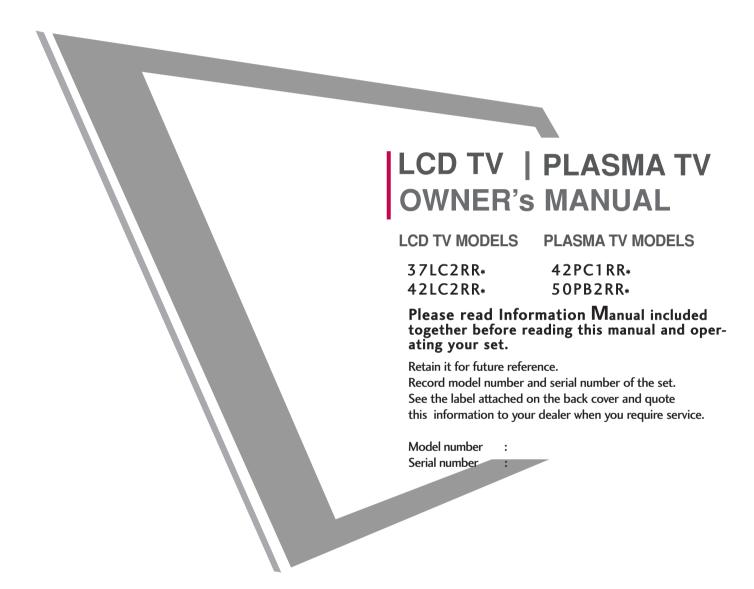
LG Electronics Inc.

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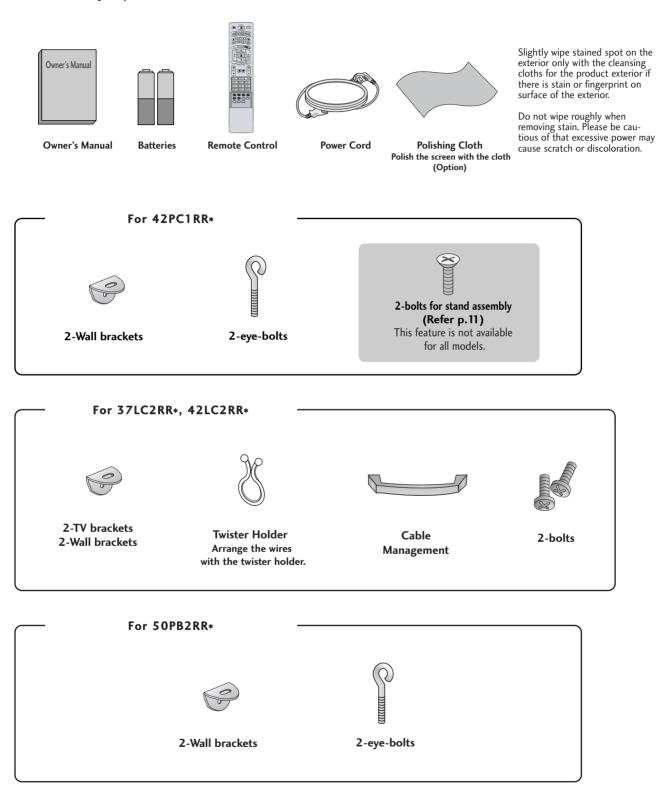
LG Electronics Inc.

LCD TV | PLASMA TV | OWNER'S MANUAL

P/NO: MFL32196504 (0611 - REV04)

## **ACCESSORIES**

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



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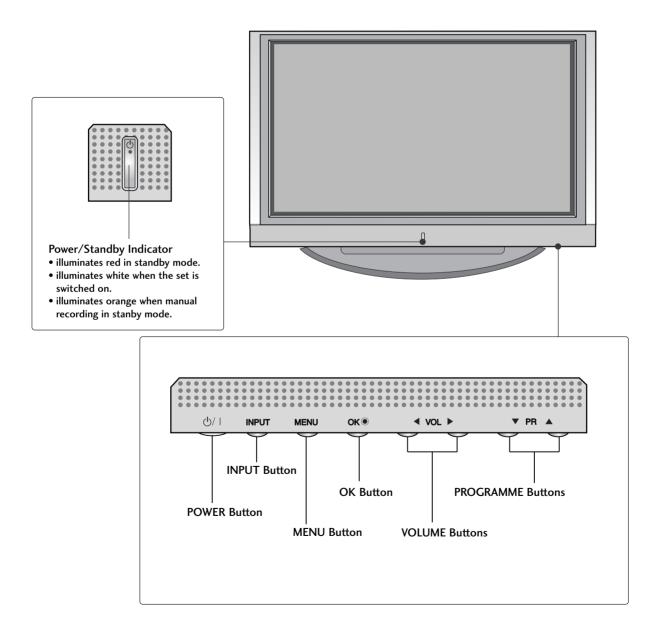
## **INTRODUCTION**

## **CONTROLS**

This manual explains the features available on the 42PC1RR\* set.

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

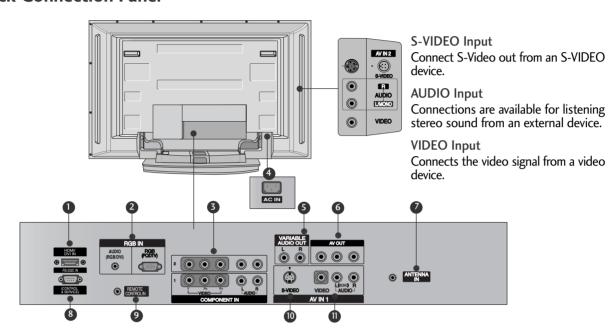
#### **Front Panel Controls**



#### **CONNECTION OPTION**

This is the back panel of 42PC1RR\* sets.

#### **Back Connection Panel**



- HDMI/DVI Input Connect a HDMI signal to HDMI/DVI.
- RGB/Audio Input Connect the monitor output from a PC/DTV to the appropriate input port.
- 3 Component Input Connect a component video/audio device to these jacks.
- Power Cord Socket This set operates on an AC power. The voltage is indicated on the Specifications page. Never attempt to operate the set on DC power.
- Variable Audio Output Connect an external amplifier or add a subwoofer to your surround sound system.

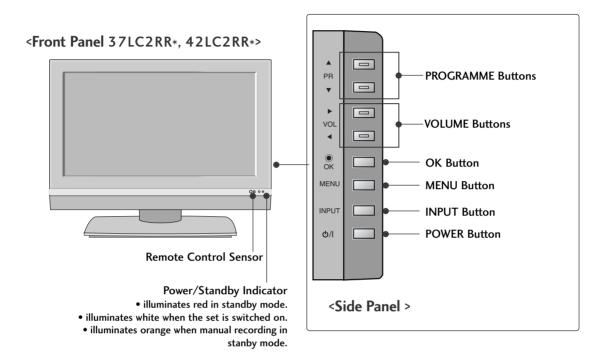
- 6 AV Output Connect second TV or monitor to the AV OUT socket on the set.
- Antenna Input
- RS-232C Input(CONTROL&SERVICE)Port
   Connect the serial port of the control devices to
   the RS-232C jack.
- Remote Control Port
- S-Video Input Connect S-Video out from an S-VIDEO device.
- ① Audio/Video Input Connect audio/video output from an external device to these jacks.

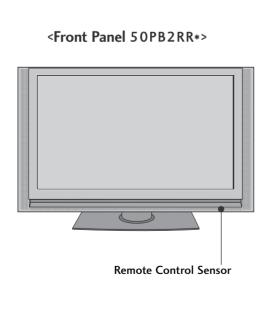
## **INTRODUCTION**

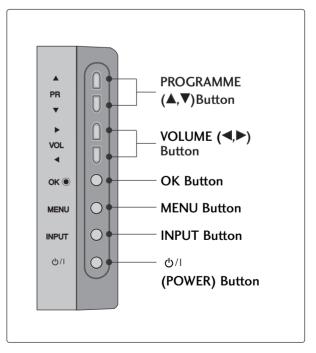
## **CONTROLS**

This is the front panel of models 37LC2RR\*, 42LC2RR\*, 50PB2RR\* sets.

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



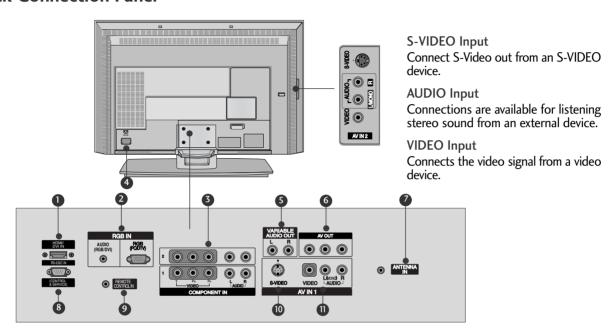




#### **CONNECTION OPTION**

This is the back panel of models 37LC2RR\*, 42LC2RR\* sets.

#### **Back Connection Panel**



- HDMI/DVI Input Connect a HDMI signal to HDMI/DVI.
- RGB/Audio Input Connect the monitor output from a PC/DTV to the appropriate input port.
- 3 Component Input Connect a component video/audio device to these jacks.
- Power Cord Socket This set operates on an AC power. The voltage is indicated on the Specifications page. Never attempt to operate the set on DC power.
- Variable Audio Output Connect an external amplifier or add a subwoofer to your surround sound system.

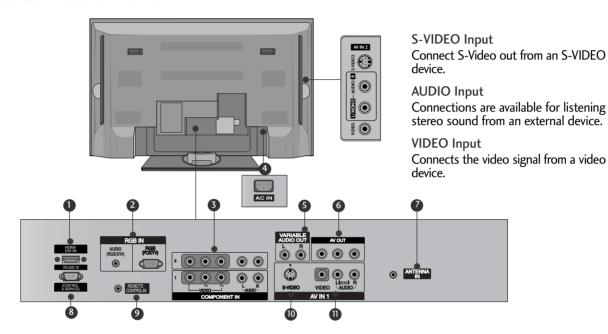
- 6 AV Output Connect second TV or monitor to the AV OUT socket on the set.
- Antenna Input
- **8** RS-232C Input(CONTROL&SERVICE)Port Connect the serial port of the control devices to the RS-232C jack.
- Remote Control Port
- S-Video Input Connect S-Video out from an S-VIDEO device.
- Audio/Video Input Connect audio/video output from an external device to these jacks.

## **INTRODUCTION**

#### **CONNECTION OPTION**

This is the back panel of 50PB2RR\* sets.

#### **Back Connection Panel**

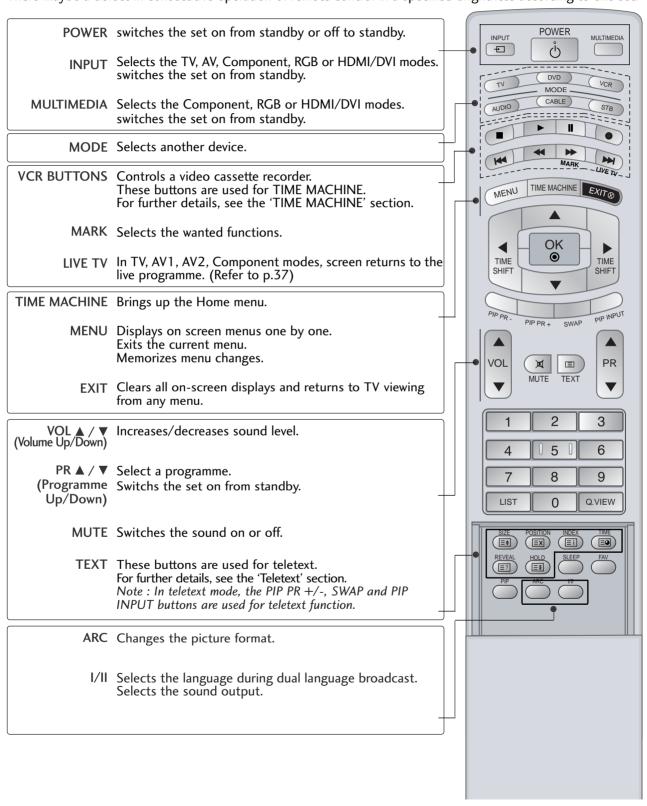


- HDMI/DVI Input Connect a HDMI signal to HDMI/DVI.
- 2 RGB/Audio Input Connect the monitor output from a PC/DTV to the appropriate input port.
- 3 Component Input Connect a component video/audio device to these jacks.
- Power Cord Socket This set operates on an AC power. The voltage is indicated on the Specifications page. Never attempt to operate the set on DC power.
- Variable Audio Output Connect an external amplifier or add a subwoofer to your surround sound system.

- 6 AV Output Connect second TV or monitor to the AV OUT socket on the set.
- Antenna Input
- **3** RS-232C Input(CONTROL&SERVICE)Port Connect the serial port of the control devices to the RS-232C jack.
- Remote Control Port
- S-Video Input Connect S-Video out from an S-VIDEO device.
- Audio/Video Input Connect audio/video output from an external device to these jacks.

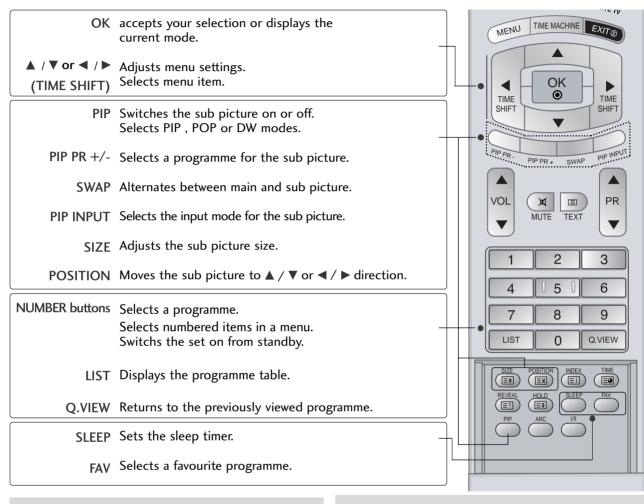
#### REMOTE CONTROL KEY FUNCTIONS

When using the remote control, aim it at the remote control sensor on the set. There maybe a defect in consecutive operation of remote control in a specified brightness according to this set.



## **INTRODUCTION**

#### REMOTE CONTROL KEY FUNCTIONS



#### **Installing Batteries**

Open the battery compartment cover on the back side.



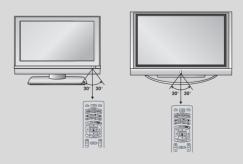
Insert two batteries in correct polarity (+ with +, - with -). Don't mix old or used batteries with new ones.



3 Close the cover.



## Remote control effective range



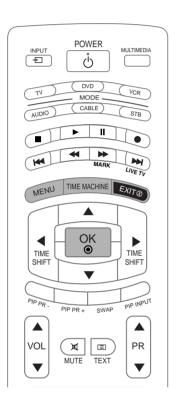
- Use a remote control 7 meter distance and 30 degree (left/right) within the receiving unit scope.
- Dispose of used batteries in a recyclebin to preserve environment.

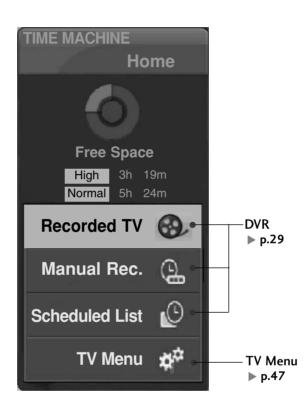
## **INTRODUCTION**

## **HOME MENU**

This menu is a contents guide.

In Home Menu, you enter the Recorded list of DVR, Manual Rec, Scheduled List or  $\mathsf{TV}$  Menu.

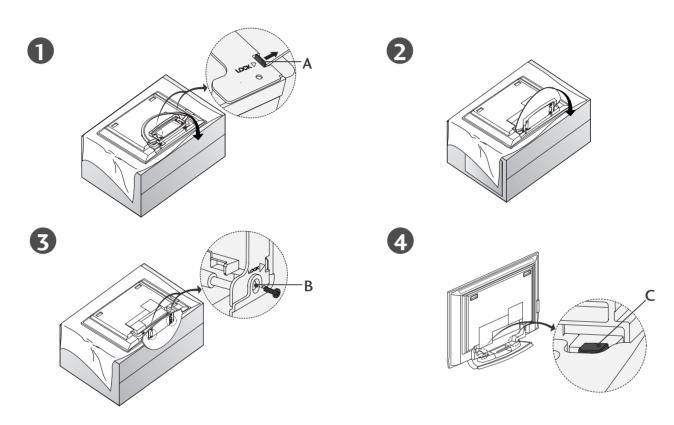




## **INSTALLATION**

## UNFOLDING THE BASE STAND (42PC1RR\*)

■ This feature is not available for all models.



- Place the set with the screen facing down on a cushion or soft cloth as shown in Figures 1.
  Before unfolding the stand, please make sure two locks (A) on the bottom of the stand push outward.
- Pull the stand out as shown above in Figures 2 ~ 3.

  After unfolding the stand, please insert and tighten the screws in the holes (B) on the bottom of the stand.
- When connecting cables to the set, Do not disengage the lock (C).
  This may cause the set to fall, causing serious bodily injury and serious damage to the set.

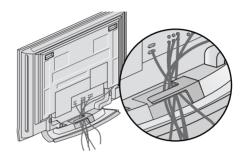
# Pigures shown here may be slightly different from your set. When closing the stand for storage First remove the screws in the holes (B) on the bottom of the stand. And then pull two Hooks (D) of the stand bottom and fold the stand into the back of the set. After folding, push two Locks (A) of the stand bottom outward.

## BASIC CONNECTION (42PC1RR \*, 50PB2RR \*)

■ These models have two cable arrangement methods according to the stand type.

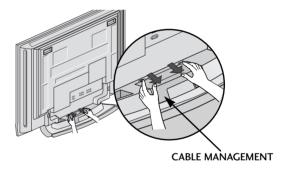
## Stand type 1

Arrange the cables as shown picture.



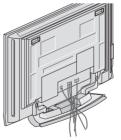
## Stand type 2

Hold the CABLE MANAGEMENT with both hands and push it as shown.

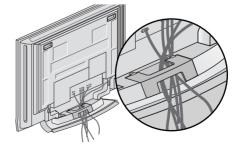


Connect the cables as necessary.

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



Reinstall the CABLE MANAGEMENT as shown.



## **INSTALLATION**

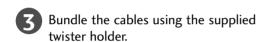
## BASIC CONNECTION (37LC2RR\*, 42LC2RR\*)

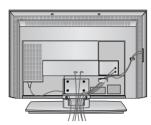
Connect the cables as necessary.

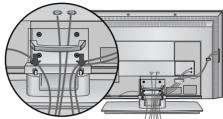
After connecting the cables neatly, arrange the cables to the Cable Holder.

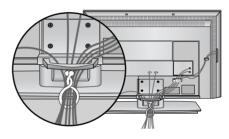
To connect an additional equipment, see the **CONNECTIONS & SETUP** section.





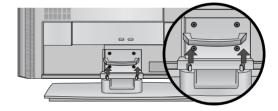






## HOW TO REMOVE THE CABLE MANAGEMENT

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



#### NOTE

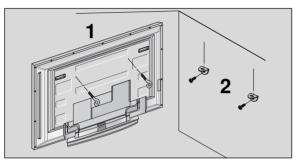
▶ Do not hold the **CABLE MANAGEMENT** when moving the product. If the product is dropped, you may be injured or the product may be broken.

## SWIVEL STAND (42LC2RR \*, 50PB2RR \* only)

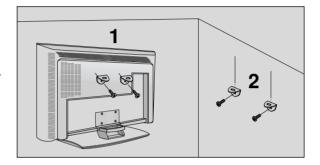
- This feature is not available for all models.
- The set can be conveniently swivelled on its stand about 20°~30° to the left or right to provide the optimum viewing angle.

# HOW TO JOIN THE SET ASSEMBLY TO THE WALL TO PROTECT THE SET TUMBLING

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

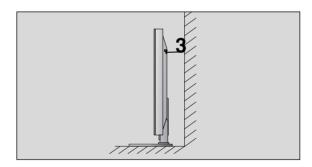


or



- Use the eye-bolts or set brackets/bolts to fix the set to the wall as shown in the picture. (If your set has the bolts in the eye-bolts position before inserting the eye-bolts, loosen the bolts.)

  \* Insert the eye-bolts or set brackets/bolts and tighten them securely in the upper holes.
- 2 Secure the wall brackets with the bolts (not provided as parts of the set, 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 set, must purchase separately) to tie the set. It is safer to tie the rope so it becomes horizontal between the wall and the set.

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

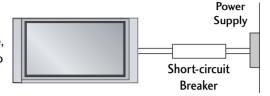
## **INSTALLATION**

## STAND INSTALLATION

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

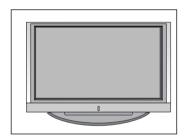
#### **GROUNDING**

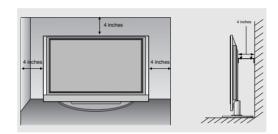
Ensure that you connect the earth ground wire to prevent possible electric shock. If grounding methods are not possible, have a qualified electrician install a separate circuit breaker. Do not try to ground the unit by connecting it to telephone wires, lightening rods, or gas pipes.



### **Desktop Pedestal Installation**

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

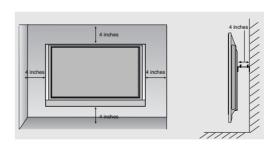


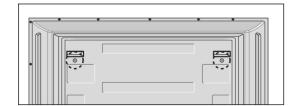


#### Wall Mount: Horizontal installation

For proper ventilation, allow a clearance of 4" on each side and from the wall. Detailed installation instructions are available from your dealer, see the optional Tilt Wall Mounting Bracket Installation and Setup Guide.







#### <Only 42PC1RR\*>

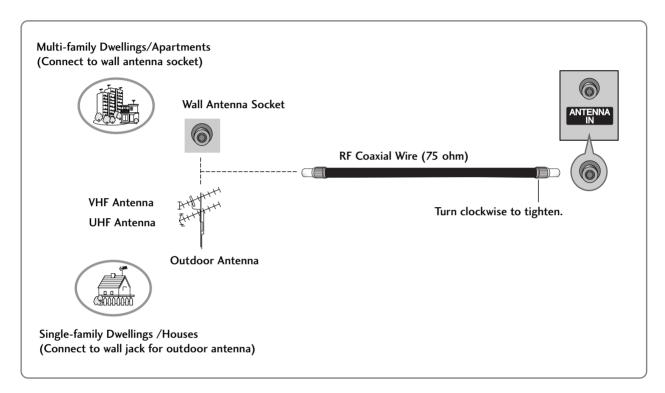
Remove two screws of the backside of the set before installing the wall mounting bracket.

## **CONNECTIONS & SETUP**

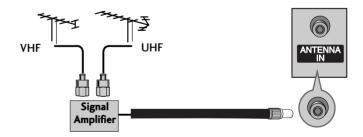
- To prevent the equipment damage, never plug in any power cords until you have finished connecting all equipment.
- This part of CONNECTION & SETUP mainly use pictures for the 42PC1RR\*, 50PB2RR\*.

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

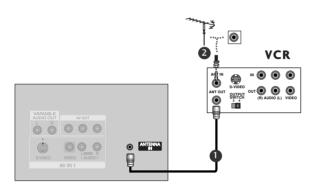


## **CONNECTIONS & SETUP**

#### **VCR SETUP**

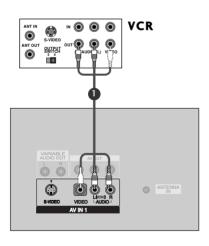
- To avoid picture noise (interference), leave an adequate distance between the VCR and TV.
- Typically a frozen still picture from a VCR. If the 4:3 picture format is used; the fixed images on the sides of the screen may remain visible on the screen.

#### When connecting with an antenna



- Connect the ANT OUT of the VCR to the ANTENNA IN socket on the set.
- 2 Connect the antenna cable to the ANT IN antenna socket of the VCR.
- 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



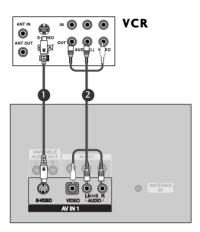
- Connect the AUDIO/VIDEO jacks between TV and VCR. Match the jack colors (Video = yellow, Audio Left = white, and Audio Right = red)
- Insert a video tape into the VCR and press PLAY on the VCR. (Refer to the VCR owner's manual.)
- 3 Select AV1 input source using the INPUT button on the remote control.
  - 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.

## **VCR SETUP**

#### When connecting with an S-Video cable



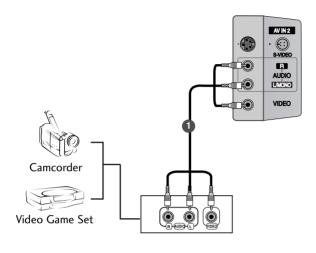
- Connect the S-VIDEO output of the VCR to the S-VIDEO input on the set. The picture quality is improved; compared to normal composite (RCA cable) input.
- 2 Connect the audio outputs of the VCR to the AUDIO input jacks on the set.
- Insert a video tape into the VCR and press PLAY on the VCR. (Refer to the VCR owner's manual.)
- Select AV1 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.

## **CONNECTIONS & SETUP**

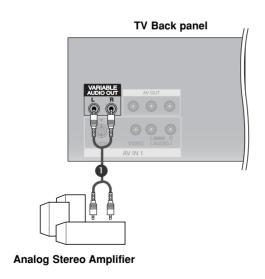
## **EXTERNAL EQUIPMENT CONNECTIONS**



- Onnect 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 input, select AV1 input source.
- 3 Operate the corresponding external equipment. Refer to external equipment operating guide.

## **EXTERNAL STEREO**

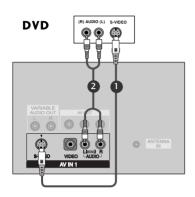
■ Use to connected either an external amplifier, or add a sub-woofer to your surround sound system.



- Connect the input jack of the stereo's amplifier to the VARIABLE AUDIO OUT jacks on the set.
- Set up your speakers through your analog stereo amplifier, according to the instructions provided with the amplifier.
  - When connecting with external audio equipments, such as amplifiers or speakers, please turn the TV speakers off.

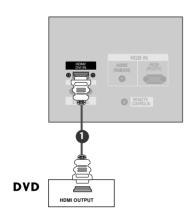
#### **DVD SETUP**

#### When connecting with a S-Video cable



- Connect the S-VIDEO output of the DVD to the S-VIDEO input on the set.
- Connect the audio outputs of the DVD to the AUDIO input jacks on the set.
- 3 Turn on the DVD player, insert a DVD.
- Select AV1 input source with using the INPUT button on the remote control.
- **S** Refer to the DVD player's manual for operating instructions.

#### When connecting with a HDMI cable



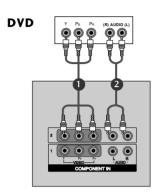
- Connect the HDMI output of the DVD to the HDMI/DVI IN jack on the set.
- Select HDMI/DVI input source with using the INPUT button on the remote control.
- Refer to the DVD player's manual for operating instructions.

- ▶ Set can receive the video and audio signal simultaneously with using a HDMI cable.
- ▶ If the DVD supports Auto HDMI function, the DVD output resolution will be automatically set to 1280x720p.
- ▶ If the DVD 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 1280x720p.

## **CONNECTIONS & SETUP**

#### **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.
- 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.
- Select Component1 or Component2 input source with using the INPUT button on the remote control.
- S Refer to the DVD player's manual for operating instructions.

#### NOTE

► Component Input ports

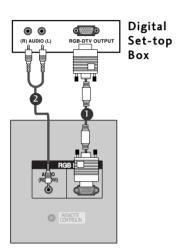
To get better picture quality, connect a DVD player to the component input ports as shown below.

| Component ports on the SET          | Υ | Рв  | PR  |
|-------------------------------------|---|-----|-----|
|                                     | Y | Pb  | Pr  |
| Video output ports<br>on DVD player | Y | B-Y | R-Y |
|                                     | Y | Cb  | Cr  |
|                                     | Y | Рв  | PR  |

## STB(SET-TOP BOX) SETUP

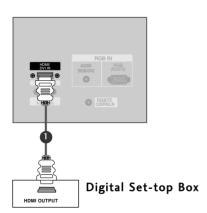
■ This set can receive Digital Over-the-air/Cable signals without an external digital set-top box. However, if you do receive Digital signals from a digital set-top box or other digital external device, refer to the figure as shown below.

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



- Connect the RGB output of the digital set-top box to the RGB IN (PC/DTV) jack on the set.
- Connect the audio outputs of the set-top box to the AUDIO (RGB/DVI) jack on the set.
- Turn on the digital set-top box. (Refer to the owner's manual for the digital set-top box.)
- Select RGB input source with using the INPUT button on the remote control.

#### When connecting with a HDMI cable



- Connect the HDMI output of the digital settop box to the HDMI/DVI IN jack on the set.
- Select HDMI/DVI 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.)

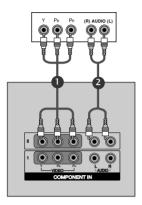
- ▶ Set can receive the video and audio signal simultaneously with using a HDMI cable.
- ▶ If the digital set-top box supports Auto HDMI function, output resolution of the digital set-top box will be automatically set to 1280x720p.
- ▶ If the digital set-top box does not support Auto HDMI, you need to set the output resolution appropriately. To get the best picture quality, adjust the output resolution of the digital set-top box to 1280x720p.

## **CONNECTIONS & SETUP**

## STB(SET-TOP BOX) SETUP

#### When connecting with a component cable

#### Digital Set-top Box

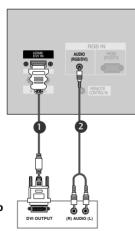


- Connect the video outputs (Y, PB, PR) of the digital set-top box to the COMPONENT IN VIDEO jacks on the set.
- Connect the audio output of the digital set-top box to the COMPONENT IN AUDIO jacks on the set.
- 3 Turn on the digital set-top box. (Refer to the owner's manual for the digital set-top box.)
- Select Component1 or Component2 input source with using the INPUT button on the remote control.

#### NOTE

| Signal               | Component | RGB-DTV | HDMI-DTV |  |
|----------------------|-----------|---------|----------|--|
| 480i/576i            | Yes No    |         | No       |  |
| 480p/576p/720p/1080i | Yes       | Yes     | Yes      |  |

#### When connecting with a HDMI to DVI cable



- Connect the DVI output of the digital set-top box to the HDMI/DVI IN jack on the set.
- Connect the audio outputs of the 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.)
- Select HDMI/DVI input source with using the INPUT button on the remote control.

Digital Set-top Box

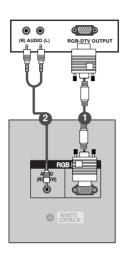
- ▶ If the digital set-top box has a DVI output and no HDMI output, a separated audio connection is necessary.
- ▶ If the digital set-top box supports Auto DVI function, the output resolution of the digital set-top box will be automatically set to 1280x720p.
- ▶ If the digital set-top box does not support Auto DVI, you need to set the output resolution appropriately. To get the best picture quality, adjust the output resolution of the digital settop box to 1280x720p.

#### **PC SETUP**

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

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

PC



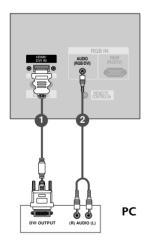
Connect the RGB output of the PC to the RGB IN (PC/DTV) jack on the set.

Connect the audio outputs of the PC to the AUDIO (RGB/DVI) jack on the set.

3 Turn on the PC and the set.

Select RGB input source with using the INPUT button on the remote control.

#### When connecting with a HDMI to DVI cable



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

- ▶ 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.

#### **CONNECTIONS & SETUP**

#### NOTE

- ▶ To enjoy vivid picture and sound, connect a PC to the set.
- ▶ Avoid keeping a fixed image on the set's screen for a long period of time. The fixed image may become permanently imprinted on the screen; use a screen saver when possible.

► Connect PC to the RGB (PC/DTV) or HDMI/DVI port of the set; change the resolution output of PC accordingly.

- ▶ There might be noise according to some resolution, vertical pattern, contrast or brightness in PC mode. Change the PC mode into another resolution or change the refresh rate into another rate or adjust the brightness and contrast on the menu until the picture is clean. If the refresh rate of the PC graphic card can not be changed, change the PC graphic card or consult it to the manufacturer of the PC graphic card.
- ► The synchronization input waveform for Horizontal and Vertical frequencies are separate.
- ▶ In 42PC1RR/50PB2RR models, we recommend using 1024x768, 60Hz for the PC mode, they provide the best picture quality.
- ▶ In 37LC2RR/42LC2RR models, we recommend using 1360x768, 60Hz for the PC mode, they provide the best picture quality.
- ▶ If the resolution of PC is over UXGA, there will be no picture on the set.
- ► Connect the signal cable from the monitor output port of the PC to the RGB (PC/DTV) port of the set or the signal cable from the HDMI output port of the PC to the HDMI/DVI port on the set.

- ► Connect the audio cable from the PC to the Audio input on the set. (Audio cables are not included with the set).
- ▶ If using a sound card, adjust PC sound as required.
- ▶ This set uses a VESA Plug and Play Solution. The set provides EDID data to the PC system with a DDC protocol. The PC adjusts automatically when using this set.
- ► DDC protocol is preset for RGB (Analog RGB), HDMI (Digital RGB) mode.
- ▶ If required, adjust the settings for Plug and Play functionally.
- ▶ If graphic card on the PC does not output analog and digital RGB simultaneously, connect only one of either RGB (PC/DTV) or HDMI/DVI to display the PC on the set.
- ▶ If graphic card on the PC does output analog and digital RGB simultaneously, set the set to either RGB or HDMI; (the other mode is set to Plug and Play automatically by the set.)
- Play automatically by the set.)

  ► DOS mode may not work depending on video card if you use a HDMI to DVI cable.
- ▶ 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.
- ▶ In RGB, HDMI/DVI input sources, you can select the PC or DTV mode when the below signals are input;
- PC:640x480, 60Hz / 720x480, 60Hz / 848x480, 60Hz / 858x480, 60Hz / 1280x720, 60Hz
- DTV: 480p / 720p, 60Hz

# Supported Display Resolution (RGB / HDMI mode) (37LC2RR \*, 42LC2RR \*)

| Resolution | Horizontal<br>Frequency(KHz) | Vertical<br>Frequency(Hz) |
|------------|------------------------------|---------------------------|
| 720x400    | 31.468                       | 70.8                      |
| 640x480    | 31.469<br>37.684             | 59.94<br>75.00            |
| 800x600    | 37.879<br>46.875             | 60.31<br>75.00            |
| 832x624    | 49.725                       | 74.55                     |
| 1024x768   | 48.363<br>56.47<br>60.123    | 60.00<br>70.00<br>75.029  |
| 1280x768   | 47.776                       | 59.870                    |
| 1360x768   | 47.720                       | 59.799                    |
| 1366x768   | 47.720                       | 59.799                    |

# Supported Display Resolution (RGB / HDMI mode) (42PC1RR \*, 50PB2RR \*)

| Resolution | Horizontal<br>Frequency(KHz)                   | Vertical<br>Frequency(Hz)                 |
|------------|--|---|
| 640x350    | 31.468<br>37.861                               | 70.09<br>85.08                            |
| 720x400    | 31.469<br>37.927                               | 70.08<br>85.03                            |
| 640x480    | 31.469<br>35.000<br>37.861<br>37.500<br>43.269 | 59.94<br>66.66<br>72.80<br>75.00<br>85.00 |
| 848x480    | 31.500<br>37.799<br>39.375                     | 60.00<br>70.00<br>75.00                   |
| 852x480    | 31.500<br>37.799<br>39.375                     | 60.00<br>70.00<br>75.00                   |
| 800x600    | 35.156<br>37.879<br>48.077<br>46.875<br>53.674 | 56.25<br>60.31<br>72.18<br>75.00<br>85.06 |
| 832x624    | 49.725   | 74.55                                     |
| 1024x768   | 48.363<br>56.476<br>60.023                     | 60.00<br>70.06<br>75.02                   |
| 1360x768   | 47.700   | 60.00                                     |
| 1366x768   | 47.700   | 60.00                                     |
| 1152x864   | 54.348   | 60.05                                     |
| 1280x768   | 47.776   | 59.87                                     |

## **BASIC OPERATION**

#### TURNING THE SET ON

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

## Turning the set on

First, connect power cord correctly.

At this moment, the set switches to standby mode.

■ In standby mode to turn set on, press the ტ/I, INPUT, PR ▲ / ▼ button on the set or press the POWER, INPUT, MULTIMEDIA, PR ▲ / ▼, NUMBER button on the remote control and then the set will switch on.

#### **Volume Adjustment**

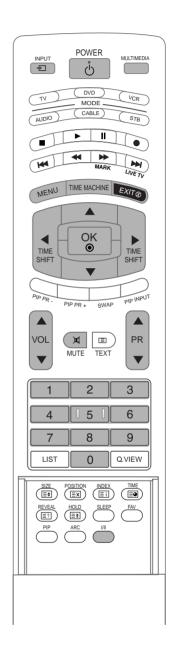
- Press the VOL ▲ / ▼ button to adjust the volume.
- If you want to switch the sound off, press the MUTE button.
- You can cancel this function by pressing the MUTE, VOL ▲ / ▼ or I/II button.

## **Programme selection**

Press the PR ▲ / ▼ or NUMBER button to select a programme number.

## On-Screen Menu Language Selection (option)

- The menus can be shown on the screen in the selected language. First select your language.
- Press the MENU button and then use ▲ / ▼ button to select the SPECIAL menu.
- Press the ▶ button and then use ▲ / ▼ button to select Language.
- Press the ▶ button and then use ▲ / ▼ button to select your desired language. From this point on, the on-screen menus will be shown in the language of your choice.
- 4 Press the EXIT button to return to normal TV viewing.



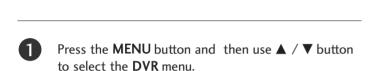
#### NOTE

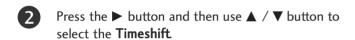
▶ If you intend to be away on vacation, disconnect the power plug from wall power outlet.

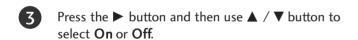
# **SPECIAL FUNCTIONS** | DVR (Digital Video Recorder)

#### **TIMESHIFT**

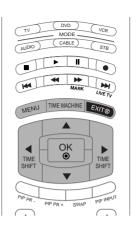
- This function allows the unit to automatically record live TV and make it available for reviewing at any time.
- With Timeshift turned on, you may pause and rewind normal TV viewing at any time without missing any of the live broadcast.



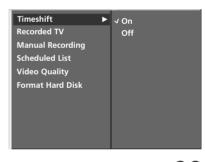












23

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#### PROGRESSING THE TIMESHIFT FUNCTION



- After selecting the **Timeshift On**, press the **OK** button.
  - As soon as Timeshift starts, a progress bar indicating the current recording status is displayed in the bottom of the screen.
  - Press the **EXIT** button to hide the 'Progress Bar' or press the **OK** button to display the 'Progress Bar'.
  - This function is preserved even change a programme on progressing the Timeshift.
- When finishing the Timeshift function, enter the option menu and turn Timeshift Off.

#### The 'Progress Bar'?

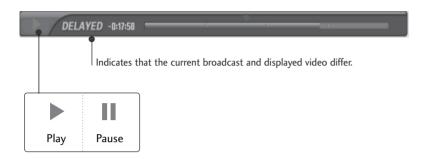
This function indicates a possible DVR reshowing section, a current on-screen and real on-broadcasting position, a section of section-recording.

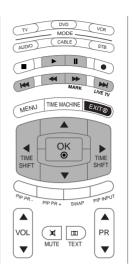
- 1 Status of current displayed video.
- Current save time.
- 3 15 minute intervals from Timeshift start time. (Total - one hour).
- 4 Indicates current Timeshift position.

- ▶ DVR (Digital Video Recorder) : A device which records and plays broadcast program contents onto a hard disk in set or SET TOP BOX.
- ▶ In order to save hard-disk space, nothing is saved when there is no signal.
- ▶ The total storage space of the hard-disk is 80 GB. 4 GB minimum is reserved for Timeshift.
- ▶ When turning power on, it may take up to maximum 3 minutes to initialize the HDD.
- ▶ The Recording function will not initiate for a copy-protected program.
- Because an analog broadcast is transfered to a digital signal, video that contains rapid movement may show "cross stripes". This happens when the analog signal is compressed and then restored in the digital signal. The unit will attempt to reduce this excessive picture noise.
- ▶ When using the PIP/DW, POP mode, Timeshift is stopped.
- ► Timeshift is available in TV, AV1, AV2, Component(480i/576i) mode.
- ► Timeshift is not available for Audio only channels.

## Progressing the Timeshift function, play

- On progressing Timeshift, it can do a diversified playing.





## Using the remote control

You can shift playback to any point within playing the recorded program

| MARK MARK       | When playing, repeatedly, press the REW( ) button to speed up                                  |
|-----------------|--|
| [14]            | Press the or button to move back and forth within the current program.                         |
| LIVE TV         | ■ Press the 🖼 button to jump at the front of the programme.                                    |
|                 | ■ Pressing the Detail button to jump at the end of the programme.                              |
|                 | Press the ▲ button to jump about 20 seconds forward.   |
| <b>▼</b>        | ■ Pressing the ▼ button to jump about 8 seconds backward.                                      |
|                 | During playback, press the <b>Pause( III )</b> button.  Still screen is displayed.             |
| II              | ■ Repetedly press the Pause( ) button to advance frame by frame.                               |
|                 | Press the Pause( ■) button and then use the FF( →) button for slow motion (as showing the → .) |
| TIME TIME SHIFT | ■ When using the ◀ or ▶ button during playback the cursor can be viewed on<br>the screen.      |
| · ·             | Press the <b>PLAY( )</b> button to return to normal playback.                                  |
| LIVETY          | If you want to return to the current live broadcast, press the button.                         |

## SPECIAL FUNCTIONS DVR (Digital Video Recorder)

#### **RECORDING**

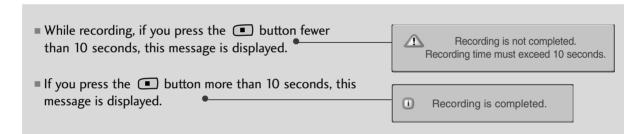
- Use this function to record the program you are watching on the main screen.

#### **Instant Record**

This function records the currently displayed programme.

- Select the desired programme to record and then press the button.

  During recording is displayed. Use this feature to record up to 2 hours of programming.
- 2 If you want to stop recording, press the button.



You can add/subtract recording time by pressing the ● button while recording. Press the ◀ or ▶ button repeatedly to add/subtract to the recording time. Each time you press ◀ or ▶ button the recording duration changes as shown below.

```
+10min > +20min > +30min > +40min > +50min > +60min

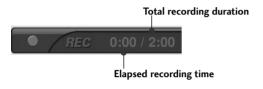
No Change

-10min > -20min > -30min > -40min > -50min > -60min
```

The extra recording time added to existing setting equals the final recording time.

4

After adjusting the recording time, select **OK**. The Status bar will be displayed.



Press the EXIT button to hide the Status bar. Press the OK button to display the Status bar.



Recording stops when the selected duration is reached or when you press the • button.

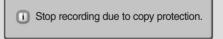
Although recording has stopped, the Timeshift feature remains active.



#### NOTE

- When recording, if the available storage space becomes low, the recording will be automatically stopped.
- Recordings of less than 10 seconds will not be saved.
- ➤ To save disk space while recording broadcasts, no data will be saved if there is no signal.
- ► The recording function will not initiate for a copy-protected program.
- ► The displayed time slightly differ from the actual time.
- ▶ In no signal or film source, the displayed time slightly differ from the actual time.

► The recording can not be used with content-protected programs on progressing Timeshift .



- ▶ If the old tape is recoreded, this may cause damage to the recording quality.
- ▶ It will be stored separately the programme according to the colour system signal.

## **WATCHING & RECORD**

- While recording, you can change programmes or inputs without disturbing the recording. The broadcast being recorded can be shown in the lower-right corner of the main screen.
- It's available to use this function in TV, AV1, AV2, Component 480i/576i modes.





After starting an Instant Record or Reserved Record, change the programme or input.

- You can check the show being recorded in the lower-right corner the main screen (as shown below).
- Press the **PIP** button to hide or show the program being recorded.
- Press the **SWAP** button to return to the program being recorded in Watching & Record.
- When changed to the programme recorded in Watching & Record, the screen is changed to Instant Record state or Reserved Record state.



screen being recorded

| Record<br>Watching | Analog | AV1 | AV2 | Component1<br>(480i/576i) | Component2<br>(480i/576i) |
|--------------------|--------|-----|-----|---------------------------|---------------------------|
| Analog             | 0      | 0   | 0   | 0                         | 0                         |
| AV1                | 0      | 0   | 0   | 0                         | 0                         |
| AV2                | 0      | 0   | 0   | 0                         | 0                         |
| Component1         | 0      | 0   | 0   | 0                         | 0                         |
| Component2         | 0      | 0   | 0   | 0                         | 0                         |
| RGB                | 0      | 0   | 0   | 0                         | 0                         |
| HDMI/DVI           | 0      | 0   | 0   | 0                         | 0                         |

Watching & Record Input

#### **A CAUTION**

If you turn the power off on recording, this message is displayed as shown below.

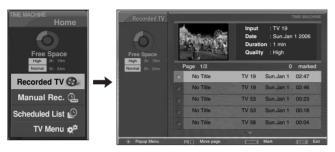


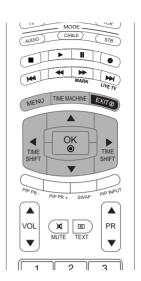
- If you selects No, recording stops and then power is off.
- If you selects Yes, recording continues and the power is
- ▶ If you press the **EXIT** button to disappear this message.

## **RECORDED TV**

- You can watch the recorded program list at a glance.
- This function is available to use in DVR menu.
- Press the button to display HOME menu.

  Use the ▲ or ▼ button to select the Recorded TV and then use the OK or ▶ button.

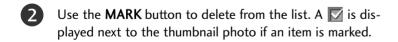


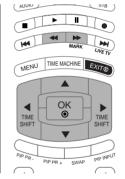


# RECORDED PROGRAM SELECTION AND POPUP MENU

- The thumbnail recorded list is shown above.











- Use ▲ ▼ ◀ ▶ button to navigate the appropriate thumbnail photo, then press the OK button to open the Pop-up Menu.
  - Play: Begin playback of selected recording.
  - ► Mark All : mark all photos on the screen.
  - ▶ Unmark All : Change marked photos to unmarked photos.
  - ▶ **Delete** : Delete the selected recording.
  - **Rename**: Edit recorded program title.
  - ► Cancel: Close the Pop-up Menu.



- Repeatedly, press **EXIT** button to return to TV viewing or press button to return to the **Home** menu.
  - If the HDD has a problem performing a function (Recording) related to the DVR, this message is displayed.
  - If the temperature is below zero (0°), a warning message is displayed and you need to initialize the HDD.



Cannot operate DVR at low temperature.

## PLAYING RECORDED PROGRAMS

- You can play the selected program in the recorded program list.
- Play a recorded program.
  - While playing, You can see a diversified playback screen as shown below.
    - At first, an icon showing current playback mode is displayed as marking PLAYING. Then press the **OK** button to display the progress bar
    - To stop displaying the recorded programs icon, press the **EXIT** button.



#### The 'Progress Bar'?

This function indicates a possible DVR reshowing section ,a current on-screen and real on-broadcasting position, a section of section-recording.

- 1 Indicates movement of recorded program.
- 2 Indicates status of recorded program.
- 3 Indicates elasped playback time.
- 4 Indicates total playback time.
- 5 Indicates a quarter of program runtime.
- 6 Indicates current playback position.

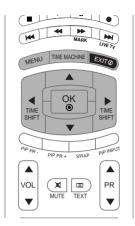
# **USING THE REMOTE CONTROL**

You can shift playback to any point within playing the recorded program.

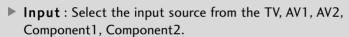
| MARK           | When playing, repeatedly, press the REW( ) button to speed up                                 |
|----------------|---|
| [14]           | Press the or button to move back and forth within the current program.                        |
| LIVE TV        | ■ Press the  button to jump at the front of the programme.                                    |
| ,              | ■ Pressing the Description button to jump at the end of the programme.                        |
|                | Press the ▲ button to jump about 20 seconds forward.  |
| <b>V</b>       | ■ Pressing the ▼ button to jump about 8 seconds backward.                                     |
|                | During playback, press the <b>Pause( )</b> button.  Still screen is displayed.                |
|                | ■ Repetedly press the <b>Pause( ■)</b> button to advance frame by frame.                      |
|                | Press the Pause( □) button and then use the FF( →) button for slow motion (as showing the  ). |
| TME TIME SHIFT | ■ When using the ◀ or ▶ button during playback the cursor can be viewed on<br>the screen.     |
| · ·            | Press the <b>PLAY( )</b> button to return to normal playback.                                 |
| LIVE TV        | If you want to return to the current live broadcast, press the button.                        |
|                | ■ If you press the STOP(  ) button, you can watch set.  |

## MANUAL RECORDING

- This function is easy to register to reserved recording.
- This function is available to use in DVR menu.
- When Manual Recording, it's stored the default sound of the set.



- Press the button to display Home menu. Use the ▲ or ▼ button to select the Manual Rec and then use the **OK** or **▶** button.
- Manual Rec screen is displayed as shown below. Use the ▲ ▼ ◀ ▶ button to set the Input, PR, Date, Time, Duration, Frequency.



- ▶ **PR** : Select either the current programme or a scanned programme.
- Date: You can select a date up to one month in the
- ► Time /Duration : Ensure you have set correctly.
- Frequency: Choose among Once, Daily and Weekly.



Recorded TV (8) Manual Rec. (2)

Scheduled List





## **SCHEDULED LIST**

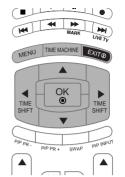
- You can store up to 8 programmes.
- This function is available to use in DVR menu.

- Scheduled List screen is displayed as shown below.

  Use the ▲ ▼ button to select recorded programme.

# VIDEO QUALITY

- It's not available to use this function on recording programme.
- Press the **MENU** button and then use ▲ / ▼ button to select the **DVR** menu.
- Press the ▶ button and then use ▲ / ▼ button to select the **Video Quality**.
- Press the ▶ button and then use ▲ / ▼ button to select **High** or **Normal**.
- 4 Press the **EXIT** button to return to normal TV viewing.



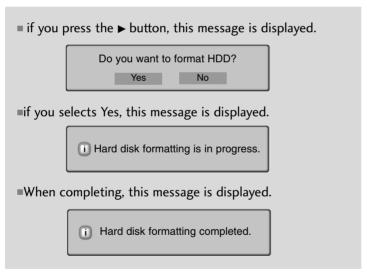




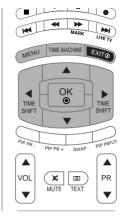


## **FORMAT HARD DISK**

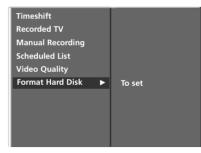
- Press the **MENU** button and then use ▲ / ▼ button to select the **DVR** menu.
- Press the ▶ button and then use ▲ / ▼ button to select the Format Hard Disk.
- Press the ▶ button to start Format Hard Disk.



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







# SPECIAL FUNCTIONS | PIP / POP / Twin Picture

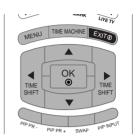
# PIP (PICTURE-IN-PICTURE) FEATURE

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

It's not available to use this function in TELETEXT mode. Twin Picture mode splits the screen into two images, allowing two picture sources to be shown on the set screen at the same time. Each source is given half the screen. When recording or playing, it's not available to use this function.

#### NOTE

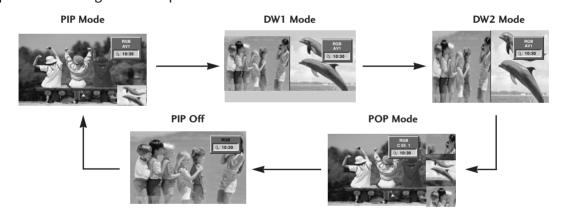
- ▶ When the sub picture size is 1/2 of the main picture, the picture quality may decrease.
- ▶ The motion of the sub picture can be unnatural because the set displays full screen by synchronizing the main picture source when the refresh rate between the main picture source and the sub picture source is different in PIP mode.





#### WATCHING PIP

Press the PIP button to access the sub picture. Each press of PIP changes the PIP options as shown below.



# ADJUSTING PIP TRANSPARENCY (PIP MODE ONLY)

- Press the MENU button and then ▲ / ▼ button to select the PIP/DW menu.
- Press the ▶ button and then ▲ / ▼ button to select PIP Transparency.
- Press the ▶ button and then ◀ / ▶ button to adjust PIP transparency.
- 4 Press the EXIT button to return to normal TV viewing.

## PROGRAMME SELECTION FOR SUB PICTURE

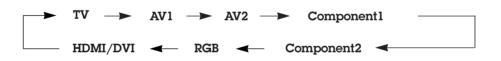
Press the PIP PR + /- button to select a programme for the sub picture.

## ADJUSTING THE SCREEN FOR THE PIP

- In TV or AV modes for the main picture and RGB[PC] for the sub picture, you can use Auto config and Manual config to adjust the screen of the sub picture.
  - In TV or AV modes for main picture and HDMI[DTV] or Component 480p, 576p, 720p, 1080i for the sub picture, you can use Manual config to adjust the screen of the sub picture.

### SELECTING AN INPUT SIGNAL SOURCE FOR THE PIP

- Press the **PIP INPUT** button to select the input source for the sub picture.
  - In some models, when the sub picture quality get poor for sub picture, select Auto, PAL, SECAM or NTSC in PIP System menu.
  - Each press of PIP INPUT button is pressed, each input source for the sub picture is displayed as shown below.





# SUB PICTURE SIZE ADJUSTMENT (PIP MODE ONLY)

- Press the SIZE button and then ◀/ ▶ button to adjust the sub picture size.
  - With SIZE button in DW1, DW2 modes, main and sub picture is adjusted simultaneously. With **SIZE** button in PIP mode, sub picture is adjusted.



# MOVING THE PIP (PIP MODE ONLY)

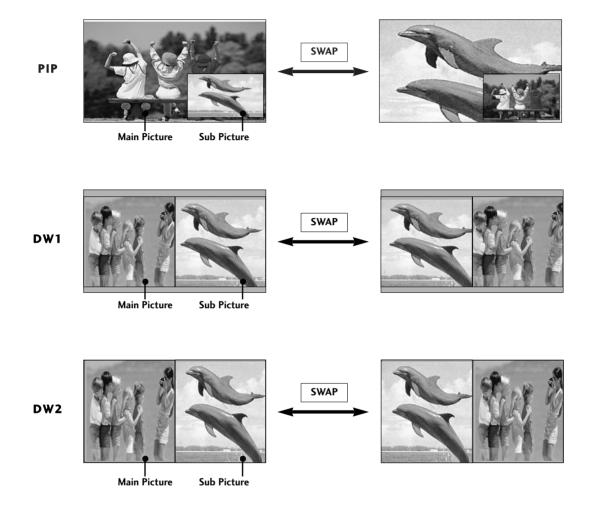
- Press the **POSITION** button.
  - Repeatedly press the ▲ / ▼ or ◀ / ▶ button until desired position is achieved. The sub picture moves up/down or left/right.



## **SWAPPING BETWEEN MAIN AND SUB PICTURES**



Press the SWAP button to exchange the main and sub pictures.



# POP (PICTURE-OUT-OF-PICTURE: CHANNEL SCAN)



Use POP to search the programmes of all the memorized channels one-by-one on the 3 PIP screen display, (while the main picture source remains the current programme). The pictures of all the programmed channels are searched with the 3 POP screen.



## SPECIAL FUNCTIONS | Teletext

- Teletext (or TOP text) is an optional function, therefore only the set with the teletext system can receive the teletext broadcast.
- Teletext is a free service broadcast by most TV stations which gives up-to-the-minute information on news, weather, television programmes, share prices and many other topics.
- The teletext decoder of this set can support the SIMPLE, TOP and FASTEXT systems. SIMPLE (standard teletext) consists of a number of pages which are selected by directly entering the corresponding page number. TOP and FASTEXT are more modern methods allowing quick and easy selection of teletext information.

# **TELETEXT LANGUAGE SELECTION (OPTION)**

- Press the MENU button and then use ▲ / ▼ button to select the SPECIAL menu.
- **2** Press the ightharpoonup button and then use ightharpoonup ightharpoonup button to select **Language** .
- 3 Press the  $\triangleright$  button and then use  $\triangleright$  button to select **Teletext Language**.
- Press the ▲ / ▼ button to select the required language.
- Press the EXIT button to return to normal TV viewing.

#### NOTE

- a. Please select your local teletext language.
- b. If you don't, the teletext may not appear correctly on the screen.
- c. This feature is not available in all countries.

## **SWITCH ON/OFF**

Press the **TEXT** button to switch to teletext. The initial page or last page appears on the screen. Two page numbers, TV station name, date and time are displayed on the screen headline. The first page number indicates your selection, while the second shows the current page displayed. Press the **TEXT** button to switch off teletext. The previous mode reappears.

## SIMPLE TEXT (OPTION)

#### **■** Page selection

- Enter the desired page number as a three digit number with the NUMBER buttons. If during selection you press a wrong number, you must complete the three digit number and then re-enter the correct page number.
- The PR ▲ / ▼ button can be used to select the preceding or following page.

## TOP TEXT (OPTION)

- The user guide displays four fields-red, green, yellow and blue at the bottom of the screen. The yellow field denotes the next group and the blue field indicates the next block.

#### ■ Block / group / page selection

- With the blue button you can progress from block to block.
- 2 Use the yellow button to proceed to the next group with automatic overflow to the next block.
- With the green button you can proceed to the next existing page with automatic overflow to the next group.
  - Alternatively the **PR** ▲ button can be used.
- The red button permits to return to previous selection. Alternatively the PR ▼ button can be used.

#### ■ Direct page selection

Corresponding to the SIMPLE teletext mode, you can select a page by entering it as a three digit number using the NUMBER buttons in TOP mode.

## **FASTEXT**

- The teletext pages are colour coded along the bottom of the screen and are selected by pressing the corresponding coloured button.

#### ■ Page selection

- Press the button to select the index page.
- You can select the pages which are colour coded along the bottom line with the same coloured buttons.
- Corresponding to the SIMPLE teletext mode, you can select a page by entering its three digit page number with the NUMBER buttons in FASTEXT mode.
- 4 The PR ▲ / ▼ button can be used to select the preceding or following page.

### SPECIAL TELETEXT FUNCTIONS

#### **■? REVEAL**

Press this button to display concealed information, such as solutions of riddles or puzzles.

Press this button again to remove the information from the display.

#### 

Selects double height text.

Press this button to enlarge the top half of the page.

Press this button again to enlarge the bottom half of the page.

Press this button again to return to the normal display.

#### **■XI UPDATE**

Displays the TV picture on the screen while waiting for the new tele-

Press this button to view the updated teletext page.

#### **■¥ HOLD**

Stops the automatic page change which will occur if a teletext page consists of 2 or more sub pages. The number of sub pages and the sub page displayed is, usually, shown on the screen below the time. When this button is pressed the stop symbol is displayed at the top left-hand corner of the screen and the automatic page change is inhib-

To continue press this button again.

#### **■** TIME

This button has two functions:

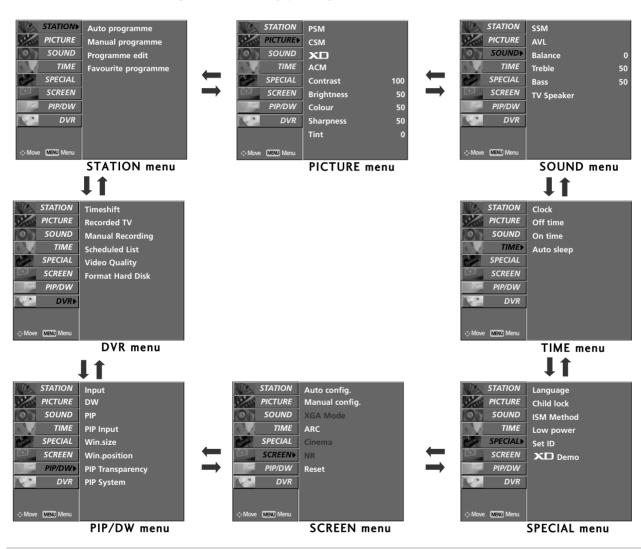
- a) When viewing a TV programme, press this button to display the time at the top right hand corner of the screen. Press this button again to remove the display.
- b) In teletext mode, press this button to select a sub page number. The sub page number is displayed at the bottom of the screen. To hold or change the sub page, press the RED/ GREEN or PR ▲ / ▼ buttons. Press this button again to exit this function.

## **TV MENU**

## ON SCREEN MENUS SELECTION AND ADJUSTMENT

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

- Press the MENU button and then ▲ / ▼ button to display each menu.
- Press the ▶ button and then ▲ / ▼ button to select a menu item.
- 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.



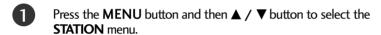


- a. In the teletext mode, menus are not displayed.
- b. It's not available to use STATION, PIP/DW menu on playing recorded programme.

# **TV MENU** | Setting up TV stations

#### **AUTO PROGRAMME TUNING**

- All stations that can be received are stored by this method. It is recommended that you use auto programme during installation of this set.
- It's not available to use this function on recording programme.



- Press the ▶ button and then ▲ / ▼ button to select **Auto** programme.
- Press the ▶ button to select **System**.
- Select a TV system with the ◀ / ▶ button;

L : SECAM L/L' (option)

**BG**: PAL B/G, SECAM B/G (Europe / East Europe / Asia / New Zealand / 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)

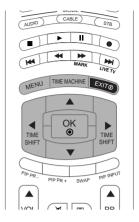
M: (USA / Korea / Philippines) (option)

- Press the ▼ button to select Storage from.
- Select the beginning programme number with the ◀/► button or NUMBER buttons on the **Storage from** menu.
- Press the ▼ button to select **Start**.
- 8 Press the ▶ button to begin auto programming. All receivable stations are stored.

#### NOTE

In some models, the station name is stored for stations which broadcast VPS (Video Programme Service), PDC (Programme Delivery Control) or TELETEXT data. If no station name can be assigned to a station, the channel number is assigned and stored as C (V/UHF 01-69) or S (Cable 01-47), followed by a number.

- To stop auto programming, 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.
- Press the **EXIT** button to return to normal TV viewing.





Auto programme

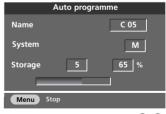
Manual programme

Programme edit
Favourite programme

System
Storage from 1
Start

Start

2 3 4 5 6 7



## MANUAL PROGRAMME TUNING

- Manual programme lets you manually tune and arrange the stations in whatever order you desire. Also you can assign a station name with five characters to each programme number.
- It's not available to use this function in Timeshift **On** mode.
- It's not available to use this function on recording programme.
- Press the MENU button and then ▲ / ▼ button to select the **STATION** menu.
- Press the ▶ button and then ▲ / ▼ button to select Manual programme.
- Press the ▶ button to select **Storage**. Select the desired programme number with the ◀ / ▶ button or NUMBER buttons on the **Storage** menu.
- Press the ▼ button to select **System**.
- Select a TV system with the ◀ / ▶ button;

L : SECAM L/L' (option)

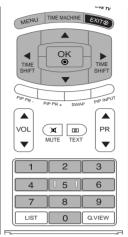
**BG**: PAL B/G, SECAM B/G (Europe / East Europe /

Asia / New Zealand / M.East / Africa / Australia)

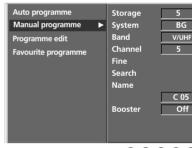
I : PAL I/II (U.K. / Ireland / Hong Kong / South Africa)DK : PAL D/K, SECAM D/K (East Europe / China / Africa / CIS)

**M**: (USA / Korea / Philippines) (option)

- 6 Press the ▼ button to select Band.
- Press the ◀ / ▶ button to select **V/UHF** or **Cable** as required.
- Press the ▼ button to select **Channel**.
- 9 You can select the desired channel number with the ◀ / ▶ button or NUMBER buttons. If possible, select the channel number directly with the number buttons.
- 10 Press the ▼ button to select Search.
- Press the ◀ / ▶ button to commence searching. If a station is found the search will stop.
- Press the **OK** button to store it.
- To store another station, repeat steps 3 to 12.
- Press the **EXIT** button to return to normal TV viewing.

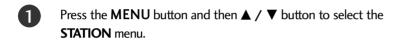






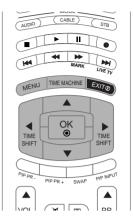
## **FINE TUNING**

- Normally fine tuning is only necessary if reception is poor.



- Press the ▶ button and then ▲ / ▼ button to select Manual programme.
- Press the ▶ button and then ▲ / ▼ button to select Fine.
- Press the ◀ / ▶ button to to fine tune for the best picture and sound.
- Press the **OK** button.
- Press the **EXIT** button to return to normal TV viewing.

  The finely tuned programme will be indicated by yellow number during programme selection.



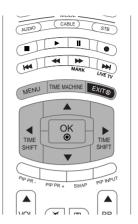






## **ASSIGNING A STATION NAME**

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



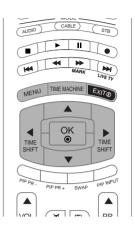
- Press the MENU button and then ▲ / ▼ button to select the STATION menu.
- Press the ▶ button and then ▲ / ▼ button to select Manual programme.
- Press the ▶ button to display the Name menu.
- Press the ▲ button. You can use a blank, +, -, the alphabet A to Z and the numeric 0 to 9.
  - With the  $\blacktriangledown$  button you can select in the opposite direction.
- Select the next position by pressing the ▶ button and then take your choice of the second character, and so on.
- 6 Press the **OK** button in twice.
- Press the EXIT button to return to normal TV viewing.





# **BOOSTER (OPTION)**

- In some models, **Booster** is an optional function. Only a set with **Booster** can perform this function.
- If the reception is poor at the fringe area of TV signal, select **Booster** to **On**.



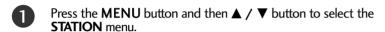
- Press the MENU button and then ▲ / ▼ button to select the STATION menu.
- Press the ▶ button and then ▲ / ▼ button to select Manual programme.
- Press the ▶ button and then use ▲ / ▼ button to select Booster.
- Press the ◀ / ▶ button to select On or Off.
- Press the **OK** button.
- 6 Press the **EXIT** button to return to normal TV viewing.

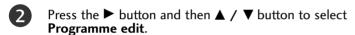




#### PROGRAMME EDIT

- 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.
- It's not available to use this function on recording programme.





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  $\triangle$  /  $\nabla$  /  $\triangleleft$  / button.
- 2.Press the GREEN button. All the following programmes are shifted down one position.

#### ■ Moving a programme

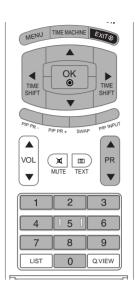
- 1. Select a programme to be moved with the  $\triangle$  /  $\nabla$  /  $\triangleleft$  / button.
- 2.Press the YELLOW button.
- 3. Move the programme to the desired programme number with the ▲ / ▼ / ■ button.

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

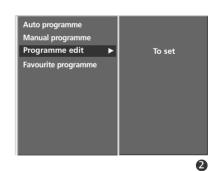
#### ■ Skipping a programme number

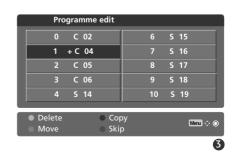
- 1.Select a programme number to be skipped with the ▲ / ▼/ ◀ / ▶ button.
- 2. Press the BLUE button. The skipped programme turns to blue.
- 3. Press the BLUE button again to release the skipped programme. When a programme number is skipped it means that you will be unable to select it using the  $PR \triangle / \nabla$  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.







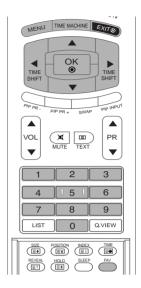




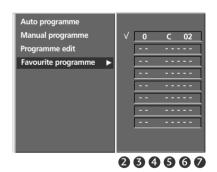
### **FAVOURITE PROGRAMME**

This function lets you select your favourite programmes directly. Repeatedly press the FAV button to select stored favourite programmes.

- Press the MENU button and then ▲ / ▼ button to select the STATION menu.
- Press the ▶ button and then ▲ / ▼ button to select Favourite programme.
- Press the ▶ button to display the Favourite programme menu.
- Press the ▲ / ▼ button to select - - -.
- Select a desired programme with the ◀ / ▶ button or NUMBER buttons. Any number under 10 is entered with a numeric '0' (or '00') in front of it, i.e.'05' (or '005') for 5.
- To store another programme, repeat steps **4** to **5**. You can store up to 8 programmes.
- **7** Press the **OK** button.
- 8 Press the EXIT button to return to normal TV viewing.







## CALLING THE PROGRAMME TABLE

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

#### ■ Displaying programme table

Press the **LIST** button to display the Programme table menu. The programme table appears on the screen.

#### NOTE

- a. You may find some blue highlighted programmes shown. They have been set up in the programme edit mode.
- b. Some programmes with the channel number shown in the programme table indicate there is no station name assigned.

#### ■ Selecting a programme in the programme table

Select a programme with the  $\triangle$  /  $\nabla$  /  $\triangleleft$  button.

Then press the **OK** button.

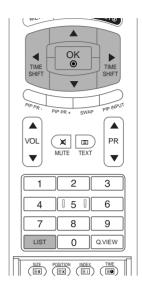
The set switches to the chosen programme number.

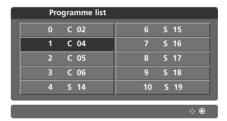
#### ■ Paging through a programme table

There are 10 programme table pages in which contain 100 programmes.

Pressing the  $\blacktriangle$  /  $\blacktriangledown$  /  $\blacktriangleright$  button repeatedly turns the pages.

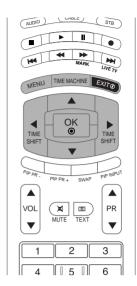
Press the LIST button to return to normal TV viewing.



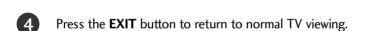


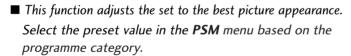
# TV MENU | Picture Menu Options

# PSM (PICTURE STATUS MEMORY)

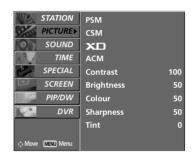


- Press the MENU button and then ▲ / ▼ button to select the PICTURE menu.
- Press the ▶ button and then ▲ / ▼ button to select PSM.
- Press the ▶ button and then ▲ / ▼ button to select **Dynamic, Standard, Mild** or **User**.





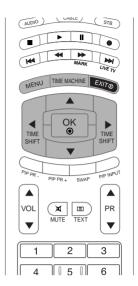
- When adjusting picture options (contrast, brightness, colour, sharpness and tint (NTSC input only)) manually, **PSM** is automatically changed to **User**.
- Picture options **Dynamic**, **Standard**, **Mild** and **User** are preset and programmed for good picture quality at the factory and cannot be changed.

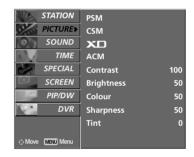


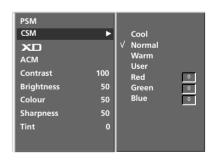


# **CSM (COLOUR STATUS MEMORY)**

- To initialize values (reset to default settings), select the **Normal** option.
- When adjusting colour temperature options (red, green, or blue) manually, CSM automatically changes to **User**.
- 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.
- Press the MENU button and then ▲ / ▼ button to select the PICTURE menu.
- Press the ▶ button and then ▲ / ▼ button to select CSM.
- Press the ▶ button and then use ▲ / ▼ button to select the desired colour temperature.
- 4 Press the **EXIT** button to return to normal TV viewing.



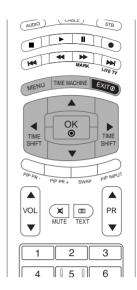






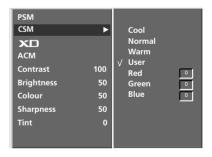
# MANUAL COLOUR TEMPERATURE CONTROL (CSM - USER OPTION)

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



- Press the MENU button and then ▲ / ▼ button to select the PICTURE menu.
- Press the ▶ button and then ▲ / ▼ button to select **CSM**.
- Press the ▶ button and then ▲ / ▼ button to select **User**.
- Press the ▶ button and then use ▲ / ▼ / ◀ / ▶ button to make appropriate adjustments.
- Press the **EXIT** button to return to normal TV viewing.

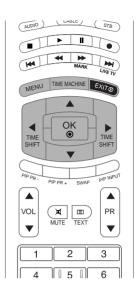




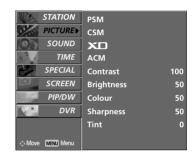


## **XD** FUNCTION

- XD is LG Electronic's unique picture improving technology to display a real HD source through an advanced digital signal processing algorithm.
- You can enjoy the vivid and hi-definition picture with LG's Excellent Digital Reality processor technology.
- It's not available to use this function in RGB[PC] or HDMI[PC] modes.
- When selecting picture options (Dynamic, Standard and Mild) in PICTURE menu, XD is automatically changed to On.



- Press the MENU button and then ▲ / ▼ button to select the PICTURE menu.
- Press the ▶ button and then ▲ / ▼ button to select XD.
- Press the ▶ button and then ▲ / ▼ button to select On or Off.
- 4 Press the **EXIT** button to return to normal TV viewing.

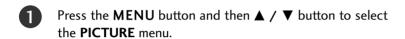






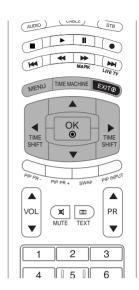
## **sRGB FUNCTION**

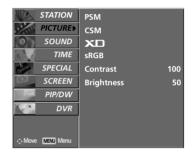
- When the set is connected to external equipment with the sRGB function, the colour difference is adjusted the equal image of each other.
- This function works in the following mode: RGB[PC], HDMI[PC].





- Press the ▶ button and then ▲ / ▼ button to select On or Off
- Press the **EXIT** button to return to normal TV viewing.



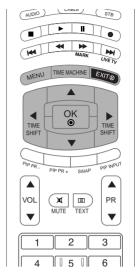






# **ACM (ACTIVE COLOUR MANAGEMENT)**

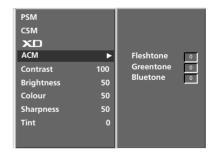
- Adjust the ACM to select the desired skin colour option.
- This function works in the following mode: TV, AV1, AV2, COMPONENT, RGB[DTV], HDMI[DTV].
- It's not available to use this function in XD Off mode.



- Press the MENU button and then ▲ / ▼ button to select the PICTURE menu.
- Press the ▶ button and then ▲ / ▼ button to select ACM.
- Press the ▶ button and then use ◀ / ▶ button to make appropriate adjustments.
- Press the **EXIT** button to return to normal TV viewing.

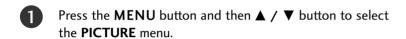


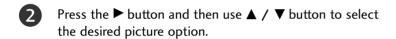
0



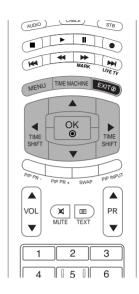
## MANUAL PICTURE CONTROL

- You can adjust picture contrast, brightness, colour, sharpness and tint (NTSC input only) to the levels you prefer.
- It's not available to use colour, sharpness function in RGB[PC], HDMI[PC] mode.
- In the broadcasting system PAL/SECAM, the picture item Tint doesn't work.

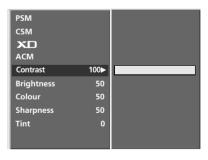




- Press the ▶ button and then use ◀ / ▶ button to make appropriate adjustments.
- 4 Press the **EXIT** button to return to normal TV viewing.





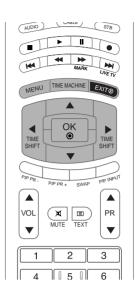




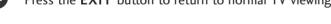
# TV MENU | Sound Menu Options

# SSM (SOUND STATUS MEMORY)

- This function lets you enjoy the best sound without any special adjustment because the set automatically selects the appropriate sound option based on the program content.
- When adjusting sound options (treble and bass) manually, SSM is automatically changed to **User**.
- The sound SRS TSXT, Flat, Music, Movie and Sports are programmed for good sound reproduction at the factory and cannot be changed.



- Press the MENU button and then ▲ / ▼ button to select the SOUND menu.
- Press the ▶ button and then ▲ / ▼ button to select SSM.
- Press the ▶ button and then ▲ / ▼ button to select SRS TSXT, Flat, Music, Movie, Sports or User.
- 4 Press the **EXIT** button to return to normal TV viewing.





- a. SRS(•) is a trademark of SRS Labs, Inc.
- b. TruSurround XT technology is incorporated under license from SRS Labs, Inc.



SSM SRS TSXT

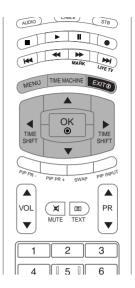
AVL
Balance 0
Treble 50
Bass 50
TV Speaker

SRS TSXT

V Flat
Music
Movie
Sports
User

# AVL (AUTO VOLUME LEVELER)

- AVL automatically keeps on an equal volume level even if you change programmes.



- Press the MENU button and then ▲ / ▼ button to select the SOUND menu.
- Press the ▶ button and then ▲ / ▼ button to select AVL.
- Press the ▶ button and then ▲ / ▼ button to select On or Off.
- Press the EXIT button to return to normal TV viewing.





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# ADJUSTING SOUND CONTROL

- Press the MENU button and then ▲ / ▼ button to select the SOUND menu.
- Press the ▶ button and then use ▲ / ▼ button to select the desired sound item.
- Press the ▶ button and then use ◀ / ▶ button to make appropriate adjustments.
- 4 Press the **EXIT** button to return to normal TV viewing.

#### NOTE

a. Treble or Bass aren't suitable for use with **SRS TSXT**.

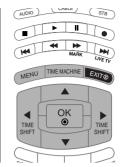
## TV SPEAKER

You can adjust the internal speaker status.

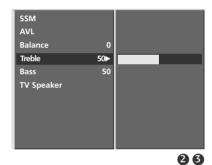
In AV1, AV2, COMPONENT, RGB and HDMI/DVI with HDMI to DVI cable, TV speaker and/or variable audio can be outputted even though there is no video signal.

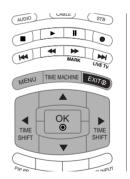
If you want to use your external hi-fi stereo system, turn off the internal speakers of the set.

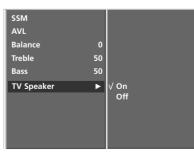
- Press the MENU button and then ▲ / ▼ button to select the SOUND menu.
- Press the ▶ button and then ▲ / ▼ button to select **TV Speaker**.
- Press the ▶ button and then ▲ / ▼ button to select **On** or **Off**.
- 4 Press the EXIT button to return to normal TV viewing.











## STEREO/DUAL RECEPTION

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



On Screen Display

Press the I/II button to received broadcast state.

| Broadcast | On Screen Display |
|-----------|-------------------|
| Mono      | MONO              |
| Stereo    | STEREO            |
| Dual      | DUAL I            |

Mono sound selection

In stereo reception if the stereo signal is weak, 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.

3 Language selection for dual language broadcast

If a programme received in 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.

## **NICAM RECEPTION (OPTION)**

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.

- When NICAM mono is received, you can select **NICAM MONO** or FM MONO.
- When NICAM stereo is received, you can select **NICAM STEREO** or FM MONO. If the stereo signal is weak, switch to FM mono.
- When NICAM dual is received, you can select **NICAM DUAL I, NICAM DUAL II, NICAM DUAL I + II,** or **MONO**. When FM mono is selected the display **MONO** appears on the screen.

## SOUND OUTPUT SELECTION

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

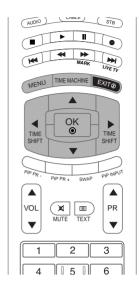
Repeatedly press the I/II button to select the sound output.

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

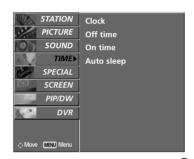
# **TV MENU** | Time Menu Options

## **SETTING THE CLOCK**

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



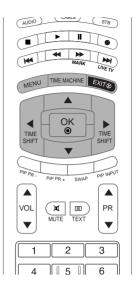
- Press the **MENU** button and then use ▲ / ▼ button to select the **TIME** menu.
- Press the ▶ button and then use ▲ / ▼ button to select Clock.
- Press the ▶ button and then use ▲ / ▼ button to adjust the hour.
- Press the ▶ button and then use ▲ / ▼ button to adjust the minute.
- Press the EXIT button to return to normal TV viewing.





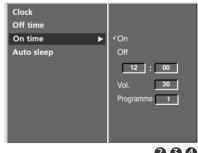
## SETTING THE ON/OFF TIME

- Time function operates only if current time has been already set.
- Off Time function overrides On Time function if they are set to the same time.
- The set must be in standby mode for the On Time to work.



- Press the **MENU** button and then use ▲ / ▼ button to select the **TIME** menu.
- Press the ▶ button and then use ▲ / ▼ button to select Off time or On time.
- Press the ▶ button and then use ▲ / ▼ button to select On.
- Press the ▶ button and then use ▲ / ▼ button to adjust the hour.
- Press the ▶ button and then use ▲ / ▼ button to adjust the minute.
- Only On time function; Press the ▶ button and then use ▲ / ▼ button to adjust programme number or volume level.
- Press the EXIT button to return to normal TV viewing.







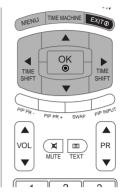
#### NOTE

- a. To cancel **Off/On time** function. Press the ▲ / ▼ button to select **Off** in step 3.
- b. 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.

## **AUTO SLEEP**

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

- Press the **MENU** button and then use ▲ / ▼ button to select the **TIME** menu.
- Press the ▶ button and then use ▲ / ▼ button to select Auto sleep.
- Press the ▶ button and then use ▲ / ▼ button to select On or Off.
- Press the **EXIT** button to return to normal TV viewing.









## **SLEEP TIMER**

- Sleep timer turns the set off at the preset time.
- Press the SLEEP button to select the number of minutes. The display \$\mathbb{Q}^{\mathbb{z}}\$ --- Min will appear on the screen, followed by 10, 20, 30, 60, 90, 120, 180 and 240 minutes.

The timer begins to count down from the number of minutes selected.

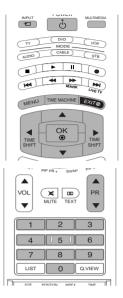
- To check the remaining sleep timer, press the **SLEEP** button once
- To cancel the sleep timer, repeatedly press the **SLEEP** button until the display are 2 --- **Min** appears.
- If you turn the set off after setting the sleep timer, the setting will be erased.



# **TV MENU** | Special Menu Options

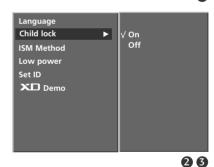
### **CHILD LOCK**

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



- Press the **MENU** button and then use ▲ / ▼ button to select the **SPECIAL** menu.
- Press the ▶ button and then use ▲ / ▼ button to select Child lock.
- Press the ▶ button and then use ▲ / ▼ button to select On or Off.
- 4 Press the **EXIT** button to return to normal TV viewing.



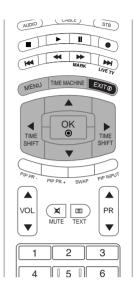


#### NOTE

- The set is programmed to remember which option it was last set to even if you turn the set off.
- In Child lock 'on', if the set is turned off, press the ⊕/I, INPUT, PR ▲ / ▼ button on the set or POWER, INPUT, MULTIMEDIA, PR ▲ / ▼ or NUMBER buttons on the remote control.
- With the **Child lock on**, the display ' i **Child lock on**' appears on the screen if any button on the front panel is pressed while viewing the set.

# ISM (IMAGE STICKING MINIMIZATION) METHOD

- A frozen of still picture from a PC/video game displayed on the screen for prolonged periods will result in a ghost image remaining even when you change the image. Avoid allowing a fixed image to remain on the set's screen for a long period of time.
- It's not available to use this function in LCD TV models.



- Press the **MENU** button and then use ▲ / ▼ button to select the SPECIAL menu.
- Press the ▶ button and then ▲ / ▼ button to select ISM Method.
- Press the ▶ button and then ▲ / ▼ button to select either Normal, White wash, Orbiter or Inversion. If you don't need to set this function, set Normal.

#### • White wash:

White Wash removes permanent images from the screen. Note: An excessive permanent image may be impossible to clear entirely with White Wash.

#### • Orbiter:

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

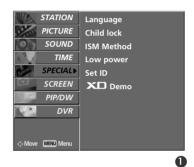
#### • Inversion:

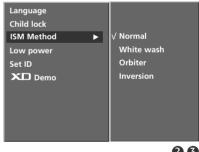
This is the function to invert the panel colour of the screen. The panel colour is automatically inverted every 30 minutes.

#### • Normal:

When input signal is constantly static or temperature is high, brightnest level will be decrase automatically for image sticking minimalization.

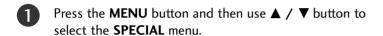
Press the **EXIT** button to return to normal TV viewing.

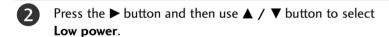




### **LOW POWER**

- This is the function to reduce the power consumption of the set.
- It's not available to use this function in LCD TV models.

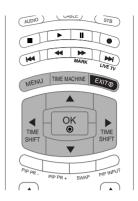




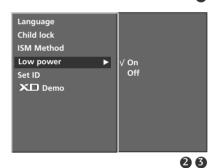
- Press the ▶ button and then use ▲ / ▼ button to select On or Off.
- Press the **EXIT** button to return to normal TV viewing.

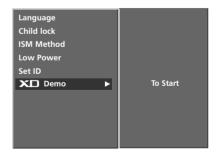
### XD DEMO

- Use it to see the difference between XD Demo on and XD Demo off.
- It's not available to use this function in RGB[PC], HDMI[PC] mode.
- Press the **MENU** button and then use ▲ / ▼ button to select the **SPECIAL** menu.
- Press the ▶ button and then use ▲ / ▼ button to select XD Demo.
- Press the ► button to begin XD Demo.
- To stop XD Demo, press the MENU or EXIT button.



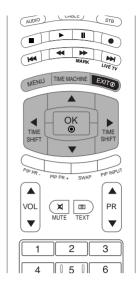






# INDEX (OPTION)

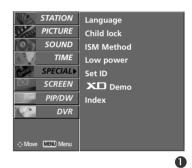
- You can switch FRONT DISPLAY on or off.



- Press the **MENU** button and then use ▲ / ▼ button to select the SPECIAL menu.
- Press the ▶ button and then use ▲ / ▼ button to select
- Press the ▶ button and then use ▲ / ▼ button to select On or Off.

When you select **On** mode, The FRONT DISPLAY illuminates brightly.

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

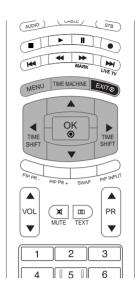




# **TV MENU** | Screen Menu Options

### AUTO CONFIG.

- Automatically adjusts picture position and minimizes image shaking.
- Although the image is still not correct, your set is functioning properly but needs further adjustment.
- The Auto config. functions don't need to be run for HDMI/DVI mode.
- This function works in the following mode: RGB[PC]
- This function is for the automatic adjustment of the screen position, clock, and phase. The displayed image will disappear for a few seconds while the auto configuration is in progress.



- Press the **MENU** button and then use ▲ / ▼ button to select the SCREEN menu.
- Press the ▶ button and then use ▲ / ▼ button to select Auto config.
- 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..
- Press the **EXIT** button to return to normal TV viewing.









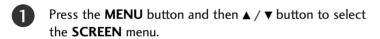
### MANUAL CONFIG.

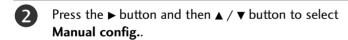
- If the picture isn't clear after auto adjustment and especially if characters are still trembling, adjust the picture phase manually.
- To correct the screen size, adjust Clock.
- This function works in the following mode: RGB[PC], RGB[DTV], HDMI[DTV], COMPONENT[DTV] mode only
- It's not available to use Phase, Clock function in RGB[DTV], HDMI[DTV], COMPONENT[DTV] mode.

#### Mini Glossary

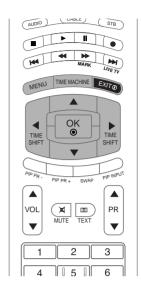
**Clock** This function is to minimize any vertical bars or stripes visible on the screen background. And the horizontal screen size will also change.

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





- Press the ▶ button and then ▲ / ▼ button to select Phase, Clock, H-Position or V-Position.
- 4 Press the **◄** / **▶** button to make appropriate adjustments.
- Press the **EXIT** button to return to normal TV viewing.

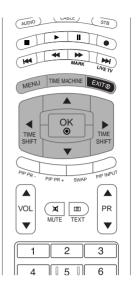






### SELECTING WIDE XGA/VGA MODE

- To see a normal picture, match the resolution of RGB mode and selection of VGA/XGA mode.
- In some models, it's not available for selecting VGA mode.
- This function works in the following mode: RGB[PC]



- Press the **MENU** button and then use ▲ / ▼ button to select the **SCREEN** menu.
- Press the ▶ button and then use ▲ / ▼ button to select XGA Mode (VGA Mode).
- Press the ▶ button and then use ▲ / ▼ button to select the desired XGA/VGA resolution.
- 4 Press the EXIT button to return to normal TV viewing.



### SETTING PICTURE FORMAT

- You can watch the screen in various picture formats; **Spectacle**, Full (option), Original, 4:3, 16:9 (Wide), 14:9 and Zoom.
- If a fixed image is displayed on the screen for a long time, that fixed image may become imprinted on the screen and remain visible.
- You can only select 4:3 and 16:9 (Wide) in RGB[PC], HDMI[PC] mode only.
- You can only select 4:3, 16:9 (Wide) and Zoom in RGB[DTV], HDMI[DTV], Component [DTV] mode only.
- You can only select Spectacle, Full, 4:3, 16:9 (Wide), 14:9 and Zoom in Component [480i/576i] mode only.
- It 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.
- Press the **MENU** button and then ▲ / ▼ button to select the **SCREEN** menu.
- Press the ▶ button and then use ▲ / ▼ button to select ARC.
- Press the ▶ button and then use ▲ / ▼ button to select Spectacle, Full (option), Original, 4:3, 16:9 (Wide), 14:9 or Zoom.

#### Spectacle

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

#### • Full (option)

When your set receives the wide screen signal, when selected it will adjust the picture horizontally or vertically, in a linear proportion, to fill the entire screen fully.

#### Original

When your set 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 (Wide)

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).

#### • 14:9

You can enjoy the picture format of 14:9 or general set programme through the 14:9 mode.  $\,$ 

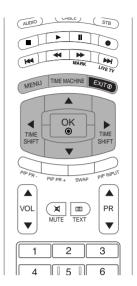
The screen 14:9 is viewed just like that the screen 4:3 is magnified to the left / right.

#### Zoom

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.



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





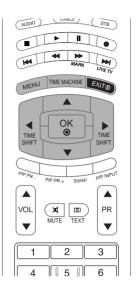






### **CINEMA**

- When you watch the movie, this function adjusts the set to the best picture appearance.
- This function works in the following mode: TV, AV1, AV2 or COMPONENT (480i/576i).



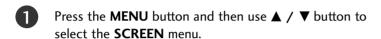
- Press the **MENU** button and then ▲ / ▼ button to select the **SCREEN** menu.
- Press the ▶ button and then use ▲ / ▼ button to select Cinema.
- Press the ▶ button and then use ▲ / ▼ button to select On or Off.
- Press the **EXIT** button to return to normal TV viewing.





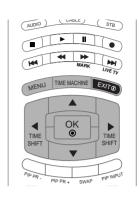
# NR (NOISE REDUCTION)

- You can select **3D NR** or **MPEG NR** to reduce the picture noise which may appear on the screen during watching the set.
- This function is not available for use in RGB[PC], HDMI[PC] mode.
- **3D NR** is not available for use in RGB, HDMI and Component[DTV] mode.





- Press the ▶ button and then use ▲ / ▼ button to select 3D NR or MPEG NR.
- Press the ◀ / ▶ button to make appropriate adjustments.
- Press the EXIT button to return to normal TV viewing.



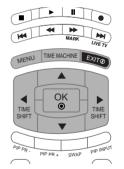


1



# INITIALIZING (RESET TO ORIGINAL FACTORY SETTINGS)

- This function operates in current mode.
- To initialize the adjusted values.
- Press the **MENU** button and then use ▲ / ▼ button to select the **SCREEN** menu.
- Press the ▶ button and then ▲ / ▼ button to select **Reset**.
- Press the ▶ button.
  - You can initialize Phase, Clock, H-Position, V-Position, Position, Win. size, Win. position, PIP Transparency and sub picture size of twin picture.





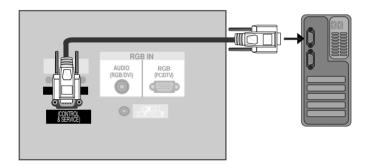
### **EXTERNAL CONTROL DEVICE SETUP**

- Connect the RS-232C input jack to an external control device (such as a computer or an A/V control system) and control the set's functions externally.

#### How to connect external control equipment

- Connect the serial port of the control device to the RS-232C jack on the Monitor back panel.
- RS-232C connection cables are not supplied with the set.
- The set remote control and front panel controls (except main power) will not be functional if the Monitor is controlled by a PC computer or other external device.

### **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**

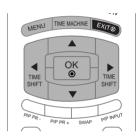
| 7-Wire Co | nfigurations ( | (Standard RS-  | 232C cable) |
|-----------|----------------|----------------|-------------|
|           | PC             | TV             |             |
| RXD       | 2 •——          | 3              | TXD         |
| TXD       | 3 •            | 2              | RXD         |
| GND       | 5 •            | <b>5</b>       | GND         |
| DTR       | 4 •            | <b>——•</b> 6   | DSR         |
| DSR       | 6 •            | <b>4</b>       | DTR         |
| RTS       | 7 •—           |                | CTS         |
| CTS       | 8 •            | <del>•</del> 7 | RTS         |
|           | D-Sub 9        | D-Sub 9        |             |

| 3-W | ire Configurat | tions(Not stan | idard) |
|-----|----------------|----------------|--------|
|     | PC             | TV             |        |
| RXD | 2 •——          | <b>3</b>       | TXD    |
| TXD | 3 •——          | <b>●</b> 2     | RXD    |
| GND | 5 •——          | • 5            | GND    |
| DTR | 4              | 6              | DTR    |
| DSR | 6              | 4              | DSR    |
| RTS | 7              | 7              | RTS    |
| CTS | 8              | 8              | CTS    |
|     | D-Sub 9        | D-Sub 9        |        |

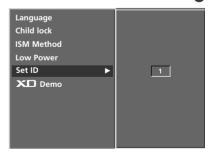
### **Set ID**

Use this function to specify a set ID number. Refer to 'Real Data Mapping 1'. See page 86.

- Press the **MENU** button and then use the ▲ / ▼ button to select the **SPECIAL** menu.
- Press the ▶ button and then use ▲ / ▼ button to select **Set ID**.
- Press the ▶ button and then use ◀ / ▶ button to adjust **Set ID** to choose the desired monitor ID number.
  - The adjustment range of **Set ID** is  $1 \sim 99$ .
- 4 Press the **EXIT** button to return to normal TV viewing.







### Communication Parameters

Baud rate : 9600 bps (UART)Use a crossed (reverse) cable.

■ Data length: 8 bits ■ Stop bit: 1 bit

Parity : None
Communication code : ASCII code

### **Command Reference List**

\* When setting the 24 ~ 34, a menu doesn't display on screen.

|                    | COMMAND1 | COMMAND2 | DATA<br>(Hexadecimal) | (                             | COMMAND1 | COMMAND2 | DATA<br>(Hexadecimal) |
|--------------------|----------|----------|-----------------------|-------------------------------|----------|----------|-----------------------|
| 01. Power          | k        | a        | 0 ~ 1                 | 18. Balance                   | k        | t        | 0 ~ 64                |
| 02. Input Select   | k        | b        | 0 ~ 6                 | 19. Colour Temperature(C      | SM) k    | u        | 0 ~ 3                 |
| 03. Aspect Ratio   | k        | С        | Refer to p.84         | 20. Red Adjustment            | k        | V        | 0 ~ 50                |
| 04. Screen Mute    | k        | d        | 0 ~ 1                 | 21. Green Adjustment          | k        | w        | 0 ~ 50                |
| 05. Volume Mute    | k        | e        | 0 ~ 1                 | 22. Blue Adjustment           | k        | \$       | 0 ~ 50                |
| 06. Volume Control | k        | f        | 0 ~ 64                | 23. PIP input Source          | k        | у        | 0 ~ 6                 |
| 07. Contrast       | k        | g        | 0 ~ 64                | 24. Abnormal Status           | k        | Z        | 0 ~ 9                 |
| 08. Brightness     | k        | h        | 0 ~ 64                | 25. ISM Method (option        | on) j    | р        | 0 ~ 3                 |
| 09. Colour         | k        | i        | 0 ~ 64                | 26. Low Power (option         | ) ј      | q        | 0 ~ 1                 |
| 10. Tint (option)  | k        | j        | 0 ~ 64                | 27. Orbiter Time Setting (op  | otion) j | r        | 1 ~ FE                |
| 11. Sharpness      | k        | k        | 0 ~ 64                | 28. Orbiter Pixel Setting (op | tion) j  | S        | 1 ~ 3                 |
| 12. OSD Select     | k        | 1        | 0 ~ 1                 | 29. Picture Size (option      | n) j     | t        | 0 ~ 20                |
| 13. Remote Control | k        | m        | 0 ~ 1                 | 30. Auto Configure (opt       | ion) j   | u        | 1                     |
| Lock Mode          |          |          |                       | 31. Programme selection       | n m      | a        | 0 ~ 63                |
| 14. PIP/DW         | k        | n        | Refer to p.85         | 32. Send IR Code              | m        | С        | Key Code              |
| 15. PIP Position   | k        | q        | 0 ~ 3                 | 33. Input select (Main)       | ) x      | b        | Refer to p.87         |
| 16. Treble         | k        | r        | 0 ~ 64                | 34. Input select (PIP)        | х        | у        | Refer to p.87         |
| 17. Bass           | k        | S        | 0 ~ 64                |                               |          |          |                       |

### **Transmission / Receiving Protocol**

| iransmission |  |
|--------------|--|
| [Command1][C | Command2][ ][Set ID][ ][Data][Cr]              |
| [Command 1]  | : First command to control set. (j, k, m or x) |
| [Command 2]  | : Second command to control set.               |
| [Set ID]     | : You can adjust the set ID to choose          |
|              | desired set ID number in special menu.         |
|              | Adjustment range is 1 ~ 99.                    |
|              | When selecting Set ID '0', every               |
|              | connected set is controlled.                   |
|              | Set ID is indicated as decimal $(1\sim99)$ on  |
|              | menu and as Hexa decimal (0x0~0x63) on         |
|              | transmission/receiving protocol.               |
| * [DATA]     | : To transmit command data.                    |
|              | Transmit 'FF' data to read status of           |
|              | command.                                       |
| * [Cr]       | : Carriage Return                              |
|              | ASCII code '0x0D'                              |
| * [ ]        | : ASCII code 'space (0x20)'                    |
|              |  |

#### OK Acknowledgement

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

The set 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 set 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 set.

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. Input Select (Command 2 : b)

To select input source for the set.

You can also select an input source using the INPUT SELECT button on the set's remote control.

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

Date 0: TV Date 4: Component 2

Date 1: AV1 Date 5: RGB
Date 2: AV2 Date 6: HDMI/DVI

Date 3: Component 1

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

#### 03. 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 2: Wide screen (16:9)
Date 3: Horizon (Spectacle)
Date 3: Full (option)

Date 4: Zoom

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

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

#### 04. 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]

#### 05. 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]

#### 06. 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 86.

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

#### 07. 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 86.

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

#### 08. 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 86.

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

#### 09. 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 86.

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

#### 10. Tint (Command2:j) (option)

To adjust the screen tint.

You can also adjust tint in the PICTURE menu.

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

Data Min: 0 ~ Max: 64

Refer to 'Real data mapping 1'. See page 86.

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

#### 11. 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 86.

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

#### 12. 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 [I][][Set ID][][OK][Data][x]

#### 13. 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 set, use this mode. When main power is on/off, remote control lock is released.

#### 14. 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
Data2: DW1 Data3: DW2

Data5: POP

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

#### 15. 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]

#### 16. Treble (Command 2:r)

To adjust treble.

You can also adjust treble in the SOUND menu.

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

Data Min: 0 ~ Max: 64

Refer to 'Real data mapping 1'. See page 86.

#### 17. Bass (Command 2 : s)

To adjust bass.

You can also adjust bass in the SOUND menu.

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

Data Min: 0 ~ Max: 64

Refer to 'Real data mapping 1'. See page 86.

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

#### 18. 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 86.

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

#### 19. Colour Temperature (Command2:u)

To adjust colour temperature.

You can also adjust CSM in the PICTURE menu.

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

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

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

#### 20. Red Adjustment (Command2:v)

To adjust red in colour temperature.

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

Data Min: 0 ~ Max: 50

Refer to 'Real data mapping 2'. See page 86.

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

#### 21. Green Adjustment (Command2:w)

To adjust red in colour temperature.

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

Data Min: 0 ~ Max: 50

Refer to 'Real data mapping 2'. See page 86.

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

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

To adjust red in colour temperature.

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

Data Min: 0 ~ Max: 50

Refer to 'Real data mapping 2'. See page 86.

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

#### 23. PIP Input Select (Command 2 : y)

To select input source for sub picture in PIP/DW picture mode. You can also adjust input source for sub picture using PIP INPUT button on remote control.

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

Date 0: TV Date 1: AV1

Date 2: AV2 Date 3: Component1

Date 4: Component 2 Date 5: RGB

Date 6: HDMI/DVI

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

#### 24. Abnormal State (Command2:z)

To recognize an abnormal state.

This feature is not available for all models.

Transmission [k][z][][Set ID][][Data][][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 set off by remote control

Data 3: Turn the set off by sleep time function

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

Data 5: 5V down

Data 6: AC down

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

Data 8: Turn the set off by Off time function

Data 9: Turn the set off by Auto sleep function

\* This function is "read only".

#### 25. ISM Method (Command1:j, Command2:p) (option)

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

This feature is not available for all models.

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

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

#### 26. Low power (Command1:j, Command2:g) (option)

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

This feature is not available for all models.

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

Data 0: Off Data 1: On

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

#### 27. Orbiter Time Setting (Command1:j, Command2:r) (option)

To adjust orbiter operation time term.

This feature is not available for all models.

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

Data Min: 1 ~ Max: FE

Refer to 'Real data mapping 1'.

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

#### 28. Orbiter Pixel Setting (Command1:j, Command2:s) (option)

To adjust pixel number in orbiter function.

This feature is not available for all models.

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

Data Min: 1 ~ Max: 3

Refer to 'Real data mapping 1'.

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

# 29. Picture Size Setting for Twin Picture Mode (Command 1: j, Command 2: t) (option)

To adjust pixel number in orbiter function.

This feature is not available for all models.

Transmission [j][t][][Set ID][][Data][Cr]

Data Min: 0 ~ Max: 20

Refer to 'Real data mapping 1'.

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

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

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

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

Data 1: To set

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

#### 31. 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, 200Pr 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]

#### \* 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

#### 32. 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 89.

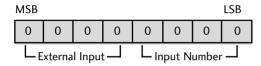
Acknowledgement [c][][Set ID][][OK][Data][x]

# 33. Input select (Command1:x, Command2:b) (Main Picture Input)

To select input source for set

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

Data: Structure



| E | xterna | al Inpu | t | Data      |
|---|--------|---------|---|-----------|
| 0 | 0      | 0       | 1 | Analog    |
| 0 | 0      | 1       | 0 | AV        |
| 0 | 1      | 0       | 0 | Component |
| 0 | 1      | 0       | 1 | RGB-DTV   |
| 0 | 1      | 1       | 0 | RGB-PC    |
| 1 | 0      | 0       | 1 | HDMI/DVI  |

| ı | nput N | Numbe | r | Data   |
|---|--------|-------|---|--------|
| 0 | 0      | 0     | 0 | Input1 |
| 0 | 0      | 0     | 1 | Input2 |
| 0 | 0      | 1     | 0 | Input3 |
| 0 | 0      | 1     | 1 | Input4 |

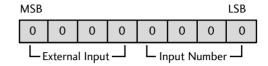
Acknowledgement [b][][Set ID][][OK][Data][x]

#### 34. 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



| E | xterna | ıl Inpu | t | Data      |
|---|--------|---------|---|-----------|
| 0 | 0      | 0       | 1 | Analog    |
| 0 | 0      | 1       | 0 | AV        |
| 0 | 1      | 0       | 0 | Component |
| 0 | 1      | 0       | 1 | RGB-DTV   |
| 0 | 1      | 1       | 0 | RGB-PC    |
| 1 | 0      | 0       | 1 | HDMI/DVI  |

| I | nput N | Numbe | r | 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]

### **IR CODES**

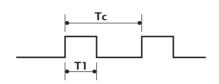
### 1. How to Connect

■ Connect your wired remote control to the Remote Control port on the set.

### 2. Remote Control IR Codes (NEC Format)

#### Output waveform

Single pulse, modulated with 37.917KHz signal at 455KHz



Carrier frequency

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

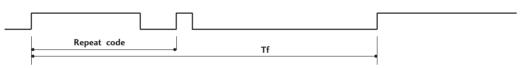
Duty ratio = T1/TC = 1/3

### ■ Configuration of frame

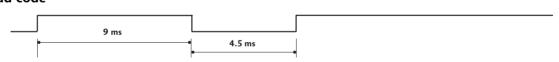
1st frame

| Lea | d code |    | Low custom code |    |    |    |            |    | High custom code |    |            |    |    |    | Data code |    |            |    |    |    | Data code |    |    |    |    |    |    |    |    |    |    |    |    |
|-----|--------|----|-----------------|----|----|----|------------|----|------------------|----|------------|----|----|----|-----------|----|------------|----|----|----|-----------|----|----|----|----|----|----|----|----|----|----|----|----|
|     | 7      | C0 | C1              | C2 | C3 | C4 | <b>C</b> 5 | C6 | <b>C</b> 7       | C0 | <b>C</b> 1 | C2 | C3 | C4 | C5        | C6 | <b>C</b> 7 | D0 | D1 | D2 | D3        | D4 | D5 | D6 | D7 | D0 | D1 | D2 | D3 | D4 | D5 | D6 | D7 |

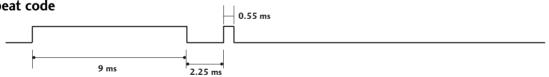
Repeat frame



#### ■ Lead code



### ■ Repeat code



#### ■ Bit description



#### ■ Frame interval: Tf

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



# REMOTE CONTROL IR CODES

| Code<br>(Hexa) | Function       | Note                                    | Code<br>(Hexa) | Function          | Note                              |
|----------------|----------------|---|----------------|-------------------|-----------------------------------|
| 00             | PR ▲           | R/C Button                              | 1A             | Q.VIEW            | R/C Button                        |
| 01             | PR ▼           | R/C Button                              | OA             | I/II              | R/C Button                        |
| 02             | VOL ▲          | R/C Button                              | OE             | SLEEP             | R/C Button                        |
| 03             | VOL ▼          | R/C Button                              | 43             | MENU              | R/C Button                        |
| 40             | <b>A</b>       | R/C Button                              | 44             | OK(⊚)             | R/C Button                        |
| 41             | ▼              | R/C Button                              | 4D             | PSM               | R/C Button                        |
| 06             | <b>•</b>       | R/C Button                              | 52             | SSM               | R/C Button                        |
| 07             | ◀              | R/C Button                              | 53             | LIST              | R/C Button                        |
| 08             | POWER          | R/C Button (Power On/Off)               | 20             | TEXT              | R/C Button                        |
| C4             | POWER ON       | Discrete IR Code (Only Power On)        | 2A             | REVEAL            | R/C Button                        |
| C5             | POWER OFF      | Discrete IR Code (Only Power Off)       | 22             | MODE              | R/C Button                        |
| 09             | MUTE           | R/C Button                              | 24             | MIX               | R/C Button                        |
| 10             | Number Key 0   | R/C Button                              | 26             | TIME              | R/C Button                        |
| 11             | Number Key 1   | R/C Button                              | 62             | UPDATE / POSITION | R/C Button                        |
| 12             | Number Key 2   | R/C Button                              | 64             | SIZE              | R/C Button                        |
| 13             | Number Key 3   | R/C Button                              | 65             | HOLD              | R/C Button                        |
| 14             | Number Key 4   | R/C Button                              | 70             | INDEX             | R/C Button                        |
| 15             | Number Key 5   | R/C Button                              | 60             | PIP               | R/C Button                        |
| 16             | Number Key 6   | R/C Button                              | 61             | PIP INPUT         | R/C Button                        |
| 17             | Number Key 7   | R/C Button                              | 63             | SWAP              | R/C Button                        |
| 18             | Number Key 8   | R/C Button                              | 71             | PIP PR+           | R/C Button                        |
| 19             | Number Key 9   | R/C Button                              | 72             | PIP PR-           | R/C Button                        |
| ОВ             | INPUT          | R/C Button                              | 79             | ARC               | R/C Button                        |
| 98             | MULTIMEDIA     | R/C Button                              | 76             | ARC (4:3)         | Discrete IR Code (Only 4:3 mode)  |
| BF             | COMPONENT      | Discrete IR Code                        | 77             | ARC (16:9)        | Discrete IR Code (Only 16:9 mode) |
|                |                | (Input COMPONENT Selection)             | AF             | ARC (Zoom)        | Discrete IR Code (Only Zoom mode) |
| C6             | HDMI           | Discrete IR Code (Input HDMI Selection) | B5             | MARK              | R/C Button                        |
| D5             | RGB            | Discrete IR Code (Input RGB Selection)  | ВО             | PLAY              | R/C Button                        |
| D6             | TV             | Discrete IR Code (Input TV Selection)   | В1             | STOP              | R/C Button                        |
| 5A             | AV1            | Discrete IR Code (Input AV1 Selection)  | BA             | PAUSE             | R/C Button                        |
| D0             | AV2            | Discrete IR Code (Input AV2 Selection)  |                |                   |                                   |
| 1E             | FAV (Favorite) | R/C Button                              |                |                   |                                   |

### PROGRAMMING THE REMOTE

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

- To find out whether your remote can operate the device without programming, turn on the device such as a VCR and press the corresponding mode button on the remote.

  After that, press the POWER button. If the device is turned off then it responds properly and the remote need not to be programmed. If not, the remote should be programmed to operate the device. The programming procedures are explained below.
- Press the MENU and MUTE button continuously at the same time for 2 seconds, the current selected device button will be illuminated.

  If you don't press any button for 20 seconds, the light on the mode button will be turned off. In that case, you have to repeat from step 2.
- Enter code numbers using the number button on the remote by referring the code table on the following pages. When pressing the button, the light blinks at a time. If the device turned off, the programming is successful.
- Press the MENU button to store the code. After blinking twice, this code is stored.
- Test the remote functions to see if the device responds properly. If not, repeat from step 2.

# **PROGRAMMING CODES**

# **VCRs**

| Brand          | Cod | es  |     |     | Brand      | Cod | es  |     |     | Brand           | Cod | es  |     |      |
|----------------|-----|-----|-----|-----|------------|-----|-----|-----|-----|-----------------|-----|-----|-----|------|
| AIWA           | 034 |     |     |     | MAGNAVOX   | 031 | 033 | 034 | 041 | SAMSUNG         | 032 | 040 | 102 | 104  |
| AKAI           | 016 | 043 | 046 | 124 |            | 067 | 068 |     |     |                 | 105 | 107 | 109 | 112  |
|                | 125 | 146 |     |     | MARANTZ    | 012 | 031 | 033 | 067 |                 | 113 | 115 | 120 | 122  |
| AMPRO          | 072 |     |     |     |            | 069 |     |     |     |                 | 125 |     |     |      |
| ANAM           | 031 | 033 | 103 |     | MARTA      | 101 |     |     |     | SANSUI          | 022 | 043 | 048 | 135  |
| AUDIO DYNAMICS | 012 | 023 | 039 | 043 | MATSUI     | 027 | 030 |     |     | SANYO           | 003 | 007 | 010 | 014  |
| BROKSONIC      | 035 | 037 | 129 |     | MEI        | 031 | 033 |     |     |                 | 102 | 134 |     |      |
| CANON          | 028 | 031 | 033 |     | MEMOREX    | 003 | 010 | 014 | 031 | SCOTT           | 017 | 037 | 112 | 129  |
| CAPEHART       | 108 |     |     |     |            | 033 | 034 | 053 | 072 |                 | 131 |     |     |      |
| CRAIG          | 003 | 040 | 135 |     |            | 101 | 102 | 134 | 139 | SEARS           | 003 | 800 | 009 | 010  |
| CURTIS MATHES  | 031 | 033 | 041 |     | MGA        | 045 | 046 | 059 |     |                 | 013 | 014 | 017 | 020  |
| DAEWOO         | 005 | 007 | 010 | 064 | MINOLTA    | 013 | 020 |     |     |                 | 031 | 042 | 073 | 081  |
|                | 065 | 108 | 110 | 111 | MITSUBISHI | 013 | 020 | 045 | 046 |                 | 101 |     |     |      |
|                | 112 | 116 | 117 | 119 |            | 049 | 051 | 059 | 061 | SHARP           | 031 | 054 | 149 |      |
| DAYTRON        | 108 |     |     |     |            | 151 |     |     |     | SHINTOM         | 024 |     |     |      |
| DBX            | 012 | 023 | 039 | 043 | MTC        | 034 | 040 |     |     | SONY            | 003 | 009 | 031 | 052  |
| DYNATECH       | 034 | 053 |     |     | MULTITECH  | 024 | 034 |     |     |                 |     | 057 |     | 076  |
| ELECTROHOME    | 059 |     |     |     | NEC        | 012 | 023 | 039 | 043 |                 | 077 | 078 | 149 |      |
| EMERSON        | 006 | 017 | 025 | 027 |            | 048 |     |     |     | SOUNDESIGN      | 034 |     |     |      |
|                | 029 |     | 034 | 035 | NORDMENDE  | 043 |     |     |     | STS             | 013 |     |     |      |
|                |     | 037 | 046 | 101 | OPTONICA   | 053 | 054 |     |     | SYLVANIA        | 031 | 033 | 034 | 059  |
|                | 129 | 131 | 138 | 153 | PANASONIC  |     | 070 | 074 | 083 |                 | 067 |     |     |      |
| FISHER         | 003 | 800 | 009 | 010 |            | 133 | 140 | 145 |     | SYMPHONIC       | 034 |     |     |      |
| FUNAI          | 034 |     |     |     |            |     |     |     |     | TANDY           | 010 | 034 |     |      |
| GE             | 031 |     | 063 |     | PENTAX     | 013 | 020 | 031 | 033 | TATUNG          | 039 |     |     |      |
|                | 107 | 109 | 144 | 147 |            | 063 |     |     |     | TEAC            | 034 | 039 |     |      |
| GO VIDEO       | 132 | 136 |     |     | PHILCO     | 031 | 034 |     |     | TECHNICS        | 031 |     | 070 |      |
| HARMAN KARDOI  |     | 012 | 045 |     | PHILIPS    | 031 | 033 |     | 054 | TEKNIKA         | 019 | 031 | 033 | 034  |
| HITACHI        | 004 |     | 026 |     |            | 067 | 071 | 101 |     |                 | 101 |     |     |      |
|                |     | 063 | 137 | 150 | PILOT      | 101 |     |     |     | THOMAS          | 034 |     |     |      |
| INSTANTREPLAY  | 031 | 033 |     |     | PIONEER    | 013 | 021 | 048 |     | TMK             | 006 |     |     |      |
| JCL            | 031 |     |     |     | PORTLAND   | 108 |     |     |     | TOSHIBA         | 800 |     |     | 047  |
| JCPENNY        | 012 | 013 | 015 | 033 | PULSAR     | 072 |     |     |     |                 |     | 082 | 112 | 131  |
|                |     | 066 | 101 |     | QUARTZ     | 011 | 014 |     |     | TOTEVISION      |     | 101 |     |      |
| JENSEN         | 043 |     |     |     | QUASAR     |     | 066 |     |     | UNITECH         | 040 |     |     |      |
| JVC            |     |     | 033 |     | RCA        |     | 020 |     |     | VECTOR RESEARCH |     |     |     |      |
|                |     |     | 055 | 060 |            |     | 041 |     |     | VICTOR          | 048 |     |     |      |
|                |     | 150 |     |     |            |     | 109 | 140 | 144 | VIDEO CONCEPTS  |     | 034 | 046 |      |
| KENWOOD        |     |     | 039 | 043 | DEALICTIC  |     | 147 | 010 | 014 | VIDEOSONIC      | 040 | 017 | 017 | 024  |
| IC (COLDCTIC)  |     | 048 | 017 | 022 | REALISTIC  |     | 008 |     |     | WARDS           |     | 013 |     |      |
| LG (GOLDSTAR)  |     |     | 013 |     |            |     | 033 |     | 040 |                 |     | 033 |     | 040  |
| 110)/D         |     | 106 | 114 | 123 | DICO       |     | 054 | 101 |     | V4144114        |     | 054 |     | 0.47 |
| LLOYD          | 034 | 000 | 017 | 014 | RICO       | 058 |     |     |     | YAMAHA          |     | 034 |     | 043  |
| LXI            |     | 009 |     | 014 | RUNCO      | 148 |     |     |     | ZENITH          |     | 048 |     | 101  |
| MACINI         |     | 034 | 101 | 106 | SALORA     | 014 |     |     |     |                 | 058 | 0/2 | 080 | 101  |
| MAGIN          | 040 |     |     |     |            |     |     |     |     |                 |     |     |     |      |

# **PROGRAMMING CODES**

### CATV

| Brand          | Codes           | Brand              | Codes           | Brand        | Codes           |
|----------------|-----------------|--------------------|-----------------|--------------|-----------------|
| ABC            | 003 004 039 042 | LG (GOLDSTAR)      | 001 106 101 005 | SHERITECH    | 022             |
|                | 046 052 053     | M-NET              | 037             | SIGNAL       | 030             |
| AJIN           | 112             | MACOM              | 033             | SIGNATURE    | 052             |
| ANTRONIK       | 014             | MAGNAVOX           | 010 012 064 079 | SL MARX      | 030             |
| ARCHER         | 005 007 014 024 | MEMOREX            | 100             | SPRUCER      | 047 078         |
| CABLE STAR     | 026             | MOVIE TIME         | 028 032         | STARCOM      | 002 004 008 009 |
| CENTURION      | 092             | NSC                | 015 028 038 071 | STARGATE     | 008 030         |
| CENTURY        | 007             |                    | 073             | TADIRAN      | 030             |
| CITIZEN        | 007             | OAK                | 016 031 037 053 | TAEKWANG     | 110             |
| COLOUR VOICE   | 065 090         | PANASONIC          | 044 047         | TAIHAN       | 105             |
| COMBANO        | 080 081         | PARAGON            | 100             | TANDY        | 017             |
| COMTRONICS     | 019 030         | PHILIPS            | 006 012 013 020 | TEXSCAN      | 029             |
| DIAMOND        | 023             |                    | 065 085 090     | TOCOM        | 039 040 056     |
| EAGLE          | 020 030 040     | PIONEER            | 034 051 052 063 | TOSHIBA      | 100             |
| EASTERN        | 057 062 066     |                    | 076             | UNIKA        | 007 014 024     |
| ELECTRICORD    | 032             | POST NEWS WEEK     | 016             | UNITED CABLE | 004 053         |
| GE             | 072             | PRUCER             | 059             | UNIVERSAL    | 005 007 014 024 |
| GEMINI         | 008 022 025 054 | PTS                | 011 048 071 072 |              | 026 027 032 035 |
| GI             | 052 074         |                    | 073 074         | VIEWSTAR     | 012 015 018 086 |
| GOLDEN CHANNEL | 030             | PULSAR             | 100             |              | 087 088 089     |
| HAMLIN         | 049 050 055     | RCA                | 047             | ZENITH       | 100 114 060 093 |
| HITACHI        | 052 055         | REGAL              | 049 050         |              |                 |
| HOSPITALITY    | 070 077         | REGENCY            | 057             |              |                 |
| JERROLD        | 002 003 004 008 | REMBRANT           | 025             |              |                 |
|                | 009 010 052 069 | SAMSUNG            | 102 107 030 068 |              |                 |
|                | 074             | SCIENTIFIC ATLANTA | 003 011 041 042 |              |                 |
|                |                 |                    | 043 045 046     |              |                 |
|                |                 |                    |                 |              |                 |

# **HDSTB**

| Brand              | Cod | es  |     |     | Brand              | Cod | es  |     |     | Brand                | Cod | es  |     |     |
|--------------------|-----|-----|-----|-----|--------------------|-----|-----|-----|-----|----------------------|-----|-----|-----|-----|
| ALPHASTAR DSR      | 123 |     |     |     | HOUSTON TRACKER    | 033 | 037 | 039 | 051 | PROSAT               | 072 |     |     |     |
| AMPLICA            | 050 |     |     |     |                    | 057 | 104 |     |     | RCA                  | 066 | 106 |     |     |
| BIRDVIEW           | 051 | 126 | 129 |     | HUGHES             | 068 |     |     |     | REALISTIC            | 043 | 074 |     |     |
| CHANNEL MASTER     | 013 | 014 | 015 | 018 | JANIEL             | 060 | 147 |     |     | SAMSUNG              | 123 |     |     |     |
|                    | 036 | 055 |     |     | JERROLD            | 061 |     |     |     | SATELLITE SERVICE CO | 028 | 035 | 047 | 057 |
| CHAPARRAL          | 800 | 009 | 012 | 077 | KATHREIN           | 108 |     |     |     |                      | 085 |     |     |     |
| CITOH              | 054 |     |     |     | LEGEND             | 057 |     |     |     | SCIENTIFIC ATLANTA   | 032 | 138 |     |     |
| CURTIS MATHES      | 050 | 145 |     |     | LG                 | 001 |     |     |     | SONY                 | 103 |     |     |     |
| DRAKE              | 005 | 006 | 007 | 010 | LUTRON             | 132 |     |     |     | STARCAST             | 041 |     |     |     |
|                    | 011 | 052 | 112 | 116 | LUXOR              | 062 | 144 |     |     | SUPER GUIDE          | 020 | 124 | 125 |     |
|                    | 141 |     |     |     | MACOM              | 010 | 059 | 063 | 064 | TEECOM               | 023 | 026 | 075 | 087 |
| DX ANTENNA         | 024 | 046 | 056 | 076 |                    | 065 |     |     |     |                      | 088 | 090 | 107 | 130 |
| ECHOSTAR           | 038 | 040 | 057 | 058 | MEMOREX            | 057 |     |     |     |                      | 137 |     |     |     |
|                    | 093 | 094 | 095 | 096 | NEXTWAVE           | 028 | 124 | 125 |     | TOSHIBA              | 002 | 127 |     |     |
|                    | 097 | 098 | 099 | 100 | NORSAT             | 069 | 070 |     |     | UNIDEN               | 016 | 025 | 042 | 043 |
|                    | 122 |     |     |     | PACE SKY SATELLITE | 143 |     |     |     |                      | 044 | 045 | 048 | 049 |
| ELECTRO HOME       | 089 |     |     |     | PANASONIC          | 060 | 142 |     |     |                      | 078 | 079 | 080 | 086 |
| EUROPLUS           | 114 |     |     |     | PANSAT             | 121 |     |     |     |                      | 101 | 135 | 136 |     |
| FUJITSU            | 017 | 021 | 022 | 027 | PERSONAL CABLE     | 117 |     |     |     | VIEWSTAR             | 115 |     |     |     |
|                    | 133 | 134 |     |     | PHILIPS            | 071 |     |     |     | WINEGARD             | 128 | 146 |     |     |
| GENERAL INSTRUMENT | 003 | 004 | 016 | 029 | PICO               | 105 |     |     |     | ZENITH               | 081 | 082 | 083 | 084 |
|                    | 031 | 059 | 101 |     | PRESIDENT          | 019 | 102 |     |     |                      | 091 | 120 |     |     |
| HITACHI            | 139 | 140 |     |     | PRIMESTAR          | 030 | 110 | 111 |     |                      |     |     |     |     |

# DVD

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

# **PROGRAMMING CODES**

### Audio

| Brand          | Cod | ac _ |     |     | Brand     | Cod        | ۰.  |     |     | Brand      | Cod        | ٥٢ _       |            |      |
|----------------|-----|------|-----|-----|-----------|------------|-----|-----|-----|------------|------------|------------|------------|------|
|                |     |      |     |     |           |            |     |     |     |            |            |            |            |      |
| AIWA           |     |      | 070 |     | NAD       | 045        | 046 |     |     | SANYO      |            | 083        | 234        |      |
|                | 125 | 129  | 139 | 229 | LOTTE     | 014        | 016 | 036 |     | SCOTT      |            | 186        |            |      |
|                | 230 |      |     |     |           | 100        | 172 | 173 | 174 | SHARP      | 031        | 032        |            | 052  |
| AKAI           | 163 |      |     |     |           | 175        | 176 | 177 | 178 |            |            | 082        | 117        | 119  |
| ANAM           |     |      | 017 |     |           | 179        | 180 | 181 | 183 |            | 156        |            | 199        | 200  |
|                |     | 106  |     | 216 |           | 201        |     | 208 |     | CHEDWOOD   |            | 209        | 150        |      |
| DUDLACTED      | 217 | 235  | 236 |     |           | 214        | 219 | 223 | 232 | SHERWOOD   |            | 006        |            | 11.4 |
| BURMECTER      | 252 |      |     |     | LVI       |            | 240 |     |     | SONY       |            |            | 109        | 114  |
| CARVER         | 086 |      |     |     | LXI       | 103        |     |     |     | TAFIZWANIC | 118        | 126        | 248        | 249  |
| CLARION        | 199 | 057  | 060 | 004 | MAGNAVOX  | 111<br>002 | 010 | 020 | 025 | TAEKWANG   | 012        |            | 073<br>105 | 161  |
| DAEWOO         |     |      | 198 |     | MARANTZ   | 002        |     | 020 |     |            | 076<br>162 | 077<br>163 | 164        | 165  |
| DENON          |     |      | 130 |     |           | 097        |     | 001 | 090 |            | 166        | 167        | 168        | 169  |
| FANTASIA       | 071 | 0/3  | 150 | 143 | MCINTOSH  | 049        | 112 |     |     |            | 205        |            | 233        | 242  |
| FINEARTS       | 022 |      |     |     | MCS       | 104        |     |     |     | TEAC       | 010        |            | 106        |      |
| FISHER         | 089 | 099  |     |     | MEMOREX   | 107        |     |     |     | ILAC       | 185        | 187        | 237        | 150  |
| LG(GOLDSTAR)   | 001 |      | 024 | 029 | NAD       | 046        |     |     |     | TECHNICS   | 101        | 113        |            | 134  |
| 20(002231/111) | 087 |      | 108 |     | ONKYO     | 013        | 040 | 041 | 047 | 1201111103 | 147        |            | 0          | .5 . |
|                | 190 |      | 192 |     | G         |            | 056 |     |     | TOSHIBA    | 137        |            |            |      |
|                | 211 | 212  | 239 |     |           | 133        | 140 |     |     | THE        | 061        |            |            |      |
| HAITAI         | 034 | 035  | 188 | 222 | OPTIMUS   | 158        |     |     |     | VICTOR     | 088        | 131        |            |      |
| HARMAN/KARDON  | 068 |      |     |     | PANASONIC | 007        | 033 | 064 | 113 | WARDS      | 089        |            |            |      |
| INKEL          | 037 | 058  | 062 | 069 |           | 142        | 220 | 241 | 251 | YAMAHA     | 054        | 055        | 066        | 092  |
|                | 078 | 079  | 095 | 121 | PENNEY    | 104        |     |     |     |            | 199        |            |            |      |
|                | 122 | 149  | 150 | 151 | PHILIPS   | 026        | 112 | 143 |     |            |            |            |            |      |
|                | 152 | 153  | 154 | 155 | PIONEER   | 039        | 042 | 043 | 063 |            |            |            |            |      |
|                | 157 | 158  | 159 | 160 |           | 065        | 091 | 093 | 094 |            |            |            |            |      |
|                | 189 | 207  | 222 | 224 |           | 115        | 123 | 127 | 250 |            |            |            |            |      |
|                | 225 | 226  | 227 | 243 | QUASAR    | 113        |     |     |     |            |            |            |            |      |
|                | 247 |      |     |     | RCA       | 080        |     |     |     |            |            |            |            |      |
| JVC            | 004 |      | 141 |     | RCX       | 092        |     |     |     |            |            |            |            |      |
| KEC            | 185 | 186  | 187 |     | REALISTIC | 103        | 106 |     |     |            |            |            |            |      |
| KENWOOD        |     |      | 067 |     | SAMSUNG   | 124        | 145 | 146 |     |            |            |            |            |      |
|                |     |      | 197 | 206 |           | 193        |     | 195 |     |            |            |            |            |      |
| KOLIEI         | 215 | 222  |     |     | CANICIU   |            | 244 |     |     |            |            |            |            |      |
| KOHEL          | 030 |      |     |     | SANSUI    | 011        | 135 | 138 | 144 |            |            |            |            |      |
|                |     |      |     |     |           |            |     |     |     |            |            |            |            |      |

# TROUBLESHOOTING CHECKLIST

| The operation does not work normally. |  |  |  |  |  |  |
|---------------------------------------|--|--|--|--|--|--|
| The remote control<br>doesn't work    | <ul> <li>Check to see if there is any object between the set and the remote co trol causing obstruction.</li> <li>Are batteries installed with correct polarity (+ to +, - to -)?</li> <li>Correct remote operating mode set: TV, VCR etc.?</li> <li>Install new batteries.</li> </ul> |  |  |  |  |  |
| Power is suddenly<br>turned off       | <ul> <li>Is the sleep timer set?</li> <li>Check the power control settings. Power interrupted.</li> <li>No broadcast on station tuned with Auto off activated.</li> </ul>  |  |  |  |  |  |

| The operation does not                      | work normally.  |
|---|---|
| No picture & No sound                       | <ul> <li>Check whether the set is turned on.</li> <li>Try another programme. The problem may be with the broadcast.</li> <li>Is the power cord inserted into wall power outlet?</li> <li>Check your antenna direction and/or location.</li> <li>Test the wall power outlet, plug another set's power cord into the outlet where the set's power cord was plugged in.</li> </ul> |
| Picture appears slowly after switching on   | ■ This is normal, the image is muted during the set startup process. Please contact your service center, if the picture has not appeared after five minutes.  |
| No or poor colour<br>or poor picture        | <ul> <li>Adjust Colour in menu option.</li> <li>Keep a sufficient distance between the set and the VCR.</li> <li>Try another programme. The problem may be with the broadcast.</li> <li>Are the video cables installed properly?</li> <li>Activate any function to restore the brightness of the picture.</li> </ul>  |
| Horizontal/vertical bars or picture shaking | ■ Check for local interference such as an electrical appliance or power tool.   |
| Poor reception on some channels             | <ul> <li>Station or cable set experiencing problems, tune to another station.</li> <li>Station signal is weak, reorient antenna to receive weaker station.</li> <li>Check for sources of possible interference.</li> </ul>  |
| Lines or streaks<br>in pictures             | ■ Check antenna (Change the direction of the antenna).  |

# TROUBLESHOOTING CHECKLIST

| The audio function does not work.  |   |  |  |  |  |  |
|------------------------------------|---|--|--|--|--|--|
| Picture OK & No sound              | <ul> <li>■ Press the VOL ▲ / ▼ button.</li> <li>■ Sound muted? Press MUTE button.</li> <li>■ Try another programme. The problem may be with the broadcast.</li> <li>■ Are the audio cables installed properly?</li> </ul> |  |  |  |  |  |
| No output from one of the speakers | ■ Adjust Balance in menu option.  |  |  |  |  |  |
| Unusual sound from inside the set  | A change in ambient humidity or temperature may result in an unusual noise<br>when the set is turned on or off and does not indicate a fault with the set.  |  |  |  |  |  |

| There is a problem in PC  | C mode. (Only PC mode applied)   |
|---|--|
|   | ■ Adjust resolution, horizontal frequency, or vertical frequency.              |
| The signal is out of range  | ■ Check the input source.  |
| Vertical bar or stripe on<br>background &<br>Horizontal Noise &<br>Incorrect position | ■ Work the Auto configure or adjust clock, phase, or H/V position. (Option)    |
| Screen colour is unstable or single colour  | <ul><li>Check the signal cable.</li><li>Reinstall the PC video card.</li></ul> |

### **MAINTENANCE**

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

### **Cleaning the Screen**

- 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.
- Make sure the excess water is off the screen, and then let it air-dry before you turn on your set.

### **Cleaning the Cabinet**

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

#### **Extended Absence**

### **A** CAUTION

▶ If you expect to leave your set 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**

| MODE   | ıs  | 42PC1RR*   | 50PB2RR*  |  |  |
|--|---|--|---|--|--|
| , wool   |   | 42PC1RR-TL   | 50PB2RR-TL  |  |  |
| Dimensions<br>(Width x Height x Depth)   | with stand                                  | 1129.0 x 748.5 x 380.0 mm<br>44.5 x 29.5 x 15.0 inches | 1382 x 913 x 377 mm<br>54.4 x 36.0 x 14.9 inches    |  |  |
| (width x fieight x Deptin)   | without stand                               | 1129.0 x 695.0 x 108.9 mm<br>44.5 x 27.4 x 4.3 inches  | 1382 x 848.5x 125 mm<br>54.4 x 33.4 x 4.9 inches    |  |  |
| Weight   | including stand excluding stand             | 29.1kg/64.2 lbs<br>25.6kg/56.5 lbs                     | 62.2 kg/137.1 lbs<br>49.2 kg/108.5 lbs              |  |  |
| Power requirement Power consumption Television System External Antenna Impedance |   | 310 W<br>PAL/SECAM B/G/D/F                             | V~ 50/60Hz<br>450W<br>K, PAL I/II, SECAM L/Ľ<br>5 Ω |  |  |
| Environment condition  | Operating Temperature<br>Operating Humidity | 0 ~ 40°C / 32 ~ 104°F<br>Less than 80%                 |   |  |  |
|  | Storage Temperature<br>Storage Humidity     | -20 ~ 60°C / -4 ~ 140°F<br>Less than 85%               |   |  |  |

<sup>■</sup> The specifications shown above may be changed without prior notice for quality improvement.

# **PRODUCT SPECIFICATIONS**

| MODE   | ıc  | 37LC2RR*  | 42LC2RR*   |  |  |
|--|---|---|--|--|--|
| MODE   | LS  | 37LC2RR-TL  | 42LC2RR-TL                                       |  |  |
| Dimensions   | with stand                                  | 944.0 x 729 x 286 mm<br>37.1 x 28.7 x 11.2 inches             | 1054 x 813 x286 mm<br>41.4 x 32x 11.2 inches     |  |  |
| (Width x Height x Depth)   | without stand                               | 944.0 x 659.3 x 129.7 mm<br>37.1 x 26 x 5.1 inches            | 1054 x 746 x 136.8mm<br>41.4 x 29.3 x 5.3 inches |  |  |
| Weight   | including stand excluding stand             | 30.4 kg/67.0 lbs<br>25.9 kg /57.1 lbs                         | 42.3kg/93.2 lbs<br>35.7kg/78.7 lbs               |  |  |
| Power requirement  |   | AC100-240   | V~ 50/60Hz                                       |  |  |
| Power consumption<br>Television System<br>External Antenna Impedance |   | 200W 250W PAL/SECAM B/G/D/K, PAL I/II, SECAM L/L' 75 $\Omega$ |  |  |  |
| Environment condition  | Operating Temperature<br>Operating Humidity | 0 ~ 40°C / 32 ~ 104°F<br>Less than 80%                        |  |  |  |
|  | Storage Temperature<br>Storage Humidity     |   | / -4 ~ 140°F<br>an 85%                           |  |  |

<sup>■</sup> The specifications shown above may be changed without prior notice for quality improvement.