

LG Electronics Inc.

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LCD TV OWNER'S MANUAL

LCD TV MODELS 37LC3R 42LC3R

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



P/NO : 38289U0577L (0702-REV03) Printed in Korea

IMPORTANT SAFETY INSTRUCTIONS

Important safety instructions shall be provided with each apparatus. This information shall be given in a separate booklet or sheet, or be located before any operating instructions in an instruction for installation for use and supplied with the apparatus.

This information shall be given in a language acceptable to the country where the apparatus is intended to be used.

The important safety instructions shall be entitled "Important Safety Instructions". The following safety instructions shall be included where applicable, and, when used, shall be verbatim as follows. Additional safety information may be included by adding statements after the end of the following safety instruction list. At the manufacturer's option, a picture or drawing that illustrates the intent of a specific safety instruction may be placed immediately adjacent to that safety instruction :

WARNING

Read these instructions.

Keep these instructions. Heed all warnings.

Follow all instructions.



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

This may cause a fire.





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

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





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

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



Earth wire should be connected.

If the earth wire is not connected, there is possible a danger of electric shock caused by the current leakage.

If grounding methods are not possible, a separate circuit breaker should be employed and installed by a qualified electrician.

Do not connect ground to telephone wires, lightning rods or gas pipe.



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

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



Wet Location Marking :

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



Do not insert any object into the exhaust vent.

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



Do not place heavy objects on the product.

WARNING

IMPORTANT SAFETY INSTRUCTIONS

/ WARNING



Do not use water the product while cleaning.

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



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

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

Do not attempt to service the product your-M self. Contact your dealer or service center.

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





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

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





Never touch the power plug with a wet hand.

This may cause an electric shock.



Disconnect from the mains and remove all connections before moving.



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

Ventilation required.

4

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

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

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

This may cause an electric shock.



There should be enough distance between an outside antenna and power lines to keep the former from touching the latter even when the antenna falls.

This may cause an electric shock.



This may cause a fire.



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

Ensure the power cord doesn't trail across

13

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

Accumulated dust can cause mechanical failure.

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

If not, eyes will strain.

Unplug the product from the wall outlet when it is left unattended and unused for long periods

Accumulated dust may cause a fire or an electric shock from deterioration or electric leakage.

Only use the specified batteries.

This make cause damaged the product or could give an

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INTRODUCTION

ACCESSORIES

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



Owner's Manual



2-TV Bracket Bolts



Batteries (some models)



2-TV Brackets, 2-Wall Brackets



Remote Control



Cable Management (Refer to p.10)







Twister Holder Arrange the wires with the twister holder.



RF Adapter You must connect it to the antenna wire after fixing in Antenna Input. This adapter is only supplied in Argentina.



Polishing Cloth Polish the screen with the cloth.

- * Slightly wipe stained spot on the exterior only with the polishing cloth for the product exterior if there is stain or fingerprint on surface of the exterior.
- * Do not wipe roughly when removing stain. Please be cautions of that excessive power may cause scratch or discoloration.

INTRODUCTION

CONTROLS

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

Front Panel Controls



Power Standby Indicator

Illuminates red in standby mode.

Illuminates white when the set is switched on.

CONNECTION OPTIONS

Back Connection Panel



AV OUT

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L(MONO) R

 \bigcirc

 \bigcirc \bigcirc



Connect your wired remote control.

HDMI IN

2

1 (DVI)

۲

IN 1

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 \bigcirc

S-VIDEO VIDEO

RS-232C IN (CONTROL&SERVICE)

4

HDMI IN

REMOT

IN

6

CONTRO

Connect a HDMI signal. Or DVI(VIDEO) signal to the this port with a DVI to HDMI cable.

3 RGB/AUDIO IN

Connect the output from a settop box or PC to the appropriate input port.

ORS-232C IN (CONTROL & SERVICE) PORT Connect to the RS-232C port on a PC.

S AV (Audio/Video) IN 1

Connect audio/video output from an external device to these jacks. **S-VIDEO** Connect S-Video out from an S-VIDEO device.

6 AV OUT

Connect a second TV or monitor.

COMPONENT IN

COMPONENT IN

 $\bigcirc \bigcirc \bigcirc \bigcirc$

Connect a component video/audio device to these jacks.

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 \bigcirc

 \bigcirc

() 2

1

13 VARIABLE AUDIO OUT

Connect an external amplifier or add a subwoofer to your surround sound system.

ANTENNA IN

Connect over-the air signals to this jack.

Power Cord Socket For operation with AC power.

Caution: Never attempt to operate the TV on DC power.

INTRODUCTION

REMOTE CONTROL KEY FUNCTIONS

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



MODE Selects the remote operating mode: TV, VCR, DVD.

PIP Switches the sub picture PIP, DW mode. ▶ p.27

SIZE Adjusts the sub picture size. > p.28

POSITION Moves the sub picture. **p.28**

PIP CH - /+ Selects a channel for the sub picture. ▶ p.27

SWAP Exchanges the main/sub images in PIP/Double window mode.

PIP INPUT Select the connected input source for the sub-picture. ▶ p.27

VCR/DVD Control video cassette recorders or DVD players. control buttons

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

NUMBER button

★ Not functional

FCR Scroll through the programmed Favorite channels.

Installing Batteries



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

Remote control effective range



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

INSTALLATION

WIRE ARRANGEMENT

1

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

Push the CABLE MANAGEMENT downward.



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.

ATTACHING THE TV TO A WALL

We recommend that you set up the TV close to a wall so it cannot fall over if pushed backwards. Additionally, we recommend that the TV be attached to a wall so it cannot be pulled in a forward direction, potentially causing injury or damaging the product.

Caution: Please make sure that children don't climb on or hang from the TV.





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

DESKTOP PEDESTAL INSTALLATION

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



CAUTION

Ensure adequate ventilation by following the clearance recommendations.

ANTENNA CONNECTION



- To improve the picture quality in a poor signal area, please purchase a signal amplifier and install properly.
- If the antenna needs to be split for two TV's, install a 2-Way Signal Splitter.
- If the antenna is not installed properly, contact your dealer for assistance.

NOTE

▶ The TV will let you know when the analog and cable channel scans are complete.

VCR SETUP

- To avoid picture noise (interference), leave an adequate distance between the VCR and TV
- If the 4:3 picture format is used; the fixed images on the sides of the screen may remain visible on the screen. This phenomenon is common to all manufactures and in consequence the manufactures warranty does not cover the product bearing this phenomenon.

When connecting with an antenna



1. How to connect



Connect the antenna cable to the RF antenna in socket of the VCR.

2. How to use

2

- Set VCR output switch to 3 or 4 and then tune TV to the same channel number.
- Insert a video tape into the VCR and press PLAY on the VCR. (Refer to the VCR owner's manual.)

When connecting with a RCA cable

1. How to connect



Connect the **AUDIO/VIDEO** jacks between TV and VCR. Match the jack colors (Video = yellow, Audio Left = white, and Audio Right = red)

2. How to use

- 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.
- If connected to AV IN2, select AV2 input source.

When connecting with an S-Video cable

1. How to connect



Connect the S-VIDEO output of the VCR to the S-VIDEO input on the set.



Connect the audio outputs of the VCR to the **AUDIO** input jacks on the set.

2. How to use

- 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.
- If connected to AV IN2, select AV2 input source.

NOTE

The picture quality is improved: compared to normal composite (RCA cable) input.



NOTE

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



ACAUTION

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

EXTERNAL EQUIPMENT CONNECTIONS

1. How to connect

Connect the **AUDIO/VIDEO** jacks between TV and external equipment. Match the jack colors. (Video = yellow, Audio Left = white, and Audio Right = red)

2. How to use

1

- Select AV1 input source with using the INPUT button on the remote control.
- If connected to AV IN2 input, select AV2 input source.
- Operate the corresponding external equipment.



EXTERNAL STEREO

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

1. How to connect



Connect the input jack of the stereos 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.

NOTE

 When connecting with external audio equipments, such as amplifiers or speakers, please turn the TV speakers off.
 (▶ p.47)



AV OUT SETUP

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

1. How to connect



Connect the second TV or monitor to the TV's **AV OUT** jacks.



See the Operating Manual of the second TV or monitor for further details regarding that device's input settings.

NOTE

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



DVD SETUP

When connecting with a component cable

1. How to connect



Connect the video outputs (Y, PB, PR) of the DVD to the **COMPONENT IN VIDEO1** jacks on the set. Match the jack colors

(Y = green, PB = blue, and PR = red).



Connect the audio outputs of the DVD to the **COMPONENT IN AUDIO1** jacks on the set.

2. How to use

- Turn on the DVD player, insert a DVD.
- Select COMPONENT 1 input source with using the INPUT button on the remote control.
- If connected to COMPONENT IN 2 input, select COM-PONENT 2 input source.
- Refer to the DVD player's manual for operating instructions.



Component Input ports

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

Component ports on the TV	Y	Рв	PR
	Y	Рв	PR
Video output ports	Y	B-Y	R-Y
on DVD player	Y	СЬ	Cr
	Y	Pb	Pr

When connecting with an S-Video cable

1. How to connect



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.

2. How to use

- Turn on the DVD player, insert a DVD.
- Select AV1 input source with using the INPUT button on the remote control.
- If connected to AV IN2, select AV2 input source.
- Refer to the DVD player's manual for operating instructions.

When connecting HDMI cable

1. How to connect



Connect the HDMI output of the DVD to the HDMI IN 1 (DVI) or 2 jack on the set.



No separated audio connection is necessary.

2. How to use

- Select HDMI1/DVI or HDMI2 input source with using the INPUT button on the remote control.
- Refer to the DVD player's manual for operating instructions.

NOTE

- ▶ If the DVD supports Auto HDMI function, the DVD output resolution will be automatically set to 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.





HDSTB SETUP

When connecting with a component cable

1. How to connect



Connect the video outputs (Y, PB, PR) of the digital set top box to the **COMPONENT IN VIDEO 1** jacks on the set. Match the jack colors (Y = green, PB = blue, and PR = red).

2

Connect the audio output of the digital set-top box to the **COMPONENT IN AUDIO 1** jacks on the set.

2. How to use

- Turn on the digital set-top box.
 (Refer to the owner's manual for the digital set-top box.)
- Select COMPONENT 1 input source with using the INPUT button on the remote control.
- If connected to COMPONENT IN2 input, select COMPONENT 2 input source.

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



When connecting with a D-sub 15 pin cable

1. How to connect



Connect the RGB output of the digital set-top box to the RGB (PC/DTV) jack on the set.



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

2. How to use

- Turn on the digital set-top box.
 (Refer to the owner's manual for the digital set-top box.)
- Select RGB-DTV input source with using the INPUT button on the remote control.

When connecting with a HDMI cable

1. How to connect



Connect the digital set-top box to **HDMI IN 1 (DVI)** or **2** jack on the set.



No separated audio connection is necessary.

2. How to use

- Turn on the digital set-top box.
 (Refer to the owner's manual for the digital set-top box.)
- Select HDMI1/DVI or HDMI2 input source with using the INPUT button on the remote control.

NOTE

- If the digital set-top box supports Auto HDMI function, the output resolution of the source device will be automatically set to 1280x720p.
- ▶ If the digital set-top box player does not support Auto HDMI, you need to set the output resolution appropriately.

To get the best picture quality, adjust the output resolution of the source device to 1280x720p.





CONNECTIONS & SETUP

When connecting with a HDMI to DVI cable

1. How to connect



Connect the DVI output of the digital set-top box to the **HDMI IN 1 (DVI)** jack on the set.



Connect the audio output of the digital set-top box to the **AUDIO(RGB/DVI)** jack on the set.

2. How to use

- Turn on the digital set-top box. (Refer to the owner's manual for the digital set-top box.)
- Select HDMI1/DVI input source with using the INPUT button on the remote control.



PC SETUP

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

When connecting with a D-sub 15 pin cable

1. How to connect



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

2

Connect the PC audio output to the **AUDIO** (**RGB/DVI**) jack on the set.

2. How to use

- Turn on the PC and the set.
- Select RGB-PC input source with using the INPUT button on the remote control.

NOTE

Check the image on your TV. There may be noise associated with the resolution, vertical pattern, contrast or brightness in PC mode. If noise is present, change the PC output to another resolution, change the refresh rate to another rate or adjust the brightness and contrast on the VIDEO menu until the picture is clear. If the refresh rate of the PC graphic card can not be changed, change the PC graphic card.



When connecting HDMI to DVI cable

1. How to connect



Connect the DVI output of the PC to the **HDMI IN 1 (DVI)** jack on the set.



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

2. How to use

- Turn on the PC and the set
- Select HDMI1/DVI input source with using the INPUT button on the remote control.



NOTE

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

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 INPUT(PC INPUT) port of the set; change the resolution output of PC accordingly.
- There might be a noise according to some resolution, vertical pattern, contrast or brightness in PC mode. Then change the PC mode into other resolution or change the refresh rate into other 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 form for Horizontal and Vertical frequencies is separate.
- 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 audio cable from the PC to the Audio input on the set. (Audio cables are not included with the set).
- 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.

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

Resolution	Horizontal Frequency(KHz)	Vertical Frequency(Hz)
640x480	31.469 37.500	59.94 75.00
720x400	31.469	70.08
800x600	37.879 46.875	60.31 75.00
832x624	49.725	74.55
1024x768	48.363 56.476 60.023	60.00 70.06 75.02
1280x768	47.693	59.99
1360x768	47.700	60.00
1366x768	47.700	60.00

BASIC OPERATION

TURNING THE TV ON



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

CHANNEL SELECTION



Press the CH +/- or NUMBER buttons to select a channel number.

VOLUME ADJUSTMENT

Adjust the volume to suit your personal preference.



Press the **VOL +/-** button to adjust the volume.



3

If you want to switch the sound off, press the MUTE button.

You can cancel the Mute function by pressing the **MUTE**, **VOL +/-** or **MTS** button.

NOTE

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



BASIC OPERATION

ON-SCREEN MENUS LANGUAGE SELECTION

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



Press the **MENU** button and then use \blacktriangle or \blacktriangledown button to select the **SPECIAL** menu.

Press the \blacktriangleright button and then use \blacktriangle or \blacktriangledown button to select Language.

Press the \blacktriangleright button and then use \blacktriangle or \blacktriangledown button to select your desired language. From this point on, the on-screen menus will be shown in the selected language.



Press the **EXIT** button to return to TV viewing or press **MENU** to return to the previous menu.

SPECIAL FUNCTIONS | PIP / DOUBLE WINDOW / POP

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

Double Window mode splits the screen into two images, allowing two picture sources to be shown on the TV screen at the same time. Each source is given half the screen.

Watching PIP/Double Window/POP

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



TV Program Selection for PIP

1

Use the PIP CH +/- button to select a channel for the sub picture.

The selected channel number is displayed just below the input source of main picture.

Selecting an Input Signal Source for PIP/Double Window

Use the **PIP INPUT** button to select the input source for the sub picture. Each press of **PIP INPUT** button changes the PIP source.

Main Picture Source	Available Sub Picture Sources		
	PIP/DW	РОР	
TV	All		
AV1	All (Except AV1)		
AV2	All (Except AV2)		
Component1	All (Except Component1)	тν	
Component2	All (Except Component2)	1 1	
RGB	All (Except RGB)		
HDMI1/DVI	All (Except HDMI1/DVI, HDMI2)		
HDMI2	All (Except HDMI1/DVI, HDMI2)		

SPECIAL FUNCTIONS | PIP / DOUBLE WINDOW / POP

Sub Picture Size Adjustment (PIP mode only)

Press the **SIZE** button to adjust the sub picture size. With **SIZE** button in PIP mode, sub picture is adjusted.

Moving the Sub Picture (PIP mode only)

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

Swapping the PIP/Double Window

Use the SWAP button to switch the main and sub pictures.

Adjusting PIP Transparency (PIP mode only)



Press the **MENU** button and then \blacktriangle or \blacktriangledown button to select the **SCREEN** menu.



Press the \blacktriangleright button and then \blacktriangle or \blacktriangledown button to select **PIP Transparency**.



Press the \blacktriangleright button and then \blacktriangleleft or \blacktriangleright button to adjust **PIP Transparency**.

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



0



POP (Picture-out-of-Picture : Channel Scan)

Use POP to search the programs of all the memorized channels one-by-one on the 3 PIP screen display, (while the main picture source remains the current channel). The pictures of all the programmed channels are searched with the 3 POP screens. When watching TV for main picture, same TV channel for sub pictures are scanned.





TV MENU

NEED Prev

ON SCREEN MENUS SELECTION AND ADJUSTMENT

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



IIII Prev

TELE Prev

TV MENU | SETUP (CHANNEL)

AUTO PROGRAM: CHANNEL SEARCH

Auto Program should be used to memorize all the active channels in your area before you are able to use the TV.

There are two ways of storing channels in the TV's memory. You can use either.

One is called AUTO PROGRAM and the other is called MANUAL PROGRAM.

In AUTO PROGRAM mode, the TV will memorize the channels in ascending numerical order. If there are additional channels you want to add or delete, you can manually add or delete those channels with Manual Program.

- Redo Auto Program if the TV is ever moved to another location.
- Auto Program will search for channels only through the Antenna jack.
- If channels numbers for broadcast over-the air TV and cable TV are duplicated where different channels have the same number, press the same number buttons again to toggle between:

Broadcast TV Channels **Cable TV Channels**

(For example, press 17 to go to the channel, press 17 again to go to the duplicated channel.)

select the CHANNEL menu.

Press the \blacktriangleright button and then \blacktriangle or \blacktriangledown button to select Auto program.

Press the **MENU** button and then \blacktriangle or \blacktriangledown button to



2

Press the button. Auto program starts the channel search.



If you want to stop auto programming, press the MENU button.

Only the channels found up to at that time are memorized.





Auto program

MEND Prev

Manual program Favorite channel



23

MANUAL PROGRAM : ADDING/DELETING CHANNELS

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



Use the **CH-/+** or NUMBER buttons to select the channel number you want to add or delete.



3

Press the **MEMORY/ERASE** button.

Press the **MEMORY/ERASE** button to select **Memory** or **Erase**.

Press the ENTER button.

• You can also use the Channel menu to adjust Manual program.





TV MENU | SETUP (CHANNEL)

FINE TUNING ADJUSTMENT

Normally fine tuning is only necessary if reception is poor. To remove fine tuning from a channel, reprogram the finely-tuned channel with Auto program or Manual Program. If a finely-tuned channel is memorized, the color of the channel number changes to yellow.



Auto program

Manual program

2



Press the **MENU** button and then \blacktriangle or \blacktriangledown button to select the **CHANNEL** menu.



Press the \blacktriangleright button and then \blacktriangle or \blacktriangledown button to select **Manual program**.



Press the \blacktriangleright button and then \blacktriangle or \blacktriangledown button to select **Fine**.



3

Press the \blacktriangleleft or \blacktriangleright button to adjust the picture to your preference.



Press the **ENTER** button to store it.



Press the **EXIT** button to return to TV viewing or press the **MENU** button to return to the previous menu.



HANNEL

PICTURE

SOUND





BOOSTER

If the reception is poor at the fringe area of TV signal, select **Booster** to **on**.





MIND Prev

TV MENU | SETUP (CHANNEL)

FAVORITE CHANNELS SETUP

Favorite Channels is a convenient feature that lets you quickly scan up to 8 channels of your choice without having to wait for the TV to scan through all the in-between channels.

To tune to a favorite channel, press the **FCR** (Favorite Channel Review) button repeatedly. The 8 favorite channels appear on the screen in numerical order.





6

1

Press the \blacktriangleright button and then \blacktriangle or \triangledown button to select **Favorite Channel**.

Press the **MENU** button and then \blacktriangle or \blacktriangledown button to

select the CHANNEL menu.

- Press the \blacktriangleright button and then \blacktriangle or \blacktriangledown button to select the first favorite channel position.
- Use the \blacktriangleleft or \blacktriangleright button to set the desired channel number for first favorite channel.
- **5** Press the **EXIT** button to return to normal TV viewing.
 - Repeat steps 3 to 5 to memorize other favorite channels.





2345
TV MENU PICTURE ADJUSTMENT

AUTO PICTURE CONTROL (APC)

APC adjusts the TV for the best picture appearance. Select the preset value in the APC menu based on the program category. Clear, Optimum, Soft Settings are preset for optimum picture quality at the factory and are not adjustable. In the User1 and User2 modes only, you can directly adjust the contrast, brightness, color, sharpness, tint.





Press the **MENU** button and then \blacktriangle or \blacktriangledown button to select the **PICTURE** menu.

Press the \blacktriangleright button and then \blacktriangle or \blacktriangledown button to select **APC**.



4

2

Press the \blacktriangleright button and then \blacktriangle or \triangledown button to select **Clear**, **Optimum**, **Soft**, **User1** or **User2**.

Press the **EXIT** button to return to TV viewing or press the **MENU** button to return to the previous menu.



CHANNEL	АРС	•	√ Clear	
PICTURE	ACC		Optimum	
SOUND	хD		Soft	
6 TIMER	Advanced		User1	
SPECIAL	Reset		User 2	
SCREEN				
METO Prev				
				25

TV MENU / PICTURE ADJUSTMENT

TV MENU | PICTURE ADJUSTMENT

MANUAL PICTURE CONTROL (APC-USER OPTION)

Adjust the picture appearance to suit your preference and viewing situations.





Press the **MENU** button and then \blacktriangle or \blacktriangledown button to select the **PICTURE** menu.



Press the \blacktriangleright button and then \blacktriangle or \checkmark button to select **APC**.



Press the \blacktriangleright button and then \blacktriangle or \checkmark button to select User 1 or User 2.



Press the \blacktriangleright button and then \blacktriangle or \triangledown button to select the desired picture option (**Contrast**, **Brightness**, **Color**, **Sharpness**, and **Tint**).



6

TV MENU / PICTURE ADJUSTMENT

Press the \blacktriangleright button and then \blacktriangleleft or \blacktriangleright button to make appropriate adjustments.

Press the **EXIT** button to return to TV viewing or press the **MENU** button to return to the previous menu.

NOTE

▶ In RGB-PC and HDMI-PC mode, you can't adjust color, sharpness and tint to the levels you prefer.









AUTO COLOR TEMPERATURE CONTROL (ACC)

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

1

2

3

4

ACC.



MEED Prev

TV MENU / PICTURE ADJUSTMENT

23

TV MENU | PICTURE ADJUSTMENT

MANUAL COLOR TEMPERATURE CONTROL (ACC - USER OPTION)

You can also adjust the detailed settings (Red, Green, Blue) by selecting the **user** menu.





Press the **MENU** button and then \blacktriangle or \blacktriangledown button to select the **PICTURE** menu.



Press the \blacktriangleright button and then \blacktriangle or \blacktriangledown button to select ACC.



4

Press the \blacktriangleright button and then \blacktriangle or \blacktriangledown button to select **User**.



Press the \blacktriangleright button and then \blacktriangle or \blacktriangledown button to select **Red**, **Green**, or **Blue**.



Press the \blacktriangleright button and then \blacktriangleleft or \blacktriangleright button to make appropriate adjustments.

■ The adjustment range of **RGB**, **Green**, or **Blue** is -40 ~ +40.



Press the **EXIT** button to return to TV viewing or press the **MENU** button to return to the previous menu.









XD

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

When selecting APC options (Clear, Optimum and Soft), XD is automatically changed to Auto.

When selecting APC options (User 1 and User 2), you can choose the Auto / Manual.

When selecting the Manual, you can adjust the XD Contrast, XD color, XD NR, and MPEG NR.

It's not available to use this function in RGB-PC, HDMI-PC mode.



Press the **MENU** button and then use \blacktriangle or \blacktriangledown button to select the **PICTURE** menu.



3)

Press the \blacktriangleright button and then use \blacktriangle or \blacktriangledown button to select XD.

Press the \blacktriangleright button and then use \blacktriangle or \checkmark button to select **Auto** or **Manual**.

Selecting the Manual

- Press the ► button and then use ▲ or ▼ button to select XD Contrast, XD Color or XD NR (Noise), MPEG NR.
 - XD Contrast: Optimizing the contrast automatically according to the brightness of the reflection.
 - XD Color: Adjusting the colors of the reflection automatically to reproduce as closely as possible to the natural colors.
 - **XD NR (Noise)** : Removing the noise up to the point where it does not damage the original picture.
 - MPEG NR : To reduce the picture noise which may appear on the screen during watching the TV.
- Press the ► button and then ◄ or ► button to make appropriate adjustments.

Press **EXIT** button to return to TV viewing or press **MENU** button to return to the previous menu.







TV MENU / PICTURE ADJUSTMENT

TV MENU | PICTURE ADJUSTMENT

ADVANCED-CINEMA MODE SETUP

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

When you operate Cinema (3:2 Pull-Down Mode or Cinema Correction Mode), the TV will adjust 24 fps video from movies to 30 fps video for display.

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





Press the **MENU** button and then \blacktriangle or \blacktriangledown button to select the **PICTURE** menu.



Press the \blacktriangleright button and then \blacktriangle or \blacktriangledown button to select **Advanced**.



Press the \blacktriangleright button and then \blacktriangle or \blacktriangledown button to select **Cinema**.



TV MENU / PICTURE ADJUSTMENT

Press the \blacktriangleleft or \blacktriangleright button to select **On** or **Off**.



Press the **EXIT** button to return to TV viewing or press the **MENU** button to return to the previous menu.



MILLO Prev

CHANNEL

SPECIAL

SCREEN

APC

ACC

XD Advanced

Reset

ADVANCED-BLACK LEVEL

Adjusting the contrast and the brightness of the screen using the black level of the screen.

This feature operates only in AV (NTSC-M) or HDMI mode.





Press the **MENU** button and then \blacktriangle or \blacktriangledown button to select the **PICTURE** menu.

2

Press the \blacktriangleright button and then \blacktriangle or \blacktriangledown button to select **Advanced**.



Press the \blacktriangleright button and then \blacktriangle or \blacktriangledown button to select **Black Level**.



Press the \blacktriangleleft or \blacktriangleright button to select Low or High.

■ Auto

Realizing the black level of the screen and set it to high or low automatically.

■ Low

The screen gets darker.

High

The screen gets brighter.



Press the **EXIT** button to return to TV viewing or press the **MENU** button to return to the previous menu.





TV MENU / PICTURE ADJUSTMENT

TV MENU | PICTURE ADJUSTMENT

RESET

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





Press the **MENU** button and then \blacktriangle or \blacktriangledown button to select the **PICTURE** menu.

	2

Press the \blacktriangleright button and then \blacktriangle or \blacktriangledown button to select **Reset**.



Press the ► button to initialize the adjusted value.

• Returns to the default settings APC, ACC, XD, Advanced at the factory.





TV MENU SOUND ADJUSTMENT

DIGITAL AUTO SOUND PROCESSING (DASP)

DASP lets you enjoy the best sound without any special adjustment because the TV sets the appropriate sound options based on the program content.

Surround MAX, **Flat**, **Music**, **Movie**, and **Sports** are preset for good sound quality at the factory and are not adjustable.

Surround	MAX	Select this option to sound realistic.					
Flat	The mo	The most commanding and natural audio.					
Music	Select this option to enjoy the original sound when listening to the music.						
Movie	Select this option to enjoy sublime sound.						
Sports	Select this option to watch sports broadcasting.						
User	Select f	this option to use the user-defined audio					
	settings	S.					





TV MENU / SOUND ADJUSTMENT



Press the **MENU** button and then \blacktriangle or \blacktriangledown button to select the **SOUND** menu.



3

Press the \blacktriangleright button and then \blacktriangle or \triangledown button to select **DASP**.

Press the ► button and then ▲ or ▼ button to select Surround MAX, Flat, Music, Movie, Sports or User.



Press the **EXIT** button to return to TV viewing or press the **MENU** button to return to the previous menu.



IIII Prev

CHANNEL

PICTURE

SOUND

TIMER

SPECIAL SCREEN DASP

AVL

Balance

Speake

26

TV MENU | SOUND ADJUSTMENT

MANUAL SOUND CONTROL (DASP - USER OPTION)

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





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1
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Press the **MENU** button and then \blacktriangle or \blacktriangledown button to select the **SOUND** menu.



Press the \blacktriangleright button and then \blacktriangle or \checkmark button to select **DASP**.



Press the \blacktriangleright button and then \blacktriangle or \blacktriangledown button to select **User**.



Press the \blacktriangleright button and then \blacktriangle or \blacktriangledown button to select the desired sound option (**Treble** or **Bass**).



Press the \blacktriangleright button and then use \blacktriangleleft or \blacktriangleright button to make appropriate adjustments.

6

Press the **EXIT** button to return to TV viewing or press the **MENU** button to return to the previous menu.





1





TV MENU / SOUND ADJUSTMENT

AUTO VOLUME LEVELER (AVL)

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





Press the **MENU** button and then \blacktriangle or \checkmark button to select the **SOUND** menu.



Press the \blacktriangleright button and then \blacktriangle or \blacktriangledown button to select AVL.



4

Press the \blacktriangleright button and then \blacktriangle or \triangledown button to select On or Off.

Press the **EXIT** button to return to TV viewing or press the **MENU** button to return to the previous menu.



CHANNEL

PICTURE

SOUND

TIMER

SPECIAL SCREEN

DASP

AVL

Balance

Speaker

23

TV MENU | SOUND ADJUSTMENT

BALANCE ADJUSTMENT

Adjust the left/right sound of speaker to suit your taste and room situations.





Press the **MENU** button and then \blacktriangle or \blacktriangledown button to select the **SOUND** menu.



Press the \blacktriangleright button and then \blacktriangle or \triangledown button to select **Balance**.



TV MENU / SOUND ADJUSTMENT

Press the \blacktriangleright button and then \blacktriangleleft or \blacktriangleright button to make desired adjustment.



Press the **EXIT** button to return to TV viewing or press the **MENU** button to return to the previous menu.







TV SPEAKERS ON/OFF SETUP

Turn the TV speakers off if using external audio equipment. Feature turns the TV Speakers option On or Off.





2

Press the **MENU** button and then \blacktriangle or \blacktriangledown button to select the **SOUND** menu.

Press the \blacktriangleright button and then \blacktriangle or \blacktriangledown button to select **Speaker**.



Press the \blacktriangleright button and then \blacktriangle or \blacktriangledown button to select **On** or **Off**.



Press the **EXIT** button to return to TV viewing or press the **MENU** button to return to the previous menu.





TV MENU / SOUND ADJUSTMENT

TV MENU SOUND ADJUSTMENT

STEREO/SAP BROADCASTS SETUP

The TV can receive MTS stereo programs and any SAP (Secondary Audio Program) that accompanies the stereo program; if the broadcaster transmits one additional sound signal in addition to the original one.

Mono: The primary language is heard from left and right speakers. Signal mode is mono.

Stereo: The primary language is heard from left and right speakers. Signal mode is stereo.

SAP: The secondary language is heard from left and right speakers in mono sound.





Use the **MTS** button to select your desired MTS mode in analog signal. Each time you press the **MTS** button, **Mono**, **Stereo**, or **SAP** appear in turn.



Press EXIT button to save and return to TV viewing.

NOTE

- ▶ Select mono sound mode if the signal is not clear or in poor signal reception areas.
- **Stereo**, **SAP** modes are available only if included on the broadcast signal.

TV MENU | TIME SETTING

CLOCK SETUP

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





Press the **MENU** button and then \blacktriangle or \blacktriangledown button to select the **TIMER** menu.

Press the \blacktriangleright button and then \blacktriangle or \blacktriangledown button to select **Clock**.



2

Press the \blacktriangleright button and then use \blacktriangle or \blacktriangledown button to set the hour.



Press the \blacktriangleright button and then use \blacktriangle or \checkmark button to set the minutes.



Press **EXIT** button to return to TV viewing or press **MENU** button to return to the previous menu.





TV MENU | TIME SETTING

ON/OFF TIMER SETUP

The timer function operates only if the current time has been set.

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

The TV must be in standby mode for the On-Timer to work.

If you do not press any button within 2 hours after the TV turns on with the On Timer function, the TV will automatically revert to standby mode.



Press the **MENU** button and then \blacktriangle or \blacktriangledown button to select the **TIMER** menu.



Press the \blacktriangleright button and then use \blacktriangle or \blacktriangledown button to select **Off timer** or **On timer**.



Press the \blacktriangleright button and then use \blacktriangle or \triangledown button to select **On**.

■ To cancel the **On/Off timer** function, select **Off**.



Press the \blacktriangleright button and then use \blacktriangle or \blacktriangledown button to set the hour.



Press the \blacktriangleright button and then use \blacktriangle or \blacktriangledown button to set the minutes.



5

Only On timer

Press the \blacktriangleright button and then use \blacktriangle or \blacktriangledown to set the sound level at turn-on.

Press the \blacktriangleright button and then use \blacktriangle or \blacktriangledown to select the channel at turn-on.

Press **EXIT** button to return to TV viewing or press **MENU** button to return to the previous menu.









AUTO OFF

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





Press the **MENU** button and then use \blacktriangle or \triangledown button to select the **TIMER** menu.



Press the \blacktriangleright button and then use \blacktriangle or \blacktriangledown button to select **Auto Off**.



Press the \blacktriangleright button and then use \blacktriangle or \blacktriangledown button to select **On** or **Off**.



Press **EXIT** button to return to TV viewing or press **MENU** button to return to the previous menu.





TV MENU | TIME SETTING

SLEEP TIMER

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





Press the **SLEEP** button repeatedly to select the number of minutes. First the ' \square^{z^2} - - **Min**'option appears on the screen, followed by the following sleep timer options : 10, 20, 30, 60, 90, 120, 180, and 240 minutes.



When the number of minutes you want is displayed on the screen, press the **ENTER** button. The timer begins to count down from the number of minutes selected.



To check the remaining minutes before the TV turns off, press the **SLEEP** button once.



To cancel the Sleep Timer, press the **SLEEP** button repeatedly to select ' \bigcirc ^{z^z} - - Min'.

TV MENU | SPECIAL FEATURES

KEY LOCK

The TV can be set so that the remote control is needed to control it.

This feature can be used to prevent unauthorized viewing by locking out the front panel controls.

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





Press the **MENU** button and then use \blacktriangle or \triangledown button to select the SPECIAL menu.



Press the \blacktriangleright button and then use \blacktriangle or \blacktriangledown button to select Key lock.



Press the \blacktriangleright button and then use \blacktriangle or \blacktriangledown button to select **On** or **Off**.



Press EXIT button to return to TV viewing or press **MENU** button to return to the previous menu.



TV MENU / SPECIAL FEATURES



23

NOTE

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

TV MENU SPECIAL FEATURES

CLOSED CAPTIONS

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

Using Closed Captions

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



and computer for translation into English. Captioning is an effective system for the hearingimpaired, and it can also aid in teaching language skills.

• The picture at left shows a typical caption.

Caption Tips

- Not all TV broadcasts include closed caption signals.
- Sometimes TV stations broadcast four different caption signals on the same channel. By selecting Mode1 to Mode2, you can choose which signal you view. Mode1 is usually the signal with the captions, while another mode might show demonstration or programming information.
- Your TV might not receive caption signals normally in the following situations.

1. Poor reception conditions are encountered:

• IGNITION: Picture may flutter, drift, suffer from

• GHOSTS:

electrical appliances.







Ghosts are caused when the TV signal splits and follows two paths. One is the direct path and the other is reflected off tall buildings, hills or other objects. Changing the direction or position of the antenna may improve reception.

black spots, or horizontal streaking.

Usually caused by interference from automobile ignition systems, neon

lamps, electrical drills, and other

• SNOW:

If your receiver is located at the weak, fringe area of a TV signal, your picture may be marred by small dots. It may be necessary to install a special antenna to improve the picture.

- 2. An old, bad, or illegally recorded tape is being played.
- 3. Strong, random signals from a car or airplane interfere with the TV signal.
- 4. The signal from the antenna is weak.
- 5. The program wasn't captioned when it was produced, transmitted, or taped.

Use the **CAPTION** button repeatedly to select your caption Mode 1, Mode 2, Text1, Text2, or Off.



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

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

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 \blacktriangle or \blacktriangledown button to select the **SPECIAL** menu.

Press the \blacktriangleright button and then use \blacktriangle or \blacktriangledown button to select **XD Demo**.



2

Press the ► button to begin **XD Demo**.



To stop **XD Demo**, press the **MENU** button.





23

• XD Demo



TV MENU / SPECIAL FEATURES

TV MENU SCREEN ADJUSTMENT

AUTO CONFIGURE (RGB [PC] MODE ONLY)

Automatically adjusts picture position and minimizes image shaking.

Although the image is still not correct, your set is functioning properly but needs further adjustment.





Press the **MENU** button and then use \blacktriangle or \triangledown button to select the SCREEN menu.



3

Press the \blacktriangleright button and then use \blacktriangle or \blacktriangledown 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 the 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 TV viewing or press the **MENU** button to return to the previous menu.



0



MANUAL CONFIGURE

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

This function works in the following mode : RGB-PC, RGB-DTV, Component 480p/720p/1080i, HDMI 480p/720p/1080i.

The Phase, Clock functions work in the following mode: RGB-PC mode.





Press the **MENU** button and then use \blacktriangle or \blacktriangledown button to select the **SCREEN** menu.



3

Press the \blacktriangleright button and then use \blacktriangle or \blacktriangledown button to select **Manual config.**

Press the \blacktriangleright button and then use \blacktriangle or \triangledown button to select **Phase**, **Clock**, **H**-**position** or **V**-**position**.

Phase

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

Clock

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

H-position / V-position

This function is to adjust picture to left/right and up/down as you prefer.



Press the \blacktriangleleft or \blacktriangleright button to make appropriate adjustments.



Press the **EXIT** button to return to TV viewing or press the **MENU** button to return to the previous menu.







TV MENU SCREEN ADJUSTMENT

SELECTING XGA MODE

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

This function works in the following mode: RGB-PC mode.





Press the **MENU** button and then use \blacktriangle or \blacktriangledown button to select the **SCREEN** menu.



Press the \blacktriangleright button and then use \blacktriangle or \blacktriangledown button to select XGA mode.



Press the \blacktriangleright button and then use \blacktriangle or \blacktriangledown button to select the desired XGA resolution.



Press **EXIT** button to return to TV viewing or press **MENU** button to return to the previous menu.





ASPECT RATIO CONTROL (ARC)

This feature lets you choose the way an analog picture with a 4:3 aspect ratio is displayed on your TV. When you receive an analog picture with a 4:3 aspect ratio on your 16:9 TV, you need to specify how the picture is to be displayed.

- RGB-PC and HDMI PC input source use 4:3 or 16:9 aspect ratio.
- Component (480p,720p,1080i), RGB-DTV, HDMI1/DVI-DTV, HDMI2-DTV input source use 4:3, 16:9, Zoom1, and Zoom2 aspect ratio.

 If a fixed image is displayed on the screen for a long time, the image may become imprinted on the screen and remain visible.
 This phenomenon is common to all manufactures and in consequence the manufactures warranty does not cover the product bearing this phenomenon.



Press the **ARC** button repeatedly to select the desired picture format. You can also adjust **ARC** in the **SCREEN** menu.

4:3

1

Choose 4:3 when you want to view a picture with an original 4:3 aspect ratio.



16:9

Adjust the picture horizontally, in a linear proportion to fill the entire screen.



Horizon

The screen size is, more enlarged at both sides, to create a spectacular view.



Zoom 1

Choose Zoom 1 when you want to view the picture without any alteration. However, the top and bottom portions of the picture will be cropped.

You can move the Zoom1 screen using \blacktriangle or \blacktriangledown button.



Zoom 2

Choose Zoom 2 when you want the picture to be altered, both vertically extended and cropped. The picture taking a halfway trade off between alteration and screen coverage.

You can move the Zoom2 screen using \blacktriangle or \blacktriangledown button.



TV MENU SCREEN ADJUSTMENT

INITIALIZING (RESET TO ORIGINAL FACTORY SETTINGS)

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





Press the **MENU** button and then use \blacktriangle or \blacktriangledown button to select the **SCREEN** menu.



Press the \blacktriangleright button and then use \blacktriangle or \blacktriangledown button to select **Reset**.



• You can initialize Position, PIP size, PIP position. (PIP size and PIP position are available to work in PIP mode only.)









APPENDIX

EXTERNAL CONTROL DEVICE SETUP

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

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



APPENDIX

RS-232C Configurations

7-Wire Configurations (Standard RS-232C cable)						
	РС	TV				
RXD	2 👞	3	TXD			
TXD	3 👞	<u> </u>	RXD			
GND	5 👞	• 5	GND			
DTR	4 •	— 6	DSR			
DSR	6	• 4	DTR			
RTS	7 •	• 8	CTS			
CTS	8 •	• 7	RTS			
	D-Sub 9	D-Sub 9				

3-Wire Configurations(Not standard)					
	PC	ΤV			
RXD	2 •	• 3	TXD		
TXD	3 •	• 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 TV ID number. Refer to 'Real Data Mapping 1'. ► **p.67**.

1

2

Press the **MENU** button and then use \blacktriangle or \blacktriangledown button to select the **SPECIAL** menu.

APPENDIX

Press the \blacktriangleright button and then use \blacktriangle or \triangledown button to select **Set ID**.



Press the \blacktriangleright button and then use \triangleleft or \triangleright button to adjust **Set ID** to choose the desired TV ID number. The adjustment range of Set ID is 1~99.



Press **EXIT** button to return to TV viewing or press **MENU** button to return to the previous menu.

Image: state state





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Communication Parameters

- Baud rate : 9600 bps (UART)
- Data length : 8 bits
- Parity : None

- Stop bit : 1 bit
- Communication code : ASCII code
- Use a crossed (reverse) cable.

Command Reference List

	COMMAND1	COMMAND2	DATA (Hexadecimal)		COMMAND1	COMMAND2	DATA (Hexadecimal)
01. Power	k	а	0 ~ 1	15. Treble	k	r	0 ~ 64
02. Aspect Ratio	k	с	▶ P. 64	16. Bass	k	S	0 ~ 64
03. Screen Mute	k	d	0 ~ 1	17. Balance	k	t	0 ~ 64
04. Volume Mute	k	e	0 ~ 1	18. Color Temperature	e k	u	0 ~ 3
05. Volume Control	k	f	0 ~ 64	19. Red Adjustment	k	v	0 ~ 50
06. Contrast	k	g	0 ~ 64	20. Green Adjustment	k	w	0 ~ 50
07. Brightness	k	h	0 ~ 64	21. Blue Adjustment	k	\$	0 ~ 50
08. Color	k	i	0 ~ 64	22. Abnormal Status	k	Z	FF
09. Tint	k	j	0 ~ 64	23. Channel Tuning	m	а	▶ P. 66
10. Sharpness	k	k	0 ~ 64	24. Channel Add/del	m	b	▶ P. 66
11. OSD Select	k	I	0 ~ 1	25. Key	m	с	▶ P. 66.
12. Remote Control	k	m	0 ~ 1	26. Auto Configure	j	u	1
lock mode				27. Input select (Main) x	b	▶ P. 66
13. PIP/DW/POP	k	n	▶ P. 65	28. Input select (PIP)	x	у	▶ P. 67
14. PIP Position	k	q	0 ~ 3				

Transmission / Receiving Protocol

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

OK Acknowledgement

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

The TV transmits ACK (acknowledgement) based on this fornat when receiving normal data. At this time, if the data is data read mode, it indicates present status data. If the data is data write mode, it returns the data of the PC computer.

Error Acknowledgement

[Command2][][Set ID][][NG][Data][x]

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

Data1: Illegal Code Data2: Not supported function

APPFNDIX

01. Power (Command2:a)

To control Power On/Off of the TV.

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

Data 0 : Power Off Data 1 : Power On

Acknowledgement [a][][Set ID][][OK][Data][x] To show Power On/Off.

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

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

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

02. Aspect Ratio (Command2:c) (Main picture size)

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

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

Date 1: Normal screen (4:3)	Date 4: Zoom1
Date 2: Wide screen (16:9)	Date 5: Zoom
Date 3: Horizon	

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

5: Zoom2

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

03. Screen Mute (Command2:d)

To select screen mute on/off.

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

Data 0 : Screen mute off (Picture on)

Data 1 : Screen mute on (Picture off)

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

04. Volume Mute (Command2:e)

To control volume mute on/off.

You can also adjust mute using the MUTE button on remote control.

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

Data 0 : Volume mute on (Volume off)

Data 1 : Volume mute off (Volume on)

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

05. Volume Control (Command2:f)

To adjust volume. You can also adjust volume with the volume buttons on remote control. Transmission [k][f][][Set ID][][Data][Cr] Data Min : 0 ~ Max : 64 Refer to 'Real data mapping 1 '. See page 67. Acknowledgement [f][][Set ID][][OK][Data][x]

06. Contrast (Command2:g)

To adjust screen contrast. You can also adjust contrast in the Picture menu.

Transmission [k][g][][Set ID][][Data][Cr] Data Min : 0 ~ Max : 64 Refer to 'Real data mapping 1'. See page 67. Acknowledgement [g][][Set ID][][OK][Data][x]

07. Brightness (Command2:h)

To adjust screen brightness. You can also adjust brightness in the Picture menu.

Transmission [k][h][][Set ID][][Data][Cr] Data Min : 0 ~ Max : 64 Refer to 'Real data mapping 1'. See page 67.

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

08. Color (Command2:i)

To adjust the screen color. You can also adjust color in the Picture menu. Transmission [k][i][][Set ID][][Data][Cr] Data Min : 0 ~ Max : 64 Refer to 'Real data mapping 1'. See page 67. Acknowledgement [i][][Set ID][][OK][Data][x]

09. Tint (Command2:j)

To adjust the screen tint. You can also adjust tint in the Picture menu. Transmission [k][j][][Set ID][][Data][Cr] Data Red : 0 ~ Green : 64 Refer to 'Real data mapping 1'. See page 67.

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

10. Sharpness (Command2:k)

To adjust the screen sharpness.

You can also adjust sharpness in the Picture menu.

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

Data Min: 0 ~ Max: 64

Refer to 'Real data mapping 1'. See page 67.

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

11. OSD Select (Command2:I)

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]

12. Remote Control Lock Mode (Command2:m)

To lock the remote control and the front panel

controls on the set.

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

Data 0: Lock off Data 1: Lock on

Acknowledgement [m][][Set ID][][OK][Data][x] If you're not using the remote control and front panel controls on the TV, use this mode. When main power is on/off, remote control lock is released.

13. PIP / DW / POP (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.

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

Data 0: PIP/DW offData 1: PIPData 2: DW1Data 3: DW2Data 5: POP

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

14. PIP Position (Command2:q)

To select sub picture position for PIP. You can also adjust the sub picture position using POSITION button on the remote control.

Transmission [k] [q] [][Set ID] [][Data] [Cr] Data 0: Right down on screen Data 1: Left down on screen Data 2: Left up on screen Data 3: Right up on screen Acknowledgement [q] [][Set ID] [][OK] [Data] [x]

15. Treble (Command2: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 67.

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

16. Bass (Command2: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 67. *Acknowledgement* [s][][Set ID][][OK][Data][x]

17. 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 67. *Acknowledgement* [t][][Set ID][][OK][Data][x]

18. Color Temperature (Command2:u)

To adjust color temperature. You can also adjust ACC in the Picture menu.

Transmission [k][u][][Set ID][][Data][Cr] Data 0: Cool 1: Normal 2: Warm 3: User

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

19. Red Adjustment (Command2:v)

To adjust red in color temperature. *Transmission* [k][v][][Set ID][][Data][Cr] Data Min: 0 ~ Max: 50 Refer to 'Real data mapping 2'. See page 67.

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

20. Green Adjustment (Command2:w)

To adjust red in color temperature. Transmission [k] [w] [] [Set ID] [] [Data] [Cr] Data Min: 0 ~ Max: 50 Refer to 'Real data mapping 2'. See page 67. Acknowledgement [w] [] [Set ID] [] [OK] [Data] [x]

APPENDIX

21. Blue Adjustment (Command2:\$)

To adjust red in color temperature.

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

Data Min: 0 ~ Max: 50

Refer to 'Real data mapping 2'. See page 67.

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

22. Abnormal State (Command2:z)

To recognize an abnormal state.

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

Data FF: Read

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

Data 0: Normal (Power on and signal exist)

- Data 1: No signal (Power on)
- Data 2: Turn the TV off by remote control
- Data 3: Turn the TV off by sleep time function
- Data 4: Turn the TV off by RS-232C function
- Data 5: 5V down
- Data 6: AC down
- Data 7: Turn the TV off by Fan Alarm function (option) Data 8: Turn the TV off by Off time function Data 9: Turn the TV off by Auto sleep function Data a: Turn the TV off by AV borad detect
- * This function is "read only".

23 . Channel Tuning (Command1:m, Command2:a)

Tune channel to following physical number.

Transmission [m][a][][Set ID][][Data0][][Data1][] [Data2][][Data3][][Data4][][Data5][Cr]

Data 0: NTSC air : 02 ~ 45 NTSC cable : 01, 0E ~ 7D Data 1 ~ 4: Don't care Data 5: Attribute

Acknowledgement [a][][Set ID][][OK][Data0][Data1] [Data2][Data3][Data4][Data5][x][a][] [Set ID][][NG][Data0][x]

24. Channel Add/Del (Command1:m, Command2:b)

To add and delete the channels

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

Data 0: Delete Data 1: Add

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

25. Key (Command1:m, Command2:c)

To send IR remote key code.

Transmission [m][c][][Set ID][][Data][Cr] Data: Key code - Refer to page 69.

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

26 . Auto Configure (Command1:j, Command2:u)

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

Transmission [j][u][][Set ID][][Data][Cr] Data 1: To set Acknowledgement [u][][Set ID][][OK][Data][x]

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

To select input source for TV. Transmission [x][b][][Set ID][][Data][Cr] Data: Structure MSB LSB

0	0	0	0	0	0	0	0
LE				L _{In}	put N	umber	

External Input			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

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

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

28. 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

MSB							LSB
0	0	0	0	0	0	0	0
LE	xterna	l Inpu	t	Lin	put N	umber	

E	External Input			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

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

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

* Real data mapping 1	* Real data mapping 2
0 : Step 0	0 : -30
:	1 : -29
A:Step 10 (Set ID 10) :	2 : -28 :
F : Step 15 (Set ID 15)	1E:0
	:
10 : Step 16 (Set ID 16)	:
	3A:+28
64 : Step 100	3B:+29
:	3C:+30
6E : Step 110	
73 : Step 115	
74 : Step 116	
:	
:	
C7: Step 199	
FE : Step 254	

```
FF : Step 255
```

APPENDIX IR CODES

1. How to Connect

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

2. Remote Control IR Codes

Output waveform

Single pulse, modulated with 37.917KHz signal at 455KHz



Configuration of frame

1st frame



Repeat frame



Lead code



Bit description





Frame interval: Tf

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



Code (Hexa)	Function	Note	Code (Hexa)	Function	Note
OF	TV	Remote control Button	44	ENTER	Remote control Button
OB	INPUT	Remote control Button	72	PIP CH-	Remote control Button
08	POWER	Remote control Button (Power On/Off)	71	PIP CH+	Remote control Button
C4	POWER ON	Discrete IR Code (Only Power On)	61	PIP INPUT	Remote control Button
C5	POWER OFF	Discrete IR Code (Only Power OFF)	02	VOL +	Remote control Button
60	PIP	Remote control Button	03	VOL -	Remote control Button
OE	SLEEP	Remote control Button	00	CH +	Remote control Button
39	Caption	Remote control Button	01	CH -	Remote control Button
0A	MTS	Remote control Button	09	MUTE	Remote control Button
43	MENU	Remote control Button	55	Memory/Erase	Remote control Button
79	ARC	Remote control Button	10 ~ 19	Number Key 0 ~ 9	Remote control Button
5B	EXIT	Remote control Button	1 E	FCR	Remote control Button
07	•	Remote control Button	1A	REVIEW	Remote control Button
06	•	Remote control Button	64	SIZE	Remote control Button
40	A	Remote control Button	62	POSITION	Remote control Button
41	▼	Remote control Button	EO	₩+	Remote control Button
			E1	₩	Remote control Button

APPENDIX

PROGRAMMING THE REMOTE CONTROL

The provided universal remote control can be programmed to operate most remote-controllable devices. 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 control can operate each 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 and it responds properly the remote control need not 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 two seconds; the currently selected device button is 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 the appropriate code from 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.



3

Press the **MENU** button to store the code. After blinking twice, this code is stored.



APPENDIX

Test the remote control functions to see if the device responds properly. If not, steps 2-5.

PROGRAMMING CODES

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		

VCRs

Brand	Codes	Brand	Codes	Brand	Codes
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	07.170	131
CRAIG	003 040 135		101 102 134 139	SEARS	003 008 009 010
CURTIS MATHES	031 033 041	MGA	045 046 059 013 020		013 014 017 020
DAEWOO	005 007 010 064 065 108 110 111	MINOLTA MITSUBISHI	013 020 013 020 045 046		031 042 073 081 101
	112 116 117 119	WIT SODISTI	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		056 057 058 076
ELECTROHOME	059	NEC	012 023 039 043		077 078 149
EMERSON	006 017 025 027		048	SOUNDESIGN	034
	029 031 034 035	NORDMENDE	043	STS	013
	036 037 046 101	OPTONICA	053 054	SYLVANIA	031 033 034 059
	129 131 138 153	PANASONIC	066 070 074 083		067
FISHER	003 008 009 010		133 140 145	SYMPHONIC	034
FUNAI	034			TANDY	010 034
GE	031 033 063 072	PENTAX	013 020 031 033	TATUNG	039 043
GO VIDEO	107 109 144 147 132 136	PHILCO	063 031 034 067	TEAC TECHNICS	034 039 043 031 033 070
HARMAN KARDO		PHILCO	031 034 087	TEKNIKA	019 031 033 070
HITACHI	004 018 026 034		067 071 101		101
	043 063 137 150	PILOT	101	THOMAS	034
INSTANTREPLAY	031 033	PIONEER	013 021 048	ТМК	006
JCL	031 033	PORTLAND	108	TOSHIBA	008 013 042 047
JCPENNY	012 013 015 033	PULSAR	072		059 082 112 131
	040 066 101	QUARTZ	011 014	TOTEVISION	040 101
JENSEN	043	QUASAR	033 066 075 145	UNITECH	040
JVC	012 031 033 043	RCA	013 020 033 034	VECTOR RESEARCH	012
	048 050 055 060		040 041 062 063	VICTOR	048
	130 150 152		107 109 140 144	VIDEO CONCEPTS	012 034 046
KENWOOD	014 034 039 043	DEALICETIC	145 147	VIDEOSONIC	040
	047 048 001 012 013 020	REALISTIC	003 008 010 014 031 033 034 040	WARDS	003 013 017 024 031 033 034 040
LG (GOLDSTAR)	101 106 114 123		031 033 034 040		053 054 131
LLOYD	034	RICO	058	YAMAHA	012 034 039 043
LXI	003 009 013 014	RUNCO	148	ZENITH	034 048 056
	017 034 101 106	SALORA	014		058 072 080 101
MAGIN	040				

APPENDIX

TROUBLESHOOTING CHECKLIST

The operation does n	The operation does not work normally.					
The remote control doesn't work	 Check to see if there is any object between the product and the remote control causing obstruction. Ensure you are pointing the remote control directly at the TV. Ensure that the batteries are installed with correct polarity (+ to +, - to -). Ensure that the correct remote operating mode is set: TV, VCR etc. Install new batteries. 					
Power is suddenly turned off	 Is the sleep timer set? Check the power control settings. Power interrupted. No broadcast on station tuned with Auto off activated. 					

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

The audio function do	The audio function does not work.					
Picture OK & No sound	 Press the VOL or VOLUME button. Sound muted? Press MUTE button. Try another channel. The problem may be with the broadcast. Are the audio cables installed properly? 					
No output from one of the speakers	Adjust Balance in menu option.					
Unusual sound from inside the product	A change in ambient humidity or temperature may result in an unusual noise when the product is turned on or off and does not indicate a fault with the product.					

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

APPENDIX

2

MAINTENANCE

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

Cleaning the Screen

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 TV.

Cleaning the Cabinet

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

Extended Absence

A CAUTION

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

PRODUCT SPECIFICATIONS

MODELS		37LC3R (37LC3R-MH)	42LC3R (42LC3R-MH)
Dimensions (Width x Height x Depth)	including stand	41.7 x 26.0 x 12.0 inches 1059.9 x 659.0 x 299.0 mm	47.0 x 30.0 x 12.6 inches 1195.5 x 759.8 x 319.3 mm
	excluding stand	41.7 x 23.3 x 5.1 inches 1059.9 x 592.2 x 132.0 mm	47.0 x 27.0 x 5.5 inches 1195.5 x 684.9 x 139.0 mm
Weight	including stand excluding stand	61.7 pounds / 28 kg 54.5 pounds / 24.76 kg	80.0 pounds / 36.3 kg 69.9 pounds / 31.7 kg
Power requirement Power consumption Television System Program Coverage External Antenna Impedance		AC100-240V -50/60Hz, 2.0A AC100-240V -50/60Hz, 2.5A 190W 240W NTSC, PAL-M/N VHF 2 ~ 13, UHF 14 ~ 69, CATV 1 ~ 125 75 ohm	
Environment condition	Operating Temperature Operating Humidity	32 ~ 104°F (0 ~ 40°C) Less than 80%	
	Storage Temperature Storage Humidity	-4 ~ 140°F (-20 ~ 60°C) Less than 85%	

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