

# LCD TV OWNER'S MANUAL

## LCD TV MODELS

42LB7RF\*

47LB7RF\*

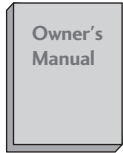
Please read this manual carefully before operating your set.  
Retain it for future reference.

Record model number and serial number of the set.  
See the label attached on the back cover and quote  
this information to your dealer when you require service.



# ACCESSORIES

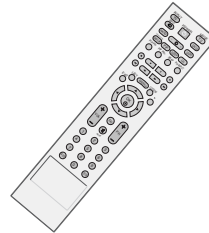
Ensure that the following accessories are included with your TV. If an accessory is missing, please contact the dealer where you purchased the product.



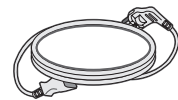
Owner's Manual



Batteries



Remote Control



Power Cord



2- TV Brackets  
2- Wall Brackets



2-bolts



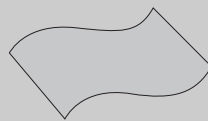
Twister Holder  
Arrange the wires  
with the twister  
holder.



Cable Management



4-bolts for stand assembly  
(Refer to p.6)



Polishing Cloth  
Polish the screen with the cloth

\*Slightly wipe stained spot on the exterior only with the cleansing cloths for the product exterior if there is stain or fingerprint on surface of the exterior.

Do not wipe roughly when removing stain. Please be cautious of that excessive power may cause scratch or discoloration.

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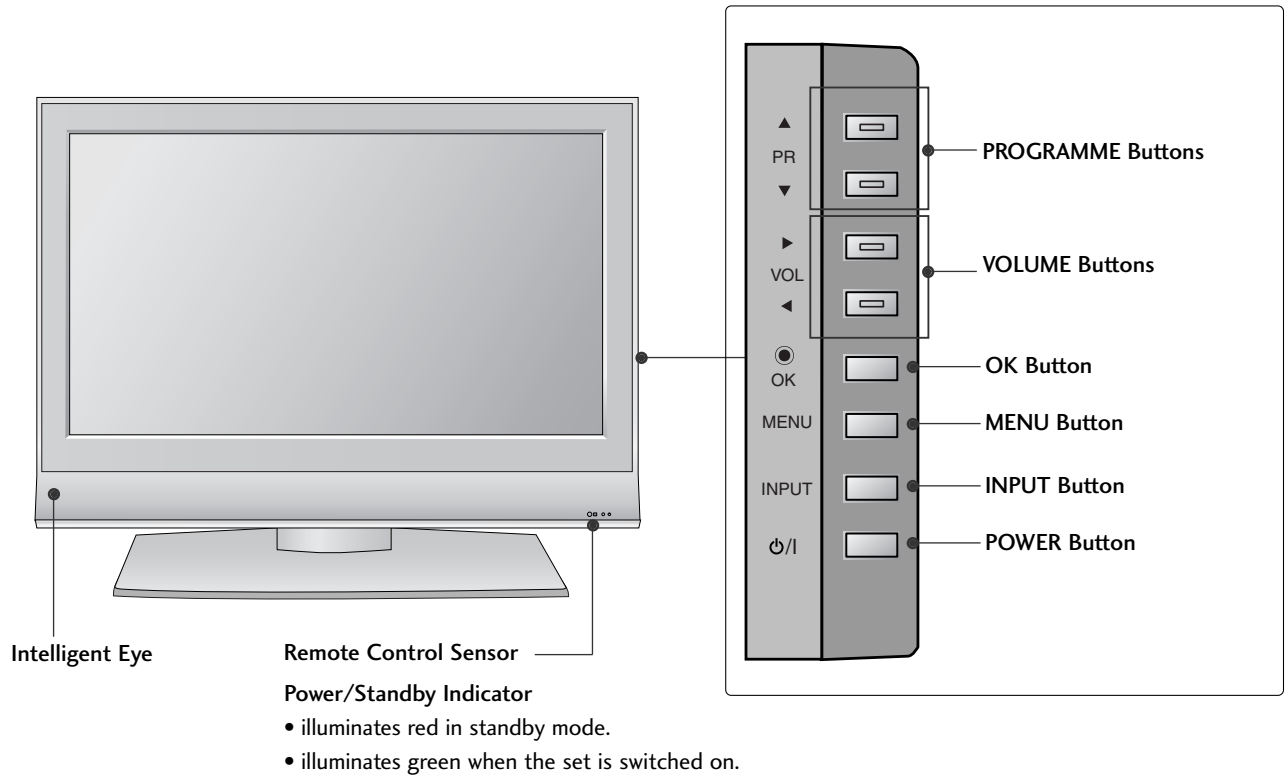
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# PREPARATION

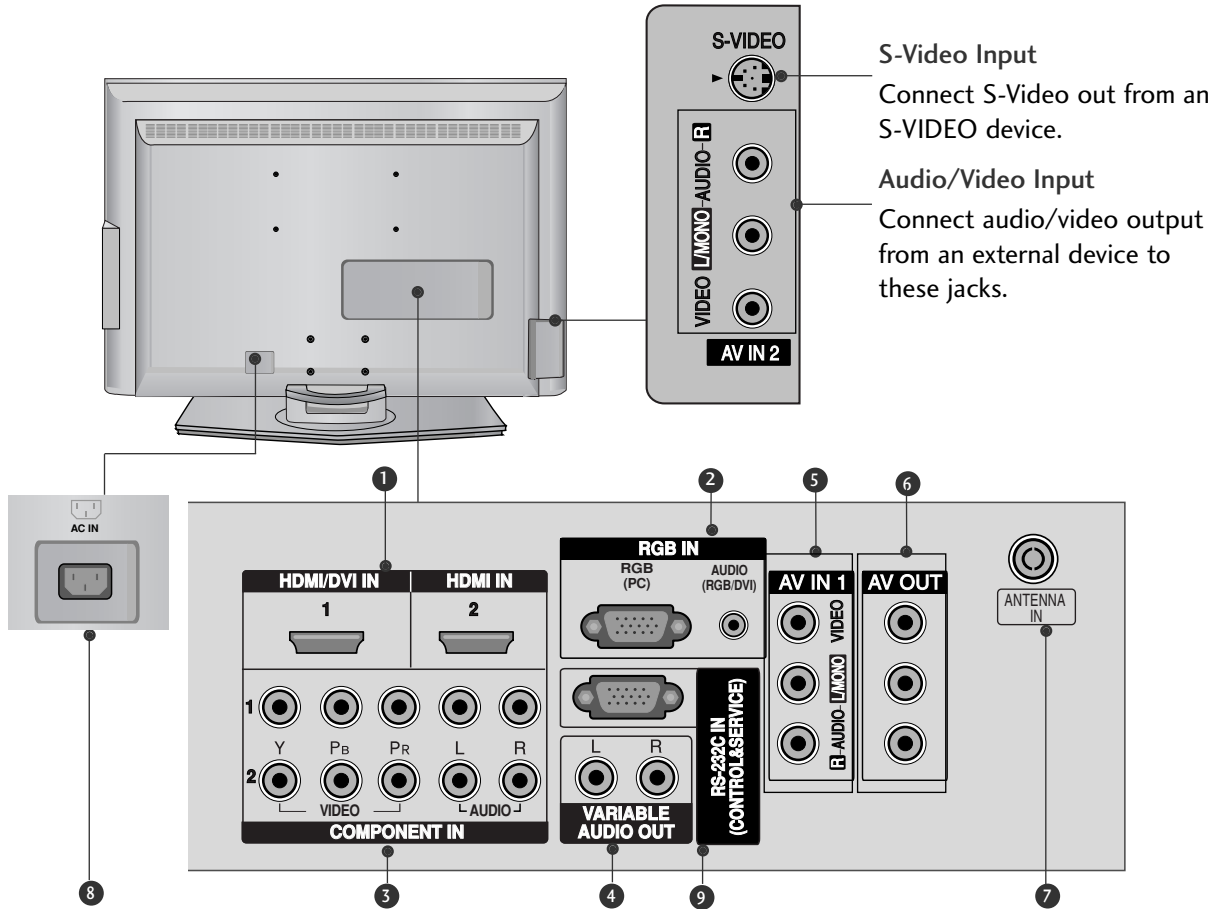
## FRONT PANEL CONTROLS

- This is a simplified representation of the front panel. Here shown may be somewhat different from your TV.
- If your TV has the protection film, wipe the stand with polishing cloth after removing the protection film attached to the stand.



## BACK PANEL INFORMATION

- This is a simplified representation of the back panel. Here shown may be somewhat different from your TV.

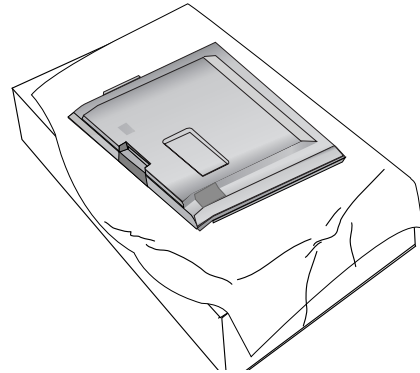


- HDMI/DVI1, HDMI2 Input**  
Connect a HDMI signal to HDMI IN.  
Or DVI(VIDEO)signal to HDMI/DVI port with DVI to HDMI cable.
- RGB/Audio Input**  
Connect the monitor output from a PC(only Audio) to the appropriate input port.
- Component Input 1/2**  
Connect a component video/audio device to these jacks.
- Variable Audio Output**  
Connect an external amplifier or add a subwoofer to your surround sound system.
- Audio/Video Input (AV IN 1)**  
Connect audio/video output from an external device to these jacks.
- AV Output**  
Connect second TV or monitor to the AV OUT socket on the set.
- Antenna Input**  
Connect over-the-air signals to this jack.
- Power Cord Socket**  
This TV operates on an AC power. The voltage is indicated on the Specifications page. Never attempt to operate the TV on DC power.
- RS-232C Input(CONTROL&SERVICE)Port**  
Connect the serial port of the control devices to the RS-232C jack.

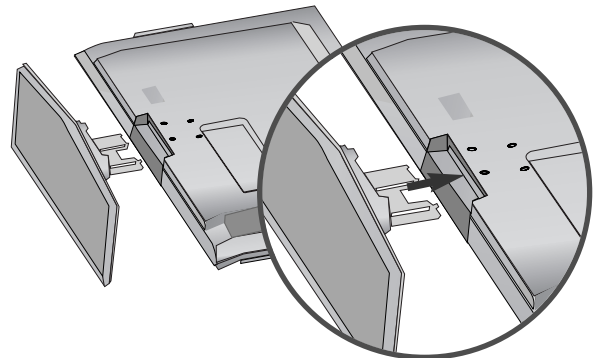
# PREPARATION

## STAND INSTALLATION

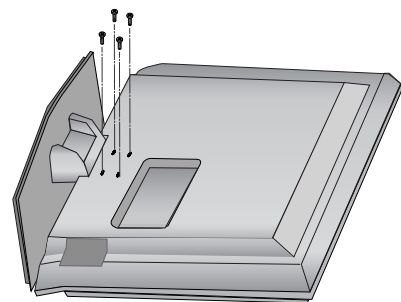
- 1 Carefully place the product screen side down on a cushioned surface that will protect product and screen from damage.



- 2 Assemble the product stand with the product as shown.



- 3 Install the 4 bolts securely, in the back of the product in the holes provided.

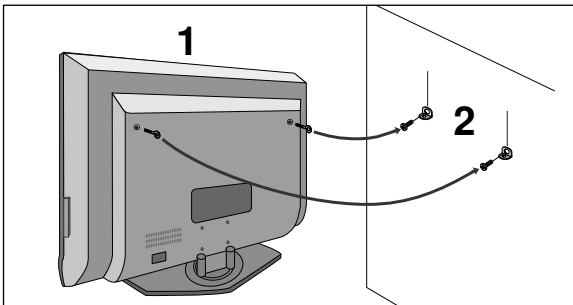




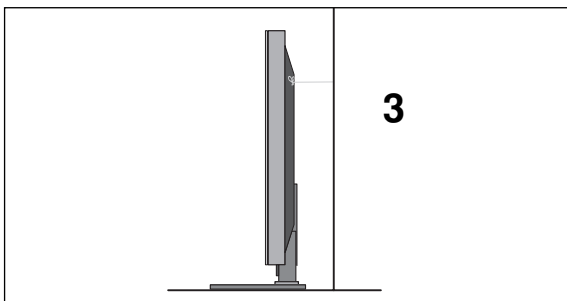
## ATTACHING THE TV TO A WALL

- Set it up close to the wall so the product doesn't fall over when it is pushed backwards.
- The instructions shown below is a safer way to set up the product, which is to fix it on the wall so the product doesn't fall over when it is pulled in the forward direction. It will prevent the product from falling for-ward and hurting people. It will also prevent the product from damage caused by fall. Please make sure that children don't climb on or hang from the product.

### LCD TV models



- 1 Use the eye-bolts or TV brackets/bolts to fix the product to the wall as shown in the picture.  
(If your product has the bolts in the eye-bolts position before inserting the eye-bolts, loosen the bolts.)  
\* Insert the eye-bolts or TV brackets/bolts and tighten them securely in the upper holes.
- 2 Secure the wall brackets with the bolts (not provided as parts of the product, must purchase separately) on the wall. Match the height of the bracket that is mounted on the wall.



- 3 Use a sturdy rope (not provided as parts of the product, must purchase separately) to tie the product. It is safer to tie the rope so it becomes horizontal between the wall and the product.

### ! NOTE

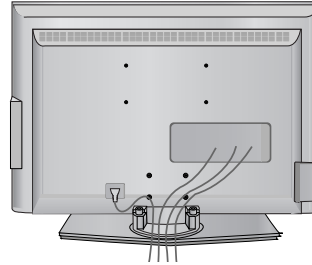
- ▶ When moving the product to another place undo the ropes first.
- ▶ Use a product holder or a cabinet that is big and strong enough for the size and weight of the product.
- ▶ To use the product safely make sure that the height of the bracket that is mounted on the wall is same as that of the product.

# PREPARATION

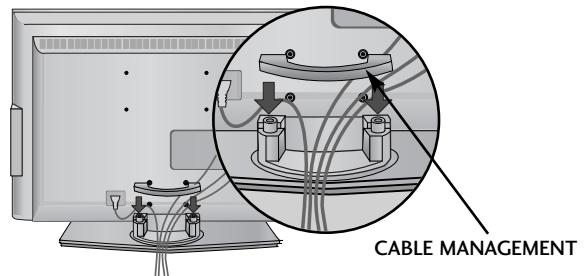
## BACK COVER FOR WIRE ARRANGEMENT

- 1 Connect the cables as necessary.

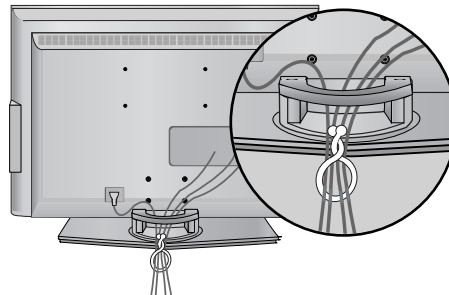
To connect an additional equipment, see the **External equipment Connections** section.



- 2 Install the **CABLE MANAGEMENT** as shown.

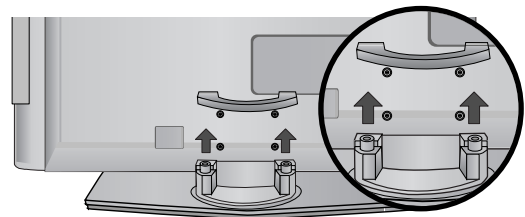


- 3 Bundle the cables using the supplied twister holder.



## How to remove the cable management

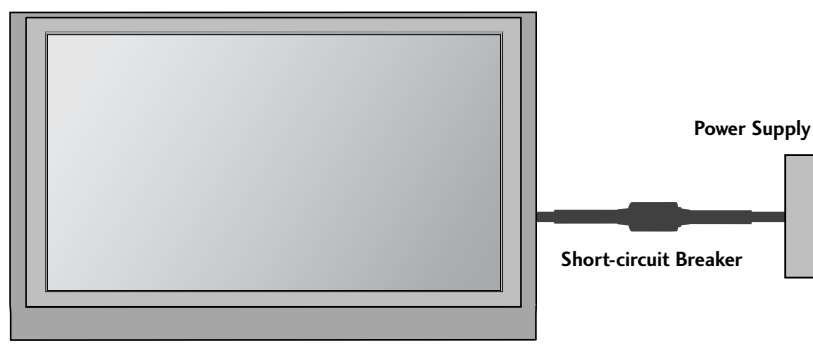
Hold the **CABLE MANAGEMENT** with both hands and pull it upward.



### ! NOTE

- ▶ Do not hold the **CABLE MANAGEMENT** when moving the product.
- If the product is dropped, you may be injured or the product may be broken.

- The TV can be installed in various ways such as on a wall, or on a desktop etc.
- The TV is designed to be mounted horizontally.



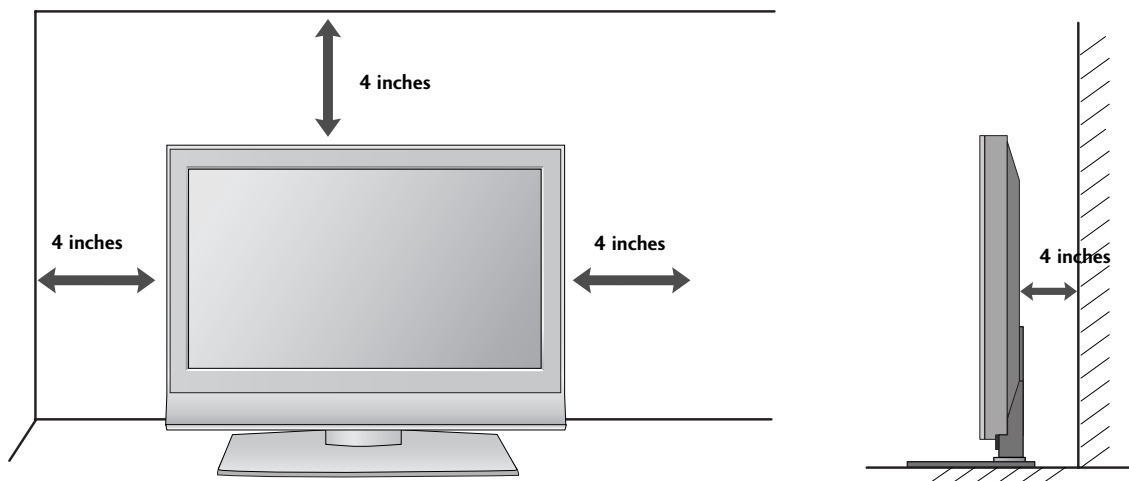
## GROUNDING

Ensure that you connect the earth ground 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.

## DESKTOP PEDESTAL INSTALLATION

For proper ventilation, allow a clearance of 4 inches on each side from the wall.

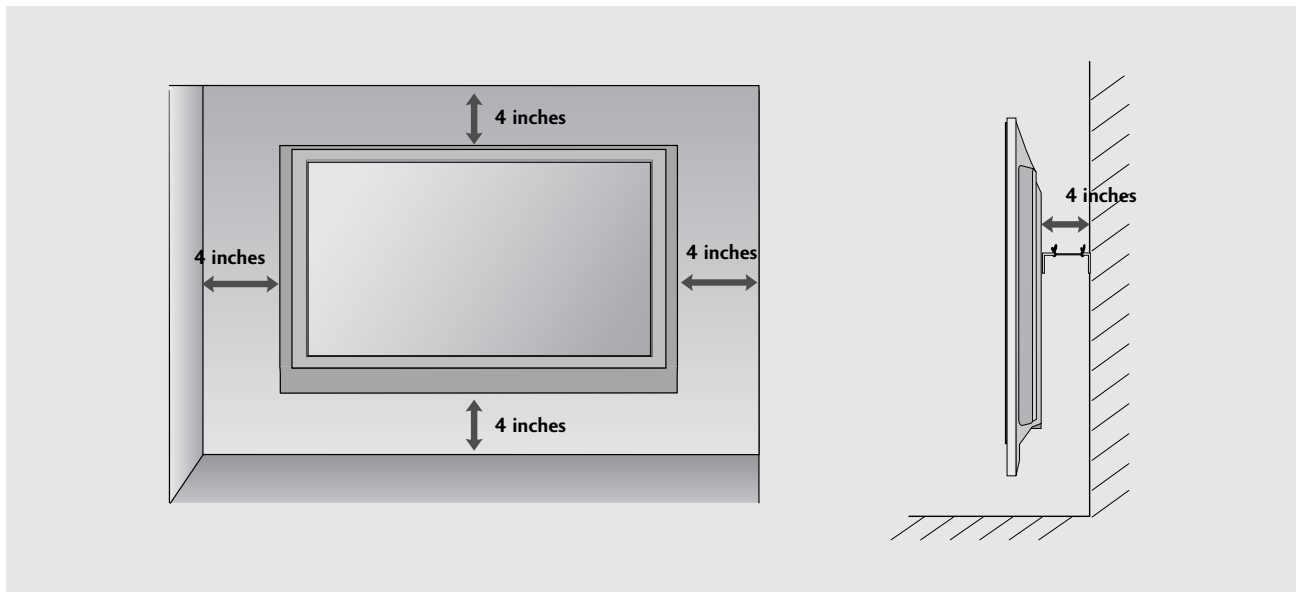


# PREPARATION

## WALL MOUNT: HORIZONTAL INSTALLATION

For proper ventilation, allow a clearance of 4" on each side and from the wall.  
Detailed installation instructions are available from your dealer.

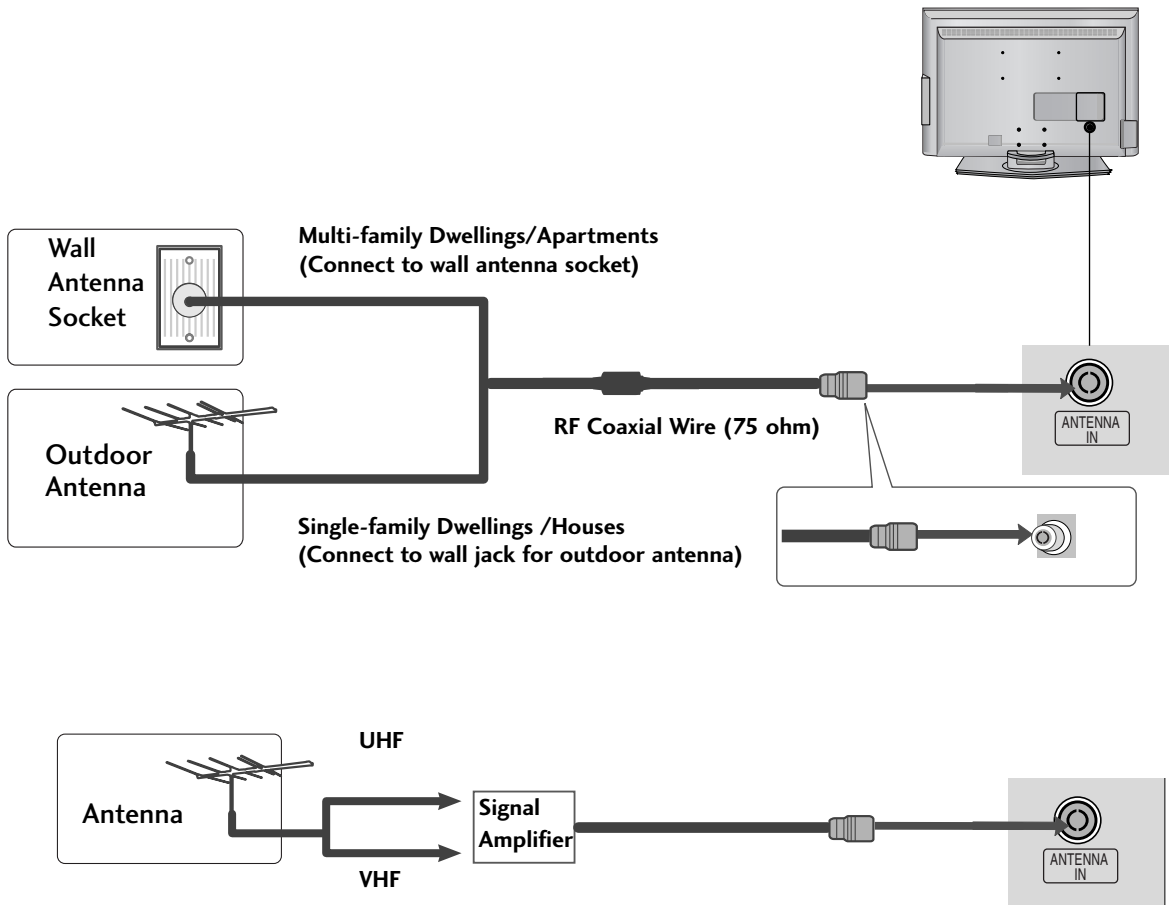
PREPARATION



- To prevent the equipment damage, never plug in any power cords until you have finished connecting all equipment.

## 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.
- If signal needs to be split for two TVs, use an antenna signal splitter for connection.

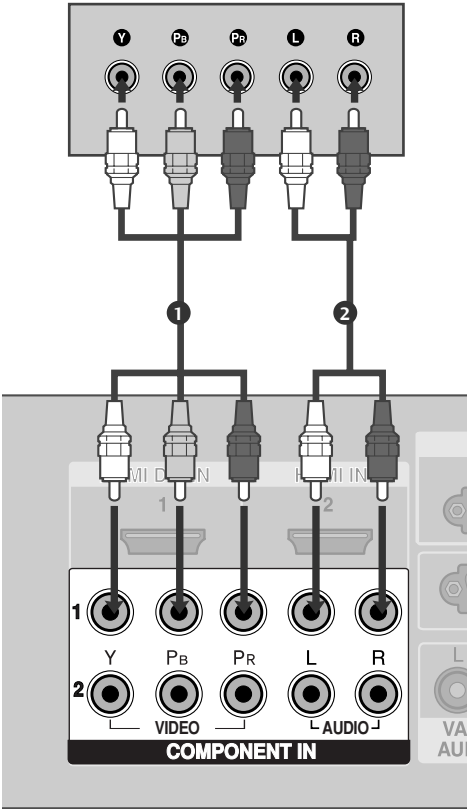
# EXTERNAL EQUIPMENT SETUP

■ To prevent the equipment damage, never plug in any power cords until you have finished connecting all equipment.

## HD RECEIVER SETUP

### When connecting with a component cable

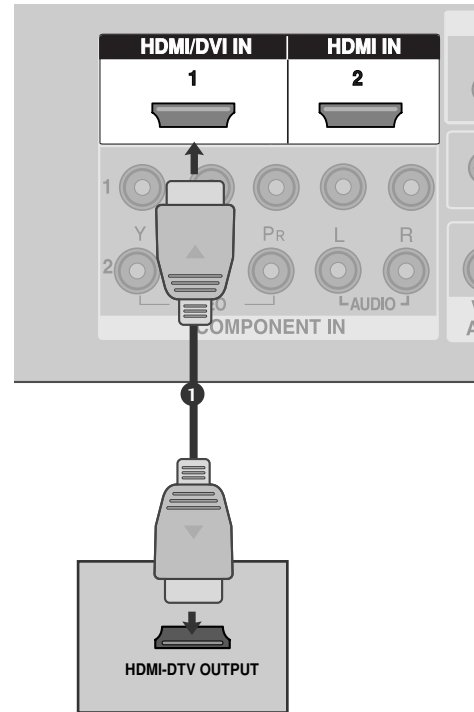
- 1 Connect the video outputs (Y, Pb, Pr) of the digital set top box to the **COMPONENT IN VIDEO** jacks on the set.
- 2 Connect the audio output of the digital set-top box to the **COMPONENT IN AUDIO** jacks on the set.
- 3 Turn on the digital set-top box.  
(Refer to the owner's manual for the digital set-top box.)
- 4 Select **Component1** input source with using the **INPUT** button on the remote control.  
If connected to **COMPONENT IN2**, select **Component2** input source.



Signal	Component 1/2	HDMI1/DVI, HDMI2
480i	Yes	No
480p	Yes	Yes
720p	Yes	Yes
1080i	Yes	Yes
1080p	Yes	Yes

## When connecting with a HDMI cable

- 1 Connect the HDMI output of the digital set-top box to the **HDMI/DVI IN 1** or **HDMI IN 2** jack on the set.
- 2 Select **HDMI1/DVI** or **HDMI2** input source with 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.)



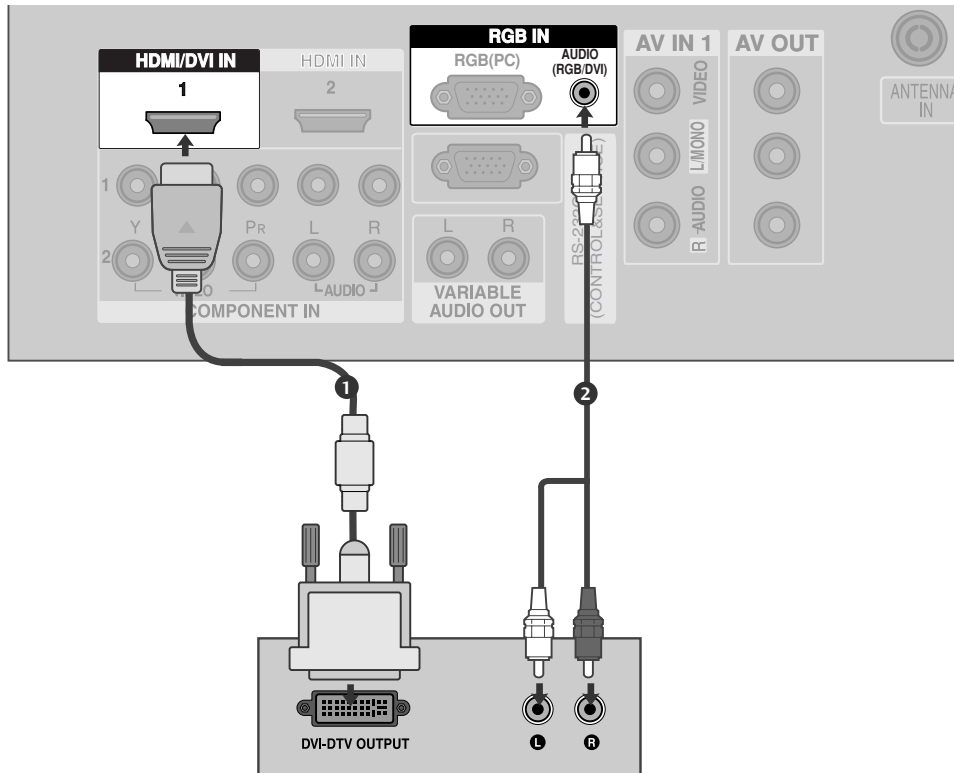
### ! NOTE

- ▶ If the digital set-top box supports Auto HDMI function, the output resolution of the source device will be automatically set to 1920x1080i/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 1920x1080i/1080p.

# EXTERNAL EQUIPMENT SETUP

## When connecting with a HDMI to DVI cable



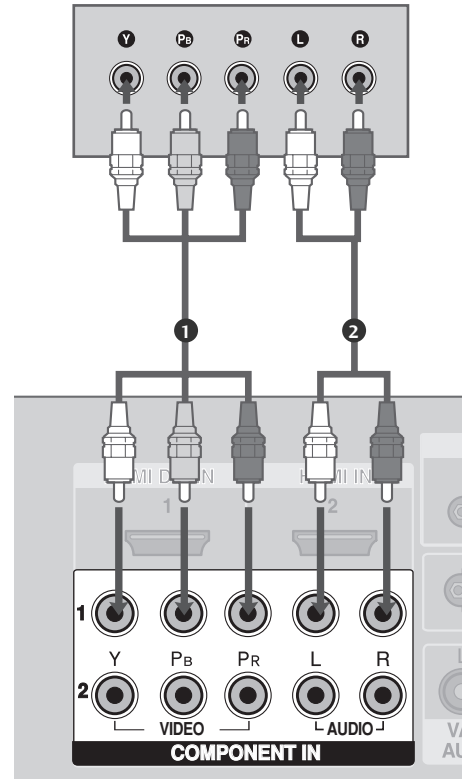
- 1 Connect the DVI output of the digital set-top box to the **HDMI/DVI IN 1** jack on the set.
- 2 Connect the audio output of the digital set-top box to the **AUDIO (RGB/DVI)** jack on the set.
- 3 Turn on the digital set-top box. (Refer to the owner's manual for the digital set-top box.)
- 4 Select **HDMI1/DVI** input source with using the **INPUT** button on the remote control.



# DVD SETUP

## When 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 **Component1** input source with using the **INPUT** button on the remote control.  
If connected to **COMPONENT IN2**, select **Component2** input source.
- 5 Refer to the DVD player's manual for operating instructions.



### Component Input ports

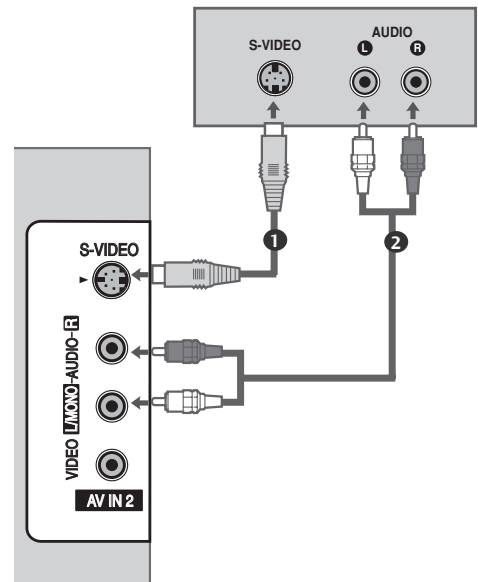
To get better picture quality, connect a DVD player to the component input ports as shown below.

Component ports on the TV	Y	P <sub>B</sub>	P <sub>R</sub>
Video output ports on DVD player	Y	P <sub>B</sub>	P <sub>R</sub>
	Y	B-Y	R-Y
	Y	Cb	Cr
	Y	Pb	Pr

# EXTERNAL EQUIPMENT SETUP

## When connecting with an S-Video cable

- 1 Connect the S-VIDEO output of the DVD to the **S-VIDEO** input on the set.
- 2 Connect the audio outputs of the DVD to the **AUDIO** input jacks on the set.
- 3 Turn on the DVD player, insert a DVD.
- 4 Select **AV2** input source with using the **INPUT** button on the remote control.
- 5 Refer to the DVD player's manual for operating instructions.

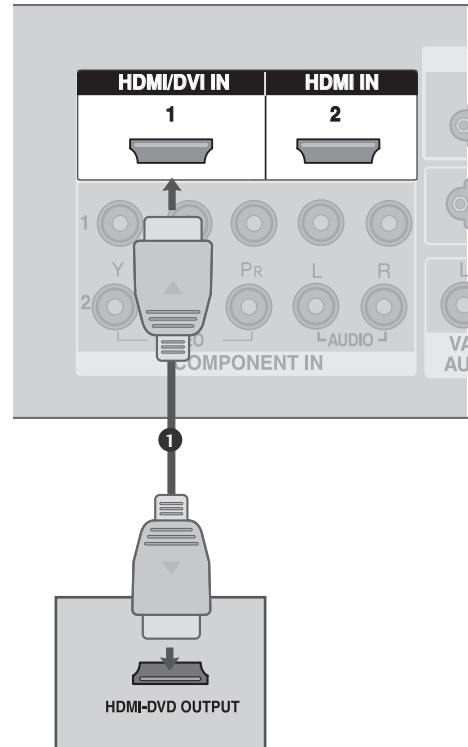


## When connecting HDMI cable

- 1 Connect the HDMI output of the DVD to the **HDMI/DVI IN 1** or **HDMI IN 2** jack on the set.
- 2 Select **HDMI1/DVI** or **HDMI2** input source with using the **INPUT** button on the remote control.
- 3 Refer to the DVD player's manual for operating instructions.

### ! NOTE

- ▶ If the DVD supports Auto HDMI function, the DVD output resolution will be automatically set to 1920x1080i/1080p.
  - ▶ If the DVD 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 DVD to 1920x1080i/1080p.

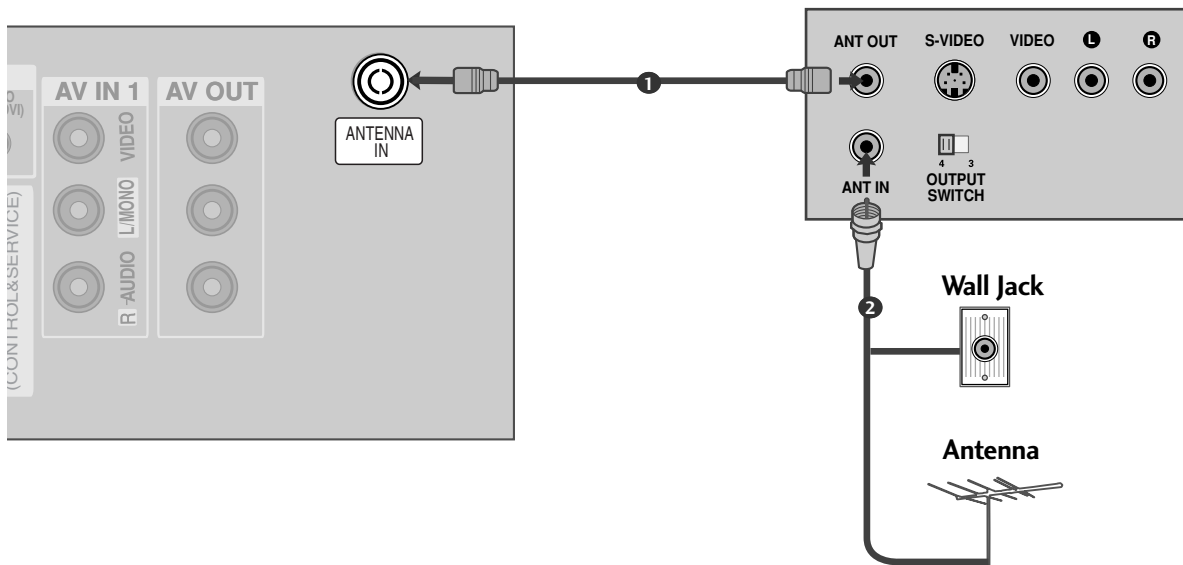


# EXTERNAL EQUIPMENT SETUP

## VCR SETUP

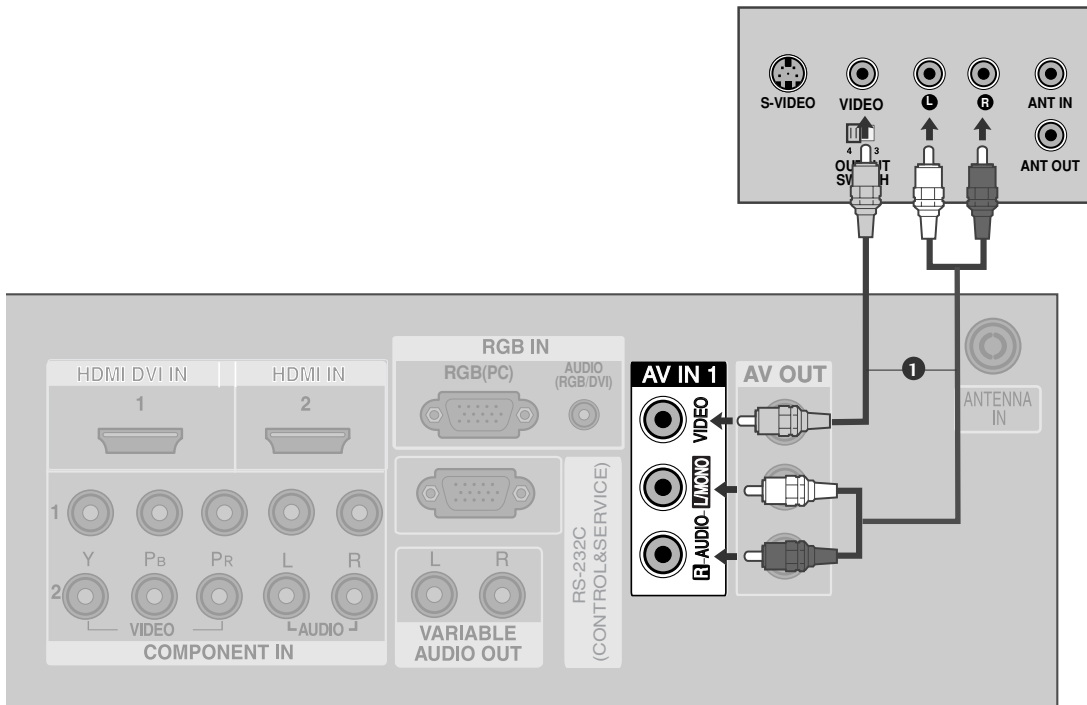
- To avoid picture noise (interference), leave an adequate distance between the VCR and TV.
- Typically a frozen still picture from a VCR. If the 4:3 picture format is used; the fixed images on the sides of the screen may remain visible on the screen.

### When connecting with an antenna



- 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 programme between the TV and VCR for viewing.

## When connecting with a RCA cable



- 1 Connect the **AUDIO/VIDEO** jacks between TV 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 **AV1** input source using the **INPUT** button on the remote control.  
If connected to **AV IN2**, select **AV2** input source.

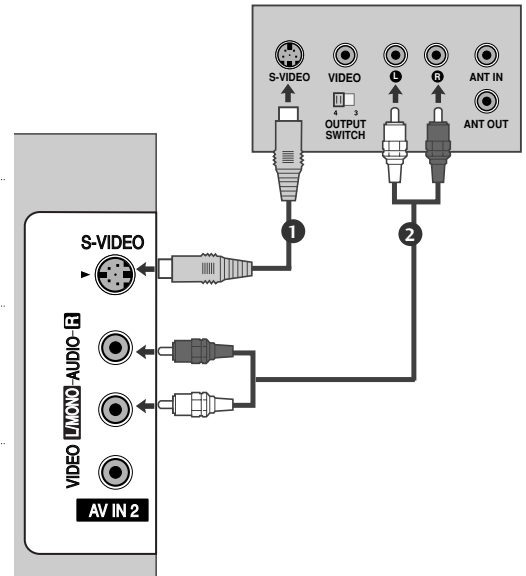
### ! NOTE

- If you have a mono VCR, connect the audio cable from the VCR to the **AUDIO L/MONO** jack of the set.

# EXTERNAL EQUIPMENT SETUP

## When connecting with an S-Video cable

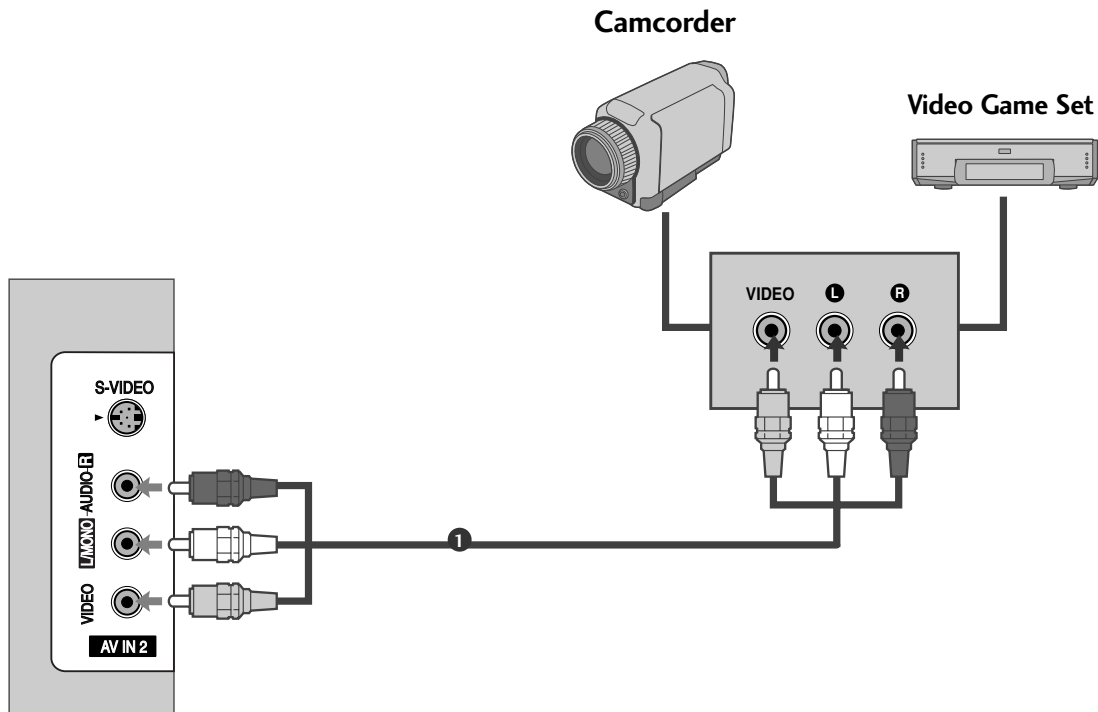
- 1 Connect the S-VIDEO output of the VCR to the **S-VIDEO** input on the set. The picture quality is improved; compared to normal composite (RCA cable) input.
- 2 Connect the audio outputs of the VCR to the **AUDIO** input jacks on the set.
- 3 Insert a video tape into the VCR and press PLAY on the VCR. (Refer to the VCR owner's manual.)
- 4 Select **AV2** input source with using the **INPUT** button on the remote control.



### ! NOTE

- ▶ If both S-VIDEO and VIDEO sockets have been connected to the S-VHS VCR simultaneously, only the S-VIDEO can be received.

## OTHER A/V SOURCE SETUP



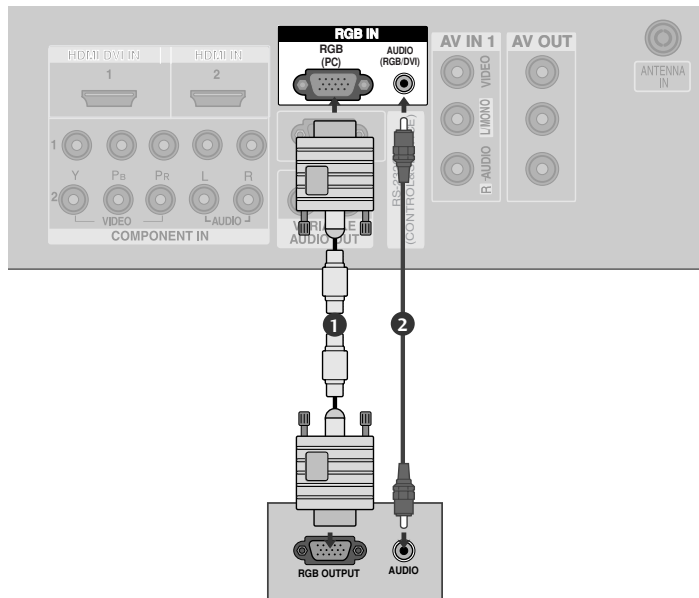
- 1 Connect the **AUDIO/VIDEO** jacks between TV and external equipment. Match the jack colors. (Video = yellow, Audio Left = white, and Audio Right = red)
- 2 Select **AV2** input source with using the **INPUT** button on the remote control. If connected to **AV IN1**, select **AV1** input source.
- 3 Operate the corresponding external equipment. Refer to external equipment operating guide.

# EXTERNAL EQUIPMENT SETUP

## PC SETUP

This TV provides Plug and Play capability, meaning that the PC adjusts automatically to the TV's settings.

### When connecting with a D-sub 15 pin cable



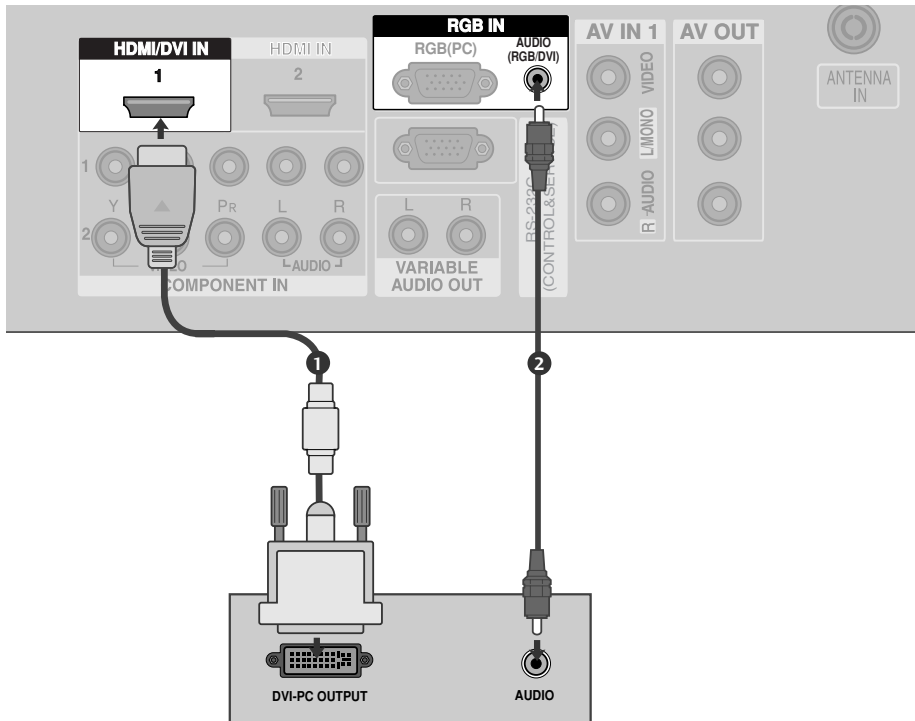
- 1 Connect the RGB output of the PC to the **RGB (PC)** jack on the set.
- 2 Connect the PC audio output to the **AUDIO(RGB/DVI)** jack on the set.
- 3 Turn on the PC and the set.
- 4 Select **RGB PC** input source with using the **INPUT** button on the remote control.

#### ! NOTE

- Check the image on your TV. There may be noise associated with the resolution, vertical pattern, contrast or brightness in PC mode. If noise is present, change the PC output to another resolution, change the refresh rate to another rate or adjust the brightness and contrast on the VIDEO 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.



## When connecting with a HDMI to DVI cable



- 1 Connect the DVI output of the PC to the **HDMI/DVI IN 1** jack on the set.
- 2 Connect the PC audio output to the **AUDIO (RGB/DVI)** jack on the set.
- 3 Turn on the PC and the set.
- 4 Select **HDMI1/DVI** input source with using the **INPUT** button on the remote control.

### ! NOTE

- ▶ HDMI2 source does not support DVI source.
- ▶ If the PC has a DVI output and no HDMI output, a separated audio connection is necessary.
- ▶ If the PC does not support Auto DVI, you need to set the output resolution appropriately, To get the best picture quality, adjust the output resolution of PC graphics card's output resolution to 1024x768,60Hz.

# EXTERNAL EQUIPMENT SETUP

Supported Display Resolution (RGB[PC]/HDMI[PC]mode)

Resolution	Horizontal Frequency(kHz)	Vertical Frequency(Hz)
720x400	31.5	70.1
640x480	31.5	59.9
800x600	37.9	60.3
1024x768	48.4	60.0
1280x768	47.8	59.9
1280x960 (HDMI[PC] only)	59.7	59.9
1360x768	47.7	59.8
1366x768	47.7	60.0
1280x1024	63.7	59.5
1400x1050 (RGB[PC] only)	65.3	60.0
1600x1200	75.0	60.0
1920x1080	66.6	60.0
1920x1200	74.0	60.0

**! NOTE**

- ▶ To get the the best picture quality, adjust the PC graphics card to 1920x1080, 60Hz.
- ▶ Depending on the graphics card, DOS mode may not work if a HDMI to DVI Cable is in use.
- ▶ When Source Devices connected with HDMI Input, output TV SET Resolution (480p, 720p, 1080i) and TV SET Display fit EIA/CEA-861-B Specification to Screen. If not, refer to the Manual of HDMI Source Devices or contact your service center.
- ▶ If the HDMI Source Device is not connected to the Cable or if there is a poor cable connection, "No signal" is displayed in the HDMI Input. In this case, that Video Resolution is not supported.
- ▶ Avoid keeping a fixed image on the screen for a long period of time. The fixed image may become permanently imprinted on the screen.
- ▶ 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.

# EXTERNAL EQUIPMENT SETUP

## Screen Setup for PC mode

### Auto Configure (RGB [PC] mode only)

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.

#### Auto configure

This function is for the 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.

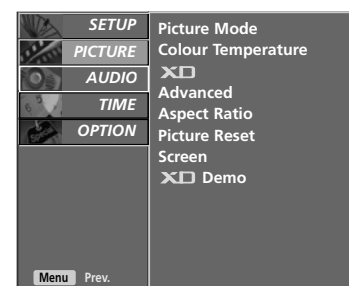
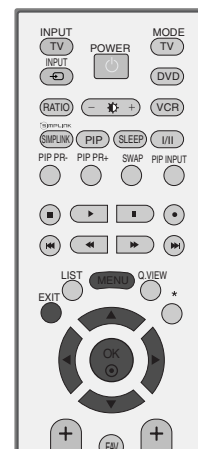
2 Press the **▶** button and then use **▲** / **▼** button to select **Screen**.

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

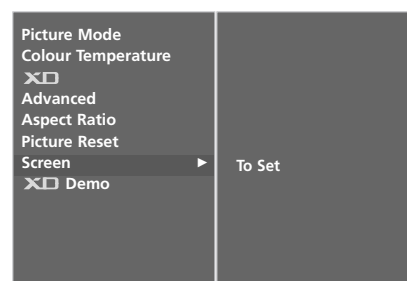
4 Press the **▶** button to start **Auto Config.**

- 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.
- 
- If picture needs to be adjusted more after Auto adjustment in RGB (PC), you can adjust the **Manual Config.**

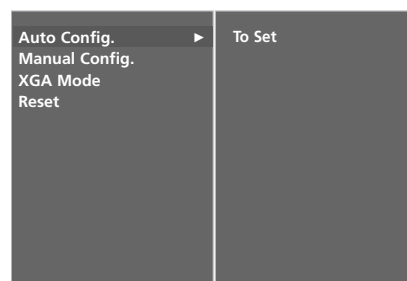
5 Press the **EXIT** button to return to TV viewing.



1



2



3 4

## Adjustment for screen Phase, Clock, H-Position, V-Position

If the picture isn't clear after auto adjustment and especially if characters are still trembling, adjust the picture phase manually.

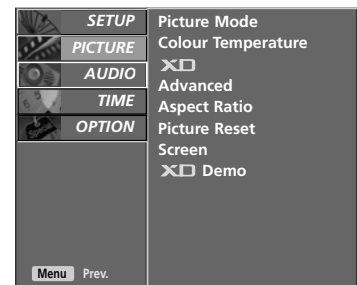
To correct the screen size, adjust **Clock**.

This function works in the following mode : RGB[PC], COMPONENT (480i/480p/576i/576p/720p/1080i/1080p), HDMI (480p/576p/720p/1080i/1080p).

It's not available to use Phase, Clock function in COMPO-NENT (480i/480p/576i/576p/720p/1080i/1080p), HDMI (480p/576p/720p/1080i/1080p).

**Clock** This function is to minimize any vertical bars or stripes visible on the screen background. And the horizontal screen size will also change.

**Phase** This function allows you to remove any horizontal noise and clear or sharpen the image of characters.



①

- 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..**

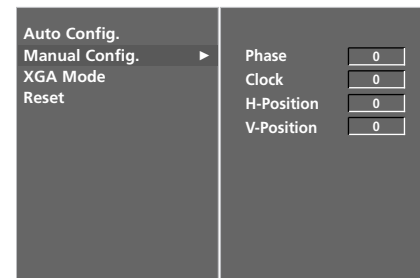
- 4 Press the ► button and then use ▲ / ▼ button to select **Phase, Clock, H-Position** or **V-Position**.

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

- 6 Press the **EXIT** button to return to TV viewing.



②



③ ④ ⑤

# EXTERNAL EQUIPMENT SETUP

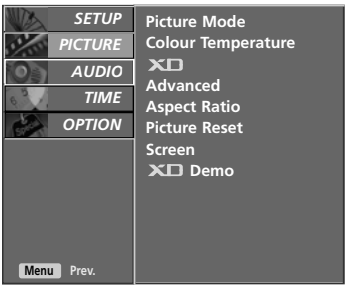
## Selecting Wide XGA/UXGA mode

To see a normal picture, match the resolution of RGB mode and selection of XGA/UXGA mode.

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



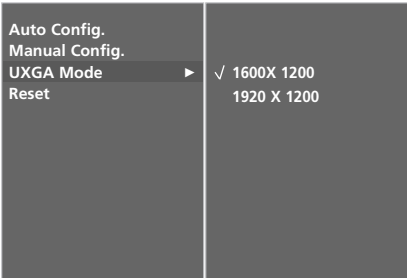
- 1 Press the **MENU** button and then use ▲ / ▼ button to select the **PICTURE** menu.
- 2 Press the ► button and then use ▲ / ▼ button to select **Screen**.
- 3 Press the ► button and then use ▲ / ▼ button to select **XGA Mode** (or **UXGA Mode**).
- 4 Press the ► button and then use ▲ / ▼ button to select the desired XGA/UXGA resolution.
- 5 Press the **EXIT** button to return to TV viewing.



1



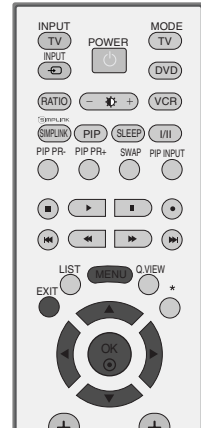
2



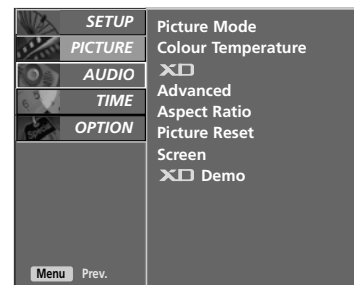
3 4

## Initializing (Reset to original factory settings)

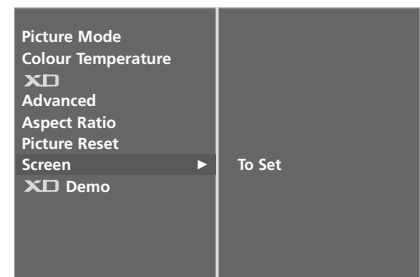
This function operates in current mode.  
To initialize the adjusted value



- 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 **Reset**.
- 4 Press the ► button.
  - You can initialize Position, PIP size, PIP position.



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2



3 4

# EXTERNAL EQUIPMENT SETUP

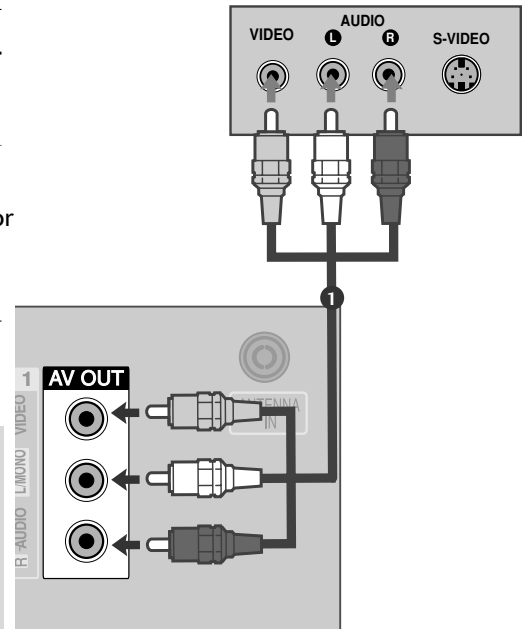
## AV OUTPUT SETUP

The TV has a special signal output capability which allows you to hook up the second TV or monitor.

- 1 Connect the second TV or monitor to the TV's **AV OUT** jacks.
- 2 See the Operating Manual of the second TV or monitor for further details regarding that device's input settings.

### ! NOTE

- ▶ Component, RGB, HDMI input sources cannot be used for AV out.
- ▶ We recommend to use the AV OUT jacks for VCR recording.





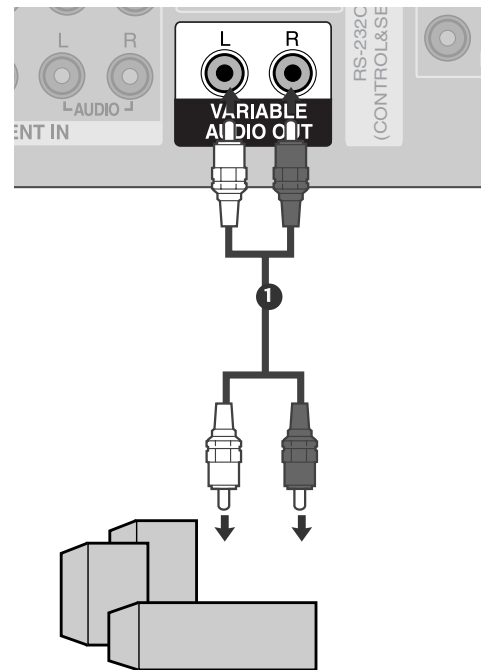
## EXTERNAL STEREOSETUP

Use to connected either an external amplifier, or add a sub-woofer to your surround sound system.

- 1 Connect the input jack of the stereo amplifier to the **VARIABLE AUDIO OUT** jacks on the set.
- 2 Set up your speakers through your analog stereo amplifier, according to the instructions provided with the amplifier.

### ! NOTE

- When connecting with external audio equipments, such as amplifiers or speakers, please turn the TV speakers off. (► p.64)



# WATCHING TV / PROGRAMME CONTROL

## REMOTE CONTROL KEY FUNCTIONS

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



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

**TV INPUT** Returns to the TV viewing from any mode.  
Switches the set on from standby.

**INPUT** If you press the button once, the input source OSD will appear on screen as shown. Press the ▲ / ▼ button and then OK button to select the desired input source (AV1, AV2, Component1, Component2, RGB, HDMI1/DVI or HDMI2).

**RATIO** Selects your desired picture format.

**Brightness adjustment** Adjusts screen brightness.  
It returns to the default settings brightness by changing mode source.

**1 PIP** Switches the sub picture PIP, DW mode.

**PIP PR - / +** Selects a programme for the sub picture.

**SWAP** Alternates between main and sub picture in PIP/Twin picture mode.

**PIP INPUT** Selects the input source for the sub picture in PIP/Twin picture mode.

**SIZE** Adjusts the sub picture size.

**POSITION** Moves the sub picture.

**VCR/DVD control buttons** Controls some video cassette recorders or DVD players when you have already selected DVD or VCR mode button. Control connected AV devices by pressing the ▲ / ▼ / ◀ / ▶, OK buttons and buttons for play, stop, pause, fast reverse, fast forward, chapter skip.  
(The ● button does not provide such functions.)

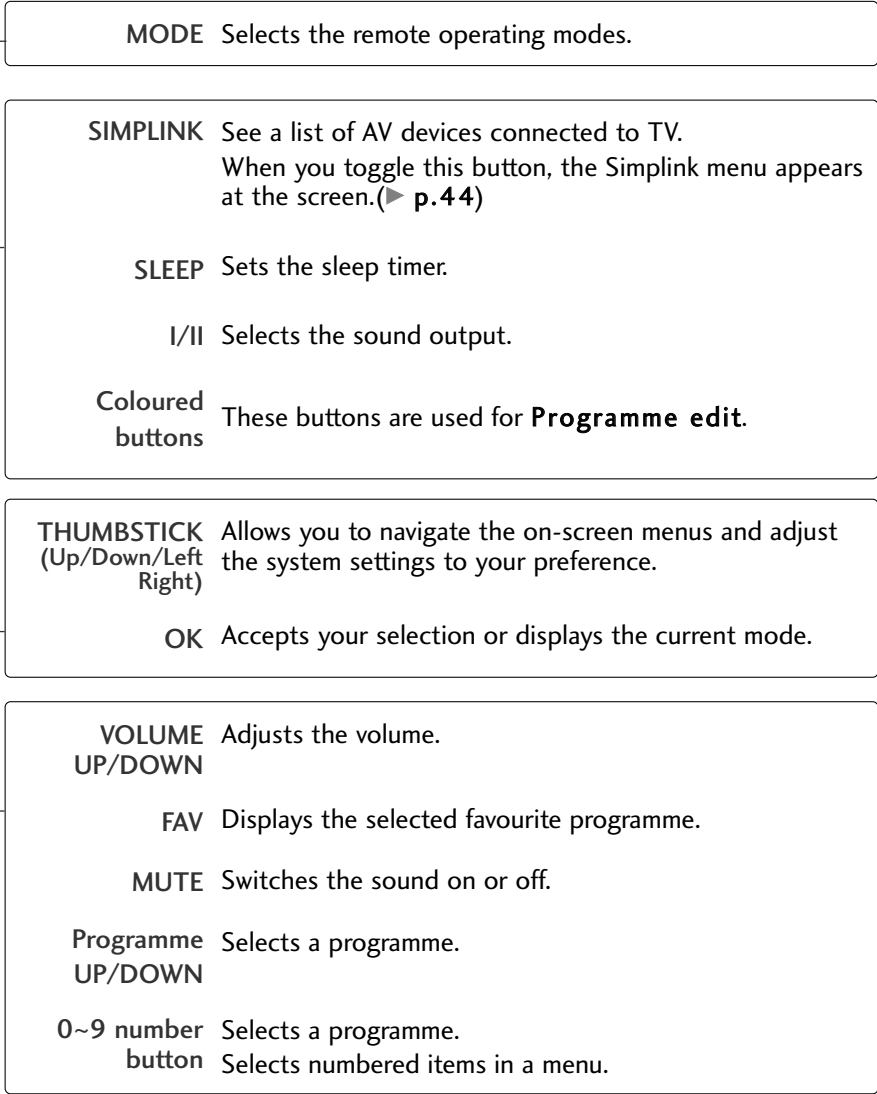
**EXIT** Clears all on-screen displays and returns to TV viewing from any menu.

**LIST** Displays the programme table.

**MENU** Selects a menu.

**Q.VIEW** Returns to the previously viewed programme.

\* No function



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

# WATCHING TV / PROGRAMME CONTROL

## TURNING ON THE TV

If your TV will be turned on, you will be able to use its features.

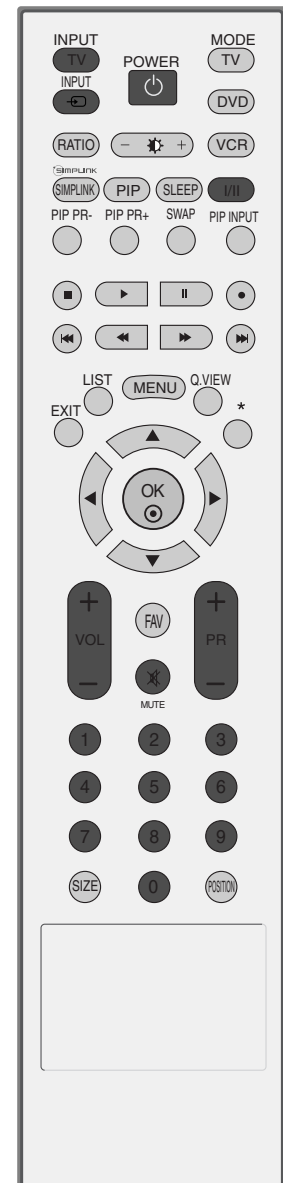
- 1 First, connect power cord correctly.  
At this moment, the TV switches to standby mode.
  - In standby mode to turn TV on, press the  $\phi/I$  , **INPUT**, **PR ▲ / ▼** button on the TV or press the **POWER**, **TV**, **INPUT**, **PR + / -**, **Number(0~9)** button on the remote control and then the TV will switch on.

## PROGRAMME SELECTION

- 1 Press the **PR + / -** or **NUMBER** buttons to select a programme number.

## VOLUME ADJUSTMENT

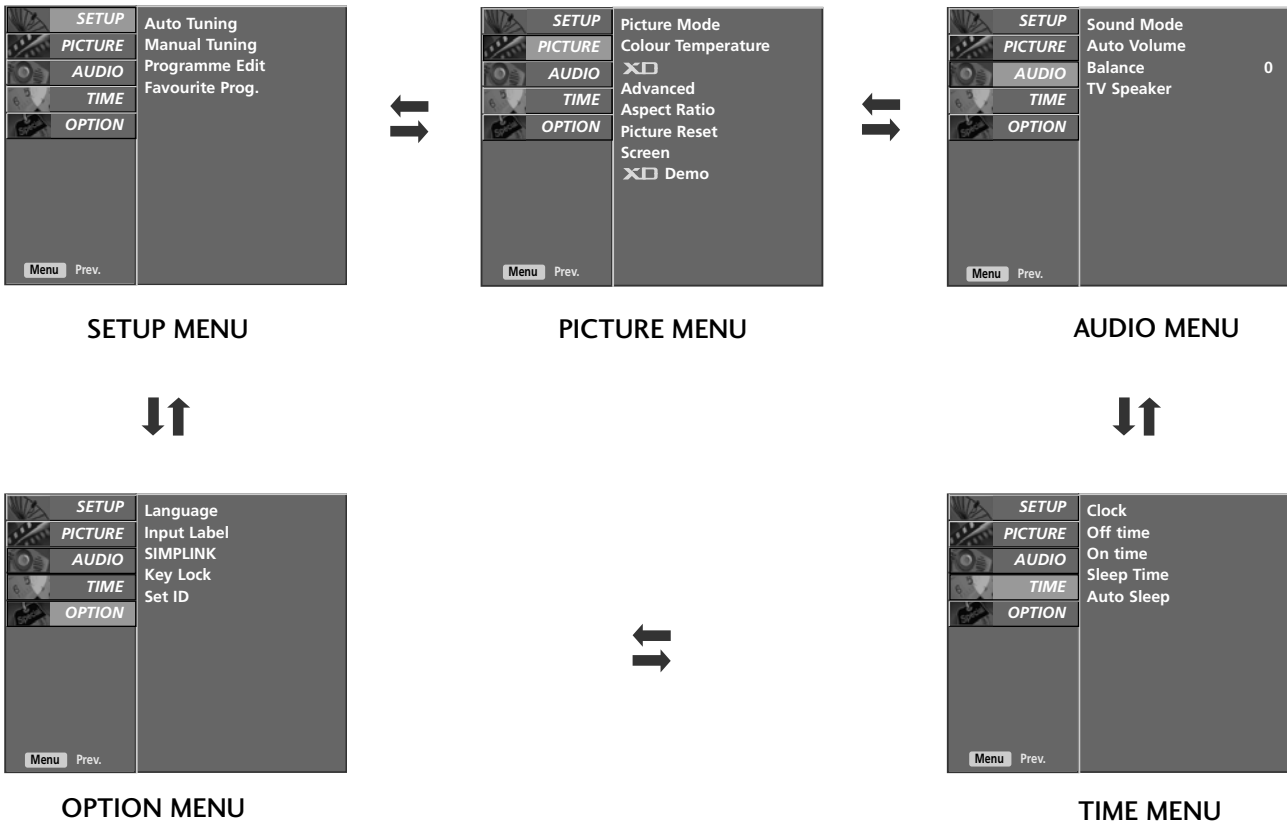
- 1 Press the **VOL + / -** button to adjust the volume.
- 2 If you want to switch the sound off, press the **MUTE** button.
- 3 You can cancel the Mute function by pressing the **MUTE**, **VOL + / -** or **I/II** button.



# ON SCREEN MENUS SELECTION AND ADJUSTMENT

Your TV's OSD (On Screen Display) may differ slightly from what is 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 the higher level menu by pressing the **OK** or **MENU** button.



## ! NOTE

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

# WATCHING TV / PROGRAMME CONTROL

## AUTO PROGRAMME TUNING

Up to 100 TV stations can be stored by programme numbers (0 to 99).

Once you have preset the stations, you will be able to use the PR + /- or NUMBER buttons to scan the stations you have programmed.

Stations can be tuned using automatic or manual modes.

All stations that can be received are stored by this method. It is recommended that you use auto programme 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 and then ▲ / ▼ button to select **System**.

4 Press the ◀ / ▶ button to select a TV system menu;  
BG: PAL B/G, SECAM B/G (Europe / East Europe / Asia / New/Zeland / M.East / Africa / Australia)  
I : PAL I/II (U.K. / Ireland / Hong Kong / South Africa)  
DK: PAL D/K, SECAM D/K (East Europe / China / Africa / CIS)  
M : (USA / Korea / Philippines)

5 Press the ▲ / ▼ button to select **Storage From**.

6 Press the ◀ / ▶ button or NUMBER buttons to select the beginning programme number. If you use NUMBER buttons, any number under 10 is entered with a numeric '0' in front of it, i.e. '05' for 5.

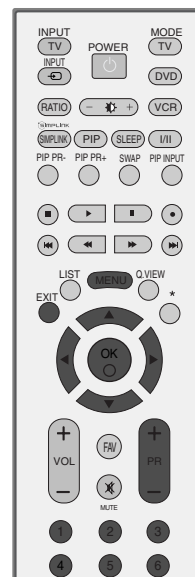
7 Press the ▲ / ▼ button to select **Start**.

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

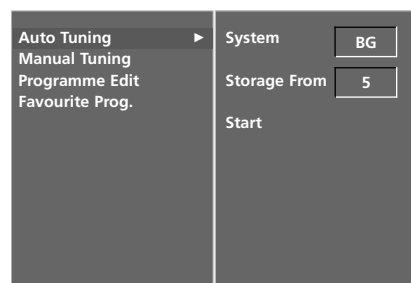
To stop auto tuning, press the **MENU** button.

When auto programming is completed, the Programme edit menu appears on the screen. See the Programme edit section to edit the stored programme.

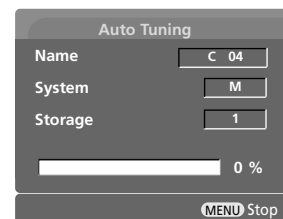
9 Press the **EXIT** button to return to normal TV viewing.



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2 3 4 5 6 7



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# MANUAL PROGRAMME TUNING

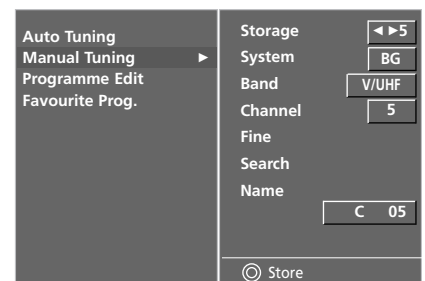
Manual programme lets you manually tune and arrange the stations in whatever order you desire.



- 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 **Storage**.
- 4 Press the **◀ / ▶** button or **NUMBER** buttons to select the desired programme number (0 to 99). If you use **NUMBER** buttons, any number under 10 is entered with a numeric '0' in front of it, i.e. '05' for 5.
- 5 Press the **▲ / ▼** button to select **System**.
- 6 Press the **◀ / ▶** button to select a TV system menu;  
 BG: PAL B/G, SECAM B/G (Europe / East Europe / Asia / NewZealand / M.East / Africa / Australia)  
 I : PAL I/II (U.K. / Ireland / Hong Kong / South Africa)  
 DK: PAL D/K, SECAM D/K (East Europe / China / Africa / CIS)  
 M : (USA / Korea / Philippines)
- 7 Press the **▲ / ▼** button to select **Band**.
- 8 Press the **◀ / ▶** button to select **V/UHF** or **Cable**.
- 9 Press the **▲ / ▼** button to select **Channel**.
- 10 You can select the desired programme number with the **◀ / ▶** button or number buttons. If possible, select the programme number directly with the number buttons. Any number under 10 is entered with a numeric '0' in front of it, i.e. '05' for 5.
- 11 Press the **▲ / ▼** button to select **Search**.
- 12 Press the **◀ / ▶** button to commence searching. If a station is found the search will stop.
- 13 Press the **OK** button to store it.
- 14 To store another station, repeat steps 3 to 13.
- 15 Press the **EXIT** button to return to normal TV viewing.



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2 3 4 5 6 7  
8 9 10 11 12

# WATCHING TV / PROGRAMME CONTROL

## FINE TUNING

Normally fine tuning is only necessary if reception is poor.

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

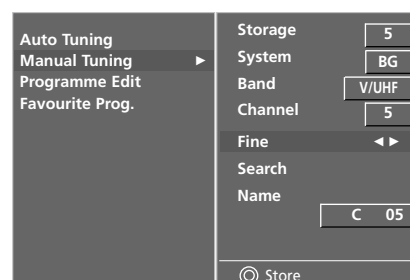
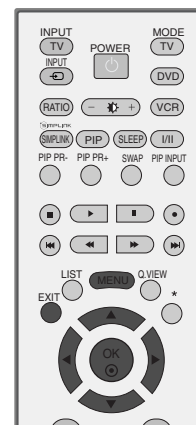
- 2 Press the ► button and then ▲ / ▼ button to select **Manual Tuning**.

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

- 4 Press the ◀ / ▶ button to fine tune for the best picture and sound.

- 5 Press the **OK** button to store it.

- 6 Press the **EXIT** button to return to normal TV viewing.



2 3 4 5



## ASSIGNING A STATION NAME

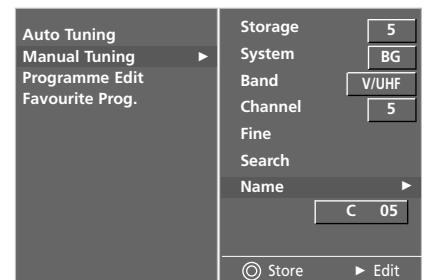
You can assign a station name with five characters to each programme number.



- 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 **Name**.
- 4 Press the **▶** button and then **▲** / **▼** button. You can use a blank, **+**, **-**, the number **0** to **9** and the alphabet **A** to **Z**.
- 5 Press the **◀** / **▶** button to select the position and make your choice of the second character, and so on.
- 6 Press the **OK** button to store it.
- 7 Press the **EXIT** button to return to normal TV viewing.



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2 3 4 5 6

## PROGRAMME EDIT

This function enables you to delete or skip the stored programmes. Also you can move some stations to other programme numbers or copy a blank station data into the selected programme number.

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

**2** Press the **►** button and then **▲ / ▼** button to select **Programme Edit**.

**3** Press the **►** button to display the Programme edit menu.

### ■ Deleting a programme

1. Select a programme to be deleted with the **▲ / ▼ / ◀ / ▶** button.

2. Press the **RED** button twice.

The selected programme is deleted, all the following programmes are shifted up one position.

### ■ Copying a programme

1. Select a programme to be copied with the **▲ / ▼ / ◀ / ▶** button.

2. Press the **GREEN** button.

All the following programmes are shifted down one position.

### ■ Moving a programme

1. Select a programme to be moved with the **▲ / ▼ / ◀ / ▶** button.

2. Press the **YELLOW** button.

3. Move the programme to the desired programme number with the **▲ / ▼ / ◀ / ▶** button.

4. Press the **YELLOW** button again to release this function.

### ■ Skipping a programme number

1. Select a programme number to be skipped with the **▲ / ▼ / ◀ / ▶** button.

2. Press the **BLUE** button. The skipped programme turns to blue.

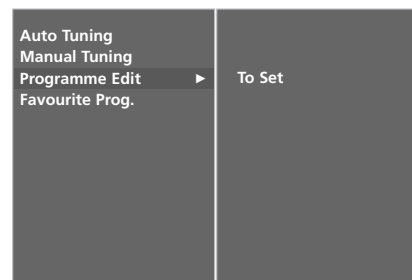
3. Press the **BLUE** button again to release the skipped programme.

When a programme number is skipped it means that you will be unable to select it using the **▲ / ▼** button during normal TV viewing. If you want to select the skipped programme, directly enter the programme number with the **NUMBER** buttons or select it in the programme edit or table menu.

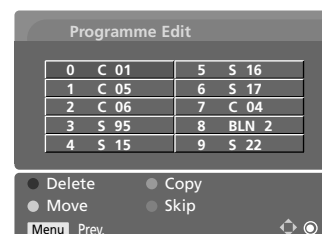
**4** Press the **EXIT** button to return to normal TV viewing.



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# FAVOURITE PROGRAMME

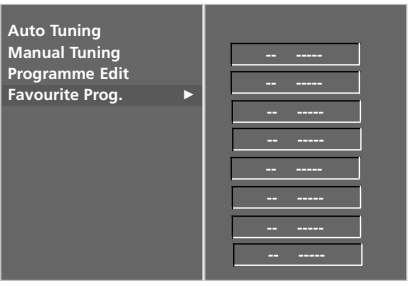
This function lets you select your favourite programmes directly.

Repeatedly press the **FAV** button to select stored favourite programmes.

- 1 Press the **MENU** button and then **▲** / **▼** button to select the **SETUP** menu.
- 2 Press the **▶** button and then **▲** / **▼** button to select **Favourite Prog..**
- 3 Press the **▶** button.
- 4 Press the **▲** / **▼** button to select - - - - -.
- 5 Select a desired programme with the **◀** / **▶** button or **NUM-BER** buttons. Any number under 10 is entered with a numeric '0' in front of it, i.e. '05' for 5.
- 6 To store another programme, repeat steps 4 to 5. You can store up to 8 programmes.
- 7 Press the **EXIT** button to return to normal TV viewing.



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2 3 4 5

# WATCHING TV / PROGRAMME CONTROL

## CALLING THE PROGRAMME LIST

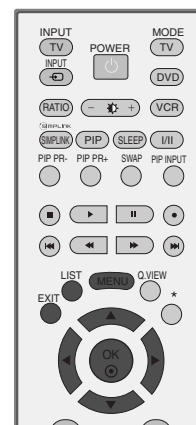
You can check the programmes stored in the memory by displaying the programme list.

### ■ Displaying programme list

Press the **LIST** button to display the Programme list menu.

The programme list appears on the screen.

One programme list contains ten programmes as shown.



### ! NOTE

- You may find some blue programmes. They have been set up to be skipped by auto programming or in the programme edit mode.
- Some programmes with the channel number shown in the programme list indicate there is no station name assigned.

0	----	5	S 02
1	C 01	6	S 04
2	C 04	7	C 08
3	C 05	8	S 11
4	BLN 2	9	S 28

### ■ Selecting a programme in the programme list

Select a programme with the **▲ / ▼ / ◀ / ▶** buttons.

Then press the **OK** button. The set switches to the chosen programme number.

### ■ Paging through a programme list

There are 10 programme list pages in which contain 100 programmes. Pressing the **▲ / ▼ / ◀ / ▶** buttons repeatedly turns the pages.

Press the **LIST** button to return to normal TV viewing.

# INPUT SOURCE SELECTION

Sets a label to each input source which is not in use when you press **INPUT** button.

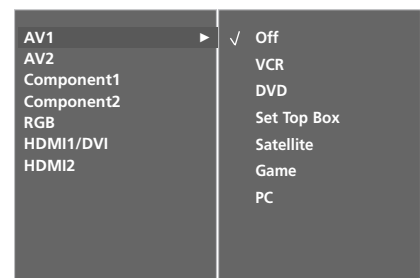
- 1 Press the **MENU** button and then use ▲ or ▼ button to select the **OPTION** menu.
- 2 Press the ► button and then use ▲ or ▼ button to select **Input Label**.
- 3 Press the ► button and then use ▲ or ▼ button to select the source: AV1, AV2, Component1/2, RGB, HDMI1/DVI or HDMI2.
- 4 Press the ► button and then use ▲ or ▼ button to select the label.
- 5 Press **EXIT** button to return to normal TV viewing.



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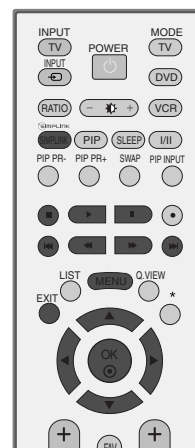
# WATCHING TV / PROGRAMME CONTROL



This operates only for the devices with the SIMPLINK logo.  
Please check the SIMPLINK logo.

This allows you to control and play other AV devices connected to the display through HDMI cable without additional cables and settings.

If you do not want SIMPLINK menu, select "OFF".



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

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

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

**4** Press the **EXIT** button to return to normal TV viewing.



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**2 3**

## SIMPLINK Functions

### Disc playback

Control connected AV devices by pressing the ▲ / ▼ / ◀ / ▶, OK buttons and buttons for play, stop, pause, fast reverse, fast forward, chapter skip. (The ⏻ button does not provide such functions)

### Direct Play

After connecting AV devices to TV, you can directly control the devices and play media without additional settings.

### Select AV device

Enables you to select one of AV devices connected to TV and play it.

### Power off all devices

When you power off TV, all connected devices are turned off.

### Switch audio-out

Offers an easy way to switch audio-out.

\* A device, which is connected to TV through HDMI cable but does not support Simplink, does not provide this function.

## SIMPLINK Menu

Press the ▲ / ▼ / ◀ / ▶ button and then OK button to select the desired SIMPLINK source.

- ① **TV viewing** : Switch to the previous TV programme regardless of the current mode.
- ② **DISC playback** : Select and play discs. When multiple discs are available, the titles of the discs are conveniently displayed at the bottom of the screen.
- ③ **VCR playback** : Play and control the connected VCR.
- ④ **HDD Recordings playback** : Play and control recordings stored in HDD.
- ⑤ **Audio Out to Home theatre/Audio Out to TV** : Select Home theatre or TV speaker for Audio Out.



### ! NOTE

- ▶ Connect the HDMI/DVI IN or HDMI IN terminal of the TV to the rear terminal (HDMI terminal) of the SIMPLINK device with the HDMI cable.
- ▶ After connecting the HDMI terminal for the home theater with SIMPLINK function in the above method, connect the VARIABLE AUDIO OUT terminal on the back of the TV to the VARIABLE AUDIO IN terminal on the back of the SIMPLINK device with the VARIABLE AUDIO OUT cable.
- ▶ When operating the external device with SIMPLINK, press the TV button among the MODE button on the remote controller.
- ▶ When you switch the Input source with the INPUT button on the remote controller, you can stop the operation of device controlled by SIMPLINK.
- ▶ When you select or operate the media device with home theater function, the speaker automatically switches to home theater speaker (HT speaker).

# WATCHING TV / PROGRAMME CONTROL

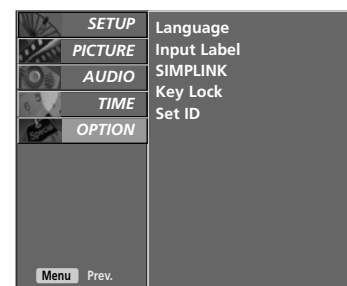
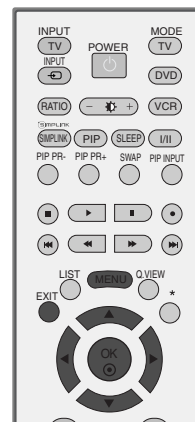
## KEY LOCK

The TV 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 **EXIT** button to return to normal TV viewing.



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### ! NOTE

- ▶ In **Key Lock 'On'**, if the set is turned off, press the **⏻** / **I**, **INPUT**, **PR ▲** / **▼** button on the set or **POWER**, **INPUT**, **TV**, **PR +/-** or **NUMBER** buttons on the remote control.
- ▶ With the **Key Lock On**, the display **'Key Lock on'** appears on the screen if any button on the front panel is pressed while viewing the set.



# PICTURE CONTROL

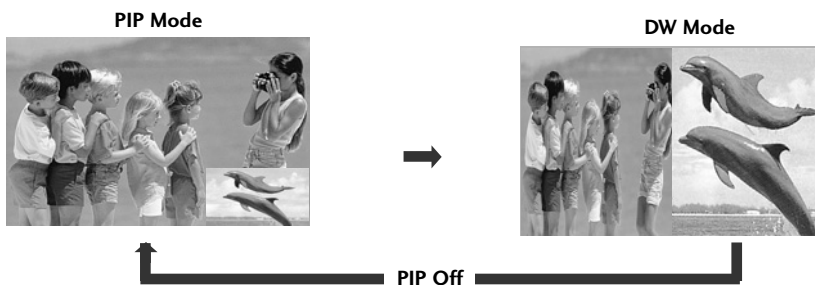
## WATCHING PIP(PICTURE-IN-PICTURE)

PIP lets you view 2 different inputs (sources) on your TV screen at the same time. One source will be large, and the other source will show a smaller inset image.

PIP function is available in the Component, RGB, HDMI mode. (But, it can't adjust 480i/576i resolution of Component mode.)

### Watching PIP/Double Window

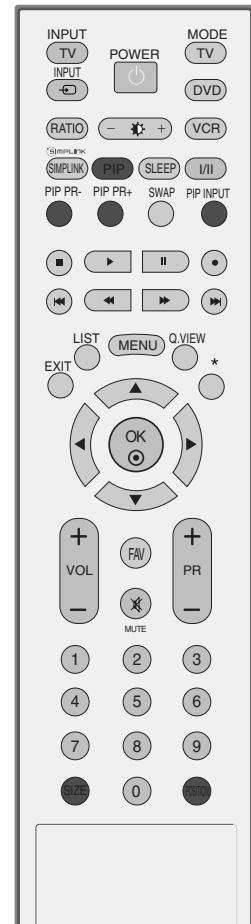
Press the **PIP** button to access the sub picture.  
Each press of PIP changes the PIP options.



### Programme Selection for Sub Picture

Press the **PIP PR +/-** button to select a programme for the sub picture.

The selected programme number is displayed just below the programme number of main picture.



# PICTURE CONTROL

## Input Source Selection for Sub Picture

Press the **PIP INPUT** button to select the input source for the sub picture.

Each press of **PIP INPUT** button is pressed, each input source for the sub picture is displayed.

## Sub Picture Size Adjustment (PIP mode only)

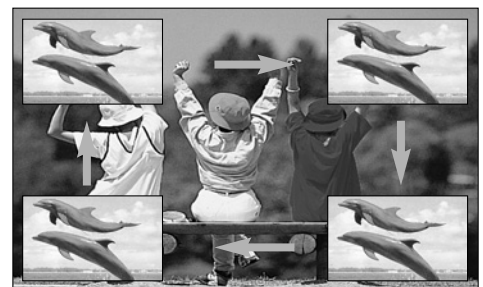
Press the **SIZE** button to adjust the sub picture size.

With **SIZE** button in PIP mode, sub picture is adjusted.

## Moving the Sub Picture (PIP mode only)

Press the **POSITION** button.

Repeatedly press the **POSITION** button then sub picture moves.



# PICTURE SIZE (ASPECT RATIO)CONTROL

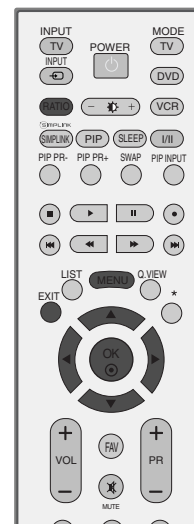
You can watch the screen in various picture formats; **Spectacle**, **Original**, **4:3**, **16:9**, **14:9** and **Zoom1/2**.

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.

There might be uncomfortable in full mode. Then change into other mode.

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

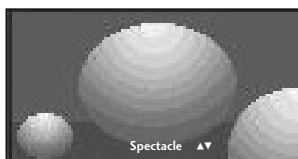
This function works in the following signal.



- 1 Press the **RATIO** button repeatedly to select the desired picture format.  
You can also adjust **Aspect Ratio** in the **PICTURE** menu.

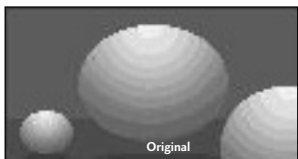
## • Spectacle

When your TV receives the wide screen signal, when selected it will adjust the picture horizontally, in non-linear proportion, to fill the entire screen.



## • Original

When your TV receives the wide screen signal, it will be automatically changed to the picture format to be sent.



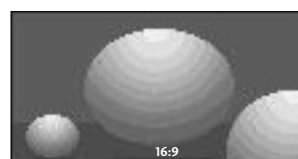
## • 4:3

Following selection will lead you to view a picture with an original 4:3 aspect ratio, with gray bars appearing at both the left and right sides.



## • 16:9

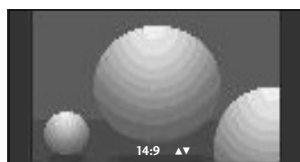
Following selection will lead you to adjust the picture horizontally, in a linear proportion, to fill the entire screen (useful for viewing 4:3 formatted DVDs).



# PICTURE CONTROL

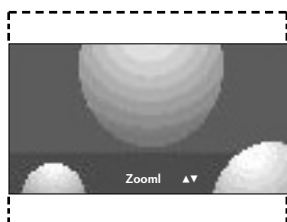
## • 14:9

You can enjoy the picture format of 14:9 or general TV programme through the 14:9 mode. The screen 14:9 is viewed just like that the screen 4:3 is magnified to the left / right.



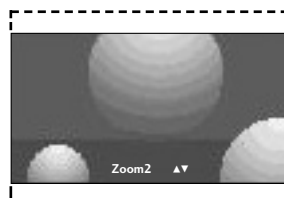
## • Zoom1

Following selection will lead you to view the picture without any alternation, while filling the entire screen. However, the top and bottom portions of the picture will be cropped.



## • Zoom2

Choose Zoom2 when you want the picture to be altered, both horizontally extended and vertically cropped. The picture taking a halfway trade off between alteration and screen coverage.



## • 1:1 Pixel

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

### ! NOTE

- ▶ You can select **4:3**, **16:9** (Wide) in RGB, HDMI-PC mode only.
- ▶ You can select **4:3**, **16:9**, **Zoom1**, **Zoom2** in Component, HDMI DTV mode only.
- ▶ In HDMI(1080i 50Hz/60Hz, 1080p 24Hz/25Hz/30Hz/50Hz/60Hz)mode, 1:1 Pixel is available.

# PRESET PICTURE SETTINGS

## Picture Mode-Preset

**Intelligent Eye** Adjusts picture according to the surrounding conditions.

- Dynamic** Select this option to display with a sharp image.
- Standard** The most general and natural screen display status.
- Mild** Select this option to display with a mild image.
- User 1/2** Select this option to use the user-defined setting.



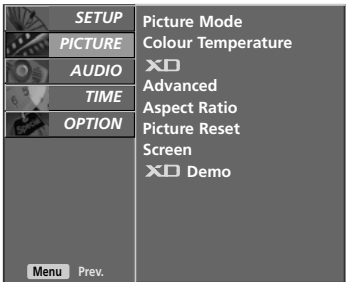
1 Press the **MENU** button and then ▲ / ▼ button to select the **PICTURE** menu.

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

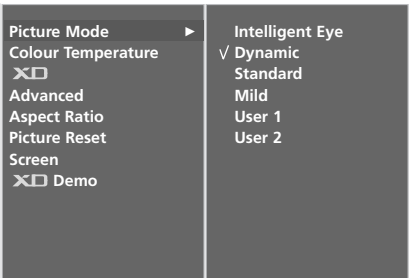
3 Press the ► button and then ▲ / ▼ button to select **Intelligent Eye, Dynamic, Standard, Mild, User 1 or User 2**.

4 Press the **EXIT** button to return to normal TV viewing.

- Picture Mode adjusts the TV for the best picture appearance. Select the preset value in the **Picture Mode** menu based on the programme category.
- Intelligent Eye, Dynamic, Standard and Mild are programmed for optimum picture reproduction at the factory and cannot be changed.
- When the Intelligent eye function is on, the most suitable picture is automatically adjusted according to the surrounding conditions.



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# PICTURE CONTROL

## Auto Colour Temperature Control(Warm/Medium/Cool)

To initialize values (reset to default settings), select the Cool option.

Choose one of three automatic colour adjustments. Set to warm to enhance hotter colours such as red, or set to cool to see less intense colours with more blue.

It's available to use this function in "User1/2" of **Picture mode** only.

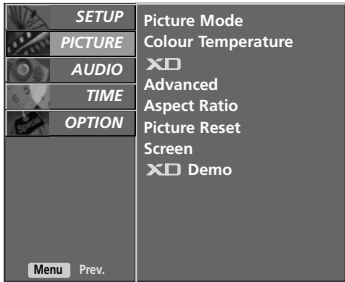


1 Press the **MENU** button and then ▲ / ▼ button to select the **PICTURE** menu.

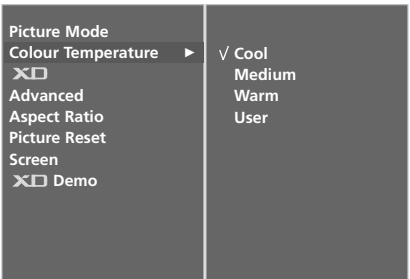
2 Press the ► button and then ▲ / ▼ button to select **Colour Temperature**.

3 Press the ► button and then ▲ / ▼ button to select either **Cool**, **Medium**, **Warm** or **User**.

4 Press the **EXIT** button to return to normal TV viewing.



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# MANUAL PICTURE ADJUSTMENT

## Picture Mode-User option

- Contrast

Adjusts the difference between the light and dark levels in the picture.
- Brightness

Increases or decreases amount of white in the your picture.
- Colour

Adjusts intensity of all colours.
- 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.
- Tint

Adjusts the balance between red and green levels.



- 1

Press the **MENU** button and then **▲ / ▼** button to select the **PICTURE** menu.
- 2

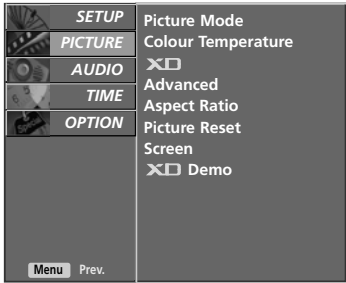
Press the **▶** button and then **▲ / ▼** button to select **Picture Mode**.
- 3

Press the **▶** button and then **▲ / ▼** button to select **User 1** or **User 2**.
- 4

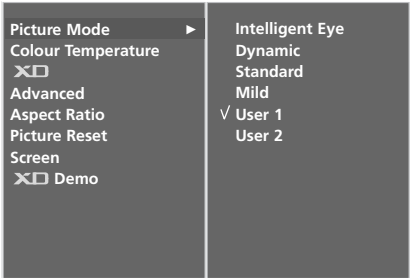
Press the **▶** button and then **▲ / ▼** button to select the desired picture option (**Contrast**, **Brightness**, **Colour**, **Sharpness** and **Tint**).
- 5

Press the **◀ / ▶** button to make appropriate adjustments.
- 6

Press the **EXIT** button to return to normal TV viewing.



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### ! NOTE

- ▶

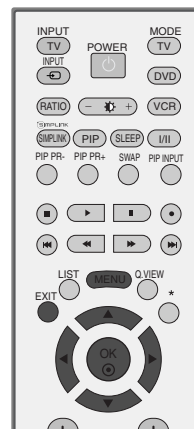
You can't adjust colour, sharpness and tint in the RGB mode to the levels you prefer.

# PICTURE CONTROL

## Colour Temperature - User option

To adjust red, green, blue to any colour temperature you prefer.

It's available to use this function in "User1/2" of **Picture mode** only.



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

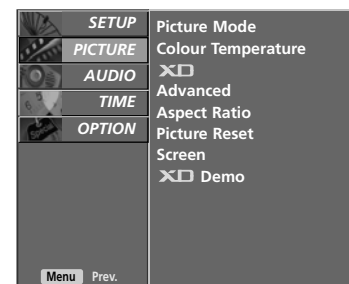
2 Press the ► button and then ▲ / ▼ button to select **Colour Temperature**.

3 Press the ► button and then ▲ / ▼ button to select **User**.

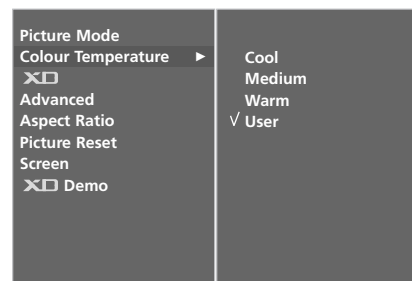
4 Press the ► button and then ▲ / ▼ button to select **Red**, **Green** or **Blue**.

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

6 Press the **EXIT** button to return to normal TV viewing.



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# XD - PICTURE IMPROVEMENT TECHNOLOGY

XD is LG electronic's unique picture improving technology to display a real HD source through an advanced digital signal processing algorithm.

It's not available to use this function in RGB/HDMI mode.

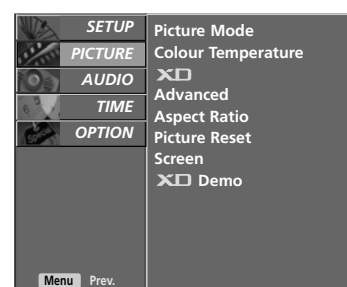
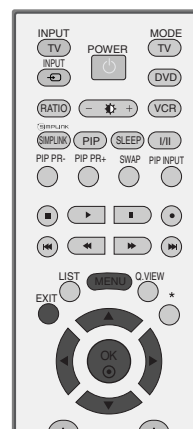
- 1 Press the MENU button and then ▲ / ▼ button to select the **PICTURE** menu.
- 2 Press the ► button and then ▲ / ▼ button to select **XD**.
- 3 Press the ► button and then ▲ / ▼ button to select **Auto** or **Manual**.
- 4 Press the EXIT button to return to TV viewing.

## \* Selecting the Manual

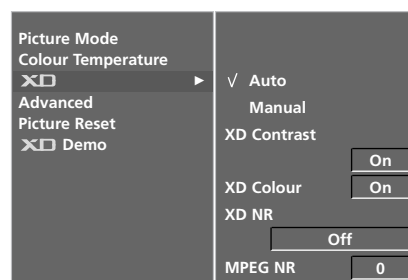
This menu is activated after selecting the **User1** or **User2** of Picture Mode.

- 1 Press the ► button and then ▲ / ▼ button to select **XD Contrast**, **XD Colour**, **XD NR** or **MPEG NR**.
- 2 Press the ► button and then ▲ / ▼ button to select **On** or **Off**.
- 3 Press the EXIT button to return to normal TV viewing.

- **XD Contrast** : Optimizing the contrast automatically according to the brightness of the reflection.
- **XD Colour** : Adjusting the colors of the reflection automatically to reproduce as closely as possible to the natural colors.
- **XD NR** : Removing the noise up to the point where it does not damage the original picture.
- **MPEG NR** : To reduce the picture noise which may appear on the screen during watching the TV. (It's not available to use this function in HDMI, Component (except 480i/576i), RGB mode.)



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# PICTURE CONTROL

## ADVANCED - CINEMA 3:2 PULLDOWN MODE

Set up the TV for the best picture appearance for viewing movies.

This feature operates only in Analog TV, AV and Component 480i/576i mode.



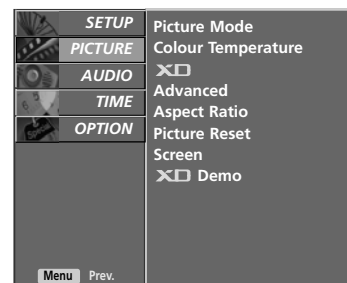
- 1 Press the **MENU** button and then **▲** / **▼** button to select the **PICTURE** menu.

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

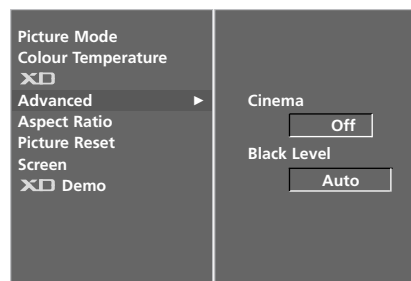
- 3 Press the **▶** button and then **▲** / **▼** button to select **Cinema**.

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

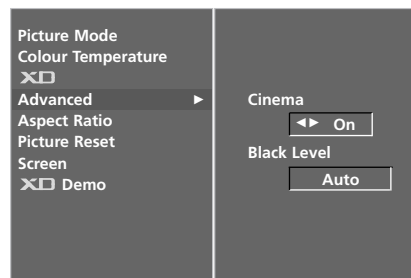
- 5 Press the **EXIT** button to return to normal TV viewing.



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# ADVANCED - BLACK(DARKNESS) LEVEL

When you watch the movie, this function adjusts the set to the best picture appearance. Adjusting the contrast and the brightness of the screen using the black level of the screen.

This function works in the following mode: AV (NTSC-M) or HDMI.

- 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 **Black Level**.
- 4

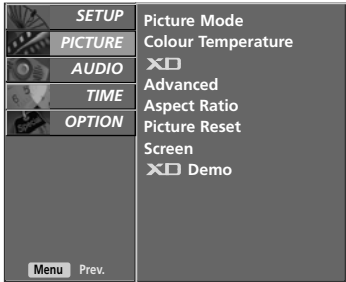
Press the ► button and then ▲ / ▼ button to select **Auto**, **Low** or **high**.

■ **Auto** : Realizing the black level of the screen and set it to High or Low automatically.

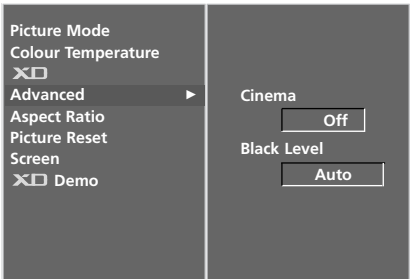
■ **Low** : The reflection of the screen gets darker.

■ **High** : The reflection of the screen gets brighter.
- 5

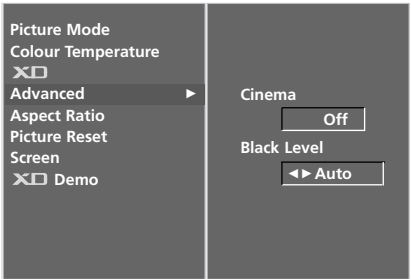
Press the **EXIT** button to return to normal TV viewing.



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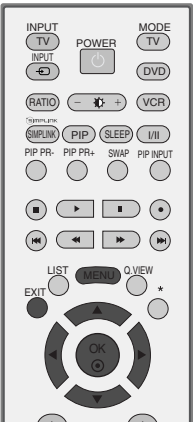


4

# PICTURE CONTROL

## PICTURE RESET

Returns to the default settings Picture Mode, Colour Temperature, XD, Advanced, Aspect Ratio at the factory.

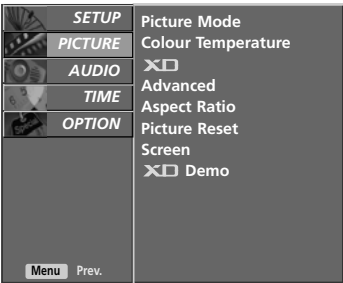


- 1

Press the **MENU** button and then **▲** / **▼** button to select the **PICTURE** menu.
- 2

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

Press the **▶** button to initialize the adjusted value.



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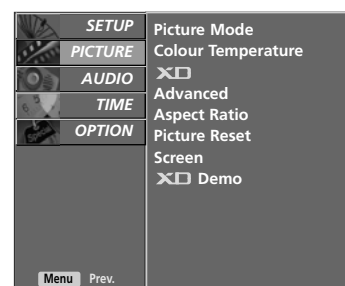
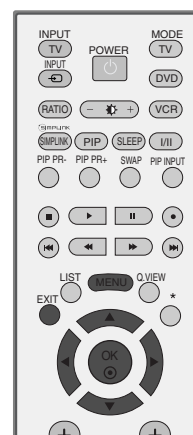
2 3

# XD DEMO

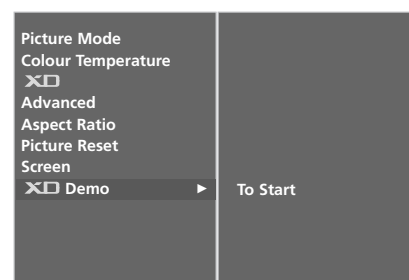
Use it to see the difference between XD Demo on and XD Demo off.

It's not available to use this function in RGB/HDMI mode.

- 1 Press the MENU button and then ▲ / ▼ button to select the **PICTURE** menu.
- 2 Press the ► button and then ▲ / ▼ button to select **XD Demo**.
- 3 Press the ► button to begin **XD Demo**.
- 4 To stop **XD Demo**, press the MENU button.



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## • XD Demo



# SOUND & LANGUAGE CONTROL

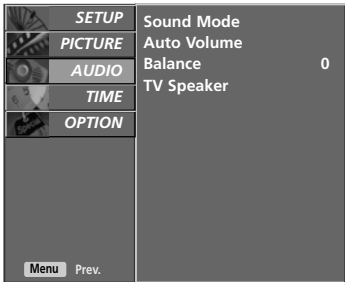
## PRESET SOUND SETTINGS-SOUND MODE

You can select your preferred sound setting; SRS TSXT, Standard, Music, Movie or Sports and you can also adjust the sound frequency of the equalizer.

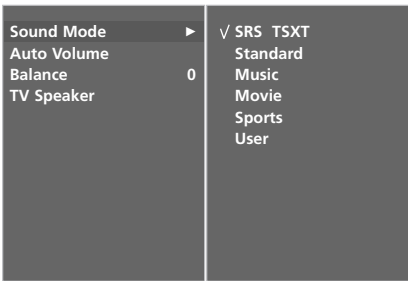
Sound Mode lets you enjoy the best sound without any Special adjustment because the TV sets the appropriate sound options based on the programme content.

**SRS TSXT, Standard, Music, Movie, and Sports** are preset for good sound quality at the factory and are not adjustable.

- SRS TSXT** Select this option to sound realistic.
- Standard** The most commanding and natural audio.
- Music** Select this option to enjoy the original sound when listening to the music.
- Movie** Select this option to enjoy sublime sound.
- Sports** Select this option to watch sports broadcasting.
- User** Select this option to use the user-defined audio settings.



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- 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 **SRS TSXT, Standard, Music, Movie, Sports** or **User**.
- 4 Press the **EXIT** button to return to normal TV viewing.

▶ **SRS** is a trademark of SRS Labs, Inc.  
▶ TruSurround XT technology is incorporated under license from SRS Labs, Inc.

# SOUND SETTING ADJUSTMENT -USER MODE

Adjust the sound equalizer.

- 1

Press the **MENU** button and then ▲ / ▼ button to select the **AUDIO** menu.
- 2

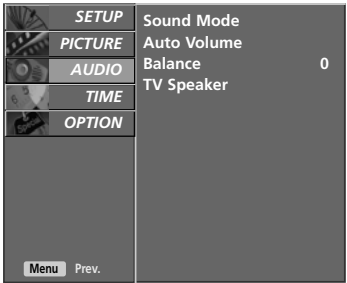
Press the ► button and then ▲ / ▼ button to select **Sound Mode**.
- 3

Press the ► button and then ▲ / ▼ button to select **User**.
- 4

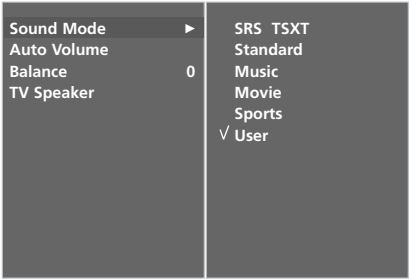
Press the ► button.
- 5

Select a sound band by pressing the ◀ / ▶ button.  
Make appropriate sound level with the ▲ / ▼ button.
- 6

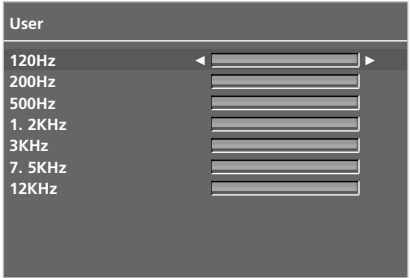
Press the **EXIT** button to return to normal TV viewing.



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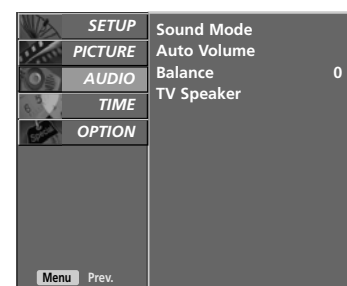
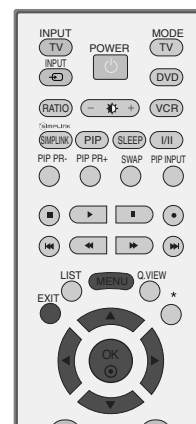
5

# SOUND & LANGUAGE CONTROL

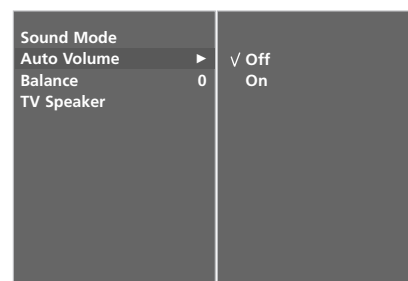
## AUTO VOLUME LEVELER

Auto Volume automatically keeps on an equal volume level even 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 **EXIT** button to return to normal TV viewing.



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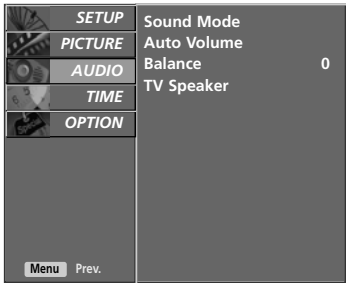


# BALANCE

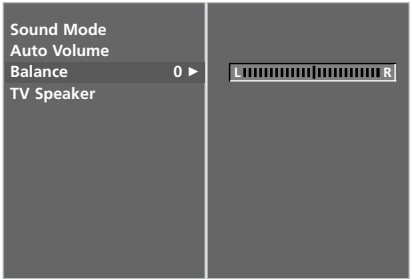
You can adjust the sound balance of speaker to the levels you prefer.



- 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 **EXIT** button to return to normal TV viewing.



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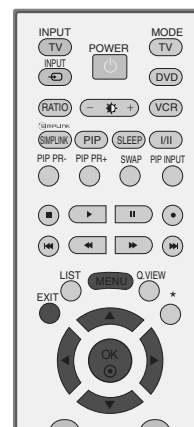
# SOUND & LANGUAGE CONTROL

## TV SPEAKERS ON/OFF SETUP

You can adjust the internal speaker status.

In AV, COMPONENT, RGB and HDMI mode, internal speaker audio can be outputted even though there is no video signal.

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 ▲ / ▼ button to select the **AUDIO** menu.

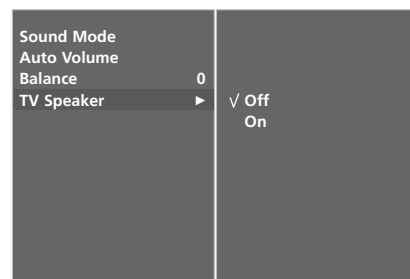
2 Press the ► button and then ▲ / ▼ button to select **TV Speaker**.

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

4 Press the **EXIT** button to return to normal TV viewing.



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## Stereo/Dual Reception

When a programme is selected, the sound information for the station appears after the programme number and station name disappear.

Broadcast	On Screen Display
Mono	<b>MONO</b>
Stereo	<b>STEREO</b>
Dual	<b>DUAL I</b>

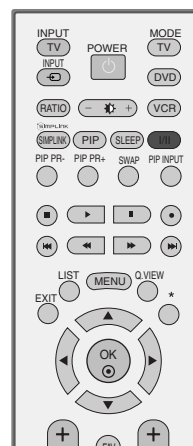
### ■ Mono sound selection

If the stereo signal is weak in stereo reception, you can switch to mono by pressing the I/II button twice. In mono reception, the depth of sound is improved. To switch back to stereo, press the I/II button twice again.

### ■ Language selection for dual language broadcast

If a programme received two languages (dual language), you can switch to **DUAL I**, **DUAL II** or **DUAL I+II** by pressing the I/II button repeatedly.

- DUAL I** Sends the primary broadcast language to the loudspeakers.
- DUAL II** Sends the secondary broadcast language to the loudspeakers.
- DUAL I+II** Sends a separate language to each loudspeaker.



# SOUND & LANGUAGE CONTROL

## NICAM Reception

If the set is equipped with the receiver for NICAM reception, the high quality NICAM (Near Instantaneous Companding Audio Multiplex) digital sound can be received.

Sound output can be selected according to the type of received broadcast as follows by pressing the I/II button repeatedly.

- 1 When **NICAM mono** is received, you can select **NICAM MONO** or **FM MONO**.
- 2 When **NICAM stereo** is received, you can select **NICAM STEREO** or **FM MONO**.  
If the stereo signal is weak, switch to **FM MONO**.
- 3 When **NICAM dual** is received, you can select **NICAM DUAL I**, **NICAM DUAL II** or **NICAM DUAL I+II** or **MONO**.

## Speaker Sound Output Selection

In AV, S-Video, Component, RGB and HDMI mode, you can select output sound for the left and right loudspeakers.

Repeatedly press the I/II button to select the sound output.

**L+R:** Audio signal from audio L input is sent to the left loud speaker and audio signal from audio R input is sent to the right loud speaker.

**L+L:** Audio signal from audio L input is sent to left and right loud speakers.

**R+R:** Audio signal from audio R input is sent to left and right loud speakers.

# ON-SCREEN 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 ▲ / ▼ 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 **OK** button.
- 5 Press the **EXIT** button to return to normal TV viewing.



# TIME SETTING

## CLOCK SETTING

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.



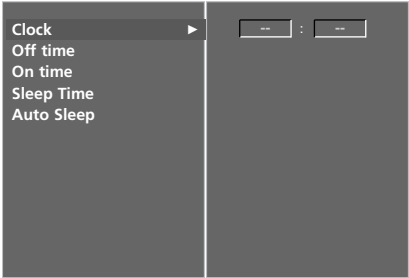
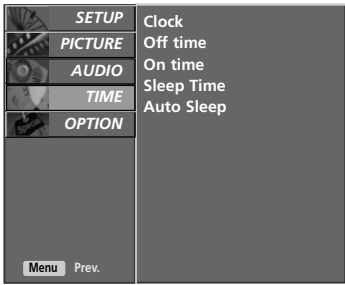
- 1 Press the **MENU** button and then ▲ / ▼ button to select the **TIME** menu.

- 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 minutes.

- 5 Press the **EXIT** button to return to normal TV viewing.



2 3 4

# AUTO ON/OFF TIMER SETTING

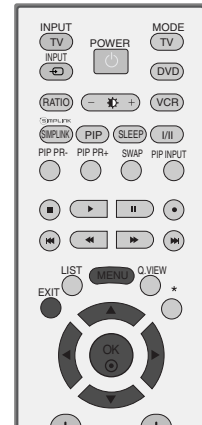
The Off time automatically switches the set to standby at the preset time.

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

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

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

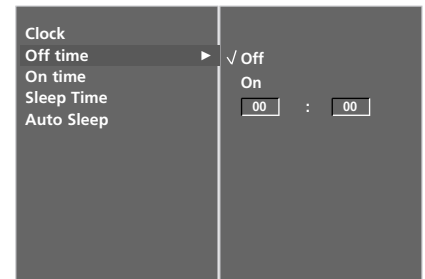
The set must be in standby mode for the On timer to work.



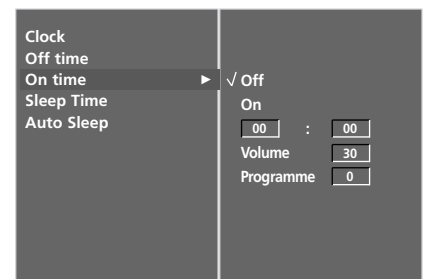
- 1 Press the **MENU** button and then **▲ / ▼** button to select the **TIME** menu.
- 2 Press the **▶** button and then **▲ / ▼** button to select **Off time/On time**.
- 3 Press the **▶** button and then **▲ / ▼** button to select **On**.
  - To cancel **On/Off time** function, select **Off**.
- 4 Press the **▶** button and then **▲ / ▼** button to set the hour.
- 5 Press the **▶** button and then **▲ / ▼** button to set the minutes.
- 6 **For only On timer function**
  - **Programme:** Press the **▶** button and then **▲ / ▼** button to select the programme.
  - **Volume:** Press the **▶** button and then **▲ / ▼** button to adjust volume level at turn-on.
- 7 Press the **EXIT** button to return to normal TV viewing.



1



2 3



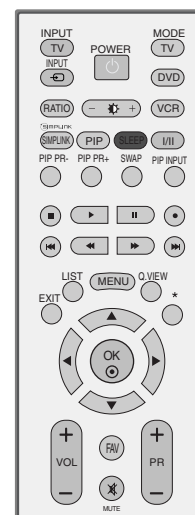
4 5 6

# TIME SETTING

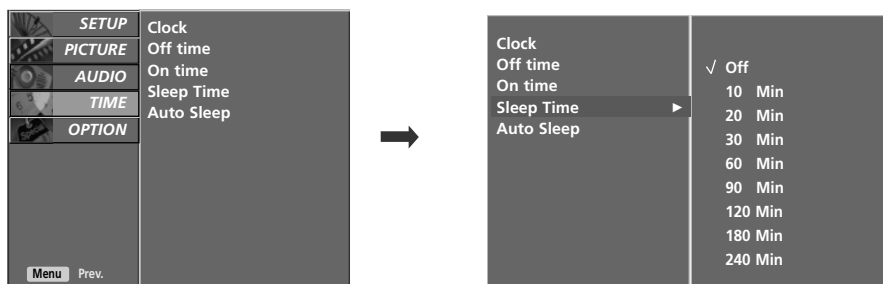
## SLEEP TIMER SETTING

You don't 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 **SLEEP** button repeatedly to select the number of minutes. The display '⌚ zZ - - -Min ' will appear on the screen, followed by 10, 20, 30, 60, 90, 120, 180 and 240.
- 2 When the number of minutes you want is displayed on the screen, the timer begins to count down from the number of minutes selected.



■ You can also set up the Sleep Timer in the **TIME** menu.



### ! NOTE

- ▶ To view the remaining sleep time, press the **SLEEP** button once.
- ▶ To cancel the sleep time, repeatedly press the **SLEEP** button until the display '⌚ zZ - - -Min ' appears.
- ▶ When you switch the set off, the set releases the preset sleep time.



# AUTO SHUT-OFF SETTING

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

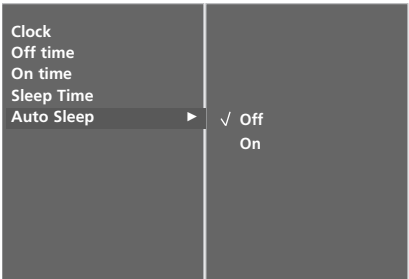
- 1

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**.
- 4

Press the **EXIT** button to return to normal TV viewing.



# APPENDIX

## TROUBLESHOOTING

### The operation does not work normally.

#### The remote control doesn't work

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

#### Power is suddenly turned off

- Is the sleep timer set?
- Check the power control settings. Power interrupted
- No broadcast on station tuned with Auto off activated.

### The video function does not work.

#### No picture & No sound

- Check whether the product is turned on.
- Try another channel. The problem may be with the broadcast.
- Is the power cord inserted into wall power outlet?
- Check your antenna direction and/or location.
- Test the wall power outlet, plug another product's power cord into the outlet where the product's power cord was plugged in.

#### Picture appears slowly after switching on

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

#### No or poor color or poor picture

- Adjust Color in menu option.
- Keep a sufficient distance between the product 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

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

#### Poor reception on some channels

- Station or cable product experiencing problems, tune to another station.
- Station signal is weak, reorient antenna to receive weaker station.
- Check for sources of possible interference.

#### Lines or streaks in pictures

- Check antenna (Change the direction of the antenna).

The audio function does not work.	
Picture OK & No sound	<ul style="list-style-type: none"> <li>■ Press the <b>VOL(or Volume)</b> button.</li> <li>■ Sound muted? Press <b>MUTE</b> button.</li> <li>■ Try another channel. The problem may be with the broadcast.</li> <li>■ Are the audio cables installed properly?</li> </ul>
No output from one of the speakers	<ul style="list-style-type: none"> <li>■ Adjust Balance in menu option.</li> </ul>
Unusual sound from inside the product	<ul style="list-style-type: none"> <li>■ A change in ambient humidity or temperature may result in an unusual noise when the product is turned on or off and does not indicate a fault with the product.</li> </ul>

There is a problem in PC mode. (Only PC mode applied)	
The signal is out of range.	<ul style="list-style-type: none"> <li>■ Adjust resolution, horizontal frequency, or vertical frequency.</li> <li>■ Check the input source.</li> </ul>
Vertical bar or stripe on background & Horizontal Noise & Incorrect position	<ul style="list-style-type: none"> <li>■ Work the Auto configure or adjust clock, phase, or H/V position.</li> </ul>
Screen colour is unstable or single colour	<ul style="list-style-type: none"> <li>■ Check the signal cable.</li> <li>■ Reinstall the PC video card.</li> </ul>

# APPENDIX

## MAINTENANCE

Early malfunctions can be prevented. Careful and regular cleaning can extend the amount of time you will have your new TV. Be sure to turn the power off and unplug the power cord before you begin any cleaning.

### Cleaning the Screen

- 1 Here's a great way to keep the dust off your screen for a while. 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 Make sure the excess water is off the screen, and then let it air-dry before you turn on your TV.

### Cleaning the Cabinet

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

### Extended Absence

#### CAUTION

- If you expect to leave your TV dormant for a long time (such as a vacation), it's a good idea to unplug the power cord to protect against possible damage from lightning or power surges.

# PRODUCT SPECIFICATIONS

MODELS			42LB7RF* 47LB7RF*
42LB7RF* 42LB7RF-TA	Dimensions (Width x Height x Depth)	with stand	1033.4 x 750.0 x 287.6 mm 40.7 x 29.5 x 11.3 inches
		without stand	1033.4 x 686.8 x 88.5 mm 40.7 x 27.0 x 3.5 inches
	Weight	with stand without stand	24.9 kg / 54.9 lbs 20.4 kg / 45.0 lbs
	Power requirement		AC100-240V~ 50/60Hz 2.5A
47LB7RF* 47LB7RF-TA	Dimensions (Width x Height x Depth)	with stand	1144.5 x 825.5 x 329.0 mm 45.0 x 32.5 x 11.4 inches
		without stand	1144.5 x 754.7 x 103.0 mm 45.0 x 29.7 x 4.1 inches
	Weight	with stand without stand	37.4 kg / 82.5 lbs 31.4 kg / 69.2 lbs
	Power requirement		AC100-240V~ 50/60Hz 3.2A
Television System External Antenna Impedance			PAL/SECAM B/G/D/K, PAL I/II, NTSC M 75 ohm
Environment condition	Operating Temperature Operating Humidity		0 ~ 40°C / 32 ~ 104°F Less than 80%
	Storage Temperature Storage Humidity		-20 ~ 60°C / -4 ~ 140°F Less than 85%

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

## PROGRAMMING THE REMOTE CONTROL

The remote is a multi-brand or a universal remote. It can be programmed to operate most remote-controllable devices of other manufacturers.

Note that the remote may not control all models of other brands.

### Programming a code into a remote mode

- 1 Test your remote control.  
To find out whether your remote control can operate the component without programming, turn on the component such as a VCR and press the corresponding mode button (such as a **DVD** or **VCR**) on the remote control, while pointing at the component. Test the **POWER** and **PR + / -** buttons to see if the component responds properly. If not, the remote requires programming to operate the device.
- 2 Turn on the component to be programmed, then press the corresponding mode button (such as a **DVD** or **VCR**) on the remote control. The remote control button of desired device is lighted.
- 3 Press the **MENU** and **MUTE** buttons simultaneously, the remote control is ready to be programmed for the code.
- 4 Enter a code number using the number buttons on the remote control. Programming code numbers for the corresponding component can be found on the following pages. Again, if the code is correct, the device will turn off.
- 5 Press the **MENU** button to store the code.
- 6 Test the remote control functions to see if the component responds properly. If not, repeat from step 2.

## VCRs

Brand	Codes	Brand	Codes	Brand	Codes	Brand	Codes
AIWA	034	KENWOOD	014 034 039 043	PORTLAND	108	TATUNG	039 043
AKAI	016 043 046 124		047 048	PULSAR	072	TEAC	034 039 043
	125 146	LG (GOLDSTAR)	001 012 013 020	QUARTZ	011 014	TECHNICS	031 033 070
AMPRO	072		101 106 114 123	QUASAR	033 066 075 145	TEKNIKA	019 031 033 034
ANAM	031 033 103	LLOYD	034	RCA	013 020 033 034		101
AUDIO DYNAMICS	012 023 039 043	LXI	003 009 013 014		040 041 062 063	THOMAS	034
BROKSONIC	035 037 129		017 034 101 106		107 109 140 144	TMK	006
CANON	028 031 033	MAGIN	040	REALISTIC	145 147	TOSHIBA	008 013 042 047
CAPEHART	108	MAGNAVOX	031 033 034 041		003 008 010 014		059 082 112 131
CRAIG	003 040 135		067 068		031 033 034 040	TOTEVISION	040 101
CURTIS MATHES	031 033 041	MARANTZ	012 031 033 067	RICO	053 054 101	UNITECH	040
DAEWOO	005 007 010 064		069	RUNCO	058	VECTOR RESEARCH	012
	065 108 110 111	MARTA	101	SALORA	148	VICTOR	048
	112 116 117 119	MATSUI	027 030	SAMSUNG	014	VIDEO CONCEPTS	012 034 046
DAYTRON	108	MEI	031 033		032 040 102 104	VIDEOSONIC	040
DBX	012 023 039 043	MEMOREX	003 010 014 031		105 107 109 112	WARDS	003 013 017 024
DYNATECH	034 053		033 034 053 072		113 115 120 122		031 033 034 040
ELECTROHOME	059		101 102 134 139	SANSUI	125		053 054 131
EMERSON	006 017 025 027	MGA	045 046 059	SANYO	022 043 048 135	YAMAHA	012 034 039 043
	029 031 034 035	MINOLTA	013 020		003 007 010 014	ZENITH	034 048 056 058
	036 037 046 101	MITSUBISHI	013 020 045 046		102 134		072 080 101
	129 131 138 153		049 051 059 061	SCOTT	017 037 112 129		
FISHER	003 008 009 010		151		131		
FUNAI	034	MTC	034 040	SEARS	003 008 009 010		
GE	031 033 063 072	MULTITECH	024 034		013 014 017 020		
	107 109 144 147	NEC	012 023 039 043		031 042 073 081		
GO VIDEO	132 136		048		101		
HARMAN KARDON	012 045	NORDMENDE	043	SHARP	031 054 149		
HITACHI	004 018 026 034	OPTONICA	053 054	SHINTOM	024		
	043 063 137 150	PANASONIC	066 070 074 083	SONY	003 009 031 052		
INSTANTREPLAY	031 033		133 140 145		056 057 058 076		
JCL	031 033	PENTAX	013 020 031 033		077 078 149		
JCPENNY	012 013 015 033		063	SOUNDESIGN	034		
	040 066 101	PHILCO	031 034 067	STS	013		
JENSEN	043	PHILIPS	031 033 034 054	SYLVANIA	031 033 034 059		
JVC	012 031 033 043		067 071 101		067		
	048 050 055 060	PILOT	101	SYMPHONIC	034		
	130 150 152	PIONEER	013 021 048	TANDY	010 034		

## DVD

Brand	Codes	Brand	Codes	Brand	Codes	Brand	Codes
APEX DIGITAL	022	MAGNAVOX	013	PHILIPS	013	SONY	007
DENON	020 014	MARANTZ	024	PIONEER	004 026	THOMPSON	005 006
GE	005 006	MITSUBISHI	002	PROCEED	021	TOSHIBA	019 008
HARMAN KARDON	027	NAD	023	PROSCAN	005 006	YAMAHA	009 018
JVC	012	ONKYO	008 017	RCA	005 006	ZENITH	010 016 025
LG	001 010 016 025	PANASONIC	003 009	SAMSUNG	011 015		

## IR CODES

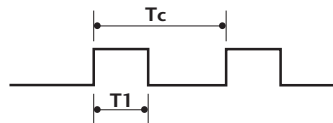
### 1. How to Connect

- Connect your wired remote control to the Remote Control port on the TV.

### 2. Remote Control IR Codes

#### ■ Output waveform

Single pulse, modulated with 37.917KHz signal at 455KHz



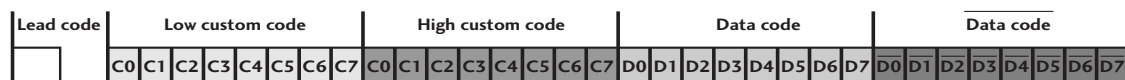
Carrier frequency

$$FCAR = 1/TC = fOSC/12$$

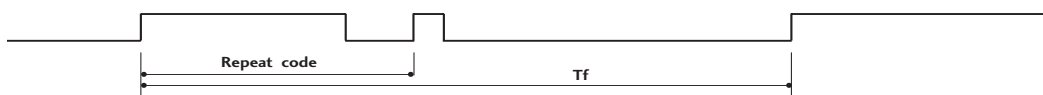
$$\text{Duty ratio} = T1/TC = 1/3$$

#### ■ Configuration of frame

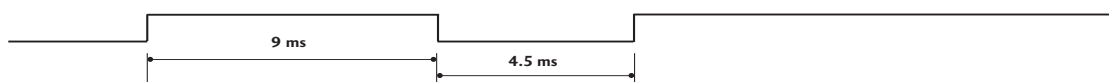
1st frame



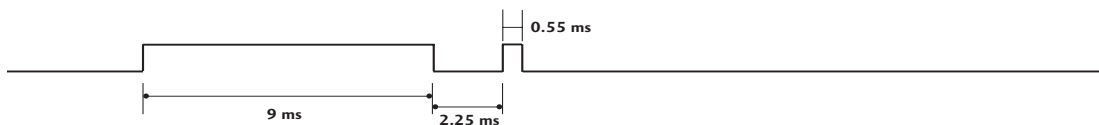
Repeat frame



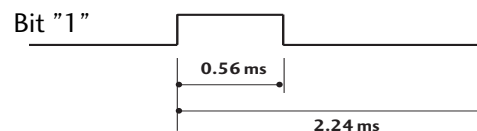
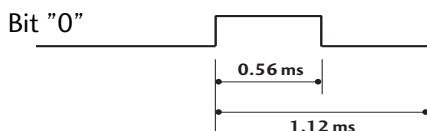
#### ■ Lead code



#### ■ Repeat code

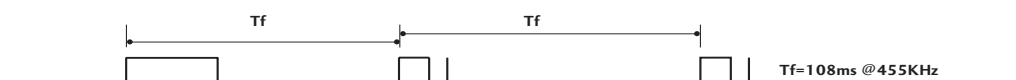


#### ■ Bit description



#### ■ Frame interval: Tf

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



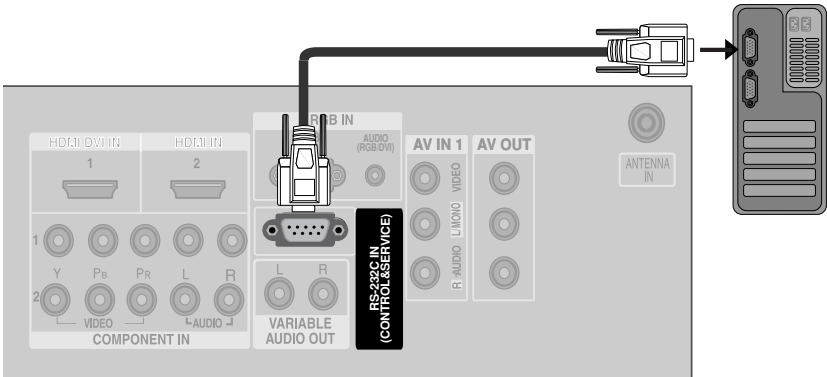


Code (Hexa)	Function	Note	Code (Hexa)	Function	Note
0F	TV	R/C Button	72	RED	R/C Button
0B	INPUT	R/C Button	71	GREEN	R/C Button
08	POWER	R/C Button (Power On/Off)	63	YELLOW	R/C Button
60	PIP	R/C Button	61	BLUE	R/C Button
0E	SLEEP	R/C Button	02	VOL +	R/C Button
63	SWAP	R/C Button	03	VOL -	R/C Button
0A	I/II	R/C Button	00	PR +	R/C Button
43	MENU	R/C Button	01	PR -	R/C Button
79	RATIO	R/C Button	09	MUTE	R/C Button
5B	EXIT	R/C Button	53	LIST	R/C Button
07	◀	R/C Button	10 ~ 19	Number Key 0 ~ 9	R/C Button
06	▶	R/C Button	1E	FAV	R/C Button
40	▲	R/C Button	1A	Q.VIEW	R/C Button
41	▼	R/C Button	64	SIZE	R/C Button
44	OK	R/C Button	62	POSITION	R/C Button
72	PIP PR-	R/C Button	E0	☀ +	R/C Button
71	PIP PR+	R/C Button	E1	☀ -	R/C Button
7E	SIMPLINK	R/C Button			
61	PIP INPUT	R/C Button			

EXTERNAL CONTROL DEVICE SETUP

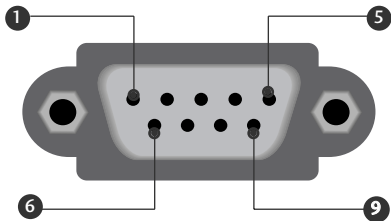
Connect the RS-232C input jack to an external control device (such as a computer or an A/V control system) and control the TV's functions externally.  
Connect the serial port of the control device to the RS-232C jack on the TV back panel.  
RS-232C connection cables are not supplied with the TV.

RS-232C Setup



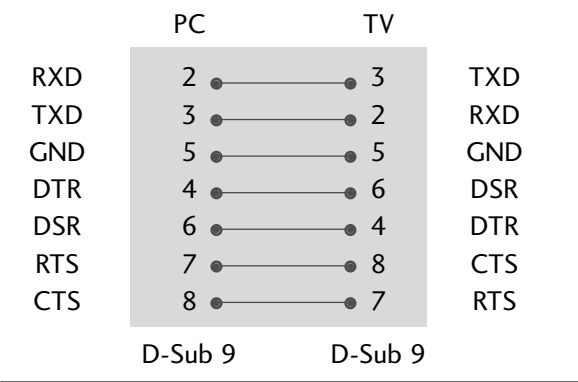
Type of Connector; D-Sub 9-Pin Male

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

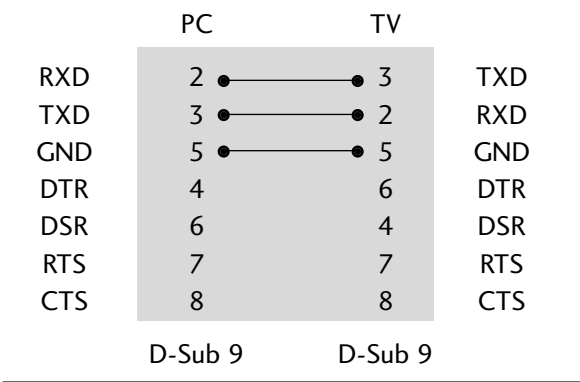


# RS-232C Configurations

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



## 3-Wire Configurations(Not standard)



## Set ID

Use this function to specify a set ID number.  
Refer to 'Real Data Mapping'. See page p.85

- 1 Press the **MENU** button and then use ▲ / ▼ button to select the **OPTION** 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 TV ID number.
  - The adjustment range of SET ID is 1~99.
- 4 Press **EXIT** button to return to normal TV viewing.



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3 2

## Communication Parameters

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

## Command Reference List

	COMMAND1	COMMAND2	DATA (Hexadecimal)		COMMAND1	COMMAND2	DATA (Hexadecimal)
01. Power	k	a	0 ~ 1	14. PIP Position	k	q	0 ~ 3
02. Aspect Ratio	k	c	*	15. Balance	k	t	0 ~ 64
03. Screen Mute	k	d	0 ~ 1	16. Colour Temperature	k	u	0 ~ 3
04. Volume Mute	k	e	0 ~ 1	17. Red Adjustment	k	v	0 ~ 3C (or 50)
05. Volume Control	k	f	0 ~ 64	18. Green Adjustment	k	w	0 ~ 3C (or 50)
06. Contrast	k	g	0 ~ 64	19. Blue Adjustment	k	\$	0 ~ 3C (or 50)
07. Brightness	k	h	0 ~ 64	20. Abnormal Status	k	z	FF
08. Colour	k	i	0 ~ 64	21. Auto Configure	j	u	1
09. Tint	k	j	0 ~ 64	22. Tune Command	m	a	*
10. Sharpness	k	k	0 ~ 64	23. Key	m	c	Key Code
11. OSD Select	k	l	0 ~ 1	24. Input select (Main)	x	b	*
12. Remote Control lock mode	k	m	0 ~ 1	25. Input select (PIP)	x	y	*
13. PIP/DW	k	n	*				

## Transmission / Receiving Protocol

### Transmission

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

[Command 1] : First command to control the set.(j,k,mor x)

[Command 2] : Second command to control the set.

[Set ID] : You can adjust the set ID to choose desired TV ID number in Setup menu. Adjustment range is 1 ~ 99. When selecting Set ID '0', every connected the TV 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 comand.

[Cr] : Carriage Return

ASCII code '0x0D'

[ ] : ASCII code 'space (0x20)'

### OK Acknowledgement

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

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

Data1: Illegal Code

Data2: Not supported function

Data3: Wait more time

**01. Power (Command2:a)**

To control Power On/Off of the TV.

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

Data 0 : Power Off      Data 1 : Power On

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

To show Power On/Off.

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

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

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

**02. Aspect Ratio (Command2: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]

Date 1: Normal screen (4:3)      Date 6: Original  
Date 2: Wide screen (16:9)      Date 7: Wide screen (14:9)  
Date 3: Spectacle      Date 8: Full (Option)  
Date 4: Full screen (Zoom1)      Date 9: 1:1 Pixel  
Date 5: Full screen (Zoom2)

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

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

\* In HDMI(1080i 50Hz/60Hz, 1080p 24Hz/50Hz/60Hz)mode, 1:1 Pixel is available.

**03. Screen Mute (Command2:d)**

To select screen mute on/off.

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

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

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

**04. Volume Mute (Command2: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 on (Volume off)  
Data 1 : Volume mute off (Volume on)

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

**05. Volume Control (Command2: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'. See page 85

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

**06. Contrast (Command2: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 85

*Acknowledgement* [g][ ][Set ID][ ][OK][Data][x]

**07. Brightness (Command2: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 85

*Acknowledgement* [h][ ][Set ID][ ][OK][Data][x]

**08. Colour (Command2:i)**

To adjust the screen colour.

You can also adjust colour in the PICTURE menu.

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

Data Min : 0 ~ Max : 64

Refer to 'Real data mapping 1'. See page 85

*Acknowledgement* [i][ ][Set ID][ ][OK][Data][x]

**09. Tint (Command2:j)**

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 85

*Acknowledgement* [j][ ][Set ID][ ][OK][Data][x]

## 10. Sharpness (Command2: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 85

*Acknowledgement* [k][ ][Set ID][ ][OK][Data][x]

## 11. OSD Select (Command2:l)

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

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

Data 0: OSD off

Data 1: OSD on

*Acknowledgement* [l][ ][Set ID][ ][OK][Data][x]

## 12. Remote Control Lock Mode (Command2:m)

To lock the remote control and the front panel controls on the set.

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

Data 0: Lock off

Data 1: Lock on

*Acknowledgement* [m][ ][Set ID][ ][OK][Data][x]

If you're not using the remote control and front panel controls on the TV, use this mode. When main power is on/off, remote control lock is released.

## 13. PIP / DW (Command2:n)

To control the PIP (Picture In picture)/DW.

You can also control the PIP/DW using the PIP button on the remote control or in the PIP/DW menu.

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

Data 0: PIP/DW off

Data 1: PIP

Data 2: DW1

Data 3: DW2

*Acknowledgement* [n][ ][Set ID][ ][OK][Data][x]

## 14. PIP Position (Command2:q)

To select sub picture position for PIP.

You can also adjust the sub picture position using POSITION button on the remote control or in the PIP/DW menu.

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

Data 0: Right down on screen

Data 1: Left down on screen

Data 2: Left up on screen

Data 3: Right up on screen

*Acknowledgement* [q][ ][Set ID][ ][OK][Data][x]

## 15. Balance (Command2: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 85

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

## 16. Color Temperature (Command2:u)

To adjust color temperature.

You can also adjust CSM in the PICTURE menu.

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

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

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

## 17. Red Adjustment (Command2:v)

To adjust red in colour temperature.

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

Data Min: 0 ~ Max: 3C(or 50)

Refer to 'Real data mapping 2'. See page 85

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

## 18. Green Adjustment (Command2:w)

To adjust green in colour temperature.

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

Data Min: 0 ~ Max: 3C(or 50)

Refer to 'Real data mapping 2'. See page 85

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

## 19. Blue Adjustment (Command2:\$)

To adjust blue in colour temperature.

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

Data Min: 0 ~ Max: 3C(or 50)

Refer to 'Real data mapping 2'. See page 85

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

## 20. Abnormal State (Command2:z)

To recognize an abnormal state.

*This feature is not available for all models.*

*Transmission* [k][z][ ][Set ID][ ][FF][ ][Cr]

Data FF: Read

*Acknowledgement* [z][ ][Set ID][ ][OK][Data][x]

Data 0: Normal (Power on and signal exist)

Data 1: No signal (Power on)

Data 2: Turn the TV off by remote control

Data 3: Turn the TV off by sleep time function

Data 4: Turn the TV off by RS-232C function

Data 5: 5V down

Data 6: AC down

Data 7: Turn the TV off by Fan Alarm function (option)

Data 8: Turn the TV off by Off time function

Data 9: Turn the TV off by Auto sleep function

Data a: Turn the TV off by AV board detect

\* This function is "read only".

### \* Real data mapping 1

```

0 : Step 0
⋮
A : Step 10 (Set ID 10)
⋮
F : Step 15 (Set ID 15)
10 : Step 16 (Set ID 16)
⋮
64 : Step 100
⋮
6E : Step 110
⋮
73 : Step 115
74 : Step 116
⋮
C7 : Step 199
⋮
FE : Step 254
FF : Step 255

```

### \* Real data mapping 2

```

0 : -40
1 : -39
2 : -38
⋮
28 : 0
⋮
4E : +38
4F : +39
50 : +40

```

## 21. Auto Configure (Command1:j, Command2:u)

To adjust picture position and minimize image shaking automatically. It works only in RGB mode.

*Transmission* [j][u][ ][Set ID][ ][Data][Cr]

Data 1: To set

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

## 22. Programme selection (Command1:m, Command2:a)

To select a programme for the main picture.

*Transmission* [m][a][ ][Set ID][ ][Data0][ ][Data1]  
[ ][Data2][Cr]

Data 0: Min: 0 ~ Max: 63 (0~C7, 200 Pr is on)

Refer to 'Real data mapping 1'.

Data 1: Don't care

Data 2: 0 : Main

1 : Sub

*Acknowledgement* [a][ ][Set ID][ ][OK][Data0][x]

## 23. Send IR Code (Command1:m, Command2:c)

To send IR remote key code.

*Transmission* [m][c][ ][Set ID][ ][Data][Cr]

Data: Key code - Refer to page 79

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

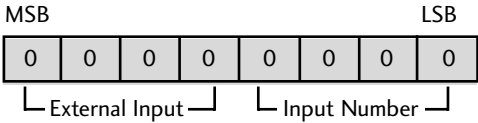
24. Input select (Command1:x, Command2:b)

(Main Picture Input)

To select input source for TV

Transmission [x][b][ ][Set ID][ ][Data][Cr]

Data: Structure



External Input				Data
0	0	0	1	Analog
0	0	1	0	AV
0	1	0	0	Component
0	1	1	0	RGB-PC
1	0	0	1	HDMI

Input Number				Data
0	0	0	0	Input1
0	0	0	1	Input2
0	0	1	0	Input3
0	0	1	1	Input4

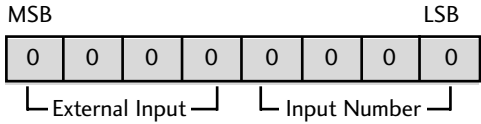
Acknowledgement [b][ ][Set ID][ ][OK][Data][x]

25. PIP Input select (Command1:x, Command2:y)

To adjust input source for sub picture in PIP mode

Transmission [x][y][ ][Set ID][ ][Data][Cr]

Data: Structure



External Input				Data
0	0	0	1	Analog
0	0	1	0	AV
0	1	0	0	Component
0	1	1	0	RGB-PC
1	0	0	1	HDMI

Input Number				Data
0	0	0	0	Input1
0	0	0	1	Input2
0	0	1	0	Input3
0	0	1	1	Input4

Acknowledgement [y][ ][Set ID][ ][OK][Data][x]









**LG Electronics Inc.**