



LG

Life's Good

ENGLISH

OWNER'S MANUAL MONITOR TV

Please read this manual carefully before operating your set and retain it for future reference.

MONITOR TV MODELS

M197WAP

M227WAP

M237WAP

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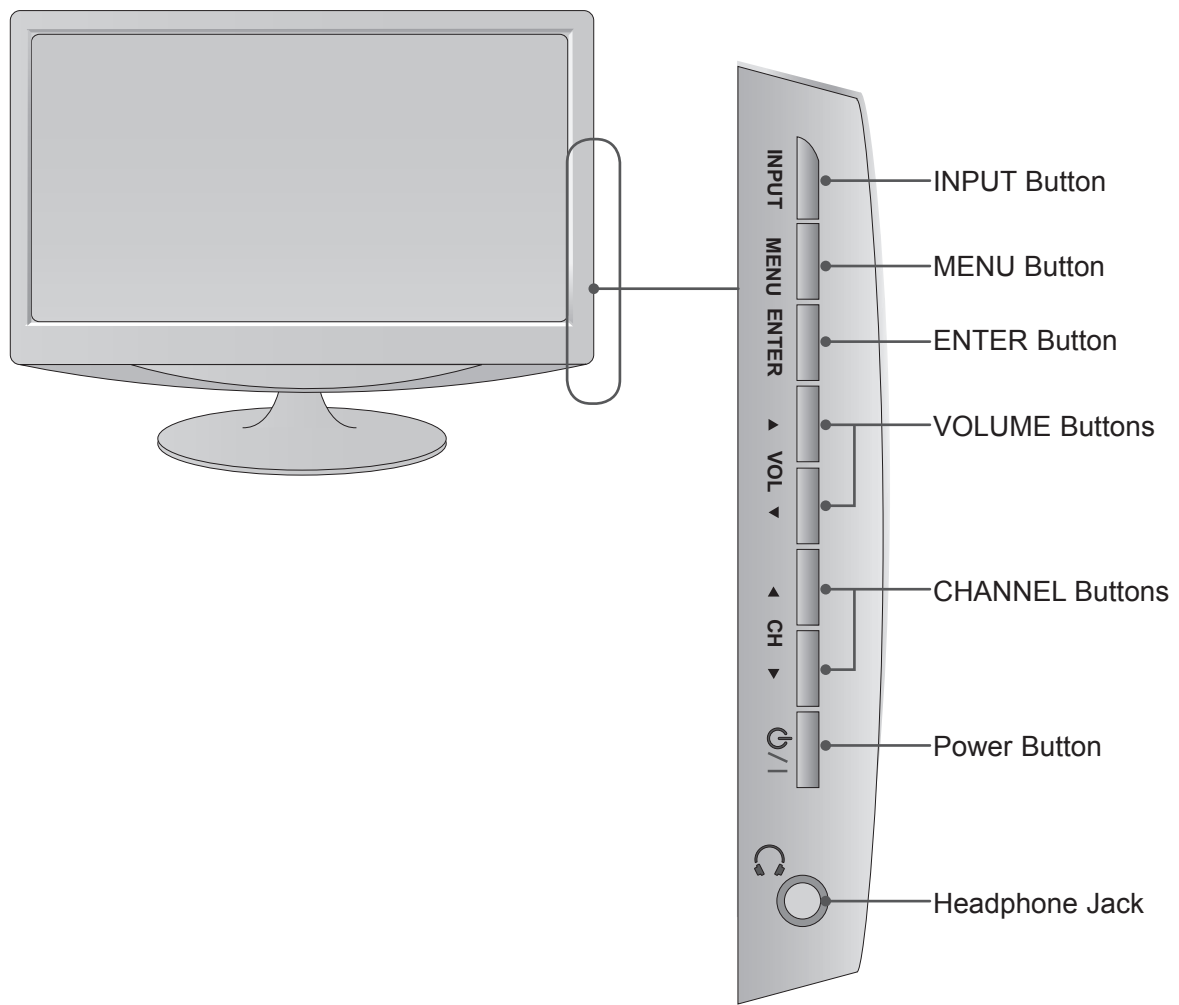
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PREPARATION

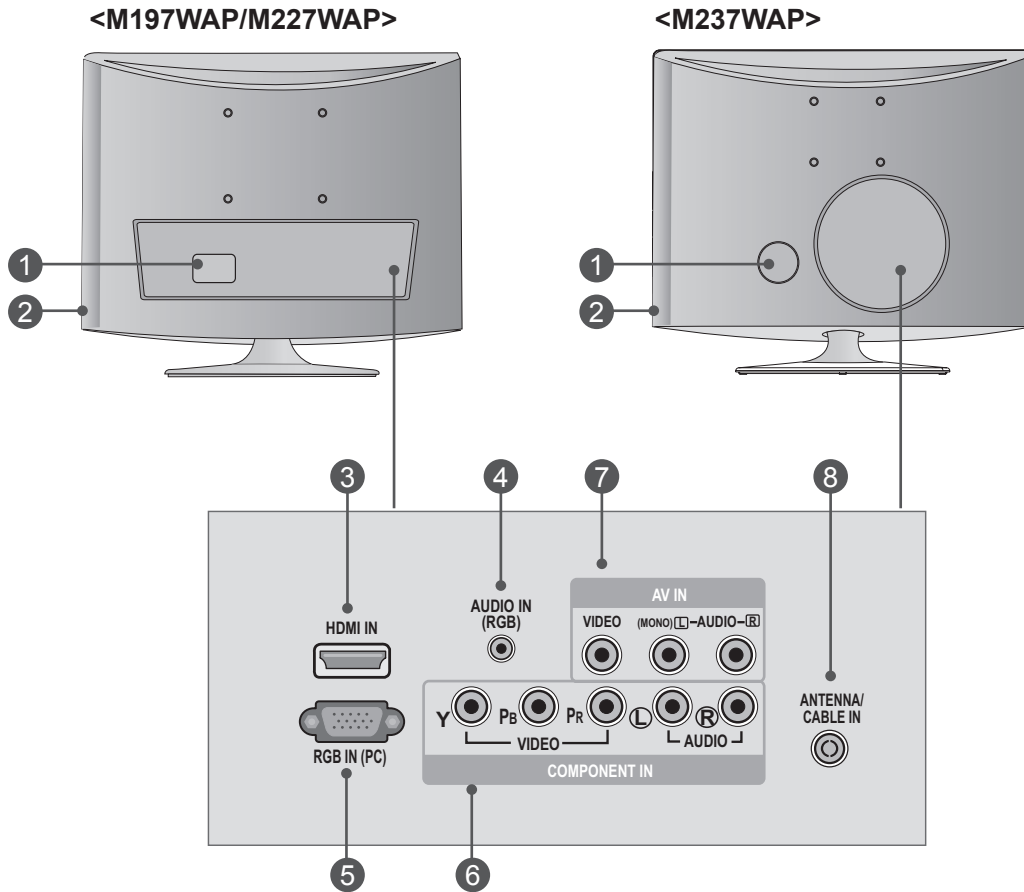
SIDE PANEL CONTROLS

- This is a simplified representation of the side panel. The image shown may be somewhat different from your set.



BACK PANEL INFORMATION

- This is a simplified representation of the back panel. The image shown may be somewhat different from your set.



1 POWER CORD SOCKET

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

2 AUDIO OUTPUT

Connect the audio from a Headphone Jack.

3 HDMI INPUT

Connect a HDMI signal to HDMI IN.
Or DVI (VIDEO) signal to HDMI IN with DVI to HDMI cable.

4 RGB/DVI AUDIO INPUT

Connect the audio from a PC.

5 RGB INPUT (PC)

Connect the output from a PC.

6 COMPONENT INPUT

Connect a component video/audio device to these jacks.

7 AV(AUDIO/VIDEO) INPUT

Connect audio/video output from an external device to these jacks.

8 ANTENNA INPUT

Connect over-the-air signals to this jack.

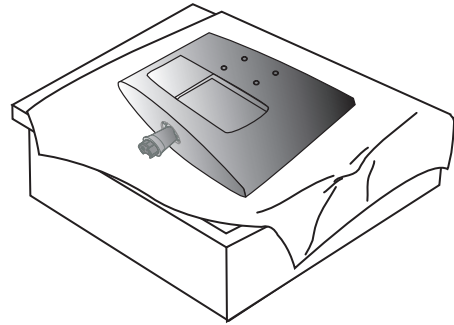
PREPARATION

<M197WAP/M227WAP>

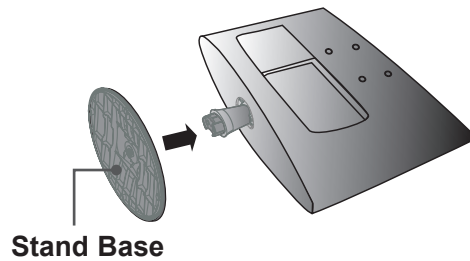
STAND INSTALLATION

■ The image shown may be somewhat different from your set.

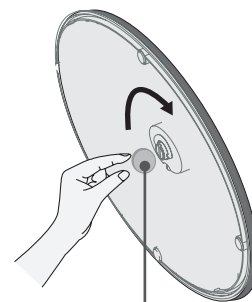
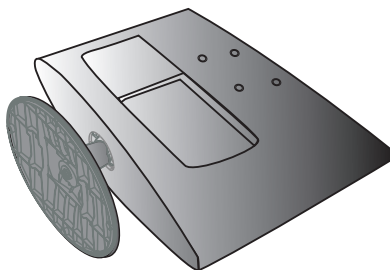
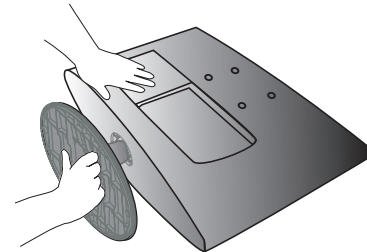
1 Carefully place the product screen side down on a cushioned surface that will protect product and screen from damage.



2 Insert the **Stand Base** into the product.



3 Use a **Coin** on the bottom of the stand base and turn the screw clock wise to tighten.

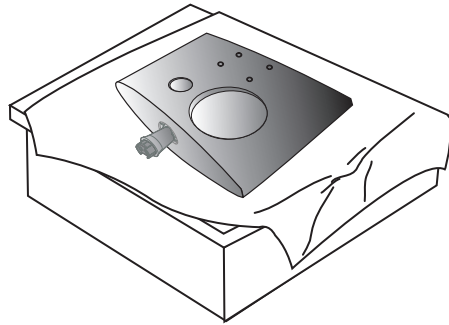


Coin

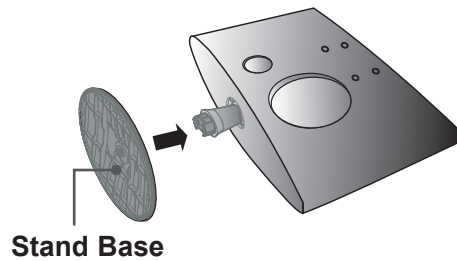
STAND INSTALLATION

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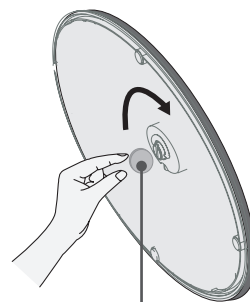
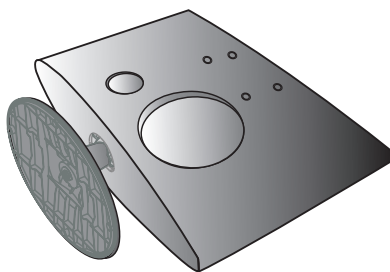
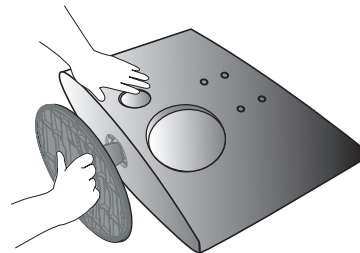
1 Carefully place the product screen side down on a cushioned surface that will protect product and screen from damage.



2 Insert the **Stand Base** into the product.



3 Use a **Coin** on the bottom of the stand base and turn the screw clock wise to tighten.



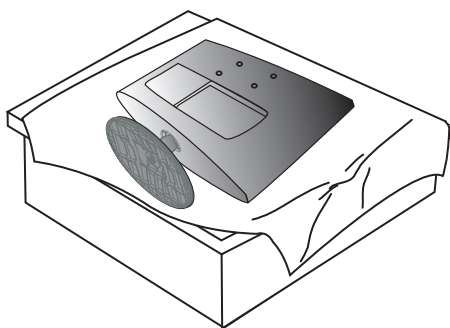
PREPARATION

<M197WAP/M227WAP>

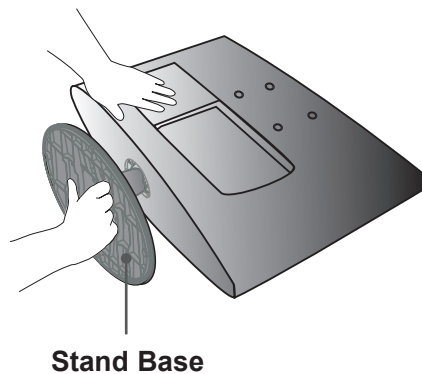
DETACHING STAND

■ The image shown may be somewhat different from your set.

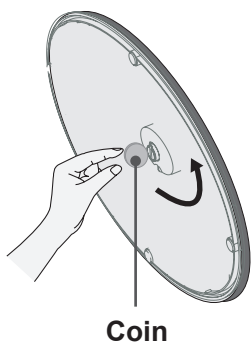
- 1 Place the set screen side down on a cushion or soft cloth.



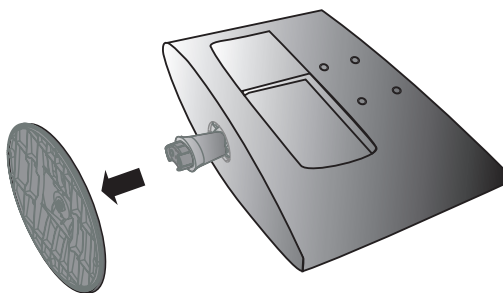
- 2 Detach the monitor to the **Stand Base** by turning the screw to the left.



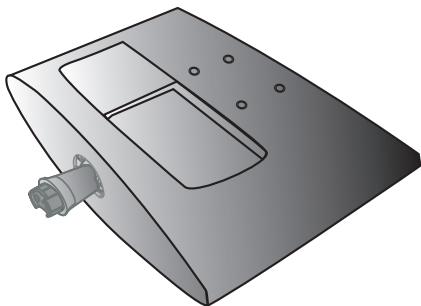
- 3 Turn the screw by using a **Coin**.



- 4 Pull the stand base.



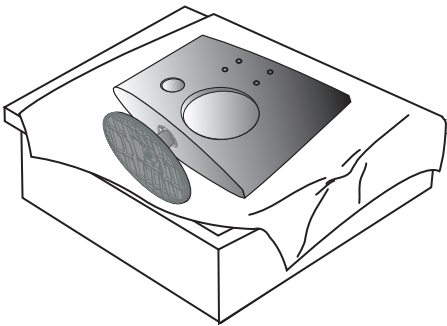
- 5



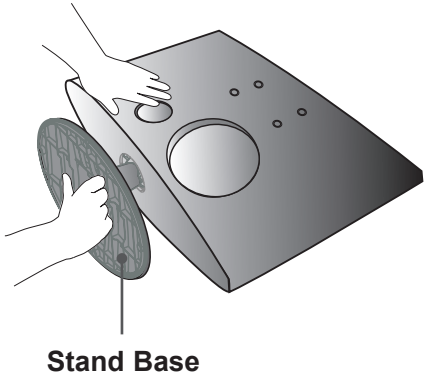
DETACHING STAND

■ The image shown may be somewhat different from your set.

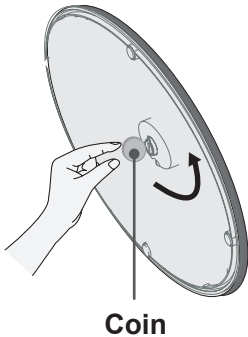
1 Place the set screen side down on a cushion or soft cloth.



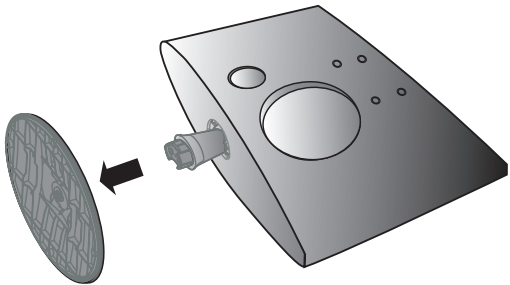
2 Detach the monitor to the **Stand Base** by turning the screw to the left.



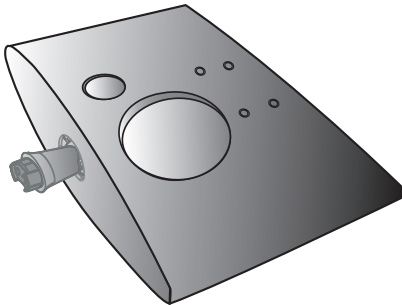
3 Turn the screw by using a **Coin**.



4 Pull the stand base.



5

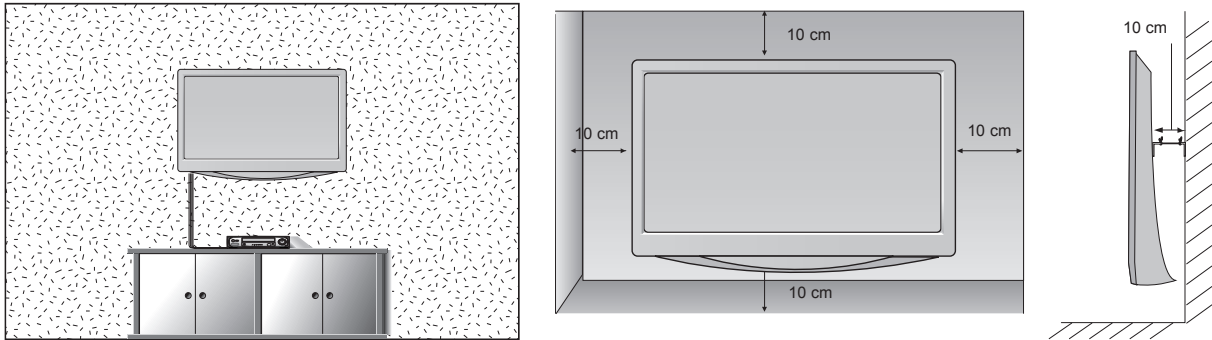


PREPARATION

WALL MOUNT: HORIZONTAL INSTALLATION

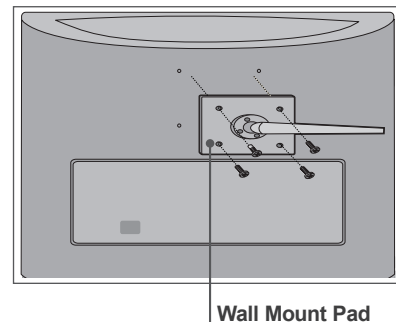
For proper ventilation, allow a clearance of 10 cm on each side and from the wall. Detailed installation instructions are available from your dealer, see the optional Tilt Wall Mounting Bracket Installation and Setup Guide.

PREPARATION



If you intend to mount the set to a wall, attach Wall mounting interface (optional parts) to the back of the set. When you install the set using the wall mounting interface (optional parts), attach it carefully so it will not drop.

1. Be sure to use screws and a wall mount that meet VESA standards.
2. Using screws longer than those recommended might damage the product.
3. Using screws that do not meet VESA standards might either damage the product or result in it coming away from the wall. We will not be held responsible for any damage resulting from failure to follow these instructions.
4. VESA compatible only with respect to screw mounting interface dimensions and mounting screw specifications
5. Please use VESA standard as below.
 - 5-1) 784.8 mm (30.9 inch) and under
 - * Wall Mount Pad Thickness : 2.6 mm
 - * Screw : Φ 4.0 mm x Pitch 0.7 mm x Length 10 mm
 - 5-2) 787.4 mm (31.0 inch) and above
 - * Please use VESA standard wall mount pad and screws.



< Screw Mounting Interface Dimension >

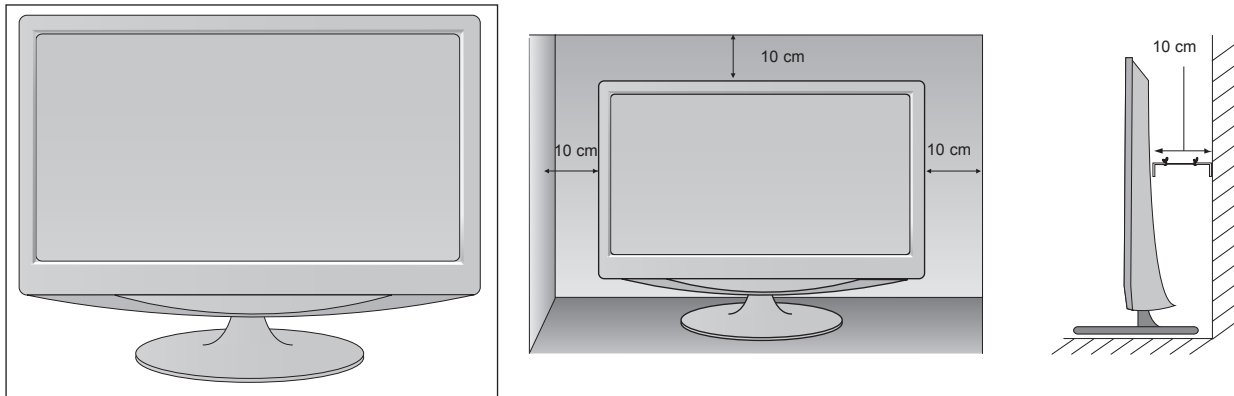
M197WAP : 100 mm x 100 mm hole spacing

M227WAP : 100 mm x 100 mm hole spacing

M237WAP : 75 mm x 75 mm hole spacing

DESKTOP PEDESTAL INSTALLATION

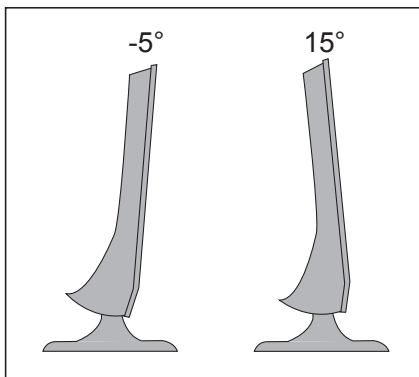
For proper ventilation, allow a clearance of 10 cm on each side and from the wall.



POSITIONING YOUR DISPLAY

- The image shown may be somewhat different from your set. Adjust the position of the panel in various ways for maximum comfort.

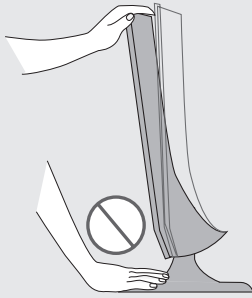
* Tilt range



PREPARATION

LOCATION

Position your set so that no bright light or sunlight falls directly onto the screen. Care should be taken not to expose the set to any unnecessary vibration, moisture, dust or heat. Also, ensure that the set is placed in a position to allow a free flow of air. Do not cover the ventilation openings on the back cover.



Warning:

When adjusting the angle of the screen, do not put your finger(s) in between the head of the monitor and the stand body.

You can hurt your finger(s).

KENSINGTON SECURITY SYSTEM

- The product is equipped with a Kensington Security System connector on the back panel. Connect the Kensington Security System cable as shown below.
- For detailed installation and use of the Kensington Security System, refer to the user's guide provided with the Kensington Security System.

For further information, contact <http://www.kensington.com>, the internet homepage of the Kensington company. Kensington sells security systems for expensive electronic equipment such as notebook PCs and LCD projectors.

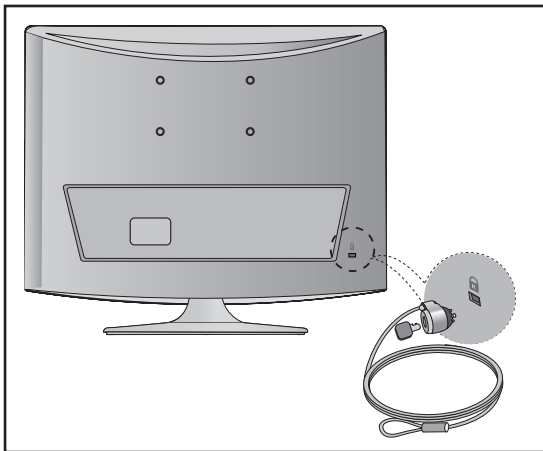
NOTE

- The Kensington Security System is an optional accessory.

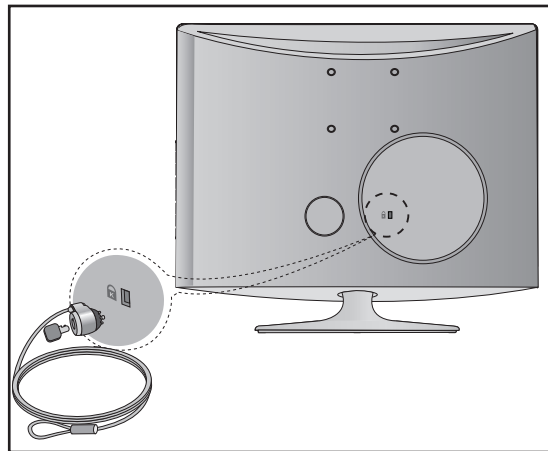
NOTES

- If the product feels cold to the touch, there may be a small "flicker" when it is turned on.
This is normal, there is nothing wrong with product.
- Some minute dot defects may be visible on the screen, appearing as tiny red, green, or blue spots.
However, they have no adverse effect on the monitor's performance.
- Avoid touching the LCD screen or holding your finger(s) against it for long periods of time.
Doing so may produce some temporary distortion effects on the screen.

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<M237WAP>

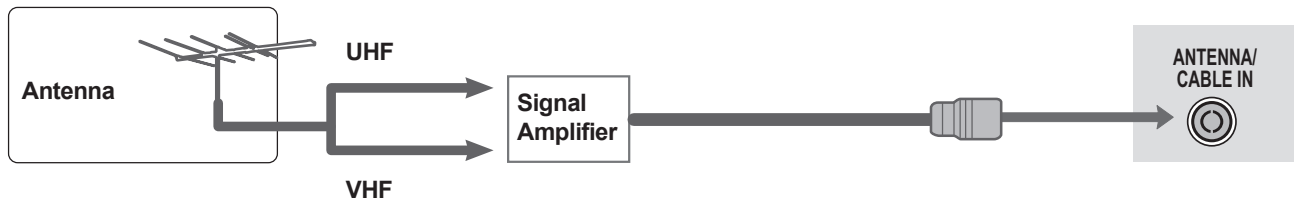
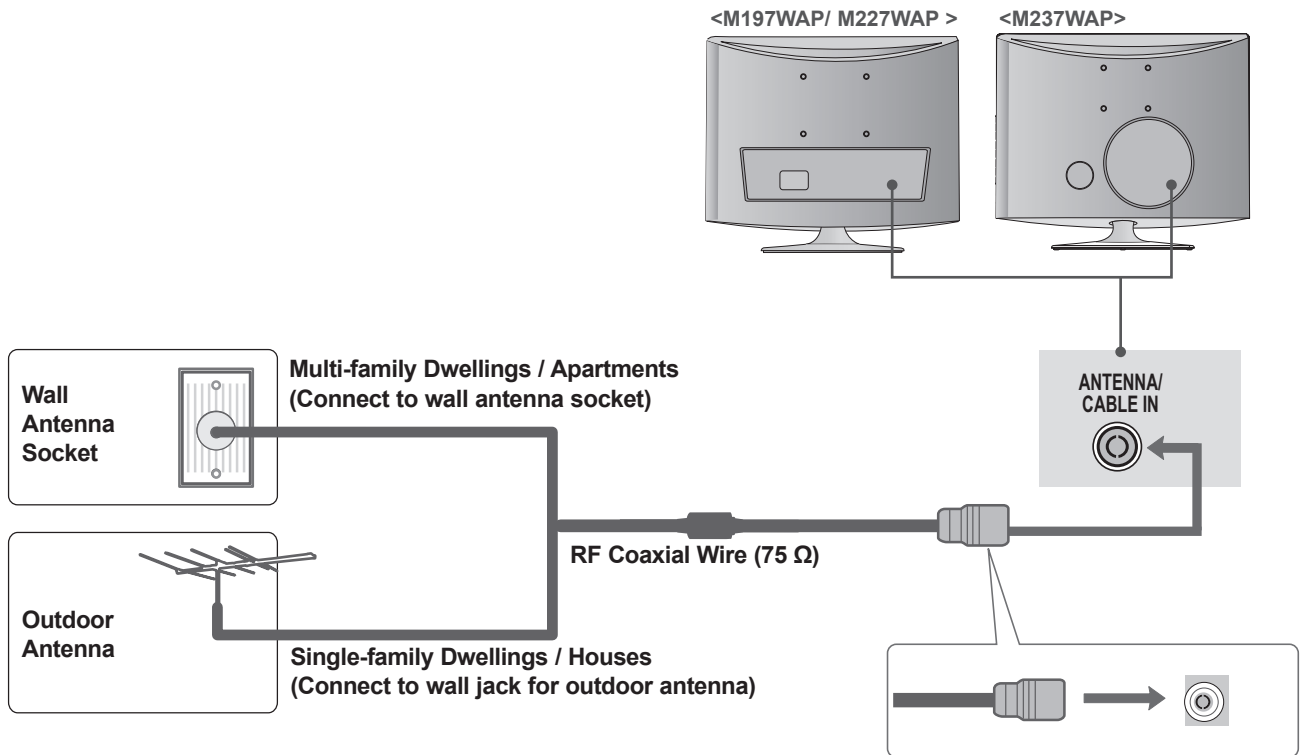


PREPARATION

- To prevent damage do not connect to the mains outlet until all connections are made between the devices.

ANTENNA CONNECTION

- For optimum picture quality, adjust antenna direction.
- An antenna cable and converter are not supplied.



- In poor signal areas, to get better picture quality, install a signal amplifier to the antenna as shown above.
- If signal needs to be split for two sets, use an antenna signal splitter for connection.

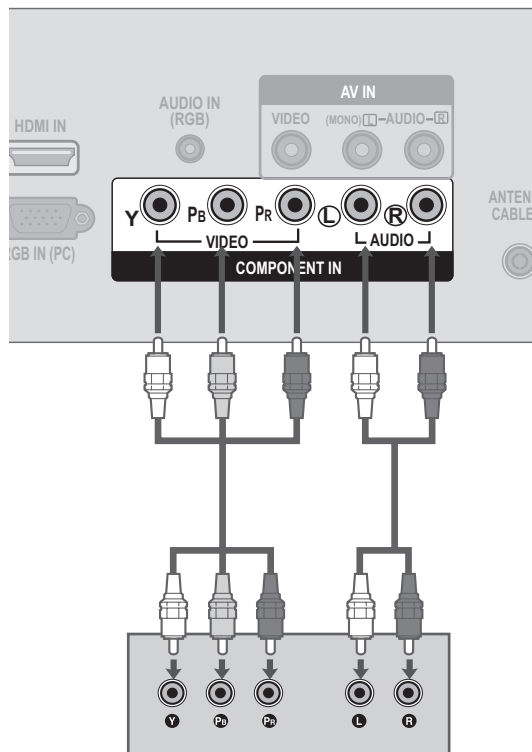
EXTERNAL EQUIPMENT SETUP

- To avoid damaging any equipment, never plug in any power cords until you have finished connecting all equipment.
- The image shown may be somewhat different from your set.

HD RECEIVER SETUP

When connecting with a component cable

- 1 Connect the video outputs (Y, PB, PR) of the digital set-top box to the **COMPONENT IN VIDEO** jacks on the set.
- 2 Connect the audio output of the digital set-top box to the **COMPONENT IN AUDIO** jacks on the set.
- 3 Turn on the digital set-top box.
(Refer to the owner's manual for the digital set-top box.)
- 4 Select **COMPONENT** input source using the **INPUT** button on the remote control



Signal	Component
480i / 576i	O
480p / 576p	O
720p	O
1080i / 1080p	O

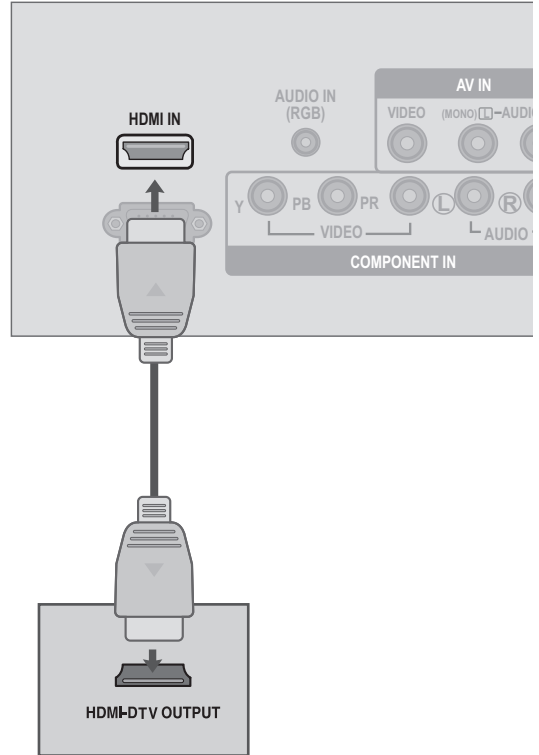
EXTERNAL EQUIPMENT SETUP

Connecting a set-top box with a HDMI cable

- 1 Connect the **HDMI** output of the digital set-top box to the **HDMI IN** jack on the set.
- 2 Select **HDMI** input source using the **INPUT** button on the remote control.
- 3 Turn on the digital set-top box.
(Refer to the owner's manual for the digital set-top box.)

! NOTE

- ▶ Set can receive the video and audio signal simultaneously with using a HDMI cable.
- ▶ If the digital set-top box supports Auto HDMI function, the output resolution of the source device will be automatically set to 1920 x 1080p.
- ▶ If the digital set-top box player does not support Auto HDMI, you need to set the output resolution appropriately.
- ▶ To get the best picture quality, adjust the output resolution of the source device to 1920 x 1080p .
- ▶ We recommend less than 10 m for HDMI cable.

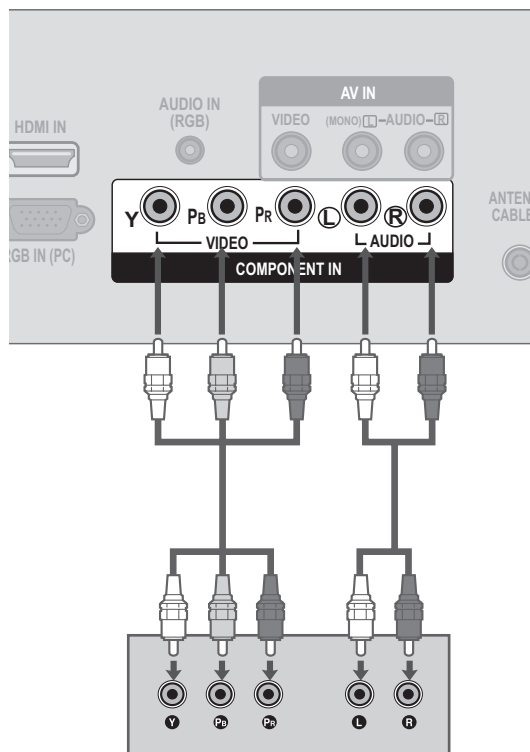


Signal	HDMI
480i / 576i	O
480p / 576p	O
720p	O
1080i / 1080p	O

DVD SETUP

Connecting with a component cable

- 1 Connect the video outputs (Y, PB, PR) of the **DVD** to the **COMPONENT IN VIDEO** jacks on the set.
- 2 Connect the audio outputs of the **DVD** to the **COMPONENT IN AUDIO** jacks on the set.
- 3 Turn on the **DVD** player, insert a **DVD**.
- 4 Select **COMPONENT** input source using the **INPUT** button on the remote control.
- 5 Refer to the **DVD** player's manual for operating instructions.



Component Input ports

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

Component ports on the SET	Y	P _B	P _R
Video output ports on DVD player	Y	P _B	P _R
	Y	P-Y	R-Y
	Y	Cb	Cr
	Y	Pb	Pr

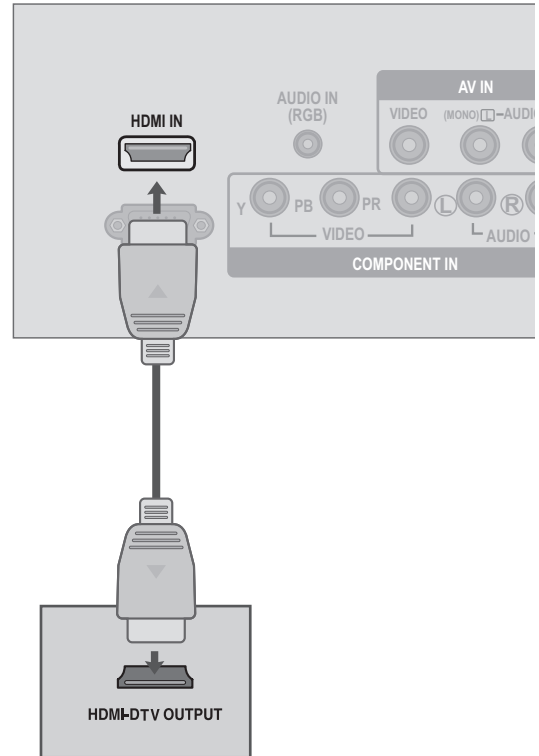
EXTERNAL EQUIPMENT SETUP

Connecting with a HDMI cable

- 1 Connect the **HDMI** output of the **DVD** to the **HDMI IN** jack on the set.
- 2 Select **HDMI** input source using the **INPUT** button on the remote control.
- 3 Refer to the **DVD** player's manual for operating instructions.

! NOTE

- ▶ SET can receive the video and audio signal simultaneously with using a HDMI cable.
- ▶ If the digital set-top box supports Auto HDMI function, the output resolution of the source device will be automatically SET to 1920 x 1080p.
- ▶ If the digital set-top box player does not support Auto HDMI, you need to SET the output resolution appropriately.
- ▶ To get the best picture quality, adjust the output resolution of the source device to 1920 x 1080p.
- ▶ We recommend less than 10 m for HDMI cable.

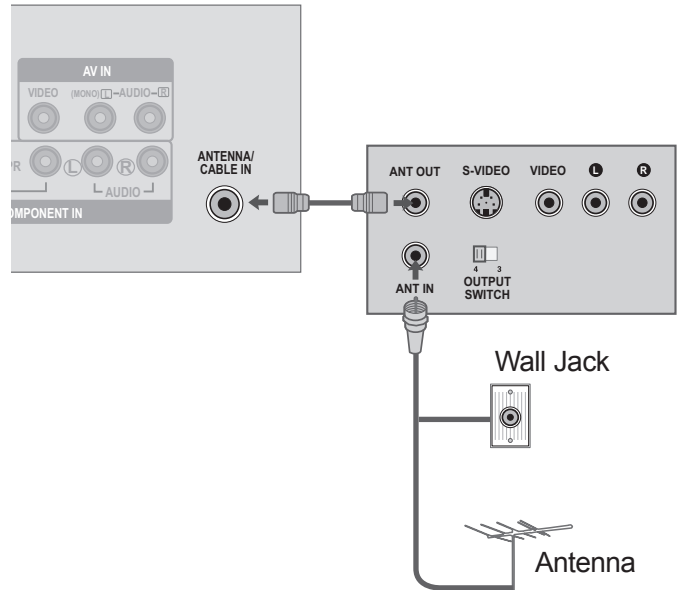


VCR SETUP

- To avoid picture noise (interference), allow adequate distance between the VCR and SET.

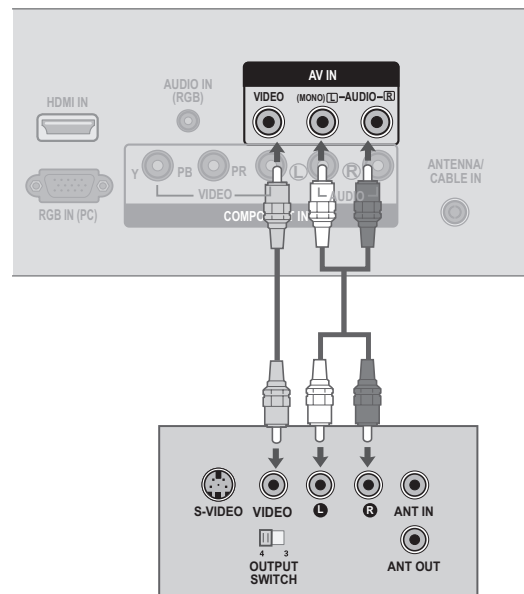
Connecting with a RF cable

- 1 Connect the **ANT OUT** socket of the **VCR** to the **ANTENNA IN** socket on the set.
- 2 Connect the antenna cable to the **ANT IN** socket of the **VCR**.
- 3 Press the **PLAY** button on the **VCR** and match the appropriate program between the **SET** and **VCR** for viewing.



Connecting with a RCA cable

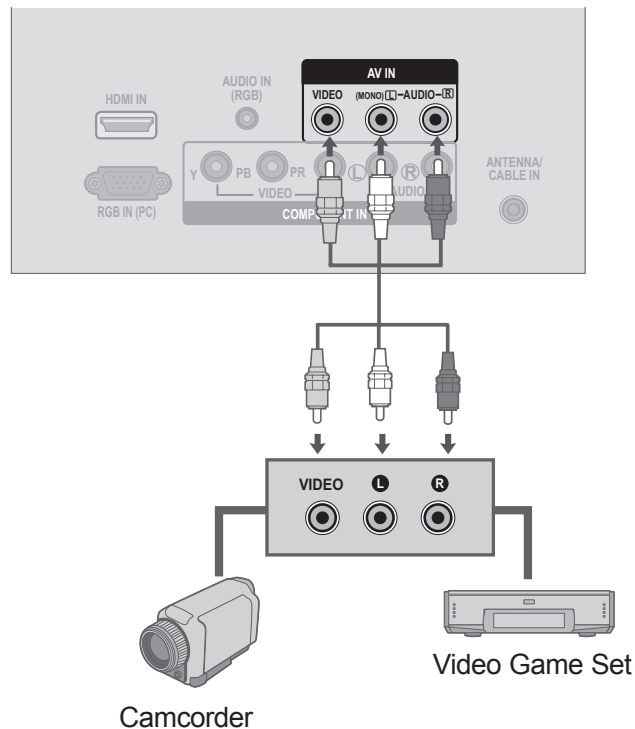
- 1 Connect the **AUDIO / VIDEO** jacks between SET and **VCR**. Match the jack colors (Video = yellow, Audio Left = white, and Audio Right = red)
- 2 Insert a video tape into the **VCR** and press **PLAY** on the **VCR**.
(Refer to the VCR owner's manual.)
- 3 Select AV input source using the **INPUT** button on the remote control.



EXTERNAL EQUIPMENT SETUP

OTHER A/V SOURCE SETUP

- 1 Connect the **AUDIO / VIDEO** jacks between SET and external equipment. Match the jack colors.
(Video = yellow, Audio Left = white, and Audio Right = red)
- 2 Select **AV** input source using the **INPUT** button on the remote control.
If connected to **AV IN**, select **AV** input source.
- 3 Operate the corresponding external equipment.
Refer to external equipment operating guide.

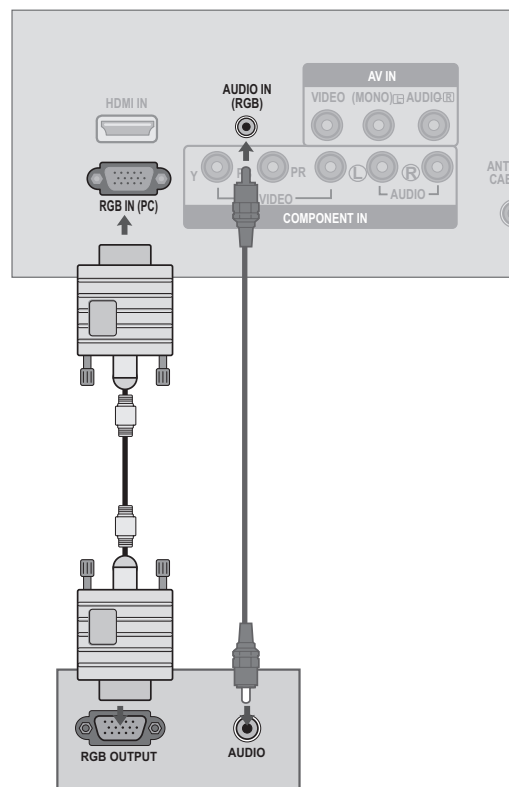


PC SETUP

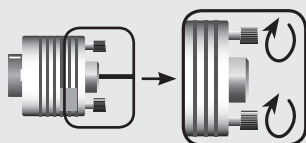
When using the remote control, aim it at the remote control sensor on the set.

When connecting with a D-sub 15 pin cable

- 1 Connect the signal cable from the monitor output socket of the **PERSONAL COMPUTER** to the **PC** input socket of the set.
- 2 Connect the audio cable from the **PC** to the **AUDIO IN (RGB)** sockets of the set.
- 3 Press the **INPUT** button to select **RGB PC**.
- 4 Switch on the **PC**, and the **PC** screen appears on the set. The set can be operated as a PC monitor.



! NOTE



▶ Connect the signal input cable and tighten it up by turning in the direction of the arrow as shown in the figure.

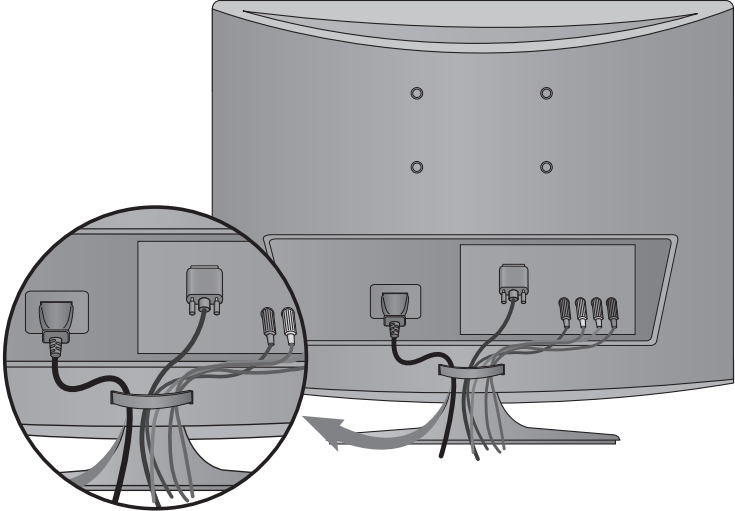
▶ User must use shielded signal interface cables (D-sub 15 pin cable) with ferrite cores to maintain standard compliance for the product.

EXTERNAL EQUIPMENT SETUP

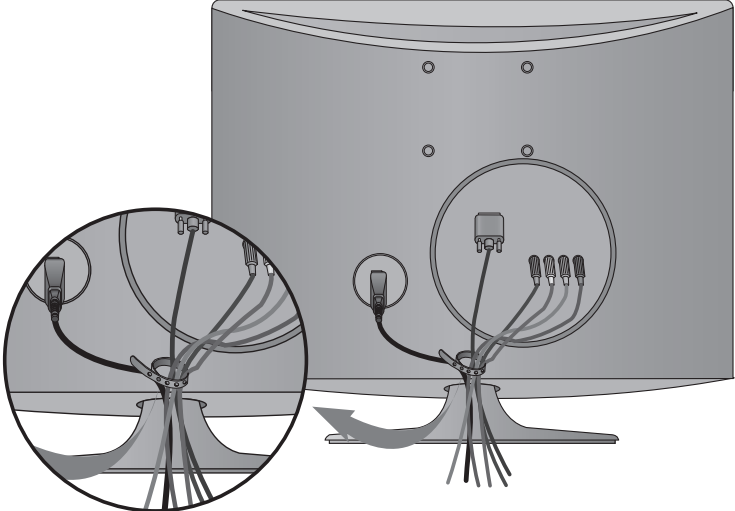
BACK COVER FOR WIRE ARRANGEMENT

Tie cables together with a cable management as shown in the illustration.

<M197WAP/ M227WAP >



<M237WAP>



SUPPORTED DISPLAY RESOLUTION

RGB[PC] mode

M197WAP

Resolution	Horizontal Frequency(kHz)	Vertical Frequency(Hz)
640 x 480	31.469	59.94
800 x 600	37.879	60.317
1024 x 768	48.363	60.0
1280 x 720	47.77	59.85
1360 x 768	47.71	60.02

M227WAP / M237WAP

Resolution	Horizontal Frequency(kHz)	Vertical Frequency(Hz)
640 x 480	31.469	59.94
800 x 600	37.879	60.317
1024 x 768	48.363	60.0
1152 x 864	54.34	60.05
1280 x 960	60	60
1280 x 1024	63.981	60.02
1680 x 1050	64.674	59.883
1680 x 1050	65.290	59.954
1920 x 1080	67.5	60

HDMI[DTV] mode

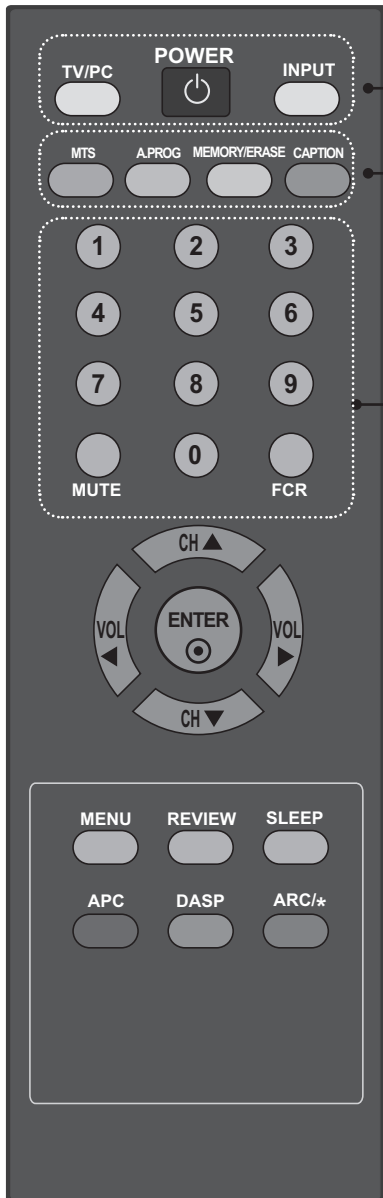
Resolution	Horizontal Frequency(kHz)	Vertical Frequency(Hz)
720 x 480	15.73	59.94
720 x 480	31.47	59.94
720 x 480	31.50	60.00
720 x 576	31.25	50.00
1280 x 720	44.96	59.94
1280 x 720	45.00	60.00
1280 x 720	37.50	50.00
1920 x 1080	33.72	59.94
1920 x 1080	33.75	60.00
1920 x 1080	28.125	50.00
1920 x 1080	67.432	59.94
1920 x 1080	67.5	60
1920 x 1080	56.250	50

WATCHING TV / PROGRAMME CONTROL

REMOTE CONTROL KEY FUNCTIONS

When using the remote control, aim it at the remote control sensor on the set.

WATCHING TV / PROGRAMME CONTROL



POWER Switches the set on from standby or off to standby.

TV/PC Selects TV or PC mode.

INPUT If you press the button once, the input source OSD will appear on screen as shown. Press the ▲/▼ button and then ENTER button to select the desired input source.

MTS Press repeatedly to select Mono, Stereo, SAP sound tone. But Stereo, SAP mode are available only if included on the broadcast signal.

A.PROG Auto Channel Button

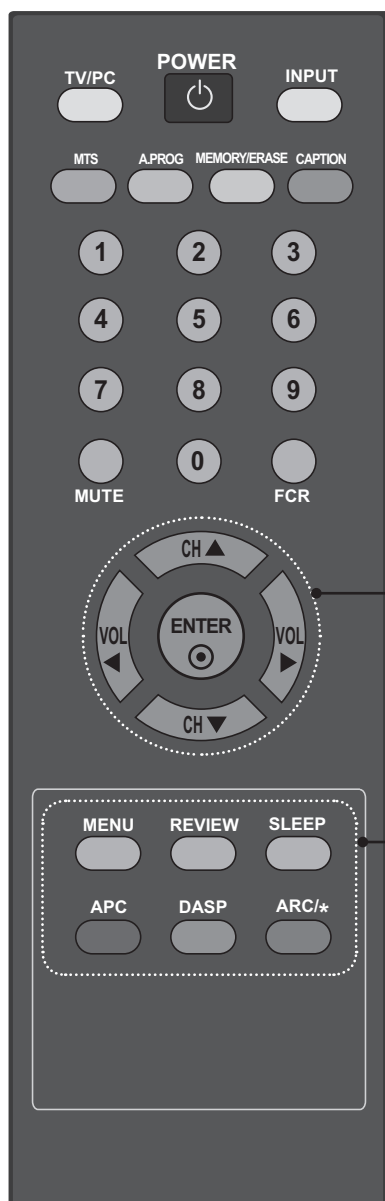
MEMORY/ERASE User can do manual channel selection and store or erase individual channels.

CAPTION Select a closed caption.
Off ➔ Mode1 ➔ Mode2 ➔ Text1 ➔ Text2
(Refer to the p.52)

0~9 number button Selects a channel.
Selects numbered items in a menu.

MUTE Switches the sound on or off.

FCR Favorite channel button.



THUMBSTICK (Up/Down/Left/Right) Allows you to navigate the on-screen menus and adjust the system settings to your preference.

Adjusts the volume.

Selects a channel.

ENTER Accepts your selection or displays the current mode.

MENU Selects a menu.(▶ p.27)

REVIEW Turn to the last channel viewed.

SLEEP Sets the sleep timer.

APC Auto Picture Control.

Press repeatedly to select Standard, Vivid or Cinema mode.

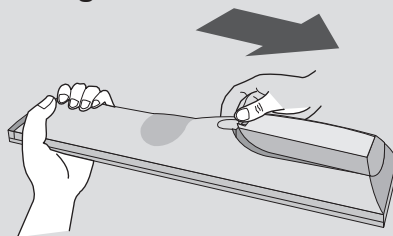
DASP Digital Auto Sound Processing.

Use this button to select the sound tone.

Press repeatedly to select Standard, Music or Cinema.

ARC/* Selects your desired picture format.(▶ p.31)

Installing Batteries



- Open the battery compartment cover on the back side and install the batteries matching correct polarity (+with +,-with -)
- Install two 1.5 V AAA batteries. Don't mix old or used batteries with new ones.
- Close cover.
- To remove the batteries, perform the installation actions in reverse.

WATCHING TV / PROGRAMME CONTROL

TURNING ON THE SET

When using the remote control, aim it at the remote control sensor on the set.

- 1 Firstly, connect the power cord correctly.
At this stage, the set switches to standby mode.
 - In standby mode to turn set on, press the button ϕ/I on the set or press the POWER buttons on the remote control and the set will switch on.
-

INSTALLATION GUIDE

- 1 If the OSD (On Screen Display) is displayed on the screen after turning on the set, you can adjust the **Language, Auto Tuning**.

Note:

- a. It will automatically disappear after approx. 40 seconds unless a button is pressed.
 - b. If you close without completing the initial setting, the Installation Guide menu can be displayed again.
-

CHANNEL SELECTION

- 1 Press the $\blacktriangle/\blacktriangledown$ or NUMBER buttons to select a channel number.
-

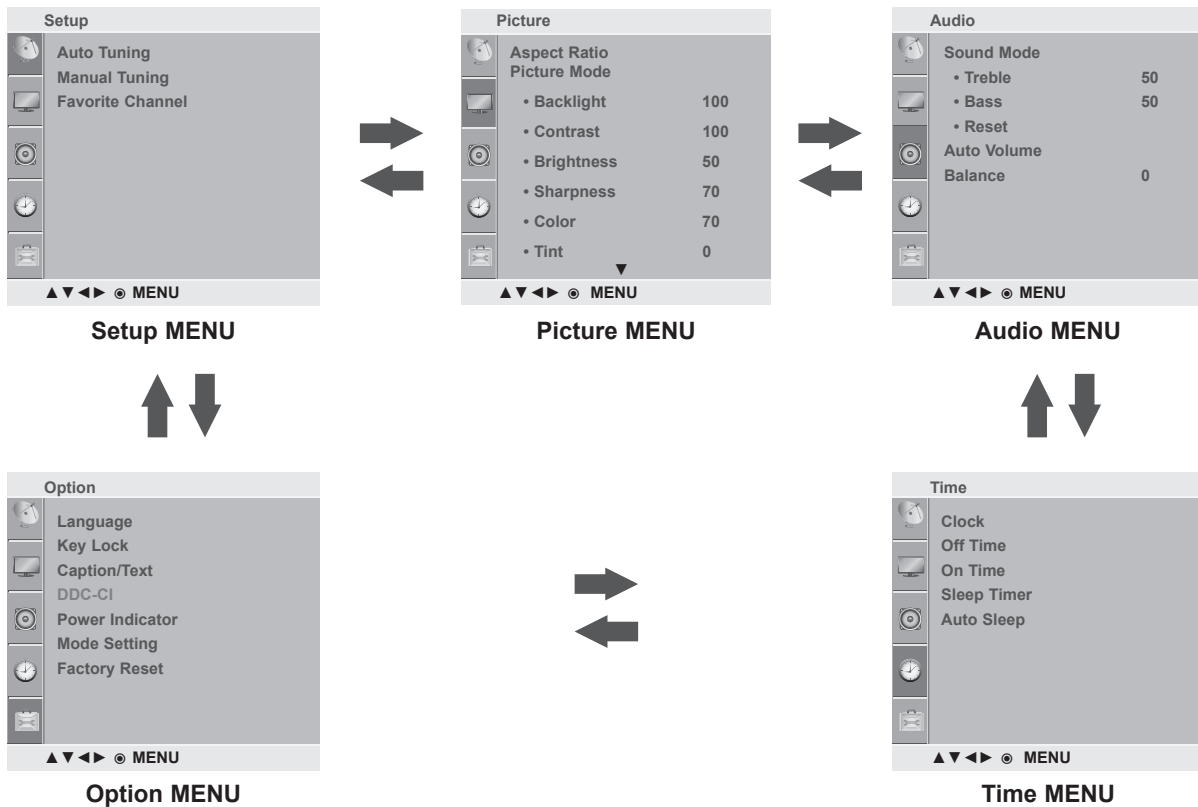
VOLUME ADJUSTMENT

- 1 Press the $\blacktriangle/\blacktriangleright$ button to adjust the volume.
.....
 - 2 If you wish to switch the sound off, press the MUTE button.
.....
 - 3 You can cancel the Mute function by pressing the MUTE, $\blacktriangle/\blacktriangleright$, MTS or DASP.
-

ON SCREEN MENUS SELECTION AND ADJUSTMENT

Your set's OSD (On Screen Display) may differ slightly from that shown in this manual.

- 1 Press the **MENU** button and then **▲/▼** button to display each menu.
- 2 Press the **▶** button and then **▲/▼** button to select a menu item.
- 3 Change the setting of an item in the sub or pull-down menu with **◀ / ▶** button.
You can move to a higher level menu by pressing the **ENTER(⊙)** button.



! NOTE

- ▶ The OSD (On Screen Display) function enables you to adjust the screen status conveniently since it provides graphical presentation.
- ▶ In this manual, the OSD (On Screen Display) may be different from your set's because it is just example to help the set operation.

WATCHING TV / PROGRAMME CONTROL

AUTO TUNING

181 Channels can be stored by program numbers (TV : 2 to 69 / CATV1 : 14 to 125). Once you have preset the stations, you will be able to use the ▲ / ▼ or NUMBER buttons to scan the stations you have programmed. Stations can be tuned using automatic or manual modes.

All stations which can be received are stored by this method. It is recommended that you use Auto tuning during installation of this set.

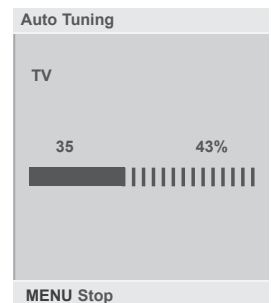
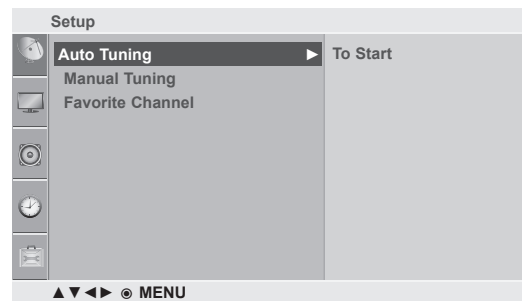
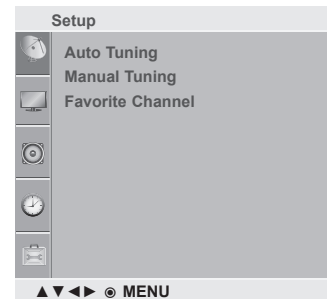
1 Press the **MENU** button and then ▲ / ▼ button to select the **Setup** menu.

2 Press the ► button and then ▲ / ▼ button to select **Auto Tuning**.

3 Press the ► button to begin auto tuning.
All receivable stations are stored.

To stop auto tuning, press the menu button.
When auto tuning is complete, the program edit menu appears on the screen. See the program edit section to edit the stored program.

4 Press the **MENU** button to move to the previous menu screen.



MANUAL TUNING

You can add or delete channels from the channel scan manually.

- 1 Press the **MENU** button and then ▲ / ▼ button to select the **Setup** menu.

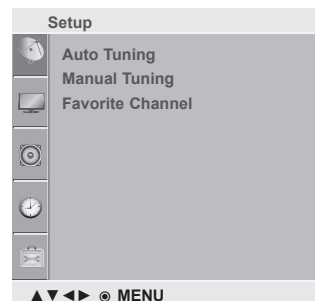
- 2 Press the ► button and then ▲ / ▼ button to select **Manual Tuning**.

- 3 Press the ► button and then ▲ / ▼ button to select **Channel number**.

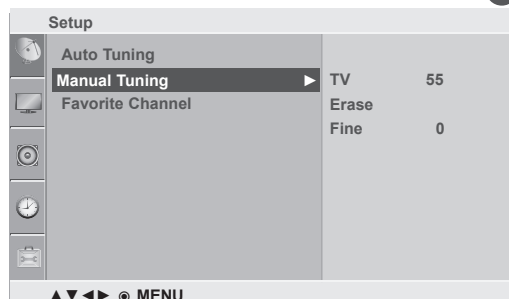
- 4 Press the ▲ / ▼ button to select **Erase**.

- 5 Press the ▲ / ▼ button to select **Fine**.
(Normally fine tuning is only necessary if reception is poor.)

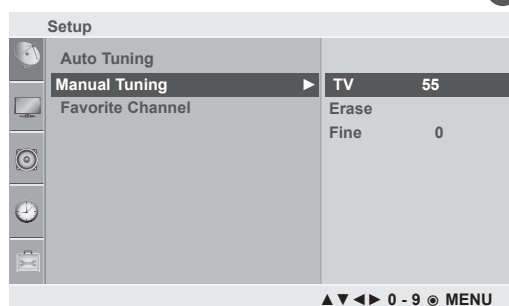
- 6 Press the **MENU** button to move to the previous menu screen.



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3 4 5

WATCHING TV / PROGRAMME CONTROL

FAVORITE CHANNEL

This function lets you select your favorite channel directly.

Repeatedly press the **FCR** button to select stored favorite channel.

1 Press the **MENU** button and then ▲ / ▼ button to select the **Setup** menu.

2 Press the ► button and then ▲ / ▼ button to select **Favorite Channel**.

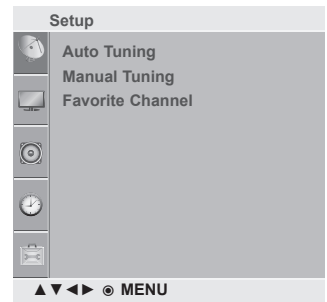
3 Press the ► button.

4 Press the ▲ / ▼ button to select -----.

5 Select a desired channel with the ◀ / ▶ button

6 To store another program, repeat steps 4 to 5.
You can store up to 8 channel.

7 Press the **MENU** button to move to the previous menu screen.



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2 3 4 5

PICTURE CONTROL

PICTURE SIZE (ASPECT RATIO) CONTROL

You can watch the screen in various picture formats; **16:9**, **4:3**, **Zoom1**, **Zoom2** and **Just Scan**.

If a fixed image is displayed on the screen for a long time, that fixed image may become imprinted on the screen and remain visible.

You can adjust the enlarge proportion using ▲ / ▼ button.

This function works in the following signal.

1 You can adjust **Aspect Ratio** in the **Picture menu**.

• 16:9

The following selection will allow you to adjust the picture horizontally, in linear proportion, to fill the entire screen (useful for viewing 4:3 formatted DVDs).



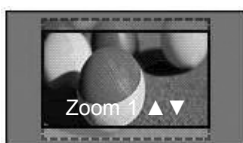
• 4:3

The following selection will allow you to view a picture with an original 4:3 aspect ratio, black bars will appear on both the left and right of the screen.



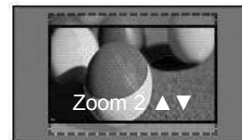
• Zoom 1

The following selection will allow you to view the picture without any alteration, while filling the entire screen. However, the top and bottom of the picture will be cropped.



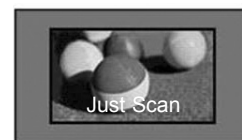
• Zoom 2

Choose Zoom 2 when you wish the picture to be altered, both horizontally extended and vertically cropped. The picture adopting a compromise between alteration and screen coverage.



• Just Scan

Following Selection will lead to you view the picture of best quality without loss of original picture in high resolution image.



! NOTE

- ▶ You can only select 4:3, 16:9 (Wide) in Component, HDMI mode.
- ▶ In HDMI/Component (over 720p) mode, Just Scan is available.

PICTURE CONTROL

PRESET PICTURE SETTINGS

Picture Mode-Preset

Picture Mode adjusts the set for the best picture appearance. Select the preset value in the **Picture Mode** menu based on the program category.

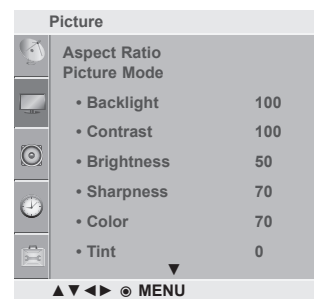
Vivid, **Standard** and **Cinema** are programmed for optimum picture reproduction at the factory.

1 Press the **MENU** button and then ▲ / ▼ button to select the **Picture** menu.

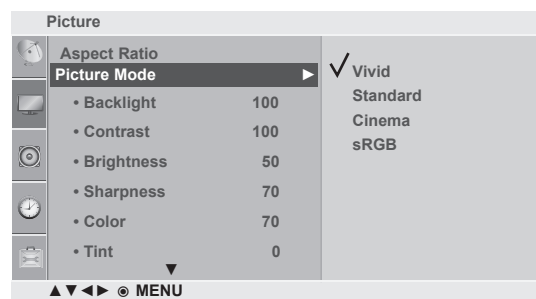
2 Press the ► button and then ▲ / ▼ button to select **Picture Mode**.

3 Press the ► button and then ▲ / ▼ button to select **Vivid**, **Standard**, **Cinema** or **sRGB**.

4 Press the **MENU** button to move to the previous menu screen.



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! NOTE

- In RGB PC mode, sRGB is Available.

MANUAL PICTURE ADJUSTMENT

Picture Mode-User Option

- Backlight** To control the brightness of the screen, adjust the brightness of LCD panel.
- Contrast** Adjusts the difference between light and dark levels in the picture.
- Brightness** Increases or decreases the amount of white in the picture.
- Sharpness** Adjusts the level of crispness in the edges between the light and dark areas of the picture.
The lower the level, the softer the image.
- Color** Adjusts intensity of all colors.
- Tint** Adjusts the balance between red and green levels.

- 1 Press the **MENU** button and then ▲ / ▼ button to select the **Picture** menu.

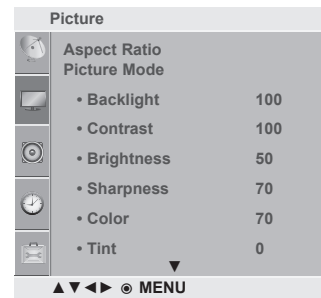
- 2 Press the ► button and then ▲ / ▼ button to select **Picture Mode**.

- 3 Press the ► button and then ▲ / ▼ button to select **Vivid, Standard, Cinema** or **sRGB**.

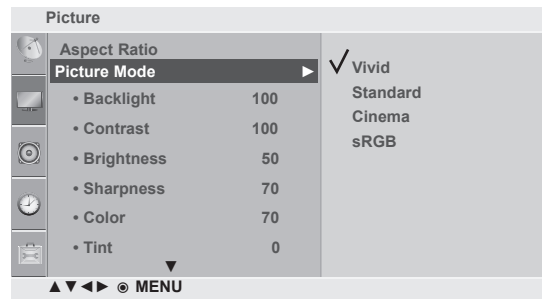
- 4 Press the **ENTER** button and then ▲ / ▼ button to select the desired picture option (**Backlight, Contrast, Brightness, Sharpness, Color** and **Tint**).

- 5 Press the ◀ / ▶ button to make appropriate adjustments.

- 6 Press the **MENU** button to move to the previous menu screen.



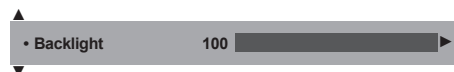
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! NOTE

- In RGB PC mode, sRGB is Available.

PICTURE CONTROL

PICTURE IMPROVEMENT TECHNOLOGY

You can calibrate the screen for each Picture Mode or set the video value according to the special video screen.

You can set the video value differently for each input.

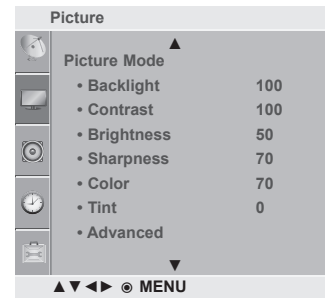
To reset to the factory default screen after making adjustments to each video mode, execute the "Picture Reset" function for each Picture Mode.

1 Press the **MENU** button and then **▲ / ▼** button to select the **Picture** menu.

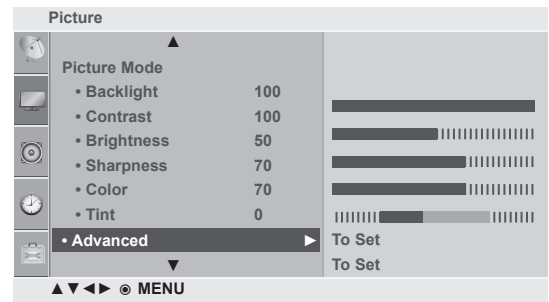
2 Press the **▶** button and then **▲ / ▼** button to select **Advanced**.

3 Press the **▶** button and then **▲ / ▼** button to select **Dynamic Contrast, Dynamic Color, Noise Reduction, Black Level, Film Mode or Color Temperature**.

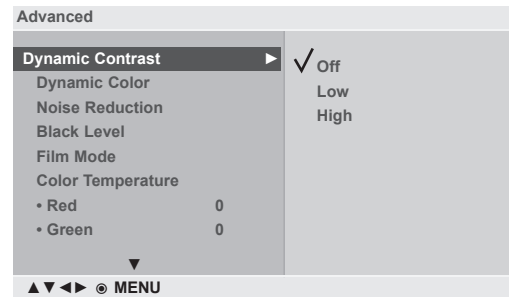
4 Press the **MENU** button to move to the previous menu screen.



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! NOTE

- At 1080i / p **Dynamic Contrast, Dynamic Color, Noise Reduction** is not enable.

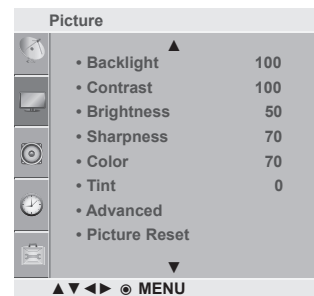
<p>Dynamic Contrast (Off/Low/High)</p>	<ul style="list-style-type: none"> ■ Adjusts the contrast to keep it at the best level according to the brightness of the screen. The picture is improved by making bright parts brighter and dark parts darker. ■ This feature is not working in RGB 1080p/i mode.
<p>Dynamic Color (Off/Low/High)</p>	<ul style="list-style-type: none"> ■ Adjusts screen colors so that they look livelier, richer and clearer. ■ This feature enhances hue, saturation and luminance so that red, blue, green and white look more vivid. ■ This feature is not working in RGB 1080p/i mode.
<p>Noise Reduction (Off/Low/High)</p>	<ul style="list-style-type: none"> ■ Reduces screen noise without compromising video quality.
<p>Black Level (Low/High)</p>	<ul style="list-style-type: none"> • Low :The reflection of the screen gets darker. • High : The reflection of the screen gets brighter. ■ Set black level of the screen to proper level. ■ This function enables to select 'Low' or 'High' in the following mode: RF, AV, Component or HDMI.
<p>Film Mode (On/Off)</p>	<ul style="list-style-type: none"> ■ Makes video clips recorded in film look more natural. This feature operates only in SET, AV, RF and Component 480i/576i mode.
<p>Color Temperature (Cool/Medium/Warm)</p>	<ul style="list-style-type: none"> ■ Choose one of three automatic color adjustments. Set to warm to enhance hotter colors such as red, or set to cool to see less intense colors with more blue. ■ You can control red, green, blue to adjust color details.

PICTURE CONTROL

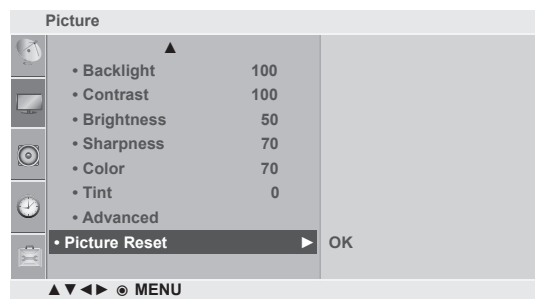
PICTURE RESET

Settings of the selected picture modes return to the default factory settings.

- 1 Press the **MENU** button and then ▲/▼ button to select the **Picture** menu.
.....
- 2 Press the ► button and then ▲/▼ button to select **Picture Reset**.
.....
- 3 Press the ► button to initialize the adjusted value.
.....
- 4 Press the **MENU** button to move to the previous menu screen.



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SCREEN SETUP

AUTO CONFIGURE (RGB [PC] mode only)

Automatically adjusts picture position and minimizes image instability. After adjustment, if the image is still not correct, your set is functioning properly but needs further adjustment.

Auto configure

This function is for automatic adjustment of the screen position, clock, and phase. The displayed image will be unstable for a few seconds while the auto configuration is in progress.

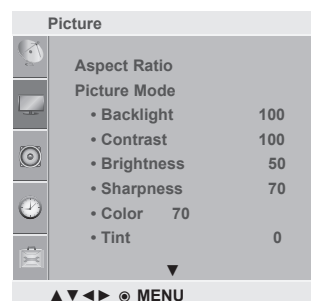
1 Press the **MENU** button and then use ▲/▼ button to select the **Picture** menu.

2 Press the ► button and then use ▲/▼ button to select **Screen**.

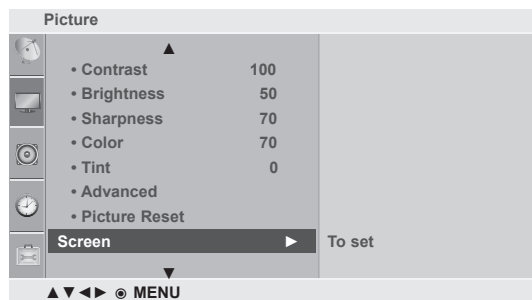
3 Press the ► button and then use ▲/▼ button to select **Auto Config.**

4 Press the **ENTER(⊙)** button

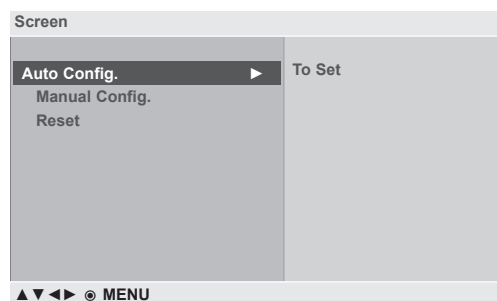
5 Press the **MENU** button to move to the previous menu screen



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PICTURE CONTROL

MANUAL CONFIGURE(Adjustment for screen Position)

If the picture is not clear and especially if characters are still trembling, adjust the picture phase manually.

This function works in the following mode when the signal exist : **RGB PC**

1 Press the **MENU** button and then use ▲/▼ button to select the **Picture** menu.

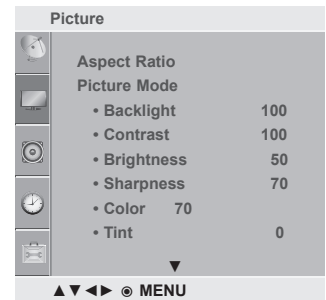
2 Press the ► button and then use ▲/▼ button to select **Screen**.

3 Press the ► button and then use ▲/▼ button to select **Manual Config.**

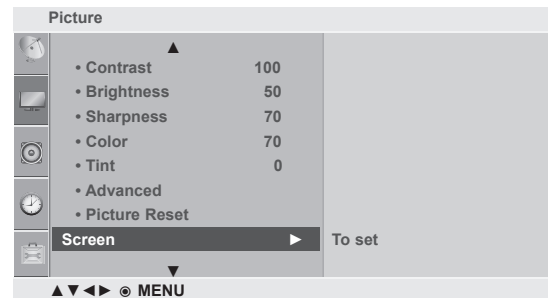
4 Press the ► button and then use ▲/▼ button to select **Phase, Clock, H-Position or V-Position**.
(When the H-Position and V-Position be changed, Value may differ from the aspect ratio.)

5 Press the ◀ / ▶ button to make appropriate adjustments.

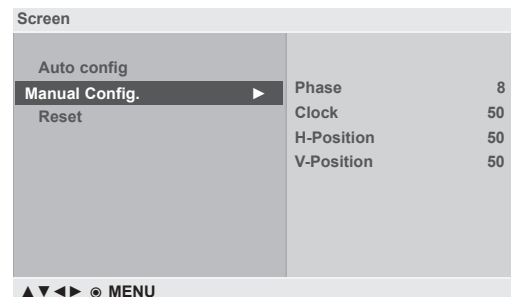
6 Press the **MENU** button to move to the previous menu screen.



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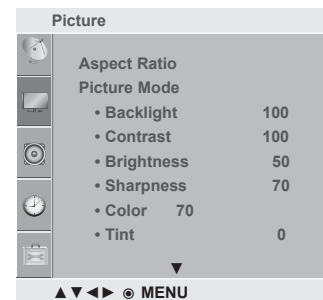
INITIALIZING (Reset to original factory settings)

This function operates in current mode.

To initialize the adjusted value

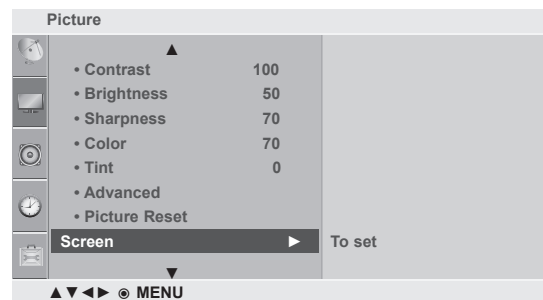
This function works in the following mode when the signal exist : **RGB PC**

- 1 Press the **MENU** button and then use ▲/▼ button to select the **Picture** menu.



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- 2 Press the ▶ button and then use ▲/▼ button to select **Screen**.

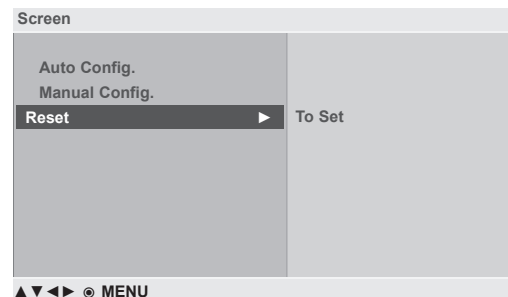


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- 3 Press the ▶ button and then use ▲/▼ button to select **Reset**.

- 4 Press the ▶ button.

- 5 Press the **MENU** button to move to the previous menu screen.



3 4

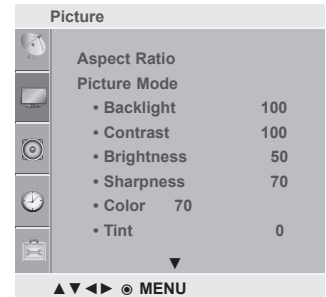
PICTURE CONTROL

SELECTING RESOLUTION

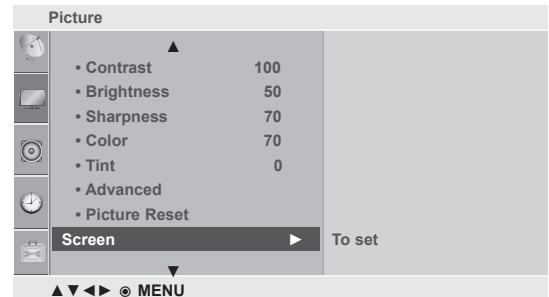
To view a normal picture, match the resolution of RGB mode and selection of PC mode.

This function works in the following mode: RGB[PC] mode.

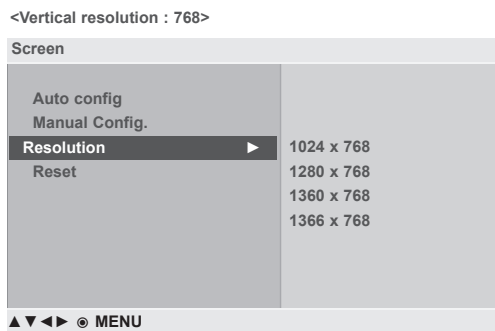
- 1 Press the **MENU** button and then use **▲/▼** button to select the **Picture menu**.
- 2 Press the **▶** button and then use **▲/▼** button to select **Screen**.
- 3 Press the **▶** button and then use **▲/▼** button to select **Resolution**.
- 4 Press the **MENU** button to move to the previous menu screen.



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SOUND CONTROL

PRESET SOUND SETTINGS - SOUND MODE

You can select your preferred sound setting; **Standard**, **Music** or **Cinema**.

Sound Mode lets you enjoy the best sound without any Special adjustment as the set sets the appropriate sound options based on the program content.

Standard, **Music** and **Cinema** are preset for optimum sound quality at the factory.

1 Press the **MENU** button and then ▲/▼ button to select the **Audio** menu.

.....

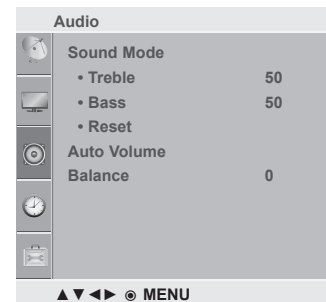
2 Press the ► button and then ▲/▼ button to select **Sound Mode**.

.....

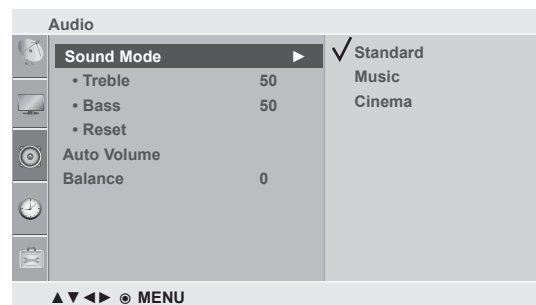
3 Press the ► button and then ▲/▼ button to select **Standard**, **Music** or **Cinema**.

.....

4 Press the **MENU** button to move to the previous menu screen.



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SOUND CONTROL

SOUND SETTING ADJUSTMENT - USER MODE

1 Press the **MENU** button and then ▲/▼ button to select the **Audio** menu.

.....

2 Press the ► button and then ▲/▼ button to select **Sound Mode**.

.....

3 Press the ► button and then ▲/▼ button to select **Standard, Music** or **Cinema**.

.....

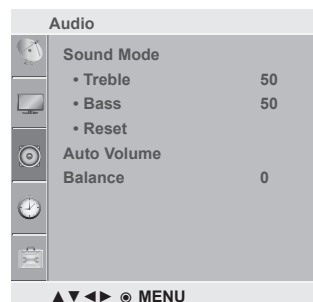
4 Press the **ENTER**(⊙) button and then ▲/▼ button to select **Treble** or **Bass**.

.....

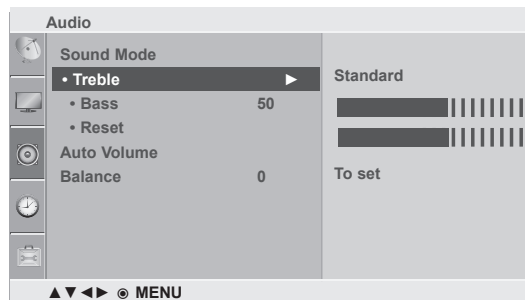
5 Press the ◀/▶ button to make appropriate adjustments.

.....

6 Press the **MENU** button to move to the previous menu screen.



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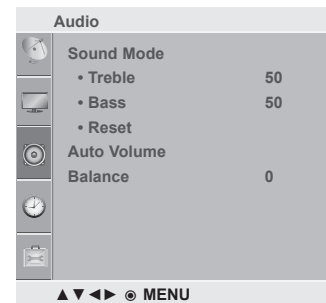


2 3 4 5

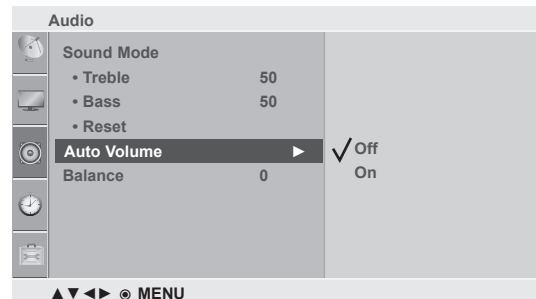
AUTO VOLUME LEVELER

Auto Volume automatically remains on the same level of volume if you change programmes.

- 1 Press the **MENU** button and then ▲/▼ button to select the **Audio menu**.
- 2 Press the ► button and then ▲/▼ button to select **Auto Volume**.
- 3 Press the ► button and then ▲/▼ button to select **On or Off**.
- 4 Press the **MENU** button to move to the previous menu screen.



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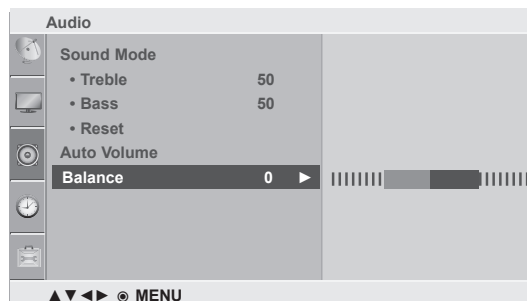
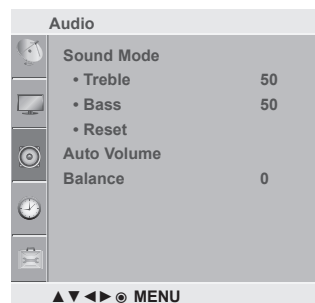
2 3

SOUND CONTROL

BALANCE

You can adjust the sound balance of the speakers to the preferred levels.

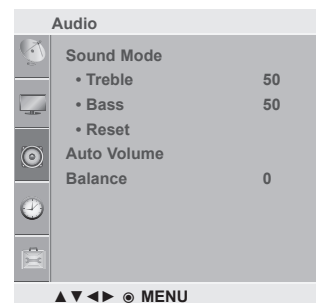
- 1 Press the **MENU** button and then ▲/▼ button to select the **Audio** menu.
- 2 Press the ► button and then ▲/▼ button to select **Balance**.
- 3 Press the ► button and then ▲/▼ button to make desired **adjustment**.
- 4 Press the **MENU** button to move to the previous menu screen.



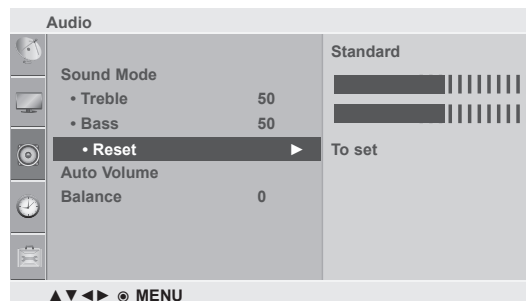
AUDIO RESET

Settings of the selected Sound Mode return to the default factory settings.

- 1 Press the **MENU** button and then **▲/▼** button to select the **Audio menu**.
- 2 Press the **▶** button and then **▲/▼** button to select **Reset**.
- 3 Press the **▶** or **ENTER(⊙)** button.
- 4 Press the **MENU** button to move to the previous menu screen.



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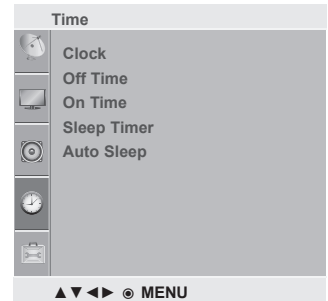
TIME SETTING

CLOCK SETUP

You must set the time correctly before using on/off time function.

If current time setting is erased by a power failure or the set is unplugged, reset the clock.

- 1 Press the **MENU** button and then ▲/▼ button to select the **Time menu**.
- 2 Press the ► button and then ▲/▼ button to select **Clock**.
- 3 Press the ► button and then ▲/▼ button to set the hour.
- 4 Press the ► button and then ▲/▼ button to set the minute.
- 5 Press the **MENU** button to move to the previous menu screen.



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2 3 4

AUTO ON/OFF TIMER SETTING

The Off time function automatically switches the set to standby at a preset time.

The set is switched on by the on time function it will automatically switch back to standby mode unless a button has been pressed for Two hours after.

Once the on time/off time is set, these functions operate daily at the preset time.

The Off time function overrides the On time function if both are set to the same time.

The set must be in standby mode for the On time to work.

1 Press the **MENU** button and then **▲ / ▼** button to select the Time menu.

2 Press the **▶** button and then **▲ / ▼** button to select **On/Off Time**.

- To cancel **On / Off Time** function, select **Off**.

3 Press the **▶** button and then **▲ / ▼** button to set the hour.

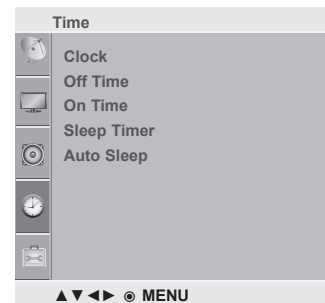
4 Press the **▶** button and then **▲ / ▼** button to set the minutes.

5 **For On Time function only**

- **Ch** : Press the **▶** button and then **▲ / ▼** button to select the channel

- **Vol** : Press the **▶** button and then **▲ / ▼** button to adjust volume level at switch-on.

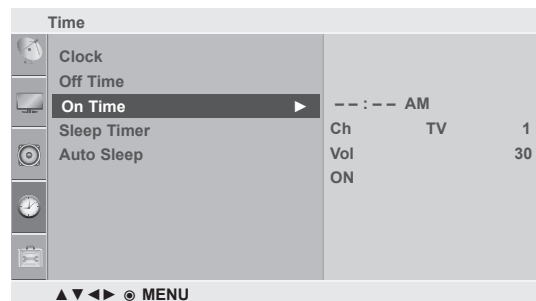
6 Press the **MENU** button to move to the previous menu screen.



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2 3 4



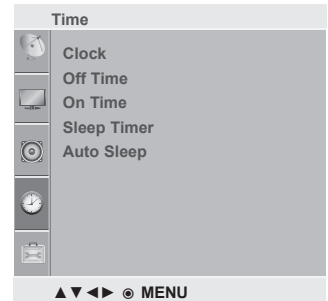
2 3 4 5

TIME SETTING

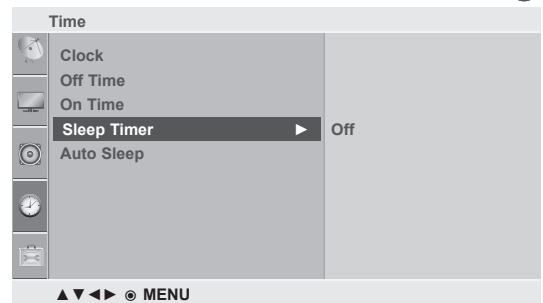
SLEEP TIMER SETTING

You do not have to remember to switch the set off before you go to sleep. The sleep timer automatically switches the set to standby after the preset time has elapsed.

- 1 Press the **MENU** button and then ▲ / ▼ button to select the Time menu.
.....
- 2 Press the ► button and then ▲ / ▼ button to select **Sleep Timer**.
.....
- 3 Press the ► button and then ▲ / ▼ button to set the minute (**Off, 10, 20, 30, 60, 90, 120, 180 or 240**).
.....
- 4 Press the **MENU** button to move to the previous menu screen.



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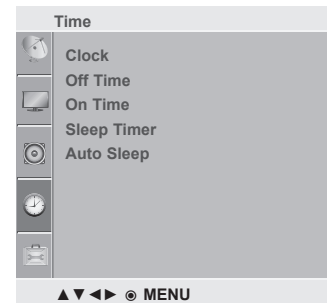


2 3 4

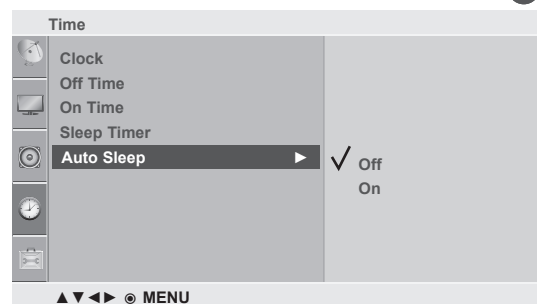
AUTO SLEEP

If the set is switched on and there is no input signal, it will switch off automatically after 15 minutes.

-
- 1 Press the **MENU** button and then **▲ / ▼** button to select the **Time** menu.
.....
 - 2 Press the **▶** button and then **▲ / ▼** button to select **Auto Sleep**.
.....
 - 3 Press the **▶** button and then **▲ / ▼** button to select **On** or **Off**.
-



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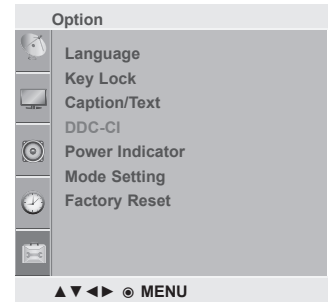
2 3

OPTION SETTING

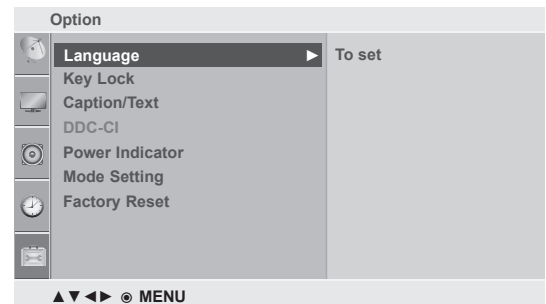
ON-SCREEN MENU LANGUAGE SELECTION

The menus can be shown on the screen in the selected language.

- 1 Press the **MENU** button and then use ▲ / ▼ button to select the **Option** menu.
.....
- 2 Press the ► button and then use ▲ / ▼ button to select **Language**.
.....
- 3 Press the ► button and then use ◀ / ▶ button to select your desired language.
.....
- 4 Press the **ENTER** (⊙) button
.....
- 5 Press the **MENU** button to move to the previous menu screen.



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KEY LOCK

The set can be set so that the remote control is needed to control it. This feature can be used to prevent unauthorized viewing.

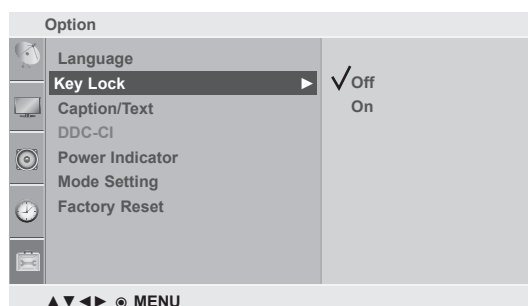
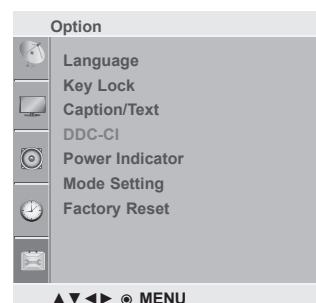
This set is programmed to remember which option it was last set to even if you turn the set off.

1 Press the **MENU** button and then **▲ / ▼** button to select the **Option** menu.

2 Press the **▶** button and then **▲ / ▼** button to select **Key Lock**.

3 Press the **▶** button and then **▲ / ▼** button to select **On** or **Off**.

4 Press the **MENU** button to move to the previous menu screen.



NOTE

- ▶ In **Key Lock 'On'**, if the SET is turned off, press the **⏻ / I** button on the **SET** or **POWER** buttons on the remote control.
- ▶ With the Key Lock On, the display 'Key Lock On' appears on the screen if any button on the side panel is pressed while viewing the SET.

OPTION SETTING

CAPTION/TEXT

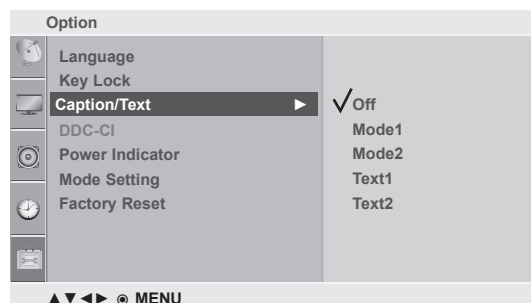
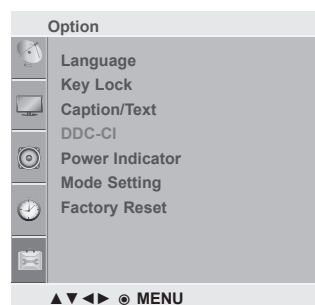
Text services give a wide variety of information on all kind of subjects (ex. captioned program lists, weather forecasts, stock exchange topics, news for hearing-impaired....) on up to half of the screen. But not all stations offer text services, even though they might offer captioning. In the event you are receiving a poor signal, an empty black box may appear and disappear, even when the text mode is selected. This is a normal when receiving a poor signal. This set is programed to remember the **Caption/Text** mode it was last set to, when you turn the power off.

-
- 1 Press the **MENU** button and then ▲ / ▼ button to select the **Option** menu.

- 2 Press the ► button and then ▲ / ▼ button to select **Caption / Text**.

- 3 Press the ► button and then ▲ / ▼ button to select **Off** or **Mode1,2** or **Text1,2**.

- 4 Press the **MENU** button to move to the previous menu screen.
-



DDC-CI(Only RGB)

DDC-CI (Display Data Channel Command Interface) is a communication protocol for communications between PC and set.

DDC-CI makes it possible to adjust and setup detailed functions on PC instead of the set OSD.

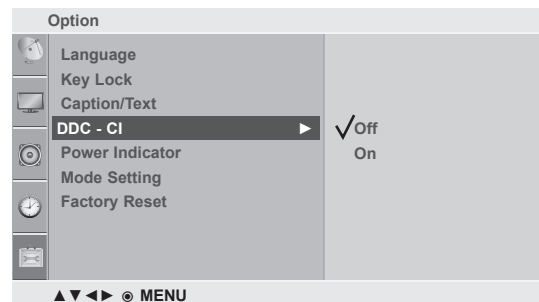
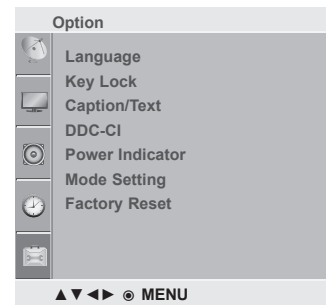
Set can be adjusted with PC by connecting communication between PC and set when DDC-CI is ON, and when DDC-CI is OFF set cannot be adjusted with PC because communication between PC and set is disconnected.

- 1 Press the **MENU** button and then ▲ / ▼ button to select the **Option** menu.

- 2 Press the ► button and then ▲ / ▼ button to select **DDC-CI**.

- 3 Press the ► button and then ▲ / ▼ button to select **On** or **Off**.

- 4 Press the **MENU** button to move to the previous menu screen.



OPTION SETTING

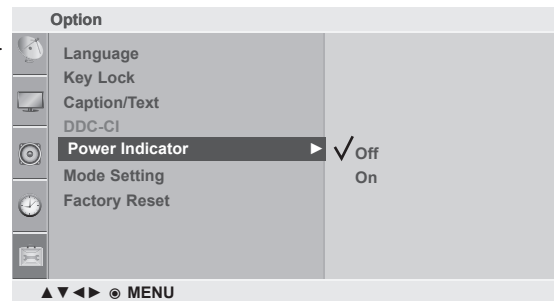
POWER INDICATOR

It is function to control of LED(turn on/off).

- 1 Press the **MENU** button and then ▲/▼ button to select the **Option** menu.
- 2 Press the ► button and then ▲/▼ button to select **Power Indicator**.
- 3 Press the ► button and then ▲/▼ button to select **On** or **Off** .
- 4 Press the **MENU** button to move to the previous menu screen.



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MODE SETTING

We recommend setting the set to “Home Use” mode for the best picture in your home environment. “Store Demo” mode is an optimal setting for displaying at stores.

1 Press the **MENU** button and then ▲ / ▼ button to select the **Option** menu.

.....

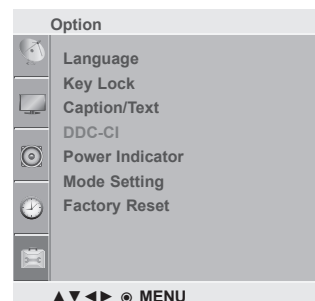
2 Press the ► button and then ▲ / ▼ button to select **Mode Setting**.

.....

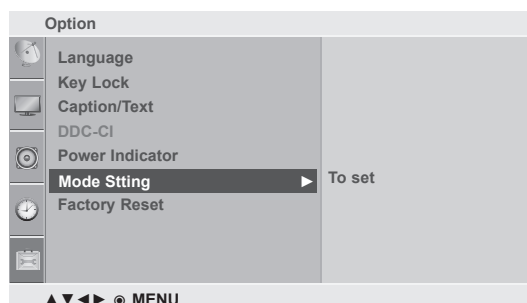
3 Press the ► button and then ◀ / ▶ button to select **Store Demo** or **Home Use**.

.....

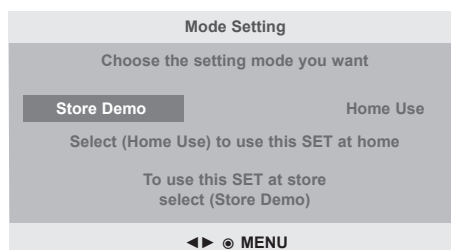
4 Press the **MENU** button to move to the previous menu screen.



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OPTION SETTING

FACTORY RESET

Use to quickly reset all the menu options to their original factory preset values.

This function deletes all set programmes.

When the **Factory Reset** is completed, you must restart the **Installation Guide**.

1 Press the **MENU** button and then ▲ / ▼ button to select the **Option** menu.

.....

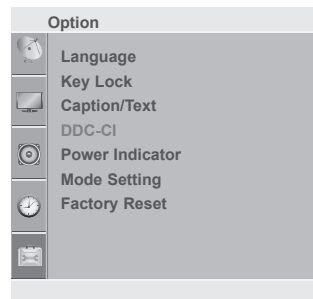
2 Press the ► button and then ▲ / ▼ button to select **Factory Reset**.

.....

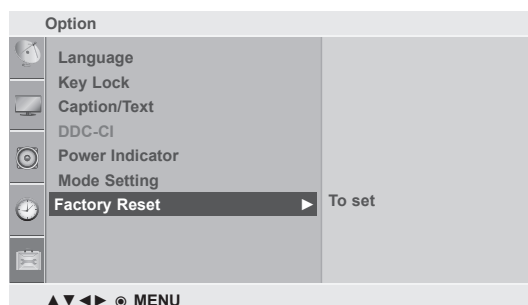
3 Press the ► button and then ◀ / ▶ button to select **Yes** or **No**.

.....

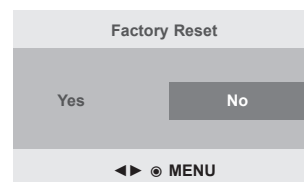
4 Press the **MENU** button to move to the previous menu screen.



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APPENDIX

TROUBLE SHOOTING

The SET does not operate properly

The remote control does not work	<ul style="list-style-type: none">■ Check to see if there is any object between the SET and the remote control causing an obstruction.■ Are batteries installed with correct polarity (+ to +, - to -)?■ Install new batteries.
Power is suddenly turned Off	<ul style="list-style-type: none">■ Is the sleep timer set?■ Check the power control settings. Has the Power supply been interrupted.■ The SET goes into Standby mode automatically if no signal is received and no operation is performed for 15 minutes.

The Video function is not working

No picture & No sound	<ul style="list-style-type: none">■ Check whether the SET is switched on.■ Try another channel. The problem may be with the broadcast.■ Is the power cord inserted correctly into the mains?■ Check your antenna direction and/or location.■ Test the mains outlet by plugging another SET into the same outlet.
Picture appears slowly after switching on	<ul style="list-style-type: none">■ This is normal, the image is muted during the SET startup process. Please contact your service center, if the picture has not appeared after five minutes.
No or poor Color or poor picture	<ul style="list-style-type: none">■ Adjust color in menu option.■ Allow a sufficient distance between the SET and the VCR.■ Try another channel. The problem may be with the broadcast.■ Are the video cables installed properly?■ Activate any function to restore the brightness of the picture.
Horizontal/vertical bars or picture shaking	<ul style="list-style-type: none">■ Check for local interference such as an electrical appliance or power tool.
Poor reception on some channels	<ul style="list-style-type: none">■ Station or cable channel experiencing problems, tune to another station.■ Station signal is weak, reposition the antenna to receive weaker stations.■ Check for sources of possible interference.
Lines or streaks in pictures	<ul style="list-style-type: none">■ Check antenna (Change the position of the antenna).

APPENDIX

The Audio function is not working

Picture OK & No sound	<ul style="list-style-type: none">■ Press the VOL ◀ or ▶ (or - ▲ +) button.■ Sound muted? Press MUTE button.■ Try another channel. The problem may be with the broadcast.■ Are the audio cables installed properly?
No output from one of the speakers	<ul style="list-style-type: none">■ Adjust Balance in menu option.
Unusual sound from inside the SET	<ul style="list-style-type: none">■ A change in ambient humidity or temperature may result in an unusual noise when the SET is switched on or off and does not indicate a fault with the SET.
Picture ok & No sound	<ul style="list-style-type: none">■ Check whether volume is "0".■ Check sound muted.■ HDMI cable installed properly.■ Head phone cable installed properly.■ Check sound format. Not supply to bitstream and compressed sound format.

NO image appear.

Do you see an "OUT OF RANGE" message on the screen?	<ul style="list-style-type: none">■ This message appears when the signal from the PC(video card) is out off horizontal or vertical frequency range of the display. See the ' Product Specifications' section of this manual and configure you display again.
--	--

MAINTENANCE

Early malfunctions can be prevented. Careful and regular cleaning can prolong the life of your new set.

Caution : Be sure to switch the power off and unplug the power cord before you begin any cleaning.

Cleaning the Screen

- 1 A good way to keep the dust off your screen for a while is to wet a soft cloth in a mixture of lukewarm water and a little fabric softener or dish washing detergent. Wring the cloth until it's almost dry, and then use it to wipe the screen.
- 2 Ensure there is no excess water on the screen. Allow any water or dampness to evaporate before switching on.

Cleaning the Cabinet

- To remove dirt or dust, wipe the cabinet with a soft, dry, lint-free cloth.
- Do not use a wet cloth.

Extended Absence

CAUTION

- ▶ If you expect to leave your set dormant for prolonged periods (such as a holiday), unplug the power cord to protect against possible damage from lightning or power surges.

APPENDIX

PRODUCT SPECIFICATIONS

M197WAP

LCD Panel	Screen Type	470.1 mm Wide (18.51 inch) TFT (Thin Film Transistor) LCD (Liquid Crystal Display) Panel Visible diagonal size: 470.1 mm
	Pixel Pitch	0.30 mm (H) x 0.30 mm (V)
Video Signal	Max. Resolution	1360 x 768 @ 60 Hz
	Recommended Resolution	1360 x 768 @ 60 Hz
	Horizontal Frequency	30 kHz to 61 kHz
	Vertical Frequency	56 Hz to 61 Hz
	Synchronization Type	Separate Sync
Input Connector		CVBS, TV, D-Sub Analog, HDMI, PC Audio In, component
Power	Rated Voltage	AC 100-240 V~ 50 / 60 Hz 0.6 A
	Power Consumption	On Mode : 25 W (typ.) Sleep Mode 1 W (RGB) Off Mode 0.5 W
Tilt	Tilt Range	-5° to 15°
Dimensions (Width x Height x Depth) Weight		454.7 mm x 362.8 mm x 193.2 mm (17.90 inch x 14.28 inch x 7.61 inch) 3.5 kg (7.72 lb)
Environmental conditions	Operating Temperature	10 °C to 35 °C
	Operating Humidity	20 % to 80 %
	Storage Temperature	-10 °C to 60 °C
	Storage Humidity	5 % to 90 %

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

M227WAP

LCD Panel	Screen Type	546.86 mm Wide (21.53 inch) TFT (Thin Film Transistor) LCD (Liquid Crystal Display) Panel Visible diagonal size: 546.86 mm
	Pixel Pitch	0.248 mm (H) x 0.248 mm (V)
Video Signal	Max. Resolution	1920 x 1080 @ 60 Hz
	Recommended Resolution	1920 x 1080 @ 60 Hz
	Horizontal Frequency	30 kHz to 69 kHz
	Vertical Frequency	56 Hz to 61 Hz
	Synchronization Type	Separate Sync
Input Connector		CVBS, TV, D-Sub Analog, HDMI, PC Audio In, component
Power	Rated Voltage	AC 100-240 V~ 50 / 60 Hz 0.9 A
	Power Consumption	On Mode : 45 W (typ.) Sleep Mode 1 W (RGB) Off Mode 0.5 W
Tilt	Tilt Range	-5° to 15°
Dimensions (Width x Height x Depth) Weight		519.8 mm x 400.5 mm x 193.2 mm (20.46 inch x 15.77 inch x 7.61 inch) 4.5 kg (9.92 lb)
Environmental conditions	Operating Temperature Operating Humidity	10 °C to 35 °C 20 % to 80 %
	Storage Temperature Storage Humidity	-10 °C to 60 °C 5 % to 90 %

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

APPENDIX

M237WAP

LCD Panel	Screen Type	584.2 mm Wide (23 inch) TFT (Thin Film Transistor) LCD (Liquid Crystal Display) Panel Visible diagonal size: 584.2 mm
	Pixel Pitch	0.265 mm (H) x 0.265 mm (V)
Video Signal	Max. Resolution	1920 x 1080 @ 60 Hz
	Recommended Resolution	1920 x 1080 @ 60 Hz
	Horizontal Frequency	30 kHz to 69 kHz
	Vertical Frequency	56 Hz to 61 Hz
	Synchronization Type	Separate Sync
Input Connector		CVBS, TV, D-Sub Analog, HDMI, PC Audio In, component
Power	Rated Voltage	AC 100-240 V~ 50 / 60 Hz 1 A
	Power Consumption	On Mode : 50 W (typ.) Sleep Mode 1 W (RGB) Off Mode 0.5 W
Tilt	Tilt Range	-5° to 15°
Dimensions (Width x Height x Depth) Weight		560.8 mm x 427 mm x 193.2 mm (20.08 inch x 16.81 inch x 7.61 inch) 5.6 kg (12.35 lb)
Environmental conditions	Operating Temperature	10 °C to 35 °C
	Operating Humidity	20 % to 80 %
	Storage Temperature	-10 °C to 60 °C
	Storage Humidity	5 % to 90 %

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



Make sure to read the Safety Precautions before using the product.
Keep the Owner's Manual (CD) in an accessible place for future reference.
The model and serial number of the SET is located on the back and one side of the SET.
Record it below should you ever need service.

MODEL _____

SERIAL _____