



Order Number : GETEC-C1-09-168
Test Report Number : GETEC-E3-09-087

FCC Class B Certification
Page 1 / 1

APPENDIX G : USER'S MANUAL



LG

Life's Good

LCD TV OWNER'S MANUAL

32LG700H	32LG710H
37LG700H	37LG710H
42LG700H	42LG710H

Installer Reference for Commercial Mode

MPI/PPV Card Setup see page 19

Commercial Mode Setup see pages 85-107
Please read this manual carefully before operating your set.

Retain it for future reference.

Record model number and serial number of the set.

See the label attached on the back cover and quote this information to your dealer when you require service.

Model:

Serial:



This product qualifies for ENERGY STAR in the "factory default" setting and this is the setting in which power savings will be achieved.

Changing the factory default picture setting or enabling other features will increase power consumption that could exceed the limits necessary to qualify for Energy Star rating.

1-800-243-0000	USA, Consumer User
1-888-865-3026	USA, Commercial User
1-888-542-2623	CANADA

LG Customer Information Center

P/NO : SAC30708043 (0907-REV05)

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.

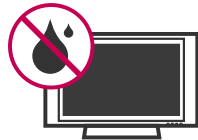
Keep these instructions.

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.



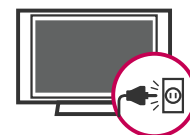
- 7** Only use attachments/accessories specified by the manufacturer.



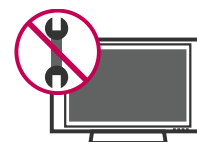
- 8** Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.



- 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.



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

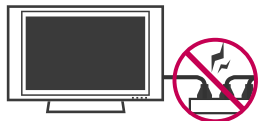
12 When mounting a TV on the wall, make sure not to install the TV by the hanging power and signal cables on the back of the TV.

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 make the TV with the power cord plugged in. Do not use a damaged or loose power cord. Be sure do grasp the plug when unplugging the power cord. Do not pull on the power cord to unplug the TV.



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.



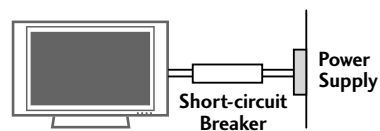
16 Do not expose to dripping or splashing and do not place objects filled with liquids, such as vases, cups, etc. on or over the apparatus (e.g. on shelves above the unit).



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 ANTENNAS

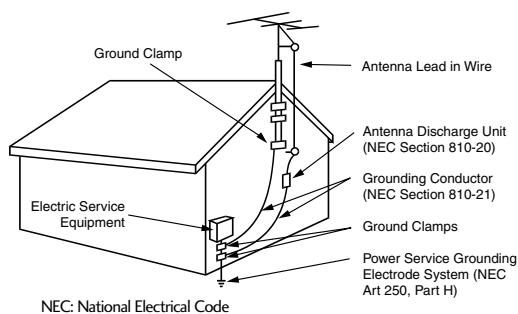
Outdoor antenna grounding

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



20 Cleaning

When cleaning, unplug the power cord and scrub 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.

21 Moving

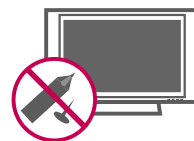
Make sure the product is turned off, unplugged and all cables have been removed. It may take 2 or more people to carry larger TVs. Do not press against or put stress on the front panel of the TV.

22 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.

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

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



25 Keep the product away from direct sunlight.

26 For LCD TV

If the TV feels cold to the touch, there may be a small “flicker” when it is turned on. This is normal, there is nothing wrong with TV.

Some minute dot defects may be visible on the screen, appearing as tiny red, green, or blue spots. However, they have no adverse effect on the monitor’s performance.

Avoid touching the LCD screen or holding your finger(s) against it for long periods of time. Doing so may produce some temporary distortion effects on the screen.

ON DISPOSAL (Only Hg lamp used 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.

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FEATURES OF THIS TV



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

USB IN
SERVICE ONLY



USB port shall be used for software update by service personnel only.

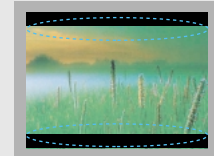
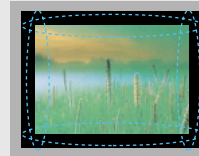


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IMPORTANT INFORMATION TO PREVENT “IMAGE BURN / BURN-IN” ON YOUR TV SCREEN

- 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.

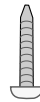
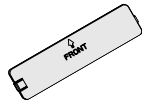
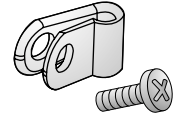
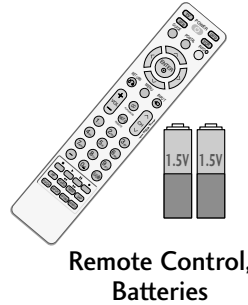
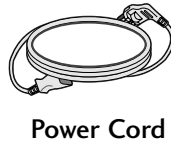
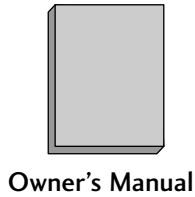


PREPERATION

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.

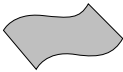
The accessories included may differ from the images below.



For 32LG700H, 32LG710H



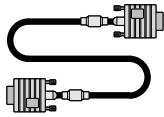
Plug in type Holder (Refer to P.13)



Polishing Cloth
(Not included with all models.)

- * 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

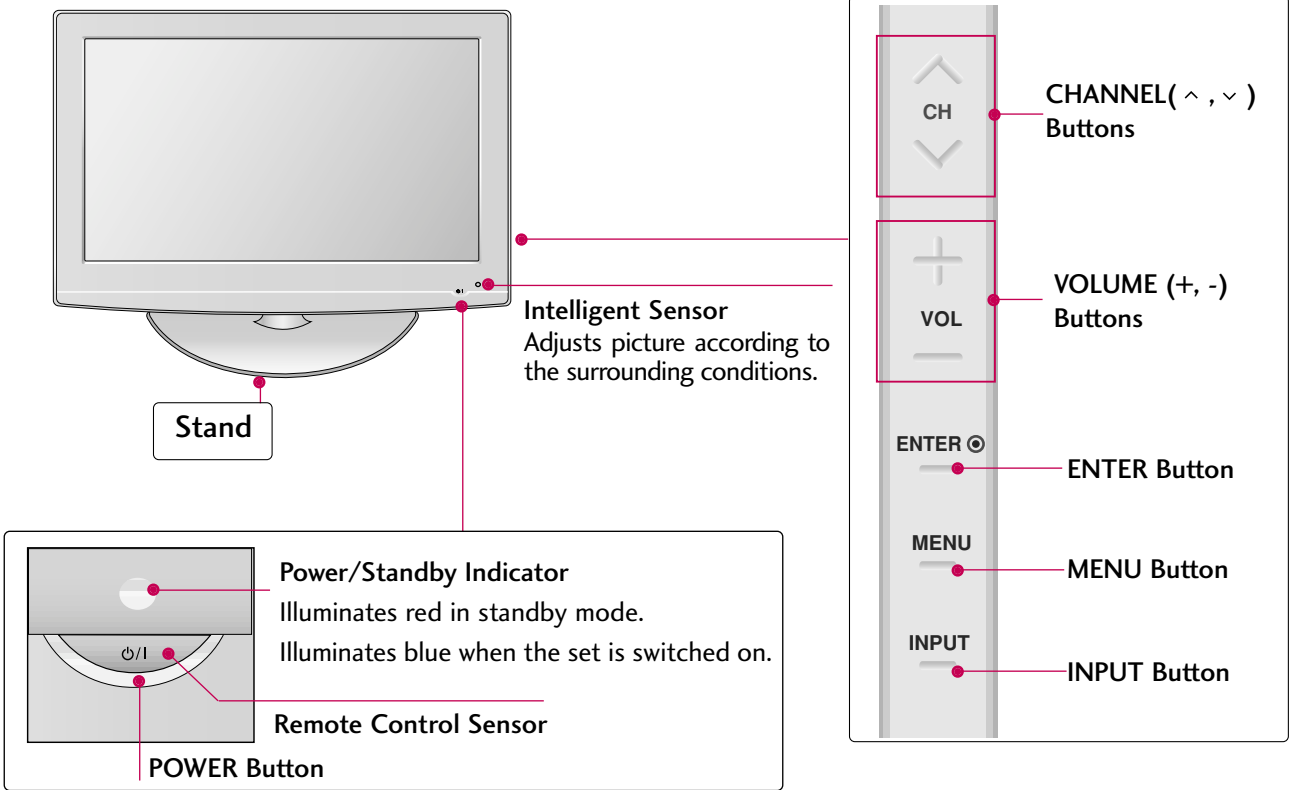


D-sub 15 pin Cable

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.

FRONT PANEL INFORMATION

■ Image shown may differ from your TV.

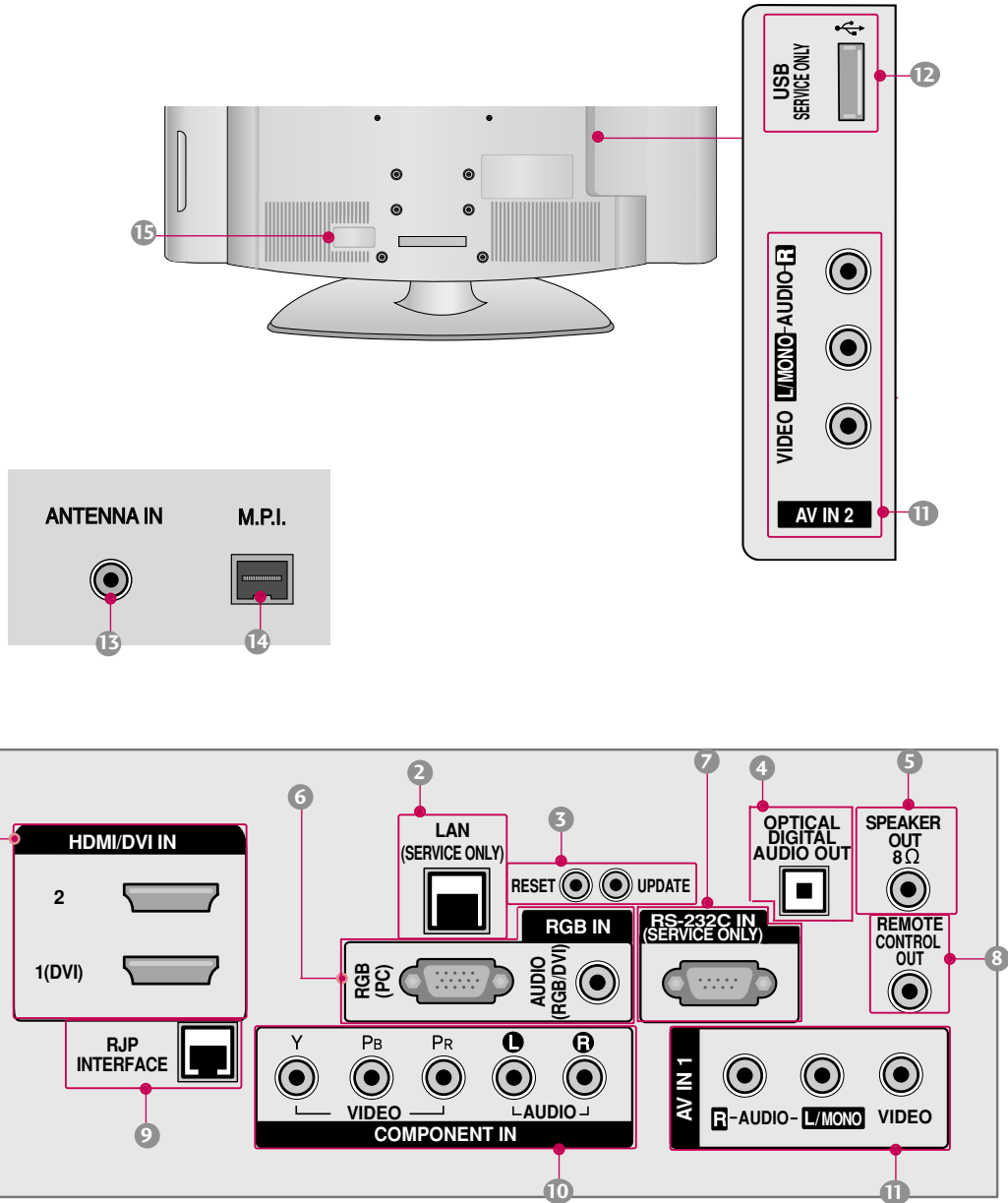


PREPARATION

BACK PANEL INFORMATION

Image shown may differ from your TV.

PREPARATION



- ① **HDMI/DVI IN**
Digital Connection. Supports HD video and Digital audio.
Accepts DVI video using an adapter or HDMI to DVI cable (not included)
- ② **LAN (SERVICE ONLY)**
For connecting to a control network.
- ③ **RESET**
Performs a hardware reset.
UPDATE
Enables/disables software downloads and debug mode.
- ④ **OPTICAL DIGITAL AUDIO OUT**
Optical digital audio output for use with amps and home theater systems.
Note: In standby mode, this port doesn't work.
- ⑤ **SPEAKER OUT 8Ω**
Connect to external speaker input.
- ⑥ **RGB (PC)**
Analog PC Connection. Uses a D-sub 15 pin cable (VGA cable).
AUDIO (RGB/DVI)
1/8" headphone jack for analog PC audio input.
- ⑦ **RS-232C IN (SERVICE ONLY)**
Used for software updates.
- ⑧ **REMOTE CONTROL OUT**
IR output for controlling an auxiliary device.
- ⑨ **RJP INTERFACE (REMOTE JACK PACK PORT)**
Connect to remote jack pack control output port.
- ⑩ **COMPONENT IN**
Analog Connection.
Supports HD.
Uses a red, green, and blue cable for video & a red and white cable for audio.
- ⑪ **AV (Audio/Video) IN 1**
Analog composite connection. Supports standard definition video only (480i).
Used for PC/DTV audio input jack.
- ⑫ **USB SERVICE ONLY**
Used for software updates.
- ⑬ **ANTENNA IN**
Connect over-the air signals to this jack.
- ⑭ **M.P. I.**
Control port.
- ⑮ **Power Cord Socket**
For operation with AC power.
Caution: Never attempt to operate the TV on DC power.

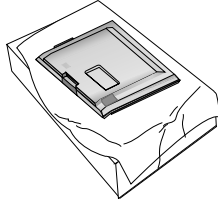
PREPARATION

STAND INSTRUCTION

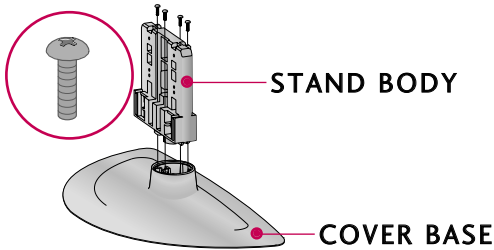
▪ Image shown may differ from your TV.

INSTALLATION

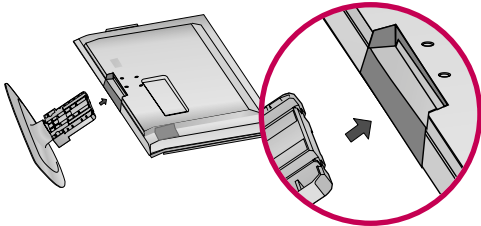
- 1 Carefully place the TV screen side down on a cushioned surface to protect the screen from damage.



- 2 Assemble the **STAND BODY** to the **COVER BASE** with the included screws.



- 3 Insert the stand as shown.



- 4 Tighten the stand with the four screws (provided as parts of the TV).



Tighten the stand with the four screws (provided as parts of the TV).

or



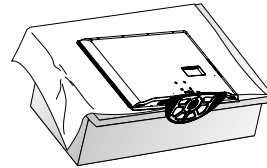
Tighten the two of these four screws and the two Torx plus star head screws (provided as parts of the TV) to secure the TV. Tighten the two Torx plus star head screws with a star head driver bit (not provided as parts of the TV).

NOTE

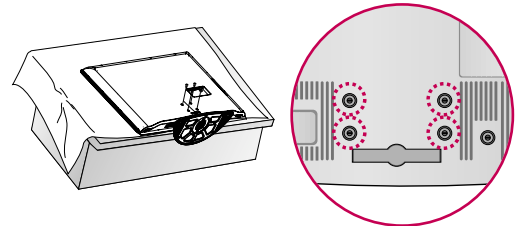
- ▶ Make sure the screws in the stand are fully tightened. (If not tightened fully, the product could tilt forward and fall). But do not over tighten, over-tightening can damage the threads on the screws.

DETACHMENT

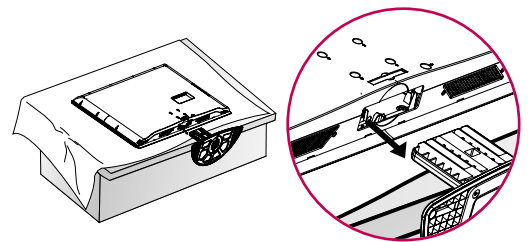
- 1 Carefully place the TV screen side down on a cushioned surface to protect the screen from damage.



- 2 Remove the four screws that hold the base on.

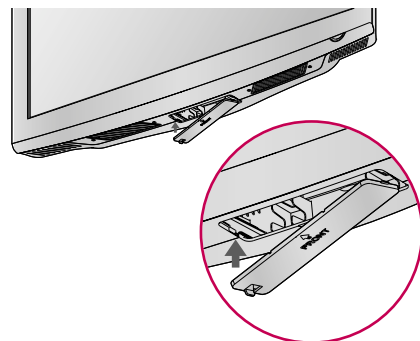


- 3 Detach the stand from TV.



PROTECTION COVER

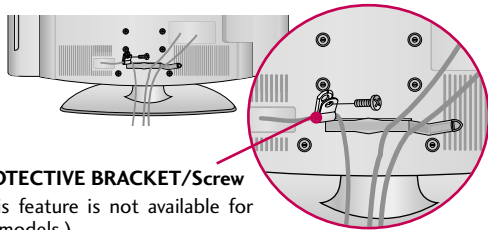
After removing the stand, install the included **protection cover** over the hole for the stand. Press the **PROTECTION COVER** into the TV until you hear it click.



CABLE MANAGEMENT

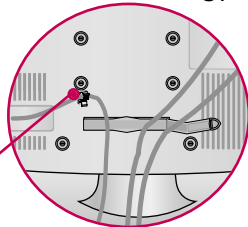
■ Image shown may differ from your TV.

- 1** Connect the cables as necessary. To connect additional equipment, see the **EXTERNAL EQUIPMENT SETUP** section. Secure the power cable with the **PROTECTIVE BRACKET/Screw** or the **Plug in type Holder**(For 32LG700H, 32LG710H model). It will help prevent the power cable from being removed by accident.



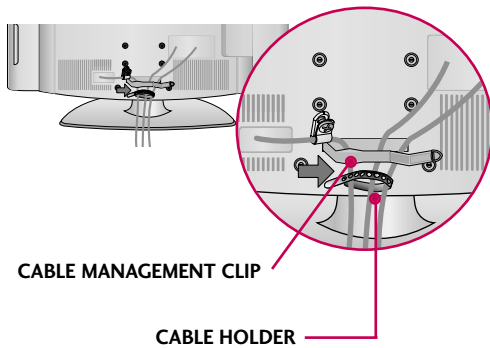
PROTECTIVE BRACKET/Screw
(This feature is not available for all models.)

Or



PLUG IN TYPE HOLDER
(For 32LG700H, 32LG710H model)

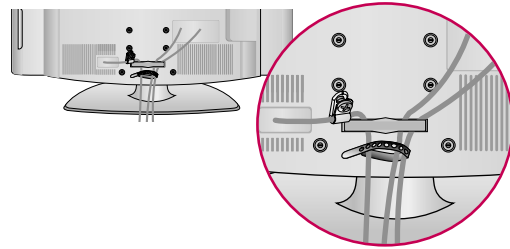
- 2** Install the **CABLE MANAGEMENT CLIP** as shown. If your TV has the **CABLE HOLDER**, install it as shown and bundle the cables.



CABLE MANAGEMENT CLIP

CABLE HOLDER

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



NOTE

- ▶ Do not hold the **CABLE MANAGEMENT CLIP** when moving the TV.
- If the TV is dropped, you may be injured or the product may be broken.
- ▶ With some TVs, the **PLUG IN TYPE HOLDER** and the **CABLE HOLDER** are included. If these holders are inserted into the hole provided on back of the TV, they cannot be removed.

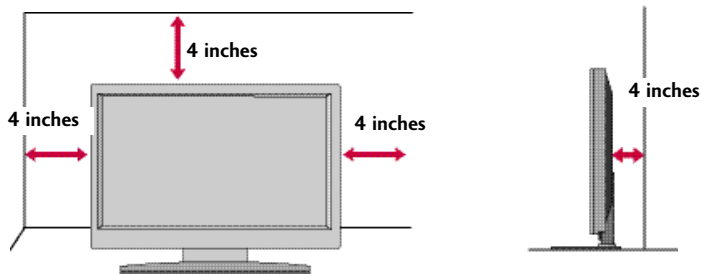
PREPARATION

PREPARATION

DESKTOP PEDESTAL INSTALLATION

- Image shown may differ from your TV.

For proper ventilation, allow a clearance of 4 inches on all four sides.

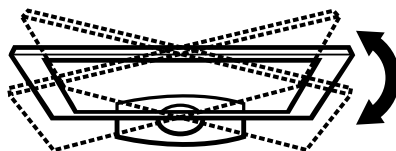


CAUTION

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

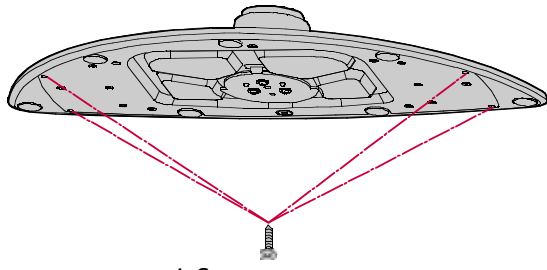
SWIVEL STAND

The TV can be conveniently swivelled on its stand 90° to the left or right to provide the optimum viewing angle.

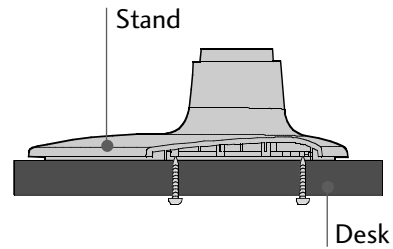


ATTACHING THE TV TO A DESK

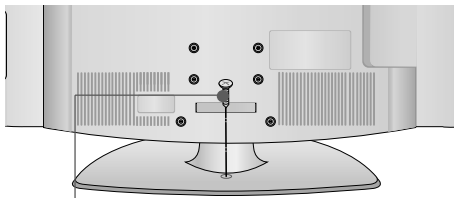
The TV must be attached to a desk so it cannot be pulled in a forward/backward direction, potentially causing injury or damaging the product.



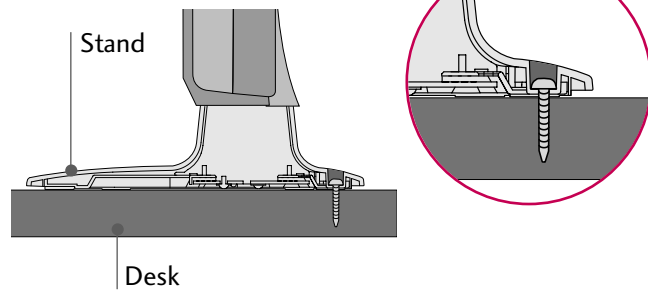
4-Screws
(not provided as parts of the product)



- ▶ Screw: M5 x L (*L: Table depth + 8~10 mm)
ex) Table depth: 15mm, Screw: M5 x 25



1-Screw
(provided as parts of the product)



⚠ WARNING

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

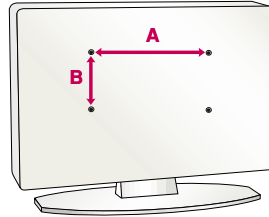
PREPARATION

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.



Product	Model	VESA (A * B)	Standard Screw	Quantity
LCD TV	32LG700H, 32LG710H	200 * 100	M4	4
	37LG700H, 37LG710H	200 * 200	M6	4
	42LG700H, 42LG710H	200 * 200	M6	4

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 tighten the screws too much. It may damage the TV or allow the TV to fall and cause 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 the TV is plugged in. It may result in personal injury due to electric shock.

WARNING

- ▶ To prevent injury, this apparatus must be securely attached to the wall in accordance with the installation instructions.

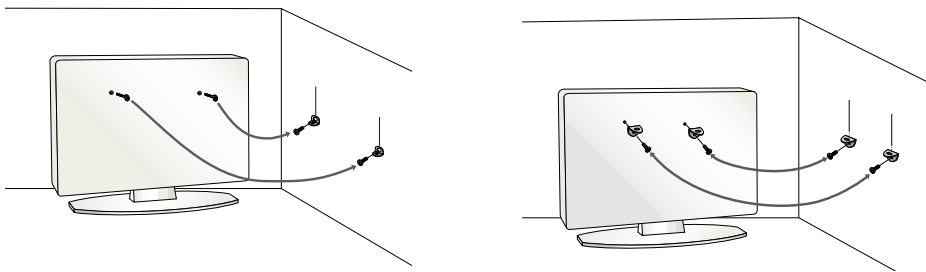
SECURING THE TV TO THE WALL TO PREVENT FALLING WHEN THE TV IS USED ON A STAND

- 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.
- * This feature is not available for all models.

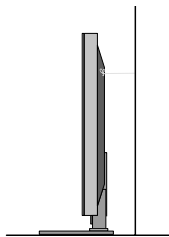
We recommend that you set the TV close to a wall so it cannot fall over if pushed backwards.

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 eye-bolts (or TV brackets and bolts) to attach 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 screws (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 or cord (sold separately) to tie the product. It is safer to tie the rope so it becomes horizontal between the wall and the product (the less slack in the rope, the better).

! 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.

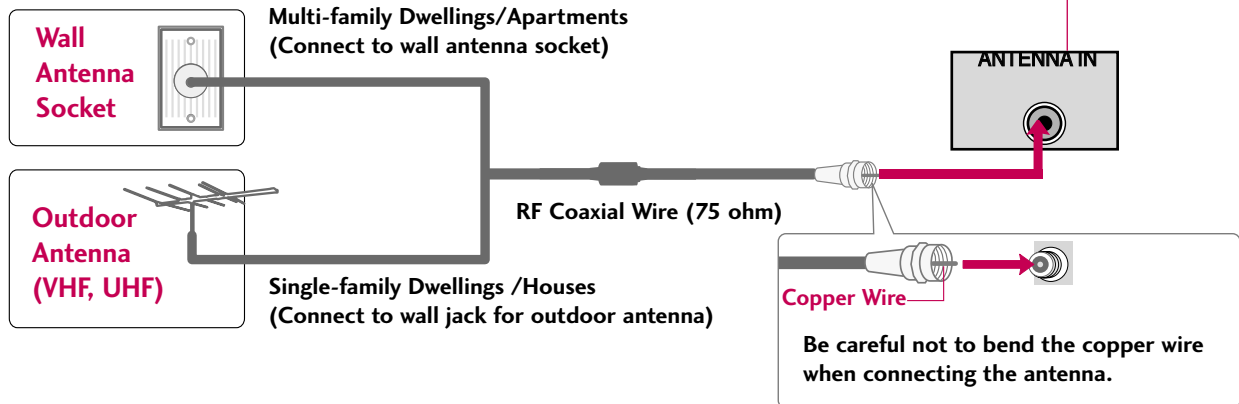
ANTENNA OR CABLE CONNECTION

PREPARATION

1. Antenna (Analog or Digital)

Wall Antenna Socket or Outdoor Antenna without a Cable Box Connection.

For optimum picture quality, adjust the direction if needed.



2. Cable



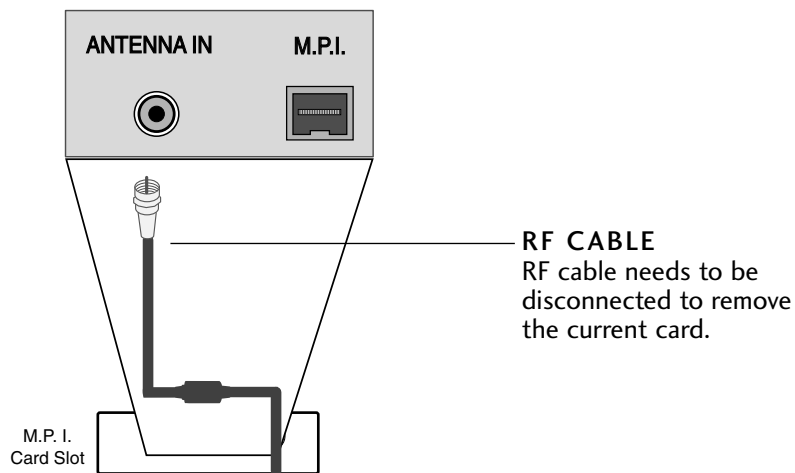
- To improve the picture quality in a poor signal area, please purchase a signal amplifier and install properly.
- If the antenna needs to be split for two TV's, install a 2-Way Signal Splitter.
- If the antenna is not installed properly, contact your dealer for assistance.

MPI CARD SLOT / PPV CARD INSTALLATION

The MPI card is equipped with an RF jack for antenna/cable signal source connection. The MPI card slot is also available for installing a PPV (Pay-Per-View) card.

MPI Card Removal / PPV Card Installation

1. Remove the two MPI card retainer screws.
2. Pull out current MPI card far enough so that the RF cable can be detached from the old card.
3. Detach RF cable.
4. Place new PPV card into slot and slide it in far enough to reconnect RF cable.
5. Insert card all the way into the slot making sure it is fully seated into back plane connector.
6. Replace the two card retainer screws.



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 or 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, refer to the figure as shown below.

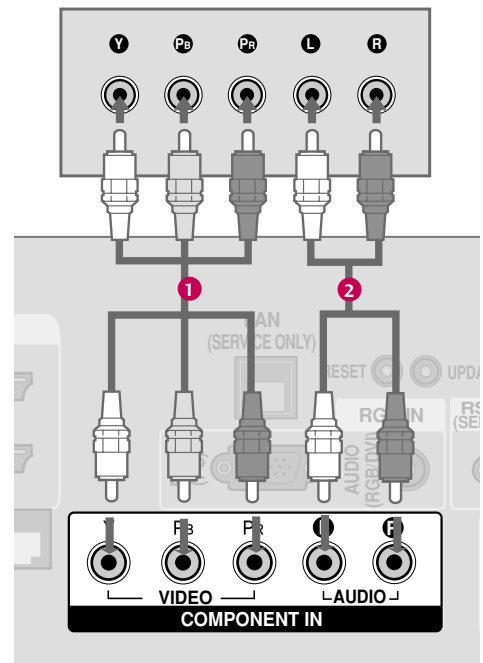
Component Connection

1. How to connect

- 1 Connect the video outputs (Y, PB, PR) of the digital set-top box to the **COMPONENT IN VIDEO** 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** 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.)
- Select **Component** input source using the **INPUT** button on the remote control.



Supported Resolutions

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

Y, CB/PB, CR/PR

Resolution	Horizontal Frequency(KHz)	Vertical Frequency(Hz)
720x480i	15.73	59.94
	15.73	60.00
720x480p	31.47	59.94
	31.47	60.00
1280x720p	44.96	59.94
	45.00	60.00
1920x1080i	33.72	59.94
	33.75	60.00

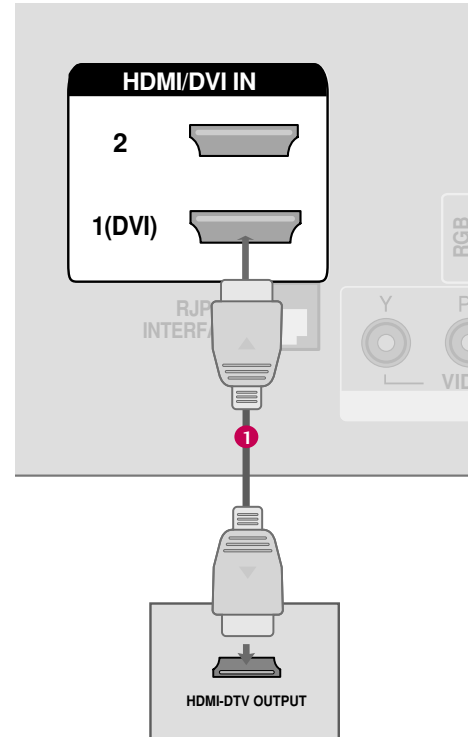
HDMI Connection

1. How to connect

- 1 Connect the digital set-top box to **HDMI/DVI IN 1 (DVI)** or **2** 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 **HDMI1** or **HDMI2** input source with using the **INPUT** button on the remote control.



HDMI-DTV

Resolution	Horizontal Frequency(KHz)	Vertical Frequency(Hz)
720x480p	31.47	59.94
	31.47	60.00
1280x720p	44.96	59.94
	45.00	60.00
1920x1080i	33.72	59.94
	33.75	60.00

EXTERNAL EQUIPMENT SETUP

DVI to HDMI Connection

1. How to connect

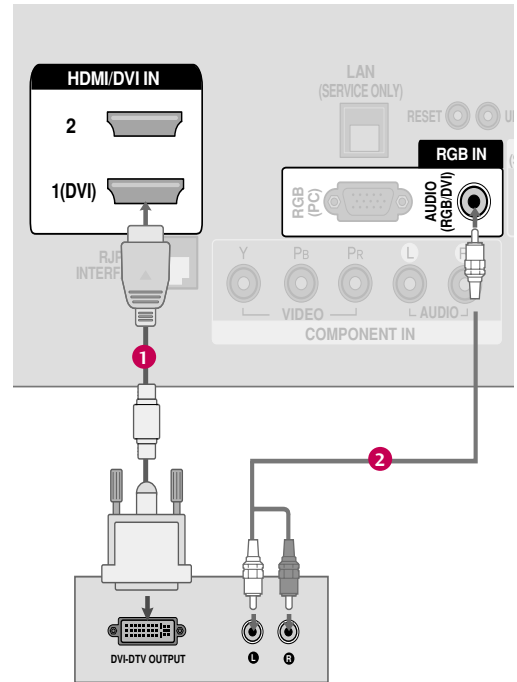
- 1 Connect the DVI output of the digital set-top box to the **HDMI/DVI IN 1 (DVI)** jack on the TV.
- 2 Connect the audio output of the digital set-top box to the **AUDIO (RGB/DVI)** jack on the TV.

2. How to use

- Turn on the digital set-top box. (Refer to the owner's manual for the digital set-top box.)
- Select the **HDMI 1** input source on the TV using the **INPUT** button on the remote control.

! NOTE

- ▶ A DVI to HDMI cable or adapter is required for this connection. DVI doesn't support audio, so a separate audio connection is necessary.



DVD SETUP

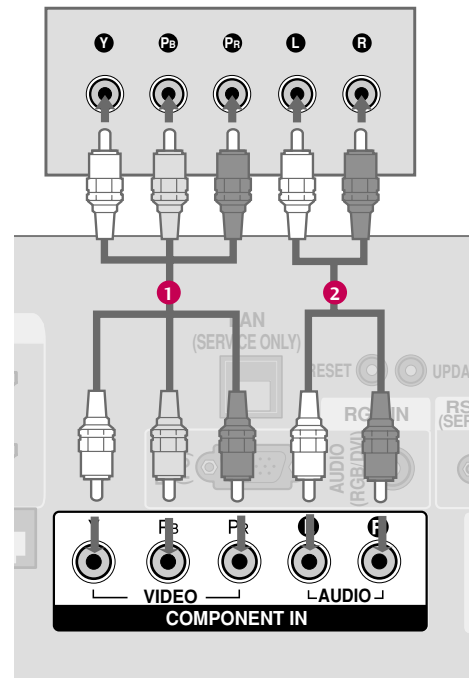
Component Connection

1. How to connect

- 1 Connect the video outputs (Y, P_B, P_R) of the DVD to the **COMPONENT IN VIDEO** jacks on the TV. Match the jack colors (Y = green, P_B = blue, and P_R = red).
- 2 Connect the audio outputs of the DVD to the **COMPONENT IN AUDIO** jacks on the TV.

2. How to use

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



Component Input ports

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

Component ports on the TV	Y	P _B	P _R
Video output ports on DVD player	Y	P _B	P _R
	Y	B-Y	R-Y
	Y	C _b	C _r
	Y	P _b	P _r

EXTERNAL EQUIPMENT SETUP

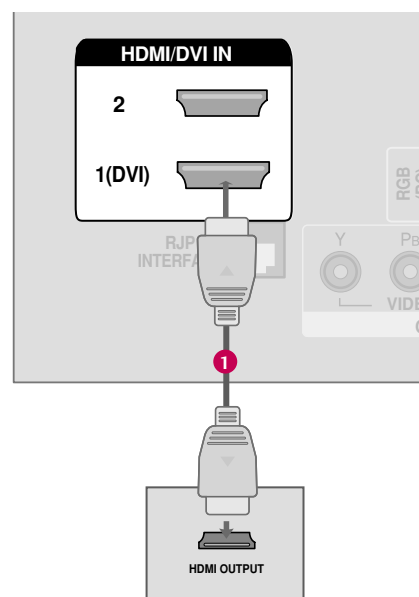
HDMI Connection

1. How to connect

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

2. How to use

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



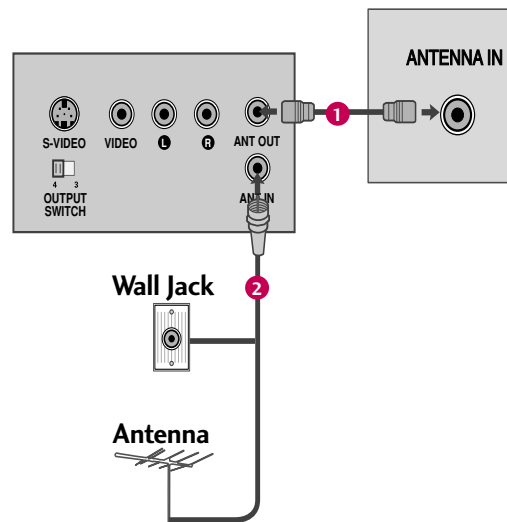
VCR SETUP

- To avoid picture noise (interference), leave an adequate distance between the VCR and TV.

Antenna Connection

1. How to connect

- 1 Connect the RF antenna out socket of the VCR to the **ANTENNA IN** socket on the TV.
- 2 Connect the antenna cable to the RF antenna in socket of the VCR.



2. How to use

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

Composite (RCA) Connection

1. How to connect

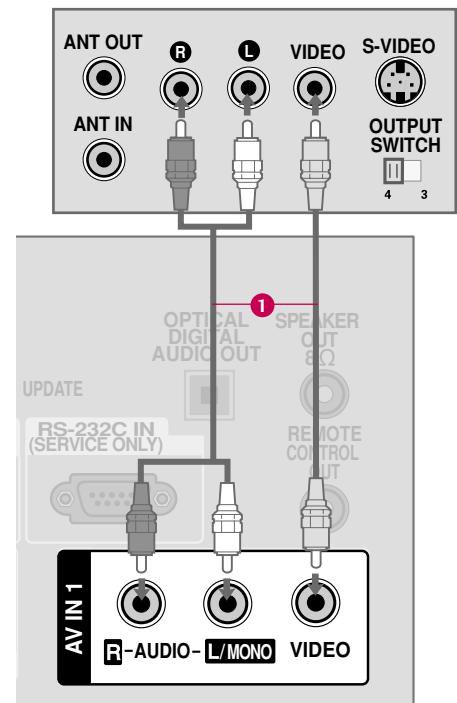
- 1 Connect the **AUDIO/VIDEO** jacks between TV and VCR. Match the jack colors (Video = yellow, Audio Left = white, and Audio Right = red)

2. How to use

- Insert a video tape into the VCR and press PLAY on the VCR. (Refer to the VCR owner's manual.)
- Select the **AV1** input source on the TV using the **INPUT** button on the remote control.
- If connected to **AV IN 2**, select **AV2** input source on the TV.

NOTE

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



EXTERNAL EQUIPMENT SETUP

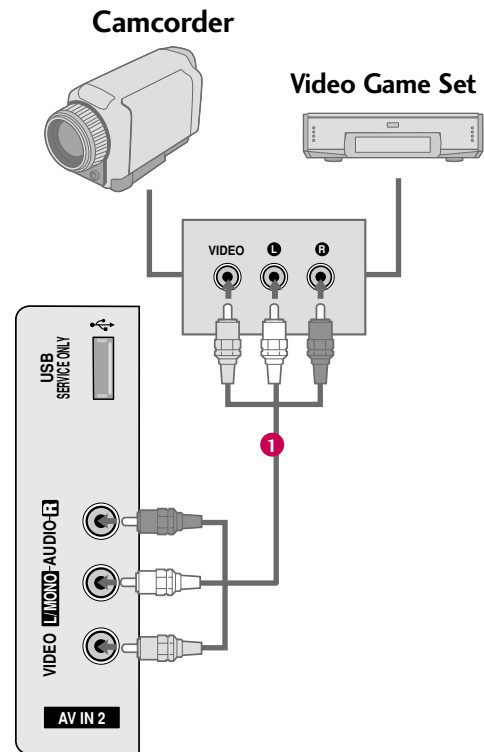
OTHER A/V SOURCE SETUP

1. How to connect

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

2. How to use

- Select the **AV2** input source on the TV using the **INPUT** button on the remote control.
- If connected to **AV IN 1** input, select the **AV1** input source on the TV.
- Operate the corresponding external equipment.



PC SETUP

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

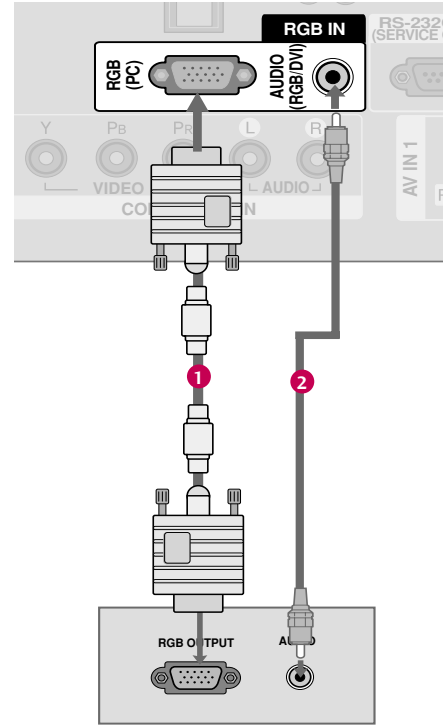
VGA (D-Sub 15 pin) Connection

1. How to connect

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

2. How to use

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



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

Resolution	Horizontal Frequency(KHz)	Vertical Frequency(Hz)
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	59.870
1360x768	47.712	60.015
1280x1024	63.981	60.020

! NOTES

- ▶ To get the best picture quality, adjust the PC graphics card to 1360x768, 60Hz.
- ▶ 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. When you use too long RGB-PC cable, there might be a noise on the screen.
- ▶ Avoid keeping a fixed image on the screen for a long period of time. The fixed image could become permanently imprinted on the screen.
- ▶ The synchronization input form for Horizontal and Vertical frequencies is separate.
- ▶ Depending on the graphics card, some resolution settings may not allow the image to be positioned on the screen properly.

EXTERNAL EQUIPMENT SETUP

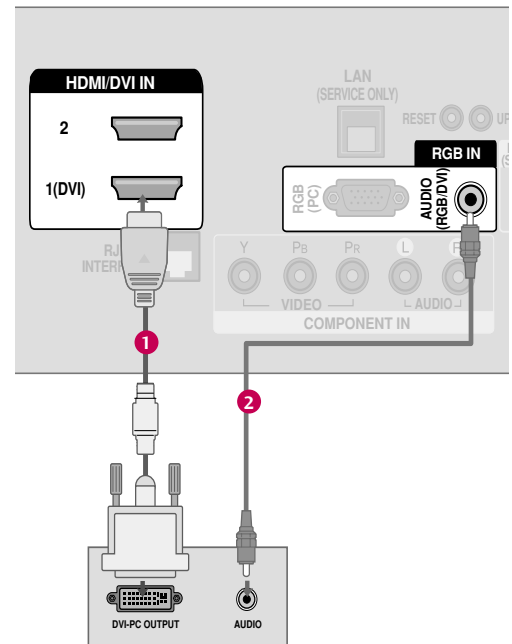
DVI to HDMI Connection

1. How to connect

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

2. How to use

- Turn on the PC and the TV.
- Select the **HDMI1** input source on the TV using the **INPUT** button on the remote control.



COMMERCIAL MODE SETUP

COMMERCIAL MODE SETUP FOR MASTER TV

This page provides an overview of a Master TV configuration.

Note 1: Disconnect all Aux inputs. Under certain conditions, Auto Tuning (Channel search) is disabled if there is an Aux input active.

Commercial Mode Setup Procedure

1. Set Installer Menu Items

(Enter TV Installer Menu, see Installer menus for detailed instructions.)

- Set Installer menu item **117 FACT DEFAULT**, to **001** and press **ENTER** on Installer remote. (This clears all installer menu custom settings, channel labels / icons etc. and reloads the factory default settings.)
- Set Item **003 BAND/AFC**.
 - **Broadcast:** set to **000**. - **HRC:** set to **002**
 - **CATV:** set to **001**. - **IRC:** set to **003**
- Set item **028 CH OVERRIDE** to **001**. This allows access to channel search, Auto Tuning and Channel List/Edit options in the Channel Menu.
- Set other particular installer items that affect your TV programming network. Enable/Disable Aux sources, set a **Gem Start Channel** etc.
- After all required installer menu item settings have been adjusted, press **ENTER** on the remote to remove Installer Menu.

2. Set Up TV Features

(Channel, Picture, Audio, Lock, Time, Option, Digital Captions etc. See TV Clonable options list and TV menus pages.)

3. Run Auto Tuning (Channel Search)

(Search for all available channels.) Go to the Channel menu and access the Auto Tuning option, follow onscreen instructions.

- Edit Channel Scan. In the Channel Menu, access Channel Edit option.
 - Add/Delete channels per your system requirements.
Note: Physical channel numbers are used to identify Virtual channels.
 - Add familiar channel trademarks/logos like ABC, CBS, NBC etc. to the Channel-Time onscreen display. In the Channel menu, select the Channel Label option. Add identifiable labels (logos) for the end user to readily know what common networks are available.

4. Transfer TV Setup to Internal TV Controller: 2-5-5 + Menu Mode

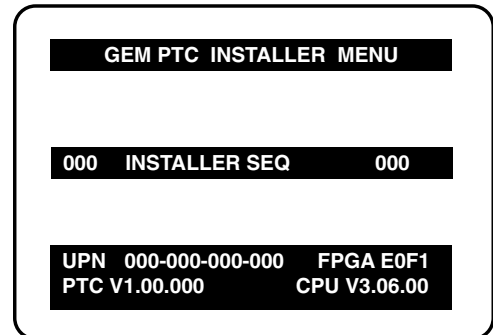
After the TV channel scan has been edited and channel label icons added, enter the Installer menu. Once in the Installer menu, press 2-5-5 and MENU on the remote. This transfers the TV setup to the internal controller box.

5. Add Custom Channel Labels for Analog Channels: 2-5-4+Menu Mode

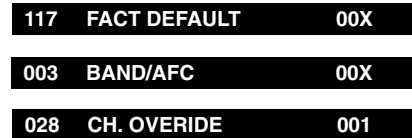
Enter Installer menu, press 2-5-4 and MENU. Add your own custom text labels to channel onscreen displays. Note: Digital Channels often have a broadcaster generated label. (See 2-5-4+Menu pages.) When finished, to exit 2-5-4+Menu mode, press **MENU**.

Verify TV Setup

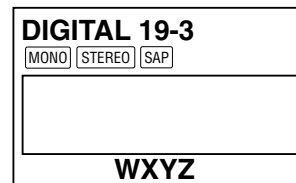
At this point, verify that the channel lineup, channel icons and custom labels are correct. Make sure the TV features are set per your requirements. Set item **028 Ch Override** to **000** to lock the channel scan. After the preceding has been completed, the Master TV setup is ready to be copied to a Clone Programmer, see cloning options pages.



Typical TV Installer Menu



Adjust the settings for these Installer Menu Items



Custom Text Label 'WXYZ' created in 2-5-4 + Menu (Add Channel Label) Mode



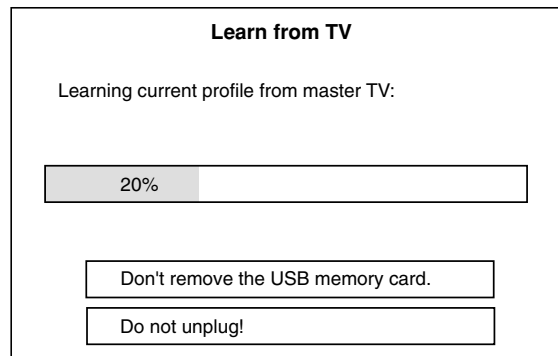
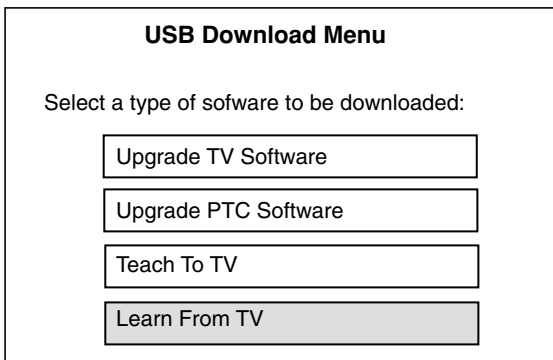
Set 093 RJP Available to 001 if using a remote jack pack

After Master TV setup has been completed, set item 028 Ch Override to 000.

MASTER TV PROFILE SETUP LEARNING/TEACHING WITH USB MEMORY CARD

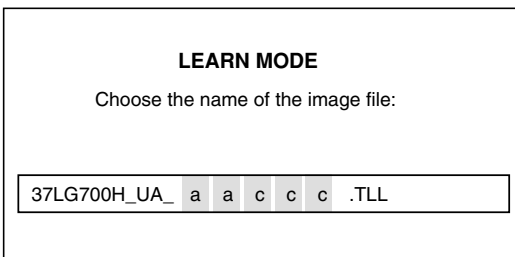
On Master TV, Create Profile and Learn

1. Set up all Master TV features on the menus and do a Channel Search. Add Channel and Aux Labels etc. Tune in an analog channel.
2. Plug USB memory card into the USB In port on Master TV.
3. Press Menu key to open Main menu. Highlight the Option icon.
4. Press the Left arrow key once, the Option icon on left side of menu will be highlighted.
5. Press number key '7' a total of 7 times.
6. Access to "Learn From TV".
 - A. First, Expert Download Menu page will not show the "Learn From TV". In order to make "Learn From TV" available, key in the password which is used to enter Installer Menu. Example 9-8-7-6.
 - B. By pressing up/down arrow keys(if there is other menus), place the cursor on Learn From TV, then press Enter Key.
7. Using Up/Down arrow key, highlight "Learn From TV", then press Enter.
8. To identify the profile from others, you can change the last 5 digits. Key in a custom file name, then press the Enter key.
9. The Learning status will be shown on progress bar. As soon as learning the current profile is complete, a message will appear on screen indicating the learning process is done.
10. Remove the USB memory card.



Optional: Edit/Change File Name

If necessary, the file name can be edited or changed.



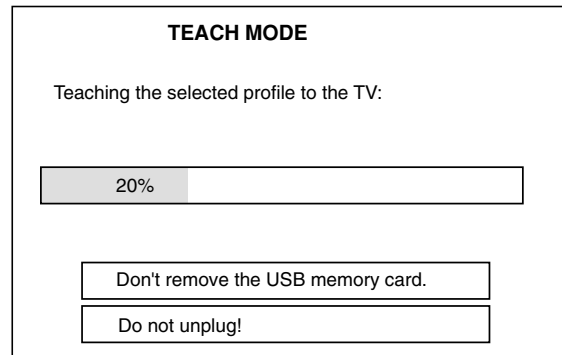
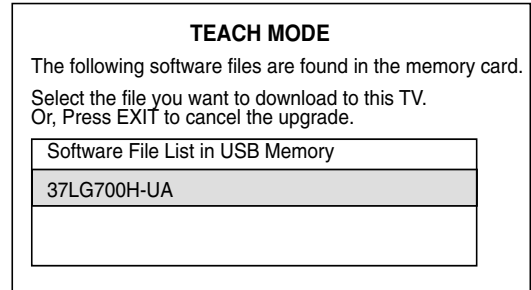
NOTES

- ▶ Do not remove TV power cord or USB memory card while Learning, doing so might harm your USB memory card.
- ▶ Do not remove TV power cord or USB memory card while Teaching, doing so may cause the TV to malfunction.
- ▶ You are allowed to edit the file name, however, a file with edited contents will not be recognized.
- ▶ Since clock data is copied into USB memory card as numeric data, the time difference between teaching and learning is not automatically adjusted. Either set the clock manually, or use Auto Clock set on TV main menu.

COMMERCIAL MODE SETUP

On Target TV, Teach Master TV Profile

1. Plug USB memory card with Master TV Profile setup into Target TV USB input port.
2. Press Menu key to open Main menu and then highlight the Option Menu icon.
3. Press the Left arrow key once, this will highlight the Option icon on left side of menu.
4. Press number key '7', a total of 7 times.
5. Using the Up/Down arrow key, select 'Teach to TV', then press Enter key.
6. Use Up/Down arrow keys to navigate through profiles. Select the profile that you want to install by highlighting it and pressing the Enter key.
7. Teaching progress will be shown on the progress bar. As soon as teaching is done, a message will appear indicating that the teaching process has been completed.
8. When Teaching is done, Remove the USB memory card and unplug TV power cord.
9. Reconnect TV power cord. Power the TV On and the master setup should be resident on the TV.



■ Image shown may differ from your TV.

TLL-1100A CLONING CONNECTIONS/LEARNING SETUP

Connections for the TLL-1100A Clone Programmer to Learn the TV Master TV Setup

On Master TV

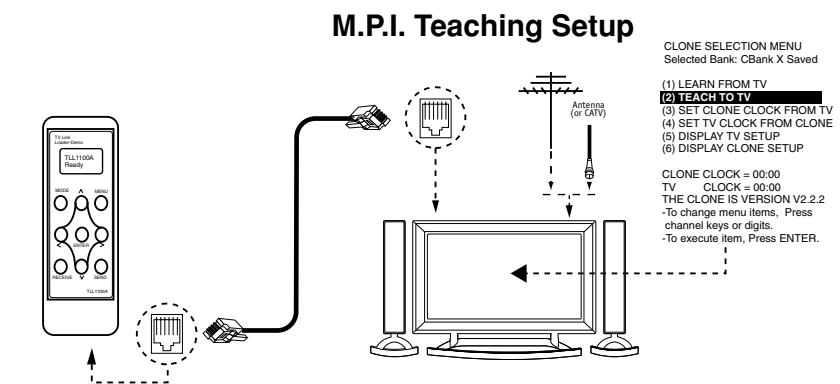
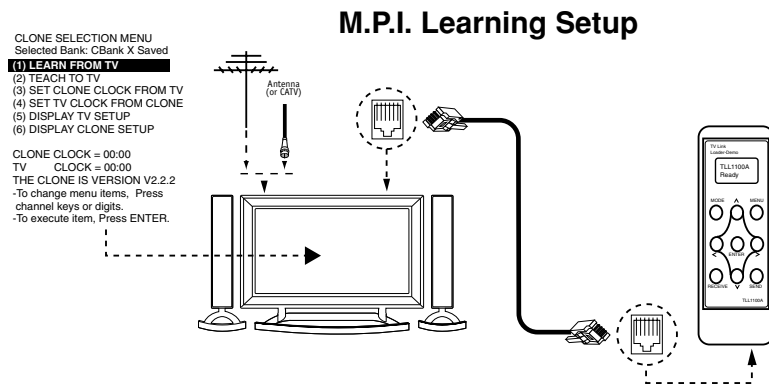
Set up all Master TV features on the menus and do a Channel Search. Add Channel and Aux labels etc. See previous page. Insert MPI cable into TV MPI port.

On TLL-1100A

1. Turn On the TLL-1100A.
2. Use the Mode button to select Clone Mode.
3. Use the Left/Right arrow to select the CBank (1 - 8) to store the master setup in.
4. Plug the other end of the MPI cable into the MPI port on the bottom of the TLL.
5. With the Installer remote control, select item 1 on TLL menu.
6. Press Enter, to transfer the Master setup into CBankX on the TLL. The TLL will copy the master setup.
7. When learning is done, disconnect MPI cable from Master TV.
8. Reconnect TV power cord. Power the TV On and the master setup should be resident on the TV.

On Target TV

1. Connect MPI cable from the TLL to the MPI port on the Target TV. Assure that the correct CBank(X) is selected on TLL.
2. With the Installer remote control select item 2, to Teach the target TV the master TV setup.
3. Press Enter to begin teaching.
4. When Teaching is done, disconnect MPI cable and power the TV Off. Unplug TV power cord.
5. Reconnect TV power cord. Power the TV On and the master setup should be resident on the TV.



⚠ Warning

- ▶ Do not use the TLL-1100A while any PPV card is installed in TV or clone programmer device will be damaged.

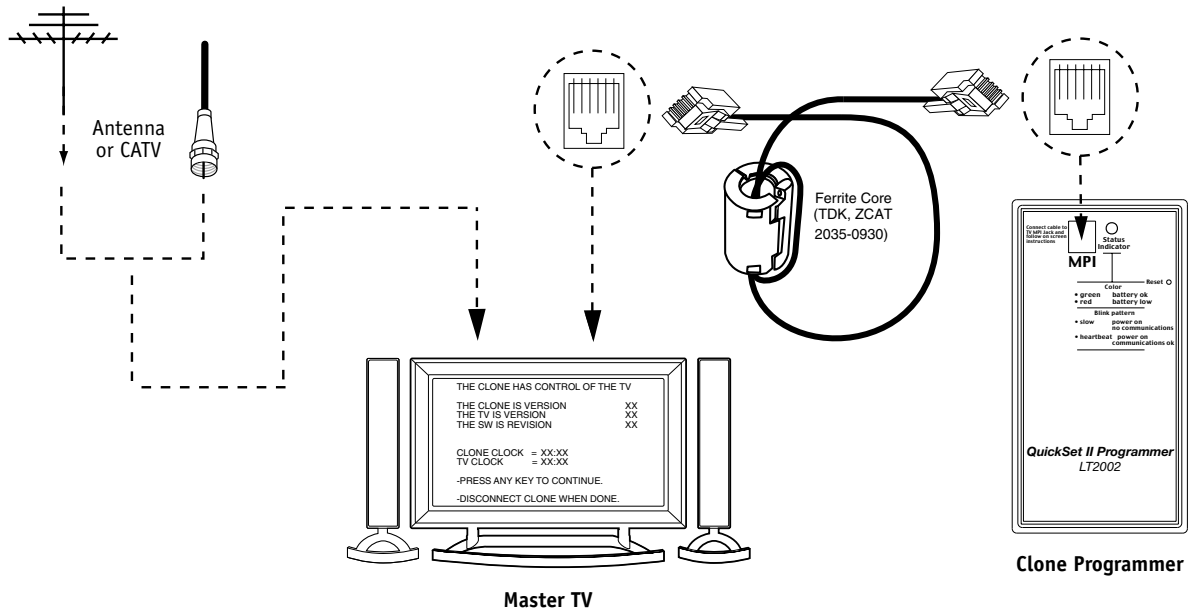
ⓘ NOTE

- ▶ It is assumed that the TV is connected to a signal source, the TV source selected is Antenna (RF) In, the signal is from an Analog channel, not a digital channel, all equipment is connected to power and turned on and the TLL Cloner main menu is displayed on the TV screen, see above.
- ▶ If an analog channel is not available, tune TV to an Aux source like AV-1 for cloning purposes.

COMMERCIAL MODE SETUP

LT2002 CLONING CONNECTIONS/LEARNING SETUP

Connections for the LT2002 Clone Programmer to Learn the TV Master TV Setup



⚠ Warning

- ▶ Do not use LT2002 while any PPV card is installed in TV or clone programmer device will be damaged.

❗ NOTE

- ▶ It is assumed that the TV is connected to a signal source, the source selected is Antenna (RF) In, the signal is from an Analog channel, not a digital channel, all equipment is connected to power and turned on and the LT2002 Clone Programmer main menu (THE CLONE HAS CONTROL OF THE TV) menu is displayed on the TV screen, see above and next page.
- ▶ If an analog channel is not available, tune TV to an Aux source like AV-1 for cloning purposes.

Before you begin cloning...

- The Master TV should be connected to a good, stable signal from an over-the-air antenna or cable service Analog channel and connected to power. (See above.)
- Teaching and Learning is only possible between identical model devices. (However, the LT2002 Clone programmer can store up to 3 different 'master' setups.) WARNING: Copying a blank or incorrect memory into a TV, STB or other device will cause the TV, STB or other device to operate erratically or become inoperable.
- Use an Installer's remote to operate Learning and Teaching menus.
- Make sure that the batteries in the Clone programmer are fresh.
- If batteries are removed, the Clone Clock time will be lost.
- Decide if you want to set the time from the Clone programmer or copy the time to the Clone programmer; from a compatible TV which has the clock set to the current time.
- Setting the time and transferring it to the Clone or other device is a separate procedure.
- Follow the connection diagram above to connect the Clone to a Master TV TV display panel. After learning is complete, to another identical TV TV display panel to "teach" it the master setup.
- See the Clone Troubleshooting section to resolve problems.

Turn to the next page to continue Cloning Setup.

LT2002 CLONING LEARNING SETUP

Learning the Master TV Setup

Instructions for the Clone Programmer to Learn the Master TV Setup

Use MPI Cable to Connect LT2002 Clone Programmer to Master TV MPI Port

If there is a good connection, "THE CLONE HAS CONTROL OF TV" message will appear. Press any key on the Installer remote.

Learn Setup from Master TV

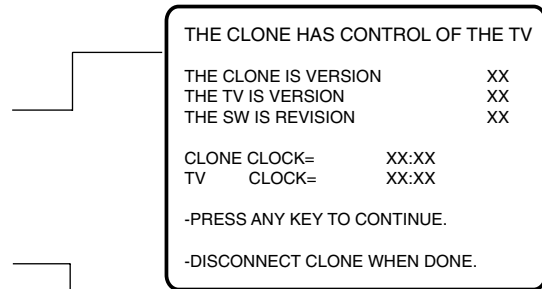
Press 1 to select the "LEARN FROM TV" option, then press ON/OFF, POWER, or ENTER to go to the Memory Bank Selection Menu. Pick the Memory "Bank" you want to store the master TV's setup in by pressing either Channel key repeatedly to choose Memory 1, 2 or 3. (If you choose a Memory "Bank" that has a master device's setup programmed into it, that setup will be overwritten by the new master TV's setup.) Once the Clone memory bank is selected, press ON/OFF, POWER, or ENTER. The Clone memory bank you have selected will be shown. Press ON/OFF or POWER to begin copying the master TV's setup.

Set the Clock (Optional)

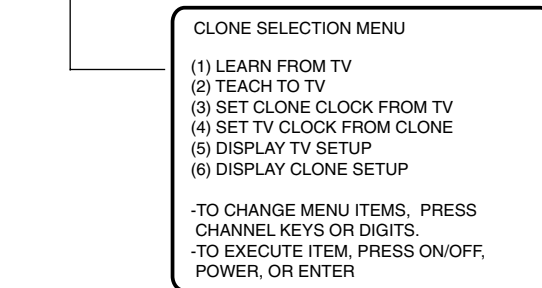
Set the time on a Master TV's Clock. (If the time has already been copied from a TV into the Clone programmer, you can set a master TV's clock by copying the time from the Clone programmer.) The Clone Programmer can copy the current time to both a master TV and to the Clone's internal clock; accurate to within one minute. (Another reason that the Clone programmer should be equipped with fresh, high-quality alkaline batteries, is for it to keep the time as accurately as possible.)

Since the Clone Programmer's time cannot be set directly, the current time needs to be copied from a Zenith/LG TV equipped with M.P.I. input capability.

After the time is copied to the Clone programmer, the current time can then be transferred to another TV. (This can be a master TV, or another TV which has already had the features set up.)



This menu should appear by itself after the LT2002 is connected to the TV MPI port.



This menu should appear after any key is pressed on the Installer remote.

LT2002 Clone Programmer Communication Problems

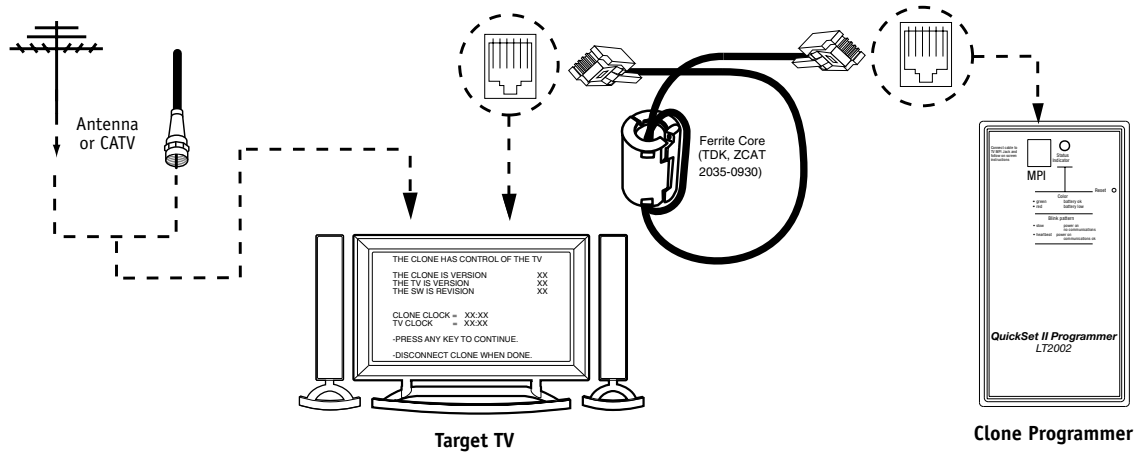
- A slow flashing green light indicates there are communication problems between the TV and the LT2002 clone programmer. If this is the case, check for a damaged cable, poor contacts, or other connection troubles.
- If the status indicator is red, the programmer batteries are low and should be replaced. Install 4 high-quality alkaline AA batteries.

COMMERCIAL MODE SETUP

CLONING CONNECTIONS/TEACHING SETUP

Teaching the Master Setup to Another TV

Connections for the LT2002 to Teach another TV the Master Setup



NOTE

► If an analog channel is not available, tune TV to an Aux source like AV-1 for cloning purposes.

Teach Master TV's Setup to the target TV

After learning is complete, remove the M.P.I. cable from the master TV and connect it to the target TV that you want to copy the master TV's setup into. With "THE CLONE HAS CONTROL OF TV" message displayed, press 2 or use either Channel key to go to the "TEACH TO TV" option, press ON/OFF, POWER, or ENTER. Select the LT2002 memory that the new setup is in. Press On/Off to transfer the new setup and other information to the new TV. Teaching usually takes 2-3 minutes. After the "TEACHING COMPLETE" message is displayed, press any key to return to the Clone menu, then press ON/OFF, POWER, or ENTER. If finished, detach M.P.I. cable from the target, newly-cloned TV.

Disconnect TV Power for 15 Seconds

Unplug the AC power cord of the newly-cloned TV from the power outlet for about 15 seconds to activate the newly-copied setup.

CLONE SELECTION MENU

- (1) LEARN FROM TV
- (2) TEACH TO TV
- (3) SET CLONE CLOCK FROM TV
- (4) SET TV CLOCK FROM CLONE
- (5) DISPLAY TV SETUP
- (6) DISPLAY CLONE SETUP

-TO CHANGE MENU ITEMS, PRESS CHANNEL KEYS OR DIGITS
-TO EXECUTE ITEM, PRESS ON/OFF, POWER, OR ENTER

This menu should appear after any key is pressed on the Installer remote.

TEACHING IN PROGRESS,

PLEASE WAIT

This display will appear during Teaching function.

TEACHING COMPLETE

This display will appear after Teaching is complete.

INSTALLER MENU

Use the Installer's Menu to set up or change operational settings.

See more detailed descriptions of the Installer menu items on the following pages...

Accessing the Installer's Menu

Make sure TV is on. Installer's menu items can be accessed by using an installer's remote control. Just press MENU repeatedly until the TV seems to stop responding, then press 9, 8, 7, 6, then ENTER to access the Installer's menu. To remove the Installer's menu, press ENTER again. *Any changes you make will be stored in nonvolatile memory. (The menu also disappears automatically.)*

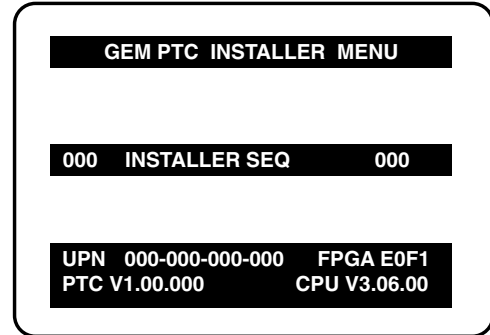
The Installer's menu opens with item 000 INSTALLER SEQ 000. Use the Up/Down arrow keys to sequence through the available menu items. Or, access an item directly by keying in the line number, then pressing MENU. For example, to access the Sleep Timer option which is item 015, press 0-1-5, then MENU. To change a setting, use the Left/Right arrow keys. Or, enter a value directly.

Using the Installer's Menu

Items 000 ~ 119 are immediately accessible only upon entering the Installer's Menu. Their numbers, descriptions, ranges, factory default settings, and a place for listing any changes made on-site are given below and on the following pages.

Activating changes made to the Installer's Menu

After exiting the Installer menu, power the TV off and then back on to activate changes to the Installer menu.



Typical Installer Menu

Installer Menu Items 000 through 034

Menu Item	Function	Value Range	Default Value	Brief Description of Function and Comments
000	INSTALLER SEQ	0 ~ 3	0	Leave default set to 0.
001	POWER MANAGE	0 ~ 7	0	Sets number of hours of no activity before auto shut Off.
002	AC ON	0 / 1	0	Set to 1 to enable auto turn On at power up.
003	BAND/AFC	0 ~ 3	1	Selects Tuning Band: 0=Broadcast, 1=CATV, 2=HRC, 3=IRC
004	STRT CHANNEL	0 ~ 127, 255	255	Channel at turn-on (Set to 255 to tune in last channel before power Off).
005	CHAN LOCK	0 / 1	0	If set to 1, cannot tune from current channel.
007	STRT VOLUME	0 ~ 63, 255	255	Sets Volume level at TV turn-on (Set 255 to retain last volume level).
008	MIN VOLUME	0 ~ 63	0	Sets minimum allowable volume setting.
009	MAX VOLUME	0 ~ 63	63	Sets maximum allowable volume setting.
010	MUTE DISABLE	0 / 1	0	Set to 1 to disable mute function.
011	KEY DEFEAT	0 / 1	0	Set to 1 to disable menu navigation keys on display panel.
015	SLEEP TIMER	0 / 1	1	Set to 1 to enable Sleep Timer.
016	EN TIMER	0 / 1	0	Set to 1 to enable On/Off Timers.
017	ALARM	0 / 1	1	Set to 1 to enable Alarm.
021	V-CHIP	0 / 1	1	Set to 1 to enable V-Chip functions.
022	MAX BLK HRS	0 ~ 99	12	Sets number of V-Chip (Parental Control) blocking hours.
023	CAPTION LOCK	0 / 1	0	Set to 1 to retain caption setting at power Off.
028	CH. OVERRIDE	0 / 1	1	If set to 0, limits direct access to favorite channels.
029	OLD OCV	0 / 1	0	Set to 1 to change M.P.I. operation to OCV.
030	ACK MASK	0 / 1	0	If set to 1, changes M.P.I. for some OCV boxes.
031	POLL RATE	20 ~ 169	94	Selects poll rate for M.P.I.
032	TIMING PULSE	186 ~ 227	207	Sets baud rate for M.P.I.
034	CAMPORT EN	0 / 1	1	Set to 1 to enable Video 2 input.

COMMERCIAL MODE SETUP

Installer Menu Items 035 through 119

Menu Item	Function	Value Range	Default Value	Brief Description of Function and Comments
035	COMPPORT EN.	0 / 1	1	Note 1. Set to 0 to disable HDMI 1. Set to 1 to enable HDMI 1.
038	YPrPb EN.	0 / 1	1	Set to 1 to enable display panel Component Video 1 input jacks.
039	REAR AUX EN	0 / 1	1	Set to 1 to enable display panel Video 1 input jack.
040	AUTO CAMPORT	0 / 1	1	Set to 1 to automatically switch to Camport. If set to 1, STRT AUX SRCE cannot be set to 2.
046	STRT AUX SRCE	1 ~ 6, 255	6	Sets the starting AUX source.
047	AUX STATUS	0 / 1	0	Set to 1 for M.PI. AUX source to be reported as a channel number instead of Channel 0.
053	DIS. CH-TIME M.	0 / 1	0	Set to 1 to disable Channel-Time display.
069	EN. CH-T COL.	0 / 1	1	Set to 1 to enable custom color for the Channel-Time display.
070	FOR. CH-TIME	0 ~ 7	2	Chooses custom foreground color for the Channel-Time display.
071	BCK. CH-TIME	0 ~ 7	2	Chooses custom background color for the Channel-Time display.
073	CH NOT AVBLE	0 / 1	0	If set to 1 and channel override is 0, "NOT AVAILABLE" message is displayed when directly accessing a channel not in the favorite channel list.
075	REVERT CH	0 / 1	0	If set to 1 and loss of M.PI. communication occurs, TV tunes to Start Channel.
078	UPN MSB	0 ~ 255	0	User programmable number, most significant byte.
079	UPN MSB-1	0 ~ 255	0	User programmable number, most significant byte - 1.
080	UPN MSB-2	0 ~ 255	0	User programmable number, most significant byte - 2.
081	UPN LSB	0 ~ 255	0	User programmable number, least significant byte.
082	CHKSM ERROR	0 / 1	1	Enforces rigid M.PI. checksum.
083	HANDSHK TIME	0 ~ 5	5	Relaxes M.PI. timing to be compatible with PC based Windows-controlled systems.
084	PERMANENT BLK	0 / 1	0	Removes block hours setting for Parental Control and makes block permanent.
087	REAR RGB EN.	0 / 2 / 18	2	Note 1. Set to 0 to disable RGB1. Set to 2 for PC.
088	EN NOISE MUTE	0 / 1	1	If set to 1, mutes audio if no signal is present.
090	KEY LOCK	0 / 1	0	If set to 1, keyboard is locked out, IR is still functional.
091	YPrPb2	0 / 1	1	Set to 0 to disable HDMI 2. Set to 1 to enable HDMI 2.
093	RJP AVAILABLE	0, 1, 2, 5, 6	0	Set to 0 to disable. Set to 1, 2, 5 or 6 for HDMI or DVI mode. (See detailed descriptions)
094	SAP MENU EN	0 / 1	1	Set to 0 to disable feature on Function menu. Set to 1 to enable feature on Function menu.
096	DEF. ASP. RATIO	0 ~ 5	2	Sets default aspect ratio at power up. See detailed descriptions and item 106.
099	BACK LIGHTING	1 ~ 100 101 ~ 200 201, 202, 255	255	Sets the brilliance of the TV picture backlighting. Settings above 101 control dynamic back lighting and enable power saving mode.
102	ATSC BAND	0 ~ 4	4	Selects ATSC band.
103	ATSC TUNE MODE	0 / 1	1	Default 01 for physical channel scan. Set to 0 for Virtual Channel scan.
104	START MINOR CH	0 ~ 255	0	Selects Minor start channel. Set 0 for NTSC. Not 0, sets Minor channel number.
106	ASP RATIO LOCK	0 / 1	0	To retain set aspect ratio on power cycle, set to 1. Set to 0 for default ratio on power cycle.
116	VIDEO MUTE EN	0 / 1	0	Set to 0 for normal, set to 1 for Blank.
117	FACT DEFAULT	0 / 1	0	0=Normal. 1=Loads presets of all above settings.
118	POWER SAVING	0 / 1	1	Set to 0 to disable power saving mode.
119	GEM STRT CH	0 ~ 135	0	Sets the GEM Start Channel.

Note 1: Dependent on item 093 RJP Available setting.

Detailed Descriptions of Installer Menu Items

000 - INSTALLER SEQUENCE

Specifies entry sequence to the Installer Menu.

0 = 9876	1 = 4321
2 = 1478	3 = 3698

001 - POWER MANAGE (Power Management)

Determines hours of no activity before automatic shutoff. The POWER MANAGE function is for saving energy. If set to 0, Power Manage is Off. Settings range from 0 ~ 7, with 1 ~ 7 representing the hours that the unit will remain On, unless there has been activity from either the control panel or remote control.

002 - AC ON (AC Power Switchable)

If set to 1, allows the TV to turn On just by applying AC power. Pressing the On button is not necessary. This is desirable if the TV is plugged into a cable box or a power outlet controlled by a wall switch. Use ADJ Left/Right arrow to choose 0 or 1 where 0 is the default is Off, and 1 is On.

NOTE: If set to 1 (On), the TV does not respond to On/Off commands from either the remote or the display control panel, and the SLEEP TIMER is also non-functional.

003 - BAND/AFC (Band/Automatic Frequency Control)

There are 4 possible settings for this option:

0 = Broadcast	1 = CATV
2 = HRC	3 = IRC

If some channels were not found by Auto Tuning (Channel Search), select the appropriate Band setting here and add the channels using the Channel Edit option in the Channel Menu.

004 - STRT CHANNEL (Start Channel)

If active, this function allows you to determine the initial channel number when the TV is turned On. This feature is useful for an in-house information channel, since the TV would always select that channel when it is turned On. Setting this to 255 causes the last channel viewed when the TV was turned Off, to be the tuned to channel when the TV is turned On again. Note: For a digital Start Channel, always remember to set item 104 to the Minor Start Channel number.

255 = Last channel	1 ~ 125 = Ch X	0 = Aux
126 Map to Channel 3.	127 Map to Channel 4.	

005 - CHAN LOCK (Channel Lock)

CHAN LOCK is ideal if the system must always be on the same channel. Changing channels with Channel Up/Down or keypad numbers is impossible. Channel Lock is inactive if set to 0 (default).

Generally, this feature is used in connection with START CHANNEL (Installer item 004) where the start channel may, for example, be set to 3 or 4. If the start channel is 3, then the TV will remain locked on Channel 3.

NOTE: For Items 007, 008 and 009

For legacy reasons, the scale used is 0 - 63. The PTC software will translate this to the 0 - 100 scale used by the TV.

To translate a TV volume level to the installer menu value, use the following formula:

$$\text{Installer Value} = \frac{\text{TV Value} \times 63}{100}$$

Enter only the whole number (disregard fractions).

007 - STRT VOLUME (Start Volume)

This function allows the Installer to determine the initial volume level setting when the TV is turned On. This feature is useful for an in-house information channel, since the TV would always select that volume level when it is turned On. The range of values are 0 - 63, 255. If 255 is selected, the current volume level will be retained in memory when the TV is turned Off; at turn On, the volume level will be automatically set at the previous or last level.

008 - MIN VOLUME (Minimum Volume)

This function determines the minimum volume level allowable with the VOLUME (VOL) Up/Down control. In this way, for example, someone cannot set the volume too low to hear. The value range is from 0 to 63 — change values with ADJ Left/Right arrow. The factory default is 0, which provides the full range of volume control, if item 009 MAX VOLUME is also set to 63. It may be best to set the same value on every TV.

NOTE: The minimum volume level cannot have a value setting higher than the MAX VOLUME level (described below).

COMMERCIAL MODE SETUP

009 - MAX VOLUME (Maximum Volume)

This function determines the maximum volume level allowable with the VOLUME (VOL) Up/Down controls. In this way, for example, someone can not set the volume level high enough to disturb others. The value range is 0 to 63, with 63 as the default, which gives the user the full range of volume control, if item 008 MIN VOLUME is also set at 0. Change values with ADJ Left/Right arrow keys. It may be best to set the same value on every TV.

NOTE: The maximum volume level cannot have a value setting lower than the MIN VOLUME level (described previously).

010 - MUTE DISABLE

Enables or disables sound mute function. If set to 1, sound cannot be muted. If set to 0, sound can be muted.

011 - KEY DEFEAT (Keyboard Defeat)

If set to 1, key defeat prevents the end user from accessing the on-screen menus with the display front panel—MENU, SELECT, and Left / Right arrow keys do not function. If set to 0, those keys do function.

NOTE: The menus can always be accessed by pressing MENU on the remote.

015 - SLEEP TIMER

If set to 1, the SLEEP TIMER feature may be used. If set to 0, the Sleep Timer is not available.

016 - EN TIMER (Enable On/Off Timers) *

If set to 1, Timer function is available to user and enabled continuously. Set to 0 to disable On/Off Timers. (Clock must be set in order to use Timers.)

017 - ALARM *

Gives the installer the option of making the Alarm function available to the end user. If set to 1, Alarm function is available to end user. Set to 0 to disable the Alarm function.

NOTE: Clock must be set before the Alarm function will work.

021 - V-CHIP (Parental Control) *

Set to 1 to activate V-Chip (Parental Control); have it available to end user to filter and control or otherwise restrict programming content that can appear. Set to 0 to turn V-Chip feature Off, not available to user; no programming restrictions can be set.

022 - MAX BLK HRS (Maximum Block Hours) *

Sets hours from 0 to 99 for the maximum V-Chip (Parental Control) block hours. Default setting is for 12 blocking hours.

* Only affects Function Menu if enabled by some PPV providers.

023 - CAPTION LOCK

Set to 1 to restore previous caption On/Off state after turn Off. If set to 0, captions are always Off at turn On.

028 - CH. OVERRIDE (Channel Override)

If set to 1, the user can select channels with either Channel up/down or by direct keypad entry. If set to 0, only those channels that are entered for scanning can be selected.

029 - OLD OCV (On Command Video™)

Set to 1 for operation with systems from On Command Corporation.

030 - ACK MASK

M.P.I. Communication Parameter. Leave at default setting unless changed by Pay-Per-View provider. When set to 1, changes M.P.I. for some OCV boxes.

031 - POLL RATE

M.P.I. Communication Parameter. Selects Poll Rate for M.P.I. Leave at default setting unless changed by Pay-Per-View provider. Step size of 16 ms.

032 - TIMING PULSE

M.P.I. Communication Parameter. Leave at default setting unless changed by Pay-Per-View provider. Sets baud rate. Step size of 4.3 uS.

034 - CAMPORT EN. (Camera Port Enable)

Set to 1 to enable Video 2 input on display panel. If set to 0, Video 2 input on display panel is not functional.

NOTE: S-Video overrides Video jack.

035 - COMPPORT EN. (Computer Port Enable)

Enable/disables display panel HDMI1 input jack. Set to 0 to disable, set to 1 to enable.

NOTE: The setting above is ignored if Installer item 093 RJP AVAILABLE, is set to 1.

038 - YPrPb EN. (Rear Component Video Enable)

Set to 1 to enable display panel rear Component Video input jacks.

Set to 0 to disable display panel rear Component Video input jacks.

039 - REAR AUX EN. (Rear Aux Enable)

Set to 1 to enable display panel rear AUX (Video 1) input. Set to 0 to disable display panel rear AUX (Video 1) input.

Note: S-Video overrides Video.

040 - AUTO CAMPORT

Set to 1 to automatically switch to Camport when equipment is connected to front Video input.
Set to 0 to disable front Video automatic source selection.
NOTE: If set to 1, 093 RJP Available is automatically set to 0.

046 - STRT AUX SRCE (Start Aux Source)

Sets the starting AUX source. At power up, TV will tune to starting Aux source if item 004 Start Channel is set to 0.
If item 093 RJP Available is set to 0 and item

040 Auto Camport is set to 0:

1 = Video 1	4 = RGB	255 = Last Aux
2 = Video 2	5 = HDMI 2	
3 = HDMI 1	6 = Component	

If item 093 RJP Available is set at 1:

2 = Video 2	5 = HDMI 2	6 = Component
-------------	------------	---------------

If item 040 Auto Camport is set to 1:

1 = Video 1	5 = HDMI 2
3 = HDMI 1	6 = Component
4 = RGB	

047 - AUX STATUS

Set to 1 for M.P.I. AUX source to be reported as a channel number instead of channel 0. Set to 0 to disable AUX identification change. Controls M.P.I. status channel response for AUX inputs.

053 - DIS. CH-TIME (Disable Channel-Time)

Set to 1 to disable the Channel-Time display, Channel-Time display will not appear.
Set to 0 to enable the Channel-Time display.

069 - EN. CH-T COL. (Enable Channel-Time Custom Color)

Set to 1 to enable custom color for the Channel-Time display.
Set to 0 to disable custom color for the Channel-Time display.

070 - FOR. CH-TIME (Channel-Time Display Foreground Color)

Set according to Color Chart.

0 = Black	3 = Yellow	6 = Cyan
1 = Red	4 = Blue	7 = White
2 = Green	5 = Violet	

NOTE: If foreground and background color are the same, menu background is transparent.

071 - BCK. CH-TIME (Channel-Time Display Background Color)

Set according to Color Chart.

0 = Black	3 = Yellow	6 = Cyan
1 = Red	4 = Blue	7 = White
2 = Green	5 = Violet	

NOTE: If foreground and background color are the same, menu background is transparent.

073 - CH NOT AVBLE (Channel Not Available)

If set to 1 and item 028 CHANNEL OVERRIDE is set to 0, "NOT AVAILABLE" message is displayed when directly accessing a channel not in the channel scan list available in memory.

075 - REVERT CH (Revert to Start Channel)

If set to 1 and loss of M.P.I. communication occurs, TV automatically tunes to the specified Start Channel.

078 - UPN MSB (UPN Most Significant Byte)

User programmable number, most significant byte readable by M.P.I. command. Note: Not linked to serial number.

079 - UPN MSB-1 (UPN Most Significant Byte-1)

User programmable number, most significant byte-1 readable by M.P.I. command. Not linked to serial number.

080 - UPN MSB-2 (UPN Most Significant Byte-2)

User programmable number, most significant byte-2 readable by M.P.I. command. Not linked to serial number.

081 - UPN LSB (UPN Least Significant Byte)

User programmable number, least significant byte readable by M.P.I. command. Not linked to serial number.

082 - CHKSM ERROR (Checksum Error)

Enforces rigid M.P.I. checksum validation.
Set to 1 for validation.

Set to 0 to disable (does not check checksum on M.P.I. async port). SPI is always checked.

083 - HANDSHK TIME (Handshake Time)

Adds an additional delay to the handshake time which is 64 msec, thus relaxing M.P.I. timing requirements to be compatible with PC based Windows controlled systems, range is 0 - 5.

(Timeout = 25.5MS + [25.5 MS* Handshake time]).

084 - PERMANENT BLK (Permanent Block)

Allows Lock (Parental Control) blocking schemes to be permanent by disabling the blocking hours function.
Set to 1 to install Parental Control restrictions permanently.
Set to 0 for user-specified hours control of blocking schemes.

087 - REAR RGB EN. (Rear RGB Enable)

Controls access to rear RGB input on TV.

Set to 0 to disable RGB input.

Set to 2 for PC for STB RGB input.

Set to 18 for Auto Configure one time only with power cord removal and reinsertion.

088 - EN NOISE MUTE (Enable Noise Mute)

If set to 1, audio mutes if no signal is present.

090 - KEY LOCK

If set to 1, display panel keyboard is locked out, not available to end user. IR receiver remains functional.

COMMERCIAL MODE SETUP

091 - YPrPb2 (HDMI2 Enable)

Set to 0 to disable display panel HDMI2 input.
Set to 1 to enable DTV mode. Set to 2 to enable PC mode.

093 - RJP AVAILABLE (Remote Jack Pack Available)

0 = Remote jack pack is not available or disabled.
1 = Legacy Model RJP: HDMI Mode
Enables RJP when an HDMI cable is inserted into RJP. Video is from HDMI. Audio stream is expected from HDMI source. If no audio is present, no audio will be heard.
2 = Legacy Model RJP, DVI Mode
Enables RJP when an HDMI cable is inserted into RJP. Video is from HDMI however, Audio is from selected audio source, based on the RJP's audio hierarchical priority.
5 = Scaler Model RJP, HDMI Mode
Enables RJP when an HDMI cable is inserted into RJP. Video is from HDMI. Audio stream is expected from HDMI source. If no audio is present, no audio will be heard.
6 = Scaler Model RJP, DVI Mode
Enables RJP when an HDMI cable is inserted into RJP. Video is from HDMI however, Audio is from selected audio source, based on the RJP's audio hierarchical priority.

Notes :

- See Reference section, RJP Input Hierarchy and RJP Models page.
 - If set to 1, 2, 5 or 6, item 040 Auto Campport is automatically set to 0.
- Settings 1, 2, 5 and 6 allow the lodge staff to customize each TV's RJP setup based on customer requirements.

094 - SAP MENU EN (2nd Audio Program)

Set to 1 to enable SAP feature on Function menu, if Function menu is available.
Set to 0 to disable SAP feature on Function menu, if Function menu is available.

096 - DEF. ASP. RATIO (Default Aspect Ratio)

Selects default aspect ratio at power up, see settings below.

Set to 0 "Set By System".

Set to 1 for 4:3.

Set to 2 for 16:9 (Factory Default).

Set to 3 for Horizon

Set to 4 for Zoom 1

Set to 5 for Zoom 2

099 - BACK LIGHTING

Sets the TV screen brightness at power up, see settings below.

Default setting value is 255.

1 - 100 Static Backlighting.

(1 = Dimmest picture, 100 = Brightest picture.)

101 - 200 Dynamic Backlighting.

(101 = Dimmest picture, 200 = Brightest picture.)

201 Automatic Static Backlighting

202 Automatic Dynamic Backlighting

Set to between 101 and 200, TV automatically controls backlighting depending upon the picture level of the current program.

Set to 201, TV automatically controls backlighting depending upon external spectral sensitivity.

Set to 202, TV automatically controls backlighting depending upon external spectral sensitivity and picture level of the current program.

Set to 255, to disable power saving mode.

102 - ATSC BAND

Sets up TV to receive different types of incoming signals:
0=Broadcast, 1=CATV, 2=HRC, 3=IRC, 4=Same as NTSC.

103 - ATSC TUNE MODE

Sets ATSC tuning mode: Default set to 1 for Physical channel scan.

Set to 0 for Virtual Channel scan.

104 - START MINOR CHANNEL

Sets XX-XX minor start channel number at power up:
0=NTSC. If not 0, number selected is the Minor start channel number.

106 - ASP RATIO LOCK (Aspect Ratio Lock)

Set to 1 to retain previous aspect ratio with power Off.
Set to 0 to retain default aspect ratio with power Off. See item 96 Default Aspect Ratio above.

116 - VIDEO MUTE EN (Video Mute Enable)


Set to 0 for normal.

Set to 1 for blank.

117 - FACT DEFAULT (Factory Default)

Set to 0 for normal.

Set to 1 to load presets to all of the previous item settings.

 **WARNING:** Setting this to 1 will reload the factory defaults and clear the channel list including erasing any assigned Channel Icons and custom channel Labels.

118 - POWER SAVING

Default is set to 1, power saving mode is enabled.

Set to 0 to disable power saving mode.

■ Power Saving is only active when TV is in standby mode.

■ Power Saving is not available in normal power on mode. If Power Saving is disabled and TV is in Standby mode with External card installed: TV can supply 12V (12 Watts) to External card and Standby power consumption will be normal.

119 - GEM START CH (Gem Start Channel)

Sets the Gem start channel. Set the channel number that will provide Gem data to the TV at turn on. Initially the TV may take several minutes to load program data from AC power off state.

REFERENCE: DETAILED INSTRUCTIONS FOR MAKING A MASTER TV

IMPORTANT INSTALLER SETUP INFORMATION! PLEASE READ THE FOLLOWING...



To set up a master TV you will need to know how to enter the TV Installer menu and make changes to the default values as required. If necessary, familiarize yourself with the TV Installer menu and how to make and save changes in the menu, before attempting to clone the TV Master TV setup.

You will also need an **LG Installer remote control** similar to the one shown in the front of this manual. The installer remote must have a “Source” button or its equivalent. The remote shown in this manual has a “INPUT” button -- this button serves the purpose of a Source button.

Finally, the TV’s clonable features need to be set up. This

is a critical step. If the Master TV display panel’s clonable features like adding channel icons or channel labels, digital font options etc., are not correctly added, then the cloned TVs will all have problems.

As the cloning procedure is being performed, specific steps need to be done at the indicated times to achieve the desired result. Be sure to do each task as indicated. If a procedure or step is left out or not performed completely, cloning may not work. At each step, pay attention to assure the TV screen shows the proper message when cloning. If the message indicated does not appear, there is a problem with that step and cloning may not be successful. Cloning is only possible when the signal source is an *Analog* channel, not a digital channel.

Making a Master TV

Detailed Instructions

The following describes the procedure for preparing a Master TV for cloning and the procedure for adding Channel Icons and/or Labels.

Note 1: Disconnect all Aux inputs. Under certain conditions, Auto Tuning Channel Search is disabled if there is an Aux input active.

Note 2: Under certain conditions, changes to the input mode of the RGB inputs will not take effect until the power is cycled (TV is turned Off and On). To avoid confusion, disconnect all RGB inputs before entering the Installer menu.

1. Enter the TV installer menu.
 - a. Reset the internal controller to factory default by accessing installer menu item 117 FACT DEFAULT, set it to 1 and press “ENTER”. The value will change back to 0 after the TV’s internal controller has been restored to factory default condition. This step will ensure that the TV channel memory will be the active channel list. Check the Status LED. If it is blinking rapidly then the TV channel map is in use.
 - b. Within the Installer menu, set the Installer menu items to the configuration required of your institution.
 - c. It is important to set the tuning band at this time, see Installer menu item 03 BAND/AFC.
 - d. Set Installer menu item 28 – CH OVERRIDE to 001 to allow access to the Auto Tuning and Ch. Edit features in the Channel Menu. Exit the Installer menu.
2. Access the Master TV menus and set the clonable options on the menus to the desired configuration. Refer to the **Clonable Menu Features** Chart in this manual.

3. Run Auto Tuning to find analog and digital channels.
4. Enter the Channel Edit menu and edit the channel lineup to include the Free-To-Guest Channels only.
5. Assign ICONS to the channels using the Channel Label Menu.

Note: You can add Channel ICONS typically network logos like ABC, NBC, PBS etc. in this step. Or, in Step 7, add Channel ICONS or labels for channels without Icons.
6. Transfer the TV setup: Enter the TV installer menu. Press ‘2’, ‘5’, ‘5’, ‘MENU’ to start the transfer of the TV’s setup to the internal controller. Once the transfer is complete, the system will exit the Installer menu. Check the Status LED inside the TV. It should be blinking slowly (1 blink per second).
7. Edit/Add Channel ICONs and Channel Labels as needed. Enter Installer menu. With menu displayed, press 2-5-4 + MENU. See next page for detailed instructions:
 - **Editing/Adding Channel ICON and Labels on Master TV**
 - **Changing a Channel’s ICON on Master TV**
 - **Changing/Adding Channel Labels on Master TV**
 - **Changing Source Labels on Master TV**
8. Verify Master TV setup and feature configuration:
 - Did you add Channel ICONS?
 - Did you add Channel Labels?
 - Did you add Source Labels?
 - Did you adjust all TV menu options as required?After verifying master setup, enter the TV Installer menu and set Installer menu item 28 CH OVERRIDE to 000. Press ENTER to remove and exit the Installer menu.

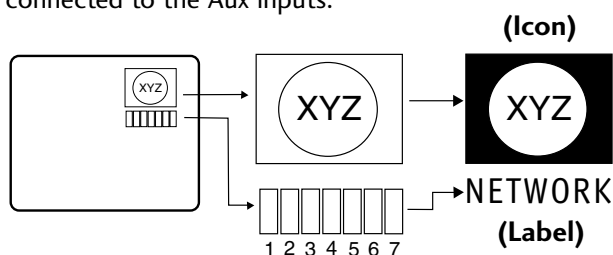
COMMERCIAL MODE SETUP

REFERENCE: PROCEDURES FOR ADDING CHANNEL LABEL ICONS/CUSTOM CHANNEL LABELS (2-5-4 + MENU MODE)

Adding Channel Icons and Labels in the 2-5-4 + Menu Mode

Editing/Adding Channel ICONs and/or Labels

If there is no pre-assigned ICON, you can make a custom channel label of up to 7 characters to help in identifying the channel or network. At your option, channel labels can also be added in addition to a pre-assigned ICON. You may also add labels for the Aux input sources to clearly identify the devices that are connected to the Aux inputs.



Editing and adding the labels can only be done if there are channels entered into the TV's channel map either by using the method described in item 6 (page 18), by cloning or by the use of the master remote control from the PPV provider.

Note: A blank letter space is available between 'Z' and '!'.
!'

To Do Channel Editing/Labeling, Proceed as Follows

1. Enter TV Installer menu.
2. Once the installer menu appears, press '2', '5', '4', 'MENU'. This enters the channel label editing mode. Add your channel icons and channel labels in this menu, see below. (You can do this more than once.)
3. To exit the menu when done press "MENU".

Changing a Channel's ICON on Master TV

1. With Channel Up/Down, select the channel you want to change the Icon for.
2. With the Right or Left ADJ arrow, select the thin letter 'I' on the channel ID display.
3. With the Up or Down arrow, select the desired ICON you want to appear to identify the channel. (If you know the ICON number, enter the number followed by Enter / Select.)
4. Proceed with Changing/Adding Labels or go to the next channel.

Changing/Adding Channel Labels on Master TV

1. Channel Up/Down to select the desired channel.
2. Press the Right or Left ADJ arrow repeatedly until the numbers 1 to 7 show up. The number shows the position of the character that can be changed. Number 1 is the first character, number 2 the second character and so on.
3. With the Up or Down arrow, select the desired character.
4. Proceed to the next number position or use Channel Up/Down to go to the next channel.

Changing Source Labels on Master TV

1. Press "INPUT" to select the desired Aux input source; A/V 1, A/V 2, HDMI Component, RGB etc.
2. Press the Right or Left arrow repeatedly until the numbers 0 to 9 shows up. The number shows the position of the character that can be changed.
3. Use the Up or Down arrows to select the desired character.
4. Press "INPUT" for the next Aux source or proceed with Changing Icon or Changing/Adding Labels. Press Ch Up/Down to return to channels.

Installer Remote Control Key Functions for Master TV Channel Editing/Labeling Menu

- **CHANNEL Up/Down** - Tunes in the next channel in scan.
- **Left/Right Arrows** - Select the item to change. If "I" is shown, the ICON can be changed. If a number is shown, it indicates the position of the character that can be changed.
- **Up/Down Arrows** - Select the ICON or the character to be displayed. Tip: Arrows can be held down for fast scrolling.
- **0 - 9** - Use to enter the index number of the ICON, if known.
- **ENTER/SELECT** - Changes the ICON after the number has been entered.
- **INPUT** - Changes the Aux input label. ("Source" on the remote shown in this manual is INPUT.)
- **MENU** - Exits the editing process.

COMMERCIAL MODE SETUP

REFERENCE: POWER SAVING SETUP

Power Savings Setup

Installer Item 118 Power Saving: set to 001, enabled (Default).

Installer Item 099 Backlighting: value set as shown below. (Default value is 255)

For 32LG700H, 32LG710H

Item 099 Backlighting (Static)	Picture Lumin.	Power Consumption (Watts)	Power Savings Rating	Item 099 Backlighting (Dynamic)	Picture Lumin.	Power Consumption (Watts)	Power Savings Rating
100	206	104	0 %	200	103	74	28.85 %
90	204	103.5	0.48 %	190	96	73	29.81 %
80	203	103	0.96 %	180	84	69.5	33.17 %
70	172	93	10.58 %	170	73	65.5	37.02 %
60	147	85	18.27 %	160	64	62	40.38 %
50	127	79	24.04 %	150	57	60	42.31 %
40	108	73.5	29.33 %	140	51	57.5	44.71 %
30	86	67	35.58 %	130	44	55	47.12 %
20	66	60	42.31 %	120	38	52.5	49.52 %
10	50	55.5	46.63 %	110	33	50.5	51.44 %
1	39	51.5	50.48 %	101	29	49	52.88 %

Note: Values are results of controlled experiments under laboratory conditions.

For 37LG700H, 37LG710H

Item 099 Backlighting (Static)	Picture Lumin.	Power Consumption (Watts)	Power Savings Rating	Item 099 Backlighting (Dynamic)	Picture Lumin.	Power Consumption (Watts)	Power Savings Rating
100	258	151.5	0 %	200	93	91.5	39.60 %
90	230	136.5	9.90 %	190	79	85.5	43.56 %
80	201	122.5	19.14 %	180	67	80	47.19 %
70	170	111	26.73 %	170	58	74.8	50.63 %
60	145	101.3	33.14 %	160	50	70.8	53.27 %
50	120	91.5	39.60 %	150	44.5	67.5	55.45 %
40	95	81.3	46.34 %	140	38	63.5	58.09 %
30	72	71	53.14 %	130	31.5	59.3	60.86 %
20	54	63.5	58.09 %	120	27	56.5	62.71 %
10	41	58	61.72 %	110	23.5	54.5	64.03 %
1	31	53	65.02 %	101	21	52.8	65.15 %

Note: Values are results of controlled experiments under laboratory conditions.

APPENDIX

TROUBLESHOOTING

The operation does not work normally.

The remote control doesn't work	<ul style="list-style-type: none"> ■ Check to see if there is any object between the product and the remote control causing obstruction. Ensure you are pointing the remote control directly at the TV. ■ Ensure that the batteries are installed with correct polarity (+ to +, - to -). ■ Ensure that the correct remote operating mode is set: TV, VCR etc. ■ Install new batteries.
Power is suddenly turned off	<ul style="list-style-type: none"> ■ Is the sleep timer set? ■ Check the power control settings. Power interrupted.

The video function does not work.

No picture & No sound	<ul style="list-style-type: none"> ■ Check whether the product is turned on. ■ Try another channel. The problem may be with the broadcast. ■ Is the power cord inserted into wall power outlet? ■ Check your antenna direction and/or location. ■ Test the wall power outlet, plug another product's power cord into the outlet where the product's power cord was plugged in.
Picture appears slowly after switching on	<ul style="list-style-type: none"> ■ This is normal, the image is muted during the product startup process. Please contact your service center, if the picture has not appeared after five minutes.
No or poor color or poor picture	<ul style="list-style-type: none"> ■ Adjust Color in menu option. ■ Try unplugging any others electronics that are near by to see if interference is causing the problem. ■ Try another channel. The problem may be with the broadcast. ■ Are the video cables installed properly? ■ Activate any function to restore the brightness of the picture.
Horizontal/vertical bars or picture shaking	<ul style="list-style-type: none"> ■ Check for local interference such as an electrical appliance or power tool.
Poor reception on some channels	<ul style="list-style-type: none"> ■ Station or cable product experiencing problems, tune to another station. ■ Station signal is weak, reorient antenna. ■ Check for sources of possible interference.
Lines or streaks in pictures	<ul style="list-style-type: none"> ■ Check antenna (Change the direction of the antenna).
No picture when connecting HDMI	<ul style="list-style-type: none"> ■ Check HDMI cable over version 1.3. If the HDMI cables don'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.

The audio function does not work.

Picture OK but No sound	<ul style="list-style-type: none"> ■ Press the VOL or VOLUME button. ■ Sound muted? Press the MUTE button. ■ Try another channel. The problem may be with the broadcast. ■ Are the audio cables installed properly?
No output from one of the speakers	<ul style="list-style-type: none"> ■ Adjust Balance in menu option.
Unusual sound from inside the product	<ul style="list-style-type: none"> ■ A change in ambient humidity or temperature may result in an unusual noise when the product is turned on or off and does not indicate a fault with the product.
No sound when connecting HDMI or USB	<ul style="list-style-type: none"> ■ Check HDMI cable over version 1.3. ■ Check USB cable over version 2.0.

*This feature is not available for all models.

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

The signal is out of range	<ul style="list-style-type: none"> ■ Adjust resolution, horizontal frequency, or vertical frequency. ■ Check the input source.
Vertical bar or stripe on background & Horizontal Noise & Incorrect position	<ul style="list-style-type: none"> ■ Run the Auto configure or adjust clock, phase, or H/V position. (Option)
Screen color is unstable or single color	<ul style="list-style-type: none"> ■ Check the signal cable. ■ Update video card drivers.

Power

- | | |
|----------|---|
| No Power | <ul style="list-style-type: none"> ■ See troubleshooting flow chart. |
|----------|---|

Erratic Operation

- | | |
|----------------------|---|
| Installer menu setup | <ul style="list-style-type: none"> ■ Adjust Installer menu settings as required. |
|----------------------|---|

Software Problems

- | | |
|---|--|
| Cannot direct enter channel number or "No Signal" appears | <ul style="list-style-type: none"> ■ After 2-5-5 + MENU, only channels included in TV controller will appear. If channel is available it can be added to channel scan, rescan channels. If it is not available, the 'No Signal' message appears on the TV screen. |
|---|--|

! NOTE

- ▶ For other problems not caused by the TV, refer to other devices' operating guides.

REFERENCE: LT2002 CLONING PROCEDURE TROUBLESHOOTING



Warning: Do not use LT2002 while any PPV card is installed in TV or clone programmer will be damaged.

Reset Clone After Static Shock

After replacing exhausted batteries, or if the programmer behaves strangely after a static shock, use a paper clip or similar instrument inserted through the small hole marked "RESET" to activate the internal reset switch and restore normal operation. After a reset, check the real-time clock setting. It may be necessary to reset the Clone Programmer clock from a TV containing the correct time.

Note

The LT2002 programmer is designed to be used with TVs containing the 221-01006 and later processors. Use with earlier TV sets may give unpredictable results. Processors used before the 221-01006-04 have a limited screen display capability. They cannot display entire screens as shown in the quick setup instructions accompanying the LT2002 clone programmer. Use the printed menu illustrations on the quick setup sheet supplied with the Clone as an aid to making your programming choices. (Although the menus are not all displayed, the clone functions all operate normally.)

Clone Programmer Troubleshooting

Clone Programmer	
Clone copies Setup in less than 30 seconds	<ul style="list-style-type: none"> Press Reset on clone programmer, redo teach/learn. (Teach/Learn should take a minimum of 1 minute.)
Remote does not operate clone	<ul style="list-style-type: none"> Only use an LG Installer remote to operate clone programmer with TV.
LED does not blink	<ul style="list-style-type: none"> Connect M.P.I. cord properly, assure good connection. TV must be powered On for clone to work. Install 4 fresh AA high-quality alkaline batteries.
Clone menu hard to read	<ul style="list-style-type: none"> Connect TV to a reliable Analog channel signal source.
No time set	<ul style="list-style-type: none"> Set time on a TV, copy time to Clone Programmer.
Clone not working	<ul style="list-style-type: none"> Try a different LT2002 Clone programmer. Reset Clone Programmer.
Clone Scans Channels more than once	<ul style="list-style-type: none"> Retry cloning again.

Master and Other TVs	
Cloning did not work	<ul style="list-style-type: none"> Wait until procedure complete message is displayed. Cloning is only possible with identical model TVs. Reread cloning pages to be sure all tasks were performed.
Clone time disappeared	<ul style="list-style-type: none"> Batteries must remain installed to retain time settings.
New Setup not present	<ul style="list-style-type: none"> Disconnect newly-cloned TV from power for 5 seconds.

- After cloning operations are complete, just unplug the LT2002 from the TV.
- If the TV does not display a picture on the TV (blank screen) after a few seconds, just change channels.

GLOSSARY OF TERMS

A list of definitions for some of the words found in this guide

75 OHM RF CABLE

The wire that comes from an off-air antenna or cable service provider. The end looks like a hex-shaped nut with a wire sticking through the middle. It screws onto the Antenna/Cable thread- ed jack on the back of the TV.

300 TO 75 OHM ADAPTER

A small device that connects a two-wire 300 ohm antenna to a 75 ohm RF jack. They are usually about an inch long with two screws on one end and a round opening with a wire sticking out on the other end.

ANALOG TELEVISION

Standard television broadcasting format in 4:3 picture aspect ratio.

A/V CABLES

Audio/Video cables. Three cables bunched together—right audio (red), left audio (white), and video (yellow). A/V cables are used for stereo play- back of videocassettes and other A/V devices.

A/V DEVICE

Any device that produces video or sound (VCR, DVD, cable box, or televi- sion).

AMPLIFIER

An electronic device that amplifies sound from a television, CD player, VCR, DVD, or other Audio/Video device.

ANTENNA

The physical receiver of television signals sent over the air. A large metal piece of equipment does not always have to be visible to be using an antenna.

CABLE

Cable service box. Refers to the descrambler box cable subscribers use to receive cable programming signals.

CABLE TELEVISION

Programming provided by a cable ser- vice.

DIGITAL TELEVISION

Television signals that are transmitted digitally.

DVI

Digital Video Interface
Accommodates analog and digital inter- faces with a single connector.

COMPOSITE VIDEO

Typical video jack, uses one wire for transporting three-color video signals.

COMPONENT VIDEO

Uses three wires for transporting three- color video signals. Supports higher quality video.

DELETED

Lets you remove channels from the list that the end user can scroll through using CH (Channel) Up/Down.

HDMI

High-definition multi-media interface.

HDTV

High-definition television. Refers to tele- vision signals that have higher resolution than ordinary analog TV signals.

HDSTB

High-definition set top box. Refers to a tuner device that receives high-defini- tion television signals which have higher resolution than ordinary analog TV sig- nals.

INPUT

Refers to the input jack that receives a signal from a TV, VCR, DVD Player or other Audio/Video device.

JACK

An input or output connector on the back of a TV, VCR, DVD Player or other Audio/Video device.

MONO SOUND

Mono (monaural) sound is one channel of sound. On more than one speaker, all the speakers play the same audio.

OUTPUT

Refers to the output jack that sends a signal out of a VCR, DVD, or other A/V device.

PHYSICAL CHANNEL NUMBER

The actual channel number. Analog channels use the physical channel num- ber and digital channels can use a virtual channel number.

RGB (Red, Green, Blue)

Connection input or output port avail- able for producing a video image using three separate colors: Red, Green, and Blue.

RS-232

Serial communication port through which firmware is downloaded.

2ND AUDIO PROGRAMMING/SAP

Second Audio Programming (SAP) is another, separate audio channel available with some programming. Choosing SAP often refers to listening to audio in another language, such as Spanish or French.

SIGNAL

Picture and sound traveling through a cable, or over the air, to the TV.

STEREO SOUND

Stereo (Stereophonic) sound refers to audio that's divided into right and left sides.

TUNER

Device that picks up the broadcast sig- nal and turns it into picture and sound.

VIRTUAL CHANNEL NUMBER

A re-mapped channel number. Analog channels use the actual channel number, but digital channels use a virtual(or fake) channel number.

XDS

Extended Data Service: Additional pro- gram information included on the signal provided at the discretion of the broad- caster.

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.

⚠ WARNING

- ▶ Do not use window/glass cleaner or anything with ammonia to clean the screen.

Cleaning the Cabinet

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

Extended Absence

⚠ CAUTION

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

PRODUCT SPECIFICATIONS

MODEL		32LG700H/710H (32LG700H/710H-UA) (32LG700H/710H-UB)	37LG700H/710H (37LG700H/710H-UA) (37LG700H/710H-UB)	42LG700H/710H (42LG700H/710H-UA) (42LG700H/710H-UB)
Dimensions (Width x Height x Depth)	With stand	31.3 x 23.5 x 8.9 inches 797 x 597 x 227.3 mm	36.1 x 26.9 x 11.5 inches 918.6 x 684.8 x 293.4 mm	40.4 x 28.8 x 11.5 inches 1026.2 x 734.0 x 293.4 mm
	Without stand	31.3 x 21.9 x 3.9 inches 797 x 558.6 x 100.5 mm	36.1 x 24.9 x 3.4 inches 918.6 x 632.8 x 88 mm	40.4 x 27.0 x 4.4 inches 1026.2 x 687.9 x 111.8 mm
Weight	With stand	21.6 pounds / 9.82 kg	41.6 pounds / 18.8 kg	49.1 pounds / 22.3 kg
	Without stand	18.3 pounds / 8.34 kg	35.2 pounds / 15.9 kg	43.2 pounds / 19.6 kg
Cable Card	MPI card (Width x Height x Depth)	3.1 x 0.9 x 6.3 inches 80.0(+0.6/-0.2) x less than 23.0(including pcb thickness) x less than 162.0(excluding cover thickness) mm		
	Card Bracket Cover (Width x Height)	3.7 x 1.1 inches 94.7(±0.5) x 28.3(±0.5) mm		
Power requirement		AC100-240V ~ 50/60Hz		
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 ohm		
Environment condition	Operating Temperature	32 ~ 104°F (0 ~ 40°C)		
	Operating Humidity	Less than 80%		
	Storage Temperature	-4 ~ 140°F (-20 ~ 60°C)		
	Storage Humidity	Less than 85%		

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

APPENDIX

Remote Control Code

VCR

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

HDSTB

Brand	Codes	Brand	Codes	Brand	Codes
ALPHASTAR DSR	123	HUGHES	068	SATELLITE SERVICE CO	028 035 047 057
AMPLICA	050	HUMAX(SL)	158		085
ASTRO PHILIPS(ML)	159	JANIEL	060 147	SCIENTIFIC ATLANTA	032 138
ASTROTHOMPSON(ML)	160	JERROLD	061	SKY LIFE	150
ASTRO NOKIA(ML)	161	KATHREIN	108	SONY	103
BIRDVIEW	051 126 129	LEGEND	057	STARCAST	041
CHANNEL MASTER	013 014 015 018	LG	001	SUPER GUIDE	020 124 125
	036 055	LUTRON	132	SAMART(TH)	156
CHAPARRAL	008 009 012 077	LUXOR	062 144	TEECOM	023 026 075 087
CITOH	054	MACOM	010 059 063 064		088 090 107 130
CURTIS MATHES	050 145		065		137
DRAKE	005 006 007 010	MEMOREX	057	TOSHIBA	002 127
	011 052 112 116	NEXTWAVE	028 124 125	TRUE VISION(TH)	155
	141	NORSAT	069 070	UNIDEN	016 025 042 043
DX ANTENNA	024 046 056 076	PACE SKY SATELLITE	143		044 045 048 049
ECHOSTAR	038 040 057 058	PANASONIC	060 142		078 079 080 086
	093 094 095 096	PANSAT	121		101 135 136
	097 098 099 100	PERSONAL CABLE	117	UBC(TH)	153
	122	PHILIPS	071	UBC/SAMART(TH)	154
ELECTRO HOME	089	PICO	105	VIEWSTAR	115
EUROPLUS	114	PRESIDENT	019 102	VTC(VN)	162
FUJITSU	017 021 022 027	PRIMESTAR	030 110 111	WINEGARD	128 146
	133 134	PROSAT	072	ZENITH	081 082 083 084
GENERAL INSTRUMENT	003 004 016 029	PSI(TH)	157		091 120
	031 059 101	RCA	066 106		
HITACHI	139 140	REALISTIC	043 074		
HOUSTON TRACKER	033 037 039 051	SAMSUNG	123		
	057 104				

DVD

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

Code (Hexa)	Function	Note	Code (Hexa)	Function	Note
08	POWER	Remote control Button (Power On/Off)	D6	TV	Discrete IR Code (TV Input Selection)
0F	TV	Remote control Button	5A	AV1	Discrete IR Code (AV1 Input Selection)
0B	INPUT	Remote control Button	D0	AV2	Discrete IR Code (AV2 Input Selection)
0A	SAP	Remote control Button	BF	COMPONENT	Discrete IR Code (COMPONENT Input Selection)
79	◀◀ RATIO	Remote control Button	D5	RGB-PC	Discrete IR Code (RGB Input Selection)
AB	GUIDE	Remote control Button	CE	HDMI1	Discrete IR Code (HDMI1 Input Selection)
OC	PORTAL	Remote control Button	CC	HDMI2	Discrete IR Code (HDMI2 Input Selection)
AA	INFO	Remote control Button	76	Ratio 4:3	Discrete IR Code (Only 4:3 Mode)
10-19	Number Key 0-9	Remote control Button	77	Ratio 16:9	Discrete IR Code (Only 16:9 Mode)
4C	- (Dash)	Remote control Button	AF	Ratio Zoom	Discrete IR Code (Only Zoom1 Mode)
1A	FLASHBK	Remote control Button	C4	POWER ON	Discrete IR Code (Only Power On)
02	VOL +	Remote control Button	C5	POWER OFF	Discrete IR Code (Only Power Off)
03	VOL -	Remote control Button			
00	CH ^	Remote control Button			
01	CH v	Remote control Button			
0E	▶▶ TIMER	Remote control Button			
39	CC	Remote control Button			
09	MUTE	Remote control Button			
43	MENU	Remote control Button			
5B	RETURN	Remote control Button			
40	^	Remote control Button			
41	v	Remote control Button			
07	<	Remote control Button			
06	>	Remote control Button			
44	ENTER	Remote control Button			
60	PIP	Remote control Button			
71	PIP CH +	Remote control Button			
72	PIP CH-	Remote control Button			
63	PIP SWAP	Remote control Button			
61	PIP INPUT	Remote control Button			
C1	■ Stop	Remote control Button			
C0	▶ Play	Remote control Button			
C2	Pause	Remote control Button			
C3	●(Record)	Remote control Button			

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Version 2, June 1991

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5. A program that contains no derivative of any portion of the Library, but is designed to work with the Library by being compiled or linked with it, is called a “work that uses the Library”. Such a work, in isolation, is not a derivative work of the Library, and therefore falls outside the scope of this license.

However, linking a “work that uses the library” with the Library creates an executable that is a derivative of the Library (because it contains portions of the library), rather than a “work that uses the library”. The executable is therefore covered by this license. Section 6 states terms for distribution of such executable.

When a “work that uses the library” uses material from a header file that is part of the library, the object code for the work may be a derivative work of the library even though the source code is not.

Whether this is true is especially significant if the work can be linked without the library, or if the work is itself a library. The threshold for this to be true is not precisely defined by law.

If such an object file uses only numerical parameters, data structure layouts and accessories, and small macros and small inline functions (ten lines or less in length), then the use of

the object file is unrestricted, regardless of whether it is legally a derivative work. (Executable containing this object code plus portions of the library will still fall under Section 6.)

Otherwise, if the work is a derivative of the library, you may distribute the object code for the work under the terms of Section 6. Any executable containing that work also fall under Section 6, whether or not they are linked directly with the library itself.

6. As an exception to the sections above, you may also combine or link a “work that uses the library” with the library to produce a work containing portions of the library, and distribute that work under terms of your choice, provided that the terms permit modification of the work for the customer’s own use and reverse engineering for debugging such modifications.

You must give prominent notice with each copy of the work that the library is used in it and that the Library and its use are covered by this license. You must supply a copy of this license. If the work during execution displays copyright notices, you must include the copyright notice for the library among them, as well as a reference directing the user to the copy of this license. Also, you must do one of these things:

- a) Accompany the work with the complete corresponding machine-readable source code for the library including whatever changes were used in the work (which must be distributed under Sections 1 and 2 above); and, if the work is an executable linked with the Library, with the complete machine-readable “work that uses the Library”, as object code and/or source code, so that the user can modify the library and then relink to produce a modified executable containing the modified library. (It is understood that the user who changes the contents of definitions files in the library will not necessarily be able to recompile the application to use the modified definitions.)
- b) Use a suitable shared library mechanism for linking with the library. A suitable mechanism is one that (1) uses at run time a copy of the library already present on the user’s computer system, rather than copying library functions into the executable, and (2) will operate properly with a modified version of the library, if the user installs one, as long as the modified version is interface-compatible with the version that the work was made with.
- c) Accompany the work with a written offer, valid for at least three years, to give the same user the materials specified in Subsection 6, above, for a charge no more than the cost of performing this distribution.
- d) If distribution of the work is made by offering access to copy from a designated place, offer equivalent access to copy the above specified materials from the same place.
- e) Verify that the user has already received a copy of these materials or that you have already sent this user a copy.

For an executable, the required form of the "work that uses the library" must include any data and utility programs needed for reproducing the executable from it. However, as a special exception, the materials to be distributed need not include anything that is normally distributed (in either source or binary form) with the major components (compiler, kernel, and so on) of the operating system on which the executable runs, unless that component itself accompanies the executable.

It may happen that this requirement contradicts the license restrictions of other proprietary libraries that do not normally accompany the operating system. Such a contradiction means you cannot use both them and the library together in an executable that you distribute.

7. You may place library facilities that are a work based on the library side-by-side in a single library together with other library facilities not covered by this license, and distribute such a combined library, provided that the separate distribution of the work based on the Library and of the other library facilities is otherwise permitted, and provided that you do these two things:
 - a) Accompany the combined library with a copy of the same work based on the Library, uncombined with any other library facilities. This must be distributed under the terms of the sections above.
 - b) Give prominent notice with the combined library of the fact that part of it is a work based on the library, and explaining where to find the accompanying uncombined form of the same work.
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11. If, as a consequence of a court judgment or allegation of patent infringement or for any other reason (not limited to patent issues), conditions are imposed on you (whether by court order, agreement or otherwise) that contradict the conditions of this license, they do not excuse you from the conditions of this license. If you cannot distribute so as to satisfy simultaneously your obligations under this license and any other pertinent obligations, then as a consequence you may not distribute the library at all. For example, if a patent license would not permit royalty-free redistribution of the library by all those who receive copies directly or indirectly through you, then the only way you could satisfy both it and this license would be to refrain entirely from distribution of the library.

If any portion of this section is held invalid or unenforceable under any particular circumstance, the balance of the section is intended to apply, and the section as a whole is intended to apply in other circumstances.

It is not the purpose of this section to induce you to infringe any patents or other property right claims or to contest validity of any such claims; this section has the sole purpose of protecting the integrity of the free software distribution system which is implemented by public license practices. Many people have made generous contributions to the wide range of software distributed through that system in reliance on consistent application of that system; it is up to the author/donor to decide if he or she is willing to distribute software through any other system and a license cannot impose that choice.

This section is intended to make thoroughly clear what is believed to be a consequence of the rest of this license.

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APPENDIX

If the library does not specify a license version number, you may choose any version ever published by the Free Software Foundation.

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END OF TERMS AND CONDITIONS

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To apply these terms, attach the following notices to the library. It is safest to attach them to the start of each source file to most effectively convey the exclusion of warranty; and each file should have at least the "copyright" line and a pointer to where the full notice is found.

one line to give the library's name and a brief idea of what it does.
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signature of Ty Coon, 1 April 1990
Ty Coon, President of Vice

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Version 1.1

1. Definitions.

1.0.1. “Commercial use” means distribution or otherwise making the covered code available to a third party.

1.1. “Contributor” means each entity that creates or contributes to the creation of modifications.

1.2. “Contributor version” means the combination of the original code, prior modifications used by a contributor, and the modifications made by that particular contributor.

1.3. “Covered code” means the original code or modifications or the combination of the original code and modifications, in each case including portions thereof.

1.4. “Electronic distribution mechanism” means a mechanism generally accepted in the software development community for the electronic transfer of data.

1.5. “Executable” means covered code in any form other than source code.

1.6. “Initial developer” means the individual or entity identified as the initial Developer in the Source Code notice required by exhibit A.

1.7. “Larger work” means a work which combines covered code or portions thereof with code not governed by the terms of this License.

1.8. “License” means this document.

1.8.1. “Licensable” means having the right to grant, to the maximum extent possible, whether at the time of the initial grant or subsequently acquired, any and all of the rights conveyed herein.

1.9. “Modifications” means any addition to or deletion from the substance or structure of either the original code or any previous modifications. When covered code is released as a series of files, a modification is:

A. Any addition to or deletion from the contents of a file containing original code or previous modifications.

B. Any new file that contains any part of the original code or previous modifications.

1.10. “Original code” means source code of computer software

code which is described in the source code notice required by exhibit as original code, and which, at the time of its release under this license is not already covered code governed by this license.

1.10.1. “Patent claims” means any patent claim(s), now owned or hereafter acquired, including without limitation, method, process, and apparatus claims, in any patent licensable by grantor.

1.11. “Source code” means the preferred form of the covered code for making modifications to it, including all modules it contains, plus any associated interface definition files, scripts used to control compilation and installation of an executable, or source code differential comparisons against either the original code or another well known, available covered code of the contributor’s choice. The source code can be in a compressed or archival form, provided the appropriate decompression or de-archiving software is widely available for no charge.

1.12. “You” (or “Your”) means an individual or a legal entity exercising rights under, and complying with all of the terms of, this license or a future version of this license issued under section 6.1.

For legal entities, “You” includes any entity which controls, is controlled by, or is under common control with You. For purposes of this definition, “control” means (a) the power, direct or indirect, to cause the direction or management of such entity, whether by contract or otherwise, or (b) ownership of more than fifty percent (50%) of the outstanding shares or beneficial ownership of such entity.

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3.3. Description of modifications.

You must cause all covered code to which you contribute to contain a file documenting the changes You made to create that covered code and the date of any change. You must include a prominent statement that the modification is derived, directly or indirectly, from original code provided by the initial developer and including the name of the initial developer in (a) the source code, and (b) in any notice in an executable version or related documentation in which you describe the origin or ownership of the covered code.

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If contributor has knowledge that a license under a third party's intellectual property rights is required to exercise the rights granted by such contributor under sections 2.1 or 2.2, contributor must include a text file with the source code distribution titled "LEGAL" which describes the claim and the party making the claim in sufficient detail that a recipient will know whom to contact. If contributor obtains such knowledge after the modification is made available as described in section 3.2, contributor shall promptly modify the LEGAL file in all copies contributor makes available thereafter and shall take other steps (such as notifying appropriate mailing lists or newsgroups) reasonably calculated to inform those who received the covered code that new knowledge has been obtained.

(b) Contributor APIs.

If contributor's modifications include an application programming interface and contributor has knowledge of patent licenses which are reasonably necessary to implement that API, contributor must also include this information in the LEGAL file.

(c) Representations.

contributor represents that, except as disclosed pursuant to section 3.4(a) above, contributor believes that contributor's modifications are contributor's original creation(s) and/or contributor has sufficient rights to grant the rights conveyed by this license.

3.5. Required notices.

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.

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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.

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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.

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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.

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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.

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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.

■■■ 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

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

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.

본사는 보다 활발한 환경 보존 활동과 더불어 환경 친화적 제품 개발에 주력해 왔습니다.

또한 제품에 포함되는 환경 위해 요소를 최소화하는 데에도 노력을 기울이지 않고 있습니다. LG 전자 모니터의 경우 카드를 전혀 사용하지 않는 것에서도 이러한 노력을 알 수 있습니다.

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.

본사의 재활용 프로그램에 대한 자세한 정보는 각 지역의 LG 공급업체나 LG 기업 대표부에 문의하시기 바랍니다.

LG 전자는 기업 개선 정책의 하나로 지구 환경 문제를 채택함으로써 보다 나은 환경을 만들어 나가기 위한 비전과 정책을 수립했습니다. 본사의 친환경 정책에 대한 자세한 정보를 보시려면 아래의 웹 사이트를 방문하십시오.

http://www.lge.co.kr/cckr/about/environ/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 afvalophalendienst of de winkel waar u het product hebt gekocht.

Finnish

Vanhonjen laitteiden 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 vorgesehenen 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/ΕΟΚ.
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 pojízdného 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, keresek 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 jäätmed loodusele 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 pasargāsi 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 ant prekės reiškia, 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.

LG Electronics Inc.