) button and **UP/DOWN** button to adjust the position.

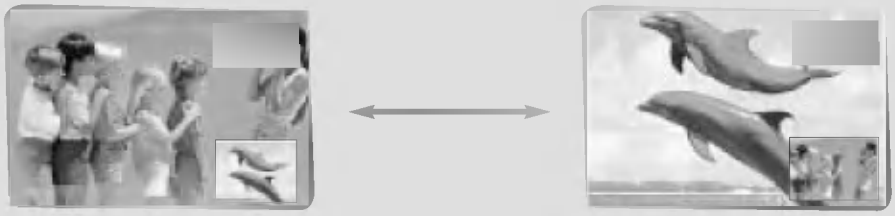
WIN.POSITION



Change the main picture and the sub picture

Press the **PIP SWAP** button in PIP.

SWAP

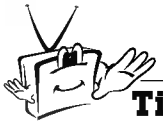


Viewing External Source Equipment

Press the **PIP INPUT** button in PIP.

SUB INPUT





Tips

- You can select **WINDOW SIZE**, **WINDOW POSITION**, **PIP INPUT** in the **TWIN/PIP** menu.

Viewing External Equipment

Press the **ZOOM+** button in PIP mode.





- Enlarge the picture with **ZOOM+** button.
  'ZOOM' is possible to 50.
- Press the **ZOOM-** button to reduce the zoom effect.

Moving the enlarged picture

Press the **VOL** (F , G) button or
UP/DOWN button to adjust the position
of main picture.

- It dose not operate when the '**ZOOM**' is '0'.





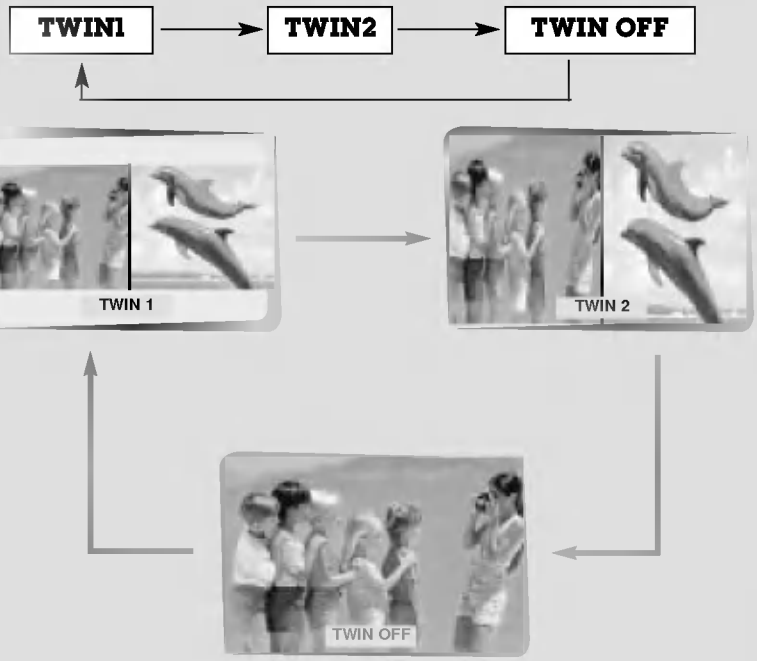
How to use twin picture

TWIN PICTURE



Press the **TWIN PICTURE** button to select desired twin picture.

- Each time you press **TWIN PICTURE** buttons, you can select **TWIN1**, **TWIN2** or **TWIN OFF** alternatively.



Input select of the sub picture

SUB INPUT



Press the **SUB INPUT** button to select the input select of sub menu.

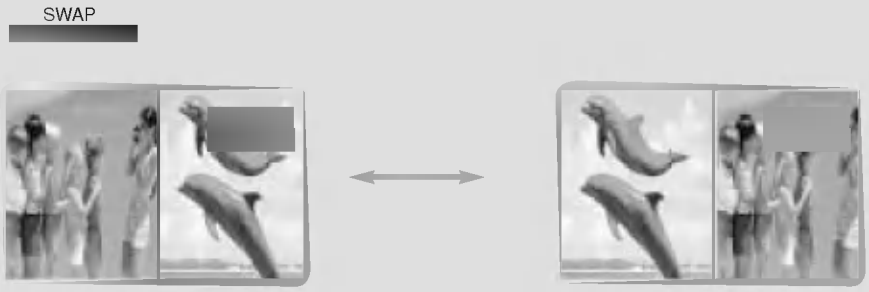
- When the main picture is RGB1/DTV(more than 480p), the sub picture is Video/S- video/DVD(480i) and when the main picture is Video/S-video/DVD(480i), the sub picture is RGB1/DTV(more than 480p)/RGB2.



- **PIP/TWIN PICTURE let you view different inputs on your monitor screen at the same time.**
- **Color of main picture may be different from PIP's in PIP/TWIN PICTURE.**
- **When the main picture is RGB1/DTV(more than 480p)/RGB2, the sub picture is Video/S-video/DVD(480i) and when the main picture is Video/S- video/DVD(480i), the sub picture is RGB1/DTV(more than 480p)/RGB2.**

Changing the picture of main and sub picture

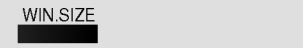
Press the **SWAP** button in twin picture mode.



Size adjusting sub picture

Press the **WIN. SIZE** button to select size of sub picture in the twin picture.

- Press **VOL**(F , G) button to adjust desired size.





- **WINDOW POSITION** function doesn't work in the twin picture mode.
- **WINDOW SIZE** function doesn't work when there is no signal of main/sub picture.

Usi

- **This function works in Video and S-video modes.**
- **Use this option to correct trembling or picture instability while viewing a video tape.**

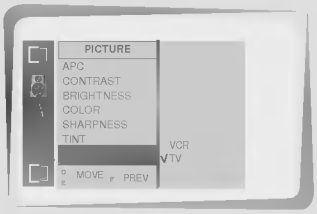


Press the **MENU** button and then press the **UP/DOWN** button to select **PICTURE** menu.
Press the **VOL** (G) button.



1 Use the **UP/DOWN** button to select **SCREEN** and then press the **VOL** (G) button.

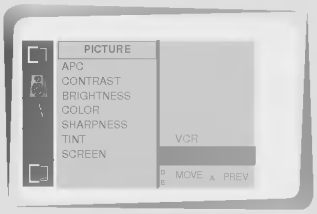




2 Use the **UP/DOWN** buttons to select **TV** or **VCR**.

- Select the **VCR** option if watching a VCR.
- Select the **TV** option for other equipment. (Except VCR.)
- Each time you press the D / E button you toggle between **TV** and **VCR**.





3 Press the **ENTER** button to exit.

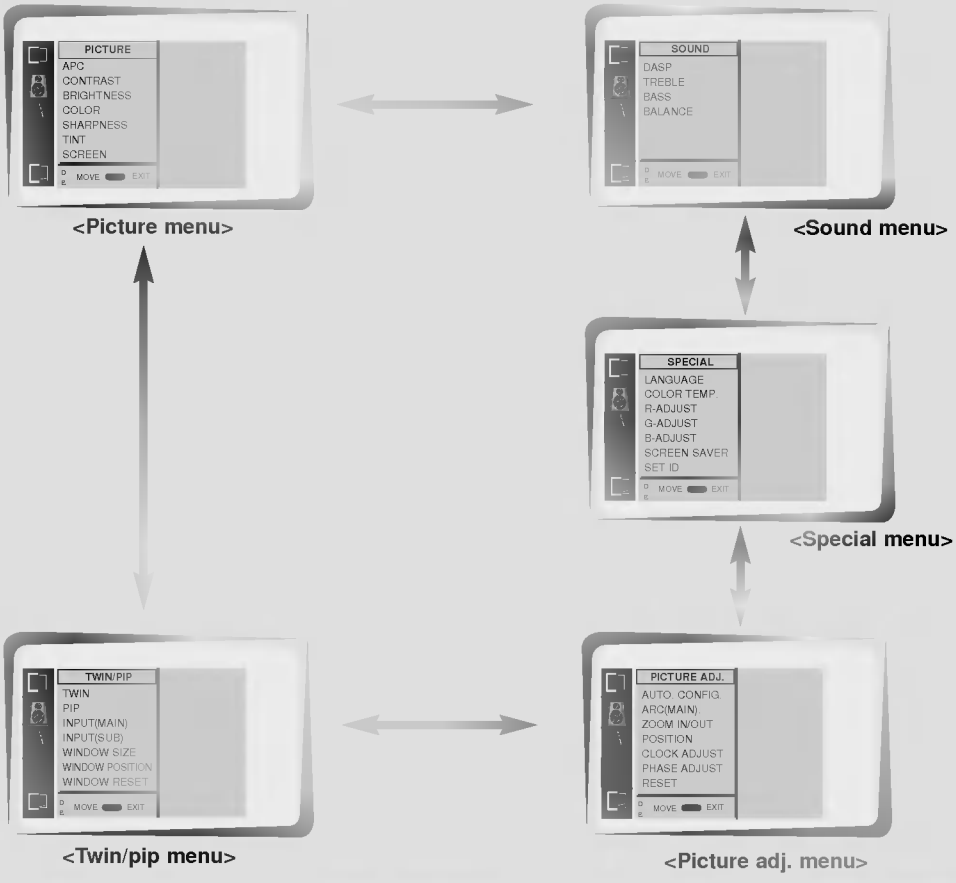


- **Use the remote control to make adjustments.**
- **Select RGB 1 input source.**

1 Press the **MENU** button.

2 Press the **UP/DOWN** button.

• Each press will cycle through the menus shown below.



<Picture menu> <Sound menu> <Special menu> <Twin/pip menu> <Picture adj. menu>

3 Press the **VOL** (G) button to select a feature to adjust, and then press the **UP/DOWN** buttons to adjust the selected item.

• Press the **MENU** button to exit.

P

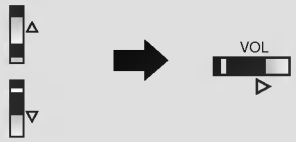
- **This function works only in the RGB1 mode.**

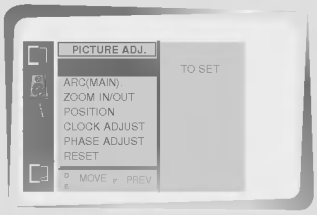


Press the **MENU** button and then press the **UP/DOWN** button to select **PICTURE ADJ.** menu.
Press the **VOL** (G) button.

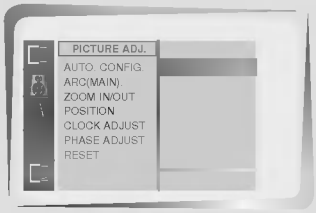


1 Use the **UP/DOWN** button to select **AUTO CONFIG.** and then press the **VOL** (G) button.





2 When **AUTO CONFIG.** has finished, '**OK**' will be shown on screen.



3 If the picture needed to be adjusted a little bit more after auto adjustment, you can manually adjust the **CLOCK ADJUST** and **PHASE ADJUST** adjustment.



Tips

- The picture may appear strange while auto adjustment is taking place but that is normal during. This process of searching for the best picture format.

- **Horizontal/Vertical position and CLOCK/PHASE adjustment work in RGB1(PC mode) and Horizontal/Vertical position only work in RGB(DTV mode-480p,720p,1080i).**

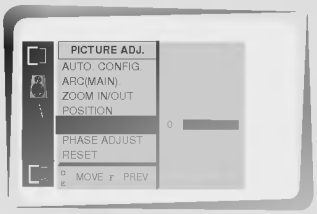


Press the **MENU** button and then press the **UP/DOWN** button to select **PICTURE ADJ.** menu.
Press the **VOL** (G) button.



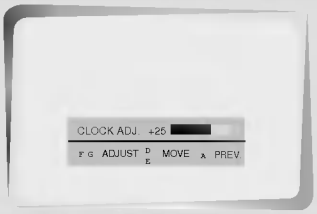
1 Use the **UP/DOWN** button to select **CLOCK ADJUST** and then press the **VOL** (G) button.





2 Use the **VOL** buttons adjust clock and then press the **ENTER** button.





3 Adjust **PHASE ADJUST** in the same way.

- The adjustment range of **CLOCK ADJUST** is -50 ~ +50.
- The adjustment range of **PHASE ADJUST** is 0 ~ 31. (Based on the input mode, the adjustment range of **CLOCK ADJUST/PHASE ADJUST** may change.)
- Based on the input signal, the position of the picture may not change even though you have adjusted the **CLOCK** or **PHASE** position with this function.

Initializing

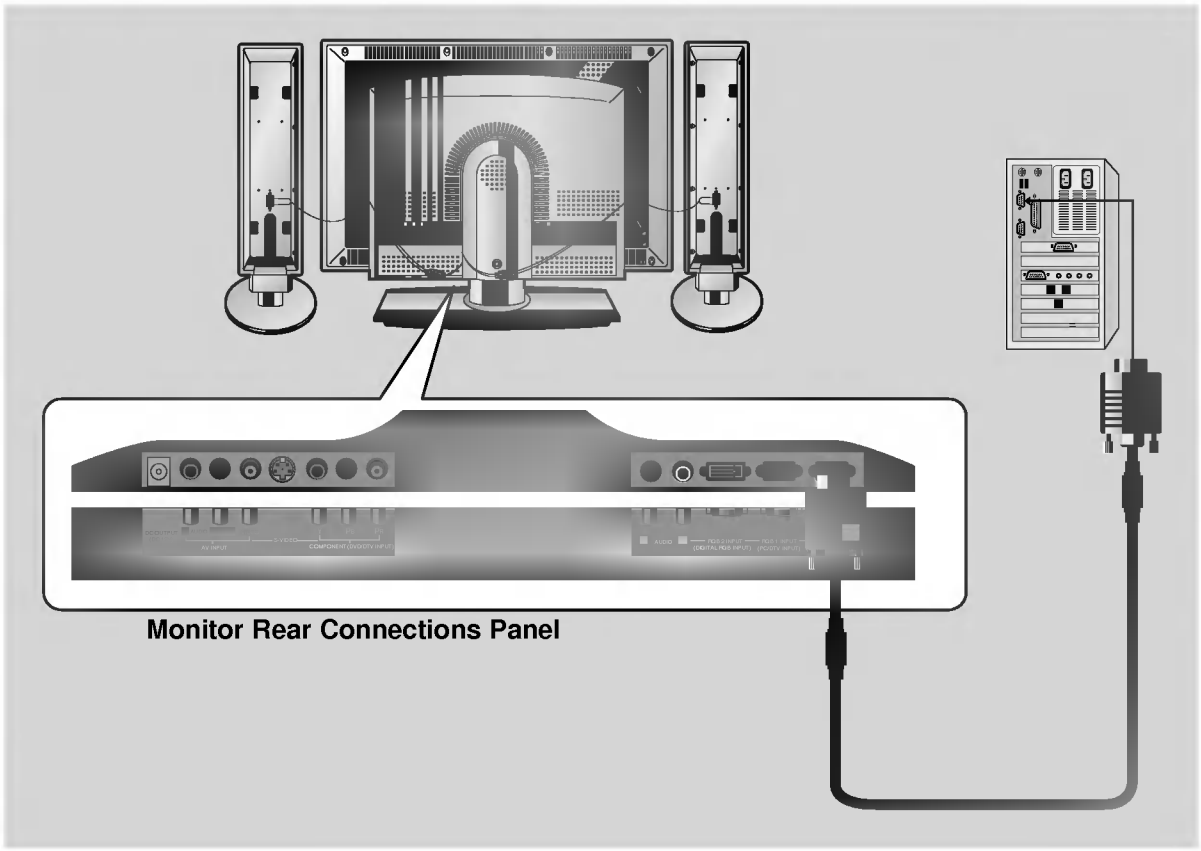
- To initialize the adjusted value, select "**RESET**" with the **UP/DOWN** button and then press the **VOL**(G) button.

Extern

- **Connect the RS-232C input jack to a PC and control the Monitor's functions (such as ON/OFF, INPUT SELECT, MUTE) externally.**

How to connect external control equipment

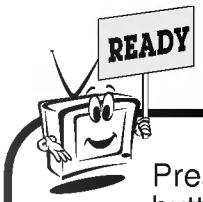
- Connect the RS-232C (serial connector) input jack with the rear of moniter's RS-232C input jack.
- RS-232C connection cables are not supplied with the Monitor.



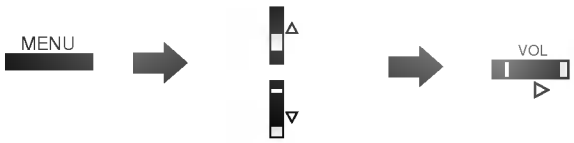
Monitor Rear Connections Panel

SET ID

• Use this function to specify a monitor ID number.

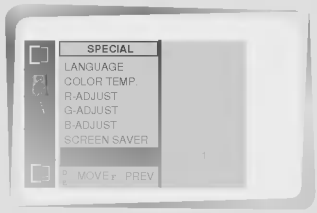


Press the **MENU** button and then press the **UP/DOWN** button to select **SPECIAL** menu.
Press the **VOL** (G) button.



1 Use the **UP/DOWN** buttons to select **SET ID** and then press the **VOL** (G) button.

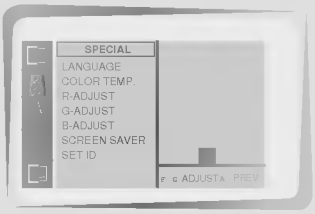




2 Use the **VOL** button to adjust **SET ID** to choose the desired monitor ID number and then press the **ENTER** button.

• The adjustment range of **SET ID** is 1 ~ 99.



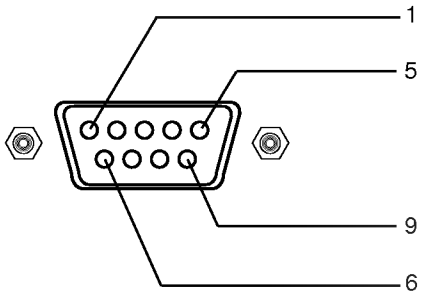


Extern

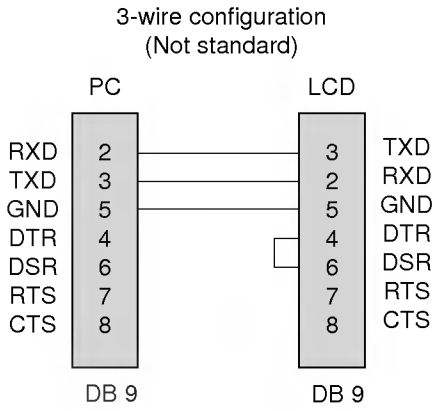
- **The RS-232C input jack is used to control the Monitor's functions using an external control device.**

Type of connector : D-Sub 9-pin male

No.	Pin name
1	No connection
2	RXD (Receive data)
3	TXD (Transmit data)
4	DTR (DTE side ready)
5	GND
6	DSR (DCE side ready)
7	RTS (Ready to send)
8	CTS (Clear to send)
9	No Connection



RS-232C configurations



Communication Parameters

- Baud rate : 115200bps (UART)
- Data length : 8 bits
- Parity : None
- Stop bit : 1 bit
- Communication code : ASCII code

* Use the Crossed (reverse) cable.

Command Reference List

NAME	Command	Command	DATA
01. Power	k	a	0 ~ 1
02. Input Select	k	b	0 ~ 4
03. Aspect Ratio	k	c	0 ~ 2
04. Screen mute	k	d	0 ~ 1
05. Volume mute	k	e	0 ~ 1
06. Volume control	k	f	0 ~ 64
07. Contrast	k	g	0 ~ 64
08. Brightness	k	h	0 ~ 64
09. Color	k	i	0 ~ 64
10. Tint	k	j	0 ~ 64
11. Sharpness	k	k	0 ~ 64
12. OSD select	k	l	0 ~ 1
13. remote control lock mode	k	m	0 ~ 1
14. PIP select	k	n	0 ~ 3
15. PIP size	k	o	0 ~ 1
16. PIP position	k	q	0 ~ 3
17. Treble	k	r	0 ~ 64
18. Bass	k	s	0 ~ 64
19. Balance	k	t	0 ~ 64
20. Color temperature	k	u	0 ~ 3
21. R adjust	k	v	0 ~ 64
22. G adjust	k	w	0 ~ 64
23. B adjust	k	$	0 ~ 64
24. Sub picture input select	k	y	0 ~ 4

Transmission / Receiving Protocol

Transmission

[Command1][Command2][ ][Set ID][ ][Data][Cr]

* [Command1] : To classify factory-adjustment mode or user adjustment mode.
* [Command2] : To control LCD set.
* [Set ID] : You can adjust the set ID to choose desired monitor ID number in special menu. Adjustment range is 1 ~ 99. When selecting Set ID '0', every con nected LCD set is controlled. select '0', factory adjustment. (* Transmit as Hexadecimal code.)
* [DATA] : To transmit command data. Transmit 'FF' data to read status of command.
* [Cr] : Carriage Return ASCII code '0x0D'
* [ ] : Added to classify command, set ID and DATA.

* [Set ID], [Data] : Input command with 2byte.

OK Acknowledgement

[Command2][ ][Set ID][ ][OK][Data][x]

* The Monitor transmits ACK (acknowledgement) based on this format when receiving normal data. At this time, if the data is data read mode, it indicates present status data. If the data is data write mode, it returns the data of the PC computer.

Error Acknowledgement

[Command2][ ][Set ID][ ][NG][Data][x]

* The Monitor transmits ACK (acknowledgement) based on this format when receiving abnormal data from non-viable functions or communication errors.

* Data : [01] : illegal code (This command is not supported.)
[02] : not support function (This function doesn't work.)
[03] : wait more time (Try again a few minute later.)

01. Power (Command:a)

G To control Power On/Off of the Monitor.

Transmission

[k][a][ ][Set ID][ ][Data][Cr]

Data 0 : Power Off
1 : Power On

Acknowledgement

[a][ ][Set ID][ ][OK][Data][x]

Data 0 : Power Off
1 : Power On

G To show Power On/Off.

Transmission

[k][a][ ][Set ID][ ][FF][Cr]

Acknowledgement

[a][ ][Set ID][ ][OK][data][x]

Data 0 : Power Off
1 : Power On

* In like manner, if other functions transmit 'FF' data based on this format, Acknowledgement data feed back presents status about each function.

02. Input select (Command:b)

G To select input source for the Monitor.
You can also select an input source using the INPUT SELECT button on the Monitor's remote control.

Transmission

[k][b][ ][Set ID][ ][Data][Cr]

Data 0 : RGB1
1 : Component
2 : Video
3 : S-Video
4 : RGB2

Acknowledgement

[b][ ][Set ID][ ][OK][Data][x]

Data 0 : RGB1
1 : Component
2 : Video
3 : S-Video
4 : RGB2

03. Aspect Ratio (Command:c)

G To adjust the screen format.
You can also adjust the screen format using the ARC button on remote control or in the Picture Adj. menu.

Transmission

[k][c][ ][Set ID][ ][Data][Cr]

Data 0 : Wide screen (16:9)
1 : Normal screen (4:3)
2 : Full screen (Zoom)

Acknowledgement

[c][ ][Set ID][ ][OK][Data][X]

Data 0 : Wide screen (16:9)
1 : Normal screen (4:3)
2 : Full screen (Zoom)

* Using the PC input, you select either Wide screen(16:9) or Normal screen(4:3).

04. Screen mute (Command:d)

G To select screen mute on/off.

Transmission

[k][d][ ][Set ID][ ][Data][Cr]

Data 0 : Screen mute off (Picture on)
1 : Screen mute on (Picture off)

Acknowledgement

[d][ ][Set ID][ ][OK][Data][X]

Data 0 : Screen mute off (Picture on)
1 : Screen mute on (Picture off)

05. Volume mute (Command:e)

G To control volume mute on/off.
You can also adjust mute using the MUTE button on remote control.

Transmission

[k][e][ ][Set ID][ ][Data][Cr]

Data 0 : Volume mute on (Volume off)
1 : Volume mute off (Volume on)

Acknowledgement

[e][ ][Set ID][ ][OK][Data][X]

Data 0 : Volume mute on (Volume off)
1 : Volume mute off (Volume on)

06. Volume control (Command:f)

G To adjust volume.
You can also adjust volume with the VOL buttons on remote control.

Transmission

[k][f][ ][Set ID][ ][Data][Cr]

Data Min : 0 ~ Max : 64
* Transmit as Hexadecimal code.

Acknowledgement

[f][ ][Set ID][ ][OK][Data][X]

Data Min : 0 ~ Max : 64

07. Contrast (Command:g)

G To adjust screen contrast.
You can also adjust contrast in the Picture menu.

Transmission

[k][g][ ][Set ID][ ][Data][Cr]

Data Min : 0 ~ Max : 64
* Transmit as Hexadecimal code.

Acknowledgement

[g][ ][Set ID][ ][OK][Data][X]

Data Min : 0 ~ Max : 64

08. Brightness (Command:h)

G To adjust screen brightness.
You can also adjust brightness in the Picture menu.

Transmission

[k][h][ ][Set ID][ ][Data][Cr]

Data Min : 0 ~ Max : 64
* Transmit as Hexadecimal code.

Acknowledgement

[h][ ][Set ID][ ][OK][Data][X]

Data Min : 0 ~ Max : 64

09. Color (Command:i)

G To adjust the screen color.
You can also adjust color in the Picture menu.

Transmission

[k][i][ ][Set ID][ ][Data][Cr]

Data Min : 0 ~ Max : 64
* Transmit as Hexadecimal code.

Acknowledgement

[i][ ][Set ID][ ][OK][Data][X]

Data Min : 0 ~ Max : 64

10. Tint (Command:j)

G To adjust the screen tint.
You can also adjust tint in the Picture menu.

Transmission

[k][j][ ][Set ID][ ][Data][Cr]

Data Red : 0 ~ Green : 64
* Transmit as Hexadecimal code.

Acknowledgement

[j][ ][Set ID][ ][OK][Data][X]

Data Red : 0 ~ Green : 64

11. Sharpness (Command:k)

G To adjust the screen sharpness.
You can also adjust sharpness in the Picture menu.

Transmission

[k][k][ ][Set ID][ ][Data][Cr]

Data Min : 0 ~ Max : 64
* Transmit as Hexadecimal code.

Acknowledgement

[k][ ][Set ID][ ][OK][Data][X]

Data Min : 0 ~ Max : 64

12. OSD select (Command:l)

G To select OSD (On Screen Display) on/off.

Transmission

[k][l][ ][Set ID][ ][Data][Cr]

Data 0 : OSD off
1 : OSD on

Acknowledgement

[l][ ][Set ID][ ][OK][Data][X]

Data 0 : OSD off
1 : OSD on

13. Remote control lock mode (Command:m)

G To set up the locking function of set remote control.

Transmission

[k][m][ ][Set ID][ ][Data][Cr]

Acknowledgement

[m][ ][Set ID][ ][OK][Data][X]

Data 0 : off
1 : on

* This function is setting mode when the remote control is not used.

14. PIP select (Command:n)

G To control PIP (Picture-in-Picture) or twin picture. You can also control PIP/TWIN PICTURE using the pip/twin picture button on remote control or in the Twin/Pip menu.

Transmission

[k][n][ ][Set ID][ ][Data][Cr]

Data 0 : PIP/ DW off
1 : PIP
2 : Twin picture (DW1)
3 : Twin picture (DW2)

Acknowledgement

[n][ ][Set ID][ ][OK][Data][X]

Data 0 : PIP/ DW off
1 : PIP
2 : Twin picture (DW1)
3 : Twin picture (DW2)

15. PIP size (Command:o)

G To select PIP size.

Transmission

[k][o][ ][Set ID][ ][Data][Cr]

Data 0 : Normal screen (4:3)
1 : Wide screen (16:9)

Acknowledgement

[o][ ][Set ID][ ][OK][Data][X]

Data 0 : Normal screen (4:3)
1 : Wide screen (16:9)

16. PIP position (Command:q)

G To select sub picture position for PIP.
You can also adjust the sub picture position using the position button on the remote control or in WINDOW POSITION on the TWIN/PIP menu.

Transmission

[k][q][ ][Set ID][ ][Data][Cr]

Data 0 : Right down on screen
1 : Left down on screen
2 : Left up on screen
3 : Right up on screen

Acknowledgement

[q][ ][Set ID][ ][OK][Data][X]

Data 0 : Right down on screen
1 : Left down on screen
2 : Left up on screen
3 : Right up on screen

17. Treble (Command:r)

G To adjust the screen treble.
You can also adjust treble in the sound menu.

Transmission

[k][r][ ][Set ID][ ][Data][Cr]

Data Min : 0 ~ Max : 64
* Transmit as Hexadecimal code.

Acknowledgement

[r][ ][Set ID][ ][OK][Data][X]

Data Min : 0 ~ Max : 64

18. Bass (Command:s)

G To adjust the screen bass.
You can also adjust bass in the sound menu.

Transmission

[k][s][ ][Set ID][ ][Data][Cr]

Data Min : 0 ~ Max : 64
* Transmit as Hexadecimal code.

Acknowledgement

[s][ ][Set ID][ ][OK][Data][X]

Data Min : 0 ~ Max : 64

19. Balance (Command:t)

G To adjust the screen balance.
You can also adjust balance in the sound menu.

Transmission

[k][t][ ][Set ID][ ][Data][Cr]

Data Min : 0 ~ Max : 64
* Transmit as Hexadecimal code.

Acknowledgement

[t][ ][Set ID][ ][OK][Data][X]

Data Min : 0 ~ Max : 64

20. Color temperature (Command:u)

G To set up with 'normal, cool, warm, user' in the color temperature.

Transmission

[k][u][ ][Set ID][ ][Data][Cr]

Data 0 : Normal
1 : Cool
2 : Warm
3 : User

Acknowledgement

[u][ ][Set ID][ ][OK][Data][X]

Data 0 : Normal 1 : Cool 2 : Warm 3 : User

21. R-Adjust (Command:v)

G To adjust 'R-adjust' in the color temperature.

Transmission

[k][v][ ][Set ID][ ][Data][Cr]

Data Min : 0 ~ Max : 64
* Transmit as Hexadecimal code.

Acknowledgement

[v][ ][Set ID][ ][OK][Data][X]

Data Min : 0 ~ Max : 64

22. G-Adjust (Command:w)

G To adjust 'G-adjust' in the color temperature.

Transmission

[k][w][ ][Set ID][ ][Data][Cr]

Data Min : 0 ~ Max : 64
* Transmit as Hexadecimal code.

Acknowledgement

[w][ ][Set ID][ ][OK][Data][X]

Data Min : 0 ~ Max : 64

23. B-Adjust (Command:$)

G To adjust 'B-adjust' in the color temperature.

Transmission

[k][$][ ][Set ID][ ][Data][Cr]

Data Min : 0 ~ Max : 64
* Transmit as Hexadecimal code.

Acknowledgement

[$][ ][Set ID][ ][OK][Data][X]

Data Min : 0 ~ Max : 64

24. Sub picture input select (Command:y)

Data 0 : RGB1 4 : RGB2
1 : Component
2 : Video
3 : S-Video

[k][y][ ][Set ID][ ][Data][Cr]

Data Min : 0 ~ Max : 4
* Transmit as Hexadecimal code.

Acknowledgement

[y][ ][Set ID][ ][OK][Data][X]

Data Min : 0 ~ Max : 4

No picture & No sound	• Check whether the Monitor is turned on. • Power cord inserted into wall outlet? • Plug another product's power cord into the wall outlet where the Monitor's power cord was plugged in.
Picture OK & No sound	• Press the **VOLUME** (G) button. • Sound muted? Press **MUTE** button.
The remote control doesn't work	• Check to see if there is any object between the LCD Monitor and the remote control causing obstruction. • Check to see if the batteries are installed with the correct polarities. (Refer to 17 page) • Install new batteries. (Refer to 17 page)
No or Poor color or Poor picture	• Select **COLOR** in the **PICTURE** menu and press the **VOLUME** (G) button. (Refer to 33 page) • Increase the distance between the Monitor and the VCR. • Activate any function to restore the brightness of the picture. (If still picture is on the screen for more than 5 minutes, the screen gets dark.)

No output from one of the speakers	• Adjust **BALANCE** in the **SOUND** menu. (Refer to 35 page)
Picture appears slowly, after switching on	• This is normal as the image is muted during the startup process of the monitor. Please contact your service center, if the picture has not appeared after five minutes.
Horizontal/vertical bars or picture shaking	• Check for local interference such as an electrical appliance or power tool.
Strange sound from inside the monitor	• A change in ambient humidity or temperature may result in an unusual noise at the time of switching off or on of the monitor and does not indicate a fault with the monitor.







Pr

Width (inches / mm)	29.9 / 759
Height (inches / mm)	21.5 / 546
Depth (inches / mm)	7.1 / 179.5
Weight (pounds / kg)	40.6 / 18.4
Power requirement	AC 100-240V~ 50/60Hz
Resolution	1280 x 768(Dot)
Colors	16,770,000 (256 steps of each R, G, and B)

- The specifications shown above may be changed without prior notice for quality improvement.

P/NO : 3828VA0338D ⓑ (373-026H)

