



**APPENDIX G**  
**: USER'S MANUAL**



**LG**

Life's Good

OWNER'S MANUAL

# LED LCD TV / LCD TV PLASMA TV

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

# WARNING / CAUTION



**WARNING / CAUTION**  
RISK OF ELECTRIC SHOCK  
DO NOT OPEN



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 literature 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 encouraged 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.

This device complies with part 15 of the FCC Rules.

Operation is subject to the following two conditions: (1) This device may not cause (harmful) interference, and (2) this device must accept any interference received, including interference that may cause undesired operation (of the device).

Any changes or modifications in construction of this device which are 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.

# SAFETY INSTRUCTIONS

## IMPORTANT SAFETY INSTRUCTIONS

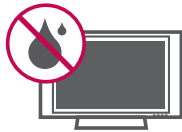
Read these instructions.

Keep these instructions.

Heed all warnings.

Follow all instructions.

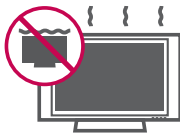
- 1** Do not use this apparatus near water.



- 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** 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.



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



- 7** Only use attachments/accessories specified by the manufacturer.

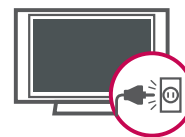


- 8** Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.

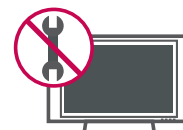


S3125A

- 9** Unplug this apparatus during lightning storms or when unused for long periods of time.



- 10** 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 been exposed to rain or moisture, does not operate normally, or has been dropped.



# SAFETY INSTRUCTIONS

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

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

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

**14** CAUTION concerning the Power Cord:  
It is recommend that appliances 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 connect too many appliances to the same AC power outlet as this could result in fire or electric shock.

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.

Do not use a damaged or loose power cord. Do not pull on the power cord to unplug the TV. Grasp the plug when unplugging the power cord.



**15** WARNING - To reduce the risk of fire or electrical shock, do not expose this product to rain, moisture or other liquids. Do not touch the TV with wet hands. Do not install this product near flammable objects such as gasoline or candles or expose the TV to direct air conditioning.

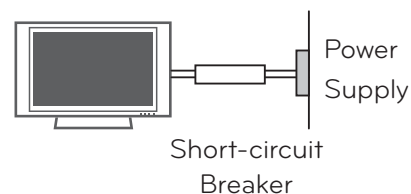


**16** Do not expose to dripping or splashing and do not place objects filled with liquids, such as vases, cups, etc. on or over the apparatus (e.g. on shelves above the unit).



**17** **GROUNDING**  
Ensure that you connect the earth ground wire to prevent possible electric shock (i.e. a TV with a three-prong grounded AC plug must be connected to a three-prong grounded AC outlet). 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.



**18** **DISCONNECTING DEVICE FROM MAINS**  
Mains plug is the disconnecting device. The plug must remain readily operable.

**19** As long as this unit is connected to the AC wall outlet, it is not disconnected from AC power even if you turn off the power switch on the unit.

## 20 ANTENNAS

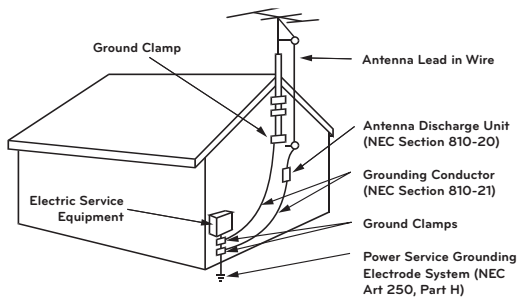
### Outdoor antenna grounding

If an outdoor antenna is installed, follow the precautions below. An outdoor antenna system should not be located in the vicinity of overhead power lines or other electric light or power circuits, or where it can come in contact with such power lines or circuits as death or serious injury can occur.

Be sure the antenna system is grounded so as to provide some protection against voltage surges and built-up static charges.

Section 810 of the National Electrical Code (NEC) in the U.S.A. provides information with respect to proper grounding of the mast and supporting structure, grounding of the lead-in wire to an antenna discharge unit, size of grounding conductors, location of antenna discharge unit, connection to grounding electrodes and requirements for the grounding electrode.

### Antenna grounding according to the National Electrical Code, ANSI/NFPA 70



NEC: National Electrical Code

## 21 Cleaning

When cleaning, unplug the power cord and rub gently with a soft cloth to prevent scratching. Do not spray water or other liquids directly on the TV as electric shock may occur. Do not clean with chemicals such as alcohol, thinners or benzene.

## 22 Moving

Make sure the product is turned off, unplugged and all cables have been removed. It may take 2 or more people to carry larger TVs. Do not press against or put stress on the front panel of the TV.

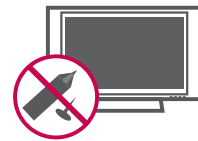
## 23 Ventilation

Install your TV where there is proper ventilation. Do not install in a confined space such as a bookcase. Do not cover the product with cloth or other materials (e.g.) plastic while plugged in. Do not install in excessively dusty places.

24 Take care not to touch the ventilation openings. When watching the TV for a long period, the ventilation openings may become hot.

25 If you smell smoke or other odors coming from the TV or hear strange sounds, unplug the power cord contact an authorized service center.

26 Do not press strongly upon the panel with hand or sharp object such as nail, pencil or pen, or make a scratch on it.



27 Keep the product away from direct sunlight.

## 28 For LED LCD TV/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.

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# FEATURE OF THIS TV

- Some of these features are not available on all models.



High-definition television. High-resolution digital television broadcast and playback system composed of roughly a million or more pixels, 16:9 aspect-ratio screens, and AC3 digital audio. A subset of digital television, HDTV formats include 1080p, 1080i, and 720p resolutions.



Manufactured under license from Dolby Laboratories. "Dolby" and the double-D symbol are trademarks of Dolby Laboratories.



HDMI, the HDMI logo and High-Definition Multimedia Interface are trademarks or registered trademarks of HDMI Licensing LLC."



ABOUT DIVX VIDEO: DivX® is a digital video format created by DivX, Inc. This is an official DivX Certified device that plays DivX video. Visit [www.divx.com](http://www.divx.com) for more information and software tools to convert your files into DivX video.

ABOUT DIVX VIDEO-ON-DEMAND: This DivX Certified® device must be registered in order to play DivX Video-on-Demand (VOD) content. To generate the registration code, locate the DivX VOD section in the device setup menu. Go to [vod.divx.com](http://vod.divx.com) with this code to complete the registration process and learn more about DivX VOD.

"DivX Certified to play DivX video up to HD 1080p, including premium content"

"Pat. 7,295,673;  
7,460,688;7,519,274"



Displays HDTV programs in full 1920 x 1080p resolution for a more detailed picture.



This TV contains the detailed calibrations necessary for professional certification by the Imaging Science Foundation. The resulting ISF "day" and "night" modes will then be accessible by the user to experience the best their LG HDTV has to offer.

Sophisticated and detailed calibrations can be made through the ISFccc mode.

Detailed calibration requires a licensed technician.

Please contact your local dealer to inquire about an ISF certified technician.



THX (Thomlinson Holman's Experiment) is an audio and video certification standard established by George Lucas and Thomlinson. A THX certified display guarantees screen quality that exceeds the display standard specification in both hardware and software.



A unique invisible speaker system tuned by renowned audio expert, Mr. Mark Levinson. Speakers are embedded in strategic spots behind the front cabinet and use minute vibrations to turn the entire front bezel into the speaker system. The result is a clean, polished look, and enhanced audio by increasing the "sweet spot", giving a wider and richer sound field.



Unlike other sensors which can only sense brightness of ambient light, LG's "Intelligent Sensor" uses 4,096 sensing steps to evaluate its surroundings. Using a sophisticated algorithm, the LG processes picture quality elements including brightness, contrast, color, sharpness and white balance. The result is a picture optimized for its surroundings, more pleasing to watch and which can also save up to 50% in power consumption.



AV Mode is three preset picture and audio settings. It allows the viewer to quickly switch between common settings. It includes Cinema, Sports, and Game Modes.



Automatically enhances and amplifies the sound of human voice frequency range to help keep dialogue audible when background noise swells.



Stream movies, TV shows and video, and get up to the minute news, stock information and weather updates directly to your TV using Yahoo!, Netflix, YouTube and Vudu.

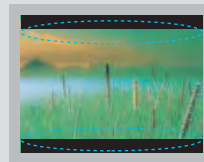
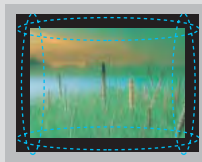
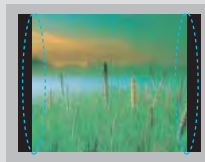


View videos and photos and listen to music on your TV through USB 2.0 ('videos' dependent on model).



## IMPORTANT INFORMATION TO PREVENT "IMAGE BURN / BURN-IN" ON YOUR TV SCREEN

- When a fixed image (e.g. logos, screen menus, video game, and computer display) is displayed on the TV for an extended period, it can become permanently imprinted on the screen. This phenomenon is known as "image burn" or "burn-in." Image burn is not covered under the manufacturer's warranty.
- In order to prevent image burn, avoid displaying a fixed image on your TV screen for a prolonged period (2 or more hours for LCD, 1 or more hours for Plasma).
- Image burn can also occur on the letterboxed areas of your TV if you use the 4:3 aspect ratio setting for an extended period.



### ON DISPOSAL

#### (Only Hg lamp used LED LCD TV/LCD TV)

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.

# PREPARATION

## ACCESSORIES

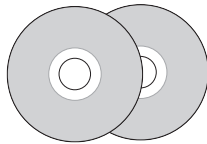
Ensure that the following accessories are included with your TV. If an accessory is missing, please contact the dealer where you purchased the TV.

The accessories included may differ from the images below.

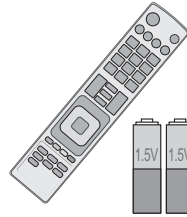
PREPARATION



Owner's Manual

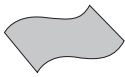


CD Manual,  
Program CD



Remote Control,  
Batteries (AAA)

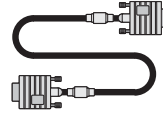
### Not included with all models



Polishing Cloth

- \* Wipe spots on the exterior only with the polishing cloth.
- \* Do not wipe roughly when removing stains. Excessive pressure may cause scratches or discoloration.

### Option Extras



D-sub 15 pin Cable

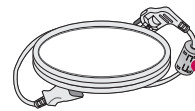
When using the VGA (D-sub 15 pin cable) PC connection, the user must use shielded signal interface cables with ferrite cores to maintain standards compliance.

### Not included with all models



Ferrite Core

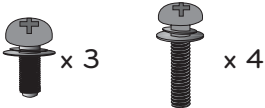
Ferrite core can be used to reduce the electromagnetic waves that may interfere with the TV. Install the Ferrite core on the power cable close to the wall plug.



Close to the wall plug.

### 50/60PK750

(For 50PK750)

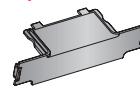


(M5 x 14) x 3 (M4 x 28) x 4

Screws for stand assembly  
(Refer to P.20)



Cable Holder  
(Refer to p.28)

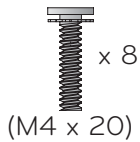


Protection Cover  
(Refer to p.21)



Power Cord

32/42/46/52/60LD550, 47/55LD650



Screws for stand assembly  
(Refer to P.22)

(For 32/42LD550)



Screw for stand fixing  
(Refer to P.32)



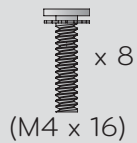
Protection Cover  
(Refer to P.23)



Power Cord

42/47/55LE5400, 42/47/55LE5500, 42/47/55LE7500, 47/55LE8500

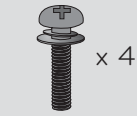
(Other models)



(M4 x 16)

Screws for stand assembly  
(Refer to P.24)

(For 55LE5500, 55LE7500,)



x 4

(M4 x 22)

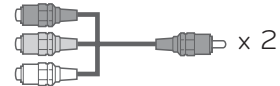


x 4

(M4 x 16)

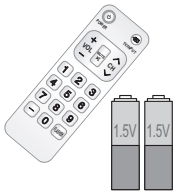


Cable Holder  
(Refer to p.30)



Component gender cable,  
AV gender cable

(For 42/47/55LE7500,  
47/55LE8500)



Remote Control,  
Batteries (AAA)

(For 42/47/55LE7500)



- \* Wipe spots on the exterior only with the polishing cloth.
- \* Do not wipe roughly when removing stains. Excessive pressure may cause scratches or discoloration.
- \* For cleaning front frame, please slowly wipe in one direction after spraying water 1-2 times on cleansing cloths. Please remove excessive moisture after cleaning. Excessive moisture may cause water stains on the frame.

## OPTIONAL EXTRAS

Optional extras can be changed or modified for quality improvement without any notification.

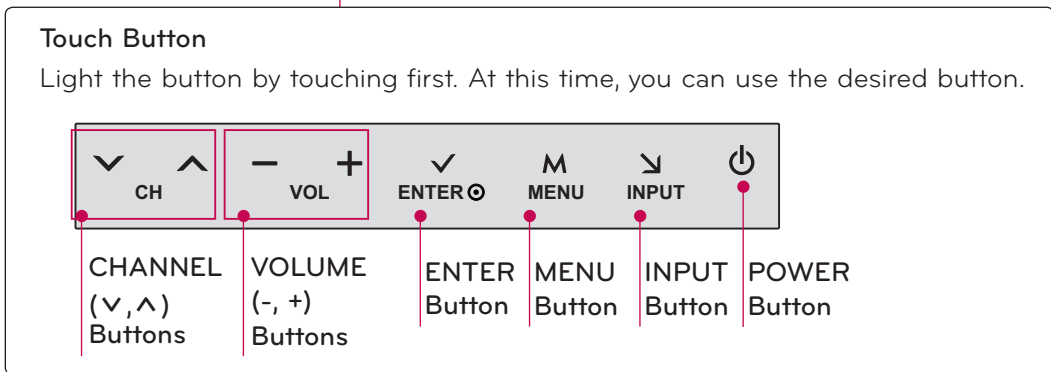
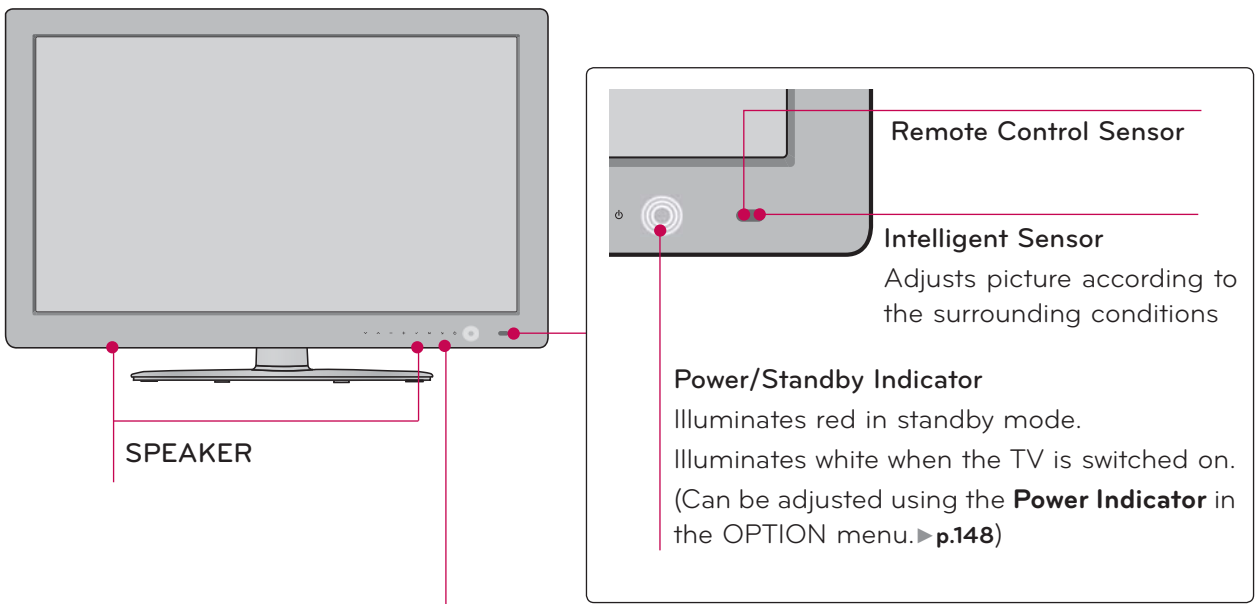
Contact your dealer for buying these items.

This device only works with compatible LG LED LCD TV, LCD TV, or Plasma TV.

Wireless Media Box  
(AN-WL100W)

Wireless LAN for Broadband/  
DLNA Adaptor  
(AN-WF100)

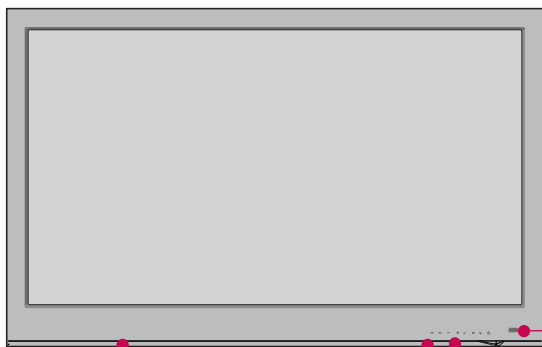
42/47/55LE5400, 42/47/55LE5500, 42/47/55LE7500



# PREPARATION

■ Image shown may differ from your TV.

## 47/55LE8500



SPEAKER

This inset diagram shows a close-up of the bottom right corner of the TV. It identifies three components: a 'Remote Control Sensor' (a small red dot), an 'Intelligent Sensor' (a larger red dot), and a 'Power/Standby Indicator' (a small red dot). Red lines connect these labels to their respective locations on the TV's bezel.

**Remote Control Sensor**

**Intelligent Sensor**  
Adjusts picture according to the surrounding conditions

**Power/Standby Indicator**  
Illuminates red in standby mode.  
Turn off red smoothly when the TV is switched on. (Can be adjusted using the **Power Indicator** in the OPTION menu. ▶ p.148)

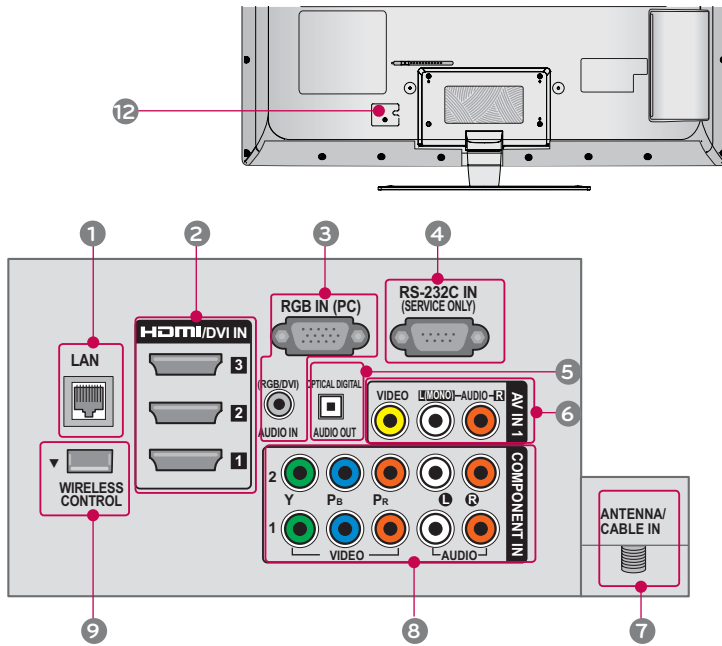
**Touch Button**  
You can use the desired button function by touching.

|                              |                             |                 |                |                 |                 |
|------------------------------|-----------------------------|-----------------|----------------|-----------------|-----------------|
| CH<br>∨ ∨                    | VOL<br>- +                  | ENTER<br>∨      | MENU<br>M      | INPUT<br>∨      | POWER<br>⏻      |
| CHANNEL<br>(∨, ∨)<br>Buttons | VOLUME<br>(-, +)<br>Buttons | ENTER<br>Button | MENU<br>Button | INPUT<br>Button | POWER<br>Button |

# PREPARATION

PREPARATION

42/47/55LE5400, 42/47/55LE5500, 42/47/55LE7500, 47/55LE8500



Close-up diagram of the right side of the TV rear panel with numbered callouts:

- 2: HDMI IN 4
- 6: AV IN 2 (VIDEO/AUDIO)
- 8: COMPONENT IN 3 (AUDIO/Y, Pb, Pr)
- 10: USB IN 1 and USB IN 2
- 11: H/P (Headphones)

**⚠ CAUTION**

**For HDMI IN 4 and USB IN 1, 2**

- ▶ For an optimal connection, HDMI cables and USB devices should have bezels less than 0.39 inches (10 mm) thick.

\*A ≤ 0.39 inches (10 mm)

**1 LAN**

Network connection for Netflix, Yahoo! TV Widgets, etc.

Also used for video, photo and music files on a local network.

**2 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).

**3 RGB IN (PC)**

Analog PC Connection. Uses a D-sub 15 pin cable (VGA cable).

**AUDIO IN (RGB/DVI)**

1/8" (0.32 cm) headphone jack for analog PC audio input.

**4 RS-232C IN (SERVICE ONLY), SERVICE ONLY**

This port is used for service.

**5 OPTICAL DIGITAL AUDIO OUT**

Digital optical audio output for use with amps and home theater systems.

Note: In standby mode, this port doesn't work.

**6 AV (Audio/Video) IN**

Analog composite connection. Supports standard definition video only (480i).

**7 ANTENNA/CABLE IN**

Connect over-the-air or cable signals to this jack.

**8 COMPONENT IN**

Analog Connection.

Supports HD.

Uses a red, green, and blue cable for video & red and white for audio.

**9 WIRELESS CONTROL**

Connect the Wireless Ready Dongle to the TV to control the external input devices connected to Media Box wirelessly.

**10 USB INPUT**

Used for viewing videos, photos and listening to MP3s.

**11 HEADPHONE INPUT**

Plug the headphone into the headphone socket.

**12 Power Cord Socket**

For operation with AC power.

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

**13 REMOTE CONTROL IN**

For a wired remote control.



# PREPARATION

## VESA WALL MOUNTING

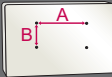
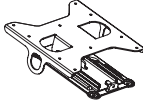
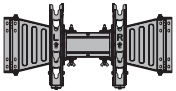
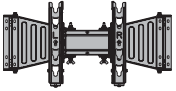
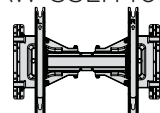
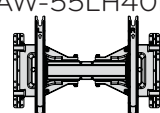
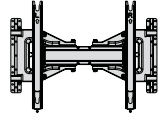
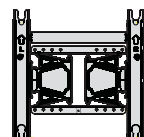
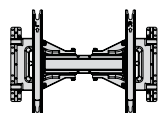
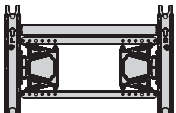
Install your wall mount on a solid wall perpendicular to the floor. When attaching to other building materials, please contact your nearest installer.

If installed on a ceiling or slanted wall, it may fall and result in severe personal injury.

We recommend that you use an LG brand wall mount when mounting the TV to a wall.

LG recommends that wall mounting be performed by a qualified professional installer.

PREPARATION

| Model   | VESA (A * B)<br> | Standard Screw | Quantity | Wall Mounting Bracket (sold separately)   |  |
|---|---|----------------|----------|---|--|
| 32LD550   | 200 * 100   | M4             | 4        | RW230<br>        | AW-47LG30M<br>    |
| 42/46LD550,<br>47LD650,<br>42/47LE5400,<br>42/47LE5500,<br>42/47LE7500,<br>47LE8500 | 200 * 200   | M6             | 4        | AW-47LG30M<br>  |  |
| 52LD550, 55LD650,<br>55LE5400,<br>55LE5500,<br>55LE7500,<br>55LE8500                | 400 * 400   | M6             | 4        | AW-55LH40M<br> |  |
| 60LD550   | 600 * 400   | M6             | 4        | AW-55LH40M<br> |  |
| 50PK750   | 400 * 400   | M6             | 4        | AW-50PG60M<br> | AW-50PG60MS<br> |
| 60PK750   | 600 * 400   | M8             | 4        | AW-60PG60M<br> | AW-60PG60MS<br> |

**NOTE**

- ▶ Screw length needed depends on the wall mount used. For further information, refer to the instructions included with the mount.
- ▶ Standard dimensions for wall mount kits are shown in the table.
- ▶ When purchasing our wall mount kit, a detailed installation manual and all parts necessary for assembly are provided.
- ▶ Do not use screws longer than the standard dimension, as they may cause damage to the inside to the TV.
- ▶ For wall mounts that do not comply with the VESA standard screw specifications, the length of the screws may differ depending on their specifications.
- ▶ Do not use screws that do not comply with the VESA standard screw specifications.  
Do not use fasten the screws too strongly, this may damage the TV or cause the TV to a fall, leading to personal injury. LG is not liable for these kinds of accidents.
- ▶ LG is not liable for TV damage or personal injury when a non-VESA or non specified wall mount is used or the consumer fails to follow the TV installation instructions.

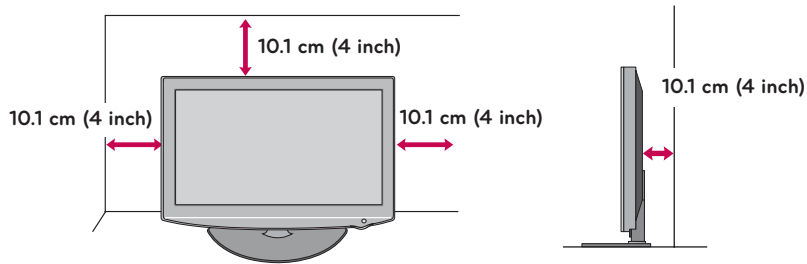
**CAUTION**

- ▶ Do not install your wall mount kit while your TV is turned on. It may result in personal injury due to electric shock.

## DESKTOP PEDESTAL INSTALLATION

- Image shown may differ from your TV.

For proper ventilation, allow a clearance of 10.1 cm (4 inch) on all four sides from the wall.

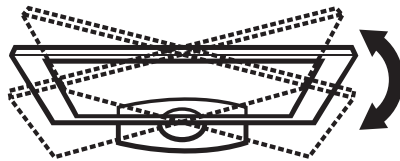


### ⚠ CAUTION

- ▶ Ensure adequate ventilation by following the clearance recommendations.
- ▶ Do not mount near or above any type of heat source.

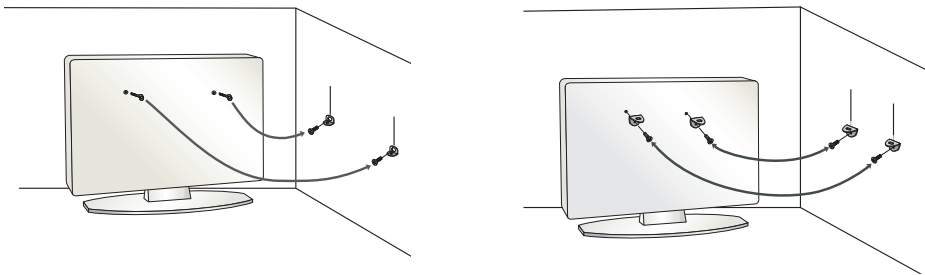
## SWIVEL STAND

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.

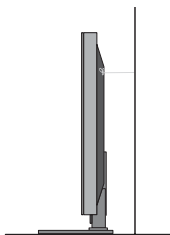


## SECURING THE TV TO THE WALL TO PREVENT FALLING WHEN THE TV IS USED ON A STAND

- You should purchase necessary components to prevent the TV from tipping over (when not using a wall mount).
- 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 (sold 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 (sold 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.

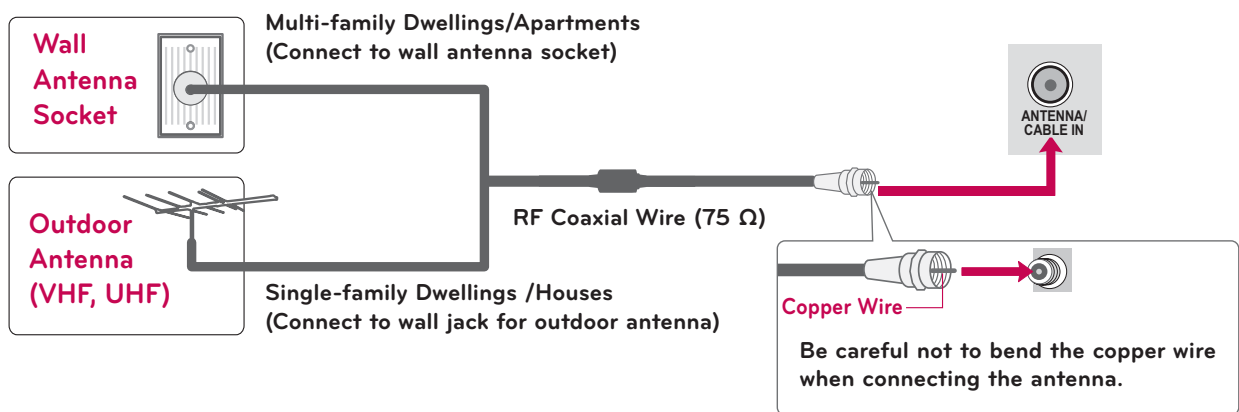
# PREPARATION

- To prevent damage do not connect to the power outlet until all connections are made between the devices.
- Image shown may differ from your TV.

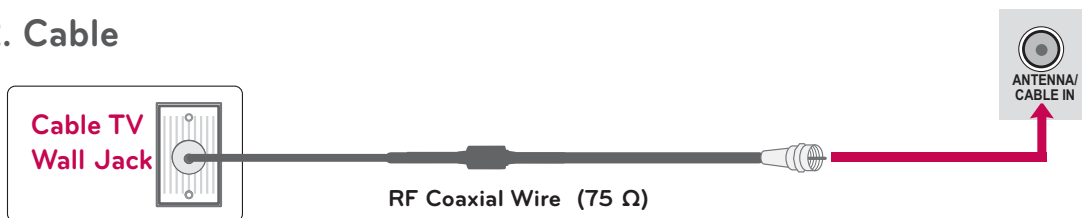
## ANTENNA OR CABLE CONNECTION

### 1. Antenna (Analog or Digital)

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



### 2. Cable



- If the antenna needs to be split for two TV's, install a 2-Way Signal Splitter.
- For much more information about antennas visit our Knowledgebase at [LGknowledgebase.com](http://LGknowledgebase.com). Search for antenna.

# 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.

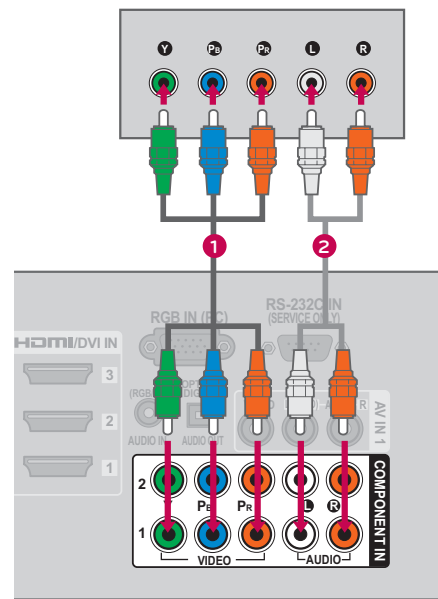
## HD RECEIVER SETUP

This TV can receive digital over-the-air/digital 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.

## 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, 2, or 3\*** 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, 2, or 3\*** 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 **Component1, Component2, or Component3** input source on the TV using the **INPUT** button on the remote control.

\* Component3: For LED LCD TV

### Supported Resolutions

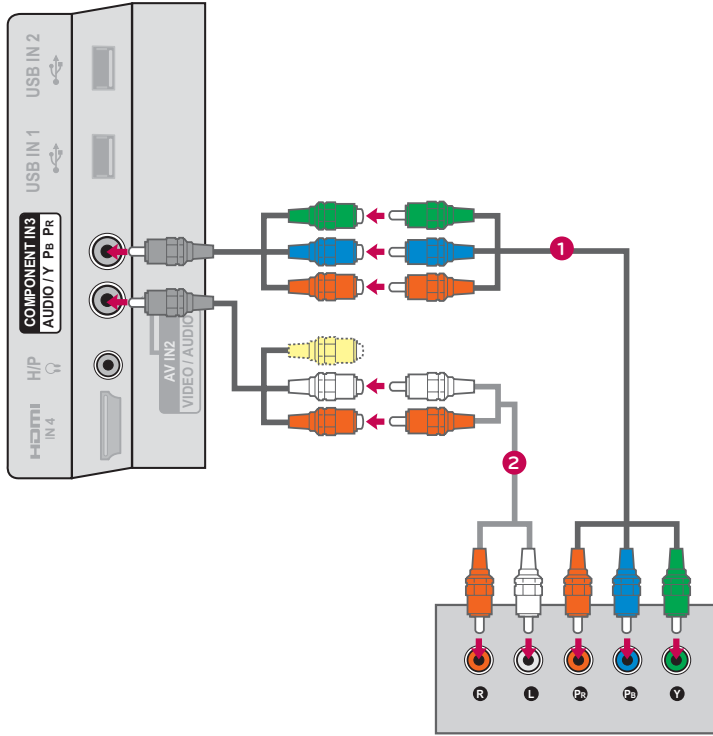
| Signal | Component | HDMI |
|--------|-----------|------|
| 480i   | Yes       | No   |
| 480p   | Yes       | Yes  |
| 720p   | Yes       | Yes  |
| 1080i  | Yes       | Yes  |
| 1080p  | Yes       | Yes  |

### Y, CB/PB, CR/PR

| Resolution | Horizontal Frequency(KHz) | Vertical Frequency(KHz) |
|------------|---------------------------|-------------------------|
| 720x480i   | 15.73                     | 59.94                   |
|            | 15.73                     | 60.00                   |
| 720x480p   | 31.47                     | 59.94                   |
|            | 31.50                     | 60.00                   |
| 1280x720p  | 44.96                     | 59.94                   |
|            | 45.00                     | 60.00                   |
| 1920x1080i | 33.72                     | 59.94                   |
|            | 33.75                     | 60.00                   |
| 1920x1080p | 26.97                     | 23.976                  |
|            | 27.00                     | 24.00                   |
|            | 33.71                     | 29.97                   |
|            | 33.75                     | 30.00                   |
|            | 67.432                    | 59.94                   |
|            | 67.50                     | 60.00                   |

# EXTERNAL EQUIPMENT SETUP

For LED LCD TV



## HDMI Connection

### 1. How to connect

- 1 Connect the digital set-top box to **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

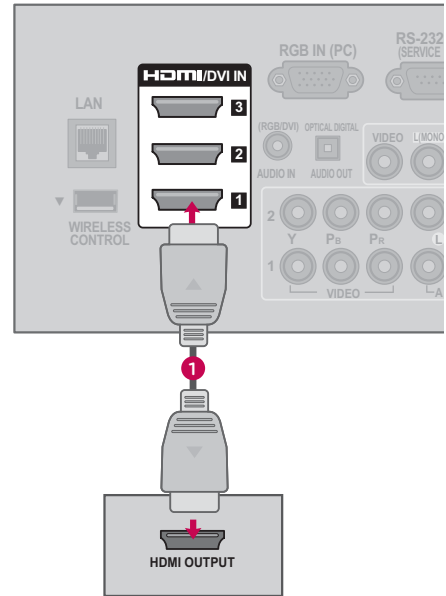
- Turn on the digital set-top box.  
(Refer to the owner's manual for the digital set-top box.)
- Select the **HDMI1, HDMI2, HDMI3,** or **HDMI4** input source on the TV using the **INPUT** button on the remote control.

#### NOTE

- ▶ If an HDMI cable doesn't support HDMI version 1.3, it can cause flickers or no screen display. In this case use the latest cables that support HDMI version 1.3.
- ▶ HDMI Audio Supported Format: AC3 (32KHz, 44.1KHz,48KHz), Linear PCM (32KHz, 44.1KHz,48KHz)

#### HDMI-DTV

| Resolution | Horizontal Frequency(KHz) | Vertical Frequency(KHz) |
|------------|---------------------------|-------------------------|
| 720x480p   | 31.47                     | 59.94                   |
|            | 31.50                     | 60.00                   |
| 1280x720p  | 44.96                     | 59.94                   |
|            | 45.00                     | 60.00                   |
| 1920x1080i | 33.72                     | 59.94                   |
|            | 33.75                     | 60.00                   |
| 1920x1080p | 26.97                     | 23.976                  |
|            | 27.00                     | 24.00                   |
|            | 33.71                     | 29.97                   |
|            | 33.75                     | 30.00                   |
|            | 67.432                    | 59.94                   |
|            | 67.50                     | 60.00                   |





# EXTERNAL EQUIPMENT SETUP

## DVI to HDMI Connection

### 1. How to connect

- 1 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 digital set-top box audio output to the **AUDIO IN (RGB/DVI)** jack on the TV.

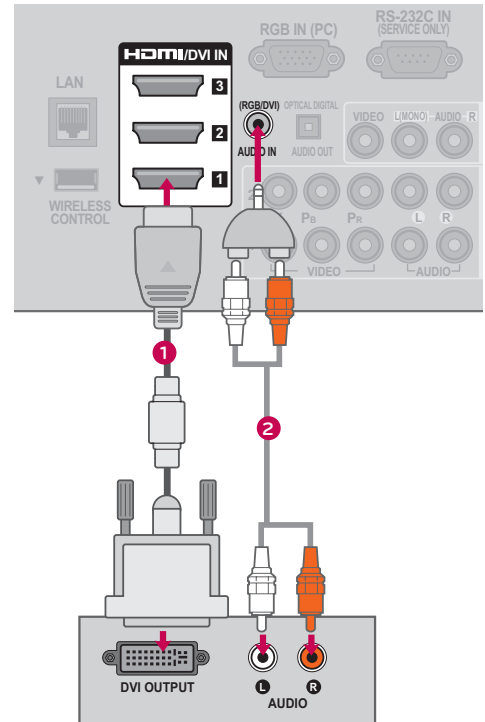
### 2. How to use

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

\* HDMI 4: For Plasma TV

#### 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.

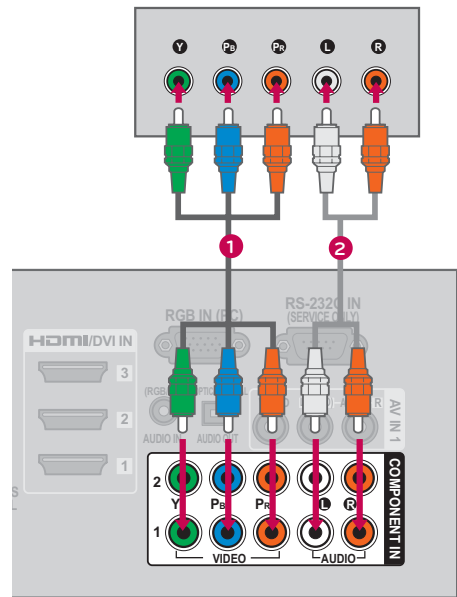


# DVD SETUP

## Component Connection

### 1. How to connect

- 1
 Connect the video outputs (Y, PB, PR) of the DVD to the **COMPONENT IN VIDEO 1, 2, or 3\*** 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 AUDIO 1, 2, or 3\*** jacks on the TV.



### 2. How to use

- Turn on the DVD player, insert a DVD.
- Select the **Component1**, **Component2**, or **Component3** input source on the TV using the **INPUT** button on the remote control.
- Refer to the DVD player's manual for operating instructions.

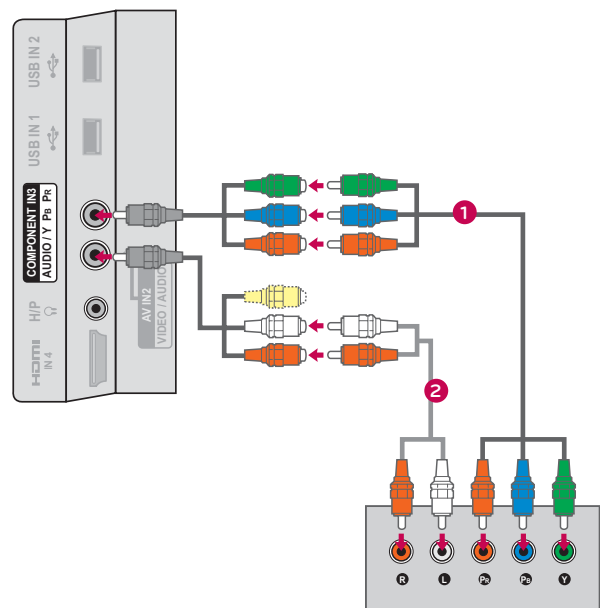
\* Component3: For LED LCD TV

### For LED LCD TV

#### Component Input ports

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

|                                  |   |                |                |
|----------------------------------|---|----------------|----------------|
| Component ports on the TV        | Y | P <sub>B</sub> | P <sub>R</sub> |
| Video output ports on DVD player | Y | P <sub>B</sub> | P <sub>R</sub> |
|                                  | Y | B-Y            | R-Y            |
|                                  | Y | C <sub>b</sub> | C <sub>r</sub> |
|                                  | Y | P <sub>b</sub> | P <sub>r</sub> |



# EXTERNAL EQUIPMENT SETUP

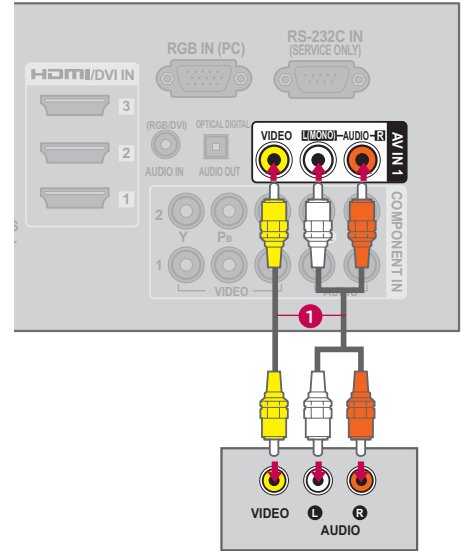
## Composite (RCA) Connection

### 1. How to connect

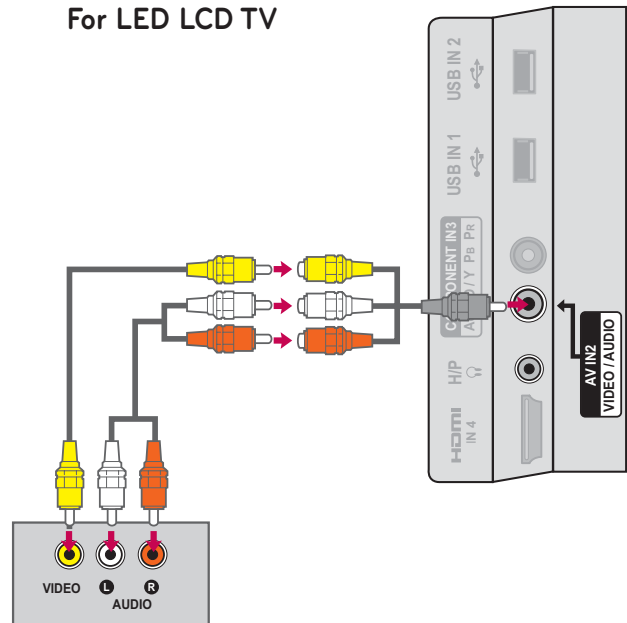
- 1 Connect the **AUDIO/VIDEO** jacks between TV and DVD. Match the jack colors (Video = yellow, Audio Left = white, and Audio Right = red)

### 2. How to use

- Turn on the DVD player, insert a DVD.
- Select the **AV1** or **AV2** input source on the TV using the **INPUT** button on the remote control.
- Refer to the DVD player's manual for operating instructions.



### For LED LCD TV



## HDMI Connection

### 1. How to connect

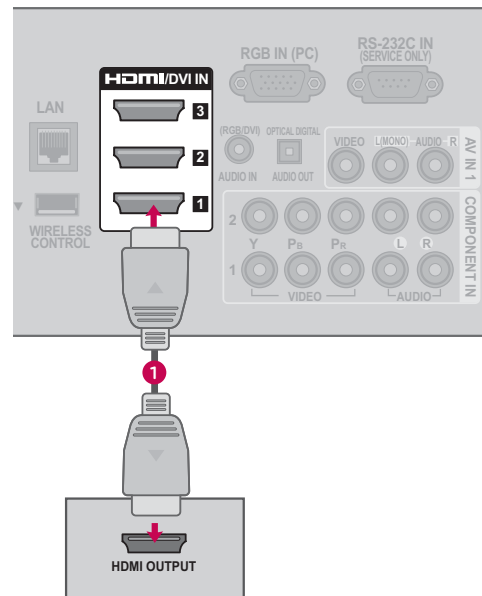
- 1 Connect the HDMI output of the DVD to the **HDMI/DVI IN 1, 2, 3** or **4** jack on the TV.
- 2 No separate audio connection is necessary. HDMI supports both audio and video.

### 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.

#### NOTE

- ▶ If an HDMI cable doesn't support HDMI version 1.3, it can cause flickers or no screen display. In this case use the latest cables that support HDMI version 1.3.
- ▶ HDMI Audio Supported Format: AC3 (32KHz, 44.1KHz,48KHz), Linear PCM (32KHz, 44.1KHz,48KHz)



# EXTERNAL EQUIPMENT SETUP

## VCR SETUP

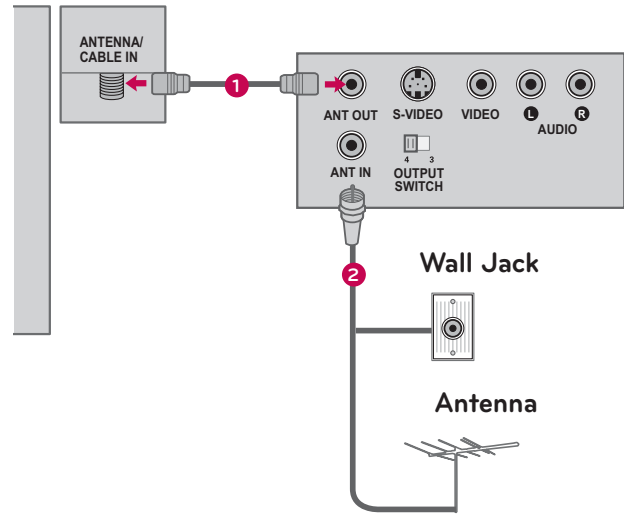
### Antenna Connection

#### 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

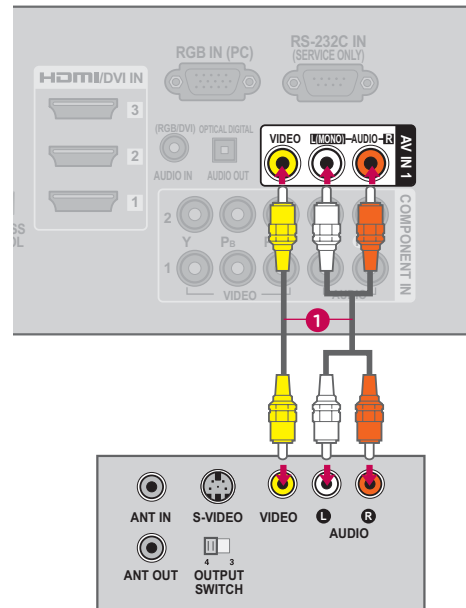
- 1 Connect the **AUDIO/VIDEO** jacks between TV and VCR. Match the jack colors (Video = yellow, Audio Left = white, and Audio Right = red)

### 2. How to use

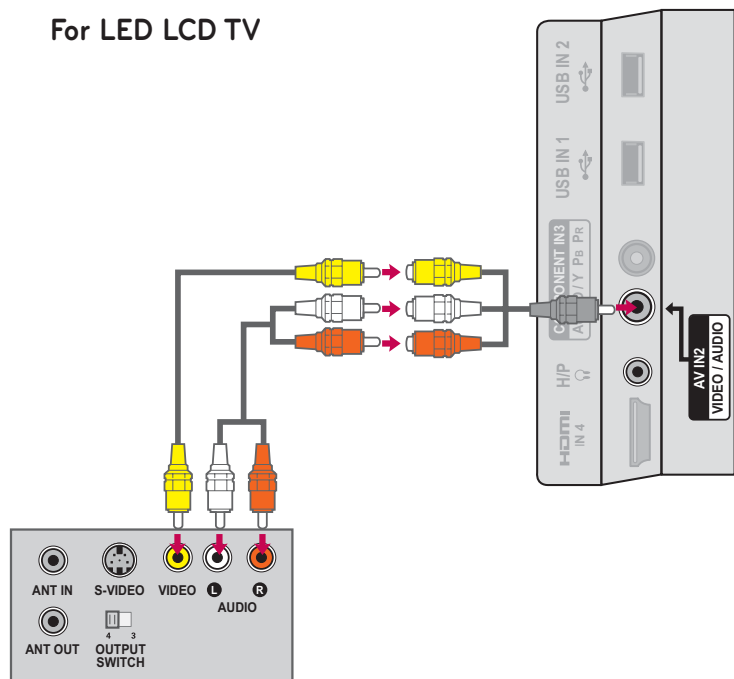
- Insert a video tape into the VCR and press PLAY on the VCR. (Refer to the VCR owner's manual.)
- Select the **AV1** or **AV2** input source on the TV using the **INPUT** button on the remote control.

#### NOTE

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



### For LED LCD TV



# EXTERNAL EQUIPMENT SETUP

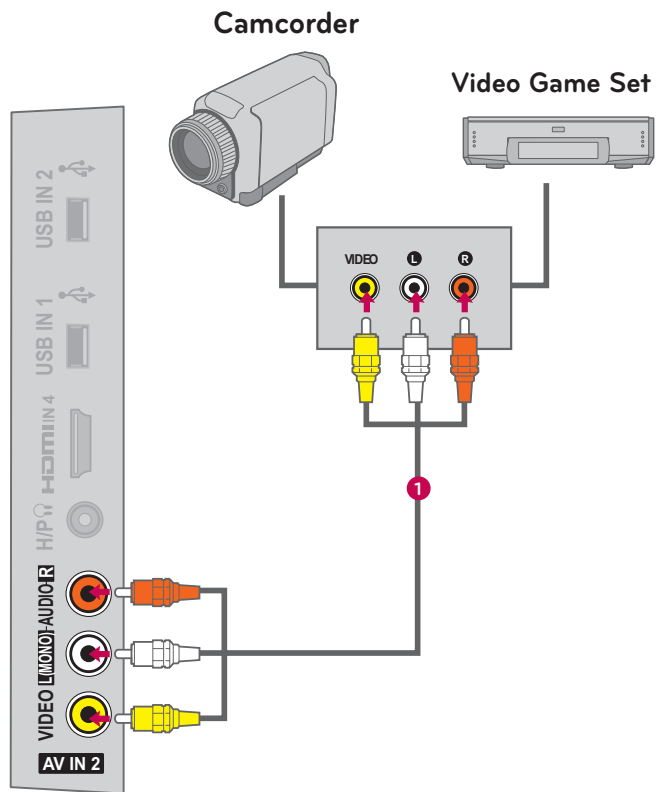
## OTHER A/V SOURCE SETUP

### 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 **AV1** or **AV2** input source on the TV using the **INPUT** button on the remote control.
- Operate the corresponding external equipment.



# USB CONNECTION

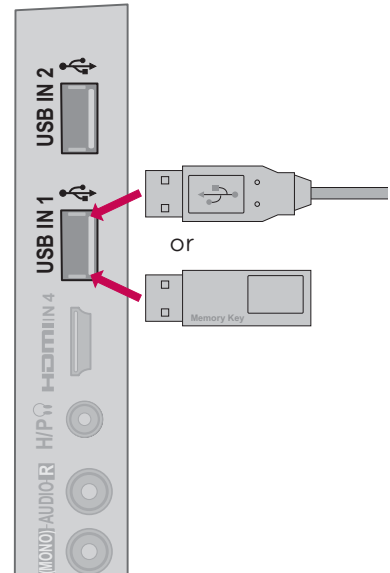
## 1. How to connect

---

- 1 Connect the USB device to the **USB IN 1** or **2** jack on the side of TV.
- 

## 2. How to use

- After connecting the **USB IN** jack, you use the USB function. (▶ p.93)





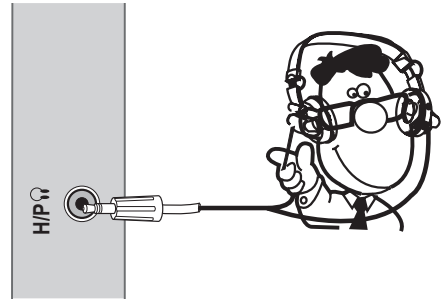
# EXTERNAL EQUIPMENT SETUP

## HEADPHONE SETUP (FOR LED LCD TV/LCD TV)

You can listen to the sound through the headphone.

### 1. How to connect

- 1 Plug the headphone into the headphone socket.
- 2 To adjust the headphone volume, press the **VOL +/-** button. If you press the **MUTE** button, the sound from the headphone is switched off.



#### NOTE

- ▶ AUDIO menu options are disabled when connecting a headphone.
- ▶ When changing AV MODE with a headphone connected, the change is applied to video but not to audio.
- ▶ Optical Digital Audio Out is not available when connecting a headphone.

# AUDIO OUT CONNECTION

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

If you want to enjoy digital broadcasting through 5.1-channel speakers, connect the OPTICAL DIGITAL AUDIO OUT terminal on the back of TV to a Home Theater (or amp).

## 1. How to connect

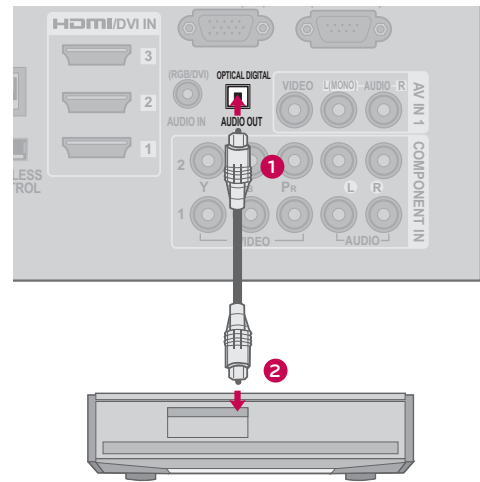
- 1 Connect one end of the optical cable to the TV port of **OPTICAL DIGITAL AUDIO OUT**.
- 2 Connect the other end of the optical cable to the digital audio input on the audio equipment.
- 3 Set the "TV Speaker option - Off" in the AUDIO menu. (▶ p.156). See the external audio equipment instruction manual for operation.

### NOTE

- ▶ When connecting with external audio equipment, such as amplifiers or speakers, you can turn the TV speakers off in the menu. (▶ p.156)

### CAUTION

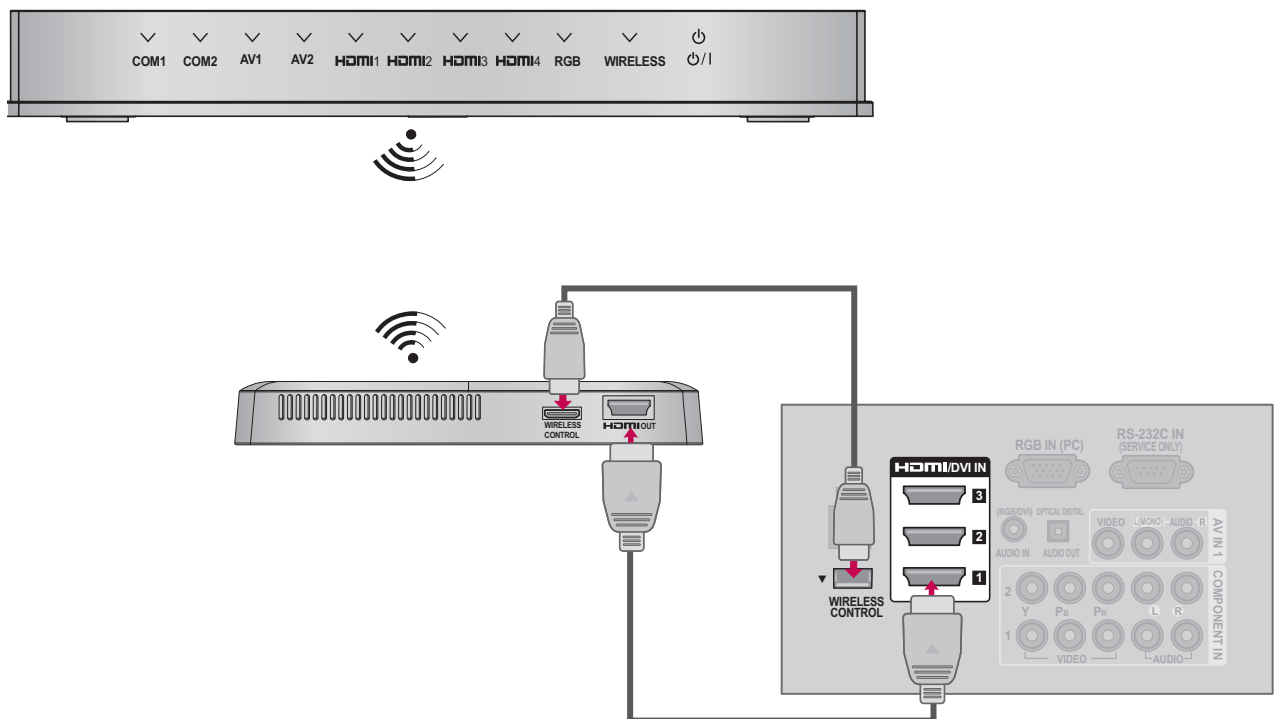
- ▶ Do not look into the optical output port. Looking at the laser beam may damage your vision.
- ▶ Audio with ACP (Audio Copy Protection) function may block digital audio output.



# EXTERNAL EQUIPMENT SETUP

## EXTERNAL EQUIPMENT WIRELESS CONNECTION (OPTIONAL EXTRAS)

LG TVs with a Wireless Control port support the LG Wireless Media Box (AN-WL100), which is sold separately. When you connect the wireless ready dongle (included with the media box) to the TV, external devices can be connected to the LG Wireless Media Box and video and audio will be sent to the TV wirelessly.



### 1. How to connect

- 1 Connect the **WIRELESS CONTROL** jack of the Wireless Ready Dongle to the **WIRELESS CONTROL** jack on the TV.
- 2 Connect **HDMI OUT** jack of the Wireless Ready Dongle to the **HDMI IN** jack on the TV.

### 2. How to use

- Select the desired input source on the TV using the **INPUT** button on the remote control.
- Refer to the Wireless Media Box manual for operating instructions.

# PC SETUP

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

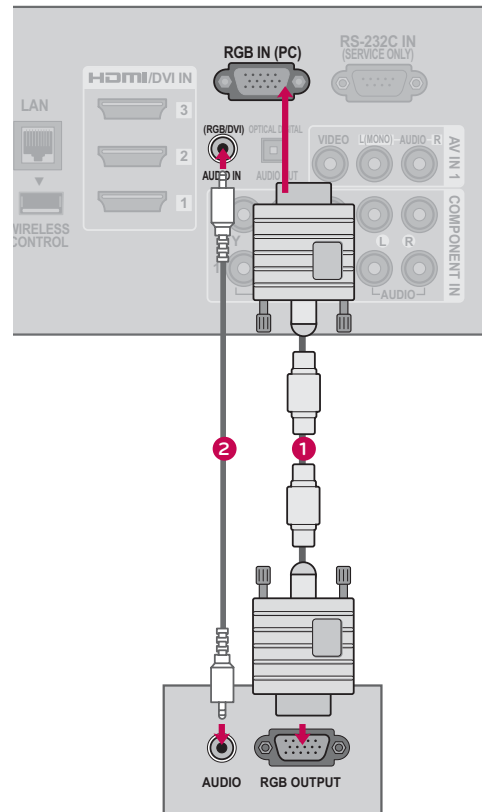
## VGA (D-Sub 15 Pin) Connection

### 1. How to connect

- 1 Connect the VGA output of the PC to the **RGB IN (PC)** jack on the TV.
- 2 Connect PC audio output to the **AUDIO IN (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

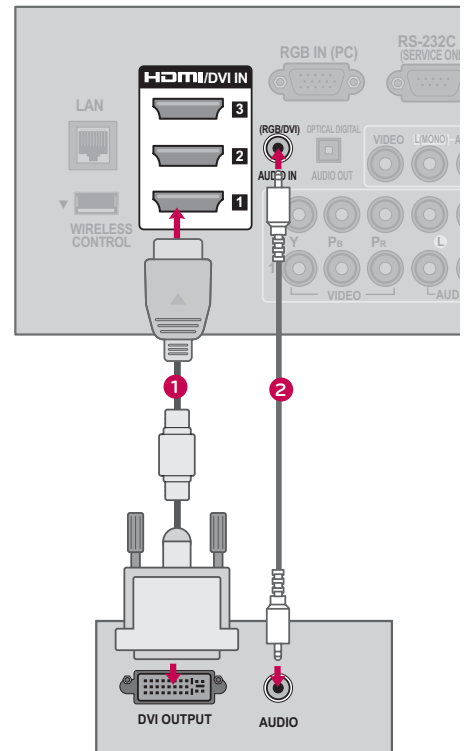
### 1. How to connect

- 1 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 IN (RGB/DVI)** jack on the TV.

### 2. How to use

- Turn on the PC and the TV.
- Select the **HDMI1, HDMI2, HDMI3, or HDMI4\*** input source on the TV using the **INPUT** button on the remote control.

\* HDMI 4: For Plasma TV



**NOTE**

- ▶ To get the 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 may become permanently imprinted on the screen.
- ▶ The synchronization input form for Horizontal and Vertical frequencies is separate.
- ▶ Depending on the graphics card, some resolution settings may not allow the image to be positioned on the screen properly.
- ▶ If you experience overscan issues when using HDMI-PC 1920x1080, change aspect ratio to **Just scan**.
- ▶ When selecting HDMI-PC, set the "Input Label - PC" in the OPTION menu.

**Supported Display Specifications (RGB-PC, HDMI-PC)**

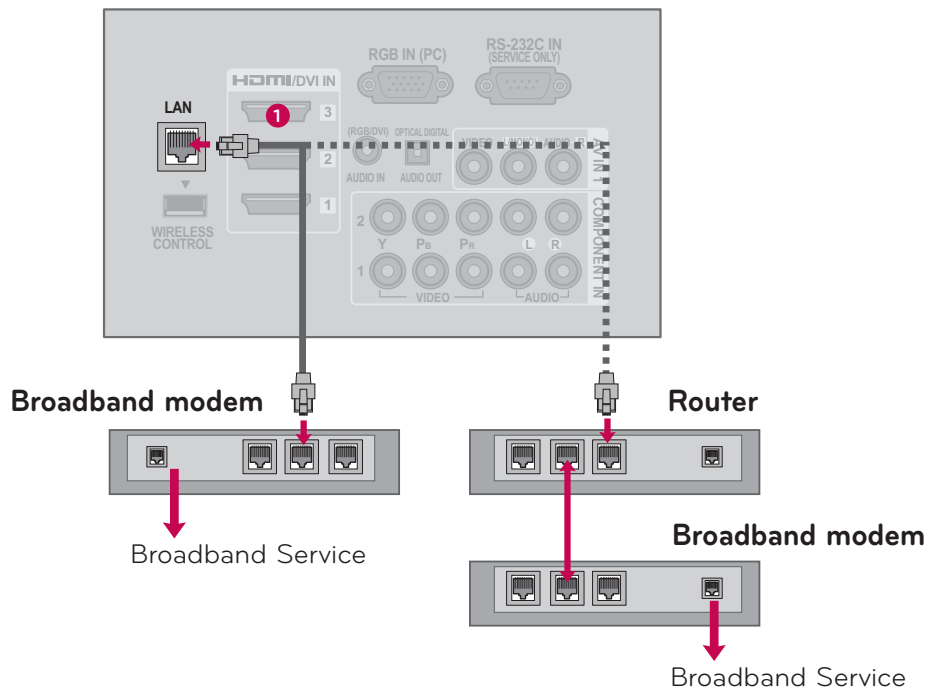
| Resolution           | Horizontal Frequency(KHz) | Vertical Frequency(KHz) |
|----------------------|---------------------------|-------------------------|
| 640x350              | 31.468                    | 70.09                   |
| 720x400              | 31.469                    | 70.08                   |
| 640x480              | 31.469                    | 59.94                   |
| 800x600              | 37.879                    | 60.31                   |
| 1024x768             | 48.363                    | 60.00                   |
| 1280x768             | 47.776                    | 59.87                   |
| 1360x768             | 47.712                    | 60.015                  |
| 1280x1024            | 63.981                    | 60.02                   |
| 1600x1200            | 75.00                     | 60.00                   |
| 1920x1080<br>RGB-PC  | 66.587                    | 59.934                  |
| 1920x1080<br>HDMI-PC | 67.50                     | 60.00                   |

# EXTERNAL EQUIPMENT SETUP

## NETWORK SETUP

### Wired Network Connection

This TV can be connected to a local area network (LAN) via the LAN port. After making the physical connection, the TV needs to be set up for network communication.



### 1. How to connect

- 1 Connect the LAN port of the Modem or Router to the **LAN** port on the TV.

### 2. How to use

- Select "**Network Setting**" in the NETWORK menu (▶ p.59).
- After connecting the **LAN** port, use the NETCAST menu (▶ p.125).
- For more information about NETCAST setup and troubleshooting, visit our Knowledgebase at [LGknowledgebase.com](http://LGknowledgebase.com). Search for NetCast.

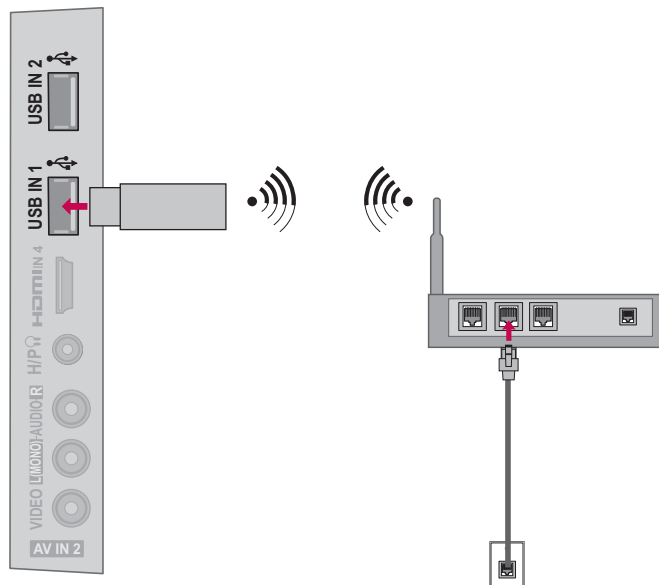
### ⚠ CAUTION

- ▶ Do not connect a modular phone cable to the LAN port.
- ▶ Since there are various connection methods, please follow the specifications of your telecommunication carrier or internet service provider.

## Wireless Network Connection

The LG Wireless LAN for Broadband/DLNA Adaptor (AN-WF100), which is sold separately, allows the TV to connect to a wireless lan network.

The network configuration and connection method may vary depending on the equipment in use and the network environment. Refer to the setup instructions supplied with your access point or wireless router for detailed connection steps and network settings.



### 1. How to connect

- 1 Connect the "LG Wireless LAN for Broadband/DLNA Adaptor (AN-WF100) (sold separately)" to the **USB IN 1** or **2** port on the TV.

### 2. How to use

- Select "**Network Setting**" in the NETWORK menu (▶ p.59).
- After connecting, you can use the NETCAST menu (▶ p.125).

#### Wi-Fi USB dongle (AN-WF100) SPEC

|                 |  |              |  |
|-----------------|--|--------------|--|
| Standard        | IEEE 802.11a/b/g/n                             | Sensitivity  | 802.11a : -72dBm (54Mbps)                          |
| Host interface  | USB 2.0  |              | 802.11b: -84dBm (11, 5.5, 2, 1Mbps)                |
| Frequency Range | 2.400~2.483 GHz                                | Output power | 802.11g: -72dBm (54Mbps)                           |
|                 | 5.150~5.250 GHz                                |              | 802.11n: -64dBm (20MHz)/<br>-61dBm (40MHz)         |
| Security        | 64/128 bit WEP, WPA, TKIP, AES, WPS (PIN, PBC) |              | 802.11a: 14dBm (54Mbps)                            |
| Data rate       | 802.11 a/g: 54 Mbps                            |              | 802.11b: 16.5dBm (11, 5.5, 2, 1Mbps)               |
|                 | 802.11 b: 11 Mbps                              |              | 802.11g: 14dBm (54Mbps)                            |
|                 | 802.11 n: 300 Mbps (40 MHz)                    |              | 802.11n: (2.4Ghz) 13.5dBm (20MHz)/ 13.5dBm (40MHz) |



# EXTERNAL EQUIPMENT SETUP

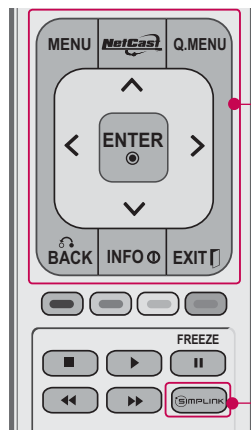
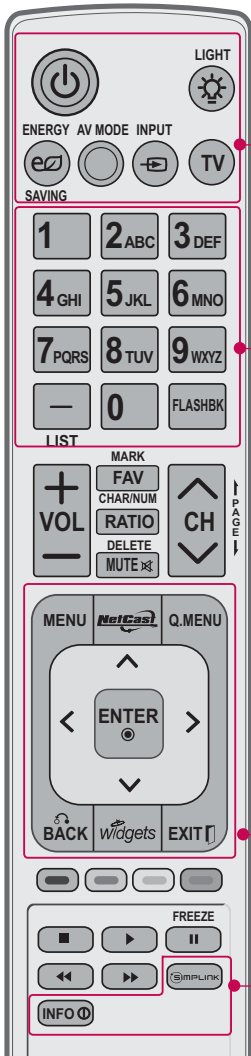
## NOTE

- ▶ For more information about NETCAST setup and troubleshooting, visit our Knowledgebase at [LGknowledgebase.com](http://LGknowledgebase.com). Search for NETCAST.
- ▶ Use a standard LAN cable with this TV. Cat5 or better with a RJ45 connector.
- ▶ Many network connection problems during set up can often be fixed by re-setting the router or modem. After connecting the player to the home network, quickly power off and/or disconnect the power cable of the home network router or cable modem. Then power on and/or connect the power cable again.
- ▶ Depending on the internet service provider (ISP), the number of devices that can receive internet service may be limited by the applicable terms of service. For details, contact your ISP.
- ▶ LG is not responsible for any malfunction of the TV and/or the internet connection feature due to communication errors/malfunions associated with your broadband internet connection, or other connected equipment.
- ▶ LG is not responsible for problems within your internet connection.
- ▶ Some content available through the network connection may not be compatible with the TV. If you have questions about such content, please contact the producer of the content.
- ▶ You may experience undesired results if the network connection speed does not meet the requirements of the content being accessed.
- ▶ Some internet connection operations may not be possible due to certain restrictions set by the Internet service provider (ISP) supplying your broadband Internet connection.
- ▶ Any fees charged by an ISP including, without limitation, connection charges are your responsibility.
- ▶ A 10 Base-T or 100 Base-TX LAN port is required for connection to this TV. If your internet service does not allow for such a connection, you will not be able to connect the TV.
- ▶ A DSL modem is required to use DSL service and a cable modem is required to use cable modem service. Depending on the access method of and subscriber agreement with your ISP, you may not be able to use the internet connection feature contained in this TV or you may be limited to the number of devices you can connect at the same time. (If your ISP limits sub-scription to one device, this TV may not be allowed to connect when a PC is already connected.)
- ▶ The use of a "Router" may not be allowed or its usage may be limited depending on the policies and restrictions of your ISP. For details, contact your ISP directly.
- ▶ The wireless network operates at 2.4 GHz radio frequencies that are also used by other household devices such as cordless telephone, Bluetooth® devices, microwave oven, and can be affected by interference from them.
- ▶ Turn off all unused network equipment in your local home network. Some devices may generate network traffic.
- ▶ In some instances, placing the access point or wireless router higher up away from the floor may improve the reception.
- ▶ The reception quality over wireless depends on many factors such as type of the access point, distance between the TV and access point, and the location of the TV.

# WATCHING TV / CHANNEL CONTROL

## REMOTE CONTROL FUNCTIONS

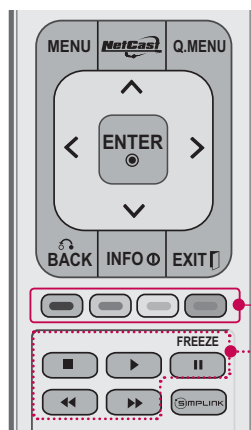
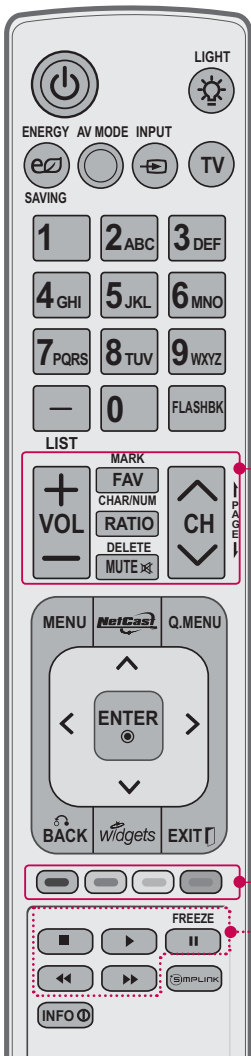
When using the remote control, aim it at the remote control sensor on the TV.



- POWER** Turns the TV on from standby or off to standby.
- LIGHT** Illuminates the remote control buttons. (Except 32/42/46/52/60LD550, 47/55LD650)
- ENERGY SAVING** Adjusts the Energy Saving setting. ▶ p.138
- AV MODE** Toggles through preset Video and Audio modes. ▶ p.88
- INPUT** Rotates through inputs. Also switches the TV on from standby. ▶ p.83
- TV** Returns to the last TV channel.

- NUMBER button**
- (DASH)** Used to enter a program number for multiple program channels such as 2-1, 2-2, etc.
- LIST** Displays the channel table. ▶ p.80
- FLASHBK** Tunes to the last channel viewed.

- MENU** Displays the main menu or clears all on-screen displays and return to TV viewing.
- NETCAST** Select the desired NETCAST menu source. ▶ p.125
- Q.MENU** Opens the list of Quick Menu options. ▶ p.71
- THUMBSTICK (Up/Down/Left/Right/ENTER)** Navigates the on-screen menus and adjusts the system settings to your preference.
- BACK** Allows the user to move return one step in an interactive application or other user interaction function.
- WIDGETS** WIDGETS for showing or hiding the Yahoo! Dock and accessing the Yahoo! TV Widgets user experience. ▶ p.127-133
- INFO** Displays channel information at the top of the screen. ▶ p.81
- EXIT** Clears all on-screen displays and return to TV viewing.
- SIMPLINK** See a list of AV devices connected to TV. When you toggle this button, the SIMPLINK menu appears at the screen. ▶ p.90-91

**VOLUME UP/DOWN**

Adjusts the volume.

**FAV**

Set up desired favorite channels list. ▶ **p.79**

**MARK**

Select the input to apply the Picture Wizard settings. ▶ **p.137**

Use to mark or unmark a photo/music/movie. ▶ **p.105, 110, 116**

**RATIO**

Changes the aspect ratio. ▶ **p.134**

**CHAR/NUM**

Shifts the Character or Number for YouTube.

**MUTE**

Switches the sound on or off. ▶ **p.66**

**DELETE**

Deleted the character or number on the screen.

**CHANNEL UP/DOWN**

Changes the channel.

**PAGE UP/DOWN**

Moves from one full set of screen information to the next one.

**COLOR BUTTON**

Access special functions in some menus.

**USB, SIMPLINK Control buttons**

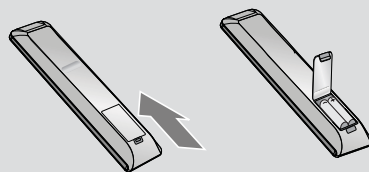
- Controls MY MEDIA menu (Movie List, Photo List, Music List)
- Controls the SIMPLINK compatible devices.

**FREEZE (For Plasma TV)**

Pause the present picture at the screen. (It doesn't work at USB Mode and Simplink.)

The TV returns to normal viewing automatically if no signal is received or no operation is performed for 5 minutes.


If you keep the screen in Freeze condition, the residual image can exist.

**Installing Batteries**

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

# WATCHING TV / CHANNEL CONTROL

## 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.
- 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.
- ▶ If you do not complete the **Initial setting**, it will appear whenever the TV is switched on until the **Initial setting** procedure is completed.

## CHANNEL SELECTION

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

## VOLUME ADJUSTMENT

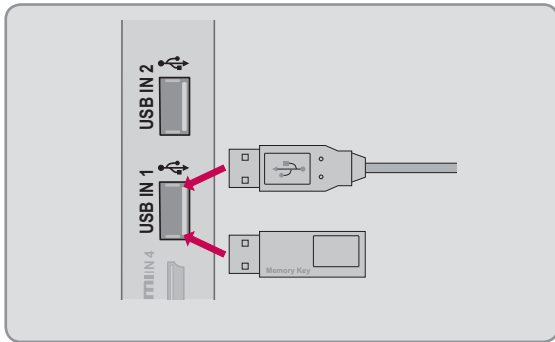
Adjust the volume to suit your personal preference.

- 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.

# CONNECTION METHOD

## USB Connection

- 1 Connect the USB device to the **USB IN** jack on the TV.



### Precautions when using the USB device

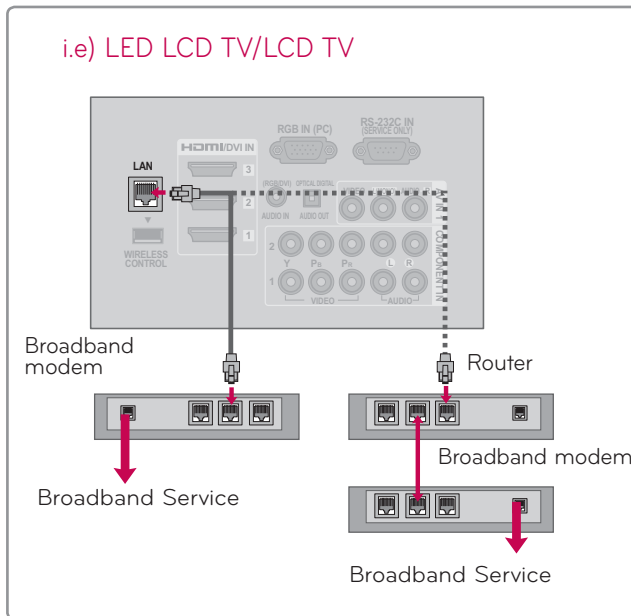
- ▶ Only a USB storage device is recognizable.
- ▶ Connecting a USB storage device through a USB hub is not supported.
- ▶ A USB storage device which uses its own driver may not be recognized.
- ▶ The recognition speed of a USB storage device may depend on each device.
- ▶ Please do not turn off the 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.
- ▶ Only use a USB storage device which has normal music files or image files.
- ▶ Please use only a USB storage device which was formatted as a FAT 32 or NTFS file system provided with the Windows operating system. Others may not be recognized.
- ▶ Some USB storage devices require a power adapter. The power adapter must be connected in order to be seen by the TV.
- ▶ If a device is not recognized by the TV, try a different cable. Excessively long cables are not supported.
- ▶ Some USB storage devices may not be supported or operate properly.
- ▶ Please backup important files because data on USB device could be damaged. Data management is consumer's responsibility and as a result, the manufacturer does not cover data damage.
- ▶ If your USB memory device has multiple partitions, or if you use a USB multi-card reader, you can use up to 4 partitions or USB memory devices.
- ▶ In case of USB storage devices formatted as NTFS, deletion is not supported.
- ▶ File alignment method of USB storage device is similar to Window XP and file names can be up to 100 English characters.
- ▶ The recommended capacity is 1TB or less for a USB external hard disk and 32 GB or less for USB memory.
- ▶ If a USB external hard disk with a "Energy Saving" function doesn't work, turn the hard disk off and on again to make it work properly. Refer to the user manual of the USB external hard disk.
- ▶ USB storage devices below USB 2.0 are supported as well. But they may not work properly in the movie list.

# MY MEDIA

## Viewing Files on the Network

You can view the photos or listen to music files from folders shared on the network.

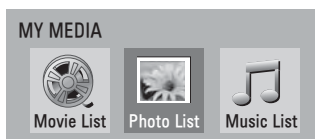
- 1 Set a share folder (CIFS: Common Internet File System) on the PC (Refer to P.95).
- 2 Connect the LAN port of the Modem or Router to the **LAN** port on the TV.



- ▶ Connect the PC and TV using a sharing device so that you can see the PC's shared files on the TV.
- ▶ How to set a share folder may differ depending on the Windows version.
- ▶ The speed may be slow or it may cause an error if you try to access a folder from two TVs at the same time.
- ▶ Because files could be deleted from a shared PC, set the user access level to Read Only.
- ▶ Do not share any important personal documents as it may be accessed by a different PC.
- ▶ If you rename or disable a shared folder on the PC after mounting, you cannot mount it again.
- ▶ If the status of the network or a share folder on the PC is changed, search is run again when entering the highest folder in the menu.
- ▶ Maximum of 32 computers can be shared.

3   Select **MY MEDIA**.

4   Select **Movie List**, **Photo List** or **Music List**.



# DLNA

## About DLNA

This TV is a DLNA Certified digital media product that can display and play movie, photo and music content from your DLNA Certified network device and DLNA server. The **Digital Living Network Alliance (DLNA)** is a cross-industry organization of consumer electronics, computing industry and mobile device companies. Digital Living provides consumers with easy sharing of digital media through a wired or wireless network in the home.

The DLNA certification logo makes it easy to find products that comply with the DLNA Interoperability Guidelines. This unit complies with DLNA Interoperability Guidelines v1.5. When a PC running DLNA server software or other DLNA compatible device is connected to this TV, some setting changes of software or other devices may be required. Please refer to the operating instructions for the software or device for more information.

### ! NOTE

- ▶ The supplied Nero MediaHome 4 Essentials CD-ROM is a customized software edition only for sharing files and folders to this TV.
- ▶ The supplied Nero MediaHome 4 Essentials software does not support following functions: Transcoding, Remote UI, TV control, Internet services and Apple iTunes
- ▶ This manual explains operations with the English version of Nero MediaHome 4 Essentials as examples. Follow the explanation referring to the actual operations of your language version.

## Installing Nero MediaHome 4 Essentials

Nero MediaHome 4 Essentials is easy to use DLNA server software for Windows. If you are already using DLNA server software on your PC, Nero MediaHome is not required. Nero MediaHome is not required for Windows 7 since it has a built-in DLNA server.

### Requirement PC system before you install Nero MediaHome 4 Essentials

- Windows® XP (Service Pack 2 or higher), Windows Vista® (no Service Pack required), Windows® XP Media Center Edition 2005 (Service Pack 2 or higher), Windows Server® 2003
- Windows Vista® 64-bit edition (application runs in 32-bit mode)
- Hard drive space: 200 MB hard drive space for a typical installation of Nero MediaHome stand-alone
- 1.2 GHz Intel® Pentium® III or AMD Sempron™ 2200+ processors
- Memory: 256 MB RAM
- Graphics card with at least 32 MB video memory, minimum resolution of 800 x 600 pixels, and 16-bit color settings
- Windows® Internet Explorer® 6.0 or higher
- DirectX® 9.0c revision 30 (August 2006) or higher
- Network environment: 100 Mb Ethernet, WLAN (IEEE 802.11b/g/n)



- 1** Start up your computer, and insert the Nero MediaHome 4 Essentials CD-ROM into your computer's CD-ROM drive.  
An installation wizard will walk you through the quick and uncomplicated installation process.
- 2** Close all Microsoft Windows programs and exit any anti-virus software that may be running.
- 3** Insert the Nero MediaHome 4 Essentials CD-ROM into your computer's CD-ROM drive.
- 4** Click **Nero MediaHome 4 Essentials**. The installation is prepared and the installation wizard appears.
- 5** Click the **Next** button to display the serial number input screen.  
Click **Next** to go to the next step.
- 6** If you accept all conditions, click **I accept the License Conditions** check box and click **Next**.  
Installation is not possible without this agreement.
- 7** Click **Typical** and click **Next**. The installation process is started.
- 8** If you want to take part in the anonymous collection of data, select the check box and click the **Next** button.
- 9** Click the **Exit** button to complete the installation.

# MY MEDIA

## Sharing files and folders

After installing Nero MediaHome, you must add folders you wish to share.

- 1 Double-click the **Nero MediaHome 4 Essentials** icon on the desktop.
- 2 Click **Network** icon on the left and define your network name in the **Network name** field. The Network name you enter will be recognized by your TV.
- 3 Click **Shares** icon on the left.
- 4 Click **Local Folders** tab on the **Shared** screen.
- 5 Click **Add** icon to open the **Browse Folder** window.
- 6 Select the folder containing the files you want to share. The selected folder is added to the list of shared folders.
- 7 Click **Start Server** icon to start the server.

### NOTE

- ▶ If the shared folders or files are not displayed on the TV, click the folder on the **Local Folders** tab and click **Rescan Folder** at the **More** button.
- ▶ Visit [www.nero.com](http://www.nero.com) for more information and software tools.



## Playing back shared contents

You can display and play movie, photo and music content stored on your computer or other DLNA media servers.

1 Start the server on your computer or other device that connected on your home network.

2   Select **MY MEDIA**.

3   Select **Movie List**, **Photo List** or **Music List**.

4   Select the DLNA.  
Depending on the media server, this TV may need to get the permission from the server.  
If you want to re-scan available media server, press blue color button.

### NOTE

- ▶ To play the file on the media server, the TV and the media server must be connected to the same access point.
- ▶ Because the compatibility and available playback functions on the **MY MEDIA** menu are tested on the bundle DLNA server (Nero MediaHome 4 Essentials) environment, file requirements and playback functions on the **MY MEDIA** may differ depending on media servers.
- ▶ The file requirements on this page are not always compatible. There may have some restrictions by file features and media server's ability.
- ▶ Movie thumbnail is not supported in DLNA Movie.
- ▶ If there is an unplayable music file in the **MY MEDIA** menu, the TV will skip the file and play next file.
- ▶ The file information indicated on the screen may not always correct for music and movie files in **MY MEDIA** menu
- ▶ This TV only supports movie subtitle files supplied by Nero MediaHome 4.
- ▶ The subtitle file name and movie file name have to be the same and located at the same folder.
- ▶ If subtitle files have been added after a directory has been indexed already, the user has to remove and re-add the folder to the list of shares.
- ▶ The playback and operating quality of the **MY MEDIA** function may be affected by your home network condition.
- ▶ The files from removable media such as USB drive, DVD-drive etc. on your media server may not share properly.

# MY MEDIA

## MOVIE LIST

It displays all of the video files it recognizes.

The On-Screen Display on your model may be slightly different.

### Supported movie file

- Resolution: under 1920 pixel (width) x 1080 pixel (height)
- Frame Rate: under 30 frame/sec (1920x1080), under 60 frame/sec (1280x720)

### Precautions when playing the video files

- ▶ Some user-created subtitles may not work properly.
- ▶ Some special characters are not supported in subtitles.
- ▶ HTML tags are not supported in subtitles.
- ▶ Time information in an external subtitle file should be arranged in ascending order to be played.
- ▶ The screen may suffer temporary interruptions (image stoppage, faster playback, etc.) when the audio language is changed.
- ▶ A damaged video file may not be played correctly, or some functions may not be usable.
- ▶ Video files produced with some encoders may not be played correctly.
- ▶ If the video and audio structure of recorded file is not interleaved, the file not playback properly.
- ▶ Video with resolution higher than maximum resolution supported for each frame, cannot be guaranteed for smooth playback.
- ▶ Movie files other than the specified types and formats may not work properly.
- ▶ The movie file encoded by the GMC (Global Motion Compensation) is not supported.
- ▶ Only the files saved in ASCII Code is supported in subtitles.
- ▶ Only 250 Korean characters, 500 letters and 500 numbers are supported for each line of the subtitle.
- ▶ Only 10,000 sync blocks are supported within the subtitle file.
- ▶ We do not guarantee smooth playback of profiles encoded level 4.1 or higher in H.264.
- ▶ DTS Audio codec is not supported.
- ▶ A video file more than 30GB in file size is not supported for playback.
- ▶ Playing a video via a USB connection that doesn't support high speed may not work properly.
- ▶ USB storage devices below USB 2.0 are supported as well. But they may not work properly in the movie list.
- ▶ The video file and its subtitle file must be located in the same folder.  
At this time, a video file name and its subtitle file name must be identical for it to be displayed.
- ▶ When you are watching a movie via the Movie List function, you can adjust the picture with the ENERGY SAVING and AV MODE button on the remote control. User setup for each picture mode is not supported.

## Supported Video Formats

| File Extensions      | Audio/Video | Codec  | Profile/Level Support  | Explanation   |
|----------------------|-------------|--|--|---|
| .asf<br>.wmv<br>.wma | Video       | VC-1 Advanced Profile                                | Advanced Profile@Level 3<br>(e.g. 720p60, 1080i60, 1080p30)  | Only streams compliant to SMPTE 421M VC-1 standard are supported.   |
|                      |             | VC-1 Simple and Main Profiles                        | Simple Profile@Medium Level (e.g. CIF, QVGA)<br>Main Profile@High Level (e.g. 1080p30)   |   |
|                      | Audio       | WMA Standard   |  |   |
|                      |             | WMA 9 Professional                                   |  |   |
| .divx<br>.avi        | Video       | DivX3.11   |  | Global motion compensation or quarterpel motion estimation does not supported. Streams using this syntax are not supported. |
|                      |             | DivX4  | Advanced Simple Profile<br>(e.g. 720p/1080i)   |   |
|                      |             | DivX5<br>DivX6                                       |  |   |
|                      | XViD        |  |  |   |
|                      | Audio       | H.264 / AVC  | Main Profile@ Level 4.1<br>High Profile@ Level 4.1<br>(e.g. 720p60, 1080i60, 1080p30)  |   |
| .mp4<br>.m4a<br>.m4v | Video       | H.264 / AVC  | Main Profile@ Level 4.1<br>High Profile@ Level 4.1<br>(e.g. 720p60, 1080i60, 1080p30)  | Global motion compensation or quarterpel motion estimation does not supported. Streams using this syntax are not supported. |
|                      |             | MPEG-4 Part 2  | Advanced Simple Profile (e.g. 720p/1080i)  |   |
|                      | Audio       | MPEG-1 Layer I, II<br>MPEG-1 Layer III (MP3)<br>AC-3 | AAC-LC and AAC-HE  |   |
| .mkv                 | Video       | H.264 / AVC  | Main Profile@ Level 4.1<br>High Profile@ Level 4.1<br>(e.g. 720p60, 1080i60, 1080p30)  | Most of the MKV content available is encoded by the open source x264 codec.   |
|                      |             | Audio  | AAC-LC and AAC-HE  |   |
|                      |             | Audio  | AAC<br>AC-3  |   |
| .ts<br>.trp<br>.tp   | Video       | H.264 / AVC  | Main Profile@ Level 4.1<br>High Profile@ Level 4.1<br>(e.g. 720p60, 1080i60, 1080p30)  | Only streams compliant to SMPTE 421M VC-1 standard are supported.   |
|                      |             | MPEG-2   | Main Profile@High Level(e.g. 720p60, 1080i60)  |   |
|                      |             | VC-1   | Simple Profile@Medium Level<br>(e.g. CIF, QVGA)<br>Main Profile@High Level<br>(e.g. 1080p30)<br>Advanced Profile@Level3<br>(e.g. 720p60, 1080i60, 1080p30) |   |
|                      | Audio       | MPEG-1 Layer I, II<br>MPEG-1 Layer III (MP3)<br>AC-3 |  |   |
|                      |             | AAC  | AAC-LC and AAC-HE  |   |
| .vob                 | Video       | MPEG-1   |  |   |
|                      |             | MPEG-2   | Main Profile@High Level (e.g. 720p60, 1080i60)   |   |
|                      | Audio       | AC-3<br>MPEG-1 Layer I, II<br>DVD-LPCM               |  |   |
| .mpg                 | Video       | MPEG-1<br>MPEG-2                                     | Main Profile@High Level (e.g. 720p60, 1080i60)   | Only streams compliant configured properly for TS, PS or ES   |
|                      | Audio       | MPEG-1 Layer I, II                                   |  |   |

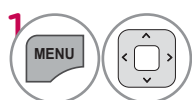
# PHOTO LIST

The On-Screen Display on your model may be slightly different.

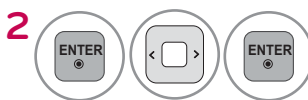
## Supported photo file: \*.JPG

- Baseline: 64 pixel (width) x 64 pixel (height) to 15360 pixel (width) x 8640 pixel (height)
- Progressive: 64 pixel (width) x 64 pixel (height) to 1920 pixel (width) x 1440 pixel (height)
- You can play JPEG files only.
- Non-supported files are displayed in the form of predefined icon.

## Screen Components

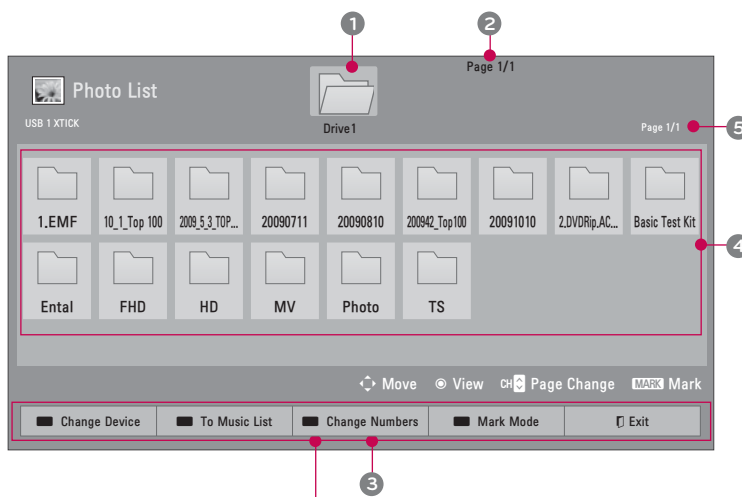


Select **MY MEDIA**.



Select **Photo List**.

- 1 Moves to upper level folder
- 2 Current page/Total pages
- 3 Corresponding buttons on the remote control
- 4 Contents under the folder focused on 1
- 5 Current page/total pages of contents



|               |  |
|---------------|--|
| <b>RED</b>    | Change to a different input.   |
| <b>GREEN</b>  | Move to <b>Music List</b> or <b>Movie List</b> .                             |
| <b>YELLOW</b> | <b>Change Numbers:</b> Changes the number or thumbnails displayed at a time. |
| <b>BLUE</b>   | Allows you to mark certain files.  |
| <b>EXIT</b>   | Return to TV viewing.  |

# MUSIC LIST

Purchased music files(\*.MP3) may contain copyright restrictions. Playback of these files may not be supported by this TV.

The On Screen Display below may be different from your TV. Images are an example to assist with the TV operation.

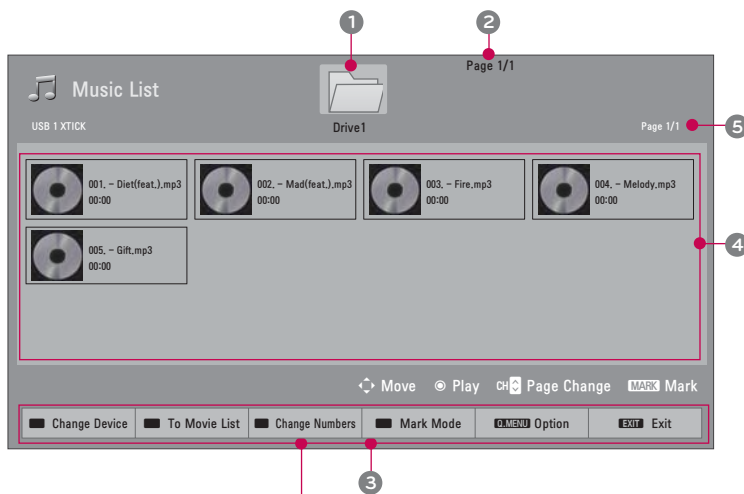
Supported Music File: \*.MP3  
 Bit rate range: 32 Kbps ~ 320 Kbps

- Sampling rate MPEG1 Layer3 : 32kHz, 44.1kHz, 48kHz
- Sampling rate MPEG2 Layer3 : 16kHz, 22.05kHz, 24kHz
- Sampling rate MPEG2.5 Layer3 : 8kHz, 11.025kHz, 12kHz

## Screen Components



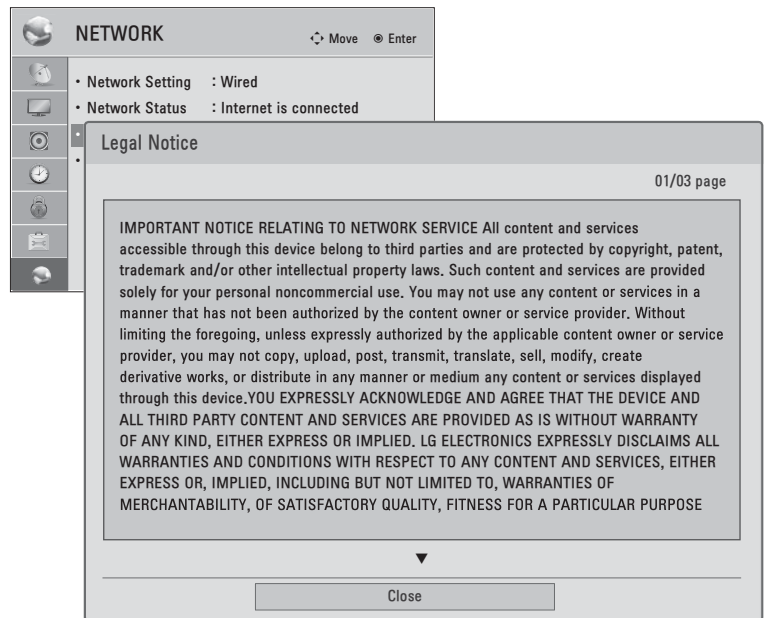
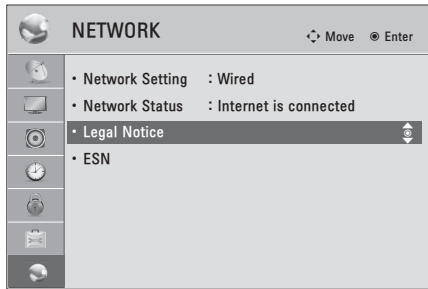
- 1 Preview: If any album jacket for the file (Album Art Image) exists, this picture is displayed.
- 2 Moves to upper level folder
- 3 Current page/Total pages
- 4 Corresponding buttons on the remote control
- 5 Contents under the folder focused on 1
- 6 Current page/total pages of contents










|  |   |
|--|---|
|  | Change to a different input.  |
|  | Move to <b>Movie List</b> or <b>Photo List</b> .  |
|  | <b>Change Numbers:</b> Changes the number or thumbnails displayed at a time.  |
|  | Allows you to mark certain files.   |
|  | Return to TV viewing.   |
|  | Press the <b>ENERGY SAVING</b> button repeatedly to increase the brightness of your screen (Refer to p. 138).<br>(For LCD TV: It's available "ENERGY SAVING - Off, Screen Off" only.) |

# NETWORK

## LEGAL NOTICE



-   Select **NETWORK**.
-   Select **Legal Notice**.
-   Check Legal notice.
-  Return to TV viewing.



## IMPORTANT NOTICE RELATING TO NETWORK SERVICES

All content and services accessible through this device belong to third parties and are protected by copyright, patent, trademark and/or other intellectual property laws. Such content and services are provided solely for your personal noncommercial use. You may not use any content or services in a manner that has not been authorized by the content owner or service provider. Without limiting the foregoing, unless expressly authorized by the applicable content owner or service provider, you may not copy, upload, post, transmit, translate, sell, modify, create derivative works, or distribute in any manner or medium any content or services displayed through this device.

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# NETCAST

## NETCAST MENU

These services are provided by separate Content Provider.

Please visit the content providers web site for specific information on their services. (But, some content manual maybe not provide depending on Content Provider).

NETCAST menu can differ by country.

### What is a NETCAST?

Stream movies, TV shows and video, and get up to the minute news, stock information and weather updates directly to your TV using Yahoo!, Netflix, YouTube and Vudu.



1   Select **NETCAST** menu option.

2  Enjoy **Yahoo!**, **NETFLIX**, **Vudu**, **Picasa**, or **YouTube**.

## YAHOO! TV WIDGETS

You can enjoy the best of the Internet in perfect harmony with the simplicity and reliability of your TV. Yahoo! TV Widgets provide an integrated Internet TV experience powered by the Yahoo!® Connected TV platform. You can monitor financial stocks, share photos with friends and family, track news and weather and much more, all through the Yahoo! TV Widgets service on your TV.

**Note that these services are provided by the Content Provider, using Yahoo! Widget Platform provided by Yahoo!. All the services are dependent on appropriate Content Provider. Please check about page of each widgets for Terms of service.**

**Note If you have any question or need any help for the widgets which is not covered in this manual, please contact web site for further help which shall be listed in about page of each widget, or Yahoo! help site <http://connectedtv.yahoo.com/help>.**

### What is a TV Widget?













A TV Widget is an Internet application designed to run on your TV.

### What is a Snippet?

A Snippet is a shortcut used to open a TV Widget, as a dynamic bookmark to TV Widget content.

### Using the Remote Control

When Yahoo! TV Widgets are displayed, you can use the following remote control buttons.

|   |   |   |   |
|---|---|---|---|
|  | Begin using Yahoo! TV Widgets. Press it again to go back to just watching TV. |  | Select the focused item.                                    |
|  | Highlight and focus on buttons in the Yahoo! TV Widgets user interface.       |  | Go to the TV Menu.  |
|  | Move the focus selection up.  |  | Close the open widget and return to watching TV.            |
|  | Move the focus selection down.  |  | Change the open widget's settings.                          |
|  | Move the focus selection to the left.   |  | Add, move, or delete your snippets.                         |
|  | Move the focus selection to the right.  |  | Resize the video to fit onscreen, or to make it fullscreen. |

### Getting Started Out of the Box

Once your television is powered up and your network is operational, the Yahoo! TV Widgets software guides you through its step-by-step on-screen wizard the first time you startup. These setup steps are designed to provide you with the information and settings you'll need to start using the Yahoo! TV Widgets user interface.

|  |   |
|--|---|
| Dynamic Contrast   | <ul style="list-style-type: none"> <li>Adjusts the contrast to keep it at the best level according to the brightness of the screen. The picture is improved by making bright parts brighter and dark parts darker.</li> </ul>   |
| Dynamic Color  | <ul style="list-style-type: none"> <li>Adjusts screen colors so that they look livelier, richer and clearer. This feature enhances hue, saturation and luminance so that red, blue, green and white look more vivid.</li> </ul>   |
| Skin Color<br>(For LED LCD TV, LCD TV)   | <ul style="list-style-type: none"> <li>It detects the skin area of video and adjusts it to express a natural skin color.</li> </ul>   |
| Noise Reduction  | <ul style="list-style-type: none"> <li>Reduces screen noise without compromising video quality.</li> </ul>  |
| Digital Noise Reduction  | <ul style="list-style-type: none"> <li>Removes noise caused by compressing video.</li> </ul>  |
| Gamma<br>( <b>Advanced Control</b><br>Low, Medium, High<br><b>Expert Control</b><br>1.9, 2.2, 2.4) | <ul style="list-style-type: none"> <li>You can adjust brightness of dark areas and middle gray level areas of the picture.</li> </ul> <p>Low or 1.9 : Make brighter and middle gray level areas of the picture brighter.<br/>         Medium or 2.2 : Express original picture levels.<br/>         High or 2.4: Make dark and middle gray level areas of the picture darker.</p>   |
| Black Level  | <p>Low: The reflection of the screen gets darker.<br/>         High: The reflection of the screen gets brighter.</p> <ul style="list-style-type: none"> <li>Set black level of the screen to proper level.</li> <li>This function is available in the following modes: AV (NTSC-M), HDMI or Component.</li> </ul>   |
| Clear White  | <ul style="list-style-type: none"> <li>Make the white area of screen brighter and more white.</li> </ul>  |
| Eye Care<br>(For LED LCD TV, LCD TV)   | <ul style="list-style-type: none"> <li>Adjust the brightness of the screen to prevent the screen from being too bright. Dims extremely bright pictures.</li> <li>This feature is disabled in "<b>Picture Mode-Vivid, Cinema, Intelligent Sensor</b> (For LED LCD TV/LCD TV)".</li> </ul>  |
| Real Cinema<br>or<br>Film Mode   | <ul style="list-style-type: none"> <li>Makes video clips recorded in film look more natural by eliminating judder effect.</li> <li>DVD and Blu-ray movies are filmed at 24 frames per second (fps). With LG Real Cinema, every frame is consistently processed 5 times in 1/24 of a second producing 120 fps with TruMotion or 2 times in 1/24 of a second producing 48 fps without TruMotion, thus totally eliminating the judder effect.</li> <li>This function can also work when TruMotion is off.</li> </ul> |
| Color Gamut  | <p><b>Advanced Control</b></p> <p>Standard: Displays standard set of colors.<br/>         Wide: Increase number of colors used.</p> <ul style="list-style-type: none"> <li>Maximize the utilization of colors to increase color quality.</li> </ul> <p><b>Expert Control</b></p> <ul style="list-style-type: none"> <li>Displays color domain of the signal.</li> </ul>   |

# PICTURE CONTROL

|  |   |
|--|---|
| Edge Enhancer<br>(For LED LCD TV,<br>LCD TV) | <ul style="list-style-type: none"> <li>■ Show clearer and distinctive yet natural edges in the video.</li> <li>■ This function is enabled in "<b>Picture mode - Cinema, Expert</b>".</li> </ul>   |
| xvYCC  | <p><u>*This feature is not available for all models.</u></p> <ul style="list-style-type: none"> <li>■ This produces richer colors.</li> <li>■ This feature represents rich color as much as conventional video signal.</li> <li>■ This function is enabled in "<b>Picture mode - Cinema, Expert</b>" when a xvYCC signal is inputted through HDMI.</li> </ul>   |
| Color Filter                                 | <ul style="list-style-type: none"> <li>■ This function filters specific colors in the video.<br/>You can use the RGB filter to set color saturation and hue accurately.</li> </ul>  |
| Expert Pattern                               | <ul style="list-style-type: none"> <li>■ This is a pattern used for expert adjustment.</li> <li>■ This function is enabled in "<b>Picture mode - Expert</b>" when you watch DTV.</li> </ul>   |
| Color Temperature                            | <ul style="list-style-type: none"> <li>■ Adjusts the overall color of the screen by changing the white baseline.             <ol style="list-style-type: none"> <li>a. Method : 2 Points                 <ul style="list-style-type: none"> <li>- Pattern: Inner, Outer</li> <li>- Red/Green/Blue Contrast, Red/Green/Blue Brightness:<br/>The adjustment range is -50 - +50.</li> </ul> <p><b>LED LCD TV, LCD TV</b></p> </li> <li>b. Method : 10 Point IRE                 <ul style="list-style-type: none"> <li>- Pattern: Inner, Outer</li> <li>- IRE (Institute of Radio Engineers) is the unit to display the size of the video signal and can be set among 10, 20, 30 - 100. You can adjust Red, Green or Blue according to each setting.</li> <li>- Luminance: This function displays calculated luminance value for 2.2 gamma. You can input luminance value you want at 100 IRE, <b>then</b> the target luminance value for 2.2 gamma is displayed at every 10 steps from 10 IRE to 90 IRE.</li> <li>- Red/Green/Blue: The adjustment range is -50 - +50.</li> </ul> <p><b>Plasma TV</b></p> </li> </ol> </li> </ul> |
| Color Management System                      | <ul style="list-style-type: none"> <li>■ A tool used by the experts to make adjustments by using the test patterns, this does not affect other colors but can be used to selectively adjust the 6 color areas (Red/Green/Blue/Cyan/Mgt/Yellow).<br/>Color difference may not be distinctive even when you make the adjustments for the general video.</li> </ul> <p>Adjusts Red/Green/Blue/Yellow/Cyan, Magenta.</p> <ul style="list-style-type: none"> <li>- Red/Green/Blue/Yellow/Cyan, Magenta Color: The adjustment range is -30 - +30.</li> <li>- Red/Green/Blue/Yellow/Cyan, Magenta Tint: The adjustment range is -30 - +30.</li> <li>- This feature is disabled in RGB-PC and HDMI-PC mode.</li> </ul>  |
| OPC  | <p><u>*This feature is not available for all models.</u></p> <ul style="list-style-type: none"> <li>■ Reduces power consumption while keeping brightness and contrast.</li> </ul>   |

# APPENDIX

## TROUBLESHOOTING

| Abnormal Operation              |   |
|---------------------------------|---|
| The remote control doesn't work | <ul style="list-style-type: none"> <li>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.</li> <li>Ensure that the batteries are installed with correct polarity (+ to +, - to -).</li> <li>Ensure that the correct remote operating mode is set: TV, VCR etc.</li> <li>Install new batteries. <small>*This feature is not available for all models.</small></li> </ul> |
| TV turns off suddenly           | <ul style="list-style-type: none"> <li>Is the sleep timer set?</li> <li>Check the power control settings. Power interrupted.</li> <li>If there is no signal, the TV turns off automatically in 15 minutes.</li> </ul>   |

| Video Problems                              |   |
|---|---|
| No picture & No sound                       | <ul style="list-style-type: none"> <li>Check whether the product is turned on.</li> <li>Try another channel. The problem may be with the broadcast.</li> <li>Is the power cord inserted into wall power outlet?</li> <li>Check your antenna direction and/or location.</li> <li>Test the wall power outlet, plug another product's power cord into the outlet where the product's power cord was plugged in.</li> </ul> |
| Picture appears slowly after switching on   | <ul style="list-style-type: none"> <li>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.</li> </ul>  |
| No or poor color or poor picture            | <ul style="list-style-type: none"> <li>Adjust Color in menu option.</li> <li>Keep a sufficient distance between the product and the VCR.</li> <li>Try another channel. The problem may be with the broadcast.</li> <li>Are the video cables installed properly?</li> <li>Activate any function to restore the brightness of the picture.</li> </ul>   |
| Horizontal/vertical bars or picture shaking | <ul style="list-style-type: none"> <li>Check for local interference such as an electrical appliance or power tool.</li> </ul>   |
| Poor reception on some channels             | <ul style="list-style-type: none"> <li>Station or cable product experiencing problems, tune to another station.</li> <li>Station signal is weak, reorient antenna to receive weaker station.</li> <li>Check for sources of possible interference.</li> </ul>  |
| Lines or streaks in pictures                | <ul style="list-style-type: none"> <li>Check antenna (Change the direction of the antenna).</li> </ul>  |
| No picture when connecting HDMI             | <ul style="list-style-type: none"> <li>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.</li> </ul>  |

# APPENDIX

| Audio Problems                        |   |
|---------------------------------------|---|
| No output from one of the speakers    | <ul style="list-style-type: none"> <li>Adjust Balance in menu option.</li> </ul>  |
| Unusual sound from inside the product | <ul style="list-style-type: none"> <li>A change in ambient humidity or temperature may result in an unusual noise when the product is turned on or off and does not indicate a fault with the product.</li> </ul>           |
| No sound when connecting HDMI/USB     | <ul style="list-style-type: none"> <li>Check HDMI cable over version 1.3.</li> <li>Check USB cable over version 2.0.</li> <li>Use normal MP3 file. <small>*This feature is not available for all models.</small></li> </ul> |

| PC Mode Problems   |   |
|--|---|
| The signal is out of range   | <ul style="list-style-type: none"> <li>Adjust resolution, horizontal frequency, or vertical frequency on the PC.</li> <li>Check the input source.</li> </ul>    |
| Vertical bar or stripe on background & Horizontal Noise & Incorrect position | <ul style="list-style-type: none"> <li>Activate the Auto configure feature or adjust size, phase, or H/V position. (Option)</li> </ul>                          |
| Screen color is unstable or single color                                     | <ul style="list-style-type: none"> <li>Check the signal cable.</li> <li>Reinstall the PC video card.</li> </ul>   |
| When connecting the HDMI cable to the PC, there is no audio.                 | <ul style="list-style-type: none"> <li>Check the manual for the video card in the PC to see if it supports HDMI audio and how to set it up properly.</li> </ul> |

| Movie List Problems  |  |
|--|--|
| The file does not appear on the Movie List.  | <ul style="list-style-type: none"> <li>Check whether <a href="#">the file</a> extension is supported.</li> </ul>   |
| Message is displayed saying "This file is invalid" or the audio is working normally but the video is not working normally. | <ul style="list-style-type: none"> <li>Check whether the file is playing normally on a PC. (Check whether the file is damaged.)</li> <li>Check whether the resolution is supported.</li> <li>Check whether the video/audio codec is supported.</li> <li>Check whether the frame rate is supported.</li> </ul>  |
| Message is displayed saying "Unsupported Audio" or the video is working normally but the audio is not working normally.    | <ul style="list-style-type: none"> <li>Check whether the file is playing normally on a PC. (Check whether the file is damaged.)</li> <li>Check whether the audio codec is supported.</li> <li>Check whether the bit rate is supported.</li> <li>Check whether the sample rate is supported.</li> </ul>   |
| Subtitle is not working.   | <ul style="list-style-type: none"> <li>Check whether the file is playing normally on a PC. (Check whether the file is damaged.)</li> <li>Check whether the video file and subtitle file name are the same.</li> <li>Check whether the video file and subtitle file are located in the same folder.</li> <li>Check whether the subtitle file is supported.</li> <li>Check whether the language is supported. (When you open the subtitle file <a href="#">on a PC</a>, you can check the language of the subtitle file.)</li> </ul> |

| Yahoo! TV Widgets Problems                            |   |
|---|---|
| Misc.-Caption,<br>Language displayed<br>within Widget | <p>Did the customer change Menu language but Widget did not change its language.</p> <ul style="list-style-type: none"> <li>Some Widgets do not fully support TV Menu options.</li> <li>The help site for individual widget can be found in the settings panel of each widget by pressing the GREEN button on your remote after opening that widget from the Dock.</li> </ul> |



# APPENDIX

| Yahoo! TV Widgets Problems         |   |  |
|------------------------------------|---|--|
| Failed to launch Yahoo! TV Widgets | Was the customer watching HDMI input?   | <ul style="list-style-type: none"> <li>■ If customer uses HDMI with Simplink ON, the WIDGETS button is blocked.</li> <li>■ To use Yahoo! TV Widgets while using the HDMI input, turn off "Simplink-on" in the OPTION menu. Or change to another Input and press then press the WIDGETS button.</li> </ul>  |
|                                    | Was the customer watching My Media?   | <ul style="list-style-type: none"> <li>■ The WIDGETS button is blocked when using MY MEDIA.</li> <li>■ Exit MY MEDIA by pressing the NETCAST button and then select Yahoo!</li> </ul>  |
|                                    | Did the customer see "Starting Yahoo! TV Widgets" remain and TV Widget not displayed? | <ul style="list-style-type: none"> <li>■ Press the NETCAST button and then select NETFLIX. Then press the WIDGETS button to enter Yahoo! TV Widgets. This re-starts Yahoo! TV Widgets.</li> </ul>  |
|                                    | Nothing happens when pressing <b>WIDGETS</b> button                                   | <ul style="list-style-type: none"> <li>■ Turn off the TV and then turn it back on. Press the NETCAST button and then the BLUE button. Select "Restore Yahoo! Factory Settings" to restore the Yahoo! Factory Settings.</li> <li>■ For more help, visit the Yahoo! help site: <a href="http://connectedtv.yahoo.com/help">http://connectedtv.yahoo.com/help</a>.</li> </ul>   |
| Failed to open some widgets        | Is "Loading" message displayed?   | <ul style="list-style-type: none"> <li>■ If the "Loading" message does not go away after a reasonable amount of time, delete that widget and re-install it.</li> </ul>   |
|                                    | Check IP Address setting is OK?   | <ul style="list-style-type: none"> <li>■ Make sure the TV can connect to the internet.</li> </ul>  |
|                                    | Is Connection Unavailable icon (yellow triangle) displayed on snippet?                | <ul style="list-style-type: none"> <li>■ If connection unavailable icon is displayed, the server may under maintenance or unreachable for other reasons. Try again later or visit the Yahoo! help site. <a href="http://connectedtv.yahoo.com/help">http://connectedtv.yahoo.com/help</a></li> </ul>   |
|                                    | Some Widgets work properly while other s do not.                                      | <ul style="list-style-type: none"> <li>■ Try again later.</li> <li>■ Try re-installing the Widget. Delete that widget by pressing the Yellow button when it's highlighted in the dock. Then press the Red button twice to delete that widget. Then open the Widget Gallery and browse to find that widget and select "Add Widget to My Profile" to install that widget and then try again.</li> <li>■ If problem still exists, restore Yahoo! factory settings by pressing NETCAST button and BLUE button on your remote control.</li> </ul> |

**Yahoo! TV Widgets Problems**

|  |   |  |
|--|---|--|
| Widget is stuck if the remote control button is pressed.           | Press BACK button and try again later.                      | <ul style="list-style-type: none"> <li>■ The error may only be temporary. Exit out and try again.</li> </ul>   |
|  | Check IP Address setting is OK?                             | <ul style="list-style-type: none"> <li>■ If not, connect Network Cable properly and set IP address from Network menu and try again or contact Internet service provider.</li> </ul>  |
|  | Press RED or WIDGETS button on remote control.              | <ul style="list-style-type: none"> <li>■ Exits Yahoo! TV Widgets by pressing RED button on your remote and re-enter by WIDGETS button.</li> </ul>  |
|  | Press NETCAST button.                                       | <ul style="list-style-type: none"> <li>■ Exits Yahoo! TV Widgets by pressing NETCAST button and enter NETFLIX temporarily, and re-enter Yahoo! Widgets by pressing NETCAST button and select Yahoo!</li> <li>■ If the problem still exists, re-install the Widget. Press the Yellow button with the Widget highlighted in the Dock. Press the Red button twice to delete that widget. Now open the Widget Gallery and browse to find that widget and select "Add Widget to My Profile" to install that widget and then try again.</li> <li>■ If the problem still exists for all widgets, restore the Yahoo! Factory settings by pressing the NETCAST button and the Blue button on your remote control. Select "Restore Yahoo! Factory Settings" to reset.</li> </ul> |
| Gallery - Unable to install widget from gallery                    | Check IP Address setting is OK?                             | <ul style="list-style-type: none"> <li>■ If not, connect Network Cable properly and set IP address from menu-Option and try again or contact Internet service provider.</li> </ul>   |
|  | Is Lock Icon on right side of "Add Widget to My Profile"?   | <ul style="list-style-type: none"> <li>■ Need Owner PIN to install. If you forgot Owner PIN, contact Yahoo! for further help. <a href="http://connectedtv.yahoo.com/help">http://connectedtv.yahoo.com/help</a></li> </ul>   |
|  | "Install completed" but it never worked.                    | <ul style="list-style-type: none"> <li>■ Try to re-start Yahoo! TV Widgets after you enter MY MEDIA and exit from MY MEDIA.</li> <li>■ Or Delete it and re-install it.</li> </ul>  |
| Flickr - "We could not find anything to display" message displayed | Is connection unavailable icon (yellow triangle) displayed? | <ul style="list-style-type: none"> <li>■ If yes, check network settings or contact internet service provider, or try later.</li> </ul>   |
|  | Did you sign-in Yahoo! account?                             | <ul style="list-style-type: none"> <li>■ If yes, you need to upload your photos to Flickr site to display.</li> <li>■ If not, try again later. The Flickr server may be under maintenance, or contact service provider.</li> </ul>   |

# APPENDIX

## 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.

# APPENDIX

| MODELS                                       |               | 42LE5400<br>(42LE5400-UC)  | 47LE5400<br>(47LE5400-UC)  |
|--|---------------|--|--|
|  |               | 42LE5500<br>(42LE5500-UA)  | 47LE5500<br>(47LE5500-UA)  |
| Dimensions<br>(Width x<br>Height<br>x Depth) | With stand    | 1016.0 mm x 692.0 mm x 270.0 mm<br>(40.0 inch x 27.2 inch x 10.6 inch) | 1126.6 mm x 757.9 mm x 284.4 mm<br>(44.3 inch x 29.8 inch x 11.1 inch) |
|  | Without stand | 1016.0 mm x 630.0 mm x 29.3 mm<br>(40.0 inch x 24.8 inch x 1.1 inch)   | 1126.6 mm x 692.0 mm x 29.3 mm<br>(44.3 inch x 27.2 inch x 1.1 inch)   |
| Weight                                       | With stand    | 19.5 kg (42.9 lbs)   | 22.6 kg (49.8 lbs)   |
|  | Without stand | 16.7 kg (36.8 lbs)   | 19.6 kg (43.2 lbs)   |

| MODELS                                       |               | 55LE5400<br>(55LE5400-UC)  |
|--|---------------|--|
|  |               | 55LE5500<br>(55LE5500-UA)  |
| Dimensions<br>(Width x<br>Height<br>x Depth) | With stand    | 1306.0 mm x 867.0 mm x 345.0 mm<br>(51.4 inch x 34.1 inch x 13.5 inch) |
|  | Without stand | 1306.0 mm x 797.0 mm x 30.7 mm<br>(51.4 inch x 31.3 inch x 1.2 inch)   |
| Weight                                       | With stand    | 34.5 kg (76.0 lbs)   |
|  | Without stand | 28.8 kg (63.4 lbs)   |

|                            |  |                           |
|----------------------------|--|---------------------------|
| Power requirement          | AC 120 V ~ 50 / 60 Hz                                  |                           |
| Television System          | NTSC-M, ATSC, 64 & 256 QAM                             |                           |
| Program Coverage           | VHF 2-13, UHF 14-69, CATV 1-135, DTV 2-69, CADTV 1-135 |                           |
| External Antenna Impedance | 75 Ω   |                           |
| Environment<br>condition   | Operating Temperature                                  | 0 to 40°C (32 to 104°F)   |
|                            | Operating Humidity                                     | Less than 80%             |
|                            | Storage Temperature                                    | -20 to 60°C (-4 to 140°F) |
|                            | Storage Humidity                                       | Less than 85%             |

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

| MODELS                                       |               | 42LE7500<br>(42LE7500-UC)  | 47LE7500<br>(47LE7500-UC)  |
|--|---------------|--|--|
| Dimensions<br>(Width x<br>Height<br>x Depth) | With stand    | 1018.2 mm x 693.5 mm x 269.8 mm<br>(40.0 inch x 27.3 inch x 10.6 inch) | 1128.6 mm x 758.9 mm x 284.4 mm<br>(44.4 inch x 29.8 inch x 11.1 inch) |
|  | Without stand | 1018.2 mm x 630.7 mm x 29.3 mm<br>(40.0 inch x 24.8 inch x 1.1 inch)   | 1128.6 mm x 693.3 mm x 29.8 mm<br>(44.4 inch x 27.2 inch x 1.1 inch)   |
| Weight                                       | With stand    | 21.9 kg (48.2 lbs)   | 26.2 kg (57.7 lbs)   |
|  | Without stand | 19.1 kg (42.1 lbs)   | 23.0 kg (50.7 lbs)   |

| MODELS                                       |               | 55LE7500<br>(55LE7500-UC)  |
|--|---------------|--|
| Dimensions<br>(Width x<br>Height<br>x Depth) | With stand    | 1306.0 mm x 867.7 mm x 328.0 mm<br>(51.4 inch x 34.1 inch x 12.9 inch) |
|  | Without stand | 1306.0 mm x 797.4 mm x 31.2 mm<br>(51.4 inch x 31.3 inch x 1.2 inch)   |
| Weight                                       | With stand    | 38.4 kg (84.6 lbs)   |
|  | Without stand | 32.8 kg (72.3 lbs)   |

| MODELS                                       |               | 47LE8500<br>(47LE8500-UA)   | 55LE8500<br>(55LE8500-UA)   |
|--|---------------|---|---|
| Dimensions<br>(Width x<br>Height<br>x Depth) | With stand    | 1122.6 mm x 768.3 mm x 275.0 mm<br>(44.1 inch x 30.2 inch x 10.8 inch)      | 1292.6 mm x 874.4 mm x 311.9 mm<br>(50.8 inch x 34.4 inch x 12.2 inch)                            |
|  | Without stand | 1122.6 x 707.3 x 24.5 (max 39.7) mm<br>(44.1 x 27.8 x 0.9 (max 1.5) inches) | 1292.6 mm x 802.9 mm x 24.5 mm (max 39.7 mm)<br>(50.8 inch x 31.6 inch x 0.9 inch (max 1.5 inch)) |
| Weight                                       | With stand    | 31.6 kg (69.6 lbs)  | 43.8 kg (96.5 lbs)  |
|  | Without stand | 26.9 kg (59.3 lbs)  | 35.8 kg (78.9 lbs)  |

|                            |  |                           |
|----------------------------|--|---------------------------|
| Power requirement          | AC 120 V ~ 50 / 60 Hz                                  |                           |
| Television System          | NTSC-M, ATSC, 64 & 256 QAM                             |                           |
| Program Coverage           | VHF 2-13, UHF 14-69, CATV 1-135, DTV 2-69, CADTV 1-135 |                           |
| External Antenna Impedance | 75 Ω   |                           |
| Environment<br>condition   | Operating Temperature                                  | 0 to 40°C (32 to 104°F)   |
|                            | Operating Humidity                                     | Less than 80%             |
|                            | Storage Temperature                                    | -20 to 60°C (-4 to 140°F) |
|                            | Storage Humidity                                       | Less than 85%             |

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

# APPENDIX

## IR CODES

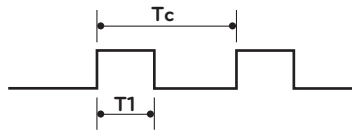
### 1. How to Connect

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

### 2. Remote Control IR Codes

#### Output waveform

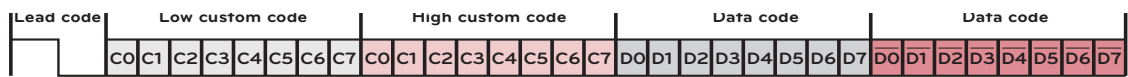
Single pulse, modulated with 37.917KHz signal at 455KHz



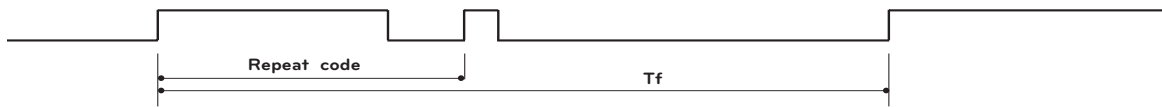
Carrier frequency  
 $FCAR = 1/TC = fOSC/12$   
 Duty ratio =  $T1/TC = 1/3$

#### Configuration of frame

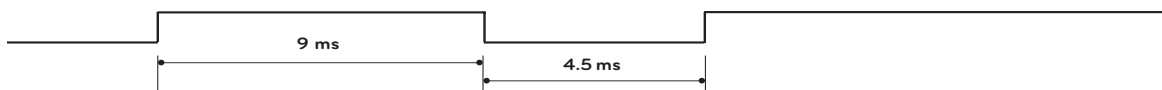
1st frame



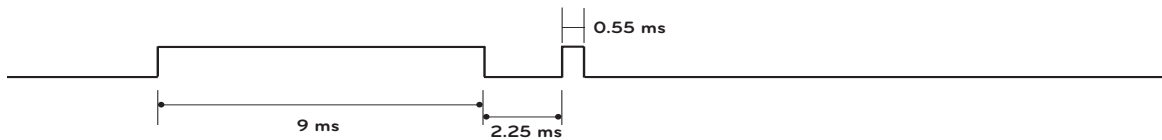
Repeat frame



#### Lead code

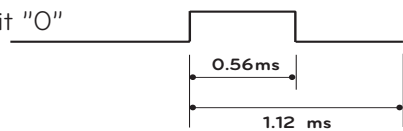


#### Repeat code

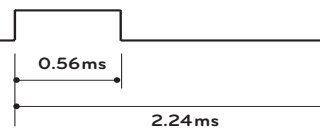


#### Bit description

Bit "0"



Bit "1"



#### Frame interval: Tf

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



| Code (Hexa) | Function          | Note                                    | Code (Hexa) | Function   | Note   |
|-------------|-------------------|---|-------------|------------|--|
| 00          | CH ^              | Remote Control Button                   | B0          | ▶          | Remote Control Button                            |
| 01          | CH v              | Remote Control Button                   | B1          | ■          | Remote Control Button                            |
| 02          | VOL +             | Remote Control Button                   | BA          |            | Remote Control Button                            |
| 03          | VOL -             | Remote Control Button                   | D6          | TV         | Discrete IR Code<br>(TV Input Selection)         |
| 06          | ➤                 | Remote Control Button                   | C4          | POWER ON   | Discrete IR Code<br>(Only Power On)              |
| 07          | ◀                 | Remote Control Button                   |             |            |  |
| 08          | ⏻                 | Remote Control Button<br>(Power On/Off) |             |            |  |
| 09          | MUTE/DELETE       | Remote Control Button                   | C5          | POWER OFF  | Discrete IR Code<br>(Only Power Off)             |
| 0B          | INPUT             | Remote Control Button                   | 5A          | AV1        | Discrete IR Code<br>(AV1 Input Selection)        |
| 0F          | TV                | Remote Control Button                   | D0          | AV2        | Discrete IR Code<br>(AV2 Input Selection)        |
| 10-19       | Number Key<br>0-9 | Remote Control Button                   |             |            |  |
| 1A          | FLASHBK           | Remote Control Button                   |             |            |  |
| 1E          | FAV/MARK          | Remote Control Button                   | BF          | COMPONENT1 | Discrete IR Code<br>(Component1 Input Selection) |
| 28          | BACK              | Remote Control Button                   | D4          | COMPONENT2 | Discrete IR Code<br>(Component2 Input Selection) |
| 30          | AV MODE           | Remote Control Button                   |             |            |  |
| 40          | ^                 | Remote Control Button                   |             |            |  |
| 41          | v                 | Remote Control Button                   | D5          | RGB-PC     | Discrete IR Code<br>(RGB-PC Input Selection)     |
| 43          | MENU              | Remote Control Button                   | CE          | HDMI1      | Discrete IR Code<br>(HDMI1 Input Selection)      |
| 44          | ENTER             | Remote Control Button                   |             |            |  |
| 45          | Q.MENU            | Remote Control Button                   |             |            |  |
| 4C          | - (Dash)/LIST     | Remote Control Button                   | CC          | HDMI2      | Discrete IR Code<br>(HDMI2 Input Selection)      |
| 5B          | EXIT              | Remote Control Button                   | E9          | HDMI3      | Discrete IR Code<br>(HDMI3 Input Selection)      |
| 58          | WIDGETS           | Remote Control Button                   |             |            |  |
| 59          | NETCAST           | Remote Control Button                   |             |            |  |
| 61          | BLUE              | Remote Control Button                   | DA          | HDMI4      | Discrete IR Code<br>(HDMI4 Input Selection)      |
| 63          | YELLOW            | Remote Control Button                   | 76          | Ratio 4:3  | Discrete IR Code<br>(Only 4:3 Mode)              |
| 71          | GREEN             | Remote Control Button                   |             |            |  |
| 72          | RED               | Remote Control Button                   |             |            |  |
| 79          | RATIO             | Remote Control Button                   | 77          | Ratio 16:9 | Discrete IR Code<br>(Only 16:9 Mode)             |
| 7E          | SIMPLINK          | Remote Control Button                   | AF          | Ratio Zoom | Discrete IR Code<br>(Only Zoom Mode)             |
| 8E          | ▶▶                | Remote Control Button                   |             |            |  |
| 8F          | ◀◀                | Remote Control Button                   |             |            |  |
| 95          | ENERGY SAVING     | Remote Control Button                   |             |            |  |
| AA          | INFO              | Remote Control Button                   |             |            |  |

# APPENDIX

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Version 2, June 1991

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# APPENDIX

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Version 1.1

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You must duplicate the notice in exhibit A in each file of the source code. If it is not possible to put such notice in a particular source code file due to its structure, then You must include such notice in a location (such as a relevant directory) where a user would be likely to look for such a notice. If You created one or more modification(s), you may add your name as a contributor to the notice described in exhibit A. you must also duplicate this license in any documentation for the source code where You describe recipients' rights or ownership rights relating to covered code. You may choose to offer, and to charge a fee for, warranty, support, indemnity or liability obligations to one or more recipients of covered code. However, you may do so only on your own behalf, and not on behalf of the Initial developer or any contributor. You must make it absolutely clear than any such warranty, support, indemnity or liability obligation is offered by you alone, and You hereby agree to indemnify the Initial developer and every contributor for any liability incurred by the Initial developer or such contributor as a result of warranty, support, indemnity or liability terms you offer.

3.6. Distribution of executable versions.

You may distribute covered code in executable form only if the requirements of section 3.1-3.5 have been met for that covered code, and if you include a notice stating that the source code version of the covered code is available under the terms of this license, including a description of how and where you have fulfilled the obligations of section 3.2. The notice must be conspicuously included in any notice in an executable version, related documentation or collateral in which you describe recipients' rights relating to the covered code. You may distribute the executable version of covered code or ownership rights under a license of your choice, which may contain terms different from this license, provided that you are in compliance with the terms of this license and that the license for the executable version does not attempt to limit or alter the recipient's rights in the source code version from the rights set forth in this license. If you distribute the executable version under a different license you must make it absolutely clear that any terms which differ from this license are offered by you alone, not by the Initial developer or any contributor. You hereby agree to indemnify the initial developer and every contributor for any liability incurred by the initial developer or such contributor as a result of any such terms You offer.

3.7. Larger works.

You may create a larger work by combining covered

code with other code not governed by the terms of this license and distribute the larger work as a single product. In such a case, you must make sure the requirements of this license are fulfilled for the covered code.

4. Inability to comply due to statute or regulation.

If it is impossible for you to comply with any of the terms of this license with respect to some or all of the covered code due to statute, judicial order, or regulation then you must: (a) comply with the terms of this license to the maximum extent possible; and (b) describe the limitations and the code they affect. Such description must be included in the LEGAL file described in section 3.4 and must be included with all distributions of the source code. Except to the extent prohibited by statute or regulation, such description must be sufficiently detailed for a recipient of ordinary skill to be able to understand it.

5. Application of this license.

This license applies to code to which the initial developer has attached the notice in exhibit A and to related covered code.

6. Versions of the license.

6.1. New versions.

Netscape communications corporation ("Netscape") may publish revised and/or new versions of the license from time to time. Each version will be given a distinguishing version number.

6.2. Effect of new versions.

Once covered code has been published under a particular version of the license, you may always continue to use it under the terms of that version. You may also choose to use such covered code under the terms of any subsequent version of the license published by netscape. No one other than netscape has the right to modify the terms applicable to covered code created under this license.

6.3. Derivative works.

If You create or use a modified version of this license (which you may only do in order to apply it to code which is not already covered code governed by this license), You must (a) rename Your license so that the phrases "Mozilla", "MOZILLAPL", "MOZPL", "Netscape", "MPL", "NPL" or any confusingly similar phrase do not appear in your license (except to note that your license differs from this license) and (b) otherwise make it clear that Your version of the license contains terms which differ from the Mozilla Public license and netscape Public License. (Filling in the name of the initial developer, original code or contributor in the notice described in exhibit A shall not of themselves be deemed to be modifications of this license.)

# APPENDIX

## 7. DISCLAIMER OF WARRANTY.

COVERED CODE IS PROVIDED UNDER THIS LICENSE ON AN "AS IS" BASIS, WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING, WITHOUT LIMITATION, WARRANTIES THAT THE COVERED CODE IS FREE OF DEFECTS, MERCHANTABILITY, FIT FOR A PARTICULAR PURPOSE OR NON-INFRINGEMENT. THE ENTIRE RISK AS TO THE QUALITY AND PERFORMANCE OF THE COVERED CODE IS WITH YOU. SHOULD ANY COVERED CODE PROVE DEFECTIVE IN ANY RESPECT, YOU (NOT THE INITIAL DEVELOPER OR ANY OTHER CONTRIBUTOR) ASSUME THE COST OF ANY NECESSARY SERVICING, REPAIR OR CORRECTION. THIS DISCLAIMER OF WARRANTY CONSTITUTES AN ESSENTIAL PART OF THIS LICENSE. NO USE OF ANY COVERED CODE IS AUTHORIZED HEREUNDER EXCEPT UNDER THIS DISCLAIMER.

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8.1. This license and the rights granted hereunder will terminate automatically if you fail to comply with terms herein and fail to cure such breach within 30 days of becoming aware of the breach. All sublicenses to the covered code which are properly granted shall survive any termination of this license. Provisions which, by their nature, must remain in effect beyond the termination of this license shall survive.

8.2. If you initiate litigation by asserting a patent infringement claim (excluding declaratory judgment actions) against initial developer or a contributor (the initial developer or contributor against whom you file such action is referred to as "Participant") alleging that:

(a) such participant's contributor version directly or indirectly infringes any patent, then any and all rights granted by such participant to you under sections 2.1 and/or 2.2 of this license shall, upon 60 days notice from Participant terminate prospectively, unless if within 60 days after receipt of notice you either: (i) agree in writing to pay participant a mutually agreeable reasonable royalty for your past and future use of modifications made by such participant, or (ii) withdraw your litigation claim with respect to the contributor version against such participant. If within 60 days of notice, a reasonable royalty and payment arrangement are not mutually agreed upon in writing by the parties or the litigation claim is not withdrawn, the rights granted by participant to you under sections 2.1 and/or 2.2 automatically terminate at the expiration of the 60 day notice period specified above.

(b) any software, hardware, or device, other than such participant's contributor Version, directly or indirectly infringes any patent, then any rights granted

to You by such participant under sections 2.1(b) and 2.2(b) are revoked effective as of the date you first made, used, sold, distributed, or had made, modifications made by that participant.

8.3. If you assert a patent infringement claim against participant alleging that such participant's contributor version directly or indirectly infringes any patent where such claim is resolved (such as by license or settlement) prior to the initiation of patent infringement litigation, then the reasonable value of the licenses granted by such participant under sections 2.1 or 2.2 shall be taken into account in determining the amount or value of any payment or license.

8.4. In the event of termination under sections 8.1 or 8.2 above, all end user license agreements (excluding distributors and resellers) which have been validly granted by you or any distributor hereunder prior to termination shall survive termination.

## 9. LIMITATION OF LIABILITY.

UNDER NO CIRCUMSTANCES AND UNDER NO LEGAL THEORY, WHETHER TORT (INCLUDING NEGLIGENCE), CONTRACT, OR OTHERWISE, SHALL YOU, THE INITIAL DEVELOPER, ANY OTHER CONTRIBUTOR, OR ANY DISTRIBUTOR OF COVERED CODE, OR ANY SUPPLIER OF ANY OF SUCH PARTIES, BE LIABLE TO ANY PERSON FOR ANY INDIRECT, SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES OF ANY CHARACTER INCLUDING, WITHOUT LIMITATION, DAMAGES FOR LOSS OF GOODWILL, WORK STOPPAGE, COMPUTER FAILURE OR MALFUNCTION, OR ANY AND ALL OTHER COMMERCIAL DAMAGES OR LOSSES, EVEN IF SUCH PARTY SHALL HAVE BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. THIS LIMITATION OF LIABILITY SHALL NOT APPLY TO LIABILITY FOR DEATH OR PERSONAL INJURY RESULTING FROM SUCH PARTY'S NEGLIGENCE TO THE EXTENT APPLICABLE LAW PROHIBITS SUCH LIMITATION. SOME JURISDICTIONS DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THIS EXCLUSION AND LIMITATION MAY NOT APPLY TO YOU.

## 10. U.S. GOVERNMENT END USERS.

The covered code is a "commercial item," as that term is defined in 48 C.F.R. 2.101 (Oct. 1995), consisting of "commercial computer software" and "commercial computer software documentation," as such terms are used in 48 C.F.R. 12.212 (Sept. 1995). Consistent with 48 C.F.R. 12.212 and 48 C.F.R. 227.7202-1 through 227.7202-4 (June 1995), all U.S. Government end users acquire covered code with only those rights set forth herein.

#### 11. MISCELLANEOUS.

This license represents the complete agreement concerning subject matter hereof. If any provision of this license is held to be unenforceable, such provision shall be reformed only to the extent necessary to make it enforceable. This License shall be governed by California law provisions (except to the extent applicable law, if any, provides otherwise), excluding its conflict-of-law provisions. With respect to disputes in which at least one party is a citizen of, or an entity chartered or registered to do business in the united states of america, any litigation relating to this License shall be subject to the jurisdiction of the federal courts of the northern district of california, with venue lying in santa clara county, california, with the losing party responsible for costs, including without limitation, court costs and reasonable attorneys' fees and expenses. The application of the united nations convention on contracts for the International sale of goods is expressly excluded. Any law or regulation which provides that the language of a contract shall be construed against the drafter shall not apply to this license.

#### 12. RESPONSIBILITY FOR CLAIMS.

As between initial developer and the contributors, each party is responsible for claims and damages arising, directly or indirectly, out of its utilization of rights under this license and you agree to work with initial developer and contributors to distribute such responsibility on an equitable basis. Nothing herein is intended or shall be deemed to constitute any admission of liability.

#### 13. MULTIPLE-LICENSED CODE.

Initial developer may designate portions of the covered code as "Multiple-Licensed". "Multiple-Licensed" means that the initial developer permits you to utilize portions of the covered code under your choice of the NPL or the alternative licenses, if any, specified by the initial developer in the file described in exhibit A.

#### EXHIBIT A -Mozilla Public License.

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The Initial Developer of the Original Code is \_\_\_\_\_.

Portions created by \_\_\_\_\_ are Copyright (C) \_\_\_\_\_. All Rights Reserved.

Contributor(s): \_\_\_\_\_.

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NOTE: The text of this exhibit A may differ slightly from the text of the notices in the source code files of the original code. You should use the text of this exhibit A rather than the text found in the original code/source code for Your modifications.



The model and serial number of the TV is located on the back and one side of the TV.  
Record it below should you ever need service.

MODEL \_\_\_\_\_

SERIAL \_\_\_\_\_

## ■■■ Regulatory Information cont.

### :: FCC Compliance Statement

This equipment has been tested and found to comply within the limits of 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 on and off), the user is encouraged to try to correct the interference by using one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and the receiver.
- Connect the equipment into 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.

Caution: Changes or modifications not expressly approved by the party responsible for compliance could void the user's (or your) authority to operate the equipment. Only peripherals (digital input/output devices, terminals, printers, etc.) certified to comply with the Class B limits may be attached to this monitor. Operation with non-certified peripherals is likely to result in interference to radio and TV reception. Only shielded signal cables may be used with this System.

#### NOTICE

The regulations are applied only to the products with the ID LABEL indicating specific requirements.

### :: Canadian DOC Notice

This Class B digital apparatus meets all requirements of the Canadian Interference-Causing Equipment Regulations. Cet appareil numérique de la classe B

respecte toutes les exigences du Règlement sur le matériel brouilleur du Canada.

#### NOTICE

The regulations are applied only to the products with the ID LABEL indicating specific requirements.

### :: CE Conformity Notice (for Europe)

Products with the "CE" Marking comply with the EMC Directive(89/336/EEC) and LOW VOLTAGE Directive (73/23/EEC) issued by the Commission of the European Community.

Compliance with these directives implies conformity to the following European Norms :

- EN 55022 ; Radio Frequency Interference
- EN 55024 ; Electromagnetic Immunity
- EN 61000-3-2 ; Power Line Harmonics
- EN 61000-3-3 ; Voltage Fluctuations
- EN 60950-1 ; Product Safety

#### NOTICE

The regulations are applied only to the products with the ID LABEL indicating specific requirements.

### :: Low Radiation Compliance (MPR II)

This monitor meets one of the strictest guidelines available today for low radiation emissions, offering the user extra shielding and an antistatic screen coating. These guidelines, set forth by a government agency in Sweden, limit the amount of emission allowed in the Extremely Low Frequency (ELF) and Very Low Frequency (VLF) electromagnetic range.

### :: TCO'99 (TCO'99 applied model only)



#### Congratulations!

You have just purchased a TCO'99 approved and labelled product! Your choice has provided you with a product developed for professional use. Your purchase has also contributed to reducing the burden on the environment and also to the further development of environmentally adapted electronics products.



## ■■■ Regulatory Information cont.

### **Why do we have environmentally labelled computers?**

In many countries, environmental labelling has become an established method for encouraging the adaptation of goods and services to the environment. With the growing manufacture and usage of electronic equipment throughout the world, there is a recognized concern for the materials and substances used by electronic products with regards to their eventual recycling and disposal. By proper selection of these materials and substances, the impact on the environment can be minimized.

There are also other characteristics of a computer, such as energy consumption levels, that are important from the viewpoints of both the work (internal) and natural (external) environments. Electronic equipment in offices is often left running continuously, resulting in unnecessary consumption of large amounts of energy and additional power generation. From the standpoint of carbon dioxide emissions alone, it is vital to save energy.

### **What does labelling involve?**

The product meets the requirements for the TCO'99 scheme which provides for international and environmental labelling of personal computers and/or displays.

The labelling scheme was developed as a joint effort by the TCO (The Swedish Confederation of Professional Employees), Svenska Naturskyddsforeningen (The Swedish Society for Nature Conservation) and Statens Energimyndighet (The Swedish National Energy Administration).

Approval requirements cover a wide range of issues: ecology, ergonomics, emission of electrical and magnetical fields, energy consumption and electrical safety.

Ecological criteria impose restrictions on the presence and use of heavy metals, brominated and chlorinated flame retardants, and other substances. The product must be prepared for recycling and the manufacturing site(s) shall be certified according to ISO14001 or EMAS registered.

Energy requirements include a demand that the system unit and/or display, after a certain period of inactivity, shall reduce its power consumption to a lower level in one or more stages. The length of time to reactivate the system unit shall be reasonable for the user.

Labelled products must meet strict environmental demands, for example, in respect of the reduction of electrical and magnetical fields as well as work load and

visual ergonomics.

Below you will find a brief summary of the ecological requirements met by this product. The complete ecological criteria document can be found at TCO Development's website <http://www.tcodevelopment.com> or may be ordered from:

#### **TCO Development**

SE-114 94 STOCKHOLM, Sweden

Fax: +46 8 782 92 07

Email : [development@tco.se](mailto:development@tco.se)

Information regarding TCO'99 approved and labelled products may also be obtained at

<http://www.tcodevelopment.com>

### **Ecological requirements**

#### **Flame retardants**

Flame retardants may be present in printed wiring board laminates, cables, and housings. Their purpose is to prevent, or at least to delay the spread of fire. Up to 30% by weight of the plastic in a computer casing can consist of flame retardant substances. Many flame retardants contain bromine or chlorine, and these flame retardants are chemically related to PCBs (polychlorinated biphenyls). Both the flame retardants containing bromine or chlorine and the PCBs are suspected of giving rise to health effects, including reproductive damage in fish-eating birds and mammals, due to the bio-accumulative\* processes when not disposed of in accordance with strict standards for disposal.

TCO'99 requires that plastic components weighing more than 25 grams shall not contain flame retardants with organically bound bromine or chlorine. Flame retardants are allowed in the printed wiring board laminates due to the lack of commercially available alternatives.

#### **Cadmium\*\***

Cadmium is present in rechargeable batteries and in the colour-generating layers of certain computer displays.

TCO'99 requires that batteries, the colour-generating layers of display screens, and the electrical or electronics components shall not contain any cadmium.

#### **Mercury\*\***

Mercury is sometimes found in batteries, relays and switches. TCO'99 requires that batteries shall not contain any mercury. It also demands that mercury is not present in any of the electrical or electronics components associated with the labelled unit. There is however one



## ■■■ Regulatory Information cont.

exception. Mercury is, for the time being, permitted in the back light system of flat panel monitors as there today is no commercially available alternative. TCO aims on removing this exception when a mercury free alternative is available.

### Lead\*\*

Lead can be found in picture tubes, display screens, solders and capacitors. TCO'99 permits the use of lead due to the lack of commercially available alternatives, but in future requirements TCO Development aims at restricting the use of lead.

\* **Bio-accumulative is defined as substances which accumulate in living organisms.**

\*\* **Lead, Cadmium and Mercury are heavy metals which are bio-accumulative.**

**:: TCO'03** (TCO'03 applied model only)



### Congratulations!

The display you have just purchased carries the TCO'03 Displays label.

This means that your display is designed, manufactured and tested according to some of the strictest quality and environmental requirements in the world. This makes for a high performance product, designed with the user in focus that also minimizes the impact on our natural environment. Some of the features of the TCO'03 Display requirements:

### Ergonomics

- Good visual ergonomics and image quality in order to improve the working environment for the user and to reduce sight and strain problems. Important parameters are luminance, contrast, resolution, reflectance, colour rendition and image stability.

### Energy

- Energy-saving mode after a certain time – beneficial both for the user and the environment
- Electrical safety

### Emissions

- Electromagnetic fields

- Noise emissions

### Ecology

- The product must be prepared for recycling and the manufacturer must have a certified environmental management system such as EMAS or ISO 14 001
- Restrictions on
  - chlorinated and brominated flame retardants and polymers
  - heavy metals such as cadmium, mercury and lead.

The requirements included in this label have been developed by TCO Development in co-operation with scientists, experts, users as well as manufacturers all over the world. Since the end of the 1980s TCO has been involved in influencing the development of IT equipment in a more user-friendly direction. Our labelling system started with displays in 1992 and is now requested by users and IT-manufacturers all over the world.

For more information, please visit  
[www.tcodevelopment.com](http://www.tcodevelopment.com)

## English

### Information for Environmental Preservation

LGE. announced the 'LG Declaration for a Cleaner Environment' in 1994, and this ideal has served as a guiding managerial principle ever since. The Declaration is a foundation that has allowed us to undertake environmentally friendly activities in careful consideration of economic, environmental, and social aspects.

We promote activities for environmental preservation, and we specifically develop our products to embrace the concept of environment-friendly.

We minimize the hazardous materials contained in our products. For example, there is no cadmium to be found in our monitors.

### Information for recycling

This monitor may contain parts which could be hazardous to the environment. It is important that this monitor be recycled after use.

LGE. handles all waste monitors through an environmentally acceptable recycling method. There are several take-back and recycling systems currently in

## ■■■ Regulatory Information cont.

operation worldwide. Many parts will be reused and recycled, while harmful substances and heavy metals are treated by an environmentally friendly method.

If you want to find out more information about our recycling program, please contact your local LG vendor or a corporate representative of LG.

We set our vision and policies on a cleaner world by selecting the issue of the global environment as a task for corporate improvement. Please visit our website for more information about our 'green' policies.

<http://www.lge.com/about/environment/html/Recycling.jsp>

### ■■■ Deutsch

#### Informationen zur Erhaltung der Umwelt

Im Jahr 1994 verkündete LGE die 'LG Declaration for a Cleaner Environment' (LG Erklärung für eine sauberere Umwelt). Seitdem dient dieses Ideal als führendes Prinzip des Unternehmens. Diese Erklärung war die Basis für die Durchführung von

umweltfreundlichen Aktivitäten, wobei wirtschaftliche, umweltbezogene und soziale Aspekte in die Überlegungen mit einbezogen wurden.

Wir fördern Aktivitäten zum Schutz der Umwelt und die Entwicklung unserer Produkte ist darauf ausgerichtet, unserem Konzept bezüglich Umweltfreundlichkeit gerecht zu werden.

Wir sind darauf bedacht, den Anteil der in unseren Produkten enthaltenen schädlichen Materialien zu minimieren. So ist in unseren Monitoren beispielsweise kein Kadmium zu finden.

#### Informationen zum Thema Recycling

Dieser Monitor enthält Teile, die umweltschädlich sein können. Es ist unbedingt erforderlich, dass der Monitor recycelt wird, nachdem er außer Dienst gestellt wurde.

Bei LGE werden alle ausrangierten Monitore in einem unter umweltbezogenen Aspekten geeigneten Verfahren recycelt. Augenblicklich sind weltweit mehrere Rücknahme- und Recyclingsysteme im Einsatz. Viele Teile werden wieder verwendet und recycelt. Schädliche Substanzen und Schwermetalle werden durch umweltverträgliche Verfahren behandelt.

Falls Sie mehr über unser Recyclingprogramm erfahren möchten, wenden Sie sich bitte an Ihren lokalen LG-Händler oder einen Unternehmensvertreter von LG.

Wir richten unsere Firmenpolitik auf eine sauberere Umwelt hin aus, indem wir umweltspezifische Aspekte als wichtigen Punkt in die Weiterentwicklung unseres Unternehmens einfließen lassen. Zusätzliche

Informationen über unsere 'grüne' Firmenpolitik erhalten Sie auf unserer Website.

<http://www.lge.com/about/environment/html/Recycling.jsp>

### ■■■ Français

#### Information sur la protection de l'environnement

LGE a publié sa 'Déclaration en faveur d'un environnement plus propre' en 1994 et celle-ci est restée, depuis lors, un principe directeur de notre entreprise. Cette déclaration a servi de base à notre réflexion et nous a permis de prendre en compte à la fois les aspects économiques et sociaux de nos activités, tout en respectant l'environnement.

Nous encourageons les activités en faveur de la préservation de l'environnement et c'est dans cet esprit que nous développons nos produits : nous réduisons au minimum les matières dangereuses qui entrent dans leur composition et l'on ne trouve pas de cadmium, par exemple, dans nos moniteurs.

#### Information sur le recyclage

Ce moniteur peut contenir des composants qui présentent un risque pour l'environnement. Il est donc important que celui-ci soit recyclé après usage.

LGE traite les moniteurs en fin de cycle conformément à une méthode de recyclage respectueuse de l'environnement. Nous reprenons nos produits et les recyclons dans plusieurs sites répartis dans le monde entier. De nombreux composants sont réutilisés et recyclés, et les matières dangereuses, ainsi que les métaux lourds, sont traités selon un procédé écologique.

Si vous souhaitez plus de renseignements sur notre programme de recyclage, veuillez contacter votre revendeur LG ou un l'un de nos représentants.

Nous voulons agir pour un monde plus propre et croyons au rôle de notre entreprise dans l'amélioration de l'environnement. Pour plus de renseignements sur notre politique "verte", rendez visite à notre site :

<http://www.lge.com/about/environment/html/Recycling.jsp>

## ■■■ Regulatory Information cont.

### Italiano

#### Informazioni per la tutela dell'ambiente

La LGE. ha annunciato nel 1994 la cosiddetta 'LG Declaration for a Cleaner Environment' (Dichiarazione di LG a favore di un ambiente più pulito), un ideale che da allora funge da principio ispiratore della gestione aziendale. La dichiarazione rappresenta il fondamento che consente di intraprendere attività a favore dell'ambiente tenendo conto degli aspetti economici, ambientali e sociali. Noi della LG, promuoviamo attività a favore della tutela dell'ambiente sviluppando appositamente i nostri prodotti per cogliere il concetto del rispetto dell'ambiente riducendo i materiali dannosi presenti nei nostri prodotti. Ad esempio nei nostri monitor non è presente il cadmio.

#### Informazioni per il riciclaggio

Il monitor può presentare componenti che potrebbero risultare eventualmente dannosi per l'ambiente. È importante che il monitor sia riciclato al termine del suo utilizzo.

La LGE. gestisce tutti i monitor di rifiuto con un metodo di riciclaggio soddisfacente dal punto di vista ambientale. In tutto il mondo sono attualmente in funzione numerosi sistemi di riciclaggio e recupero. I diversi componenti sono riutilizzati e riciclati, mentre le sostanze dannose e i metalli pesanti vengono trattati con un metodo rispettoso dell'ambiente.

Se si desiderano maggiori informazioni in merito al programma di riciclaggio, è consigliabile rivolgersi al proprio rivenditore LG o ad un rappresentante aziendale della LG.

Noi della LG impostiamo la nostra visione e le nostre politiche a favore di un mondo più pulito ponendo la questione dell'ambiente dal punto di vista globale come una mansione rivolta al miglioramento della nostra azienda. Vi invitiamo a visitare il nostro sito internet per ulteriori informazioni sulla nostra politica "verde".  
<http://www.lge.com/about/environment/html/Recycling.jsp>

### Espanol

#### Información para la conservación medioambiental

LGE. presentó la 'Declaración para un entorno más limpio de LG' en 1994 y este ideal ha servido para guiar nuestros principios empresariales desde entonces. La Declaración es la base que nos ha permitido llevar a cabo tareas que

respetan el medio ambiente siempre teniendo en cuenta aspectos sociales, económicos y medioambientales.

Promocionamos actividades orientadas a la conservación del medio ambiente y desarrollamos nuestros productos específicamente para que se ajusten a la filosofía que protege el entorno.

Reducimos al máximo el uso de materiales de riesgo en nuestros productos. Un ejemplo de ello es la ausencia total de cadmio en nuestros monitores.

#### Información para el reciclaje

Este monitor puede contener piezas que entrañen riesgos medioambientales. Es importante reciclar este monitor después de su utilización.

LGE. trata todos los monitores usados siguiendo un método de reciclaje que no daña al entorno. Contamos con diversos sistemas de recuperación y reciclaje que funcionan a nivel mundial en la actualidad. Es posible reciclar y reutilizar muchas de las piezas, mientras que las sustancias dañinas y los metales pesados se tratan siguiendo un método que no perjudique al medio ambiente. Si desea obtener más información acerca del programa de reciclaje, póngase en contacto con su proveedor local de LG o con un representante empresarial de nuestra marca.

Basamos nuestra visión y nuestras políticas en un mundo más limpio y para ellos optamos por un entorno global como tarea principal de nuestra evolución como empresa. Visite nuestra página Web para obtener más información sobre nuestras políticas ecológicas.

<http://www.lge.com/about/environment/html/Recycling.jsp>

### Português

#### Informações relacionadas à preservação ambiental

A LGE. anunciou a 'LG Declaration for a Cleaner Environment' (Declaração da LG para um ambiente mais limpo) em 1994 e esse ideal tem servido desde então como um princípio administrativo de orientação. A Declaração é a base que nos tem permitido realizar atividades favoráveis ao ambiente com consideração atenta aos aspectos econômicos, ambientais e sociais.

Promovemos atividades de preservação ambiental e desenvolvemos nossos produtos para englobar

## ■■■ Regulatory Information cont.

especificamente o conceito de favorável ao ambiente. Reduzimos os materiais perigosos contidos em nossos produtos. Por exemplo, não há cádmio em nossos monitores.

### Informações relacionadas à reciclagem

Este monitor pode conter peças que podem representar riscos ao ambiente. É importante que ele seja reciclado após o uso.

A LGE, cuida de todos os monitores descartados através de um método de reciclagem agradável ao ambiente. Há vários sistemas de devolução e reciclagem atualmente em operação no mundo. Muitas peças serão reutilizadas e recicladas e as substâncias nocivas e os metais pesados passarão por tratamento através de um método favorável ao ambiente.

Para obter mais informações sobre nosso programa de reciclagem, entre em contato com seu fornecedor LG local ou com um representante corporativo da LG.

Definimos nossa visão e nossas políticas relacionadas a um mundo mais limpo selecionando a questão do ambiente global como uma tarefa de aprimoramento corporativo. Visite nosso site para obter mais informações sobre nossas políticas de meio ambiente.

<http://www.lge.com/about/environment/html/Recycling.jsp>

### ■ ■ ■ Nederlands

#### ■ ■ ■ Informatie met betrekking tot het behoud van het milieu

LGE, publiceerde in 1994 de 'LG Declaration for a Cleaner Environment' (de LG-verklaring met betrekking tot een schoner milieu). Deze verklaring en het ideaal van een schoner milieu fungeren sindsdien als een bestuurlijke leidraad voor onze onderneming. Op basis van deze verklaring ontplooiën wij milieuvriendelijke activiteiten, waarbij er zowel met sociale en economische aspecten, als met milieuaspecten zorgvuldig rekening wordt gehouden.

Wij ondersteunen activiteiten die zijn gericht op het behoud van het milieu en wij houden bij het ontwikkelen onze producten specifiek rekening met de milieuvriendelijkheid van onze producten.

Wij minimaliseren het gebruik van schadelijke stoffen in onze producten. Er wordt bijvoorbeeld geen cadmium verwerkt in onze monitoren.

#### ■ ■ ■ Informatie met betrekking tot recycling

Deze monitor bevat materialen die schadelijk zouden kunnen zijn voor het milieu. Het is belangrijk dat deze monitor aan het einde van zijn levensduur wordt gerecycled.

LGE, verwerkt alle afvalmonitoren via een milieuvriendelijke recyclingmethode. Hiervoor worden er momenteel wereldwijd verscheidene inname- en recyclingsystemen gehanteerd. Een groot aantal onderdelen wordt opnieuw gebruikt en gerecycled, waarbij schadelijke stoffen en zware metalen volgens een milieuvriendelijke methode worden verwerkt.

Voor meer informatie over ons recyclingprogramma kunt u contact opnemen met uw plaatselijke LG-vertegenwoordiger of een LG-vestiging.

Onze visie en ons beleid met betrekking tot een schonere wereld vloeien voort uit het feit dat wij het milieu hebben aangemerkt als een onderwerp dat speciale aandacht verdient binnen onze onderneming. Bezoek onze website voor meer informatie over ons 'groene' beleid.

<http://www.lge.com/about/environment/html/Recycling.jsp>

### ■ ■ ■ Russian

#### ■ ■ ■ Информация по охране окружающей среды

В 1994 году корпорация LGE опубликовала 'Декларацию LG по охране окружающей среды', которая с тех пор служит основным принципом управления. На основе этой декларации мы смогли предпринять действия, обеспечивающие безопасность окружающей среды, уделяя при этом должное внимание экономическим, экологическим и социальным аспектам.

Мы стимулируем деятельность по охране окружающей среды, уделяя особое внимание разработке нашей продукции в соответствии с концепцией экологической безопасности.

Мы сводим к минимуму содержание опасных веществ в нашей продукции. Например, в наших мониторах вы не найдете кадмия.

#### ■ ■ ■ Информация по утилизации отходов

Этот монитор может содержать компоненты, которые могут нанести ущерб окружающей среде.

■■■ Regulatory Information cont.

Необходимо утилизировать монитор после использования.

Корпорация LGE перерабатывает все бракованные мониторы с помощью экологически приемлемого метода утилизации отходов. По всему миру действуют системы утилизации отходов и возврата использованной продукции. Многие компоненты будут вторично использованы и утилизированы, в то время как вредные вещества и тяжелые металлы будут обработаны с помощью экологически приемлемого метода.

За более подробной информацией по нашей программе утилизации отходов обращайтесь к местному поставщику или представителю корпорации LG.

Мы ориентируемся на обеспечение экологической безопасности, ставя себе целью глобальную защиту окружающей среды. Дополнительную информацию о нашей политике по охране окружающей среды вы можете найти на нашем сайте:  
<http://www.lge.com/about/environment/html/Recycling.jsp>

한국어

환경 보존 정보

LG 전자는 1994년 'LG 환경 선언문'을 발표한 후 현재까지 이를 기업 경영의 이념으로 삼아왔습니다. 이 선언문을 바탕으로 LG 전자는 모든 경영 활동에서 경제성뿐만 아니라 환경성 및 사회성을 주요 의사 결정의 기준으로 삼음으로써 지속적으로 환경 친화적인 경영을 전개하고 있습니다.

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재활용 정보

본 모니터에는 환경에 위해를 주는 부품이 포함되어 있을 수도 있습니다. 따라서 사용이 끝난 모니터는 재활용하는 것이 좋습니다.

폐모니터는 모두 환경 친화적 방식으로 처리됩니다. 현재 세계적으로 운영되고 있는 회수 및 재활용 시스템에는

여러 가지가 있습니다. 대부분의 부품의 경우 재사용 또는 재활용되지만 환경 위해 물질과 중금속은 환경 친화적 방법으로 처리됩니다.

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[http://www.lge.co.kr/ckkr/about/energy/purity\\_02.jsp](http://www.lge.co.kr/ckkr/about/energy/purity_02.jsp)

::EPA (EPA applied model only)

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



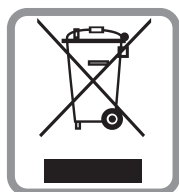
As an ENERGY STAR Partner LGE U. S. A.,Inc. has determined that this product meets the ENERGY STAR guidelines for energy efficiency.

::NOM MARK (Mexico only)



## ■■■ Regulatory Information cont.

### :: WEEE (for Europe)



#### ■ ■ English

##### Disposal of your old appliance

1. When this crossed-out wheeled bin symbol is attached to a product it means the product is covered by the European Directive 2002/96/EC.
2. All electrical and electronic products should be disposed of separately from the municipal waste stream via designated collection facilities appointed by the government or the local authorities.
3. The correct disposal of your old appliance will help prevent potential negative consequences for the environment and human health.
4. For more detailed information about disposal of your old appliance, please contact your city office, waste disposal service or the shop where you purchased the product.

#### ■ ■ French

##### Élimination de votre ancien appareil

1. Ce symbole, représentant une poubelle sur roulettes barrée d'une croix, signifie que le produit est couvert par la directive européenne 2002/96/EC.
2. Les éléments électriques et électroniques doivent être jetés séparément, dans les vide-ordures prévus à cet effet par votre municipalité.
3. Une élimination conforme aux instructions aidera à réduire les conséquences négatives et risques éventuels pour l'environnement et la santé humaine.
4. Pour plus d'information concernant l'élimination de votre ancien appareil, veuillez contacter votre mairie, le service des ordures ménagères ou encore la magasin où vous avez acheté ce produit.

#### ■ ■ Italian

##### Smaltimento delle apparecchiature obsolete

1. Quando su un prodotto è riportato il simbolo di

un bidone della spazzatura barrato da una croce significa che il prodotto è coperto dalla direttiva europea 2002/96/EC.

2. Tutti i prodotti elettrici ed elettronici dovrebbero essere smaltiti separatamente rispetto alla raccolta differenziata municipale, mediante impianti di raccolta specifici designati dal governo o dalle autorità locali.
3. Il corretto smaltimento delle apparecchiature obsolete contribuisce a prevenire possibili conseguenze negative sulla salute umana e sull'ambiente.
4. Per informazioni più dettagliate sullo smaltimento delle apparecchiature obsolete, contattare il comune, il servizio di smaltimento rifiuti o il negozio in cui è stato acquistato il prodotto.

#### ■ ■ Swedish

##### Kassering av din gamla apparat

1. När den här symbolen med en överkryssad soptunna på hjul sitter på en produkt innebär det att den regleras av European Directive 2002/96/EC.
2. Alla elektriska och elektroniska produkter bör kasseras via andra vägar än de som finns för hushållsavfall, helst via för ändamålet avsedda uppsamlingsanläggningar som myndigheterna utser.
3. Om du kasserar din gamla apparat på rätt sätt så bidrar du till att förhindra negativa konsekvenser för miljön och människors hälsa.
4. Mer detaljerad information om kassering av din gamla apparat kan fås av kommunen, renhållningsverket eller den butik där du köpte produkten.

#### ■ ■ Dutch

##### Uw oude toestel wegdoen

1. Als het symbool met de doorgekruiste verrijdbare afvalbak op een product staat, betekent dit dat het product valt onder de Europese Richtlijn 2002/96/EC.
2. Elektrische en elektronische producten mogen niet worden meegegeven met het huishoudelijk afval, maar moeten worden ingeleverd bij speciale inzamelingspunten die door de lokale of landelijke overheid zijn aangewezen.
3. De correcte verwijdering van uw oude toestel helpt negatieve gevolgen voor het milieu en de menselijke gezondheid voorkomen.

## ■■■ Regulatory Information cont.

4. Wilt u meer informatie over de verwijdering van uw oude toestel? Neem dan contact op met uw gemeente, de afvalophaaldienst of de winkel waar u het product hebt gekocht.

### ■ ■ ■ Finnish

#### Vanhon laitteen hävittäminen

1. Tämä merkki tuotteessa tarkoittaa, että tuote kuuluu sähkö- ja elektroniikkalaiteromusta annetun EU-direktiivin 2002/96/EY soveltamisalaan.
2. Kaikki elektroniset laitteet ovat ongelmajätettä, joten ne on toimitettava paikalliseen keräyspisteeseen.
3. Vanhan laitteen asianmukainen hävittäminen ehkäisee mahdollisia ympäristöön ja terveyteen kohdistuvia haittavaikutuksia.
4. Lisätietoa vanhan laitteen hävittämisestä saat ottamalla yhteyden paikallisiin viranomaisiin, kierrätyskeskukseen tai myymälään, josta ostit laitteen.

### ■ ■ ■ German

#### Entsorgung von Altgeräten

1. Wenn dieses Symbol eines durchgestrichenen Abfalleimers auf einem Produkt angebracht ist, unterliegt dieses Produkt der europäischen Richtlinie 2002/96/EC.
2. Alle Elektro- und Elektronik-Altgeräte müssen getrennt vom Hausmüll über dafür staatlich vorgesehene Stellen entsorgt werden.
3. Mit der ordnungsgemäßen Entsorgung des alten Geräts vermeiden Sie Umweltschäden und eine Gefährdung der persönlichen Gesundheit.
4. Weitere Informationen zur Entsorgung des alten Geräts erhalten Sie bei der Stadtverwaltung, beim Entsorgungsamt oder in dem Geschäft, wo Sie das Produkt erworben haben.

### ■ ■ ■ Danish

#### Sådan smider du dit gamle apparat ud

1. Når der er et tegn med et kryds over en skraldespand, betyder det, at produktet er omfattet af EU-direktiv 2002/96/EC.
2. Alle elektriske og elektroniske produkter skal smides ud et andet sted end gennem den kommunale affaldsordning ved hjælp af specielle indsamlingsfaciliteter, der er organiseret af staten

eller de lokale myndigheder.

3. Korrekt bortskaffelse af dit gamle apparat er med til at forhindre mulige skadevirkninger på miljøet og menneskelig sundhed.
4. Mere detaljerede oplysninger om bortskaffelse af dit gamle apparat kan fås ved at kontakte dit lokale kommunekontor, renovationselskab eller den butik, hvor du købte produktet.

### ■ ■ ■ Greek

#### Απόρριψη της παλιάς σας συσκευής

1. Όταν ένα προϊόν διαθέτει το σύμβολο ενός διαγραμμένου κάλαθου απορριμμάτων, τότε το προϊόν καλύπτεται από την Ευρωπαϊκή Οδηγία 2002/96/EOK.
2. Η απόρριψη όλων των ηλεκτρικών και ηλεκτρονικών προϊόντων πρέπει να γίνεται χωριστά από τα γενικά οικιακά απορρίμματα μέσω καθορισμένων εγκαταστάσεων συλλογής απορριμμάτων, οι οποίες έχουν δημιουργηθεί είτε από την κυβέρνηση ή από τις τοπικές αρχές.
3. Η σωστή απόρριψη της παλιάς σας συσκευής θα βοηθήσει στην αποτροπή πιθανών αρνητικών συνεπειών ως προς το περιβάλλον και την υγεία του ανθρώπου.
4. Για πιο λεπτομερείς πληροφορίες σχετικά με την απόρριψη της παλιάς σας συσκευής, επικοινωνήστε με το αρμόδιο τοπικό γραφείο, υπηρεσία διάθεσης οικιακών απορριμμάτων ή το μαγαζί από το οποίο αγοράσατε το προϊόν.

### ■ ■ ■ Spanish

#### Cómo deshacerse de aparatos eléctricos y electrónicos viejos

1. Si en un producto aparece el símbolo de un contenedor de basura tachado, significa que éste se acoge a la Directiva 2002/96/CE.
2. Todos los aparatos eléctricos o electrónicos se deben desechar de forma distinta del servicio municipal de recogida de basura, a través de puntos de recogida designados por el gobierno o las autoridades locales.
3. La correcta recogida y tratamiento de los dispositivos inservibles contribuye a evitar riesgos potenciales para el medio ambiente y la salud pública.
4. Para obtener más información sobre cómo deshacerse de sus aparatos eléctricos y electrónicos viejos, póngase en contacto con su ayuntamiento, el servicio de recogida de basuras o el establecimiento donde adquirió el producto.



## Regulatory Information cont.

### Portuguese

#### Eliminação do seu antigo aparelho

1. Quando este símbolo de latão cruzado estiver afixado a um produto, significa que o produto é abrangido pela Directiva Europeia 2002/96/EC.
2. Todos os produtos eléctricos e electrónicos devem ser eliminados separadamente do lixo doméstico através de pontos de recolha designados, facilitados pelo governo ou autoridades locais.
3. A eliminação correcta do seu aparelho antigo ajuda a evitar potenciais consequências negativas para o ambiente e para a saúde humana.
4. Para obter informações mais detalhadas acerca da eliminação do seu aparelho antigo, contacte as autoridades locais, um serviço de eliminação de resíduos ou a loja onde comprou o produto.

### Slovak

#### Likvidácia váš ho starého prístroja

1. Keď sa na produkte nachádza tento symbol prečiarknutej smetnej nádoby s kolieskami, znamená to, že daný produkt vyhovuje európskej Smernici č. 2002/96/EC.
2. Všetky elektrické a elektronické produkty by mali byť zlikvidované oddelene od komunálneho odpadu prostredníctvom na to určených zberných zariadení, ktoré boli ustanovené vládou alebo orgánmi miestnej správy.
3. Správnu likvidáciu starých zariadení pomôžete predchádzať potenciálnym negatívnym následkom pre prostredie a ľudské zdravie.
4. Podrobnejšie informácie o likvidácii starých zariadení nájdete na miestnom úrade, v službe na likvidáciu odpadu alebo u predajcu, kde ste tento produkt zakúpili.

### Czech

#### Likvidace starých spotřebičů

1. Pokud je u výrobku uveden symbol pořízdného kontejneru v přeškrtnutém poli, znamená to, že na výrobek se vztahuje směrnice Evropské unie číslo 2002/96/EC.
2. Všechny elektrické a elektronické výrobky by měly být likvidovány odděleně od běžného komunálního odpadu prostřednictvím sběrných zařízení zřízených za tímto účelem vládou nebo místní samosprávou.
3. Správný způsob likvidace starého elektrického spotřebiče pomáhá zamezit možným negativním dopadům na životní prostředí a zdraví.
4. Bližší informace o likvidaci starého spotřebiče získáte u místní samosprávy, ve sběrném zařízení nebo v obchodě, ve kterém jste výrobek zakoupili.

### Croatian

#### Uklanjanje starog aparata

1. Ako se na proizvodu nalazi simbol prekrizhene kante za smeće, to znači da je proizvod pokriven europskom direk-

tivom 2002/96/EC.

2. Električni i elektronski proizvodi ne smiju se odlagati zajedno s komunalnim otpadom, već u posebna odlagališta koja je odredila vlada ili lokalne vlasti.
3. Pravilno odlaganje starog proizvoda sprečiti će potencijalne negativne posljedice po okoliš i zdravlje ljudi.
4. Podrobnije informacije o odlaganju starog proizvoda potražite u gradskom uredu, službi za odlaganje otpada ili u trgovini u kojoj ste kupili proizvod.

### Hungarian

#### Régi eszközök ártalmatlanítása

1. A termékhez csatolt áthúzott, kereskes szeméttároló jel jelöli, hogy a termék a 2002/96/EC EU-direktíva hatálya alá esik.
2. Minden elektromos és elektronikai terméket a lakossági hulladéktól elkülönítve kell begyűjteni, a kormány vagy az önkormányzatok által kijelölt begyűjtő eszközök használatával.
3. Régi eszközeinek megfelelő ártalmatlanítása segíthet megelőzni az esetleges egészségre vagy környezetre ártalmas hatásokat.
4. Ha több információra van szüksége régi eszközeinek ártalmatlanításával kapcsolatban, tanulmányozza a vonatkozó környezetvédelmi szabályokat, vagy lépjen kapcsolatba az üzlettel, ahol a terméket vásárolta.

### Polish

#### Utylizacja starych urządzeń

1. Kiedy do produktu dołączony jest niniejszy przekreślony symbol kołowego pojemnika na śmieci, oznacza to, że produkt jest objęty dyrektywą 2002/96/EC.
2. Wszystkie elektryczne i elektroniczne produkty powinny być utylizowane niezależnie od odpadów miejskich, z wykorzystaniem przeznaczonych do tego miejsc składowania wskazanych przez rząd lub miejscowe władze.
3. Właściwy sposób utylizacji starego urządzenia pomoże zapobiec potencjalnie negatywnemu wpływowi na zdrowie i środowisko.
4. Aby uzyskać więcej informacji o sposobach utylizacji starych urządzeń, należy skontaktować się z władzami lokalnymi, przedsiębiorstwem zajmującym się utylizacją odpadów lub sklepem, w którym produkt został kupiony.



## ■■■ Regulatory Information cont.

### ■ ■ ■ Estonian

#### Kasutuskõlbmatu seadme käitlemise kord

1. Kui seade on märgistatud selle elektri- ja elektroonikaseadmete lahuskogumist märgistava tähisega (ratastega prügikonteineri kujutis, millele on rist peale tõmmatud), tuleb toodet käidelda vastavalt Eurodirektiivile 2002/96/EÜ.
2. Elektri- ja elektroonikaseadmeid ei tohi visata tavalise prügi hulka. Nad kuuluvad lahuskogumisele selleks määratud kogumispunktides.
3. Kasutuskõlbmatu tervikseadme käitlemine tavaprügist lahus on korraldatud selleks, et vältida negatiivseid tagajärgi, mida põhjustaksid seadme osade purunemisel vabaneda võivad ohtlikud jäätmeloodusele või inimorganismile.
4. Täpsemat informatsiooni selle kohta, kuhu ja millal saab ära anda oma kasutamiskõlbmatu elektri- ja elektroonikaseadme, küsige kohalikul omavalitsuselt, prügifirmalt või kaupluselt, kust seadme ostsite.

### ■ ■ ■ Latvian

#### Vecās elektroierīces nodošana

1. Ja uz produkta ir simbols ar pārsvītrotu atkritumu tvertni, tas nozīmē, ka produkts ir iekļauts Eiropas direktīvā 2002/96/EC.
2. Visi elektriskie un elektroniskie produkti ir jāutilizē, nododot pašvaldības īpaši noteiktās pieņemšanas vietās. Tos nedrīkst izmest parastās municipalitātes atkritumu urnās.
3. Ievērojot prasības veco elektroierīču utilizēšanā, jūs pasargāsiet apkārtējo vidi un cilvēku veselību no iespējami nelabvēlīgajām sekām, kādas varētu rasties, ierīcēm sadaloties nepiemērotā vietā.
4. Lai gūtu plašāku informāciju par veco ierīču utilizēšanas iespējām, sazinieties ar pilsētas pašvaldību, atkritumu savākšanas saimniecību vai veikalu, kurā ierīci iegādājāties.

### ■ ■ ■ Lithuanian

#### Senos įrangos atliekų tvarkymas

1. Užbrauktas konteinerio simbolis priverčia atkreipti dėmesį, kad įrangą saugo Europos direktyva 2002/96/EC.
2. Visos elektros ir elektroninės įrangos atliekos turi būti renkamos atskirai ir neišmetamos į atliekų konteinerį kartu su kitomis komunalinėmis atliekomis, taikant specialią atliekų surinkimo sistemą, patvirtintą vyriausybės ar vietos valdžios.
3. Teisingas senos įrangos atliekų tvarkymas, padės išvengti neigiamų pasekmių aplinkai ir žmonių sveikatai.
4. Dėl išsamesnės informacijos apie senos įrangos tvarkymą, prašome kreiptis į miesto valdžią, atliekų perdirbimo tarnybą arba parduotuvę, kurioje pirkote įrangą.