

APPENDIX H
: USER'S MANUAL



LCD TV

OWNER'S MANUAL

MODELS: 15LC1R *

20LC1R *

23LC1R *



**Internet Home Page : <http://www.lge.com>
<http://www.lg.ca>**

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

P/NO : 38289U0559A (0511-REV00)
Printed in Korea

Warning



WARNING:

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.

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.

REGULATORY INFORMATION

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 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.

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

CAUTION:

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

U.S.A. only -----

COMPLIANCE:

The responsible party for this product's compliance is:

LG Electronics U.S.A., Inc.

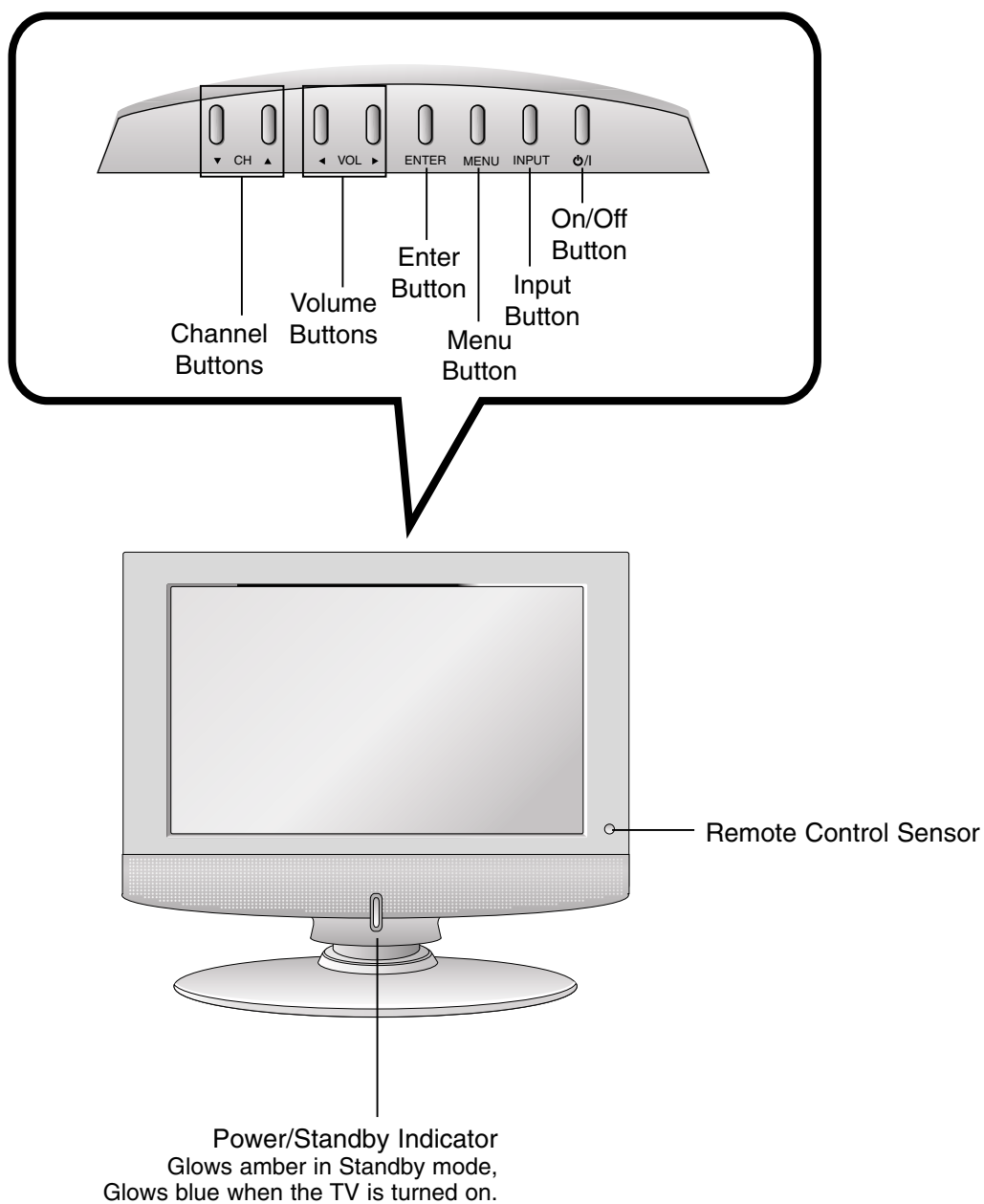
1000 Sylvan Avenue, Englewood Cliffs, NJ 07632

Phone: 1-201-816-2000

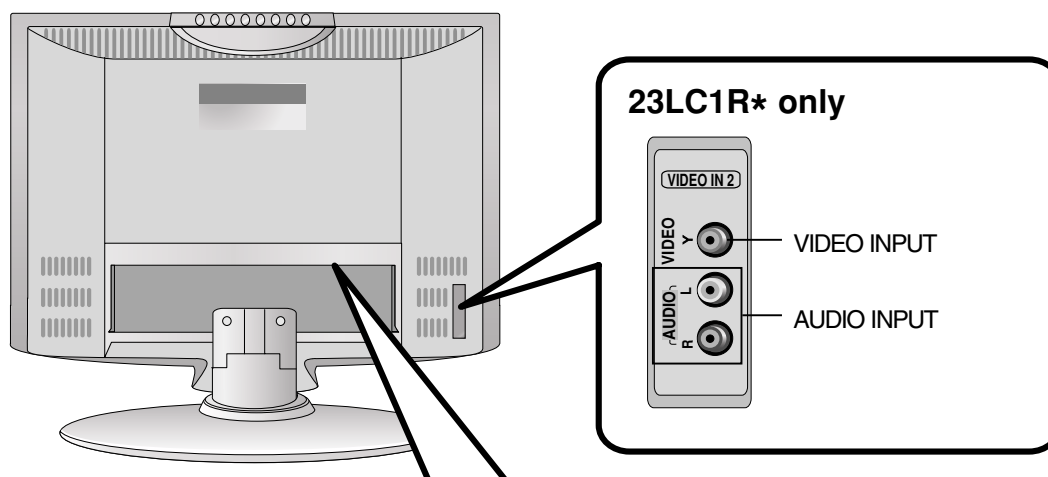
<http://us.lge.com>

Introduction

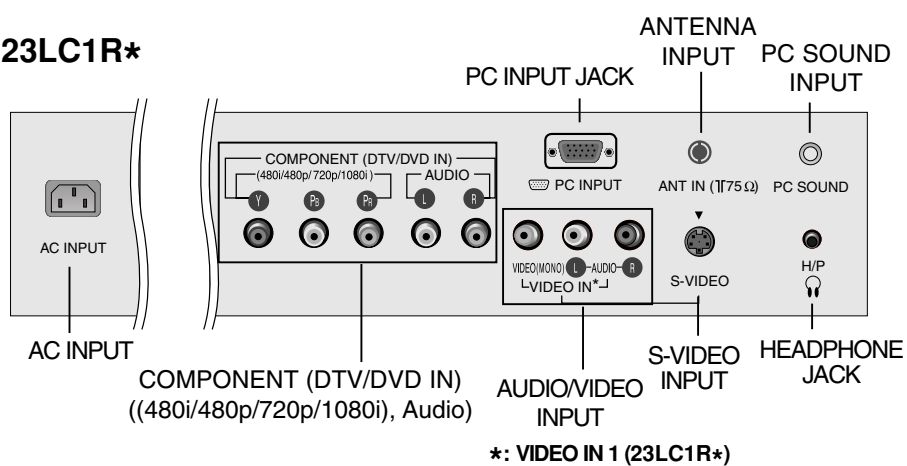
Controls



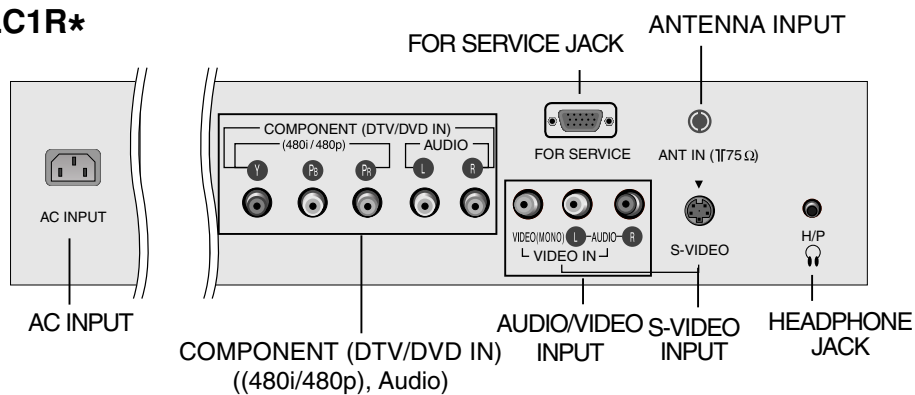
Connection Options



15/ 23LC1R*



20LC1R*



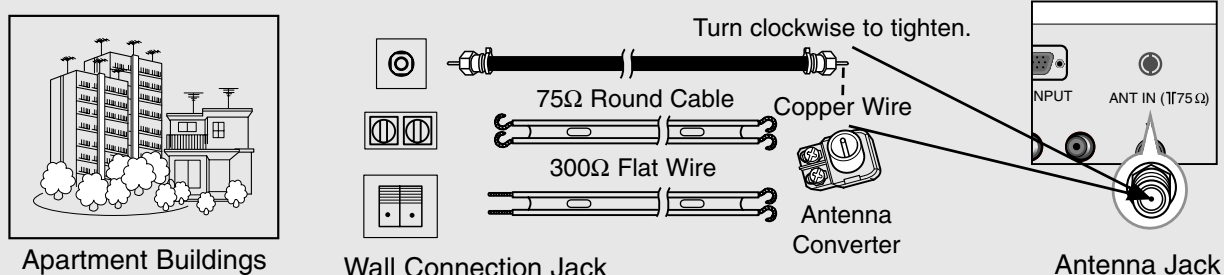
External Equipment Connections

Antenna Connection

- For optimum picture quality, adjust antenna direction.

Connecting to an Inside Antenna Setup

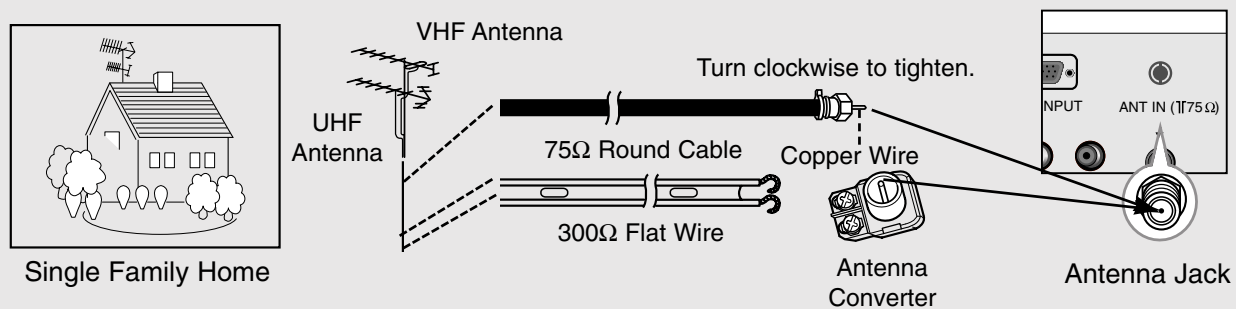
- Typical wall antenna jack used in apartment buildings, connect the antenna cable as shown below. (Use the correct type of antenna cable for the type of wall antenna jack.)



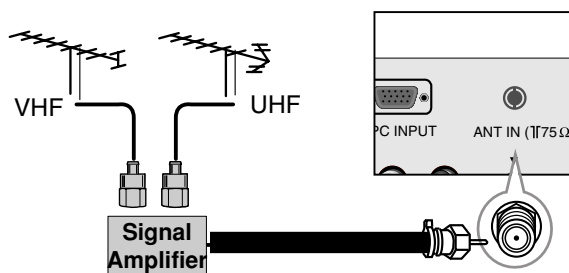
- If you have a 75Ω round cable, insert the bronze wire and then tighten the connection nut. If you have a 300Ω flat wire, connect the twisted wire to the antenna converter and then connect the converter to the antenna jack on the TV.
- If using 75Ω round cable, do not bend the bronze wire. It may cause poor picture quality.

Connecting to an Outdoor Antenna Setup

- This type of antenna is commonly used in single family dwellings.



- In poor signal areas, to get better picture quality, install a signal amplifier to the antenna as shown to the right.
- If signal needs to be split for two TVs, use an antenna signal splitter for connection.

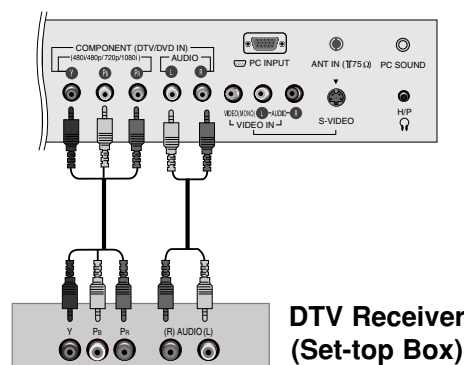


DTV Setup

- To watch digitally broadcast programs, purchase and connect a digital set-top box.

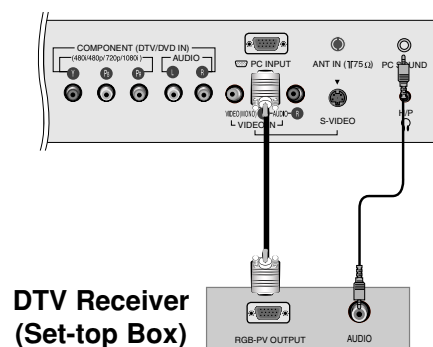
Connections

Connect the digital set-top box video outputs to the COMPONENT (Y, PB, PR) jacks and connect the digital set-top box audio outputs to the AUDIO jacks. (or, Connect the set-top box with the D-sub output socket to PC INPUT socket on the set and audio cable of the set-top box to the PC SOUND.)



Viewing Setup

1. Turn on the digital set-top box. (Refer to the owner's manual for the digital set-top box.)
2. Use the **INPUT** button on the remote control to select **Component** or **RGB-DTV**.



PC Setup

- After setup, be sure to select RGB-PC source on TV.

Connections

1. Set the monitor output resolution on the PC before connecting to the TV.
2. Connect the TV to the PC with the PC cable.
3. Connect the PC audio output to the TV's PC SOUND input.

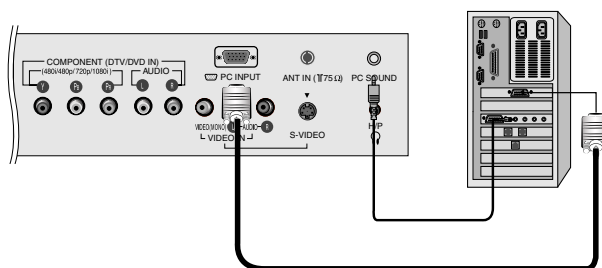
Viewing Setup

1. Turn on the PC.
2. Use the **INPUT** button on the remote control to select **RGB-PC**.

Monitor Display Specifications

MODE	Resolution	Horizontal Frequency(kHz)	Vertical Frequency(Hz)
VGA	640x480	31.4	60
SVGA	800x600	35.1	56
	800x600	37.8	60
XGA	1024x768	48.3	60
WXGA	1360x768	47.6	60

→ 23" only



NOTES

- a. For optimum picture quality, use standard 1024x768@60Hz (15") / 1360x768@60Hz (23") computer output at a 60Hz refresh rate. Using other formats (VGA, SVGA, etc.) or refresh rates may result in reduced picture quality. (To change the computer video output format, please refer to the operating manual for the computer you are using).
- b. If the message "**Out of range**" appears on the screen, adjust the PC output to a format listed in the 'Monitor Display Specifications' chart above.
- c. The synchronization input form for Horizontal and Vertical frequencies is separate.

DPM (Display Power Management) mode

If the PC goes to power saving mode, the monitor automatically switches to DPM mode. If you don't use the PC cable provided, DPM mode may not work.

Operation

TV Operation Overview

1. First, make all equipment connections. Plug the AC Adapter into the TV, then plug the AC Adapter into a power outlet. At this time, the TV is switched to standby mode.
 - In standby mode, press the **POWER**, **CH** (▲,▼), **INPUT** or **number** button on the remote control or **ON/OFF**, **CH** (▲,▼), **TV** button located on the TV to turn the TV on.
2. Select the viewing source by pressing **INPUT**.
 - Note: See page 18 if you have not auto programmed the TV to receive channels in your local broadcast area.
3. After viewing, press the **POWER** button on the remote control or **ON/OFF** located on the TV. The TV reverts to standby mode.

NOTE

- If you want to turn the TV off, press the on/off button located on the TV. If you intend to be away on vacation, disconnect the power plug from the wall power outlet.

Menu Language Selection

- The menus can be shown on the screen in the selected language. First select your language.
1. Press the **MENU** button and then use ▲ / ▼ button to select the **SPECIAL** menu.
 2. Press the ► button and then use ▲ / ▼ button to select **Language**.
 3. Press the ► button and then use ▲ / ▼ button to select your desired language.
From this point on, the on-screen menus will be shown in the language of your choice.
 4. Press the **ENTER** button to save.

Sound Menu Options

EZ Audio

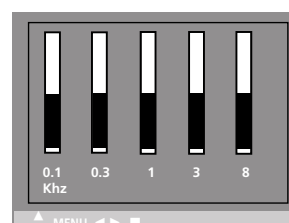
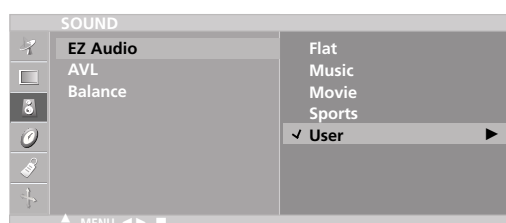
- This function lets you enjoy the best sound without any special adjustment because the TV selects the appropriate sound option based on the program content.

1. Use the **AUDIO** button to select the appropriate sound setup as shown below.



- You can also adjust **EZ Audio** in the **SOUND** menu.

Equalizer Adjustments

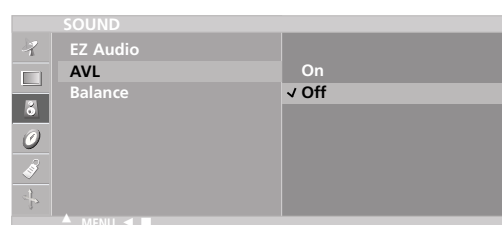


1. Press the **MENU** button and then use **▲** / **▼** button to select the **SOUND** menu.
2. Press the **▶** button and then use **▲** / **▼** button to select **EZ Audio**.
3. Press the **▶** button and then use **▲** / **▼** button to select **User**.
4. Press the **▶** button and then use **◀** / **▶** button to select the band you want to adjust. Then, use **▲** / **▼** button to adjust the band level.
5. Press the **ENTER** button to save.

AVL (Auto Volume Leveler)

- AVL maintains an equal volume level automatically even if the channel is changed.

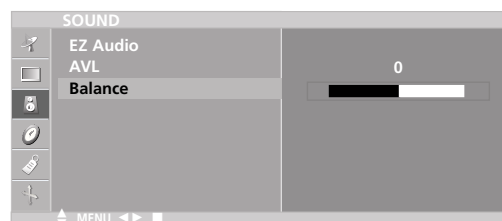
1. Press the **MENU** button and then use **▲** / **▼** button to select the **SOUND** menu.
2. Press the **▶** button and then use **▲** / **▼** button to select **AVL**.
3. Press the **▶** button and then use **▲** / **▼** button to select **On** or **Off**.
4. Press the **ENTER** button to save.



Sound Menu Options continued

Sound Balance

1. Press the **MENU** button and then use ▲ / ▼ button to select the **SOUND** menu.
2. Press the ► button and then use ▲ / ▼ button to select **Balance**.
3. Press the ► button and then use ◀ / ▶ button to adjust the sound balance.
 - Balance is adjustable from Left 50 to Right 50.
4. Press the **ENTER** button to save.



Stereo/SAP Broadcasts Setup

- The TV can receive MTS stereo programs and any SAP (Secondary Audio Program) that accompanies the stereo program, if the broadcaster transmits an additional sound signal as well as the original one.
 - Mono: The primary language is heard from left and right speakers. Signal mode is mono.
 - Stereo: The primary language is heard from left and right speakers. Signal mode is stereo.
 - SAP: The secondary language is heard from left and right speakers.
1. Press the **MTS** button repeatedly.

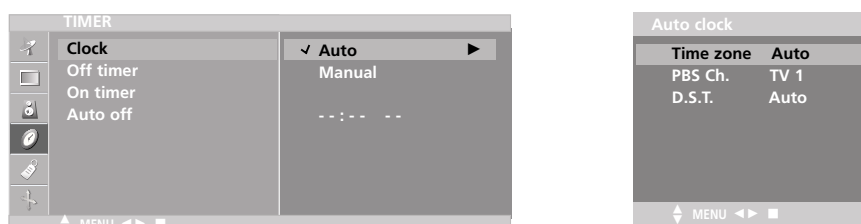


- Select mono sound mode if the signal is not clear or in poor signal reception areas.
- **Stereo, SAP** mode are available only if included on the broadcast signal.

Timer Menu Options

Auto Clock Setup

- The time is set automatically through from a PBS broadcast signal.
- The PBS channel signal includes information for the correct time and daylight saving time.

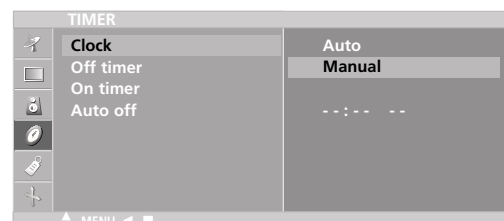


1. Press the **MENU** button and then use **▲** / **▼** button to select the **TIMER** menu.
2. Press the **▶** button and then use **▲** / **▼** button to select **Clock**.
3. Press the **▶** button and then use **▲** / **▼** button to select **Auto**.
4. Press the **▶** button and then use **▲** / **▼** button to select the time zone for your viewing area. Your choices are: **Auto**, **E.S.T.** (Eastern Standard Time), **C.S.T.** (Central Standard Time), **M.S.T.** (Mountain Standard Time), **P.S.T.** (Pacific Standard Time), **Alaska**, and **Hawaii**.
5. Press the **▶** button and then use **▲** / **▼** button to set **PBS channel**.
6. Press the **▶** button and then use **▲** / **▼** button to set **D.S.T.** (Daylight Savings Time) **Auto**, **Off** or **On**, depending on whether or not your viewing area observes Daylight Savings Time.
7. Press the **ENTER** button to save.

Manual Clock Setup

- If the time on the clock is incorrect, reset the clock manually.

1. Press the **MENU** button and then use **▲** / **▼** button to select the **TIMER** menu.
2. Press the **▶** button and then use **▲** / **▼** button to select **Clock**.
3. Press the **▶** button and then use **▲** / **▼** button to select **Manual**.
4. Press the **▶** button and then use **▲** / **▼** button to set the hour.
5. Press the **▶** button and then use **▲** / **▼** button to set the minutes.
6. Press the **ENTER** button to save.



Timer Menu Options continued

On/Off Timer Setup

- Timer function operates only if current time is set.
- Off-Timer function overrides On-Timer function if they are set to the same time.
- The TV must be in standby mode for the On-Timer to work.
- If you don't press any button within 2 hours after turning on the TV with the On-Timer function, the TV will automatically revert to standby mode.

1. Press the **MENU** button and then use ▲ / ▼ button to select the **TIMER** menu.

2. Press the ► button and then use ▲ / ▼ button to select **Off timer** or **On timer**.

3. Press the ► button and then use ▲ / ▼ button to set the hour.

4. Press the ► button and then use ▲ / ▼ button to set the minutes.

5. **For On timer function only:**

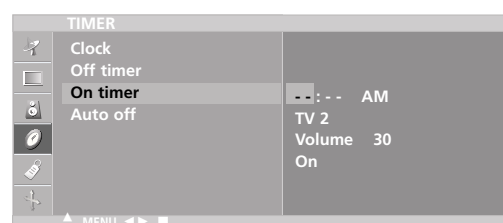
Press the ► button and then use ▲ / ▼ button to set the channel at turn-on. Then, press the ► button and then use ▲ / ▼ button to set the turn-on sound level.

6. Press the ► button and then use ▲ / ▼ button to select **On** or **Off**.

• **Off: Off timer/On timer** will not work.

On: Off timer/On timer are active.

7. Press the **ENTER** button to save.



Sleep Timer Setup

- The Sleep Timer turns the TV off at a preset time.

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

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

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

4. To cancel the Sleep Timer, press the **SLEEP** button repeatedly until '⌚ --- Min.' appears.

Auto off

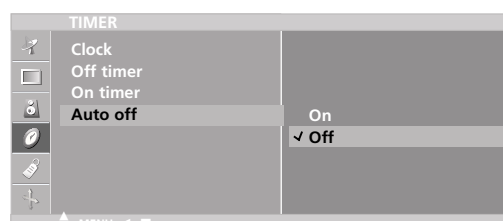
- If Auto off is active and there is no input signal, the TV switches to Standby mode automatically after 10 minutes.

1. Press the **menu** button and then use ▲ / ▼ button to select the **TIMER** menu.

2. Press the ► button and then use ▲ / ▼ button to select **Auto off**.

3. Press the ► button and then use ▲ / ▼ button to select **On** or **Off**.

4. Press the **ENTER** button to save.

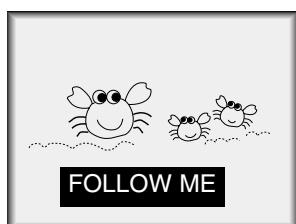


Special Menu Options

Closed Captions

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

Using Closed Captions



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

Captioning is an effective system for the hearing-impaired, and it can also aid in teaching language skills.

- The picture at left shows a typical caption.

Caption Tips

- Not all TV broadcasts include closed caption signals.
- Sometimes TV stations broadcast four different caption signals on the same channel. By selecting **From CC 1 to CC 4**, you can choose which signal you view. **CC 1** is usually the signal with the captions, while **Another mode** might show demonstration or programming information.
- Your TV might not receive caption signals normally in the following situations.

1. Poor reception conditions are encountered:



- **IGNITION:**

Picture may flutter, drift, suffer from black spots, or horizontal streaking. Usually caused by interference from automobile ignition systems, neon lamps, electrical drills, and other electrical appliances.



- **GHOSTS:**

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



- **SNOW:**

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

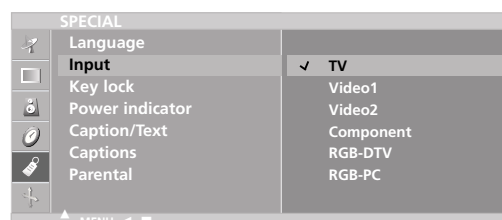
2. An old, bad, or illegally recorded tape is being played.
3. Strong, random signals from a car or airplane interfere with the TV signal.
4. The signal from the antenna is weak.
5. The program wasn't captioned when it was produced, transmitted, or taped.

Special Menu Options continued

Select Mode

- Inputs can be set for TV, Video or RGB-PC mode. Video mode is used when a video cassette recorder (VCR), or other equipment is connected to the set.

1. Press the **MENU** button and then **▲** / **▼** button to select the **SPECIAL** menu.
2. Press the **▶** button and then **▲** / **▼** button to select **Input**.
3. Press the **▶** button and then **▲** / **▼** button to select **TV**, **Video (or Video1)**, **Video2**, **Component**, **RGB-DTV** or **RGB-PC**.



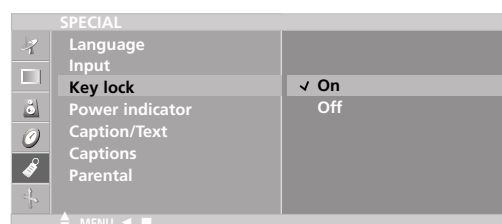
- **Video (or Video1)**: VCR connected to the **VIDEO IN** socket of the set.
- **Video2**: VCR connected to the **VIDEO IN 2** socket of the set. (23LC1R*)
- **Component**: DVD connected to the COMPONENT sockets on the back of set.
- **RGB-DTV**: SET TOP connected to the PC INPUT and PC SOUND socket of the set. (15/23LC1R*)
- **RGB-PC**: PERSONAL COMPUTER connected to the PC socket of the set. (15/23LC1R*)

4. Press the **ENTER** button to save.

Key lock

- The TV can be set up so that it can only be used with the remote control.
 - This feature can prevent unauthorized viewing.

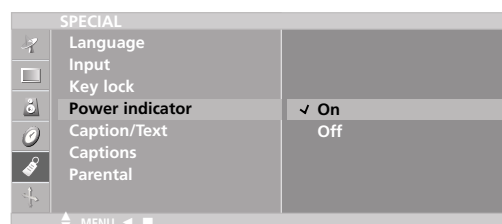
1. Press the **MENU** button and then use **▲** / **▼** button to select the **SPECIAL** menu.
2. Press the **▶** button and then use **▲** / **▼** button to select **Key lock**.
3. Press the **▶** button and then use **▲** / **▼** button to select **On** or **Off**.
4. Press the **ENTER** button to save.



Power indicator

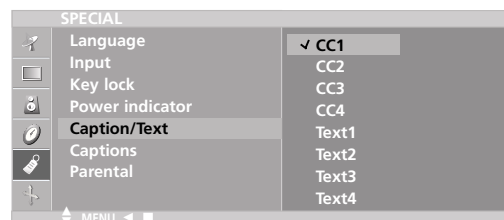
- Use this function to set the power indicator on the front side of the product to **On** or **Off**. If you set **On** at any time, the power indicator will automatically be turned on. Although you select **Off**, set front light turns on for a moment when the set turns on.

1. Press the **MENU** button and then use **▲** / **▼** button to select the **SPECIAL** menu.
2. Press the **▶** button and then use **▲** / **▼** button to select **Power indicator**.
3. Press the **▶** button and then use **▲** / **▼** button to select **On** or **Off**.
4. Press the **ENTER** button to save.



Caption/Text

1. Press the **MENU** button and then use **▲** / **▼** button to select the **SPECIAL** menu.
2. Press the **▶** button and then use **▲** / **▼** button to select **Caption/Text**.
3. Press the **▶** button and then use **▲** / **▼** button to select caption: **CC1**, **CC2**, **CC3**, **CC4**, **Text1**, **Text2**, **Text3**, or **Text4**.



• CAPTION

The term for the words that scroll across the bottom of the TV screen; usually the audio portion of the program provided for the hearing impaired.

• TEXT

The term for the words that appear in a large black frame and almost cover the entire screen; usually messages provided by the broadcaster.

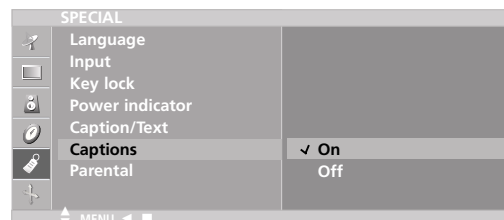
• Use the **CC** button repeatedly to select Caption.

4. Press the **ENTER** button to save.

Captions

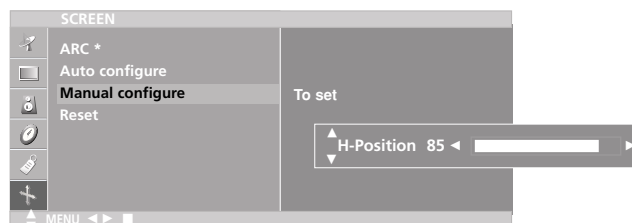
- Select **On** from **Captions** menu in order to adjust the **Caption/Text** menu.

1. Press the **MENU** button and then use **▲** / **▼** button to select the **SPECIAL** menu.
2. Press the **▶** button and then use **▲** / **▼** button to select **Captions**.
3. Press the **▶** button and then use **▲** / **▼** button to select **On** or **Off**.
4. Press the **ENTER** button to save.



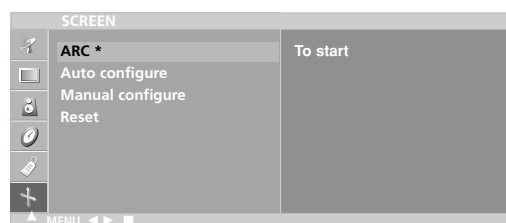
Screen Menu Options

- After setup, be sure to select PC source to see the PC image on TV screen.



1. Press the **MENU** button and then use ▲ / ▼ button to select the **SCREEN** menu.
2. Press the ► button and then use ▲ / ▼ button to select desired item.
3. Use the ◀ / ▶ button to make appropriate adjustments.
 - H-position/V-position
Adjusts picture left/right and up/down.
The adjustment ranges of H-Position is 0~100.
(Based on the input mode, the adjustment range may change.)
 - Clock
Minimizes any vertical bars or stripes appearing on the screen background.
The adjustment range is 0~100. (Based on the input mode, the adjustment range may change.)
 - Phase
Remove any horizontal noise and clear up or sharpen the character images.
The range adjustment is 0~100. (Based on the input mode, the adjustment range may change.)
 - Auto-configure
Automatically adjusts the screen position, clock, and clock phase.
(The displayed image will disappear for a few seconds while Auto-configuration is in progress.)
 - Reset
Returns to the default settings programmed at the factory; default settings cannot be changed.
4. Press the **ENTER** button to save.

Picture format (ARC) (23LC1R*)



1. Press the **MENU** button and then use **▲** / **▼** button to select the **SCREEN** menu.
2. Press the **►** button and then use **▲** / **▼** button to select desired picture format.
3. Press the **ENTER** button to save.

- Full

When your TV receives the wide screen signal, it will lead you to adjust the picture horizontally or vertically, in a linear proportion, to fill the entire screen fully. (Not available in all countries)

- 16:9

You can enjoy the cinema (the picture format of 16:9) or general TV programme through the 16:9 mode.

The screen 16:9 is viewed just like that but the screen 4:3 is magnified to the left and right so that the screen 16:9 is full.

- 14:9

You can enjoy the picture format of 14:9 or general TV programme through the 14:9 mode.

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

- Zoom

You can enjoy the cinema in a vast screen through the Zoom mode.

The screen 4:3 is magnified to the upper / lower and left / right sides so that the screen 16:9 is full. The bottom and top of the picture may be lost.

- Spectacle

When your TV receives the wide screen signal, it will lead you to adjust the picture horizontally, in a nonlinear proportion, to fill the entire screen.

- Original

When your TV receives the wide screen signal, it will be automatically changed to the picture format to be sent. (Not available in all countries)

- 4:3

This picture format is 4 to 3 of general TV.

NOTES

ARC menu is not available in RGB-PC mode.

Maintenance

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

Cleaning the Screen

1. Here's a great way to keep the dust off your screen for a while. Wet a soft cloth in a mixture of lukewarm water and a little fabric softener or dish washing detergent. Wring the cloth until it's almost dry, and then use it to wipe the screen.
2. Make sure the excess water is off the screen, and then let it air-dry before you turn on your TV.

Cleaning the Cabinet

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

Extended Absence



If you 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

Power Requirement	15LC1R* : AC100-240V~ 50/60Hz 0.8A 20LC1R* : AC100-240V~ 50/60Hz 1.2A 23LC1R* : AC100-240V~ 50/60Hz 1.4A
Power Consumption	15LC1R* : 40W 20LC1R* : 65W 23LC1R* : 120W
Television System	NTSC
Television Channel	VHF : 2 ~ 13, UHF : 14 ~ 69, Cable : 01 ~ 125
Television Screen	LCD Panel
External Antenna Impedance	75 Ω
Audio Output	15LC1R* : 3W+3W 20LC1R* : 5W+5W 23LC1R* : 7W+7W

Note

