LG

LG

PLASMA MONITOR

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

Model number :
Serial number :

MU-60PZ12V
MU-60PZ12VA
MU-60PZ12VB
MU-60PZ12VK
MU-60PZ12VS

OWNER'S MANUAL

P/NO : 3828VA0277W
(NP00KB)

FCC NOTICE

- **MU-60PZ12V/VA/VB/VK/VS : 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.

The explanation about colored dots may be present on PDP screen

The PDP which is the display device of this product is composed of 0.9 to 2.2 million cells and a few cell defects can occur in the manufacture of the PDP. Several colored dots visible on the screen would be acceptable, in line with other PDP manufacturers and would not mean that the PDP is faulty. We hope you will understand that the product which corresponds to this standard is regarded as acceptable. It means that it could not be changed or refunded.
We promise that we'll do our best to develop our technology to minimize the cell defects.
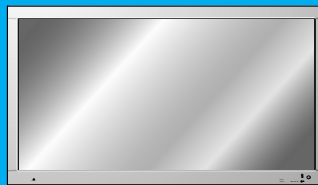
The explanation about noise of 60" PDP

In the same way that a fan is used in a PC to keep the CPU cool, the PDP is equipped with cooling fans to improve the reliability of this product. Therefore, a certain level of noise could occur when the fan is operated. This noise doesn't have any negative effect on its efficiency and liability and it's also determined to have no difficulty while using this product. The noise from the fans is normal in the operation of this product. We hope you will understand that a certain level of noise is acceptable. It means that it is not changeable nor refundable.

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.

WARNING
TO REDUCE THE RISK OF FIRE AND ELECTRIC SHOCK, DO NOT EXPOSE THIS PRODUCT TO RAIN OR MOISTURE.

Table of Contents

Keep this manual with Monitor for future easy reference)

WARNINGS

WARNING

**RISK OF ELECTRIC SHOCK
DO NOT OPEN**

WARNING:
TO REDUCE THE RISK OF ELECTRIC SHOCK DO NOT REMOVE COVER (OR BACK). NO USER SERVICEABLE PARTS INSIDE.
REFER TO QUALIFIED SERVICE PERSONNEL.

The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

WARNING:
TO PREVENT FIRE OR SHOCK HAZARDS, DO NOT EXPOSE THIS PRODUCT TO RAIN OR MOISTURE.

CAUTION:
TO PREVENT ELECTRIC SHOCK, MATCH WIDE BLADE OF PLUG TO WIDE SLOT, FULLY INSERT.

SAFETY INSTRUCTIONS

Important safeguards for you and your new product

Your product has been manufactured and tested with your safety in mind. However, improper use can result in potential electrical shock or fire hazards. To avoid defeating the safeguards that have been built into your new product, please read and observe the following safety points when installing and using your new product, and save them for future reference.

Observing the simple precautions discussed in this booklet can help you get many years of enjoyment and safe operation that are built into your new product.

This product complies with all applicable U.S. Federal safety requirements, and those of the Canadian Standards Association.

1. Read Instructions

All the safety and operating instructions should be read before the product is operated.

2. Follow Instructions

All operating and use instructions should be followed.

3. Retain Instructions

The safety and operating instructions should be retained for future reference.

4. Heed Warnings

All warnings on the product and in the operating instructions should be adhered to.

5. Cleaning

Unplug this product from the wall outlet before cleaning. Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning.

6. Water and Moisture

Do not use this product near water, for example, near a bath tub, wash bowl, kitchen sink, or laundry tub, in a wet basement, or near a swimming pool.

7. Accessories Carts and Stands

Do not place this product on a slippery or tilted surface, or on an unstable cart, stand, tripod, bracket, or table. The product may slide or fall, causing serious injury to a child or adult, and serious damage to the product. Use only with a cart, stand, tripod, bracket, or table recommended by the manufacturer, or sold with the product. Any mounting of the product should follow the manufacturer's instructions, and should use a mounting accessory recommended by the manufacturer.

8. Transporting Product

A product and cart combination should be moved with care. Quick stops, excessive force, and uneven surfaces may cause the product and cart combination to overturn.

PORTABLE CART WARNING

9. Attachments

Do not use attachments not recommended by the product manufacturer as they may cause hazards.

10. Ventilation

Slots and openings in the cabinet are provided for ventilation and to ensure reliable operation of the product and to protect it from overheating, and these openings must not be blocked or covered.

SAFETY INSTRUCTIONS

The openings should never be blocked by placing the product on a bed, sofa, rug, or other similar surface. This product should not be placed in a built-in installation such as a bookcase or rack unless proper ventilation is provided or the manufacturer's instructions have been adhered to.

11. Power Sources

This product should be operated only from the type of power source indicated on the marking label. If you are not sure of the type of power supply to your home, consult your product dealer or local power company. For products intended to operate from battery power, or other sources, refer to the operating instructions.

12. Power-Cord Polarization

This product is equipped with a polarized alternating-current line plug (a plug having one blade wider than the other). This plug will fit into the power outlet only one way. This is a safety feature. If you are unable to insert the plug fully into the outlet, try reversing the plug. If the plug should still fail to fit, contact your electrician to replace your obsolete outlet. Do not defeat the safety purpose of the polarized plug.
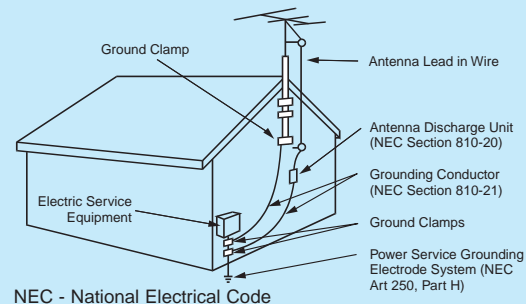
13. Power-Cord Protection

Power-supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords at plugs, convenience receptacles, and the point where they exit from the product.

14. Outdoor Antenna Grounding

If an outside antenna or cable system is connected to the product, be sure the antenna or cable system is grounded so as to provide some protection against voltage surges and built-up static charges. Article 810 of the National Electrical Code (U.S.A.), ANSI/ NFPA 70 provides information with regard to proper grounding of the mast and supporting structure, grounding of the lead-in wire to an antenna discharge unit, size of grounding conductors, location of antenna-discharge unit, connection to grounding electrodes, and requirements for the grounding electrode.

Example of Grounding According to National Electrical Code Instructions

Ground Clamp

Antenna Lead in Wire

Antenna Discharge Unit (NEC Section 810-20)

Grounding Conductor (NEC Section 810-21)

Electric Service Equipment

Ground Clamps

Power Service Grounding Electrode System (NEC Art 250, Part H)

NEC - National Electrical Code

15. Lightning

For added protection for this product (receiver) during a lightning storm, or when it is left unattended and unused for long periods of time, unplug it from the wall outlet and disconnect the antenna or cable system. This will prevent damage to the product due to lightning and power-line surges.

16. Power Lines

An outside antenna system should not be located in the vicinity of overhead power lines or other electric light or power circuits, or where it can fall into such power lines or circuits. When installing an outside antenna system, extreme care should be taken to keep from touching such power lines or circuits as contact with them might be fatal.

17. Overloading

Do not overload wall outlets and extension cords as this can result in a risk of fire or electric shock.

18. Object and Liquid Entry

Never push objects of any kind into this

product through openings as they may touch dangerous voltage points or short-out parts that could result in a fire or electric shock. Never spill liquid of any kind on the product.

19. Servicing

Do not attempt to service this product yourself as opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel.

20. Damage Requiring Service

Unplug this product from the wall outlet and refer servicing to qualified service personnel under the following conditions:

 a. If the power-supply cord or plug is damaged.
 b. If liquid has been spilled, or objects have fallen into the product.
 c. If the product has been exposed to rain or water.
 d. If the product does not operate normally by following the operating instructions. Adjust only those controls that are covered by the operating instructions as an improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the product to its normal operation.
 e. If the product has been dropped or the cabinet has been damaged.
 f. If the product exhibits a distinct change in performance.

21. Replacement Parts

When replacement parts are required, be sure the service technician has used replacement parts specified by the manufacturer or have the same characteristics as the original part. Unauthorized substitutions may result in fire, electric shock, or other hazards.

22. Safety Check

Upon completion of any service or repairs to this product, ask the service technician to perform safety checks to determine that the product is in proper operating condition.
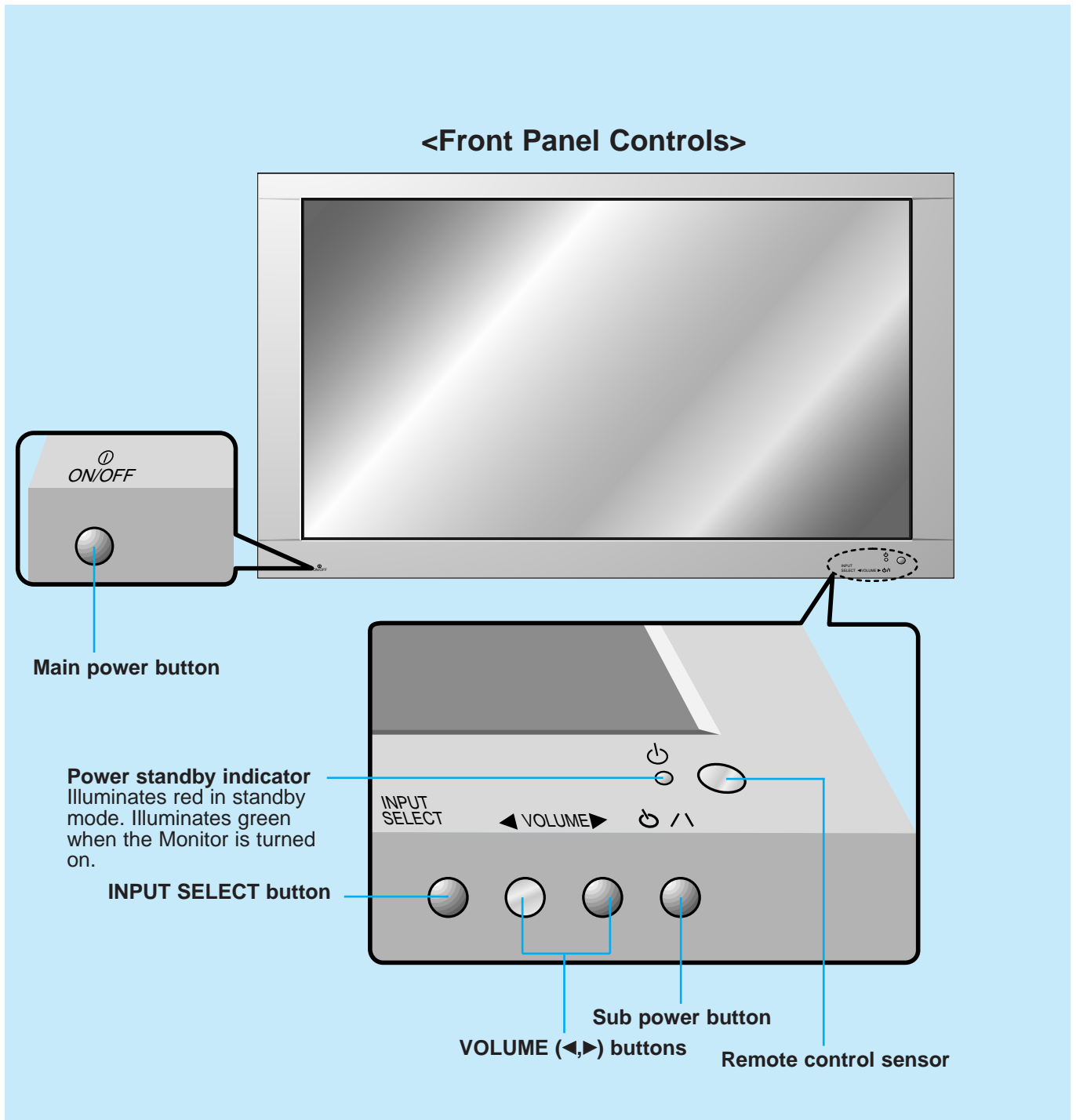
23. Wall or Ceiling Mounting

The product should be mounted to a wall or ceiling only as recommended by the manufacturer. The product may slide or fall, causing serious injury to a child or adult, and serious damage to the product.

24. Heat

The product should be situated away from heat sources such as radiators, heat registers, stoves, or other products (including amplifiers) that produce heat.
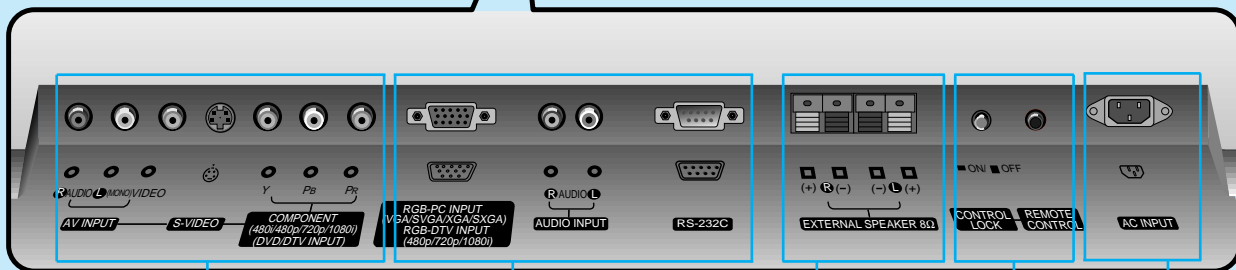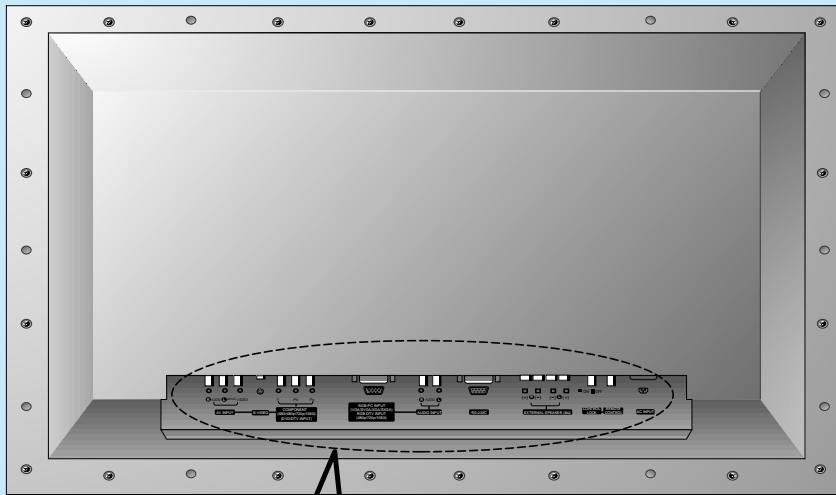
Safety instructions

Monitor Overview

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Basic operation

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Picture & Sound

Special features

Others

Front Panel Controls

<Front Panel Controls>

①
ON/OFF

Main power button

Power standby indicator
Illuminates red in standby
mode. Illuminates green
when the Monitor is turned
on.

INPUT SELECT button

INPUT
SELECT

◄ VOLUME ►

Sub power button

VOLUME (◄,►) buttons

Remote control sensor

8

Connection Panel Overview

<Back Panel>

**A/V INPUT /
COMPONENT (480i/480p/720p/1080i)
DVD/DTV INPUT jacks**

**RGB-PC INPUT (VGA/SVGA/XGA/SXGA)
RGB-DTV INPUT (480p/720p/1080i) /
AUDIO INPUT /
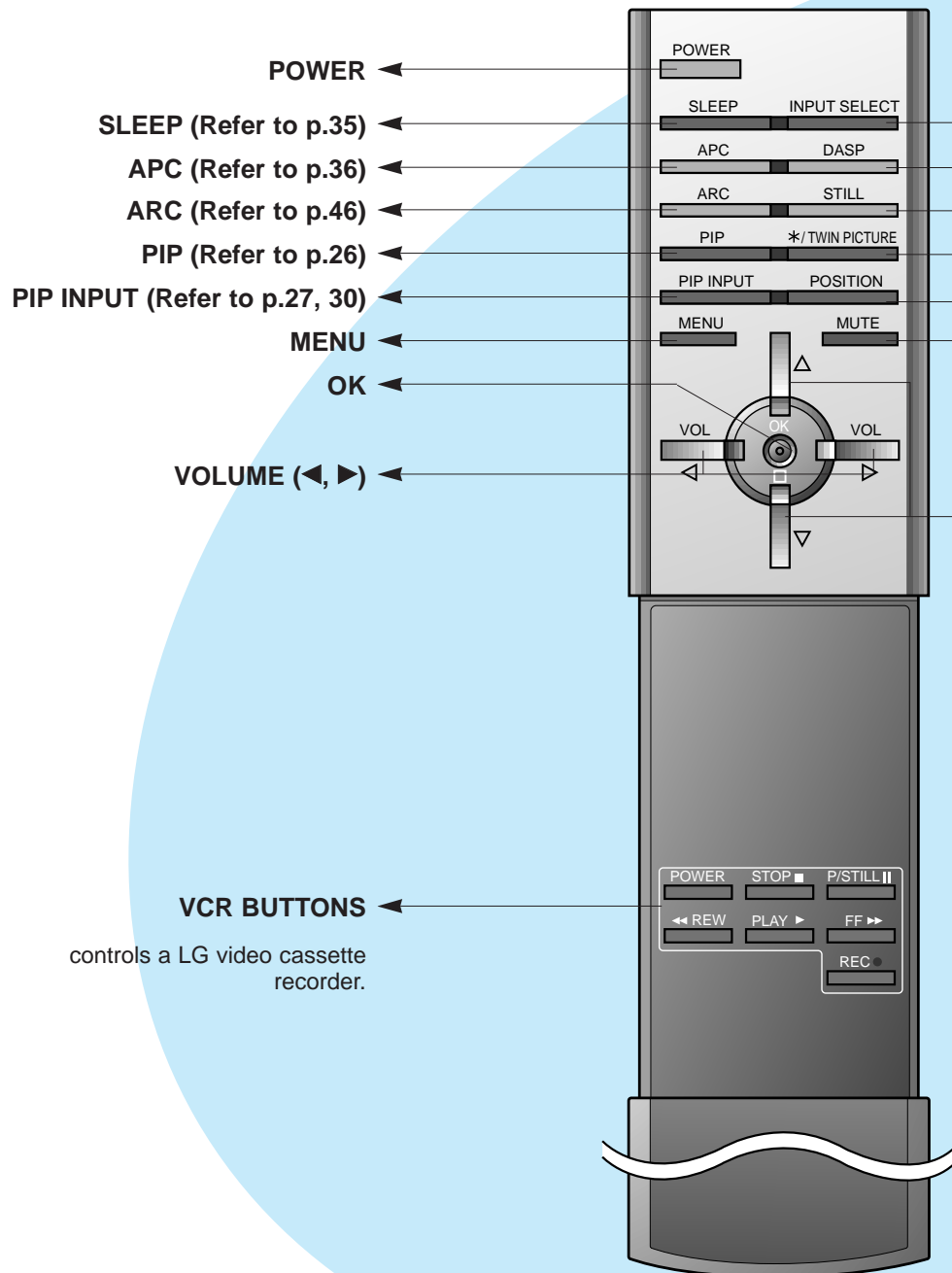RS-232C jacks**

**EXTERNAL SPEAKER
(8 ohm output)**

**CONTROL LOCK /
REMOTE CONTROL**

When "CONTROL LOCK" is
set "ON", wired remote con-
trol mode is operated. The
wired remote control can be
operated even if no batteries
are loaded.

POWER INPUT SOCKET

This Monitor operates on an AC mains supply, the
voltage is as indicated as inside back cover of this
manual. Never apply DC power to the Monitor.

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Remote Control Key Functions/Accessories

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

POWER ◄

SLEEP (Refer to p.35) ◄

APC (Refer to p.36) ◄

ARC (Refer to p.46) ◄

PIP (Refer to p.26) ◄

PIP INPUT (Refer to p.27, 30) ◄

MENU ◄

OK ◄

VOLUME (◄, ►) ◄

POWER

SLEEP   INPUT SELECT

APC   DASP

ARC   STILL

PIP   ✳/ TWIN PICTURE

PIP INPUT   POSITION

MENU   MUTE

△

VOL   OK   VOL

◁   ▷
□
▽

VCR BUTTONS ◄

controls a LG video cassette
recorder.

POWER   STOP ■   P/STILL ▌▌

◄◄ REW   PLAY ►   FF ►►

REC ●

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➤ INPUT SELECT

➤ DASP (Refer to p.40)

➤ STILL (Refer to p.42)

➤ TWIN PICTURE (Refer to p.29)

➤ POSITION (Refer to p.27)

➤ MUTE
switches the sound on or off.

➤ ▲ / ▼
selects a menu item.

video/pc button on the remote control
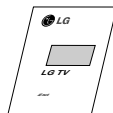
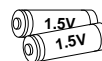Each press of this button changes the mode as shown below.

VIDEO → S-VIDEO

↑ ↓

RGB ← COMPONENT

Accessories
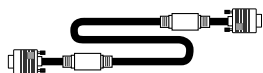
D-sub 15 pin cable   Power cord   Owner's Manual   Alkaline batteries   Remote control

11

Monitor Installation

- It is recommended that this product only be used at an altitude of less than 6562 feet (2000m) to get the best quality picture and sound.
- Your MU-60PZ12V series models (Monitor) can be installed on a wall as shown below. Wall mount is optional, and is not supplied with the monitor.
- This plasma display is designed to be mounted horizontally or vertically.
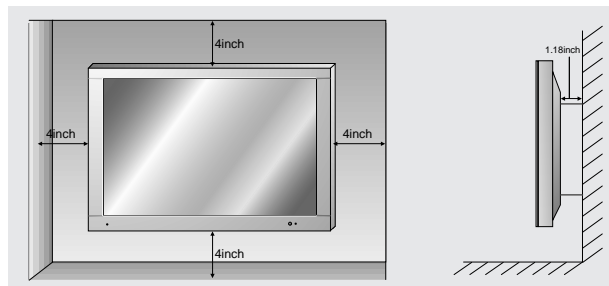
Wall Mount Installation horizontally
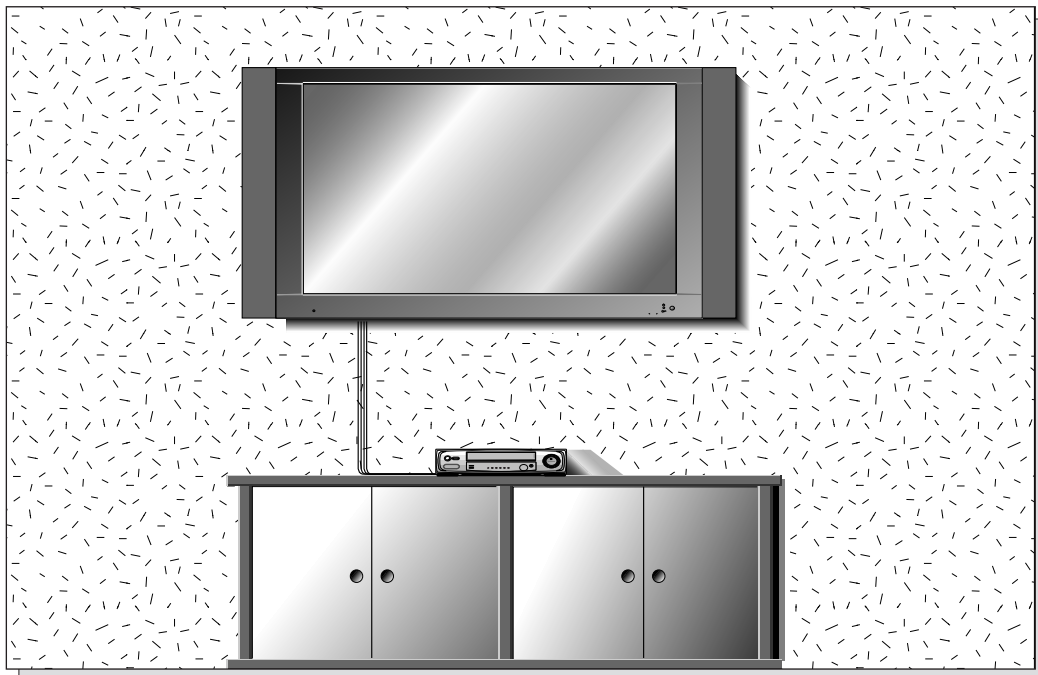
• The monitor can be installed on the wall as shown above.
  (For further information, refer to the optional 'Wall mounting bracket Installation and Setup Guide'.)
• Speakers are optional, and shown for illustration only.

Tip

• Install this monitor only in a location where adequate ventilation is available.

a. (Wall mount minimum allowable clearances for adequate ventilation)

4inch
4inch
4inch
4inch
1.18inch

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Wall Mount Installation vertically

- The monitor can be installed vertically on the wall as shown above.
  (For further information, refer to the optional 'Wall mounting bracket Installation and Setup Guide'.)
- Speakers are optional, and shown for illustration only.

Tip

- When installing the monitor, you have to change the OSD display mode to protect it from overheating (Refer to P. 33).

13

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.**
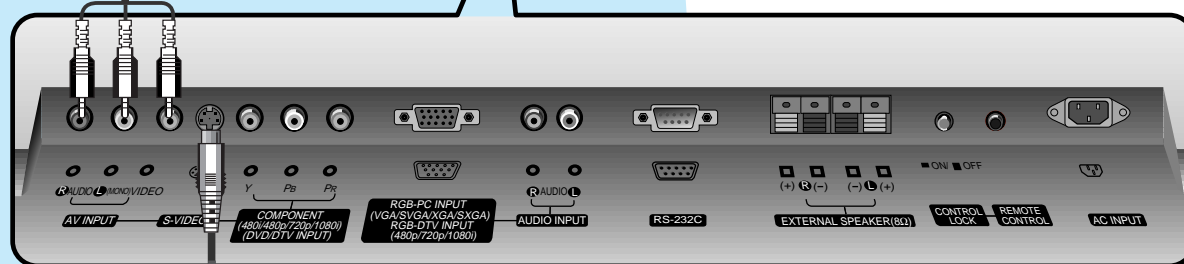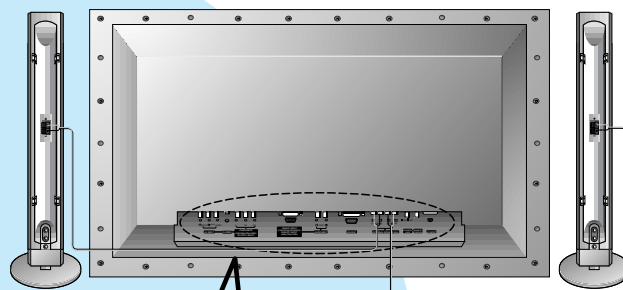
S-VIDEO   OUT   (R) AUDIO (L)   VIDEO   IN
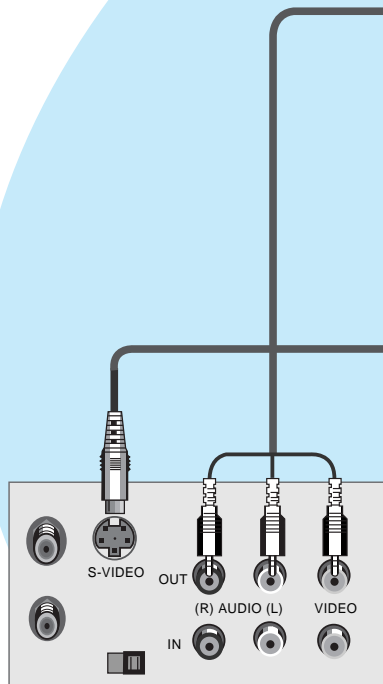
< Back panel of VCR >

Tips

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

Safety instructions

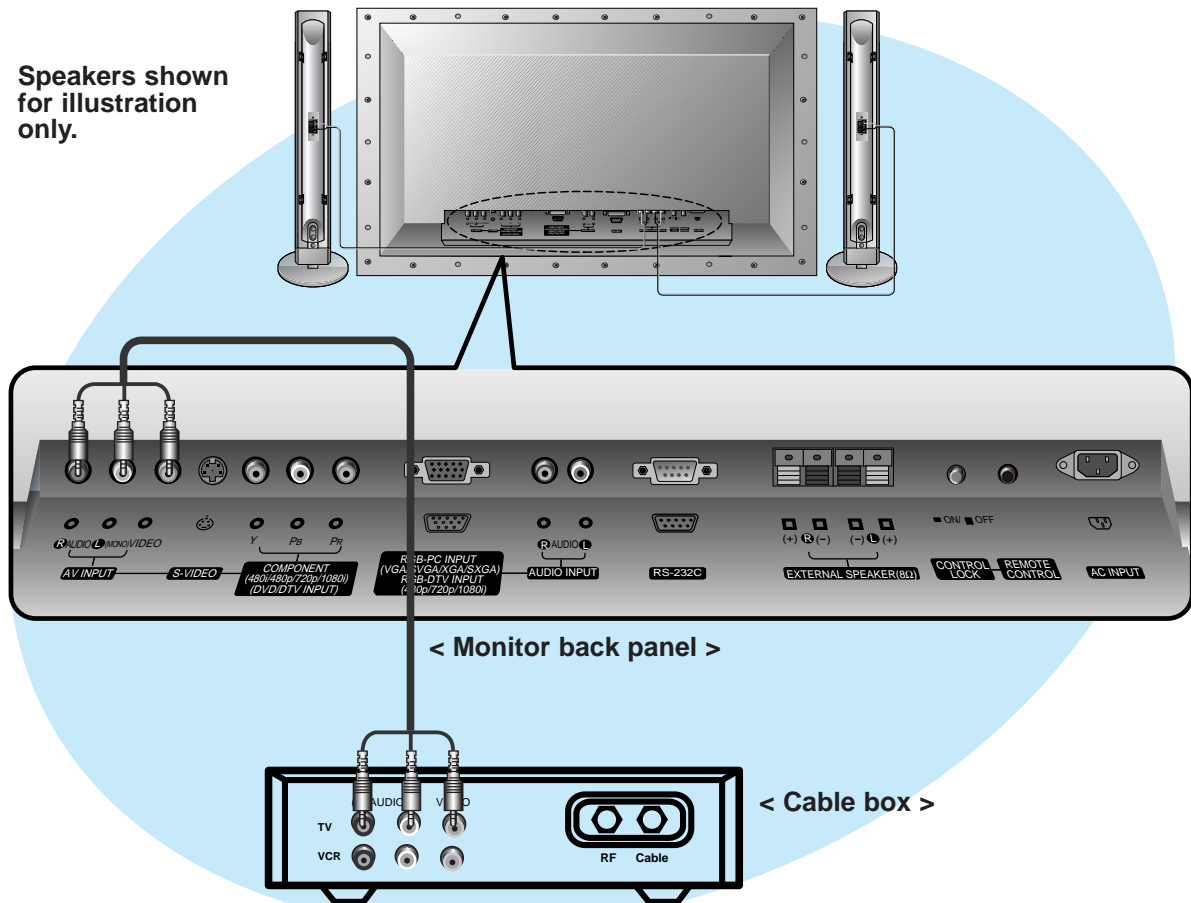Monitor Overview

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Others

< Back panel of the Monitor >

R AUDIO L MONO VIDEO

AV INPUT   S-VIDEO

Y   PB   PR

COMPONENT
(480i/480p/720p/1080i)
(DVD/DTV INPUT)

RGB-PC INPUT
(VGA/SVGA/XGA/SXGA)
RGB-DTV INPUT
(480p/720p/1080i)

R AUDIO L

AUDIO INPUT

RS-232C

(+) R (–)   (–) L (+)

ON/ OFF

EXTERNAL SPEAKER(8Ω)

CONTROL
LOCK

REMOTE
CONTROL

AC INPUT

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.

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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.**

Speakers shown for illustration only.

< Monitor back panel >

R AUDIO L MONO VIDEO   S-VIDEO   Y   PB   PR   RGB-PC INPUT   R AUDIO L   RS-232C   (+) R (−)   (−) L (+)   ■ ON/ ■ OFF

AV INPUT   S-VIDEO   COMPONENT (480i/480p/720p/1080i) (DVD/DTV INPUT)   (VGA/SVGA/XGA/SXGA) RGB-DTV INPUT (480p/720p/1080i)   AUDIO INPUT   RS-232C   EXTERNAL SPEAKER(8Ω)   CONTROL LOCK   REMOTE CONTROL   AC INPUT

< Cable box >

AUDIO   VIDEO
TV
VCR
RF   Cable

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.**

<Back panel of the Monitor>

Camcorder

Video game set

DDR
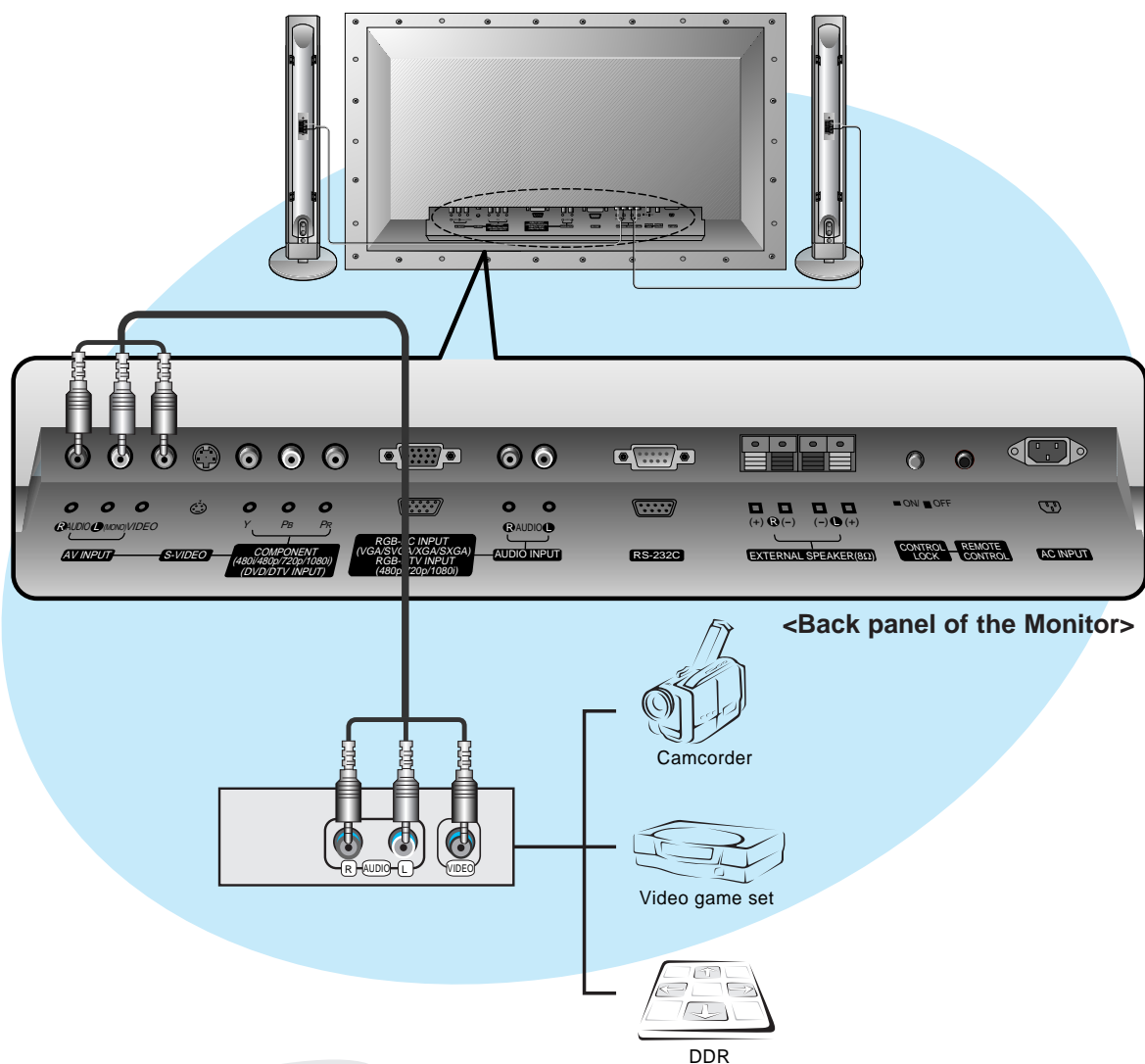
To watch external AV source

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.

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DVD Setup

How to connect a DVD (digital video disk player)

- Connect DVD video inputs to Y, P$_B$, P$_R$ of COMPONENT (480i/480p/720p/1080i) (DVD/DTV INPUT) and audio inputs to Audio jacks of AV INPUT.

‹Back panel of the Monitor›

< Back panel of a DVD player>
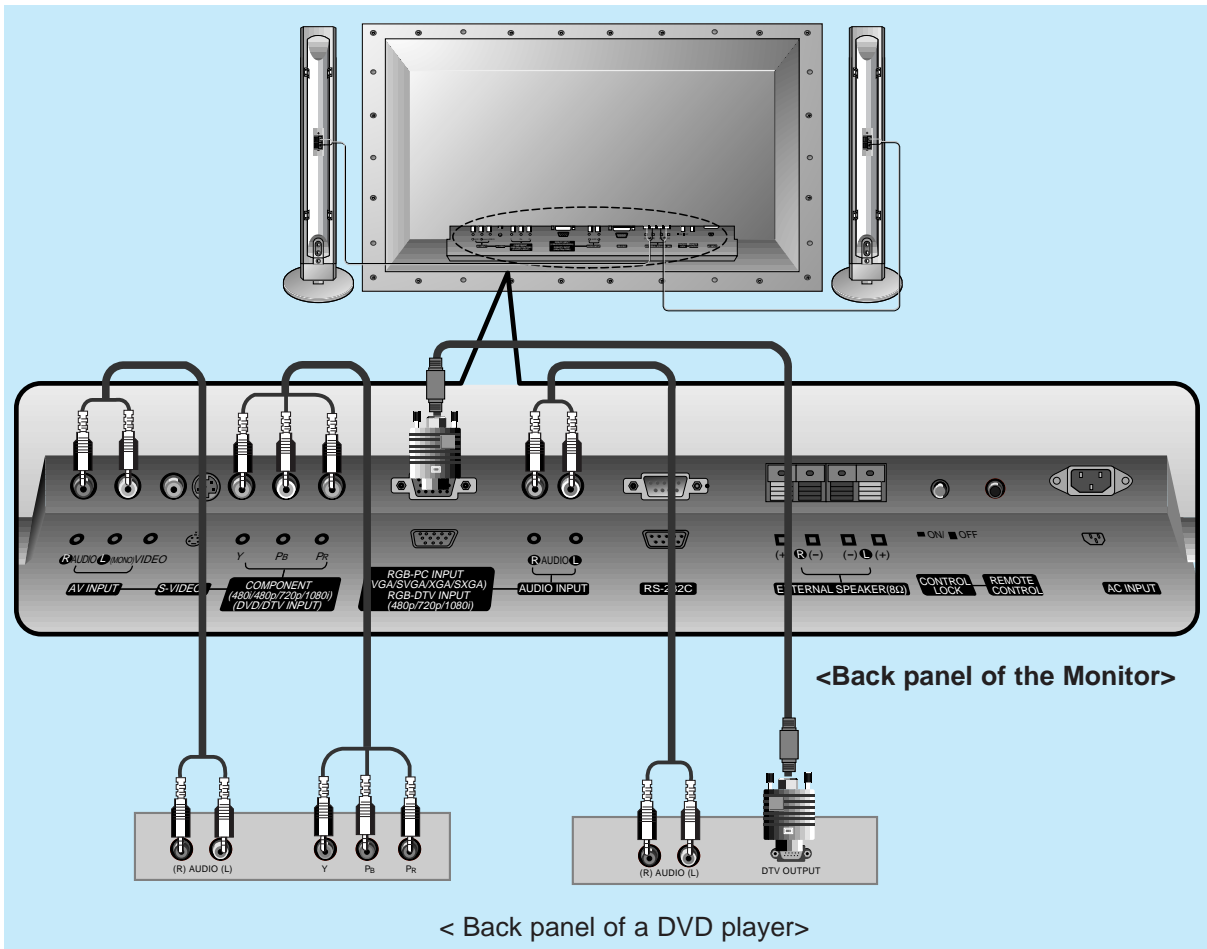
How to use

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

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

Component input jacks on the Monitor	Y	P$_B$	P$_R$

Video output jacks of DVD player	Y	Pb	Pr
	Y	B-Y	R-Y
	Y	Cb	Cr
	Y	P$_B$	P$_R$

DTV Setup

- To watch digitally broadcast programs, purchase/connect a digital SET-TOP BOX.
- You can select only the 16:9 picture format in DTV 720p/1080i mode.

How to connect a user-supplied Digital Set-top Box

• You can use either the Monitor's COMPONENT (Y, P_b, P_r) inputs or the single RGB-DTV INPUT for video connections, depending on your Set Top Box connectors. Then, make the corresponding Audio connections. See the diagram below for either set up.


R AUDIO L /MONO VIDEO   Y P_B P_R RGB-PC INPUT   R AUDIO L   RS-232C   (+) R (−)   (−) L (+)   ■ON/■OFF
AV INPUT   S-VIDEO   COMPONENT   VGA/SVGA/XGA/SXGA   AUDIO INPUT   RS-232C   EXTERNAL SPEAKER(8Ω)   CONTROL LOCK   REMOTE CONTROL   AC INPUT
(480i/480p/720p/1080i)   RGB-DTV INPUT
(DVD/DTV INPUT)   (480p/720p/1080i)

<Back panel of the Monitor>

(R) AUDIO (L)   Y P_B P_R or   (R) AUDIO (L)   DTV OUTPUT

< Back panel of a digital SET-TOP BOX>
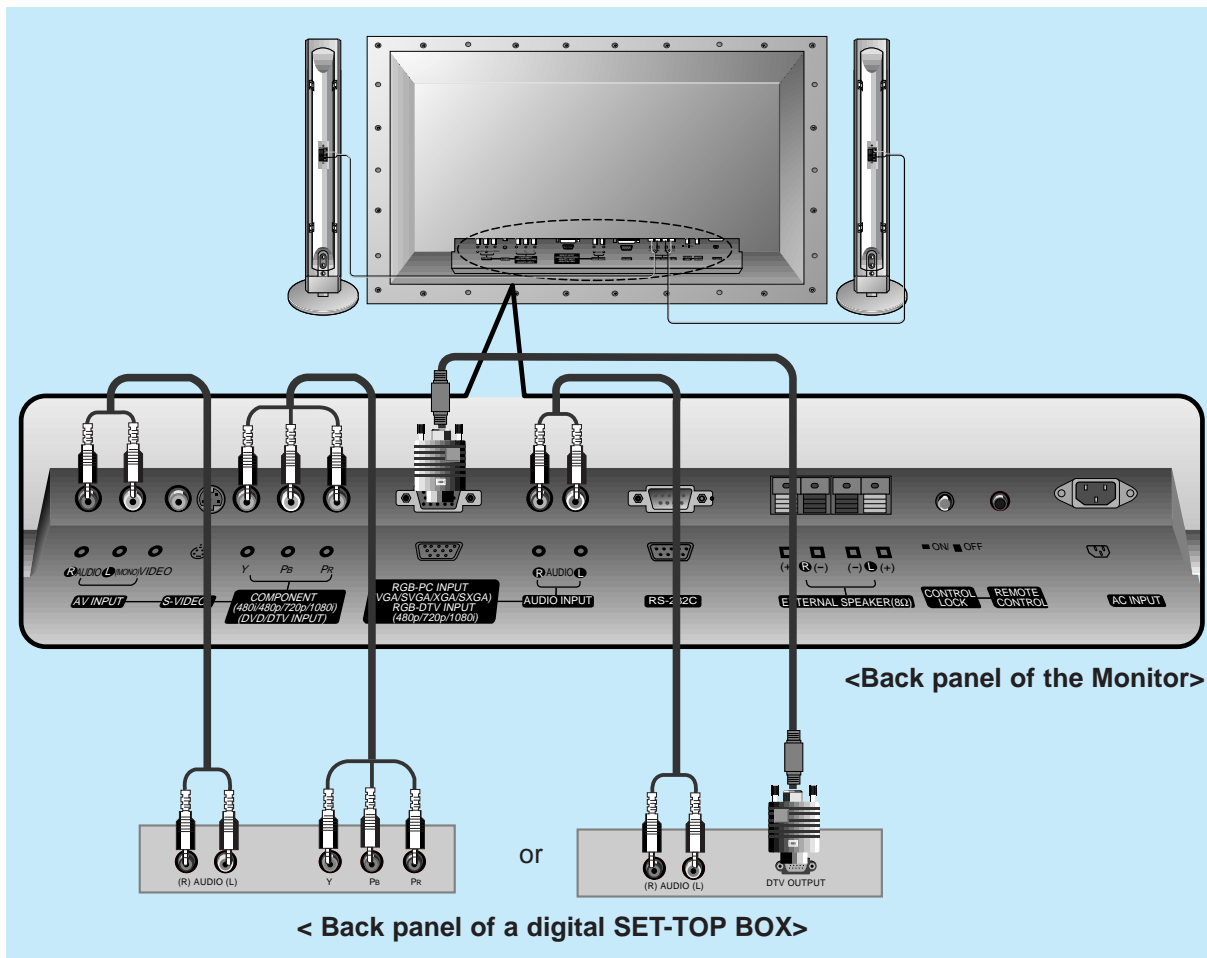
How to use

• Turn on the digital SET-TOP BOX.
(Refer to the owner's manual for the digital SET-TOP BOX.)
• Press **video/pc** button on the remote control to select **COMPONENT** or **RGB**.

PC Setup

- **You can easily connect the Plasma Display to your PC for outstanding image and sound.**
- **Use the Monitor to display images and sound from a PC Computer source.**

Setup Instructions to Connect a PC to your Monitor

- If the image output of the PC is set higher than UXGA, no picture will appear on the Monitor. (UXGA is not supported.)
- Connect the signal cable from the monitor Output port on the PC to the RGB-PC INPUT (VGA/SVGA/XGA/SXGA) port on the Monitor.
- Connect the audio cable from the PC to the Audio ports of the Monitor. (Audio cables are not supplied with the Monitor.)
- To set up the Monitor to operate within a PC windows environment, select Normal, Standard or Default monitor.
- The Monitor can not be used for Plug and Play functionality.
- If your PC computer is equipped with a sound card, adjust the sound output on the PC.
- It is recommended that the resolution output of the PC should be set to 1280 x 720 to get the best quality picture. (Look for a video card that uses the nVIDIA GeForce 2 pro or similar chipset that supports this resolution)

Back panel of the Monitor
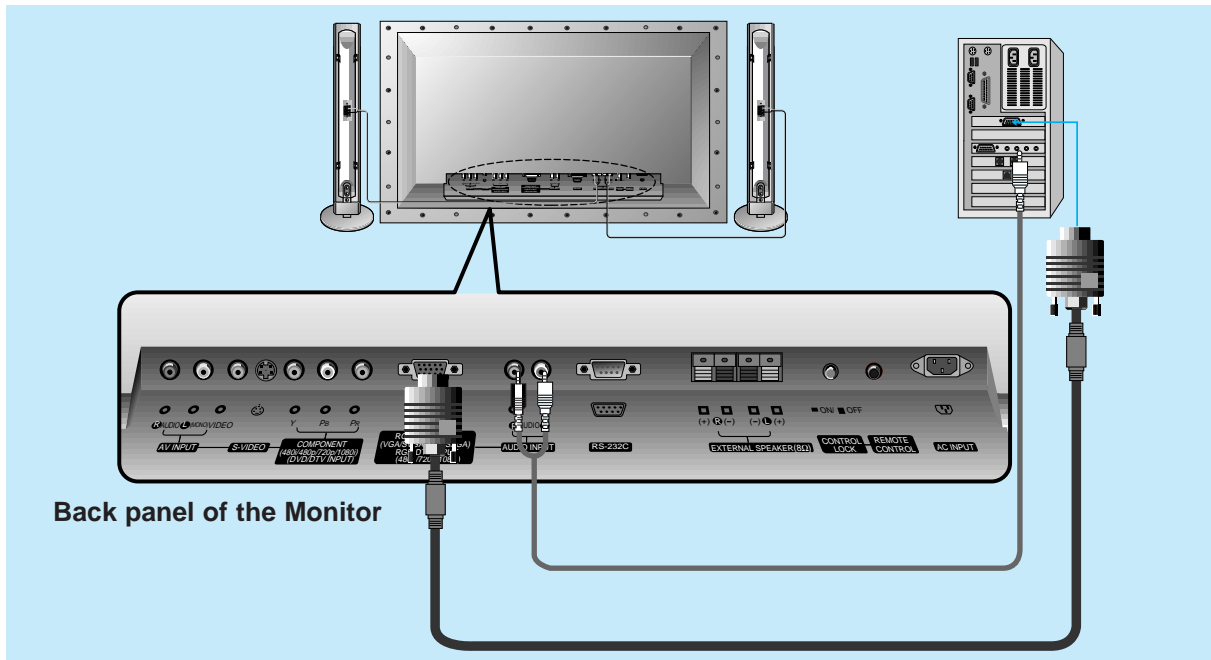
How to use

INPUT SELECT

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 RGB input source.
- Set the resolution output of the PC to SXGA or under (1280 x 1024, 75Hz). (Refer to page 21.)

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.
- If the resolution output of the PC computer is over SVGA, connect the PC to the RGB-PC (VGA/SVGA/XGA/SXGA) input port on the Monitor. Change the PC computer resolution output accordingly.

Monitor Image Display Specifications

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
	35.000	66.66
	37.861	72.80
	37.500	75.00
	43.269	85.00
	45.913	90.03
	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
832x624	49.725	74.55
1024x768	48.363	60.00
	56.476	70.06
	60.023	75.02
	68.677	84.99
1280x720	52.400	69.98
1152x864	54.348	60.05
	63.995	70.01
	67.500	75.00
	77.487	85.05
1152x870	68.681	75.06
1280x960	60.000	60.00
	75.000	75.00
1280x1024	63.981	60.02
	79.976	75.02

Tips

• Synchronization input form : separate

Safety instructions

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Special features

Others

PC Mode Feature Check (Overview)

- **Select RGB first, see page 11.**
- **Make sure the PC and monitor are both turned on.**
- **Use the monitor's remote control to make adjustments.**

MENU

1 Press the **MENU** button to show a menu on screen.

2 Press the ▲ / ▼ button to select a menu.
- Each press will cycle through the different menus as shown below.

APC	►
DRP	►
CONTRAST	85 ►
BRIGHTNESS	50 ►
COLOR	50 ►
TINT	0 ►
SHARPNESS	50 ►

‡MOVE ►NEXT ■EXIT

<Picture menu>

DASP	►
AVL	►
TREBLE	50 ►
BASS	50 ►
BALANCE	0 ►

‡MOVE ►NEXT ■EXIT

<Sound menu>

OSD ROTATE	►
ARC	►
SCREEN	►
TRANSPARENCY	►
PIP/DW	►
SET ID	►
COLOR TEMP.	►

‡MOVE ►NEXT ■EXIT

<Special menu>
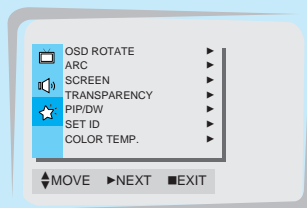
3 Press the ► button and then press the ▲ / ▼ or ◄ / ► buttons to select a feature you want to use.
- Press the **OK** button to exit menus.

VOL VOL
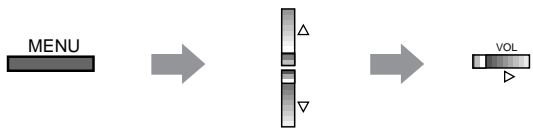
PC Mode Adjustments

Auto adjustment

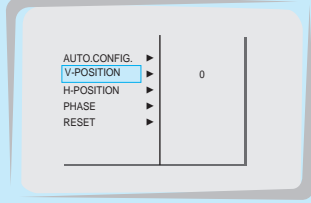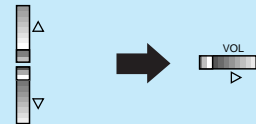- **Automatically adjusts picture position and eliminates any image shaking.**

READY

Press the **MENU** button and then press the ▲ / ▼ button to select ☆ menu. Press the ▶ button.

MENU ➡ △▽ ➡ VOL ▷

1 Press the ▲ / ▼ button to select **SCREEN** and then press the ▶ button.

△▽ ➡ VOL ▷

🖵 OSD ROTATE	▶	
ARC	▶	
SCREEN	▶	▶ TO SET
🔊 TRANSPARENCY	▶	
PIP/DW	▶	
⭐ SET ID	▶	
COLOR TEMP.	▶	
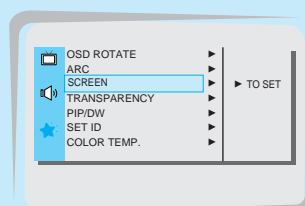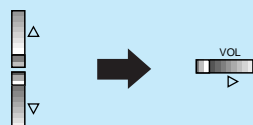
2 Press the ▲ / ▼ button to select **AUTO.CONFIG.** and then press the ▶ button.

△▽ ➡ VOL ▷

AUTO.CONFIG.	▶	▶ TO SET
V-POSITION	▶	
H-POSITION	▶	
PHASE	▶	
RESET	▶	
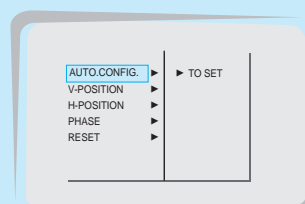
- When **AUTO.CONFIG.** has finished, "**OK**" will be shown on screen.
- If the position of the image is incorrect, try Auto adjustment again.

3 If picture needs to be adjusted more after Auto adjustment, you can manually adjust the image position and **PHASE**.

Tips

- If the image is still not correct, your Monitor is functioning properly but needs further adjustment.
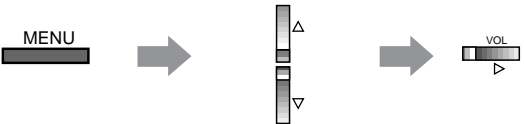
PC Mode Adjustments

Adjusting horizontal / vertical position manually
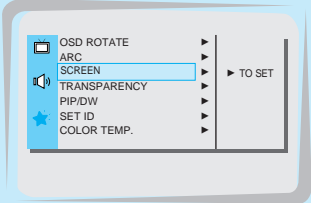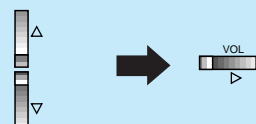
- Only adjust V-POSITION and H-POSITION in DTV or component 480p/720p/1080i.

READY

Press the **MENU** button and then press the ▲ / ▼ button to select ☆ menu. Press the ▶ button.

MENU ⟹ △ ▽ ⟹ VOL ▷

1 Press the ▲ / ▼ button to select **SCREEN** and then press the ▶ button.

△ ▽ ⟹ VOL ▷

OSD ROTATE	▶	
ARC	▶	
SCREEN	▶	▶ TO SET
TRANSPARENCY	▶	
PIP/DW	▶	
SET ID	▶	
COLOR TEMP.	▶	

2 Press the ▲ / ▼ button to select **V-POSITION** or **H-POSITION** and then press the ▶ button.

△ ▽ ⟹ VOL ▷

AUTO.CONFIG.	▶	
V-POSITION	▶	0
H-POSITION	▶	
PHASE	▶	
RESET	▶	

3 Press the ◀ / ▶ buttons to adjust until you get desired horizontal or vertical position and then press the **OK** button to remove menus.

• The adjustment range of **V-POSITION** is -50 ~ +50.
• The adjustment range of **H-POSITION** is -100 ~ +100.
• Based on the input mode, the adjustment range of **V-POSITION/H-POSITION** may change.
• Based on the input signal, the position of the picture may not change even though you have adjusted the horizontal or vertical position with this function.
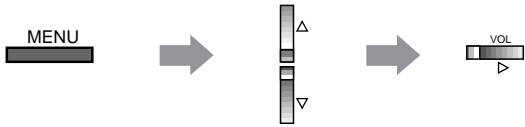
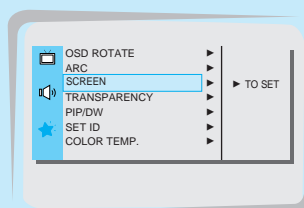VOL ◁ VOL ▷ ⟹ OK

Picture Phase Adjustments

- If the picture isn't clear after auto adjustment and especially if the characters are still trembling, then adjust the picture phase manually.
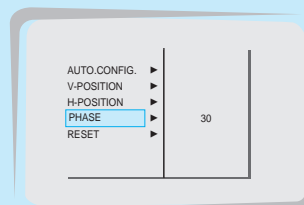- When watching PIP/TWIN PICTURE, the **SCREEN** menu option is not available.

READY

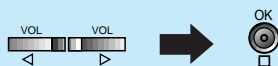Press the **MENU** button and then press the ▲ / ▼ button to select ☆ menu. Press the ► button.

MENU

VOL

1 Press the ▲ / ▼ button to select **SCREEN** and then press the ► button.

VOL

OSD ROTATE ►
ARC ►
SCREEN ► ► TO SET
TRANSPARENCY ►
PIP/DW ►
SET ID ►
COLOR TEMP. ►

2 Press the ▲ / ▼ button to select **PHASE** and then press the ► button.

VOL

AUTO.CONFIG. ►
V-POSITION ►
H-POSITION ►
PHASE ► 30
RESET ►

3 Press the ◄ / ► button to adjust phase and then press the **OK** button.
- The adjustment range of **PHASE** is 0 ~ 63.

VOL VOL OK

Initializing (Reset to factory value)

- To initialize the adjusted value, select **RESET** with the ▲ / ▼ button and then press the ► button.

Picture In Picture (PIP) function

- **PIP lets you view 2 different inputs (sources) on your monitor screen at the same time. One source will be large, and the other source will show a smaller inset image.**
- **Select RGB input source before pressing PIP.**
- **This function works only in the following resolutions;**
  640x480, 800x600, 1024x768 (only in Vertical frequency 60 Hz)
- **When you select RGB or DTV for main picture in PIP/Twin picture, you can watch video, cable TV or DVD for sub picture.**
- **Color of main picture may be different from PIP's in PIP/Twin picture mode.**
- **If input source for main picture is changed while in PIP/Twin picture mode, sub picture will disappear.**
- **When watching PIP/Twin picture, SCREEN option is not available in Special menu.**
- **With PIP active, not all picture formats can be used for the main/sub picture.**

Watching the PIP (Picture in Picture)

PIP
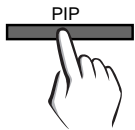
Press the **PIP** button.

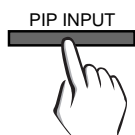- Each time you press **PIP** or ◄ / ► button, you can change the PIP size as below.

| PIP[S] | ◄——► | PIP [L] | ◄——► | OFF |

<Small PIP>

PIP ◄ PIP [S] ►

<Large PIP>

PIP ◄ PIP [L] ►

<Off>

PIP ◄ OFF ►

Selecting the source input signal

PIP INPUT

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

- Each time you press **PIP INPUT** button, you toggle **VIDEO**, **S-VIDEO** and **COMPONENT**.

VIDEO ⟶ **S-VIDEO** ⟶ **COMPONENT**

COMPONENT source only works in 480i mode.

PIP INPUT ◄ VIDEO ►

Moving the Sub (inset) picture
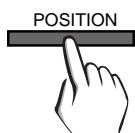
POSITION

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

- Each press of the **POSITION** button will change the position of the sub picture on the screen as shown below.
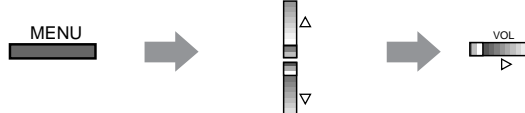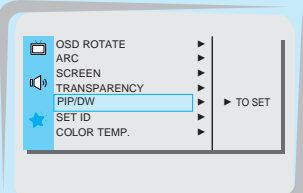
Picture In Picture (PIP) function

Selecting PIP sound options

- **To select main or sub (inset) sound**
- **This function only works with the following resolutions;**
  640x480, 800x600, 1024x768 (only in Vertical frequency 60 Hz)
- **To use this function, connect PC/DTV video output to RGB-PC INPUT/RGB-DTV INPUT and connect PC/DTV audio outputs to AUDIO INPUT.**
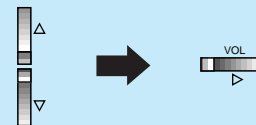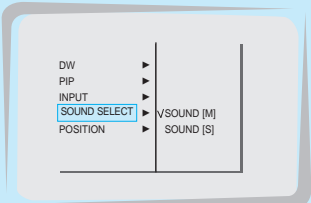- **SOUND SELECT is always the main picture sound (SOUND[M]) regardless of prior sound choice.**

READY

Press the **MENU** button and then press the ▲ / ▼ button to select ☆ menu. Press the ► button.

MENU

VOL

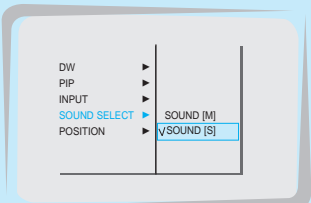1. Use the ▲ / ▼ buttons to select **PIP/DW** and then press the ► button.

VOL

OSD ROTATE	►
ARC	►
SCREEN	►
TRANSPARENCY	►
PIP/DW	►	► TO SET
SET ID	►
COLOR TEMP.	►

2. Press the ▲ / ▼ button to select **SOUND SELECT** and then press the ► button.

VOL

| DW	►
PIP	►
INPUT	►
SOUND SELECT	►	√SOUND [M]
POSITION	►	SOUND [S]

3. Press the ▲ / ▼ buttons to select main image sound (**SOUND [M]**) or PIP (inset image) sound (**SOUND [S]**) and then press the **OK** button.

   • Each time you press ▲ / ▼ button, you toggle between **SOUND [M]** or **SOUND [S]**.

OK

DW	►
PIP	►
INPUT	►
SOUND SELECT	►	SOUND [M]
POSITION	►	√SOUND [S]

Twin picture mode

- As the name suggests, this mode splits the screen into 2, allowing 2 sources to be shown on the monitor screen at the same time. Each source is given half the screen.
- Select **RGB** input source.
- This function works only in the following resolutions;
  DTV 480p/720p/1080i, **RGB** 640x480 (only in Vertical frequency 60 Hz)
- With TWIN PICTURE active, not all picture formats can be used for the main/sub picture.
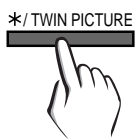
✻/ TWIN PICTURE

Press the ✻/**TWIN PICTURE** button.

• Each time you press ✻/**TWIN PICTURE** or ◄ / ► buttons, you can select **ON** or **OFF**.
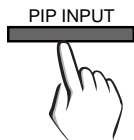
Main picture

Sub picture

DW ◄ ON ►

<ON>

<OFF>

DW ◄ OFF ►

• To avoid a permanent image being burned into the screen, the sub picture will move every 2 hours.

  :Center ———► Upside
  ▲ |
  | ▼
  Downside ◄——— Center

• The sub picture starts in the center position and then moves as described above.
• You may notice a small amount of video noise at the bottom or top of the sub picture. This is normal.

Twin picture mode

 Selecting a source for the Twin picture

PIP INPUT

Press the **PIP INPUT** button in TWIN PICTURE mode.

- Each time you press **PIP INPUT** button, you toggle **VIDEO**, **S-VIDEO** and **COMPONENT**.

VIDEO	⟶	S-VIDEO	⟶	COMPONENT

COMPONENT source only works in 480i input signal.

PIP INPUT ◄ VIDEO ►