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.

ENERGY STAR is a set of power-saving guidelines issued by the U.S. Environmental Protection Agency (EPA).

As an ENERGY STAR Partner, LG Electronics U.S.A., Inc. has determined that this product meets the ENERGY STAR guidelines for energy efficiency.

P/NO : SAC30708020 (0803-REV04)

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<table>
<thead>
<tr>
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</tr>
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<tr>
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<td></td>
</tr>
</tbody>
</table>

**LCD TV MODELS**
- 32LG30
- 37LG30
- 42LG30
- 42LG60
- 47LG60
- 52LG60

**PLASMA TV MODELS**
- 42PG25
- 50PG25
- 50PG60
- 60PG60
WARNING / CAUTION

TO REDUCE THE RISK OF ELECTRIC SHOCK
DO NOT REMOVE COVER (OR BACK). NO
USER SERVICEABLE PARTS INSIDE. REFER TO
QUALIFIED SERVICE PERSONNEL.

The lightning flash with arrowhead
symbol, within an equilateral triangle, is
intended to alert the user to the presence
of uninsulated “dangerous voltage” within
the product’s enclosure that may be of sufficient
magnitude to constitute a risk of electric shock to
persons.

The exclamation point within an equilateral
triangle is intended to alert the user to
the presence of important operating and
maintenance (servicing) instructions in the litera-
ture accompanying the appliance.

WARNING/CAUTION

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

NOTE TO CABLE/TV INSTALLER

This reminder is provided to call the CATV system
installer’s attention to Article 820-40 of the National
Electric Code (U.S.A.). The code provides guidelines for
proper grounding and, in particular, specifies that the
cable ground shall be connected to the grounding system
of the building, as close to the point of the cable entry
as practical.

WARNING / CAUTION

To prevent fire or shock hazards, do not expose
this product to rain or moisture.

FCC NOTICE

Class B digital device
This equipment has been tested and found to comply
with the limits for a Class B digital device, pursuant to
Part 15 of the FCC Rules. These limits are designed
to provide reasonable protection against harmful
interference in a residential installation. This equipment
generates, uses and can radiate radio frequency energy
and, if not installed and used in accordance with the
instructions, may cause harmful interference to radio
communications. However, there is no guarantee that
interference will not occur in a particular installation.
If this equipment does cause harmful interference to
radio or television reception, which can be determined
by turning the equipment off and on, the user is
couraged to try to correct the interference by one
or more of the following measures:
- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and
receiver.
- Connect the equipment to an outlet on a circuit
different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV
technician for help.

Any changes or modifications not expressly approved
by the party responsible for compliance could void
the user’s authority to operate the equipment.

CAUTION

Do not attempt to modify this product in any way
without written authorization from LG Electronics.
Unauthorized modification could void the user’s
authority to operate this product.
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:

Read these instructions.
Keep these instructions.
Heed all warnings.
Follow all instructions.

1. Do not use this apparatus near water.

2. Clean only with dry cloth.

3. Do not block any ventilation openings. Install in accordance with the manufacturer’s instructions.

4. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.

5. When mounting a TV it on the wall, make sure not to install TV by the hanging power and signal cables on the back of the TV.

6. Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.

7. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.

8. Only use attachments/accessories specified by the manufacturer.

9. Unplug this apparatus when unused for long periods of time.
Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.

Never touch this apparatus or antenna during a thunder or lighting storm.

Do not allow a impact shock or any objects to fall into the product, and do not drop onto the screen with something.

Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has exposed to rain or moisture, does not operate normally, or has been dropped.

CAUTION concerning the Power Cord:
Most appliances recommend they be placed upon a dedicated circuit; that is, a single outlet circuit which powers only that appliance and has no additional outlets or branch circuits. Check the specification page of this owner’s manual to be certain.

Do not overload wall outlets. Overloaded wall outlets, loose or damaged wall outlets, extension cords, frayed power cords, or damaged or cracked wire insulation are dangerous. Any of these conditions could result in electric shock or fire. Periodically examine the cord of your appliance, and if its appearance indicates damage or deterioration, unplug it, discontinue use of the appliance, and have the cord replaced with an exact replacement part by an authorized servicer. Protect the power cord from physical or mechanical abuse, such as being twisted, kinked, pinched, closed in a door, or walked upon. Pay particular attention to plugs, wall outlets, and the point where the cord exits the appliance.

Outdoor use marking:
WARNING - To reduce the risk of fire or electric shock, do not expose this appliance to rain or moisture.

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 or over apparatus.

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.

DISCONNECTING DEVICE FROM MAINS
Mains plug is the disconnecting device. The plug must remain readily operable.
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FEATURE OF THIS TV

FOR LCD TV

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

On Disposal

The fluorescent lamp used in this product contains a small amount of mercury. Do not dispose of this product with general household waste. Disposal of this product must be carried out in accordance to the regulations of your local authority.
ACCESSORIES

Ensure that the following accessories are included with your TV. If an accessory is missing, please contact the dealer where you purchased the TV.
The accessories included may differ from the images below.

* Wipe spots on the exterior only with the polishing cloth.
* Do not wipe roughly when removing stain. Please be cautious of that excessive pressure may cause scratch or discoloration.

Option Extras
When using the VGA (D-sub 15 pin cable) PC connection, the user must use shielded signal interface cables with ferrite cores to maintain standards compliance.

For Plasma TV models

- Bolts for stand assembly (Refer to P.14) 
- Cable Holder (Only 42PG25)
- Cable Management Clip
- Protection Cover (Refer to P.20)

For LCD TV models

32/37/42LG30, 37/42/47/52LG50, 32/42/47/52LG70

- Bolts for stand assembly (Refer to P.14)
- Screw for stand fixing (Refer to P.18)
- Protection Cover (Refer to P.20)

32/37/42/47/52LG60

- Bolts for stand assembly (Refer to P.15)
- Protection Cover (Refer to P.20)
- Cable Management Clip
FRONT PANEL INFORMATION

- Image shown may differ from your TV.
- **NOTE:** If your TV has a protection tape attached, remove the tape.
  And then wipe the TV with a cloth (If a polishing cloth is included with your TV, use it).

**Plasma TV Models**

![Plasma TV Diagram]

**Remote Control Sensor**
- POWER Button
- Power/Standby Indicator
  - Illuminates red in standby mode.
  - Illuminates blue when the TV is switched on.

**Input Buttons**
- INPUT Button
- MENU Button
- ENTER Button
- VOLUME (-, +) Buttons
- CHANNEL (▼, ▲) Buttons

**LCD TV Models**

*32/42/47/52LG70*

![LCD TV Diagram]

**Remote Control Sensor**
- POWER Button
- Intelligent Sensor
  - Adjusts picture according to the surrounding conditions
- Power/Standby Indicator
  - Illuminates red in standby mode.
  - Illuminates blue when the TV is switched on.
  (Can be adjusted using Power Indicator in the OPTION menu. ⇒ p.85)

**Input Buttons**
- INPUT Button
- MENU Button
- ENTER Button
LCD TV Models

32/37/42LG30, 37/42/47/52LG50

Intelligent Sensor (Except 32/37/42LG30)
Adjusts picture according to the surrounding conditions.

Power/Standby Indicator
Illuminates red in standby mode.
Illuminates blue when the set is switched on.
(Can be adjusted using Power Indicator in the OPTION menu. \[p.85\])

Remote Control Sensor

POWER Button

32/37/42/47/52LG60

Intelligent Sensor
Adjusts picture according to the surrounding conditions.

POWER Button
Remote Control Sensor
Power/Standby Indicator
Illuminates red in standby mode.
Illuminates white when the set is switched on.
(Can be adjusted using Power Indicator in the OPTION menu. \[p.85\])
BACK PANEL INFORMATION

Image shown may differ from your TV.

Plasma TV Models

[Diagram showing back panel connections including HDMI IN, AV IN, and other inputs and outputs]
LCD TV Models

32/37/42LG30

37/42/47/52LG50
Image shown may differ from your TV.

LCD TV Models

32/42/47/52LG70

32/37/42/47/52LG60
1. **HDMI/DVI IN, HDMI IN**  
   Digital Connection.  
   Supports HD video and Digital audio. Doesn’t support 480i.  
   Accepts DVI video using an adapter or HDMI to DVI cable (not included).

2. **COMPONENT IN**  
   Analog Connection.  
   Supports HD.  
   Uses a red, green, and blue cable for video & red and white for audio.

3. **RGB (PC)**  
   Analog PC Connection. Uses a D-sub 15 pin cable (VGA cable).  
   **AUDIO (RGB/DVI)**  
   1/8” headphone jack for analog PC audio input.

4. **REMOTE CONTROL IN PORT**  
   For a wired remote control.

5. **RS-232C IN (CONTROL & SERVICE) PORT**  
   Used by third party devices.

6. **ANTENNA/CABLE IN**  
   Connect over-the-air signals to this jack.  
   Connect cable signals to this jack.

7. **DIGITAL AUDIO OUT**  
   Digital audio output for use with amps and home theater systems.  
   Includes an optical and/or coaxial connection.  
   Note: In standby mode, these ports do not work.

8. **AUDIO OUT**  
   Analog audio output for use with amps and home theater systems.

9. **AV (Audio/Video) IN**  
   Analog composite connection. Supports standard definition video only (480i).  
   **S-VIDEO**  
   Better quality than standard composition. Supports standard definition video only (480i).

10. **USB INPUT**  
    Used for viewing photos and listening to MP3s.

11. **USB SERVICE ONLY or RS-232C IN (SERVICE ONLY)**  
    Used for software updates.

12. **Power Cord Socket**  
    For operation with AC power.  
    Caution: Never attempt to operate the TV on DC power.
**STAND INSTALLATION**

- Image shown may differ from your TV.

**Only 42PG25**

1. Carefully place the TV screen side down on a cushioned surface to protect the screen from damage.

2. Assemble the TV as shown.

3. Fix the 4 bolts securely using the holes in the back of the TV.

**Only 32/37/42LG30, 37/42LG50, 32/42LG70**

1. Carefully place the TV screen side down on a cushioned surface to protect the screen from damage.

2. Assemble the parts of the STAND BODY with COVER BASE of the TV.

3. Assemble the TV as shown.

4. Fix the 4 bolts securely using the holes in the back of the TV.
Only 32/37/42LG60

1. Carefully place the TV screen side down on a cushioned surface to protect the screen from damage.

2. Assemble the parts of the **STAND BODY** with **COVER BASE** of the TV.

3. Assemble the TV as shown.

4. Fix the 4 bolts securely using the holes in the back of the TV.
CABLE MANAGEMENT

Image shown may differ from your TV.

Plasma TV Models

1. Connect the cables as necessary. To connect additional equipment, see the EXTERNAL EQUIPMENT SETUP section.

2. Install the CABLE MANAGEMENT CLIP as shown. If your TV has the CABLE HOLDER, install it as shown and bundle the cables.

How to remove the CABLE MANAGEMENT CLIP

42PG25

First, press the cable management. Hold the CABLE MANAGEMENT CLIP with both hands and pull it upward.

50PG25, 50/60PG60

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

Separate CABLE MANAGEMENT CLIP from TV by pressing two latches.

NOTE

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

**32/37/42LG30, 37/42/47/52LG50, 32/42/47/52LG70**

1. Connect the cables as necessary.  
   To connect additional equipment, see the **EXTERNAL EQUIPMENT SETUP** section.

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

3. Put the cables inside the **CABLE MANAGEMENT CLIP** and snap it closed.

**32/37/42/47/52LG60**

1. Align the hole with the tab on the **CABLE MANAGEMENT CLIP**.  
   Turn the **CABLE MANAGEMENT CLIP** as shown.  
   Note: This cable management clip can be broken by excessive pressure.

2. Connect the cables as necessary.  
   To connect additional equipment, see the **EXTERNAL EQUIPMENT SETUP** section.
DESKTOP PEDESTAL INSTALLATION

- Image shown may differ from your TV.
For proper ventilation, allow a clearance of 4 inches on all four sides from the wall.

![Diagram showing proper ventilation clearance]

⚠️ CAUTION
Ensure adequate ventilation by following the clearance recommendations.

SWIVEL STAND

After installing the TV, you can adjust the TV set manually to the left or right direction by 20 degrees to suit your viewing position.

![Diagram showing swivel stand]

ATTACHING THE TV TO A DESK (Only 32LG30/70)

The TV must be attached to a desk so it cannot be pulled in a forward/backward direction, potentially causing injury or damaging the product.

![Diagram showing attachment to desk]

1-Screw (provided as parts of the product)

Desk

⚠️ WARNING
- To prevent TV from falling over, the TV should be securely attached to the floor/wall per installation instructions. Tipping, shaking, or rocking the machine may cause injury.
VESKA WALL MOUNTING

This TV accepts VESA FDMI compliant mounts via the four screw holes on the back of the TV. We recommend that you use a wall mounting bracket of LG brand when mounting the TV to a wall.

Plasma TV Models

400 mm
(Except 60PG60: 600 mm)

LCD TV Models

32/37/42LG30, 37/42/47/52LG50,
32/42/47/52LG70

32/37/42/47/52LG60

200 mm
(Except 52LG50/70: 800 mm)

200 mm
(Except 52LG60: 800 mm)

32LG30/70: 100 mm
37LG30/50: 200 mm
42LG30/50/70: 200 mm
47LG50/70: 200 mm
52LG50/70: 400 mm

32LG60: 100 mm
37/42/47LG60: 200 mm
52LG60: 400 mm

NOTE

Screw length needed depends on the wall mount used. For further information, refer to the instructions included with the mount.
PROTECTION COVER

Image shown may differ from your TV.

You can remove the stand before installing the TV on a wall mount by performing the previous stand instructions in reverse. After removing the stand, install the included protection cover over the hole for the stand.

Insert the PROTECTION COVER into the TV until clicking sound.

Plasma TV Models

After removing the protection paper from the protection cover, adhere it to the TV as shown.

LCD TV Models
SECURING THE TV TO THE WALL TO PREVENT FALLING

- You should purchase necessary components to prevent TV from falling off of the stand.
- Image shown may differ from your TV.

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.

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

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

NOTE
- Use a platform or cabinet strong enough and large enough to support the size and weight of the TV.
- To use the TV safely make sure that the height of the bracket on the wall and the one on the TV are the same.
ANTENNA OR CABLE CONNECTION

1. Antenna (Analog or Digital)

Wall Antenna Socket or Outdoor Antenna without a Cable Box Connection.
For optimum picture quality, adjust antenna direction if needed.

- Multi-family Dwellings/Apartments
  (Connect to wall antenna socket)
- Outdoor Antenna (VHF, UHF)
- Single-family Dwellings /Houses
  (Connect to wall jack for outdoor antenna)
- RF Coaxial Wire (75 ohm)
- Copper Wire

Be careful not to bend the copper wire when connecting the antenna.

2. Cable

- Cable TV Wall Jack
- RF Coaxial Wire (75 ohm)
- Copper Wire

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.

To prevent damage do not connect to the power outlet until all connections are made between the devices.
EXTERNAL EQUIPMENT SETUP

- To prevent the equipment damage, never plug in any power cords until you have finished connecting all equipment.
- Image shown may differ from your TV.

HD RECEIVER SETUP

This TV 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.

Component Connection

1. How to connect

[1] Connect the video outputs (Y, Pb, Pr) of the digital set-top box to the **COMPONENT IN VIDEO 1** jacks on the TV. 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 TV.

2. How to use

- Turn on the digital set-top box.
  (Refer to the owner’s manual for the digital set-top box. operation)
- Select the **Component 1** input source on the TV using the **INPUT** button on the remote control.
- If connected to **COMPONENT IN 2** input, select the **Component 2** input source on the TV.

Supported Resolutions

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<th>Signal</th>
<th>Component</th>
<th>HDMI</th>
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<td>1080p</td>
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<table>
<thead>
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</tbody>
</table>

*Image shown may differ from your TV.*
Plasma TV, 32/37/42LG30, 37/42/47/52LG50, 32/42/47/52LG70

32/37/42/47/52LG60
HDMI Connection

1. How to connect

1. Connect the digital set-top box to HDMI/DVI IN1, 2, 3, or 4 jack on the TV.

2. No separate audio connection is necessary. HDMI supports both audio and video.

2. How to use

- Turn on the digital set-top box.
  (Refer to the owner’s manual for the digital set-top box.)
- Select the HDMI1, HDMI2, HDMI3, or HDMI4 input source on the TV using the INPUT button on the remote control.

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<th>Horizontal Frequency(KHz)</th>
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<td>33.75</td>
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<td>1920x1080p</td>
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<td>59.939</td>
</tr>
<tr>
<td></td>
<td>67.50</td>
<td>60.00</td>
</tr>
</tbody>
</table>
EXTERNAL EQUIPMENT SETUP

32/37/42LG30, 37/42/47/52LG50

Plasma TV, 32/42/47/52LG70

32/37/42/47/52LG60
DVI to HDMI Connection

1. How to connect

1. **32/37/42LG30, 37/42/47/52LG50, Plasma TV**
   - Connect the DVI output of the digital set-top box to the HDMI/DVI IN 1, 2, or 3 jack on the TV.
2. **32/37/42/47/52LG60, 32/42/47/52LG70**
   - Connect the DVI output of the digital set-top box to the HDMI/DVI IN 1, 2, 3, or 4 jack on the TV.

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

2. How to use

- Turn on the digital set-top box. (Refer to the owner’s manual for the digital set-top box.)
- **32/37/42LG30, 37/42/47/52LG50, Plasma TV**
  - Select the HDMI1, HDMI2, or HDMI3 input source on the TV using the INPUT button on the remote control.
- **32/37/42/47/52LG60, 32/42/47/52LG70**
  - Select the HDMI1, HDMI2, HDMI3, or HDMI4 input source on the TV using the INPUT button on the remote control.

NOTE

A DVI to HDMI cable or adapter is required for this connection. DVI doesn’t support audio, so a separate audio connection is necessary.
DVD SETUP

Component Connection

1. How to connect

1. Connect the video outputs (Y, Pb, Pr) of the DVD to the COMPONENT IN VIDEO1 jacks on the TV.
   Match the jack colors (Y = green, Pb = blue, and Pr = red).

2. Connect the audio outputs of the DVD to the COMPONENT IN AUDIO1 jacks on the TV.

2. How to use

- Turn on the DVD player, insert a DVD.
- Select the Component 1 input source on the TV using the INPUT button on the remote control.
- If connected to COMPONENT IN 2 input, select the Component 2 input source on the TV.
- 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.

<table>
<thead>
<tr>
<th>Component ports on the TV</th>
<th>Y</th>
<th>Pb</th>
<th>Pr</th>
</tr>
</thead>
<tbody>
<tr>
<td>Video output ports on DVD player</td>
<td>Y</td>
<td>Pb</td>
<td>Pr</td>
</tr>
<tr>
<td></td>
<td>Y</td>
<td>B-Y</td>
<td>R-Y</td>
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<td>Y</td>
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<td>Cr</td>
</tr>
<tr>
<td></td>
<td>Y</td>
<td>Pb</td>
<td>Pr</td>
</tr>
</tbody>
</table>
Plasma TV, 32/37/42LG30, 37/42/47/52LG50, 32/42/47/52LG70

32/37/42/47/52LG60
S-Video Connection (Except 32/37/42/47/52LG60)

1. How to connect

1. Connect the S-VIDEO output of the DVD to the S-VIDEO input on the TV.
2. Connect the audio outputs of the DVD to the AUDIO input jacks on the TV.

2. How to use

- Turn on the DVD player, insert a DVD.
- Select the AV1 input source on the TV using the INPUT button on the remote control.
- Refer to the DVD player’s manual for operating instructions.
HDMI Connection

1. How to connect

1. Connect the HDMI output of the DVD to the HDMI/DVI IN 1, 2, 3, or 4 jack on the TV.

2. No separate audio connection is necessary. HDMI supports both audio and video.

2. How to use

- Select the HDMI1, HDMI2, HDMI3, or HDMI4 input source on the TV using the INPUT button on the remote control.
- Refer to the DVD player’s manual for operating instructions.

Plasma TV, 32/42/47/52LG70

32/37/42LG30, 37/42/47/52LG50

32/37/42/47/52LG60
VCR SETUP

- To avoid picture noise (interference), leave an adequate distance between the VCR and TV.
- Use the ISM feature in the Option menu to avoid having a fixed image remain on the screen for a long period of time (Plasma TV models only). 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 TVs and is not covered by warranty.

Antenna Connection

1. How to connect

   1. Connect the RF antenna out socket of the VCR to the **ANTENNA/CABLE IN** socket on the TV.

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

2. How to use

   - 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.)
Composite (RCA) Connection

1. How to connect

1. 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 the AV1 input source on the TV using the INPUT button on the remote control.
- If connected to AV IN2, select AV2 input source on the TV.

NOTE

- If you have a mono VCR, connect the audio cable from the VCR to the AUDIO L/MONO jack of the TV.
S-Video Connection (Except 32/37/42/47/52LG60)

1. How to connect
   1. Connect the S-VIDEO output of the VCR to the S-VIDEO input on the TV.
   2. Connect the audio outputs of the VCR to the AUDIO input jacks on the TV.

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 the AV1 input source on the TV using the INPUT button on the remote control.

**NOTE**
- S-Video provides better quality than composite. Use it when available.

**CAUTION**
- Do not connect 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 SETUP

OTHER A/V SOURCE SETUP

1. How to connect

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

2. How to use

- Select the AV2 input source on the TV using the INPUT button on the remote control.
- If connected to AV IN1 input, select the AV1 input source on the TV.
- Operate the corresponding external equipment.
PC SETUP

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

VGA (D-Sub 15 pin) Connection

Plasma TV, 32/37/42LG30, 37/42/47/52LG50, 32/42/47/52LG70

1. How to connect

1. Connect the VGA output of the PC to the RGB (PC) jack on the TV.
2. Connect the PC audio output to the AUDIO (RGB/DVI) jack on the TV.

2. How to use

- Turn on the PC and the TV.
- Select the RGB-PC input source on the TV using the INPUT button on the remote control.
EXTERNAL EQUIPMENT SETUP

DVI to HDMI Connection

1. How to connect

1 32/37/42LG30, 37/42/47/52LG50, Plasma TV
   - Connect the DVI output of the PC to the HDMI/DVI IN 1, 2, or 3 jack on the TV.
   32/37/42/47/52LG60, 32/42/47/52LG70
   - Connect the DVI output of the PC to the HDMI/DVI IN 1, 2, 3, or 4 jack on the TV.

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

2. How to use

- Turn on the PC and the TV.
- 32/37/42LG30, 37/42/47/52LG50, Plasma TV
  - Select the HDMI1, HDMI2, or HDMI3 input source on the TV using the INPUT button on the remote control.
- 32/37/42/47/52LG60, 32/42/47/52LG70
  - Select the HDMI1, HDMI2, HDMI3, or HDMI4 input source on the TV using the INPUT button on the remote control.

NOTES

1 32/37/42LG30, 42/50PG25: To get the the best picture quality, adjust the PC graphics card to 1360x768.

2 37/42/47/52LG50, 32/37/42/47/52LG60, 32/42/47/52LG70, 50/60PG60: To get the best picture quality, adjust the PC graphics card to 1920x1080.

- Depending on the graphics card, DOS mode may not work if a HDMI to DVI Cable is in use.
- In PC mode, there may be noise associated with the resolution, vertical pattern, contrast or brightness. 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 PICTURE menu until the picture is clear.
- Avoid keeping a fixed image on the screen for a long period of time. The fixed image could become permanently imprinted on the screen.
- The synchronization input form for Horizontal and Vertical frequencies is separate.
32/37/42LG30, 37/42/47/52LG50

Plasma TV, 32/42/47/52LG70

32/37/42/47/52LG60
### Supported Display Specifications (RGB-PC, HDMI-PC)

#### NOTE
- Depending on the graphics card, some resolution settings may not allow the image to be positioned on the screen properly.
- If there are overscan in HDMI-PC 1920x1080, change aspect ratio to **Just scan**.

#### For 32/37/42LG30

<table>
<thead>
<tr>
<th>Resolution</th>
<th>Horizontal Frequency (KHz)</th>
<th>Vertical Frequency (Hz)</th>
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<td>640x350</td>
<td>31.469</td>
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<td>640x480</td>
<td>31.469</td>
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<td>800x600</td>
<td>37.879</td>
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<td>1024x768</td>
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<tr>
<td>1366x768</td>
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</table>

* Only RGB-PC mode

#### For 37/42/47/52LG50, 32/37/42/47/52LG60, 32/42/47/52LG70

<table>
<thead>
<tr>
<th>Resolution</th>
<th>Horizontal Frequency (KHz)</th>
<th>Vertical Frequency (Hz)</th>
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</thead>
<tbody>
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<tr>
<td>640x480</td>
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<td>59.94</td>
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<td>800x600</td>
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<td>800x600</td>
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<td>1280x1024</td>
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<tr>
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<td>1600x1200</td>
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<td>1920x1080 RGB-PC</td>
<td>66.587</td>
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<tr>
<td>1920x1080 HDMI-PC</td>
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* Only RGB-PC mode
### Resolution Settings

For 42/50PG25, 50/60PG60

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<td>59.87</td>
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<td>60.289</td>
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<td>1280x1024</td>
<td>63.981</td>
<td>60.02</td>
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<td>1360x768</td>
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<tr>
<td>1600x1200</td>
<td>75.00</td>
<td>60.00</td>
</tr>
<tr>
<td>1920x1080</td>
<td>66.587</td>
<td>59.934</td>
</tr>
</tbody>
</table>

* Only RGB-PC mode
EXTERNAL EQUIPMENT SETUP

Screen Setup for PC mode

Selecting Resolution

You can choose the resolution in RGB-PC mode. The Position, Phase, and Size can also be adjusted.

| Brightness | 50 |
| Sharpness | 60 |
| Color | 60 |
| Tint | 0 |
| Advanced Control |
| Reset |

Screen (RGB-PC)  TruMotion Demo

1

Select PICTURE.

2

Select Screen (RGB-PC).

3

Select Resolution.

4

Select the desired resolution.

5


Only for 32/37/42LG30
Auto Configure

Automatically adjusts picture position and minimizes image instability. After adjustment, if the image is still not correct, try using the manual settings or a different resolution or refresh rate on the PC.

1. Select PICTURE.
2. Select Screen (RGB-PC).
3. Select Auto config.
4. Select Yes.
5. Start Auto Configuration.

• If the position of the image is still not correct, try Auto adjustment again.
• If picture needs to be adjusted again after Auto adjustment in RGB-PC, you can adjust the Position, Size or Phase.
EXTERNAL EQUIPMENT SETUP

Adjustment for screen Position, Size, and Phase

If the picture is not clear after auto adjustment and especially if characters are still trembling, adjust the picture phase manually.
This feature operates only in RGB-PC mode.

Select PICTURE.

Select Screen (RGB-PC).

Select Position, Size, or Phase.

Make appropriate adjustments.

Position: This function is to adjust picture to left/right and up/down as you prefer.
Size: 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.
Screen Reset (Reset to original factory values)

Returns Position, Size, and Phase to the default factory settings. This feature operates only in RGB-PC mode.

1. Select PICTURE.
2. Select Screen (RGB-PC).
3. Select Reset.
4. Select Yes.
USB CONNECTION (Except 32/37/42LG30)

1. How to connect

1. Connect the USB device to the USB IN jack on the side of TV.

2. How to use

After connecting the USB IN jack, you use the USB function. (p.64)
AUDIO OUT CONNECTION

Send the TV’s audio to external audio equipment via the Audio Output port.

Analog (Except 32/37/42/47/52LG60)

1. How to connect

1. Connect audio outputs to the TV’s AUDIO OUT jacks.

2. Set the “TV Speaker option - Off” in the AUDIO menu. (p.93). See the external audio equipment instruction manual for operation.

Digital

1. How to connect

1. Connect one end of the optical or coaxial cable to the TV’s OPTICAL or COAXIAL (Except 32/37/42LG30) port of DIGITAL AUDIO OUT.

2. Connect the other end of the optical or coaxial cable to the digital audio input on the audio equipment.

3. Set the “TV Speaker option - Off” in the AUDIO menu. (p.93). See the external audio equipment instruction manual for operation.

NOTE

► When connecting with external audio equipments, such as amplifiers or speakers, you can turn the TV speakers off in the menu. (p.93)

CAUTION

► Do not look into the optical output port. Looking at the laser beam may damage your vision.
► Block the SPDIF out (optical/coaxial) about the contents with ACP (Audio Copy Protection) function.
REMOTE CONTROL FUNCTIONS

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

<table>
<thead>
<tr>
<th>Function</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>TV/STB/DVD/VCR</td>
<td>Select the remote operating mode: TV, STB, DVD, or VCR.</td>
</tr>
<tr>
<td>POWER</td>
<td>Turns your TV or any other programmed equipment on or off, depending on the mode.</td>
</tr>
<tr>
<td>Q.MENU</td>
<td>Select the desired quick menu source. p.51</td>
</tr>
<tr>
<td>MENU</td>
<td>Displays the main menu. Clear all on-screen displays and return to TV viewing from any menu.</td>
</tr>
<tr>
<td>INPUT</td>
<td>External input modes rotate in regular sequence.</td>
</tr>
<tr>
<td>VOLUME UP/DOWN</td>
<td>Increase/decrease the sound level.</td>
</tr>
<tr>
<td>FAV</td>
<td>Scroll through the programmed Favorite channels. p.51</td>
</tr>
<tr>
<td>MUTE</td>
<td>Switch the sound on or off. p.50</td>
</tr>
<tr>
<td>CHANNEL UP/DOWN</td>
<td>Select available channels.</td>
</tr>
<tr>
<td>PAGE UP/DOWN</td>
<td>Move from one full set of screen information to the next one.</td>
</tr>
<tr>
<td>NUMBER button</td>
<td>Used to enter a program number for multiple program channels such as 2-1, 2-2, etc.</td>
</tr>
<tr>
<td>— (DASH)</td>
<td></td>
</tr>
<tr>
<td>FLASHBK</td>
<td>Tune to the last channel viewed.</td>
</tr>
<tr>
<td>VCR/DVD, USB, SIMPLINK</td>
<td>Control video cassette recorders or DVD players. Control USB menu (PHOTO LIST and MUSIC LIST.) Control the SIMPLINK compatible devices.</td>
</tr>
<tr>
<td>Control buttons</td>
<td></td>
</tr>
</tbody>
</table>
Installing Batteries

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

THUMBSTICK (Up/Down/Left Right/ENTER)

- Navigate the on-screen menus and adjust the system settings to your preference.
- RETURN Allows the user to move return one step in an interactive application or other user interaction function.
- SIMPLINK See a list of AV devices connected to TV.
  When you toggle this button, the SIMPLINK menu appears at the screen. ➤ p.62-63
- AV MODE It helps you select and set images and sounds. ➤ p.61
TURNING ON THE TV

1. First, connect power cord correctly.
   At this moment, the TV switches to standby mode.
   - In standby mode to turn TV on, press the Input, CH (▼ or ▲) button on the TV or press the POWER, INPUT, CH(▲ or ▼), Number (0-9) button on the remote control.
2. Select the viewing source by using the INPUT button on the remote control.
   - This TV is programmed to remember which power state it was last set to, even if the power cord is out.
3. When finished using the TV, press the POWER button on the remote control.
   The TV reverts to standby mode.

**NOTE**

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

CHANNEL SELECTION

1. Press the CH (▲ or ▼) or NUMBER buttons to select a channel number.

VOLUME ADJUSTMENT

Adjust the volume to suit your personal preference.

1. Press the VOL (+ or -) button to adjust the volume.
2. If you want to switch the sound off, press the MUTE button.
3. You can cancel the Mute function by pressing the MUTE or VOL (+ or -) button.
QUICK MENU

Your TV's OSD (On Screen Display) may differ slightly from what is shown in this manual. Q.Menu (Quick Menu) is a menu of features which users might use frequently.

- **Aspect Ratio**: Selects your desired picture format.
- **Power Saving** (Plasma TV Only): Adjusts screen brightness to reduce the power consumption of the TV.
- **Backlight** (LCD TV Only): Adjust the brightness of LCD panel to control the brightness of the screen.
- **Clear Voice**: By differentiating the human sound range from others, it helps make human voices sound better.
- **Picture Mode**: Selects the factory preset picture depend on the viewing environment.
- **Sound Mode**: Selects the factory preset sound for type of program.
- **Caption**: Select on or off.
- **Multi Audio**: Changes the audio language (Digital signal).
  - **SAP**: Selects MTS sound (Analog signal).
- **Sleep Timer**: Select the amount of time before your TV turns off automatically.
- **Del/Add/Fav**: Select channel you want to add/delete or add the channel to the Favorite List.
- **USB Eject**: Select “USB Eject” in order to eject USB device.

1. Display each menu.
2. Make appropriate adjustments.
3. Return to TV viewing.

Except 32/37/42LG30
INITIAL SETTING

This Function guides the user to easily set the essential items for viewing the TV for the first time when purchasing the TV. If will be displayed on the screen when turning the TV on for the first time. It can also be activated from the user menus.

- Default selection is “Home”. We recommend setting the TV to “Home” mode for the best picture in your home environment.
- “In-store” Mode is only intended for use in retail environments. Customers can adjust the “Picture menu - Picture mode” manually while inspecting the TV, but the TV will automatically return to preset in-store mode after 5 minutes.

Step1. Mode setting

![Mode Setting]

1. Select Home Mode.
2. Enter

Step2. Time setting

![Time Setting]

1. Select Auto or Manual.
2. Select desired time option.
3. Enter
Step 3. Option setting

- Select OSD Language Setting or Audio Language Setting.
- Select your desired language.

Step 4. Auto Tuning

- Start Auto Tuning.

NOTE
- You can also adjust Initial Setting in the OPTION menu.
ON-SCREEN MENUS SELECTION

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

All models (Except 32/37/42LG30)

1. Display each menu.
2. Select a menu item.
3. Enter to the pop up menu.
4. Return to TV viewing.

- Backlight, Power Indicator, TruMotion Demo: Only LCD TV.
- ISM Method, Power Saving: Only Plasma TV.
- Set ID: Except 32/37/42/47/52LG60, 32/42/47/52LG70

NOTE
WATCHING TV / CHANNEL CONTROL

Only for 32/37/42LG30

1. Display each menu.
2. Select a menu item.
3. Enter to the pop up menu.
4. Return to TV viewing.

### CHANNEL
- Auto Tuning
- Manual Tuning
- Channel Edit

### PICTURE
- **Aspect Ratio**: 16:9
- **Picture Mode**: Standard
  - Backlight: 80
  - Contrast: 90
  - Brightness: 50
  - Sharpness: 60
  - Color: 60
  - Tint: 0

### AUDIO
- **Auto Volume**: Off
- **Clear Voice**: On
- **Balance**: 0
- **Sound Mode**: Standard
  - SRS TruSurround XT: Off
  - Treble: 50
  - Bass: 50
  - Reset

### TIME
- **Clock**: Feb 21/2008 2:10 AM
- **On Time**: Off
- **Sleep Timer**: Off
- **Auto Sleep**: Off

### OPTION
- **Language**: English
- **Input Label**: SIMPLINK: On
- **Key Lock**: Off
- **Caption**: Off
- **Set ID**: 1
- **Power Indicator**: Off
- **Initial Setting**: Home

### LOCK
- **Lock System**: Off
- **Set Password**: Block Channel
- **TV Rating-Children**: TV Rating-General
- **Downloadable Rating**: Input Block

For USA
For Canada
WATCHING TV / CHANNEL CONTROL

CHANNEL SETUP

Auto Scan (Auto Tuning)

Automatically finds all channels available through antenna or cable inputs, and stores them in memory on the channel list.
Run Auto Tuning again after any Antenna/Cable connection changes.

1. Select CHANNEL.
2. Select Auto Tuning.
3. Select Yes.
4. Run Auto tuning.
5. Return to the previous menu.

■ A password is required to gain access to Auto Tuning menu if the Lock System is turned on.
Add/Delete Channel (Manual Tuning)

If selecting DTV or CADTV input signal, you can view the on-screen signal strength monitor to see the quality of the signal being received.

1. Select CHANNEL.
2. Select Manual Tuning.
3. Select DTV, TV, CADTV, or CATV.
4. Select channel you want to add or delete.
5. Select Add or Delete.
6. Return to the previous menu.

- A password is required to gain access to Manual Tuning menu if the Lock System is turned on.
WATCHING TV / CHANNEL CONTROL

CHANNEL SETUP

Channel Editing

A custom list can be created by toggling each channel on or off with ENTER button. The channels in the Custom List are displayed in black and the channels deleted from the Custom List are displayed in gray. Once a channel is highlighted you can add or delete the channel by referring to the small window at the top-right corner of the screen.

1. MENU Select CHANNEL.
2. ENTER Select Channel Edit.
3. ENTER Select a channel.
4. ENTER Select channel you want to add or delete.
5. MENU Return to the previous menu.
6. RETURN Return to TV viewing.
INPUT LIST

Only these input signals which are connected to a TV can be activated and selected.

1. Select the desired input source.
   - You can also select the desired input source in the INPUT menu (Except 32/37/42LG30).

   32/37/42LG30, 37/42/47/52LG50
   - Antenna → Cable → AV1 → AV2 → Component1 → Component2
     - HDMI3 ← HDMI2 ← HDMI1 ← RGB-PC

   Plasma TV, 32/42/47/52LG70
   - Antenna → Cable → AV1 → AV2 → Component1 → Component2
     - HDMI4 ← HDMI3 ← HDMI2 ← HDMI1 ← RGB-PC

   32/37/42/47/52LG60
   - Antenna → Cable → AV → Component1 → Component2
     - HDMI4 ← HDMI3 ← HDMI2 ← HDMI1 ← RGB-PC

Disconnected input is inactivated.

Select a desired input source (except Antenna or Cable). Then, you can select your desired Input Label with using Q. MENU button. ⇒ p.60

- Antenna: Select it to watch over-the-air broadcasts.
- Cable: Select it to watch cable and digital cable.
- AV: Select them to watch a VCR or other external equipment.
- Component: Select them to watch DVD or a Digital set-top box.
- RGB-PC: Select it to view PC input.
- HDMI: Select them to watch high definition devices.
INPUT LABEL

You can set a label for each input source when it’s not in use.

With using OPTION menu
1. Select OPTION.
2. Select Input Label.
3. Select the source.
4. Select the label.
5. Return to the previous menu.

With using INPUT button
1. Select the source.
2. Select the label.
3. Return to the previous menu.

Return to TV viewing.

When new external device is connected, this popup menu is displayed automatically.
If selecting Yes, you can select input source that you want to appreciate.
But, when selecting “SIMPLINK - On”, popup menu for HDMI input will not be displayed.
AV MODE

You can select the optimal images and sounds.

Press the AV MODE button repeatedly to select the desired source.

- If you select “Cinema” in AV mode, Cinema will be selected both for “PICTURE menu - Picture Mode” and “AUDIO menu - Sound Mode” respectively.
- If you select “Off” in AV mode, the “Picture Mode” and “Sound Mode” return to previous selected value.
This function operates only with devices with the Simplink logo.
The TV might not function properly when using it with other products with HDMI-CEC function.
This allows you to control and play other AV devices connected with HDMI cable without additional cables and settings.
To start using SIMPLINK, turn it on in the user menus.

**NOTE**
- Connect the HDMI/DVI IN or HDMI IN terminal of the TV to the rear terminal (HDMI terminal) of the SIMPLINK device with the HDMI cable.
- When you switch the Input source with the INPUT button on the remote control, the SIMPLINK device will stop.
- When you select a device with home theater functionality, the sound output automatically switches to the home theater speakers.
- If a connected SIMPLINK home theater system doesn’t play the audio from the TV, connect the DIGITAL AUDIO OUT terminal on the back of the TV to the DIGITAL AUDIO IN terminal on the back of the SIMPLINK device with an OPTICAL cable.
**SIMPLINK Functions**

- **Direct Play**: After connecting AV devices to the TV, you can directly control the devices and play media without additional settings.
- **Select AV device**: Enables you to select one of the AV devices connected to TV.
- **Disc playback**: Control connected AV devices by pressing the ^ (up), v (down), < (left), > (right), ENTER, ►, ◄, ll (fast reverse) and ►► (fast forward) buttons.
- **Power off all devices**: When you power off the TV, all connected devices are turned off.
- **Switch audio-out**: Offers an easy way to switch audio-out.

**Note**: To operate SIMPLINK, an HDMI cable over Version 1.2 with *CEC function should be used. (*CEC: Consumer Electronics Control).

---

**SIMPLINK Functions**

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

**SIMPLINK Menu**

- **When no device is connected** (displayed in gray)
- **Selected Device**
- **When a device is connected** (displayed in bright color)
ENTRY MODES

When you connect a USB device, this screen is displayed automatically. In USB device, you can not add a new folder or delete the existing folder.

1 Connect the USB device to the USB IN jacks on the side of TV.

2 Select PHOTO LIST or MUSIC LIST

3 Select USB Eject menu before removing the USB device.

Precautions when using the USB device

- Only a USB storage device is recognizable.
- If the USB storage device is connected through a USB hub, the device is not recognizable.
- A USB storage device using an automatic recognition program may not be recognized.
- A USB storage device which uses its own driver may not be recognized.
- In case of a card reader, up to four memory cards are concurrently recognizable.
- The recognition speed of a USB storage device may depend on each device.
- Please do not turn off the TV or unplug the USB device when the connected USB storage device is working. When such device is suddenly separated or unplugged, the stored files or the USB storage device may be damaged.
- Please do not connect the USB storage device which was artificially maneuvered on the PC. The device may cause the product to malfunction or fail to be played. Never forget to use only a USB storage device which has normal music files or image files.

- It doesn’t support USB HDD
- This TV supports JPG and MP3.

When removing the USB device

Select the USB Eject menu before removing the USB device.

1 Select USB Eject.

2 Please use only a USB storage device which was formatted as a FAT or NTFS file system provided with the Windows operating system. In case of a storage device formatted as a different utility program which is not supported by Windows, it may not be recognized.

- Please connect power to a USB storage device which requires an external power supply. If not, the device may not be recognized.

- Please connect a USB storage device with cable is offered by USB maker. If connected with cable is not offered by USB maker or an excessively long cable, the device may not be recognized.

- Some USB storage devices may not be supported or operated smoothly.

- File alignment method of USB storage device is similar to Window XP and filename can recognize up to 100 English characters.

- Please backup important files because data on USB device may be damaged. Data management is consumer’s responsibility and as a result, the manufacturer does not cover data damage.
PHOTO LIST

You can view .JPG files from USB storage devices. The On Screen Display on your model may be slightly different.

Supported photo file: *.JPG
- You can play JPG files only.
- Only baseline scan is supported among JPG.

Screen Components

1. Moves to upper level file
2. Preview: Display the thumbnail/folder name of the photo in the selected folder
3. Current page/Total pages
4. Total number of marked photos
5. Usable USB memory
6. Corresponding buttons on the remote control
Photo Selection and Popup Menu

1. Select the target folder or drive.
2. Select the desired photos.
3. Show the Popup menu.
4. Select the desired Popup menu.

When you select a file (not folder), this PopUp menu is displayed.
- **View**: Display the selected item.
- **Mark All**: Mark all photos on the screen.
- **Unmark All**: Deselect all marked photos.
- **Delete**: Delete the selected photo item.
- **Cancel**: Close the pop-up menu.

- Use the CH ▲ ▼ button to navigation in the photo page.
- Use the FAV button to mark or unmark a photo. When one or more photos are marked, you can view individual photos or a slide show of the marked photos. If no photos are marked, you can view all photos individually or all photos in the folder in a slide show.
Full Screen Menu

You can change the Photo List view so that it fills the screen. More operations are available in full screen mode.

1. Select the target folder or drive.
2. Select the desired photos.
3. Show the Popup menu.
4. Select View.
5. The selected photo is displayed in full size.

The aspect ratio of a photo may change the size of the photo displayed on the screen in full size.
Select the **Sideshow**, **BGM**, **(Rotate)**, **Delete**, **Option**, or **Hide**.

- **Use** `< >` **button** to select the previous or next photo.
- **Use** `↑ ↓ < >` **button** to select and control the menu on the full-sized screen.

**NOTE**
- This TV will not be able to decode most JPEG images saved using the Progressive option.

**Sideshow**: Selected photos are displayed during the slide show. If no photo is selected, all photos in the current folder are displayed during slide show.
  - Set the time interval of the slide show in **Option**.
  - A slide show continues for a maximum of 4 hours. After 4 hours, the slide show will end and go to TV mode or external input mode.

**BGM**: Listen to music while viewing photos in full size.
  - Set the BGM device and album in **Option**.

**U (Rotate)**: Rotate photos.
  - Rotates the photo 90°, 180°, 270°, 360° clockwise.

**Delete**: Delete photos.

**Option**: Set values for **Slide Speed** and **Music Folder**.
  - Use `< >` **button** and **ENTER** **button** to set values.
  - Then go to **Enter** and press **ENTER** to save the settings.
  - You cannot change **Music Folder** while BGM is playing.

**Hide**: Hide the menu on the full-sized screen.
  - To see the menu again on the full-sized screen, press **ENTER** **button** to display.
MUSIC LIST

You can use the Music List menu to play MP3 files from a USB storage device.
This TV cannot play back copy-protected files.
The On Screen Display on your model may be slightly different.

Supported music file: *.MP3
Bit rate range 40Kbps ~ 320Kbps
• Sampling rate (Sampling Frequency)
  MPEG1 : 32000, 44100, 48000Hz
  MPEG2 : 16000, 24000, 22050Hz
  MPEG2.5 : 16 ~ 48kHz

Screen Components

1. Moves to upper level file
2. Preview: If any album jacket for the file exists, this jacket is displayed.
3. Current page/Total pages
4. Total number of marked musics
5. Usable USB memory
6. Corresponding buttons on the remote control
Music Selection and Popup Menu

Up to 6 music titles are listed per page.

1. Select the target folder or drive.
2. Select the desired musics.
3. Show the Popup menu.
4. Select the desired Popup menu.
5. Return to TV viewing.

- **Play** (During stop): Play the selected music. Once a song finishes playing, the next selected one will be played. When there are no selected musics to play, the next one in the current folder will be played. If you go to a different folder and press the **ENTER** button, the current music in playback will stop.
- **Play Marked**: Play the selected musics. Once a music finishes playing, the next selected one will be played automatically.
- **Stop Play** (During playback): Stop the playing musics.
- **Play with Photo**: Start playing the selected musics and then move to the Photo List.
- **Mark All**: Mark all musics in the folder.
- **Unmark All**: Deselect all marked music.
- **Delete**: Delete the selected music.
- **Cancel**: Close the pop-up menu.

Use the **CH** button to navigation in the music page.

Use **FAV** button to mark or unmark a music file. If no music is marked, all the music in the folder will be played in sequence. When one or more music files are marked, the marked music files will be played in sequence. If you want to listen to only one song repeatedly, just mark that one file and play.
The play information box (as shown below) will automatically move across the screen when there is no user input to prevent a fixed image remaining on the screen for an extended period of time.

![Play information box](image)

**NOTE**

- When music is playing, 🎵 is displayed in front of the music play time.
- A damaged or corrupted music file that does not play displays 00:00 as the play time.
- Music files with copy-protection will not play.
- Press **ENTER**, ■, or **RETURN** button to stop the screen saver.
- This TV can not play music files less than 16 Kbytes.
PICTURE SIZE (ASPECT RATIO) CONTROL

This feature lets you choose the way an analog picture with a 4:3 aspect ratio is displayed on your TV.
- RGB-PC input source use 4:3 or 16:9 aspect ratio.

NOTE

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

This phenomenon is common to all manufacturers and is not covered by warranty. Although, after watching video that did not fill the screen, any after-image from the black bars will normally dissipate after a few minutes.

You can also adjust Aspect Ratio in the Q-Menu.

1. Select PICTURE.
2. Select Aspect Ratio.
3. Select the desired picture format.
4. Return to the previous menu.
5. Return to TV viewing.
Set by program
Selects the proper picture proportion to match the source’s image.

(4:3 → 4:3)

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

(16:9 → 16:9)

16:9
Adjust the picture horizontally, in a linear proportion to fill the entire screen.

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.

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.

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

Notes: If there are noise in original picture, you can see the noise at the edge.

Just Scan operates only in DTV/CADTV/Component/HDMI-DTV/DVI-DTV (720p/1080i/1080p) input source.
PICTURE CONTROL

PRESET PICTURE SETTINGS

Picture Mode - Preset

There are factory presets for picture settings available in the user menus. You can use a preset, change each setting manually, or use the Intelligent Sensor.

1. Select PICTURE.
2. Select Picture Mode.
3. Select Intelligent Sensor (Except 32/37/42LG30, Plasma TV), Vivid, Standard, Cinema/THX Cinema (Only for 50/60PG60), Sport, or Game.
4. Return to the previous menu.
5. Return to TV viewing.

- When selecting Intelligent Sensor (Except 32/37/42LG30, Plasma TV), the most suitable picture is automatically adjusted according to the surrounding conditions.
- Vivid, Standard, Cinema/THX Cinema, Sport, and Game Settings are preset for the optimum picture quality at the factory and are not adjustable.
- You can also adjust Picture Mode in the Q. Menu.
Color Tone - Preset

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. Select PICTURE.
2. Select Advanced Control.
3. Select Color Temperature.
4. Select Cool, Medium, or Warm.
5. Return to the previous menu.

RETURN

Return to TV viewing.
PICTURE CONTROL

MANUAL PICTURE ADJUSTMENT

Picture Mode - User Mode

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

LCD TV only: This feature is disable in “Picture Mode - Intelligent Sensor”.

50/60PG60 only: This feature is disable in “Picture Mode - THX Cinema”.

1. Select PICTURE.

2. Select Picture Mode.

3. Select Vivid, Standard, Cinema, Sport, or Game.

4. Select Backlight (Only LCD TV), Contrast, Brightness, Sharpness, Color, or Tint.

5. Make appropriate adjustments.

6. Return to the previous menu.

MENU Return to TV viewing.
Picture Mode - Expert Control

By segmenting categories, Expert1 and Expert2 provide more categories which users can set as they see fit, offering the optimal picture quality for users.

1. Select PICTURE.
2. Select Picture Mode.
3. Select Expert1 or Expert2.
4. Select Expert Control.
5. Select your desired menu option.
6. Make appropriate adjustments.
7. Return to the previous menu.
8. Return to TV viewing.
PICTURE IMPROVEMENT TECHNOLOGY

Fresh Contrast: Optimizes the contrast automatically according to the brightness of the reflection.
Fresh Color: Adjusts the color of the reflection automatically to reproduce as close as possible natural colors.
Noise Reduction: Removes interference up to the point where it does not damage the original picture.
Gamma: High gamma values display whitish images and low gamma values display high contrast images.

1. Select PICTURE.
2. Select Advanced Control.
3. Select Fresh Contrast, Fresh Color, Noise Reduction, or Gamma.
4. Select your desired options.
5. Return to the previous menu.

Return to TV viewing.
ADVANCED CONTROL - BLACK (DARKNESS) LEVEL

Adjusting the contrast and the brightness of the screen using the black level of the screen. This feature is disable in DTV and RGB-PC mode.

1. Select PICTURE.
2. Select Advanced Control.
3. Select Black Level.
4. Select Low or High.
5. Return to the previous menu.

- **Low**: The reflection of the screen gets darker.
- **High**: The reflection of the screen gets brighter.
- **Auto**: Realizing the black level of the screen and set it to High or Low automatically.
ADVANCED CONTROL - EYE CARE - LCD TV Only

 Dems extremely bright pictures.
 This feature is disable in “Picture Mode-Vivid, Cinema”.

1. Select PICTURE.
2. Select Advanced Control.
3. Select Eye Care.
4. Select On or Off.
5. Return to the previous menu.
6. Return to TV viewing.
ADVANCED CONTROL - REAL CINEMA / FILM MODE

Set up the TV for the best picture appearance for viewing movies. When you operate Real Cinema/Film Mode (3:2 Pull-Down Mode or Cinema Correction Mode), the TV will adjust 24 fps video from movies to 30 fps video for display.

- Plasma TV, 32/37/42LG30
  This feature operates only in TV (Analog TV/CATV, Digital DTV/CADTV), AV1, AV2, Component 480i/1080i, and HDMI 1080i mode.

- 37/42/47/52LG50
  This feature operates only in TV (Analog TV/CATV, Digital DTV/CADTV), AV1, AV2, Component 480i/1080i, and HDMI 1080i mode.
  This TV outputs 48Hz in DTV, Component, and HDMI 1080p (24Hz).

- 32/37/42/47/52LG60, 32/42/47/52LG70
  This function works with all inputs except PC mode.

<table>
<thead>
<tr>
<th>Screen</th>
<th>TruMotion</th>
<th>Real Cinema</th>
</tr>
</thead>
<tbody>
<tr>
<td>5:5 Pull-Down</td>
<td>Off</td>
<td>On</td>
</tr>
<tr>
<td>3:2 Pull-Down</td>
<td>On</td>
<td>On</td>
</tr>
</tbody>
</table>

1. Select PICTURE.
2. Select Advanced Control.
3. Select Real Cinema or Film Mode.
4. Select On or Off.
5. Return to the previous menu.

For Plasma TV

For LCD TV
ADVANCED CONTROL - TRUMOTION
- Only 32/37/42/47/52LG60, 32/42/47/52LG70

TruMotion provides even better quality for movies than 3:2 Pull-Down conversions.
TruMotion means the panel supports faster frame rates that normal panels which makes for smoother motion in video. TruMotion LCD models support 120Hz instead of 60Hz. This means twice the information on the screen in the same amount of time and easier film conversions (120 is equally divisible by 24, so no interpretations or double frames are needed).
TruMotion works with all inputs except PC mode.

1. MENU
2. ENTER
3. ENTER
4. Select Off, Low, or High.
5. RETURN

High: Provides smoother picture movement.
Low: Provides smooth picture movement. Use this setting for standard use.
Off: Use this setting when “High” and “Low” setting result in noise.
If you enable “TruMotion”, noise may appear on the screen.
If this occurs, set “TruMotion” to “Off”.

Select PPICTURE.
Select Advanced Control.
Select TruMotion.

PICTURE

1. MENU
2. ENTER
3. ENTER
4. SELECT
5. RETURN

PICTURE

PICTURE

PICTURE

PICTURE

PICTURE
TRUMOTION DEMO - Only 32/37/42/47/52LG60, 32/42/47/52LG70

Use this feature to see the difference TruMotion makes. TruMotion works with all inputs except PC mode.

1. Select PICTURE.
2. Select TruMotion Demo.
3. Begin TruMotion Demo.
4. Stop TruMotion Demo.
PICTURE CONTROL

PICTURE RESET

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

1. Select PICTURE.
2. Select Reset.
3. Initialize the adjusted value.
4. Return to TV viewing.
POWER INDICATOR - LCD TV Only

1. Select OPTION.

2. Select Power Indicator.

3. Select Startup Sound, Standby Light, Power Light or Demo Mode.

4. Select your desired options.

5. Return to the previous menu.

Return to TV viewing.

- **Startup Sound**: You can turn off the starting sound of the TV or set the volume.
- **Standby Light**: You can set the brightness of the LED on the front side of the TV during power standby.
- **Power Light**: You can set the LED on the front side of the TV to be turned on or off while watching the TV.
- **Demo Mode**: You can set the LED on the front side of the TV to flash.
IMAGE STICKING MINIMIZATION (ISM) METHOD - Plasma TV Only

A frozen still picture from a PC/video game displayed on the screen for prolonged periods can result in a ghost image. You can use Orbiter to help prevent image sticking. The other two functions are for removing a ghost image.

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

**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 ghost image on the screen, the image will move every 2 minutes.

**Inversion**: Inversion will automatically invert the plasma display panel color every 30 minutes.

**White Wash**: White Wash removes ghost images from the screen. Use sparingly. Watch the TV normally for a while before using this feature to see if the ghost image disappears on its own.

**NOTE**
- An excessive ghosted image may be impossible to clear entirely with White Wash. To return to normal viewing, press the any button.

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**OPTION**

<table>
<thead>
<tr>
<th>Option</th>
<th>Content</th>
</tr>
</thead>
<tbody>
<tr>
<td>Language</td>
<td>English</td>
</tr>
<tr>
<td>Input Label</td>
<td>On</td>
</tr>
<tr>
<td>SIMPLINK</td>
<td>On</td>
</tr>
<tr>
<td>Key Lock</td>
<td>Off</td>
</tr>
<tr>
<td>Caption</td>
<td>Off</td>
</tr>
<tr>
<td>ISM Method</td>
<td>Normal</td>
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<tr>
<td>Power Saving</td>
<td>Level 0</td>
</tr>
<tr>
<td>Set ID</td>
<td>1</td>
</tr>
</tbody>
</table>

---

1. Select OPTION.
2. Select ISM Method.
3. Select Normal, Orbiter, Inversion or White Wash.
4. Return to the previous menu.
5. Return to TV viewing.
POWER SAVING PICTURE MODE - Plasma TV Only

It reduces the plasma display’s power consumption.

<table>
<thead>
<tr>
<th>OPTION</th>
<th>Move</th>
<th>Enter</th>
</tr>
</thead>
<tbody>
<tr>
<td>Language     : English</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Input Label</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SIMPLINK     : On</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Key Lock     : Off</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Caption      : Off</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ISM Method   : Normal</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Power Saving : Level 0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Set ID       : 1</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Level 0 is the brightest.
Level 0 > Level 1 > Level 2 > Level 3 > Level 4
You can also adjust Power Saving in the Q. Menu.

1. Select OPTION.
2. Select Power Saving.
3. Select Level 0, Level 1, Level 2, Level 3, or Level 4.
4. Return to the previous menu.
   Return to TV viewing.
SOUND & LANGUAGE CONTROL

AUTO VOLUME LEVELER (AUTO VOLUME)

Auto Volume makes sure that the volume level remains consistent whether you are watching a commercial or a regular TV program.

1. Select AUDIO.
2. Select Auto Volume.
3. Select On or Off.
4. Return to the previous menu.
5. Return to TV viewing.
PRESET SOUND SETTINGS (SOUND MODE)

Sound Mode lets you enjoy the best sound without any special adjustment as the TV sets the appropriate sound options based on the program content. Standard, Music, Cinema, Sport, and Game are preset for optimum sound quality at the factory and are not adjustable.

1. Select AUDIO.
2. Select Sound Mode.
3. Select Standard, Music, Cinema, Sport, or Game.
4. Return to the previous menu.
5. Return to TV viewing.

- You can also adjust Sound Mode in the Q. Menu.
SOUND & LANGUAGE CONTROL

SOUND SETTING ADJUSTMENT - USER MODE

Adjust the sound to suit your taste and room situations.

1. Select AUDIO.
2. Select Sound Mode.
3. Select Standard, Music, Cinema, Sport, or Game.
4. Select Treble or Bass.

SRS TRUSURROUND XT

1. Select AUDIO.
2. Select SRS TruSurround XT
3. Select On or Off.
4. Return to the previous menu.

- SRS TruSurround XT: Takes advantage of any multi-channel format without needing to add extra speakers or equipment. Dialog clarity, bass enrichment, and the addition of stereo audio enhancement produces an immersive sound experience from standard stereo material.
CLEAR VOICE

By differentiating the human sound range from others, it improves the sound quality of voices.

1. Select AUDIO.
2. Select Clear Voice.
3. Select On or Off.
4. Return to the previous menu.

Return to TV viewing.

- If you select “Clear Voice-On”, SRS TruSurround XT feature will not work.
- You can also adjust Clear Voice in the Q-Menu.
BALANCE

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

1. Select AUDIO.
2. Select Balance.
3. Make appropriate adjustments.
4. Return to the previous menu.

Return to TV viewing.
TV SPEAKERS ON/OFF SETUP

Turn the TV speakers off if using external audio equipment.

1. Select AUDIO.
2. Select TV Speaker.
3. Select On or Off.
4. Return to the previous menu.
5. Return to TV viewing.
SOUND & LANGUAGE CONTROL

AUDIO RESET

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

1. Select AUDIO.
2. Select Reset.
3. Initialize the adjusted value.
4. Return to TV viewing.
### STEREO/SAP BROADCAST SETUP

For Analog only: This TV can receive MTS stereo programs and any SAP (Secondary Audio Program) that accompanies the stereo program if the station transmits an additional sound signal. Mono sound is automatically used if the broadcast is only in Mono.

**Analog TV**

1. Q. MENU
   - Select **SAP**.
2. Select **Mono, Stereo, or SAP**.
3. Q. MENU
   - Return to TV viewing.

**Digital TV**

1. Q. MENU
   - Select **Multi Audio**.
2. Select other languages.
3. Q. MENU
   - Return to TV viewing.
SOUND & LANGUAGE CONTROL

AUDIO LANGUAGE

Other languages may be available if a digital signal is provided by the broadcasting station. This feature operates only in DTV/CADTV mode.

1. Select OPTION.
2. Select Language.
3. Select Audio.
4. Select your desired language: English, Spanish, or French.
5. Return to the previous menu.
6. Return to TV viewing.
ON-SCREEN MENUS LANGUAGE SELECTION

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

1. Select **OPTION**.
2. Select **Language**.
3. Select **Menu**.
4. Select your desired language. From this point on, the on-screen menus will be shown in the selected language.
5. Return to the previous menu. Return to TV viewing.
CAPTION MODE

Analog Broadcasting System Captions

Caption must be provided to help people with hearing loss watch TV. Select a caption mode for displaying captioning information if provided on a program. Analog caption displays information at any position on the screen and is usually the program’s dialog. Caption/Text, if provided by the broadcaster, would be available for both digital and analog channels on the Antenna/Cable. This TV is programmed to memorize the caption/text mode which was last set when you turned the power off. This function is only available when Caption Mode is set On.

![Caption Mode Settings](image)

1. Select OPTION.
2. Select Caption.
4. Select CC1-4 or Text1-4.
5. Return to the previous menu.

- When selecting Off, Sub-menus for Analog, DTV, and Digital Option become disabled.
- **CAPTION**
  The term for the words that scroll across the bottom of the TV screen; usually the audio portion of the program provided for the hearing impaired.
- **TEXT**
  The term for the words that appear in a large black frame and almost cover the entire screen; usually messages provided by the broadcaster.
Digital Broadcasting System Captions

Choose the language you want the DTV/CADTV Captions to appear in. Other Languages can be chosen for digital sources only if they are included on the program. This function is only available when Caption Mode is set On.

Select OPTION.

Select Caption.

Select On.

Select CC1-4, Text1-4, or Service1-6.

Return to the previous menu.

Return to TV viewing.
Caption Option

Customize the DTV/CADTV captions that appear on your screen. This function in only available when Caption Mode is set On.

<table>
<thead>
<tr>
<th>OPTION</th>
<th>Move</th>
<th>Enter</th>
</tr>
</thead>
<tbody>
<tr>
<td>Language</td>
<td>: English</td>
<td></td>
</tr>
<tr>
<td>Input Label</td>
<td>: On</td>
<td></td>
</tr>
<tr>
<td>SIMPLINK</td>
<td>: On</td>
<td></td>
</tr>
<tr>
<td>Key Lock</td>
<td>: Off</td>
<td></td>
</tr>
<tr>
<td>Caption</td>
<td>: Off</td>
<td></td>
</tr>
<tr>
<td>ISM Method</td>
<td>: Normal</td>
<td></td>
</tr>
<tr>
<td>Power Saving</td>
<td>: Level 0</td>
<td></td>
</tr>
<tr>
<td>Set ID</td>
<td>: 1</td>
<td></td>
</tr>
</tbody>
</table>

- **Size**: Set the word size.
- **Font**: Select a typeface for the text.
- **Text Color**: Choose a color for the text.
- **Text Opacity**: Specify the opacity for the text color.
- **Bg (Background) Color**: Select a background color.
- **Bg (Background) Opacity**: Select the opacity for the background color.
- **Edge Type**: Select an edge type.
- **Edge Color**: Select a color for the edges.

1. Select **OPTION**.
2. Select **Caption**.
3. Select **On**.
4. Select **Digital Option**.
5. Select **Custom**.
6. Customize the **Style, Font** etc., to your preference. A preview icon is provided at the bottom of the screen, use it to see the caption language.
7. Return to the previous menu.
8. Return to TV viewing.
TIME SETTING

CLOCK SETTING

Auto Clock Setup

The time is set automatically from a digital channel signal. The digital channel signal includes information for the current time provided by the broadcasting station. Set the clock manually if the current time is set incorrectly by the auto clock function.

1. Select TIME.
2. Select Clock.
3. Select Auto.
4. Select your viewing area time zone.
   • U.S.A: Eastern, Central, Mountain, Pacific, Alaska, or Hawaii.
   • Canada: Eastern, Central, Mountain, Pacific, New F.land, or Atlantic.
5. Select Auto, Off, or On (depending on whether or not your viewing area observes Daylight Saving time).
6. Return to the previous menu.
7. Return to TV viewing.
Manual Clock Setup

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

1. Select TIME.
2. Select Clock.
4. Select the Year, Month, Date, Hour, or Minutes option.
5. Set the Year, Month, Date, Hour, or Minutes option.
6. Return to the previous menu.
7. Return to TV viewing.
AUTO ON/OFF TIME SETTING

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

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

Only for **On Time** function

1. **MENU** Select **TIME**.
2. **ENTER** Select **Off time** or **On time**.
3. **ENTER** Select **Repeat**.
4. Select **Off**, **Once**, **Everyday**, **Mon~Fri**, **Mon~Sat**, **Weekend**, or **Sunday**.
5. **ENTER** Select and set **Hour** or **Minute**.
6. **RETURN** Return to the previous menu.
7. **MENU** Return to TV viewing.

**TIME**

<table>
<thead>
<tr>
<th>Time Setting</th>
<th>Move</th>
<th>Enter</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clock: Feb/21/2008 2:10 AM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Off Time: Off</td>
<td></td>
<td></td>
</tr>
<tr>
<td>On Time: Off</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sleep Timer: Off</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Auto Sleep: Off</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**TIME**

<table>
<thead>
<tr>
<th>Time Setting</th>
<th>Move</th>
<th>Enter</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clock: Feb/21/2008 2:10 AM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Off Time: Off</td>
<td></td>
<td></td>
</tr>
<tr>
<td>On Time: 6:30 AM (Once)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sleep Timer: Off</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Auto Sleep: Off</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Input</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Channel</td>
<td>TV 2-0</td>
<td></td>
</tr>
<tr>
<td>Volume</td>
<td>30</td>
<td></td>
</tr>
</tbody>
</table>

**Repeat**

- **Once**

**Hour**

- 6 AM

**Minute**

- 30

Close

When Selecting **TV**: set the channel at turn-on.

Adjust to sound level at turn-on.
SLEEP TIMER SETTING

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

1. Select **TIME**.

2. Select **Sleep Timer**.

3. Select **Off, 10, 20, 30, 60, 90, 120, 180, or 240 minutes**.

4. Return to the previous menu.

Return to TV viewing.

You can also adjust **Sleep Timer** in the Q-Menu.
**AUTO SHUT-OFF SETTING**

TV will be automatically turned off, in case of no signal for 10 minutes.

1. Select **TIME**.
2. Select **Auto Sleep**.
3. Select **On** or **Off**.
4. Return to the previous menu.
   - Return to TV viewing.

![Diagram showing the steps to configure Auto Sleep setting](image)
PARENTAL CONTROL / RATINGS

Parental Control can be used to block specific channels, ratings and other viewing sources.

The Parental Control Function (V-Chip) is used to block program viewing based on the ratings sent by the broadcasting station. The default setting is to allow all programs to be viewed. Viewing can be blocked by choosing the type of the program and the categories. It is also possible to block all program viewing for a time period. To use this function, the following must be done:
1. Set ratings and categories to be blocked.
2. Specify a password
3. Enable the lock

V-Chip rating and categories
Rating guidelines are provided by broadcasting stations. Most television programs and television movies can be blocked by TV Rating and/or Individual Categories. Movies that have been shown at the theaters or direct-to-video movies use the Movie Rating System (MPAA) only.

Ratings for Television programs including made-for-TV movies:
- TV-G (General audience)
- TV-PG (Parental guidance suggested)
- TV-14 (Parents strongly cautioned)
- TV-MA (Mature audience only)
- TV-Y (All children)
- TV-Y7 (Children 7 years older)

SET PASSWORD & LOCK SYSTEM

Setting up Your Password
Set up blocking schemes to block specific channels, ratings, and external viewing sources.
A password is required to gain access to this menu.

For USA
For Canada

1. Select LOCK.
2. Input the password.

- Enter the password as requested.
- The TV is set up with the initial password “0-0-0-0”.

For USA
For Canada

Enter Password

Close
Lock System

Enables or disables the blocking scheme you set up previously.

1. Select LOCK.
2. Input the password.
3. Select Lock System.
4. Select On or Off.
5. Return to the previous menu.

When you select On, the Lock System is enable.
Set Password

Change the password by inputting a new password twice.

1. Select LOCK.
2. Input the password.
3. Select Set password.
4. Choose any 4 digits for your new password. As soon as the 4 digits are entered, re-enter the same 4 digits on the Confirm.
5. Return to the previous menu.
6. Return to TV viewing.
CHANNEL BLOCKING

Blocks any channels that you do not want to watch or that you do not want your children to watch.

1. Select **LOCK**.

2. Input the password.

3. Select **Block Channel**.

4. Select a channel to block or unblock.

5. Block or unblock a channel.

6. Return to the previous menu.

Return to TV viewing.
MOVIE & TV RATING

Movie Rating (MPAA) - For USA only

Blocks movies according to the movie ratings limits specified, so children cannot view certain movies. You can set the ratings limit by blocking out all the movies with the ratings above a specified level. Keep in mind that the movie ratings limit only applies to movies shown on TV, not TV programs, such as soap operas.

1. Select **LOCK**.
2. Input the password.
3. Select **Movie Rating**.
5. Return to the previous menu.

- **G** (General audience)
- **PG** (Parental guidance suggested)
- **PG-13** (Parents strongly cautioned)
- **R** (Restricted)
- **NC-17** (No one 17 and under admitted)
- **X** (Adult only)
- **Blocking Off** (Permits all programs)

- If you set **PG-13**: G and PG movies will be available, PG-13, R, NC-17 and X will be blocked.
TV Rating Children - *For USA only*

Prevents children from watching certain children’s TV programs, according to the ratings limit set. The children rating does not apply to other TV programs. Unless you block certain TV programs intended for mature audiences in the TV Rating - sub menu, your children can view those programs.

1. **Select LOCK.**
2. **Input the password.**
3. **Select TV Rating-Children.**
4. **Select Age or Fantasy Violence.**
5. **Select block options.**
6. **Return to the previous menu.**
7. **Return to TV viewing.**

- Age (applies to TV-Y, TV-Y7)
- Fantasy Violence (applies to TV-Y7)
PARENTAL CONTROL / RATINGS

TV Rating General - *For USA only*

Based on the ratings, blocks certain TV programs that you and your family do not want to view.

1. Select **LOCK**.
2. Input the password.
3. Select **TV Rating-General**.
4. Select **Age**, **Dialogue**, **Language**, **Sex** or **Violence**.
5. Select block options.
6. Return to the previous menu.

- Age (applies to TV-G, TV-PG, TV-14, TV-MA).
- Dialogue-sexual dialogue (applies to TV-PG, TV-14).
- Language-adult language (applies to TV-PG, TV-14, TV-MA).
- Sex-sexual situations (applies to TV-PG, TV-14, TV-MA).
- Violence (applies to TV-PG, TV-14, TV-MA).
TV Rating English - For CANADA only

Selecting canadian english language rating system.

1. Select LOCK.
2. Input the password.
4. Select E, C, C8+, G, PG, 14+, 18+, or Blocking Off.
5. Return to the previous menu.

Return to TV viewing.

- E (Exempt)
- C (Children)
- C8+ (Children eight years and older)
- G (General programming, suitable for all audiences)
- PG (Parental Guidance)
- 14+ (Viewers 14 years and older)
- 18+ (Adult programming)
- Blocking Off (Permits all programs)
TV Rating French - For Canada only

Selecting Canadian French language rating system.

1. Select LOCK.
2. Input the password.
3. Select TV Rating-French.
4. Select E, G, 8ans+, 13ans+, 16ans+, 18ans+, or Blocking off.
5. Return to the previous menu.

- E (Exempt)
- G (General)
- 8ans+ (General-Not convenient for little children)
- 13ans+ (Not convenient for children of 13 years and younger)
- 16ans+ (Not convenient for children of 16 years and younger)
- 18ans+ (This program is only for adults)
- Blocking off (Permits all programs)
DOWNLOADABLE RATING

This function may become available in the future and will be available only for digital channels. This function operates only when TV has received Region5 Rating data.

1. Select LOCK.
2. Input the password.
4. Select desired Downloadable Rating option.
5. Select desired option and block it.
6. Return to the previous menu.
7. Return to TV viewing.

Based on rating table, your TV’s OSD (On Screen Display) may differ slightly from what is shown in this manual.
EXTERNAL INPUT BLOCKING

Enables you to block an input.

1. Select LOCK.
2. Input the password.
3. Select Input Block.
4. Select input source.
5. Select On or Off.
6. Return to the previous menu.

RETURN

Return to TV viewing.

Plasma TV, 32/42/47/52LG70

32/37/42LG30, 37/42/47/52LG50

32/37/42/47/52LG60
KEY LOCK

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

1. Select OPTION.
2. Select Key Lock.
3. Select On or Off.
4. Return to the previous menu.

In Key Lock ‘On’, if the TV is turned off, press the ▲ / ▼ button on the TV or POWER, INPUT, 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 TV.
## TROUBLESHOOTING

### The operation does not work normally.

| The remote control doesn’t work | - Check to see if there is any object between the product and the remote control causing obstruction. 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. |

### The video function does not work.

| No picture & No sound | - Check whether the product is turned on.  
- Try another channel. The problem may be with the broadcast.  
- Is the power cord inserted into wall power outlet?  
- Check your antenna direction and/or location.  
- Test the wall power outlet, plug another product’s power cord into the outlet where the product’s power cord was plugged in. |
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Picture appears slowly after switching on</td>
<td>- 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.</td>
</tr>
</tbody>
</table>
| 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). |
| No picture when connecting HDMI | - Check HDMI cable over version 1.3.  
The HDMI cables don’t support HDMI version 1.3, it cause flickers or no screen display. In this case use the latest cables that support HDMI version 1.3. |
### The audio function does not work.

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
</table>
| **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. |
| **No sound when connecting HDMI/USB** | - Check HDMI cable over version 1.3.  
- Check USB cable over version 2.0.  
- Use normal MP3 file. |

### There is a problem in PC mode. (Only PC mode applied)

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
</table>
| **The signal is out of range**       | - Adjust resolution, horizontal frequency, or vertical frequency.  
- Check the input source. |
| **Vertical bar or stripe on background & 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. |
MAINTENANCE

Early malfunctions can be prevented. Careful and regular cleaning can extend the amount of time you can enjoy your new TV.

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

Cleaning the Screen

1. Here’s a great way to keep the dust off your screen for a while. Wet a soft cloth in a mixture of lukewarm water and a little fabric softener or dish washing detergent. Wring the cloth until it’s almost dry, and then use it to wipe the screen.

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

Cleaning the Cabinet

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

Extended Absence

⚠️ **CAUTION**

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

<table>
<thead>
<tr>
<th>MODELS</th>
<th>32LG30 (32LG30-UA)</th>
<th>32LG30 (32LG30-UD)</th>
<th>37LG30 (37LG30-UA)</th>
<th>37LG30 (37LG30-UD)</th>
<th>42LG30 (42LG30-UA)</th>
<th>42LG30 (42LG30-UD)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Dimensions (Width x Height x Depth)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>With stand &amp; 31.5 x 23.7 x 8.9 inches &amp; 801.8 x 604.2 x 227 mm &amp; 31.5 x 21.4 x 3.1 inches &amp; 801.8 x 544.1 x 79.0 mm &amp; 40.6 x 29.2 x 11.5 inches &amp; 1032.8 x 742.3 x 293.8 mm</td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Without stand</td>
<td>36.2 x 26.8 x 11.5 inches &amp; 919.6 x 682.3 x 293.8 mm</td>
<td>36.2 x 24.0 x 3.5 inches &amp; 919.6 x 610.3 x 89.0 mm</td>
<td>40.6 x 26.3 x 3.6 inches &amp; 1032.8 x 670.1 x 92.0 mm</td>
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<td></td>
<td></td>
</tr>
<tr>
<td><strong>Weight</strong></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>With stand &amp; 29.5 pounds / 13.4 kg &amp; 26.2 pounds / 11.9 kg</td>
<td>41.4 pounds / 18.8 kg &amp; 35.7 pounds / 16.2 kg</td>
<td>52.0 pounds / 23.6 kg &amp; 46.2 pounds / 21.0 kg</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Without stand</td>
<td>37LG50 (37LG50-UA)</td>
<td>37LG50 (37LG50-UD)</td>
<td>42LG50 (42LG50-UA)</td>
<td>42LG50 (42LG50-UD)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Dimensions (Width x Height x Depth)</strong></td>
<td></td>
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<td></td>
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<td></td>
</tr>
<tr>
<td>With stand &amp; 36.8 x 26.9 x 11.5 inches &amp; 936.4 x 685.4 x 293.4 mm &amp; 40.7 x 28.9 x 11.5 inches &amp; 1034.0 x 735.0 x 294.0 mm</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Without stand</td>
<td>36.8 x 24.1 x 3.4 inches &amp; 936.4 x 612.8 x 88.0 mm</td>
<td>40.7 x 26.1 x 3.5 inches &amp; 1034.0 x 663.0 x 91.0 mm</td>
<td></td>
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<tr>
<td><strong>Weight</strong></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>With stand &amp; 40.3 pounds / 18.3 kg &amp; 34.3 pounds / 15.6 kg</td>
<td>54.0 pounds / 24.5 kg &amp; 48.5 pounds / 22.0 kg</td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>47LG50 (47LG50-UA)</td>
<td>47LG50 (47LG50-UG)</td>
<td>52LG50 (52LG50-UA)</td>
<td>52LG50 (52LG50-UG)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Dimensions (Width x Height x Depth)</strong></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>With stand &amp; 45.5 x 32.0 x 13.5 inches &amp; 1156.2 x 813.1 x 342.9 mm &amp; 50.8 x 35.1 x 13.5 inches &amp; 1291.7 x 892.2 x 342.9 mm</td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Without stand</td>
<td>45.5 x 29.1 x 4.0 inches &amp; 1156.2 x 739.2 x 103.0 mm</td>
<td>50.8 x 32.1 x 4.5 inches &amp; 1291.7 x 817.0 x 115.3 mm</td>
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<td>870 pounds / 39.5 kg &amp; 76.9 pounds / 34.9 kg</td>
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<td><strong>Power requirement</strong> &amp; AC100-240V ~ 50/60Hz &amp; NTSC-M, ATSC, 64 &amp; 256 QAM &amp; VHF 2-13, UHF 14-69, CATV 1-135, DTV 2-69, CADTV 1-135 &amp; 75 ohm</td>
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- The specifications shown above may be changed without prior notice for quality improvement.
### APPENDIX

#### MODELS

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<th>Dimensions (Width x Height x Depth)</th>
<th>With stand</th>
<th>Without stand</th>
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<tbody>
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<td>31.7 x 24.6 x 13.1 inches</td>
<td>31.7 x 23.1 x 3.7 inches</td>
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<td>805.6 x 626.0 x 333.0mm</td>
<td>805.6 x 587.4 x 96.2 mm</td>
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<td>36.5 x 22.8 x 14.7 inches</td>
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<td>929.0 x 706.9 x 374.7 mm</td>
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<td>42LG60 (42LG60-UA)</td>
<td>40.8 x 31.3 x 14.9 inches</td>
<td>40.8 x 29.4 x 3.1 inches</td>
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<tr>
<td></td>
<td>10378 x 796.4 x 379.5 mm</td>
<td>10378 x 7470 x 80.8 mm</td>
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<th>52LG60 (52LG60-UA)</th>
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<td>25.1 pounds / 11.4 kg</td>
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<td>49.3 pounds / 22.4 kg</td>
<td>43.4 pounds / 19.7 kg</td>
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<td>Television System</td>
<td>NTSC-M, ATSC, 64 &amp; 256 QAM</td>
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<td>VHF 2-13, UHF 14-69, CATV 1-135, DTV 2-69, CADTV 1-135</td>
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<td>External Antenna Impedance</td>
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<th>Operating Temperature</th>
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- The specifications shown above may be changed without prior notice for quality improvement.
## Specifications

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<th>50PG25 (50PG60-UA)</th>
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<td>Without stand</td>
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<td>41.1 x 26.7 x 3.1 inches</td>
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<td>1044.4 x 680.6 x 79.6 mm</td>
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<tr>
<td>Weight</td>
<td>With stand</td>
<td>61.7 pounds / 28.0 kg</td>
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<tr>
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<td>Without stand</td>
<td>55.1 pounds / 25.0 kg</td>
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<table>
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<td>With stand</td>
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<td>Without stand</td>
<td>1235.6 x 849.3 x 364.1 mm</td>
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<td>With stand</td>
<td>48.6 x 31.2 x 3.1 inches</td>
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<td>1235.6 x 792.8 x 79.6 mm</td>
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<td>Weight</td>
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<td>100.7 pounds / 45.7 kg</td>
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<td>Without stand</td>
<td>91.9 pounds / 41.7 kg</td>
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<td>Power requirement</td>
<td>AC100-240V ~ 50/60Hz</td>
<td>NTSC-M, ATSC, 64 &amp; 256 QAM</td>
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<td>VHF 2-13, UHF 14-69, CATV 1-135, DTV 2-69, CADTV 1-135</td>
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<tr>
<td>External Antenna Impedance</td>
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<td>Environment condition</td>
<td>Operating Temperature</td>
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<td>Storage Humidity</td>
<td>Less than 85%</td>
</tr>
</tbody>
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* The specifications shown above may be changed without prior notice for quality improvement.
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

1. Testing your remote control.
   To find out whether your remote control can operate other components without programming, turn on a component such as a STB and press the corresponding mode button (such as a STB) on the remote control, while pointing at the component. Test the POWER and CH \( \uparrow \downarrow \) buttons to see if the component responds correctly. If the component does not operate correctly, the remote control requires programming to operate the device.

2. Turn on the component to be programmed, then press the corresponding mode button (such as STB) on the remote control. The remote control button of the desired device is illuminated.

3. Press the MENU and MUTE buttons simultaneously, and the remote control is ready to be programmed with the code.

4. Enter a code number using the number buttons on the remote control. Programming code numbers for the corresponding component can be found on the following pages. If the code is correct, the device will turn off.

5. Press the MENU button to store the code.

6. Test the remote control functions to see if the component responds correctly. If not, repeat from step 2.
# Remote Control Code

## VCR

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## HDSTB

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## DVD

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<td>PROSCAN</td>
<td>005</td>
<td>ZENITH</td>
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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
  
<table>
<thead>
<tr>
<th>Lead code</th>
<th>Low custom code</th>
<th>High custom code</th>
<th>Data code</th>
<th>Data code</th>
</tr>
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<tbody>
<tr>
<td>C0 C1 C2 C3 C4 C5 C6 C7</td>
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<td>D0 D1 D2 D3 D4 D5 D6 D7</td>
<td>D0 D1 D2 D3 D4 D5 D6 D7</td>
<td></td>
</tr>
</tbody>
</table>

  Repeat frame

  - Repeat code

  - Tf

- Lead code

  9 ms

  4.5 ms

- Repeat code

  0.55 ms

  9 ms

  2.25 ms

- Bit description

  Bit "0"

  0.56 ms

  1.12 ms

  Bit "1"

  0.56 ms

  2.24 ms

- Frame interval: Tf

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

  Tf

  Tf

  Tf = 108ms @ 455KHz
<table>
<thead>
<tr>
<th>Code (Hexa)</th>
<th>Function</th>
<th>Note</th>
<th>Code (Hexa)</th>
<th>Function</th>
<th>Note</th>
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<tbody>
<tr>
<td>08</td>
<td>POWER</td>
<td>Remote control Button (Power On/Off)</td>
<td>D6</td>
<td>TV</td>
<td>Discrete IR Code</td>
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<tr>
<td>45</td>
<td>Q.MENU</td>
<td>Remote control Button</td>
<td>C4</td>
<td>POWER ON</td>
<td>Discrete IR Code</td>
</tr>
<tr>
<td>43</td>
<td>MENU</td>
<td>Remote control Button</td>
<td></td>
<td></td>
<td>(Only Power On)</td>
</tr>
<tr>
<td>0B</td>
<td>INPUT</td>
<td>Remote control Button</td>
<td></td>
<td></td>
<td>(Only Power On)</td>
</tr>
<tr>
<td>10-19</td>
<td>Number Key 0-9</td>
<td>Remote control Button</td>
<td>C5</td>
<td>POWER OFF</td>
<td>Discrete IR Code</td>
</tr>
<tr>
<td>4C</td>
<td>- (Dash)</td>
<td>Remote control Button</td>
<td></td>
<td></td>
<td>(Only Power Off)</td>
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<tr>
<td>1A</td>
<td>FLASHBK</td>
<td>Remote control Button</td>
<td>5A</td>
<td>AV or AV1</td>
<td>Discrete IR Code</td>
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<tr>
<td>09</td>
<td>MUTE</td>
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<td>D0</td>
<td>AV2</td>
<td>Discrete IR Code</td>
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<tr>
<td>02</td>
<td>VOL +</td>
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<td>(AV or AV1 Input Selection)</td>
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<td>CH ^</td>
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<td>BF</td>
<td>COMPONENT 1</td>
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<td>40</td>
<td>^</td>
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<td>&gt;</td>
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<td></td>
<td></td>
<td></td>
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<td>AF</td>
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</table>

* Use this feature depending on your model.
EXTERIOR CONTROL THROUGH RS-232C - Except 32/37/42/47/52LG60

The RS-232C port allows you to connect the RS-232C input jack to an external control device (such as a computer or an A/V control system) to control the TV’s functions externally.

- **Note:** RS-232C on this unit is intended to be used with third party RS-232C control hardware and software. The instructions below are provided to help with programming software or to test functionality using telnet software.

**RS-232C Setup**

![RS-232C Setup Diagram]

**Type of Connector; D-Sub 9-Pin Male**

<table>
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<td>2</td>
<td>RXD (Receive data)</td>
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<tr>
<td>3</td>
<td>TXD (Transmit data)</td>
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<td>4</td>
<td>DTR (DTE side ready)</td>
</tr>
<tr>
<td>5</td>
<td>GND</td>
</tr>
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<td>6</td>
<td>DSR (DCE side ready)</td>
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<td>7</td>
<td>RTS (Ready to send)</td>
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<td>8</td>
<td>CTS (Clear to send)</td>
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<tr>
<td>9</td>
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</table>

**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.

**NOTE**

- This product has command echo back in the RS-232C Command.
### RS-232C Configurations

Either cable below can be used.

<table>
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<tr>
<th>7-Wire Configuration</th>
<th>3-Wire Configurations (Not standard)</th>
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<td>RTS</td>
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<tr>
<td>CTS</td>
<td>CTS</td>
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</table>

#### Set ID

Use this function to specify a TV ID number.

Refer to ‘Real Data Mapping’. → p.133.

1. Select **OPTION**.
2. Select **Set ID**.
3. Choose the desired TV ID number.
   - The adjustment range of Set ID is 1~99.
4. Return to the previous menu.
   - Return to TV viewing.
## Command Reference List

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<thead>
<tr>
<th>COMMAND1</th>
<th>COMMAND2</th>
<th>DATA (Hexadecimal)</th>
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<tr>
<td>01. Power</td>
<td>k</td>
<td>a</td>
<td>00 ~ 01</td>
<td>14. Treble</td>
<td>k</td>
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<tr>
<td>02. Input Select</td>
<td>x</td>
<td>b</td>
<td>(☞ p.132)</td>
<td>15. Bass</td>
<td>k</td>
</tr>
<tr>
<td>03. Aspect Ratio</td>
<td>k</td>
<td>c</td>
<td>(☞ p.132)</td>
<td>16. Balance</td>
<td>k</td>
</tr>
<tr>
<td>04. Screen Mute</td>
<td>k</td>
<td>d</td>
<td>00 ~ 01</td>
<td>17. Color Temperature</td>
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<td>05. Volume Mute</td>
<td>k</td>
<td>e</td>
<td>00 ~ 01</td>
<td>18. ISM Method</td>
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<td>06. Volume Control</td>
<td>k</td>
<td>f</td>
<td>00 ~ 64</td>
<td>19. Power Saving</td>
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<td>g</td>
<td>00 ~ 64</td>
<td>20. Auto Configuration</td>
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<td>h</td>
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<td>21. Channel Add/Del</td>
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<td>i</td>
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<th>DATA02 (Hexadecimal)</th>
<th>DATA03 (Hexadecimal)</th>
<th>DATA04 (Hexadecimal)</th>
<th>DATA05 (Hexadecimal)</th>
</tr>
</thead>
<tbody>
<tr>
<td>21. Channel Tuning</td>
<td>m</td>
<td>a</td>
<td>physical program high</td>
<td>major low</td>
<td>minor high</td>
<td>minor low</td>
<td>attribute</td>
</tr>
</tbody>
</table>

### Transmission / Receiving Protocol

#### Transmission

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

- **[Command 1]** : First command to control the set (j, k, m or x)
- **[Command 2]** : Second command to control the set.
- **[Set ID]** : You can adjust the set ID to choose desired TV ID number in Setup menu. Adjustment range is 1 ~ 99. When selecting Set ID ‘0’, every connected TV is controlled. Set ID is indicated as decimal (1 ~ 99) on menu and as Hexadecimal (0x0~0x63) on transmission /receiving protocol.
- **[DATA]** : To transmit the command data.
- **[Cr]** : Carriage Return
  - ASCII code ‘0x0D’
- **[ ]** : ASCII code ‘space (0x20)’

* In this model, TV will not send the status during the standby mode.

#### Error Acknowledgement

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

- **[NG]** : Use the large character
- **[Data]** : Use the small character, if data is 0 x ab, it will send the ‘a’, ‘b’.
- **[Cr]** : Carriage Return
  - ASCII code ‘0x0D’

* In this model, TV will not send the status during the standby mode.

#### OK Acknowledgement

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

- **[OK]** : Use the large character
- **[Data]** : Use the small character, if data is 0 x ab, it will send the ‘a’, ‘b’.
- **[Cr]** : Carriage Return
  - ASCII code ‘0x0D’

* In this model, TV will not send the status during the standby mode.

### Data Format

- **Command 1**
- **Command 2**
- **Set ID**
- **Data**
- **OK**
- **NG**
01. Power (Command: k a)

To control Power On/Off of the TV.

<table>
<thead>
<tr>
<th>Transmission</th>
<th>Data</th>
<th>Acknowledgement</th>
</tr>
</thead>
<tbody>
<tr>
<td>[k][a][ ] [Set ID][ ][Data][Cr]</td>
<td>Data 00: Power Off</td>
<td>[a][ ][Set ID][ ][OK/NG][Data][x]</td>
</tr>
<tr>
<td></td>
<td>Data 01: Power On</td>
<td></td>
</tr>
</tbody>
</table>

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

* Note: In this model, TV will send the Acknowledge after power on processing completion.

There might be a time delay between command and acknowledge.

02. Input Select (Command: x b)

To select input source for TV.

<table>
<thead>
<tr>
<th>Transmission</th>
<th>Data</th>
<th>Acknowledgement</th>
</tr>
</thead>
<tbody>
<tr>
<td>[x][b][ ] [Set ID][ ][Data][Cr]</td>
<td>Data 00: DTV (Antenna)</td>
<td>[b][ ][Set ID][ ][OK/NG][Data][x]</td>
</tr>
<tr>
<td></td>
<td>Data 01: DTV (Cable)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Data 10: Analog (Antenna)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Data 11: Analog (Cable)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Data 20: AV1</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Data 21: AV2</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Data 40: Component 1</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Data 41: Component 2</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Data 60: RGB-PC</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Data 90: HDMI1</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Data 91: HDMI2</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Data 92: HDMI3</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Data 93: HDMI4</td>
<td></td>
</tr>
</tbody>
</table>

* Use the feature depending on your model.

03. Aspect Ratio (Command: k c)

To adjust the screen format.

<table>
<thead>
<tr>
<th>Transmission</th>
<th>Data</th>
<th>Acknowledgement</th>
</tr>
</thead>
<tbody>
<tr>
<td>[k][c][ ] [Set ID][ ][Data][Cr]</td>
<td>Data 01: 4:3</td>
<td>[c][ ][Set ID][ ][OK/NG][Data][x]</td>
</tr>
<tr>
<td></td>
<td>05: Zoom 2</td>
<td></td>
</tr>
<tr>
<td></td>
<td>02: 16:9</td>
<td></td>
</tr>
<tr>
<td></td>
<td>06: Set by program</td>
<td></td>
</tr>
<tr>
<td></td>
<td>04: Zoom 1</td>
<td></td>
</tr>
<tr>
<td></td>
<td>09: Just scan</td>
<td></td>
</tr>
<tr>
<td></td>
<td>...</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Reserved</td>
<td></td>
</tr>
</tbody>
</table>

04. Screen Mute (Command: k d)

To select screen mute on/off.

<table>
<thead>
<tr>
<th>Transmission</th>
<th>Data</th>
<th>Acknowledgement</th>
</tr>
</thead>
<tbody>
<tr>
<td>[k][d][ ] [Set ID][ ][Data][Cr]</td>
<td>Data 00: Screen mute off (Picture on)</td>
<td>[d][ ][Set ID][ ][OK/NG][Data][x]</td>
</tr>
<tr>
<td></td>
<td>Data 01: Screen mute on (Picture off)</td>
<td></td>
</tr>
</tbody>
</table>

05. Volume Mute (Command: k e)

To control volume mute on/off.

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

<table>
<thead>
<tr>
<th>Transmission</th>
<th>Data</th>
<th>Acknowledgement</th>
</tr>
</thead>
<tbody>
<tr>
<td>[k][e][ ] [Set ID][ ][Data][Cr]</td>
<td>Data 00: Volume mute on (Volume off)</td>
<td>[e][ ][Set ID][ ][OK/NG][Data][x]</td>
</tr>
<tr>
<td></td>
<td>Data 01: Volume mute off (Volume on)</td>
<td></td>
</tr>
</tbody>
</table>

06. Volume Control (Command: k f)

To adjust volume.

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

<table>
<thead>
<tr>
<th>Transmission</th>
<th>Data</th>
<th>Acknowledgement</th>
</tr>
</thead>
<tbody>
<tr>
<td>[k][f][ ] [Set ID][ ][Data][Cr]</td>
<td>Data Min: 00 ~ Max: 64 (*transmit by Hexadecimal code)</td>
<td>[f][ ][Set ID][ ][OK/NG][Data][x]</td>
</tr>
</tbody>
</table>

* Refer to ‘Real data mapping’. See page 133.

07. Contrast (Command: k g)

To adjust screen contrast.

You can also adjust contrast in the PICTURE menu.

<table>
<thead>
<tr>
<th>Transmission</th>
<th>Data</th>
<th>Acknowledgement</th>
</tr>
</thead>
<tbody>
<tr>
<td>[k][g][ ] [Set ID][ ][Data][Cr]</td>
<td>Data Min: 00 ~ Max: 64 (*transmit by Hexadecimal code)</td>
<td>[g][ ][Set ID][ ][OK/NG][Data][x]</td>
</tr>
</tbody>
</table>

* Refer to ‘Real data mapping’. See page 133.

08. Brightness (Command: k h)

To adjust screen brightness.

You can also adjust brightness in the PICTURE menu.

<table>
<thead>
<tr>
<th>Transmission</th>
<th>Data</th>
<th>Acknowledgement</th>
</tr>
</thead>
<tbody>
<tr>
<td>[k][h][ ] [Set ID][ ][Data][Cr]</td>
<td>Data Min: 00 ~ Max: 64 (*transmit by Hexadecimal code)</td>
<td>[h][ ][Set ID][ ][OK/NG][Data][x]</td>
</tr>
</tbody>
</table>

* Refer to ‘Real data mapping’. See page 133.
09. Color (Command: k i)
To adjust screen color.
You can also adjust color in the PICTURE menu.

Transmission [k][i][ ][Set ID][ ][Data][Cr]
Data Min: 00 ~ Max: 64 (*transmit by Hexadecimal code)
*Refer to ‘Real data mapping’ as shown below.
Acknowledgement [i][ ][Set ID][ ][OK/NG][Data][x]

14. Treble (Command: k r)
To adjust treble.
You can also adjust treble in the AUDIO menu.

Transmission [k][r][ ][Set ID][ ][Data][Cr]
Data Min: 00 ~ Max: 64 (*transmit by Hexadecimal code)
*Refer to ‘Real data mapping’ as shown.
Acknowledgement [r][ ][Set ID][ ][OK/NG][Data][x]

10. Tint (Command: k j)
To adjust screen tint.
You can also adjust tint in the PICTURE menu.

Transmission [k][j][ ][Set ID][ ][Data][Cr]
Data Red: 00 ~ Green: 64 (*transmit by Hexadecimal code)
*Refer to ‘Real data mapping’ as shown.
Acknowledgement [j][ ][Set ID][ ][OK/NG][Data][x]

15. Bass (Command: k s)
To adjust bass.
You can also adjust bass in the AUDIO menu.

Transmission [k][s][ ][Set ID][ ][Data][Cr]
Data Min: 00 ~ Max: 64 (*transmit by Hexadecimal code)
*Refer to ‘Real data mapping’ as shown.
Acknowledgement [s][ ][Set ID][ ][OK/NG][Data][x]

11. Sharpness (Command: k k)
To adjust screen sharpness.
You can also adjust sharpness in the PICTURE menu.

Transmission [k][k][ ][Set ID][ ][Data][Cr]
Data Min: 00 ~ Max: 64 (*transmit by Hexadecimal code)
*Refer to ‘Real data mapping’ as shown.
Acknowledgement [k][ ][Set ID][ ][OK/NG][Data][x]

16. Balance (Command: k t)
To adjust balance.
You can also adjust balance in the AUDIO menu.

Transmission [k][t][ ][Set ID][ ][Data][Cr]
Data Min: 00 ~ Max: 64 (*transmit by Hexadecimal code)
*Refer to ‘Real data mapping’ as shown.
Acknowledgement [t][ ][Set ID][ ][OK/NG][Data][x]

12. OSD Select (Command: k l)
To select OSD (On Screen Display) on/off.

Transmission [k][l][ ][Set ID][ ][Data][Cr]
Data 00: OSD off Data 01: OSD on
Acknowledgement [l][ ][Set ID][ ][OK/NG][Data][x]

17. Color Temperature (Command: k u)
To adjust color temperature.
You can also adjust color temperature in the PICTURE menu.

Transmission [k][u][ ][Set ID][ ][Data][Cr]
Data 00: Medium 01: Cool 02: Warm
Acknowledgement [u][ ][Set ID][ ][OK/NG][Data][x]

*Real data mapping
0 : Step 0
  A : Step 10 (SET ID 10)
    F : Step 15 (SET ID 15)
  10 : Step 16 (SET ID 16)
    63 : Step 99 (SET ID 99)
64 : Step 100

13. Remote Control Lock Mode (Command: k m)
To lock the remote control and the front panel controls on the set.

Transmission [k][m][ ][Set ID][ ][Data][Cr]
Data 00: Lock off Data 01: Lock on
Acknowledgement [m][ ][Set ID][ ][OK/NG][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.
18. ISM Method (Command: j p)
(Only Plasma TV model)

To avoid having a fixed image remain on screen.

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

Data 01: Inversion 02: Orbiter
04: White Wash 08: Normal

Acknowledgement: [p][ ][Set ID][ ][OK/NG][Data][x]

19. Power saving (Command: j q)
(Only Plasma TV model)

To control the power saving function on/off.

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

Data 00: Power saving off (Power Saving Level 0)
01: Power saving on (Power Saving Level 4)

Acknowledgement: [q][ ][Set ID][ ][OK/NG][Data][x]

20. Auto Configuration (Command: j u)

To adjust picture position and minimize image shaking automatically. Auto configuration only works in RGB-PC mode.

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

Data 1: To set

Acknowledgement: [u][ ][Set ID][ ][OK/NG][Data][x]

21. Channel Tuning (Command: m a)

To tune channel to following physical/major/minor number.

Transmission: [ m ] [a] [ ][Set ID][ ][Data00][ ][Data01]
[ ][Data02][ ][Data03][ ][Data04][ ][Data05][Cr]

Digital channels have a Physical, Major, and Minor channel number. The Physical number is the actual digital channel number, the Major is the number that the channel should be mapped to, and the Minor is the sub-channel. Since the ATSC tuner automatically maps the channel to the Major number, the Physical number is not required when sending a command.

Data 00: Physical Channel Number
  NTSC air: 02~45, NTSC cable: 01, 0E~7D
  ATSC air: 01~45, ATSC cable: 01~87

Data 01 & 02: Major Channel Number
  Data 01: High byte  Data 02: Low byte
  Two bytes are available for the Major and Minor, normally only the second byte is used.

Data 03 & 04: Minor Channel Number
  Not needed for NTSC.
The table above lists the binary code which must be converted to Hexadecimal before sending. For example:
The binary code to tune the sub source to an NTSC cable channel is “1000 0001”, which translates to “81” in Hex.
* 7th bit : For which source do you want to change the channel.
* 6th bit: Use a two part or one part channel. Most cases just use 0 since it’s ignored when using NTSC.
* 5th bit: Use 0 with NTSC since it can only use the physical channel number. Normally use 1 for ATSC since most times it doesn’t matter what the physical number is.
* 4th bit: Set to 0.
* 3-0 bits: Choose signal type.

* Tune Command Examples:

1. Tune to the analog (NTSC) cable channel 35.
   Data 00 = Physical of 35 = 23
   Data 01 & 02 = No Major = 00 00
   Data 03 & 04 = No Minor = 00 00
   Data 05 = 0000 0001 in binary = 01
   Total = ma 00 23 00 00 00 00 01
2. Tune to the digital (ATSC) local channel 30-3.
   Data 00 = Don’t know Physical = 00
   Data 01 & 02 = Major is 30 = 00 1E
   Data 03 & 04 = Minor is 3 = 00 03
   Data 05 = 0010 0010 in binary = 22
   Total = ma 00 00 00 00 01 0E 00 03 22

22. Channel Add/Del (Command: m b)
To add and delete the channels

Transmission [m][b][ ][Set ID][ ][Data][Cr]
Data 00: Channel Delete        Data 01: Channel Add
Acknowledgement [b][ ][Set ID][ ][OK/NG][Data][x]

23. Key (Command: m c)
To send IR remote key code.

Transmission [m][c][ ][Set ID][ ][Data][Cr]
Data Key code: Refer to page 128.
Acknowledgement [c][ ][Set ID][ ][OK/NG][Data][x]

24. Backlight (Command: m g)
(Only LCD TV model)
To adjust screen backlight.

Transmission [m][g][ ][Set ID][ ][Data][Cr]
Data Min:00 ~ Max:64 (*transmit by Hexadecimal code)
*Refer to ‘Real data mapping 1’. See page 133.
Acknowledgement [g][ ][Set ID][ ][OK/NG][Data][x]
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This option is useful when you wish to copy part of the code of the library into a program that is not a library.

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b) Use a suitable shared library mechanism for linking with the library. A suitable mechanism is one that (1) uses at run time a copy of the library already present on the user’s computer system, rather than copying library functions into the executable, and (2) will operate properly with a modified version of the library; if the user installs one, as long as the modified version is interface-compatible with the version that the work was made with.

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APPENDIX

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