



PLASMA MONITOR OWNER'S MANUAL

**MODELS: 42PM3MV
42PM3MV-MC
42PM3MVH
42PM3MVH-MC**

Please read this manual carefully and completely before operating your Monitor.

Retain this manual for future reference.

Record model number and serial number of the Monitor in the spaces provided below.

See the label attached on the back cover and relate this information to your dealer if you require service.

Model Number :


Serial Number :




Safety Instructions

* Safety instructions have two kinds of information, and each meaning of it is as 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.

WARNING

1. **Do not place the product in direct sunlight or near heat sources such as heat registers, stove and so on.**

This may cause a fire.

2. **Do not use the product in damp place such as a bathroom or any place where it is likely to get wet.**

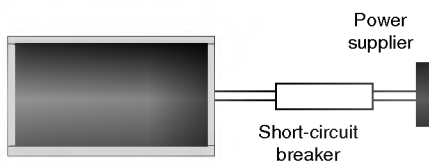
This may cause a fire or could give an electric shock.

3. **Bend antenna cable between inside and outside building to prevent rain from flowing in.**

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

4. **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.



5. **Do not placing anything containing liquid on top of the product.**

This may cause a fire or could give an electric shock.

6. **Wet Location Marking :**

Apparatus shall not be exposed to dripping or splashing and no objects filled with liquids, such as vases, shall be placed on the apparatus.

7. **Do not insert any object into the exhaust vent.**

This may cause a fire or could give an electric shock.

8. **Do not place heavy objects on the product.**

This may cause serious injury to a child or adult.

9. **Do not use water the product while cleaning.**

This may cause damaged the product or could give an electric shock.

10. **In case of smoke or strange smell from the product, switch it off ,unplug it from the wall outlet and contact your dealer or service center.**

This may cause a fire or could give an electric shock.

11. **Do not attempt to service the product yourself. Contact your dealer or service center.**

This may cause damaged the product or could give an electric shock.

12. **During a lightning thunder, unplug the product from the wall outlet and don't touch an antenna cable.**

This may cause damaged the product or could give an electric shock.

NOTE

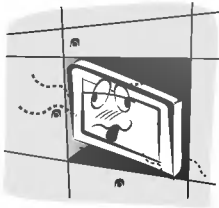
1. **Never touch the power plug with a wet hand.**

This may cause an electric shock.

2. **Disconnect from the mains and remove all connections before moving.**

3. **Do not place the product in a built-in installation such as a bookcase or rack.**

Ventilation required.



4. **When installing the product on a table, be careful not to place the edge of its stand.**

This may cause the product to fall, causing serious injury to a child or adult, and serious damage to the product.



5. **Do not place an outside antenna in the vicinity of overhead power lines or other electric light or power circuits.**

This may cause an electric shock.

6. **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.

7. **Do not pull the cord but the plug when unplugging.**

This may cause a fire.

8. **Ensure the power cord doesn't trail across any hot objects like a heater.**

This may cause a fire or an electric shock.

9. **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.

10. **Dispose of used batteries carefully to protect a child from eating them.**

In case that it eats them, take it to see a doctor immediately.

11. **When moving the product assembled with speakers do not carry holding the speakers.**

This may cause the product to fall, causing serious injury to a child or adult, and serious damage to the product.

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

This may cause damaged the product or could give an electric shock.

13. **Contact the service center once a year to clean the internal part of the product.**

Accumulated dust can cause mechanical failure.

14. **The distance between eyes and the screen should be about 5 ~ 7 times as long as diagonal length of the screen.**

If not, eyes will strain.

15. **Unplug the product 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.

16. **Only use the specified batteries.**

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

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After reading this manual, keep it handy for future reference.

Introduction

What is a Plasma Display Panel (PDP)?

A plasma display panel is the latest display technology and the best way to achieve flat panel displays with excellent image quality and large screen sizes that are easily viewable. The PDP can be thought of as a descendant of the neon lamp and it can be also be viewed as a series of fluorescent lamps.

How does it work?

PDP is an array of cells, known as pixels, which are comprised of 3 sub pixels, corresponding to the colors red, green, and blue. Gas in a plasma state is used to react with phosphors in each sub-pixel to produce colored light (red, green, or blue). These phosphors are the same types used in Cathode Ray Tube (CRT) devices such as televisions and common computer monitors.

You get the rich, dynamic colors that you expect. Each sub-pixel is individually controlled by advanced electronics to produce over 16 million different colors. All of this means that you get perfect images that are easily viewable in a display that is less than 5 inches thick.

160° - Wide angle range of vision

Your flat panel plasma screen offers an exceptionally broad viewing angle -- over 160 degrees. This means that the display is clear and visible to viewers anywhere in the room who can see the screen.

Wide Screen

The screen of the Plasma Display is so wide that your viewing experience is as if you are in a theater.

Multimedia

Connect your plasma display to a PC and you can use it for conferencing, games, and Internet browsing. The Picture-in-Picture feature allows you to view your PC and video images simultaneously.

Versatile

The light weight and thin size makes it easy to install your plasma display in a variety of locations where conventional monitors will not fit.

The PDP Manufacturing Process: a few minute colored dots may be present on the PDP screen

The PDP (Plasma Display Panel), which is the display device of this product is composed of 0.9 to 2.2 million cells. A few cell defects will normally occur in the PDP manufacturing process. Several tiny, minute colored dots visible on the screen should be acceptable. This also occurs in other PDP manufacturers' products. The tiny dots appearing does not mean that this PDP is defective. Thus a few cell defects are not sufficient cause for the PDP to be exchanged or returned. Our production technology minimizes these cell defects during the manufacture and operation of this product.

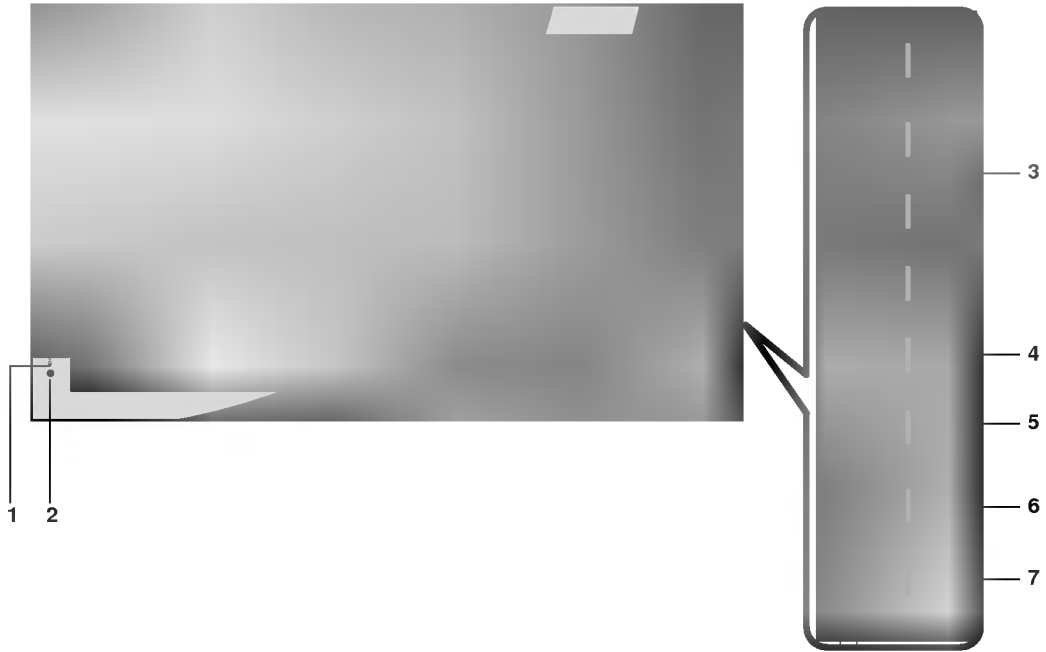
WARNING

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

Controls



- This is a simplified representation of front panel.
Here shown may be somewhat different from your Monitor.



1. Remote Control Sensor

2. Power Standby Indicator

Illuminates red in standby mode, Illuminates green when the Set is turned on.

3. VOLUME (◀,▶) Buttons

▼, ▲ Buttons

4. OK Button

5. MENU Button

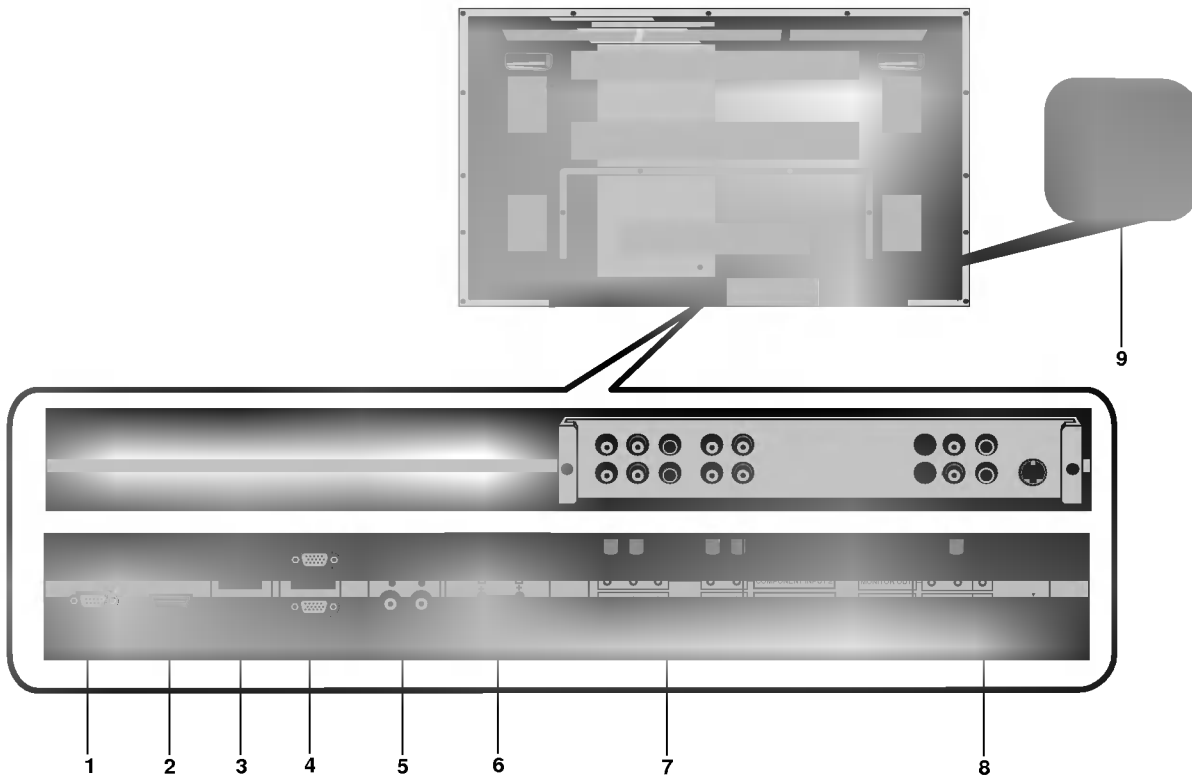
6. INPUT SELECT Button

7. Power Button

Switches the set on from standby or off to standby.

Connection Options

- Connection panels shown may be somewhat different from your Monitor.



1. RS-232C INPUT(CONTROL/SERVICE) PORT

Connect to the RS-232C port on a PC.

2. HDMI/DVI (VIDEO)

Connect a HDMI signal to this jack. Or connect a DVI(Video) signal.

3. REMOTE CONTROL / AUDIO INPUT (for RGB, DVI)

4. RGB INPUT

Connect the set output connector from a PC to the appropriate input port.

RGB OUTPUT

You can watch the RGB signal on another set, connect RGB OUTPUT to another set's PC input port.

5. VARIABLE AUDIO OUTPUT

6. EXTERNAL SPEAKER (8 ohm output)

Connect to optional external speaker(s).

* For further information, refer to 'Speaker & Speaker Stand' manual.

7. COMPONENT INPUT

Connect a component video/audio device to these jacks.

8. VIDEO/AUDIO IN/OUT SOCKETS

Connect the video/audio out sockets of external equipment to these sockets.

S-VIDEO/AUDIO IN SOCKETS

Connect the S-VIDEO out socket of an VCR to the S-VIDEO socket.

Connect the audio out sockets of the VCR to the audio sockets as in AV.

MONITOR OUT

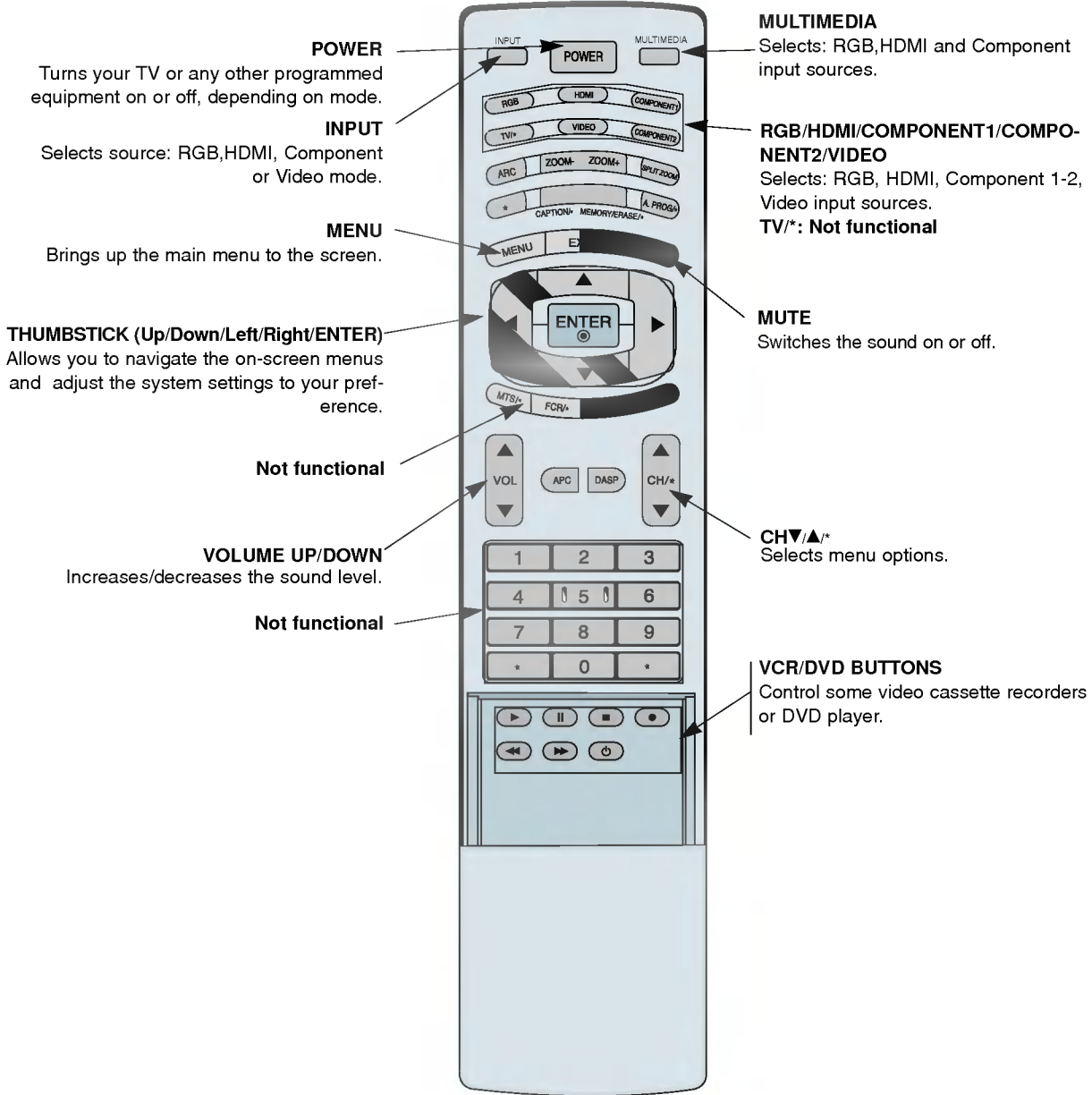
Connect a second Set or monitor.

9. POWER CORD SOCKET

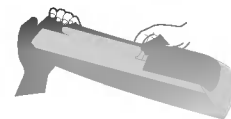
This the set operates on an AC power. The voltage is indicated on the Specifications page. Never attempt to operate the set on DC power.

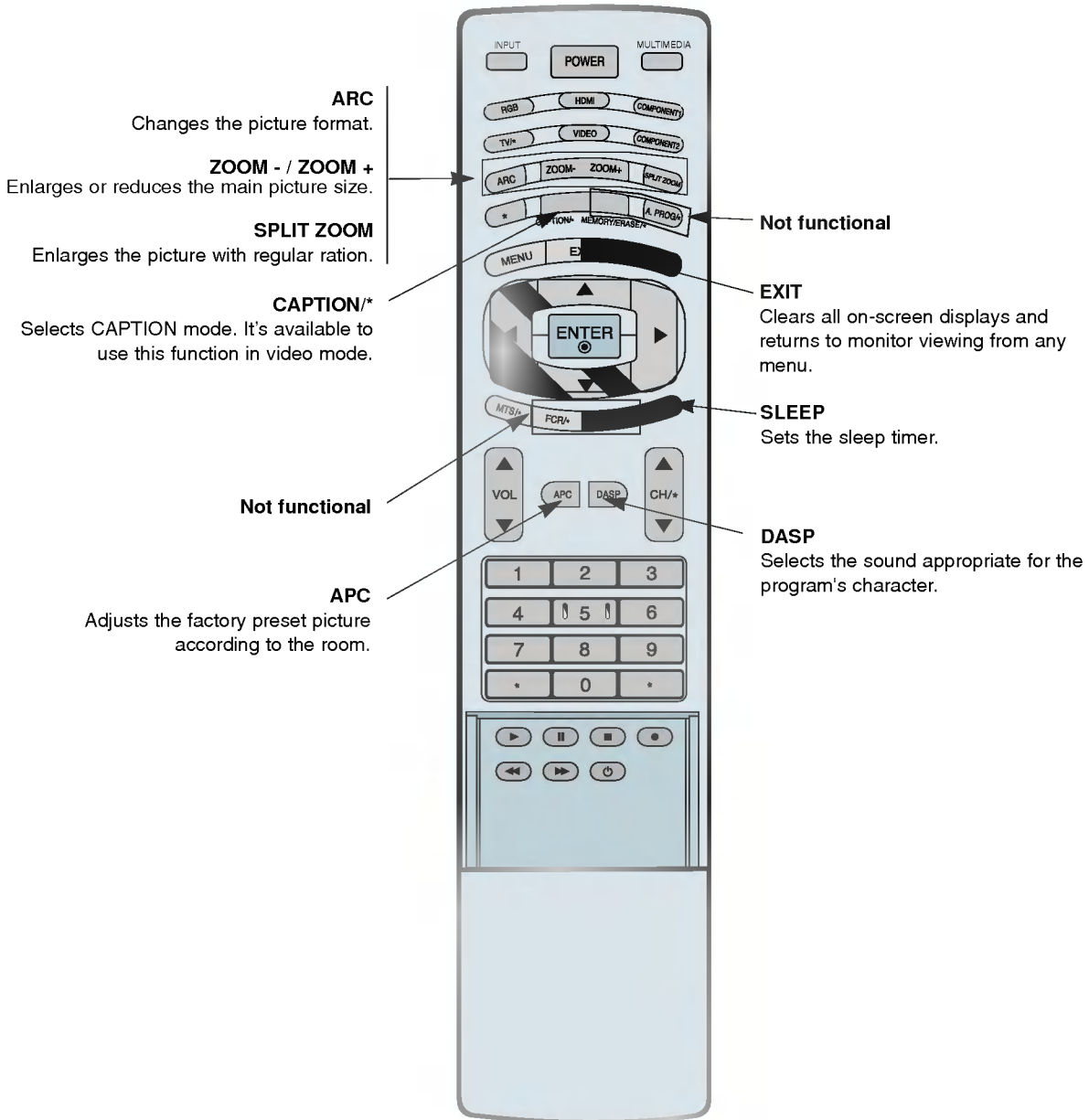
Remote Control Key Functions

- When using the remote control, aim it at the remote control sensor on the Monitor.
- Under certain conditions such as if the remote IR signal is interrupted, the remote control may not function. Press the key again as necessary.



- Open the battery compartment cover on the back side and install the batteries matching correct polarity (+ to +, - to -).
- Install two 1.5V AA batteries. Don't mix old or used batteries with new ones. Replace cover.





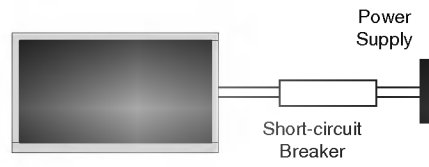
Installation

Installation Instructions

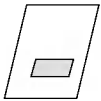
- It is recommended that 42PM3MV model only be used at an altitude of less than 3281 feet (1000m) to get the best quality picture and sound.
- It is recommended that 42PM3MVH model only be used at an altitude of less than 6561 feet (2000m) to get the best quality picture and sound.

GROUNDING

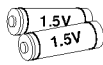
Ensure that you connect the grounding / earth wire to prevent possible electric shock. If grounding methods are not possible, have a qualified electrician install a separate circuit breaker. Do not try to ground the unit by connecting it to telephone wires, lightening rods, or gas pipes.



Ensure that the following accessories are included with your plasma display. If an accessory is missing, please contact the dealer where you purchased the product.



Owner's Manual



Batteries



Remote Control



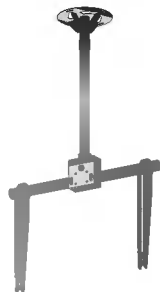
Power Cord



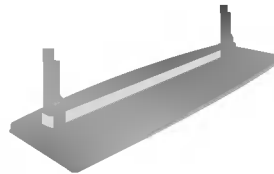
- Optional extras can be changed or modified for quality improvement without any notification new optional extras can be added.
- Contract your dealer for buying these items.



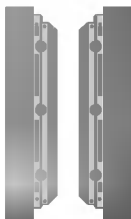
Tilt wall mounting bracket



Ceiling mounting bracket



Desktop stand



Speakers



Video cables

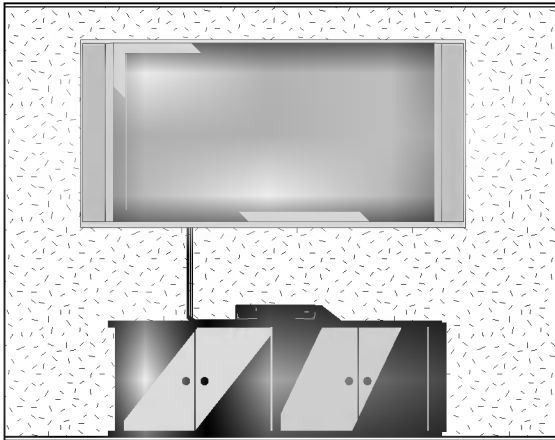


Audio cables

Installation Options

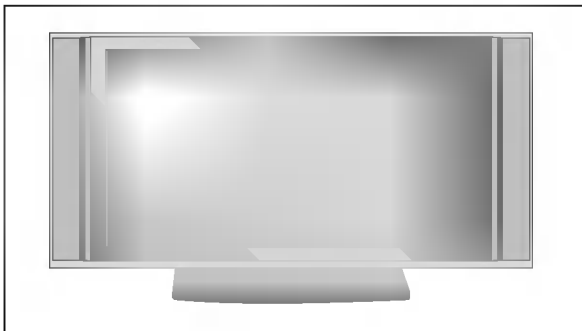
- The set can be installed in different ways such as on a wall, or on a desktop etc.
- Install this set only in a location where adequate ventilation is available.
- This set is designed so that it can be mounted either horizontally or vertically.

Wall Mount: Horizontal Installation



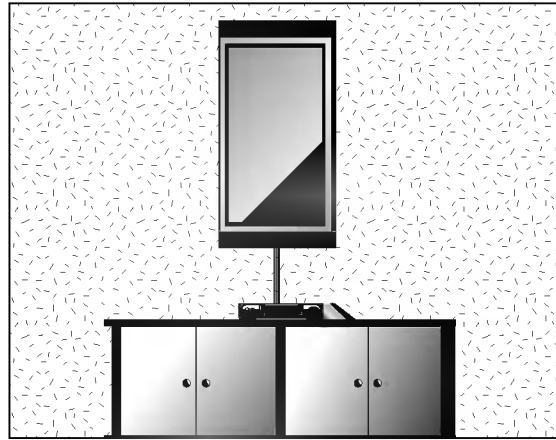
- The set can be installed on a wall as shown above. (For further information, refer to the optional 'Wall Mounting Bracket Installation and Setup Guide'.)
- Speakers are optional, and are shown for illustration only.

Desktop Pedestal Installation



- The set can be mounted on a desk as shown above. (For further information, refer to the optional 'Desktop Stand Installation and Setup Guide'.)
- Speakers and speaker stands shown are optional, and are shown for example only.

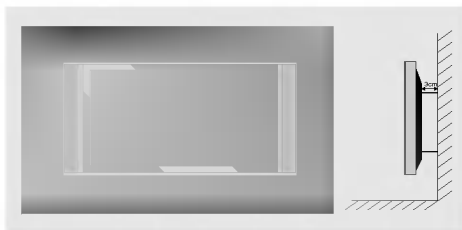
Wall Mount: Vertical Installation



- The set can be installed vertically on the wall as shown above. (For further information, refer to the optional 'Wall Mounting Bracket Installation and Setup Guide'.)
Caution: When installing the set vertically, the front panel controls must be in the left-down side position as shown above.
- Speakers are optional, and are shown for illustration only.
- **Note:** To use the set in a vertical orientation, the source's image must also be in a vertical format.

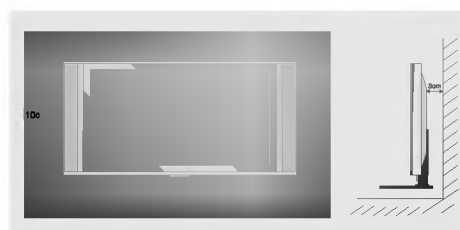
To Mount on a Wall

Wall mount minimum allowable clearances for adequate ventilation.



To Install on a Desktop

Pedestal mount minimum allowable clearances for adequate ventilation.





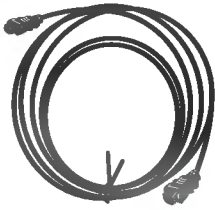
- HDMI™, the HDMI logo and High-Definition Multimedia Interface are trademarks or registered trademarks of HDMI Licensing.
- This set can receive the High-Definition Multimedia Interface (HDMI) or Input of Digital Visual Interface(DVI).
- This set supports HDCP (High-bandwidth Digital Contents Protection) Protocol for the set (480p, 720p, 1080i) modes.
- When you Connect with HDMI/DVI Source Devices (DVD Player or Set Top Box or PC) supporting Auto HDMI/DVI function, automatically, support Plug & Play and then set the HDMI/DVI Source Devices (640 x 480p). After reading in HDMI/DVI Source Devices using Display Data Channel(DDC) Protocol, EDID stored in the set is used. If HDMI/DVI Source Devices not supported Auto HDMI/DVI is been, the Resolution is set, manually.
- To get the best picture quality, adjust the DVD Player or Set Top Box output resolution to 640 x 480p.
- To get the best picture quality, adjust the PC graphics card to 640 x 480, 60Hz.
- When Source Devices have DVI Output Connector, you must connect audio with separated cable.(Refer to <How to connect>)

How to connect

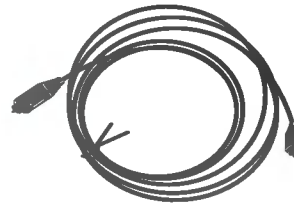
1. When Source Devices (DVD Player or Set Top Box) support HDMI.
 - If Source Devices have HDMI Output Connector, Source Devices connect to the set with HDMI Cable .(not supplied with the product).
 - If Source Devices support Auto HDMI, automatically, Source Devices divert output resolution in 640x480p. But if not, resolution divert Manually Setting for reference Manual of Source Devices.
 - To get the best picture quality, adjust the DVD Player or Set Top Box output resolution to 640x480p.
 - Because HDMI sends Digital Video and Audio with one cable, need not especial Audio Cable for using HDMI Cable.
2. When Source Devices (DVD Player or Set Top Box) supports DVI.
 - If Source Devices have DVI Output Connector, Source Devices connect to the set with HDMI to DVI Cable (not supplied with the product).
 - If Source Devices support Auto DVI, automatically, Source Devices divert output resolution in 640x480p. But if not, resolution divert Manually Setting for reference Manual of Source Devices.
 - To get the best picture quality, adjust the DVD Player or Set Top Box output resolution to 640x480p.
 - In this case, Audio use other cable. When Source Devices have Analog Audio Output Connector, RGB/DVI Audio Input of the set connect to Audio Cable (not supplied with the product). And then you can listen to normal Audio.
3. When PC supports DVI.
 - If PC have DVI Output Connector, Source Devices connect to the set with HDMI to DVI Cable (not supplied with the product).
 - To get the best picture quality, adjust the PC graphics card to 640x480, 60Hz.
 - Use the the set's HDMI/DVI (VIDEO) for video connections, depending on your PC connector.
 - If the graphics card on the PC does not output analog RGB and DVI simultaneously, connect only one of either RGB Input or HDMI Input to display the PC on the set.
 - If he graphics card on the PC does output analog RGB and DVI simultaneously, the set to either RGB Input or HDMI Input; (the other mode is set to Plug and Play automatically by the set.)
 - Then, make the corresponding audio connections. If using a sound card, adjust the PC sound as required.
 - In this case, Audio use other cable. When PC (or sound card of PC) have Analog Audio Output Connector, RGB/DVI Audio Input of the set connect to Analog Audio Cable (not supplied with the product). And then you can listen to normal Audio.

Reference

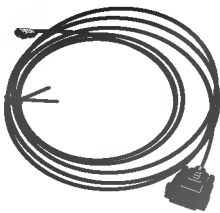
Cable sample



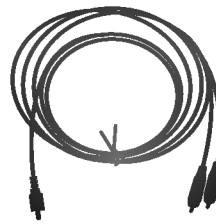
HDMI Cable
(not supplied with the product)



Analog Audio Cable (RCA type)
(not supplied with the product)



HDMI to DVI Cable
(not supplied with the product)



Analog Audio Cable (Stereo to RCA type)
(not supplied with the product)

How to use

1. Connect the HDMI Source Devices(DVD Player or Set Top Box or PC) and the set.
2. Turn on the display by pressing the POWER button on the set and HDMI Source Devices remote control.
3. Select HDMI Input source in Main Input option of SPECIAL menu.
4. Check the image on your set. There may be noise associated with the resolution, vertical pattern, contrast or brightness in HDMI Source Devices. If noise is present, change the HDMI Source Devices to another resolution, change the refresh rate or adjust the brightness and contrast on the menu until the picture is clear. If the refresh rate of the PC graphics card can not changed, change the PC graphics card or consult the manufacturer of the PC graphics card.

Notes:

- Depending on the graphics card, DOS mode may not work if you use a HDMI to DVI Cable.
- Avoid keeping a fixed image on the set screen for a long period of time. The fixed image may become permanently imprinted on the screen. Use the Orbiter screen saver when possible.
- When Source Devices connected HDMI Input, output PC Resolution, Position, Size may not fit to Screen. As shown the lower picture, press the **MENU** button to adjust the screen Position of the set and contact an PC graphics card service center.
- In case HDMI Source Devices is not connected Cable or poor cable connection, "No Signal" OSD display in HDMI Input. And In case of Video Resolution not supported the set output in HDMI Source Devices, "No Signal" OSD display. Refer to the Manual of HDMI Source Devices or contact your service center.

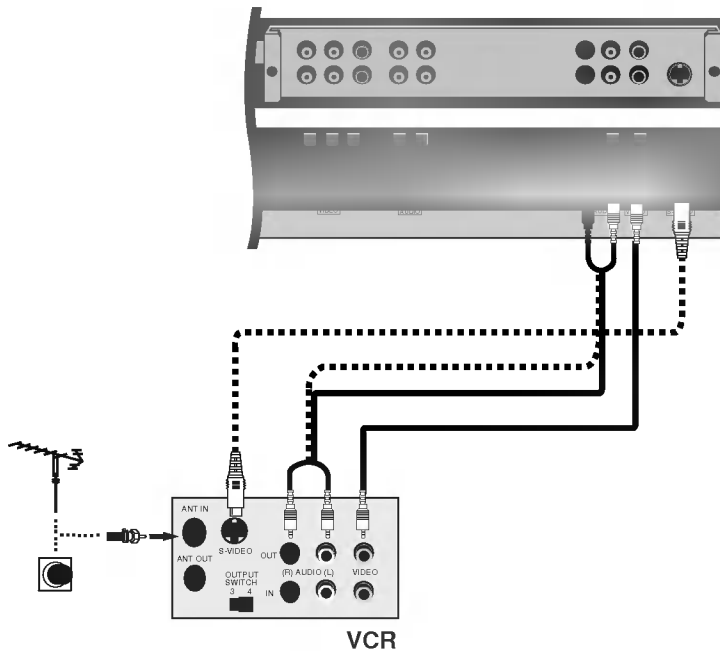
External Equipment Connections

NOTE: All cables shown are not included with the monitor.

- To avoid picture noise (interference), leave an adequate distance between the VCR and monitor.
- Use the ISM Method (on the Special menu) feature to avoid having a fixed image remain on the screen for a long period of time. Typically a frozen still picture from a VCR. If the 4:3 picture format is used; the fixed images on the sides of the screen may remain visible on the screen.

Connection Option

1. Connect the audio and video cables from the VCR's output jacks to the set input jacks, as shown in the figure.
When connecting the set to VCR, match the jack colors (Video = yellow, Audio Left = white, and Audio Right = red).
If you connect an S-VIDEO output from VCR to the S-VIDEO input, the picture quality is improved; compared to connecting a regular VCR to the Video input.
2. Insert a video tape into the VCR and press PLAY on the VCR. (Refer to the VCR owner's manual.)
3. Select the input source with using the **INPUT** button on the remote control.

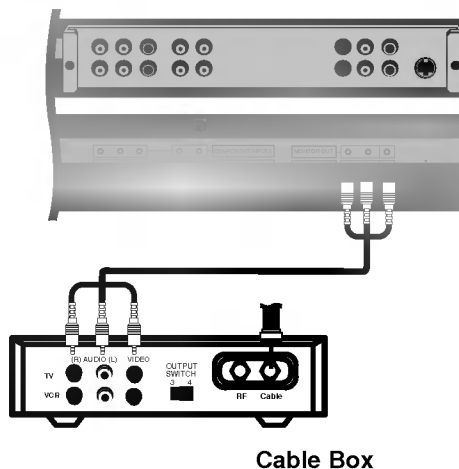


Do not connect to both Video and S-Video at the same time. In the event that you connect both Video and the S-Video cables, only the S-Video will work.

- After subscribing to a cable TV service from a local provider and installing a converter, you can watch cable TV programming. The set cannot display TV programming unless a TV tuner device or cable TV converter box is connected to the set.
- For further information regarding cable TV service, contact your local cable TV service provider(s).

Connection Option

1. Connect the audio and video cables from the Cable Box's output jacks to the set input jacks, as shown in the figure.
When connecting the set to a Cable Box, match the jack colors (Video = yellow, Audio Left = white, and Audio Right = red).
2. Select the input source with using the **INPUT** button on the remote control.
3. Select your desired channel with the remote control for cable box.



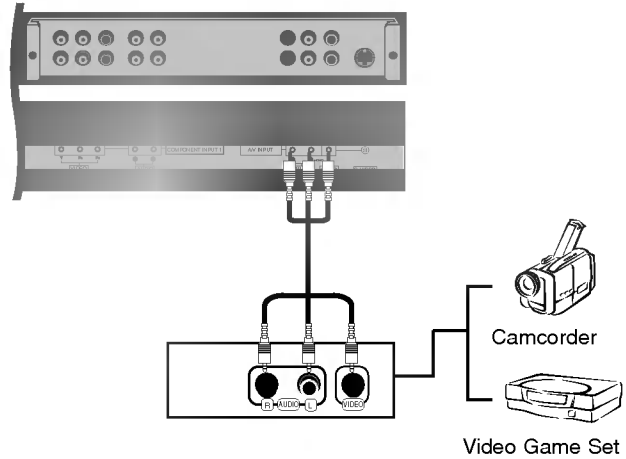
How to connect

Connect the audio and video cables from the external equipment's output jacks to the set input jacks, as shown in the figure.

When connecting the set to external equipment, match the jack colors (Video = yellow, Audio Left = white, and Audio Right = red).

How to use

1. Select the input source with using the **INPUT** button on the remote control.
2. Operate the corresponding external equipment. Refer to external equipment operating guide.



How to connect

1. Connect the DVD video outputs (Y, P_B, P_R) to the COMPONENT (Y, P_B, P_R) INPUT or HDMI INPUT jacks on the set and connect the DVD audio outputs to the AUDIO INPUT jacks on the set, as shown in the figure.
2. If your DVD only has an S-Video output jack, connect this to the S-VIDEO input on the set and connect the DVD audio outputs to the AUDIO INPUT jacks on the set, as shown in the figure.

NOTE: If your DVD player does not have component video output, use S-Video.

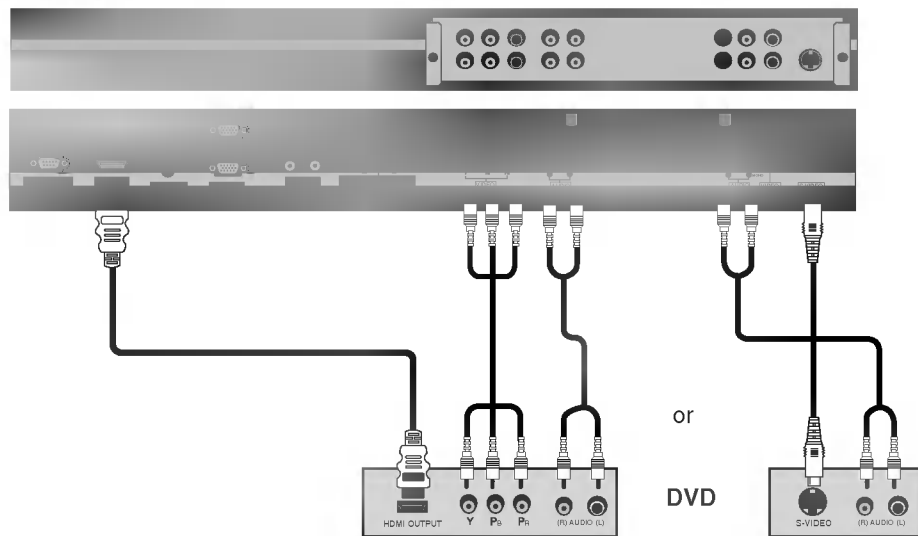
How to use

1. Turn on the DVD player, insert a DVD.
2. Use the **INPUT** or **MULTIMEDIA** button on the remote control to select **Component 1** or **Component 2**. (If connected to S-VIDEO, select the **Video** external input source.)
3. Refer to the DVD player's manual for operating instructions.

• Component Input ports

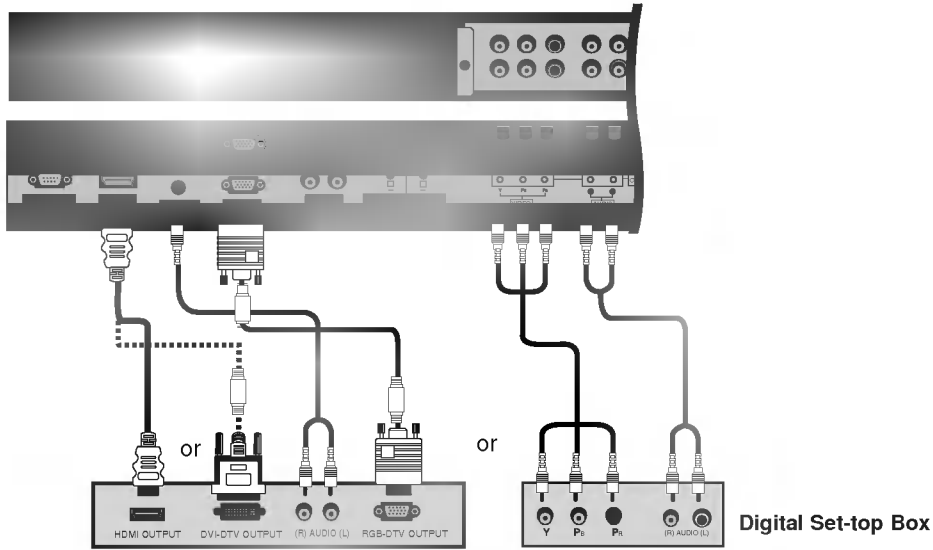
To get better picture quality, connect a DVD player to the component input ports as shown below.

Component ports on the TV	Y	P _B	P _R
Video output ports on DVD player	Y	P _B	P _R
	Y	B-Y	
	Y	Cb	
	Y	P _B	



External Equipment Connections

- To watch digitally broadcast programs, purchase and connect a digital set-top box.



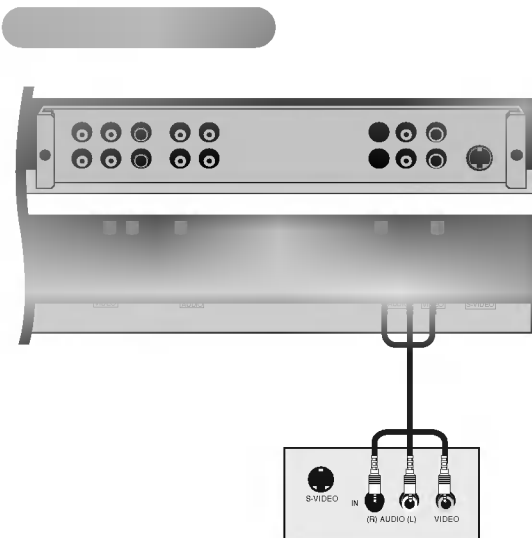
How to connect

Use the set's COMPONENT (Y, Pb, Pr) INPUT, RGB or HDMI jack for video connections, depending on your set-top box connector. Then, make the corresponding audio connections.

How to use

1. Turn on the digital set-top box. (Refer to the owner's manual for the digital set-top box.)
2. Use **INPUT** or **MULTIMEDIA** on the remote control to select **Component 1**, **Component 2**, **RGB** or **HDMI** source.

Signal	Component 1/2	RGB, HDMI
480i	Yes	No
480p	Yes	Yes
720p	Yes	Yes
1080i	Yes	Yes



The set has a special signal output capability which allows you to hook up a second set.

Connect the second set to the set's MONITOR OUTPUT. See the Operating Manual of the second set for further details regarding that device's input settings.

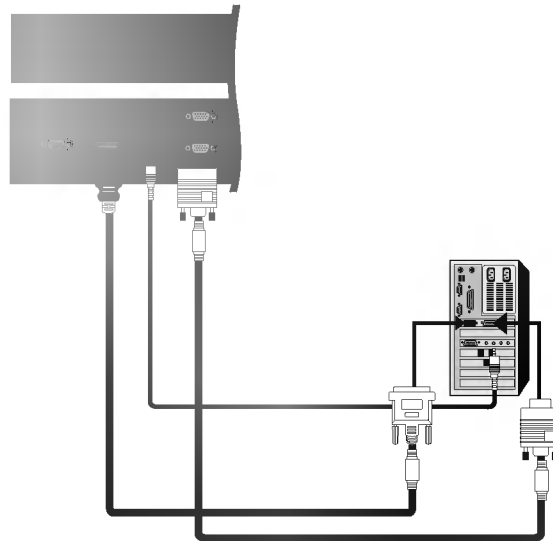
NOTE

- Component, RGB, HDMI input sources cannot be used for Monitor out.

NOTE: All cables shown are not included with the Monitor

How to connect

1. To get the best picture quality, adjust the PC graphics card to 1024x768, 60Hz.
2. Use the set's RGB INPUT or HDMI/DVI (VIDEO) INPUT port for video connections, depending on your PC connector.
 - If the graphic card on the PC does not output analog and digital RGB simultaneously, connect only one of either RGB INPUT or HDMI/DVI (VIDEO) to display the PC on the set.
 - If the graphic card on the PC does output analog and digital RGB simultaneously, set the set to either RGB or HDMI/DVI (VIDEO); (the other mode is set to Plug and Play automatically by the set.)
3. Then, make the corresponding audio connection. If using a sound card, adjust the PC sound as required.



How to use

1. Turn on the PC and the set.
2. Turn on the display by pressing the POWER button on the set's remote control.
3. Use **INPUT** or **MULTIMEDIA** on the remote control to select **RGB** or **HDMI** source.
4. Check the image on your set. There may be noise associated with the resolution, vertical pattern, contrast or brightness in PC mode. If noise is present, change the PC mode to another resolution, change the refresh rate to another rate or adjust the brightness and contrast on the menu until the picture is clear. If the refresh rate of the PC graphic card can not be changed, change the PC graphic card or consult the manufacturer of the PC graphic card.

NOTES:

- Avoid keeping a fixed image on the set's screen for a long period of time. The fixed image may become permanently imprinted on the screen. Use the Orbiter screen saver when possible.
- The synchronization input form for Horizontal and Vertical frequencies is separate.
- When you use too long RGB-PC cable, there might be a noise on the screen. We recommend using under 5m of the cable. It provides the best picture quality.

Displayable Monitor Specifications

RGB / HDMI mode

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
848x480	43.269	85.00
	31.500	60.00
	37.799	70.00
	39.375	75.00
852x480	31.500	60.00
	37.799	70.00
	39.375	75.00
800x600	35.156	56.25
	37.879	60.31
	48.077	72.18
	46.875	75.00
832x624	53.674	85.06
	49.725	74.55
	48.363	60.00
1024x768	56.476	70.06
	60.023	75.02
	68.677	85.00
	54.348	60.05
1152x864	63.995	70.01
	67.500	75.00
	68.681	75.06
1152x870	60.023	60.02
1280x960	60.023	60.02
1280x1024	63.981	60.02

Operation

Turning the monitor On

* In this manual, the OSD (On Screen Display) may be different from your monitor's because it is just an example to help you with the monitor operation.



1. Connect power cord correctly, the set is switched to standby mode.
2. Press the ϕ / I, **INPUT SELECT** button on the set or press the **POWER, MULTIMEDIA, INPUT** on the remote control and then the set will switch on.



If the set was turned off with the remote control power button and the ϕ / I button on the set.

- Press the ϕ / I, **INPUT SELECT** button on the set or press the **POWER, MULTIMEDIA, INPUT** on the remote control and then the set will switch on.

NOTE

- If you intend to be away on vacation, disconnect the power plug from the wall power outlet.

Menu Language Selection

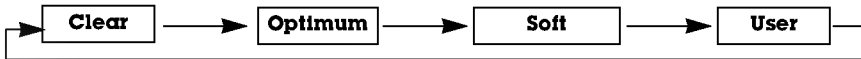
- The menus can be shown on the screen in the selected language. First select your language.

1. Press the **MENU** button and then use \blacktriangle / \blacktriangledown button to select the **SPECIAL** menu.
2. Press the \blacktriangleright button and then use \blacktriangle / \blacktriangledown button to select **Language**.
3. Press the \blacktriangleright button and then use \blacktriangle / \blacktriangledown button to select your desired language.
From this point on, the on-screen menus will be shown in the language of your choice.
4. Press the **ENTER** button to save.

Picture Menu Options

- APC adjusts the Monitor to the best picture appearance.
- If adjusting picture options (contrast, brightness, color, sharpness, or tint) manually, APC automatically changes to **User**.

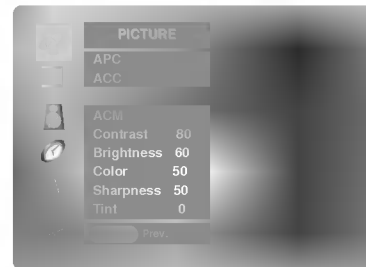
1. Press the **APC** button repeatedly to select the picture appearance setup option as shown below.



- You can also adjust **APC** in the **PICTURE** menu.
- **Clear**, **Optimum**, and **Soft** settings are preset for good picture quality at the factory and cannot be changed.

- XD is LG Electronic's unique picture improving technology to display a real HD source through an advanced digital signal processing algorithm.
- When selecting APC options (Clear, Optimum and Soft), XD is automatically change to On.
- XD demo is not available for RGB (PC) and HDMI (PC) sources.

1. Press the **MENU** button and then use **▲ / ▼** button to select the **PICTURE** menu.
2. Press the **▶** button and then use **▲ / ▼** button to select **XD**.
3. Press the **▶** button and then use **▲ / ▼** button to set **On** or **Off**.
4. Press the **ENTER** button to save.



Auto Color Temperature Control

- To initialize values (reset to default settings), select the **Normal** option.

1. Press the **MENU** button and then use **▲ / ▼** button to select the **PICTURE** menu.
2. Press the **▶** button and then use **▲ / ▼** button to select **ACC**.
3. Press the **▶** button and then use **▲ / ▼** button to select either: **Cool** (Preset), **Normal** (Default), or **Warm** (Preset).
4. Press the **ENTER** button to save.



Manual Color Temperature Control (ACC set to User option)

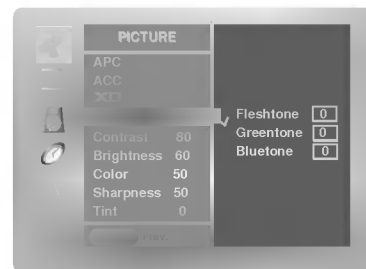
- You can adjust red, green, or blue to any color temperature you prefer.

1. Press the **MENU** button and then use **▲ / ▼** button to select the **PICTURE** menu.
2. Press the **▶** button and then use **▲ / ▼** button to select **ACC**.
3. Press the **▶** button and then use **▲ / ▼** button to select **User**.
4. Press the **▶** button and then use **▲ / ▼** button to select **Red**, **Green** or **Blue**.
5. Use the **◀ / ▶** button to make appropriate adjustments.
 - The adjustment range of **Red**, **Green**, and **Blue** is -40 ~ +40.
6. Press the **ENTER** button to save.

Picture Menu Options continued

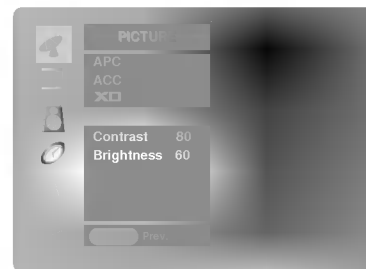
- Adjust the **ACM** to select the desired skin color option.
- This function works in the following mode:
VIDEO, COMPONENT1, 2, RGB-DTV, HDMI-DTV.
- It's not available to use this function in **XD Off** mode.

1. Press the **MENU** button and then use **▲ / ▼** button to select the **PICTURE** menu.
2. Press the **▶** button and then use **▲ / ▼** button to select **ACM**.
3. Press the **▶** button and then use **◀ / ▶** button to make appropriate adjustments.
4. Press the **ENTER** button to save.



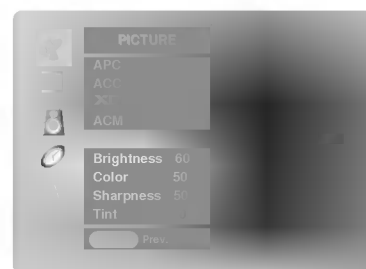
- If the Monitor is connected to external equipment using sRGB, set sRGB to On to adjust for the color difference.

1. Press the **MENU** button and then use **▲ / ▼** button to select the **PICTURE** menu.
2. Press the **▶** button and then use **▲ / ▼** button to select **sRGB**.
3. Press the **▶** button and then use **▲ / ▼** button to select **On** or **Off**.
4. Press the **ENTER** button to save.



- You can adjust picture contrast, brightness, color and sharpness options to the levels you prefer.

1. Press the **MENU** button and then use **▲ / ▼** button to select the **PICTURE** menu.
2. Press the **▶** button and then use **▲ / ▼** button to select the desired picture option:
: RGB-DTV, HDMI-DTV : (**Contrast, Brightness, Color, Sharpness**).
: RGB-PC, HDMI-PC: (**Contrast, Brightness, Color**).
3. Press the **▶** button and then use **◀ / ▶** button to make appropriate adjustments.
4. Press the **ENTER** button to save.



Sound Menu Options

- This function lets you enjoy the best sound without any special adjustment because the Monitor has the appropriate sound options based on the program content.
- If you adjust sound options (Treble and Bass) manually, DASP automatically changes to **User**.

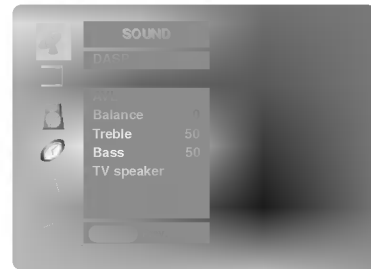
1. Press the **DASP** button repeatedly to select the appropriate sound setup as shown below.



- You can also adjust **DASP** in the **SOUND** menu.
- **SRS TSXT**, **Flat**, **Music**, **Movie**, and **Sports** are preset for good sound quality at the factory and cannot be changed.
- **SRS TSXT** is a trademark of SRS Labs, Inc.
- TruSurround XT technology is incorporated under license from SRS Labs, Inc.

- BBE High Definition Sound restores clarity and presence for better speech intelligibility and music realism.

1. Press the **MENU** button and then use **▲ / ▼** button to select the **SOUND** menu.
2. Press the **▶** button and then use **▲ / ▼** button to select **BBE**.
3. Press the **▶** button and then use **▲ / ▼** button to select **On** or **Off**.
4. Press the **ENTER** button to save.

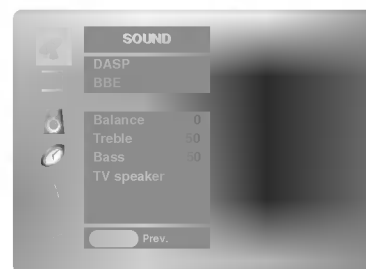


- **BBE**. Manufactured under license from BBE Sound, Inc.
- Treble, Bass or BBE aren't suitable for **SRS TSXT** mode.

Sound Menu Options continued

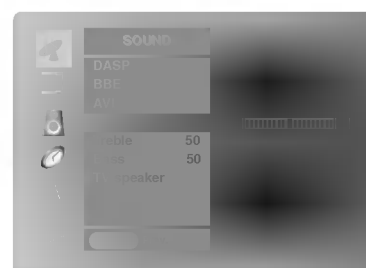
- AVL maintains an equal sound level; even if you change channels.

1. Press the **MENU** button and then use **▲ / ▼** button to select the **SOUND** menu.
2. Press the **▶** button and then use **▲ / ▼** button to select **AVL**.
3. Press the **▶** button and then use **▲ / ▼** button to select **On** or **Off**.
4. Press the **ENTER** button to save.



- You can adjust sound options Balance, Treble, and Bass to the levels you prefer.

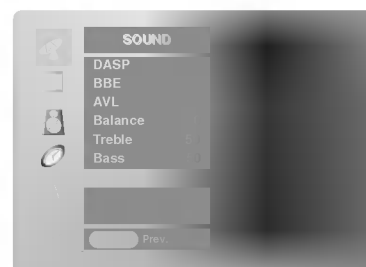
1. Press the **MENU** button and then use **▲ / ▼** button to select the **SOUND** menu.
2. Press the **▶** button and then use **▲ / ▼** button to select the desired sound option (**Balance, Treble, Bass**).
3. Press the **▶** button and then use **◀ / ▶** button to make appropriate adjustments.
4. Press the **ENTER** button to save.



- You can adjust internal speaker status.

- If you want to use your external hi-fi stereo system, turn off the internal speakers of the set.

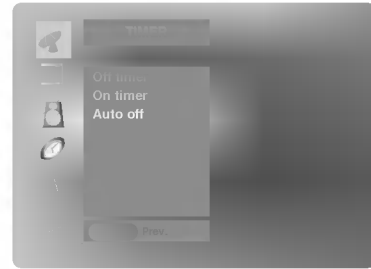
1. Press the **MENU** button and then use **▲ / ▼** button to select the **SOUND** menu.
2. Press the **▶** button and then use **▲ / ▼** button to select **TV speaker**.
3. Press the **▶** button and then use **▲ / ▼** button to select **On** or **Off**.
4. Press the **ENTER** button to save.



Timer Menu Options

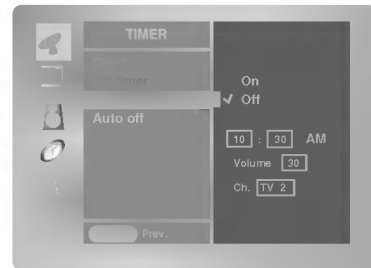
- If current time setting is wrong, reset the clock manually.

1. Press the **MENU** button and then use ▲ / ▼ button to select the **TIMER** menu.
2. Press the ► button and then use ▲ / ▼ button to select **Clock**.
3. Press the ► button and then use ▲ / ▼ button to set the hour.
4. Press the ► button and then use ▲ / ▼ button to set the minutes.
5. Press the **ENTER** button to save.



- Timer function operates only if current time has been set.
 - Off-Timer function overrides On-Timer function if they are set both set to the same time.
 - The Monitor must be in standby mode for the On-Timer to work.
 - If you do not press any button within 2 hours after the Monitor turns on with the On Timer function, the Monitor will automatically revert to standby mode.

1. Press the **MENU** button and then use ▲ / ▼ button to select the **TIMER** menu.
2. Press the ► button and then use ▲ / ▼ button to select **Off timer** or **On timer**.
3. Press the ► button and then use ▲ / ▼ button to select **On**.
 • To cancel **On/Off timer** function, select **Off**.
4. Press the ► button and then use ▲ / ▼ button to set the hour.
5. Press the ► button and then use ▲ / ▼ button to set the minutes.
6. **For only On timer function**
 Press the ► button and then use ▲ / ▼ button to set sound level.
7. Press the **ENTER** button to save.



- If set to on and there is no input signal, the Monitor turns off automatically after 10 minutes.

1. Press the **MENU** button and then use ▲ / ▼ button to select the **TIMER** menu.
2. Press the ► button and then use ▲ / ▼ button to select **Auto off**.
3. Press the ► button and then use ▲ / ▼ button to select **On** or **Off**.
4. Press the **ENTER** button to save.



- The Sleep Timer turns the Monitor off at the preset time. Note that this setting is cleared when the Monitor is turned off.

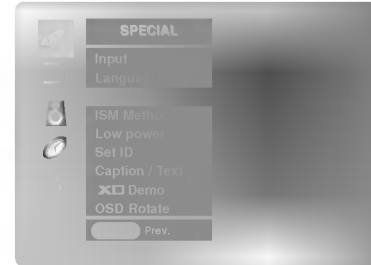
1. Press the **SLEEP** button repeatedly to select the number of minutes. First the **Off** option appears on the screen, followed by the following sleep timer options: 10, 20, 30, 60, 90, 120, 180, and 240 minutes.
2. When the number of minutes you want is displayed on the screen, press the **OK** button. The timer begins to count down from the number of minutes selected.
3. To check the remaining minutes before the Monitor turns off, press the **SLEEP** button once.
4. To cancel the Sleep Timer, press the **SLEEP** button repeatedly to select **Off**.

Special Menu Options

- The Monitor can be set up so that it can only be used with the remote control.
- This feature can be used to prevent unauthorized viewing by locking out the front panel controls.
- This Monitor is programmed to remember which option it was last set to even if you turn the Monitor off.

1. Press the **MENU** button and then use ▲ / ▼ button to select the **SPECIAL** menu.
2. Press the ► button and then use ▲ / ▼ button to select **Key lock**.
3. Press the ► button and then use ▲ / ▼ button to select **On** or **Off**.
4. Press the **ENTER** button to save.

- With the Key lock On, the display '▲ Key lock' appears on the screen if any button on the front panel is pressed.



- A frozen still picture from a PC/video game displayed on the screen for prolonged periods will result in a ghost image remaining even when you change the image. Avoid allowing a fixed image to remain on the Monitor's screen for a long period of time.

1. Press the **MENU** button and then use ▲ / ▼ button to select the **SPECIAL** menu.
2. Press the ► button and then use ▲ / ▼ button to select **ISM Method**.
3. Press the ► button and then use ▲ / ▼ button to select either **Normal**, **White wash**, **Orbiter** or **Inversion**.

- **Normal**

If image sticking is never a problem, ISM is not necessary - set to Normal.

- **White wash**

White Wash removes permanent images from the screen. Note: An excessive permanent image may be impossible to clear entirely with White Wash. To return to normal viewing, press any button.

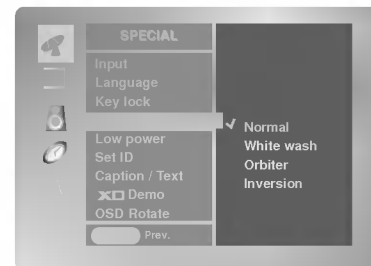
- **Orbiter**

Orbiter may help prevent ghost images. However, it is best not to allow any fixed image to remain on the screen. To avoid a permanent image on the screen, the image will move every 2 minutes: Right → Right → Downside → Downside → Left → Left → Upside → Upside.

- **Inversion**

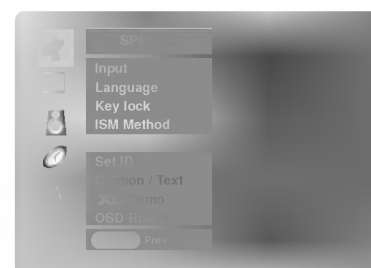
Inversion will automatically invert the Monitor panel color every 30 minutes.

4. Press the **ENTER** button to save.



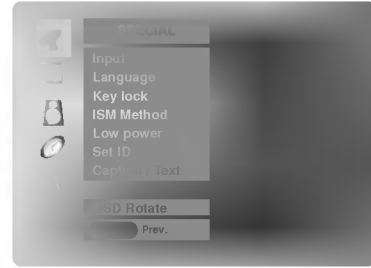
- Low power reduces the plasma display power consumption.

1. Press the **MENU** button and then use ▲ / ▼ button to select the **SPECIAL** menu.
2. Press the ► button and then use ▲ / ▼ button to select **Low power**.
3. Press the ► button and then use ▲ / ▼ button to select **On** or **Off**.
 - When you select **On**, the screen darkens.
4. Press the **ENTER** button to save.

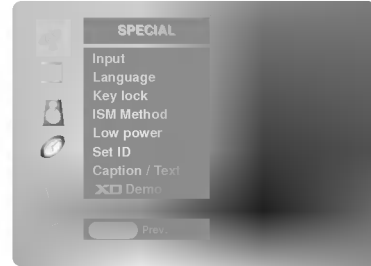


- Use it to see the difference between XD Demo on and XD Demo off.
- XD demo is not available for RGB (PC) and HDMI (PC) sources.

1. Press the **MENU** button and then use ▲ / ▼ button to select the **SPECIAL** menu.
2. Press the ► button and then use ▲ / ▼ button to select **XD Demo**.
3. Press the ► button to begin **XD Demo**.
4. Press the **EXIT** button to stop **XD Demo**.



1. Press the **MENU** button and then use ▲ / ▼ button to select the **SPECIAL** menu.
2. Press the ► button and then use ▲ / ▼ button to select **OSD Rotate**.
3. Press the ► button and then use ▲ / ▼ button to select **Normal** or **Rotate**.
 - **Normal** : If the set is installed horizontally.
 - **Rotate** : If the set is installed vertically.
4. Press the **ENTER** button to save.



Closed Captions

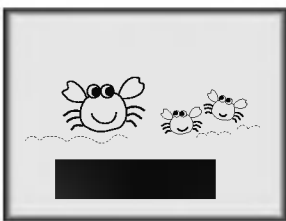
Closed captioning is a process which converts the audio portion of a television program into written words which then appear as subtitles on the television screen. Closed captions allow viewers to read the dialogue and narration of television programs.

Using Closed Captions

Captions are the subtitles of the dialogue and narration of television programs. For prerecorded programs, program dialogue can be arranged into captions in advance. Its possible to caption a live program by using a process called real-time captioning, which creates captions instantly. Real-time captioning is normally done by professional reporters using a machine shorthand system and computer for translation into English.

Captioning is an effective system for the hearing-impaired, and it can also aid in teaching language skills.

- The picture at left shows a typical caption.



Caption Tips

- Not all monitor broadcasts include closed caption signals.
- Sometimes monitor stations broadcast four different caption signals on the same channel. By selecting **Model** to **Mode2**, you can choose which signal you view. **Model** is usually the signal with the captions, while **Another mode** might show demonstration or programming information.
- Your monitor might not receive caption signals normally in the following situations.
- It's available to use this function in video mode.

Press the **CAPTION/*** button repeatedly to select your caption selection.

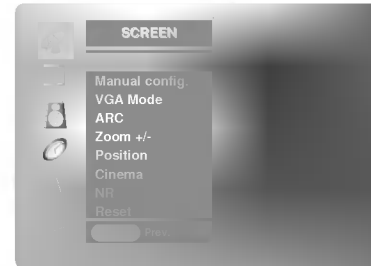


- You can also adjust **Caption/Text** in the **SPECIAL** menu.

Screen Menu Options

- RGB (PC) mode only; This function doesn't work for RGB (DTV) mode.
- Automatically adjusts picture position and minimizes image shaking.
- After adjustment, if the image is still not correct, your set is functioning properly but needs further adjustment.
- The **Auto config.** and **Manual config.** are not active in HDMI mode.

1. Press the **MENU** button and then use **▲ / ▼** button to select the **SCREEN** menu.
2. Press the **▶** button and then use **▲ / ▼** button to select **Auto config.**
3. Press the **▶** button to run Auto configure.
 - When **Auto config.** has finished, **OK** will be shown on screen.
 - If the position of the image is still not correct, try Auto adjustment again.
4. In RGB (PC) mode, if the image needs to be adjusted more after using **Auto config.**, you can make further adjustments with the **Manual config.** option.

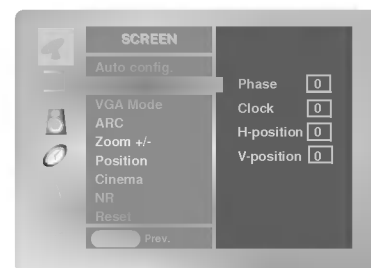


- Caution: If a 4:3 fixed image is on the screen for a long time, it may remain visible.
- Set every aspect ratio for Video, Component 480i sources.
- Use 4:3 or 16:9 for other RGB(PC), HDMI(PC) sources.
- Horizon is not available for RGB (DTV), HDMI (DTV), and Component (DTV) sources.

1. Press the **ARC** button repeatedly to select the desired picture format. You can also adjust **ARC** in the **SCREEN** menu.
 - **4:3**
Choose **4:3** when you want to view a picture with an original 4:3 aspect ratio, with black bars appearing at both the left and right sides.
 - **16:9**
Choose **16:9** when you want to adjust the picture horizontally, in a linear proportion to fill the entire screen.
 - **Horizon**
Choose **Horizon** when you want to adjust the picture in a non-linear proportion, that is, more enlarged at both sides, to create a spectacular view.
 - **Zoom**
- Choose **Zoom** when you want to view the picture without any alteration. However, the top and bottom portions of the picture will be cropped.

- If the image still isn't clear after auto adjustment and especially if characters are still jittery, adjust the picture Phase manually.
- To correct the screen size, adjust **Clock**.
- This function works in the following mode : RGB, COMPONENT, HDMI-DTV(480p, 720p,1080i).
- It's not available to use Phase, Clock function in RGB, COMPONENT, HDMI-DTV (480p, 720p,1080i) mode.

1. Press the **MENU** button and then use **▲ / ▼** button to select the **SCREEN** menu.
2. Press the **▶** button and then use **▲ / ▼** button to select **Manual config.**
3. Press the **▶** button and then use **▲ / ▼** button to select **Phase**, **Clock**, **H-Position** or **V-Position**.
4. Use the **◀ / ▶** button to make appropriate adjustments.
 - The **Phase** adjustment range is 0 ~ 63.
 - The **Clock** adjustment range is -20 ~ +50.
5. Press the **ENTER** button to save.



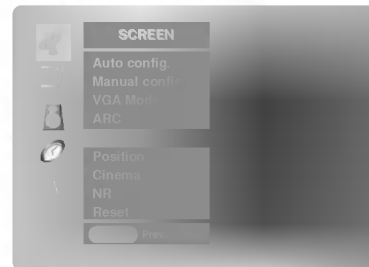
- To see a normal picture, match the resolution of RGB VGA mode (640x480, 848x480, 852x480) with the selection for VGA mode in the **SCREEN** menu.

1. Press the **MENU** button and then use **▲ / ▼** button to select the **SCREEN** menu.
2. Press the **▶** button and then use **▲ / ▼** button to select **VGA Mode**.
3. Press the **▶** button and then use **▲ / ▼** button to select the desired VGA resolution.
4. Press the **ENTER** button to save.



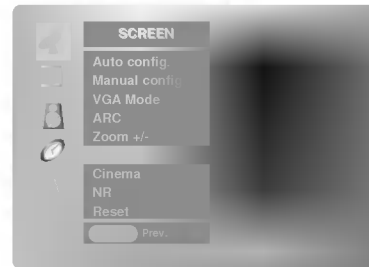
- When enlarging or reducing the picture, the screen may be display unnatural picture.

1. Press the **MENU** button and then use **▲ / ▼** button to select the **SCREEN** menu.
2. Press the **▶** button and then use **▲ / ▼** button to select **Zoom +/-**.
3. Press the **▶** button and then use **▲ / ▼ / ◀ / ▶** button to adjust the position.
4. Press the **ENTER** button to save.



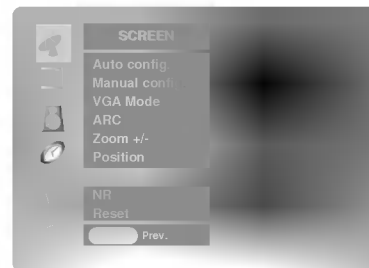
- You are available to this function after adjusting Zoom +/-.

1. Press the **MENU** button and then use **▲ / ▼** button to select the **SCREEN** menu.
2. Press the **▶** button and then use **▲ / ▼** button to select **Position**.
3. Press the **▶** button and then use **▲ / ▼ / ◀ / ▶** button to adjust the position.
4. Press the **ENTER** button to save.



- Sets up the set for the best picture appearance for viewing movies.
 - This function works in the following mode:
 Video or COMPONENT (480i).

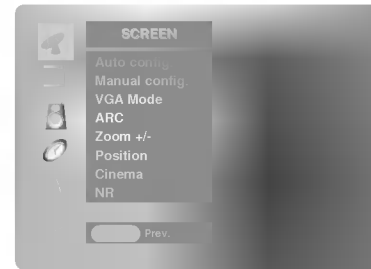
1. Press the **MENU** button and then use **▲ / ▼** button to select the **SCREEN** menu.
2. Press the **▶** button and then use **▲ / ▼** button to select **Cinema**.
3. Press the **▶** button and then use **▲ / ▼** button to select **On** or **Off**.
4. Press the **ENTER** button to save.



Screen Menu Options continued

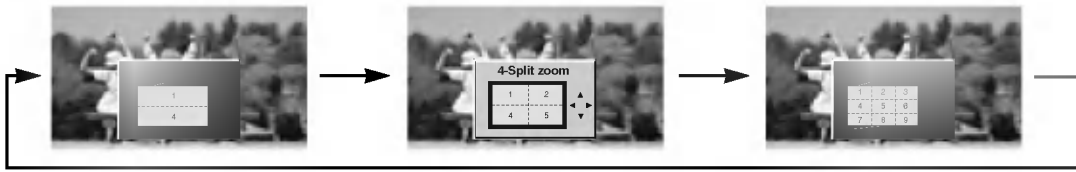
- Reset is unique to each function: Position, Zoom +/-.
- Use the Reset option to initialize the adjusted settings.

1. Press the **MENU** button and then use ▲ / ▼ button to select the **SCREEN** menu.
2. Press the ► button and then use ▲ / ▼ button to select **Reset**.
3. Press the ► button.

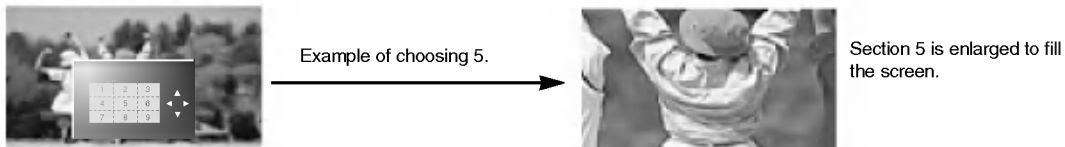


- Enlarges the picture in correct proportions.
- Split Zoom can be used for all input sources.
- In 2-Split Zoom mode, you can only move the image up or down.
- If an image is enlarged, a section can be viewed without using Split Zoom.

1. Press the **SPLIT ZOOM** button repeatedly to select either 2, 4, or 9 Split Zoom.

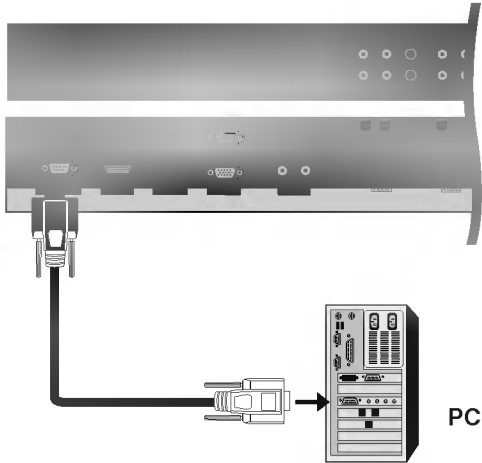


2. Press the number button corresponding to the section you wish to enlarge. You can move within the enlarged picture using the ▲ / ▼ / ◀ / ▶ button. To return to normal viewing, press the **SPLIT ZOOM** button again.

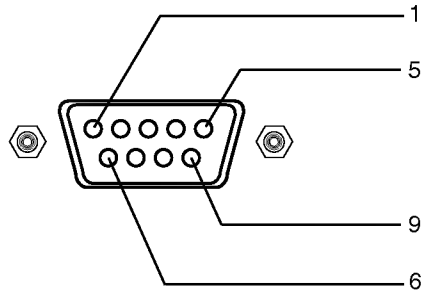


External Control Device Setup

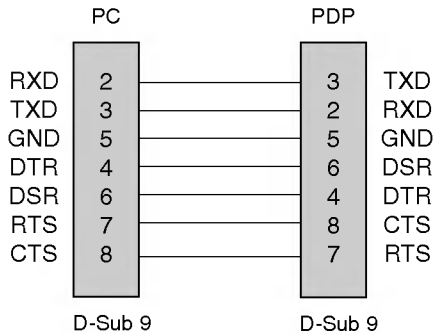
- Connect the RS-232C input jack to an external control device (such as a computer or an A/V control system) and control the Monitor's functions externally.
- Connect the serial port of the control device to the RS-232C jack on the Monitor back panel.
- RS-232C connection cables are not supplied with the Monitor.
- RS-232C connection cables are used for service.



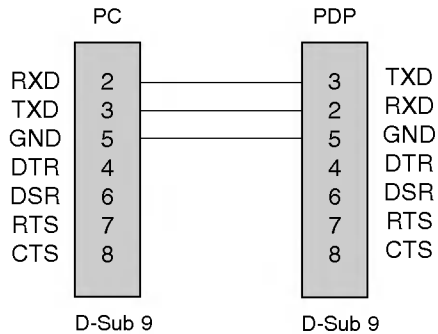
No.	Pin name
1	No connection
2	RXD (Receive data)
3	TXD (Transmit data)
4	DTR (DTE side ready)
5	GND
6	DSR (DCE side ready)
7	RTS (Ready to send)
8	CTS (Clear to send)
9	No Connection



7-Wire Configurations
(Standard RS-232C cable)

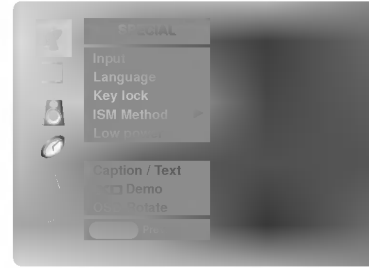


3-Wire Configurations
(Not standard)



- Use this function to specify a Monitor ID number.
- Refer to 'Real Data Mapping 1'. See page 32.

1. Press the **MENU** button and then use **▲ / ▼** button to select the **SPECIAL** menu.
2. Press the **▶** button and then use **▲ / ▼** button to select **Set ID**.
3. Press the **▶** button and then use **◀ / ▶** button to adjust **Set ID** to choose the desired Monitor ID number. The adjustment range of **Set ID** is 1 ~ 99.
4. Press the **ENTER** button to save.



Communication Parameters

- Baud rate : 9600 bps (UART)
- Data length : 8 bits
- Parity : None
- * Use a crossed (reverse) cable.
- Stop bit : 1 bit
- Communication code : ASCII code

Command Reference List

	COMMAND 1	COMMAND 2	DATA (Hexadecimal)
01. Power	k	a	0 ~ 1
02. Input Select	k	b	0 ~ 6
03. Aspect Ratio	k	c	Refer to p. 37
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 (option)	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. Split Zoom	k	p	0 ~ 99
15. Treble	k	r	0 ~ 64
16. Bass	k	s	0 ~ 64
17. Balance	k	t	0 ~ 64
18. Color Temperature (ACC)	k	u	0 ~ 3
19. Red Adjustment	k	v	0 ~ 50
20. Green Adjustment	k	w	0 ~ 50
21. Blue Adjustment	k	\$	0 ~ 50
22. Abnormal Status	k	z	0 ~ a
23. ISM Method	j	p	0 ~ 3
24. Low Power	j	q	0 ~ 1
25. Orbiter Time Setting	j	r	1 ~ FE
26. Orbiter Pixel Setting	j	s	1 ~ 3
27. Auto Configure	j	u	1
28. Key	m	c	Key Code

* When setting the 22 ~ 27, a menu doesn't display on screen.

Transmission / Receiving Protocol

Transmission

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

- * [Command 1] : First command to control PDP set.
(j, k, m or x)
- * [Command 2] : Second command to control PDP 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 connected PDP set is controlled.
Set ID is indicated as decimal (1~99) on menu and as Hexa decimal (0x0~0x63) on transmission/receiving protocol.
- * [DATA] : To transmit command data.
Transmit 'FF' data to read status of command.
- * [Cr] : Carriage Return
ASCII code '0x0D'
- * [] : ASCII code 'space (0x20)'

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 1: Illegal Code
2: not support function
3: Wait more time

01. Power (Command2:a)

► To control Power On/Off of the monitor.

Transmission

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

Data 0 : Power Off 1 : Power On

Ack

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

► To show Power On/Off.

Transmission

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

Ack

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

* In like manner, if other functions transmit '0xFF' data based on this format, Acknowledgement data feed back presents status about each function.

02. Input Select (Command 2 : b)

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

Transmission

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

Data 0 : RGB 4 : Component1
1 : HDMI 5 : Component2
2 : Video

Ack

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

03. Aspect Ratio (Command 2 : c) (Main Picture Size)

► To adjust the screen format. (Main picture format)
You can also adjust the screen format using the ARC (Aspect Ratio Control) button on remote control or in the SCREEN menu.

Transmission

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

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

Ack

[c][][Set ID][][OK][Data][x]

* Using the PC input, you select either 16:9 or 4:3 screen aspect ratio.

04. Screen Mute (Command 2 : d)

► 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)

Ack

[d][][Set ID][][OK][Data][x]

05. Volume Mute (Command 2 : e)

► 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 off (Volume on)
1 : Volume mute on (Volume off)

Ack

[e][][Set ID][][OK][Data][x]

06. Volume Control (Command 2 : f)

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

Transmission

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

Data Min : 0 ~ Max : 64
* Refer to 'Real data mapping 1'.

Ack

[f][][Set ID][][OK][Data][x]

* Real data mapping 1	* Real data mapping 2
0 : Step 0	0 : -40
⋮	1 : -39
A : Step 10 (Set ID 10)	2 : -38
⋮	⋮
F : Step 15 (Set ID 15)	28 : 0
10 : Step 16 (Set ID 16)	⋮
⋮	4E : +38
64 : Step 100	4F : +39
⋮	50 : +40
6E : Step 110	
⋮	
73 : Step 115	
74 : Step 116	
⋮	
C7 : Step 199	

07. Contrast (Command 2 : 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

* Refer to 'Real data mapping 1'. See page 32.

Ack

```
[g][ ][Set ID][ ][OK][Data][x]
```

08. Brightness (Command 2 : h)

- ▶ 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

* Refer to 'Real data mapping 1'. See page 32.

Ack

```
[h][ ][Set ID][ ][OK][Data][x]
```

09. Color (Command 2 : i)

- ▶ 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

* Refer to 'Real data mapping 1'. See page 32.

Ack

```
[i][ ][Set ID][ ][OK][Data][x]
```

10. Tint (Command 2 : j) (option)

- ▶ 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

* Refer to 'Real data mapping 1'. See page 32.

Ack

```
[j][ ][Set ID][ ][OK][Data][x]
```

11. Sharpness (Command 2 : k)

- ▶ 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

* Refer to 'Real data mapping 1'. See page 32.

Ack

```
[k][ ][Set ID][ ][OK][Data][x]
```

12. OSD Select (Command 2 : l)

- ▶ To select OSD (On Screen Display) on/off when controlling remotely.

Transmission

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

Data 0 : OSD off 1 : OSD on

Ack

```
[l][ ][Set ID][ ][OK][Data][x]
```

13. Remote control lock mode (Command 2 : m)

- ▶ To lock the front panel controls on the monitor and remote control.

Transmission

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

Data 0 : Lock off 1 : Lock on

Ack

```
[m][ ][Set ID][ ][OK][Data][x]
```

- * If you're not using the remote control, use this mode.
When main power is on/off, external control lock is released.

14. Split Zoom (Command 2 : p)

- ▶ To operate split zoom function and select the split zoom section number.

Transmission

```
[k][p][ ][Set ID][ ][Data][Cr]
```

Data Min: 0 ~ Max:99

- Refer to 'Real data mapping 2'.

Acknowledgement

```
[p][ ][Set ID][ ][OK][Data][x]
```

* **Real data mapping 2**

- 0 : Reset split zoom
- 21: Selection 1 of 2 split zoom
- 24: Selection 4 of 2 split zoom
- 41: Selection 1 of 4 split zoom
- 42: Selection 2 of 4 split zoom
- 44: Selection 4 of 4 split zoom
- 45: Selection 5 of 4 split zoom
- 91: Selection 1 of 9 split zoom
- ⋮
- 99: Selection 9 of 9 split zoom

15. Treble (Command 2 : r)

- ▶ To adjust treble.
You can also adjust treble in the SOUND menu.

Transmission

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

Data Min : 0 ~ Max : 64
* Refer to 'Real data mapping 1'. See page 32.

Ack

[r][][Set ID][][OK][Data][x]

16. Bass (Command 2 : s)

- ▶ To adjust bass.
You can also adjust bass in the SOUND menu.

Transmission

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

Data Min : 0 ~ Max : 64
* Refer to 'Real data mapping 1'. See page 32.

Ack

[s][][Set ID][][OK][Data][x]

17. Balance (Command 2 : t)

- ▶ To adjust balance.
You can also adjust balance in the SOUND menu.

Transmission

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

Data Min : 0 ~ Max : 64
* Refer to 'Real data mapping 1'. See page 32.

Ack

[t][][Set ID][][OK][Data][x]

18. Color Temperature (Command 2 : u)

- ▶ To adjust color temperature.
You can also adjust ACC in the PICTURE menu.

Transmission

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

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

Ack

[u][][Set ID][][OK][Data][x]

19. Red Adjustment (Command 2 : v)

- ▶ To adjust red in color temperature.

Transmission

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

Data Min : 0 ~ Max : 50
* Refer to 'Real data mapping 2'. See page 32.

Ack

[v][][Set ID][][OK][Data][x]

20. Green Adjustment (Command 2 : w)

- ▶ To adjust green in color temperature.

Transmission

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

Data Min : 0 ~ Max : 50
* Refer to 'Real data mapping 2'. See page 32.

Ack

[w][][Set ID][][OK][Data][x]

21. Blue Adjustment (Command 2 : \$)

- ▶ To adjust blue in color temperature.

Transmission

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

Data Min : 0 ~ Max : 50
* Refer to 'Real data mapping 2'. See page 32.

Ack

[\$][][Set ID][][OK][Data][x]

22. Abnormal State (Command 2 : z)

- ▶ To recognize an abnormal state.

Transmission

```
[k][z][ ][Set ID][ ][FF][ ][Cr]
```

Data FF : Read

Ack

```
[z][ ][Set ID][ ][OK][Data][x]
```

Data 0: Normal (Power on and signal exist)
 1: No signal (Power on)
 2: Turn the monitor off by remote control
 3: Turn the monitor off by sleep time function
 4: Turn the monitor off by RS-232C function
 5: 5V down
 6: AC down
 7: Turn the monitor off by Fan Alarm function (option)
 8: Turn the monitor off by Off time function
 9: Turn the monitor off by Auto sleep function
 a: Turn the monitor off by AV board detect

* This function is "read only".

23. ISM Method

(Command 1 : j, Command 2 : p)

- ▶ To control the ISM method. You can also adjust ISM Method in SPECIAL menu.

Transmission

```
[j][p][ ][Set ID][ ][Data][Cr]
```

Data 0 : Normal Mode 2 : Orbiter
 1 : White Wash 3 : Inversion

Ack

```
[p][ ][Set ID][ ][OK][Data][x]
```

24. Low Power

(Command 1 : j, Command 2 : q)

- ▶ To reduce the power consumption of the monitor. You can also adjust Low Power in SPECIAL menu.

Transmission

```
[j][q][ ][Set ID][ ][Data][ ][Cr]
```

Data 0 : Off
 1 : On

Ack

```
[q][ ][Set ID][ ][OK][Data][x]
```

25. Orbiter Time Setting

(Command 1 : j, Command 2 : r)

- ▶ To adjust orbiter operation time term.

Transmission

```
[j][r][ ][Set ID][ ][Data][ ][Cr]
```

Data Min: 1 ~ Max: FE

* Refer to 'Real data mapping 1'. See page 32.

Ack

```
[r][ ][Set ID][ ][OK][Data][x]
```

26. Orbiter Pixel Setting

(Command 1 : j, Command 2 : s)

- ▶ To adjust pixel number in orbiter function.

Transmission

```
[j][s][ ][Set ID][ ][Data][Cr]
```

Data Min: 1 ~ Max: 3

* Refer to 'Real data mapping 1'. See page 32.

Ack

```
[s][ ][Set ID][ ][OK][Data][x]
```

27. Auto Configure

(Command 1 : j, Command 2 : u)

- ▶ To adjust picture position and minimize image shaking automatically. It works only in RGB (PC) mode.

Transmission

```
[j][u][ ][Set ID][ ][Data][Cr]
```

Data 1: To set

Ack

```
[u][ ][Set ID][ ][OK][Data][x]
```

28. Key

(Command 1 : m, Command 2 : c)

- ▶ To send IR remote key code.

Transmission

```
[m][c][ ][Set ID][ ][Data][Cr]
```

Data Key code - Refer to page 37.

Ack

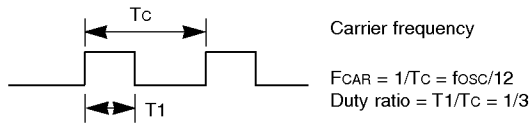
```
[c][ ][Set ID][ ][OK][Data][x]
```

IR Codes

▶ Connect your wired remote control to the Remote Control port on the Monitor.

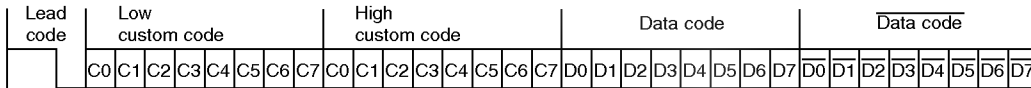
▶ **Output waveform**

Single pulse, modulated with 37.917KHz signal at 455KHz

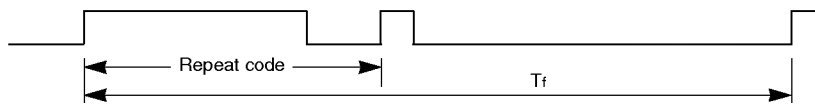


▶ **Configuration of frame**

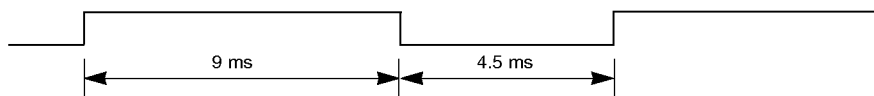
• 1st frame



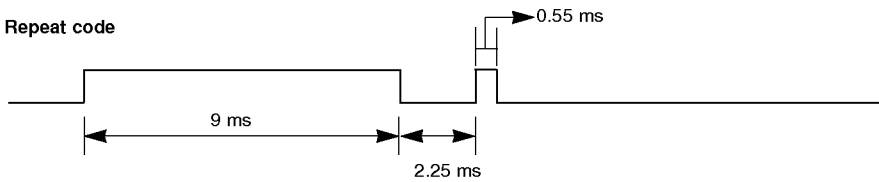
• Repeat frame



▶ **Lead code**

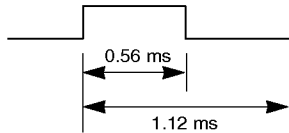


▶ **Repeat code**

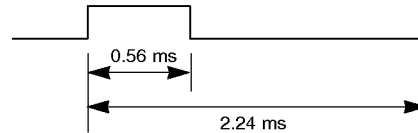


▶ **Bit description**

• Bit "0"

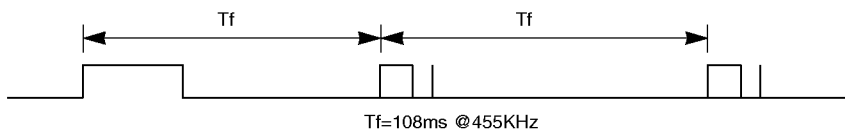


• Bit "1"



▶ **Frame interval : Tf**

The waveform is transmitted as long as a key is depressed.



Code (Hexa)	Function	Note
40	▲	R/C Button
41	▼	R/C Button
06	▶	R/C Button
07	◀	R/C Button
00	CH (▲)	R/C Button
01	CH (▼)	R/C Button
02	VOL (▶)	R/C Button
03	VOL (◀)	R/C Button
08	POWER	R/C Button (Power On/Off)
C4	POWER ON	Discrete IR Code (Only Power On)
C5	POWER OFF	Discrete IR Code (Only Power Off)
09	MUTE	R/C Button
5B	EXIT	R/C Button
10	Number Key 0	R/C Button
11	Number Key 1	R/C Button
12	Number Key 2	R/C Button
13	Number Key 3	R/C Button
14	Number Key 4	R/C Button
15	Number Key 5	R/C Button
16	Number Key 6	R/C Button
17	Number Key 7	R/C Button
18	Number Key 8	R/C Button
19	Number Key 9	R/C Button
98	MULTIMEDIA	R/C Button
0B	INPUT	R/C Button
5A	VIDEO	Discrete IR Code (Input VIDEO Selection)
BF	COMPONENT1	Discrete IR Code (Input COMPONENT1 Selection)
D4	COMPONENT2	Discrete IR Code (Input COMPONENT2 Selection)
C6	HDMI	Discrete IR Code (Input HDMI Selection)
D5	RGB	Discrete IR Code (Input RGB Selection)
0E	SLEEP	R/C Button
43	MENU	R/C Button
44	ENTER	R/C Button
4D	APC	R/C Button
52	DASP	R/C Button
5D	ZOOM -	R/C Button
5C	ZOOM +	R/C Button
79	ARC	R/C Button
76	ARC (4:3)	Discrete IR Code (Only 4:3 mode)
77	ARC (16:9)	Discrete IR Code (Only 16:9 mode)
AF	ARC (Zoom)	Discrete IR Code (Only Zoom mode)
39	CAPTION	Discrete IR Code
99	AUTO CONFIG	Discrete IR Code

Troubleshooting Checklist

No picture & No sound

- Check whether the Monitor is turned on.
- Is the power cord inserted into wall power outlet?
- Test the wall power outlet, plug another product's power cord into the outlet where the Monitor's power cord was plugged in.

Picture OK & No sound

- Press the **VOLUME** (▶) button.
- Sound muted? Press **MUTE** button.

The remote control doesn't work

- Check to see if there is any object between the Monitor and the remote control causing obstruction.
- Are batteries installed with correct polarity (+ to +, - to -)? (Refer to p.8)
- Correct remote operating mode set: Monitor, VCR etc.?
- Install new batteries. (Refer to p.8)

Picture appears slowly after switching on

- This is normal, the image is muted during the Monitor startup process. Please contact your service center, if the picture has not appeared after five minutes.

No or poor color or poor picture

- Select **Color** in the **Picture** menu and press the **VOLUME** (▶) button. (Refer to p.21)
- Keep a sufficient 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.)

Horizontal/vertical bars or picture shaking

- Check for local interference such as an electrical appliance or power tool.

No output from one of the speakers

- Adjust **Balance** in the **Sound** menu. (Refer to p.23)

Unusual sound from inside the Monitor

- A change in ambient humidity or temperature may result in an unusual noise when the plasma display is turned on or off and does not indicate a fault with the Monitor.

Product Specifications

Width (inches / mm)	41.4 / 1050
Height (inches / mm)	24.8 / 630
Depth (inches / mm)	3.6 / 91.5
Weight (pounds / kg)	64 / 29
Resolution	852 x 480 (Dot)
Power requirement	AC100-240V, 50/60Hz
Operating Temperature Range	32 ~ 104°F (0 ~ 40°C)
Operating Humidity Range	Less than 80%

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

