APPENDIX H

: USER'S MANUAL

LG

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.**

Warning

CAUTION

RISK OF ELECTRIC SHOCK
DO NOT OPEN

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 par-
ticular, specifies that the cable ground shall be connected to the grounding system of the build-
ing, 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 pro-
tection 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 turn-
ing 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.
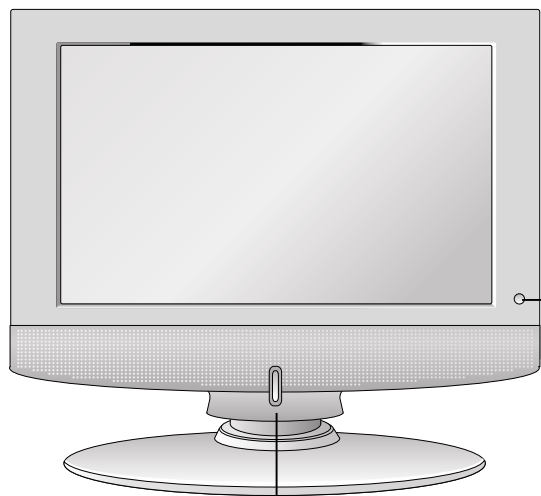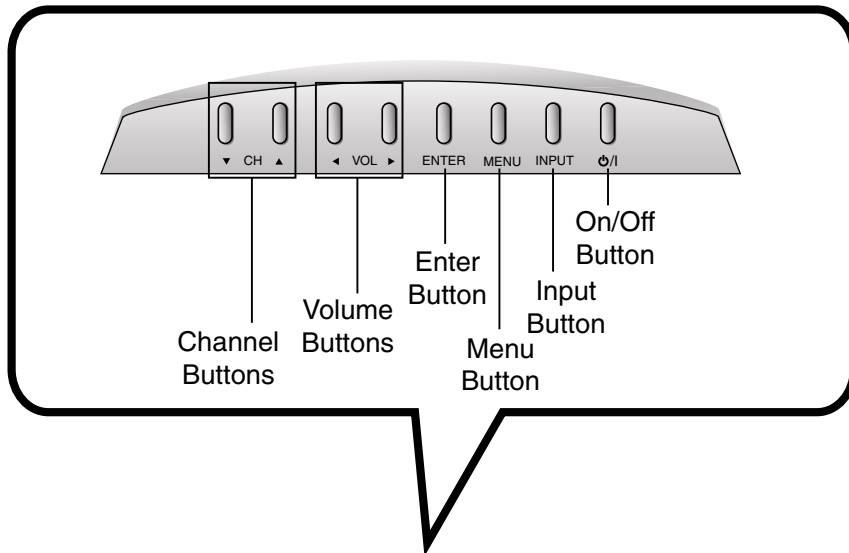
U.S.A. only --
COMPLIANCE:
The responsible party for this product's compliance is:
LG Electronics U.S.A., Inc.
1000 Sylvan Avenue, Englewood Cliffs, NJ 07632
Phone: 1-201-816-2000
http://us.lge.com
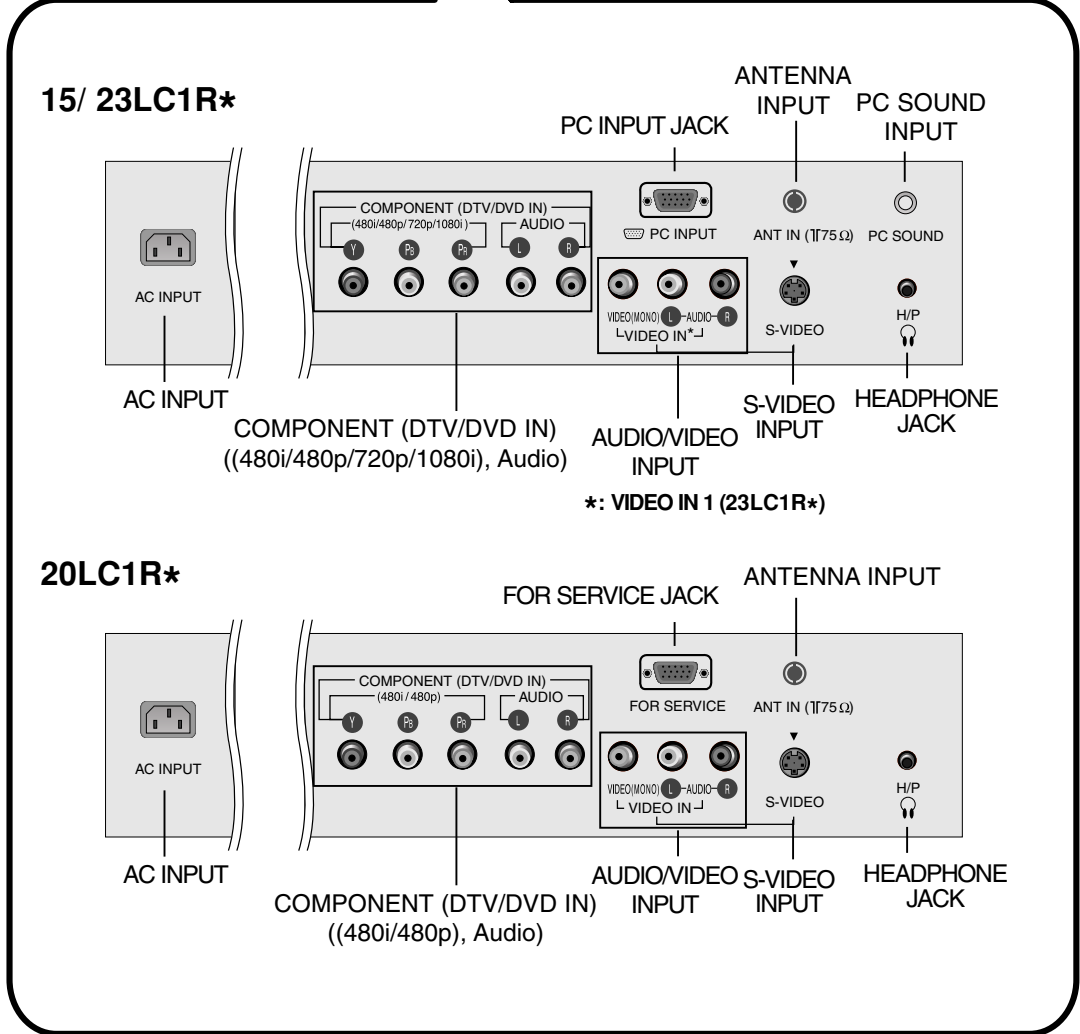**--**

Introduction

Controls

Channel
Buttons

Volume
Buttons

Enter
Button

Menu
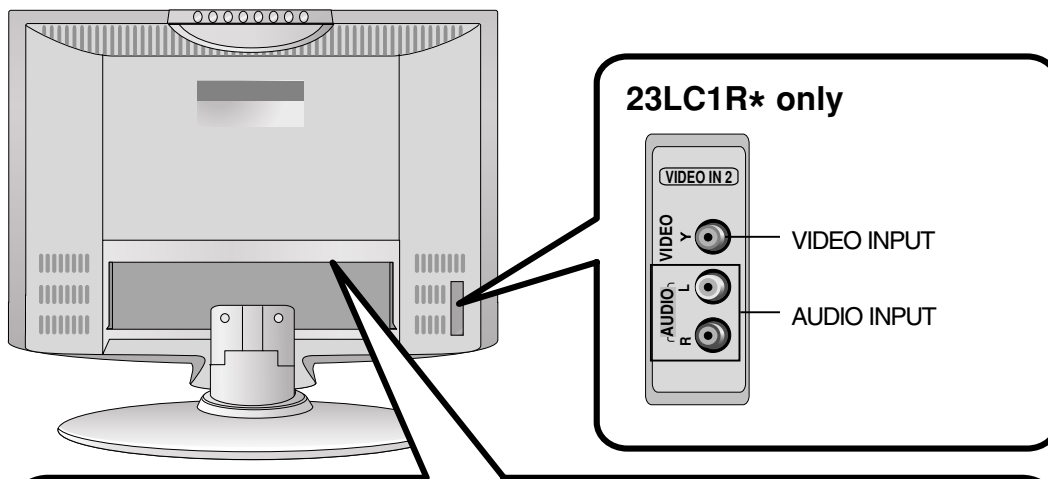Button

Input
Button

On/Off
Button

CH   VOL   ENTER   MENU   INPUT

Remote Control Sensor

Power/Standby Indicator
Glows amber in Standby mode,
Glows blue when the TV is turned on.

Connection Options

23LC1R∗ only

VIDEO IN 2

VIDEO — VIDEO INPUT

AUDIO — AUDIO INPUT

15/ 23LC1R∗

ANTENNA INPUT
PC SOUND INPUT
PC INPUT JACK

COMPONENT (DTV/DVD IN)
(480i/480p/720p/1080i) AUDIO
Y PB PR L R
PC INPUT ANT IN (75Ω) PC SOUND

AC INPUT

VIDEO(MONO) L—AUDIO—R
VIDEO IN∗ S-VIDEO H/P

AC INPUT

COMPONENT (DTV/DVD IN)
((480i/480p/720p/1080i), Audio)

AUDIO/VIDEO INPUT

S-VIDEO INPUT

HEADPHONE JACK

∗: VIDEO IN 1 (23LC1R∗)

20LC1R∗

FOR SERVICE JACK ANTENNA INPUT

COMPONENT (DTV/DVD IN)
(480i / 480p) AUDIO
Y PB PR L R
FOR SERVICE ANT IN (75Ω)

AC INPUT

VIDEO(MONO) L—AUDIO—R
VIDEO IN S-VIDEO H/P

AC INPUT

COMPONENT (DTV/DVD IN)
((480i/480p), Audio)

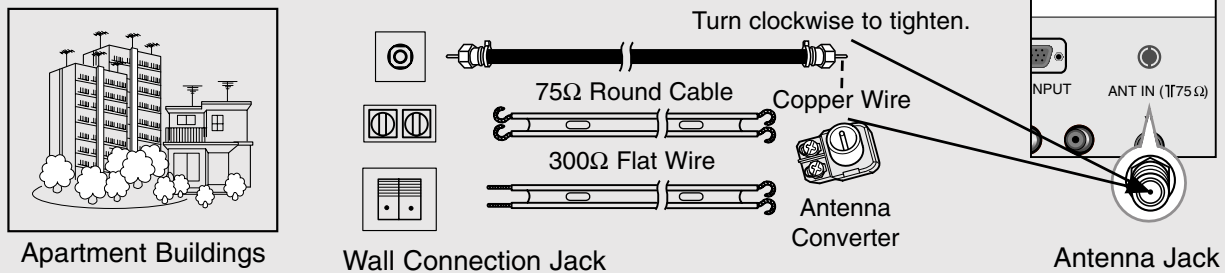AUDIO/VIDEO INPUT S-VIDEO INPUT HEADPHONE JACK

External Equipment Connections

Antenna Connection

- For optimum picture quality, adjust antenna direction.
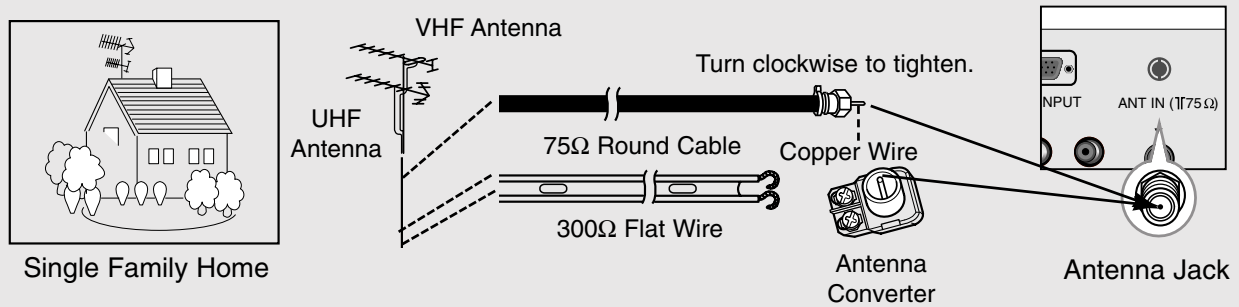
Connecting to an Inside Antenna Setup

- 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.)

Turn clockwise to tighten.

75Ω Round Cable   Copper Wire

300Ω Flat Wire

INPUT   ANT IN (Π75Ω)

Apartment Buildings   Wall Connection Jack   Antenna Converter   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.

VHF Antenna

Turn clockwise to tighten.

UHF Antenna

INPUT   ANT IN (Π75Ω)

75Ω Round Cable   Copper Wire

300Ω Flat Wire

Single Family Home   Antenna Converter   Antenna Jack

- 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.

VHF   UHF

PC INPUT   ANT IN (Π75Ω)

Signal Amplifier
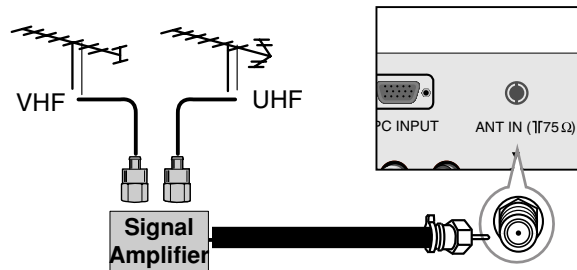
DTV Setup

- 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.)
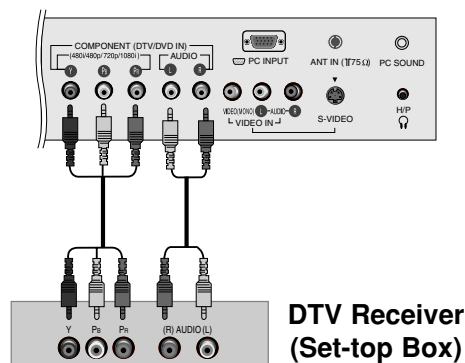
Viewing Setup

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.**

**DTV Receiver
(Set-top Box)**
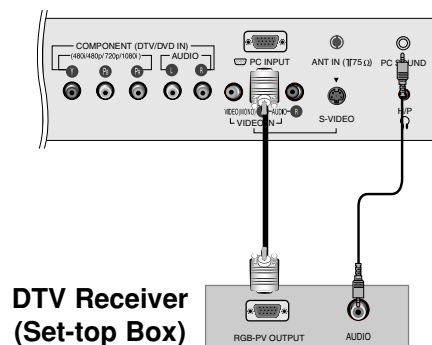
PC Setup

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

**DTV Receiver
(Set-top Box)**

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.
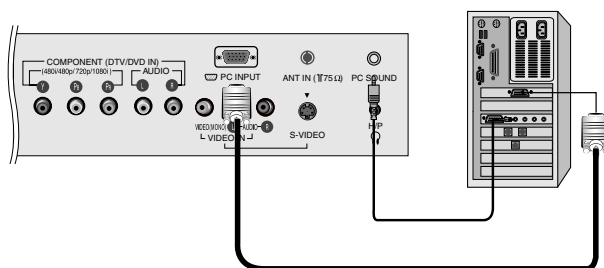3. Connect the PC audio output to the TV's PC SOUND input.

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 800x600	35.1 37.8	56 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.
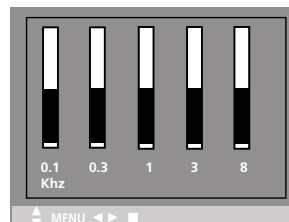
Sound Menu Options

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.

➤ **Flat** ➤ **Music** ➤ **Movie** ➤ **Sports** ➤ **User** ┐

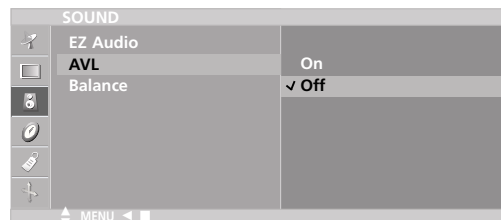• You can also adjust **EZ Audio** in the **SOUND** menu.

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 to select **On** or **Off**.

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

Sound Menu Options continued

Sound Balance

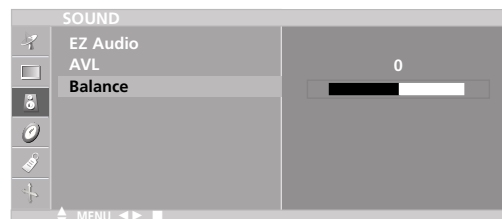1. Press the **MENU** button and then use ▲ / ▼ button to select the **SOUND** menu.

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.

```
SOUND
 ✈   EZ Audio
 ▭   AVL                          0
 🔊  Balance              ▮▬▬▬▬▬
 𝒪
 🖊
 ⊥
  ♦ MENU ◀ ▶ ■
```

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.
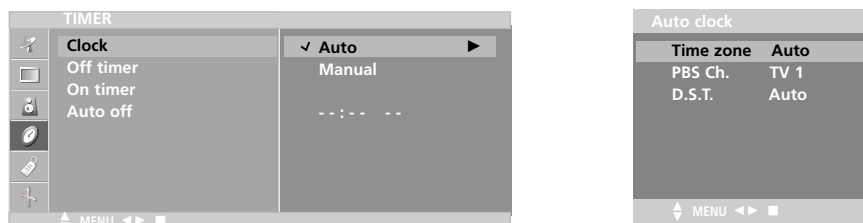
```
┌──► Mono ──► Stereo ──► SAP ─┐
└──────────────────────────────┘
```

• 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.
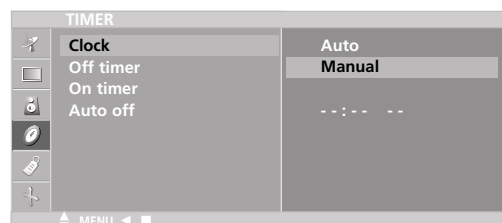
TIMER	
Clock	✓ Auto ▶
Off timer	Manual
On timer	
Auto off	- - : - - - -

MENU ◀▶ ■

Auto clock	
Time zone	Auto
PBS Ch.	TV 1
D.S.T.	Auto

MENU ◀▶ ■

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**.

TIMER	
Clock	Auto
Off timer	Manual
On timer	
Auto off	- - : - - - -

MENU ◀ ■

4. Press the ▶ button and then use ▲ / ▼ button to set the hour.

5. Press the ▶ button and then use ▲ / ▼ button to set the minutes.

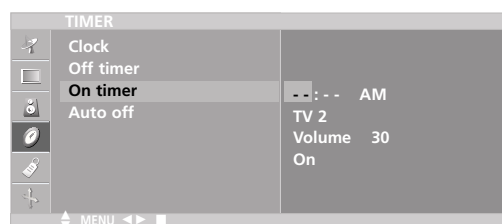6. Press the **ENTER** button to save.

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.

```
TIMER
 Clock
 Off timer
 On timer          - - : - -  AM
 Auto off          TV 2
                   Volume   30
                   On

  MENU ◄►  ■
```

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 ' 🕐z --- 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 ' 🕐z --- 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.

```
TIMER
 Clock
 Off timer
 On timer
 Auto off          On
                 ✓ Off

  MENU ◄  ■
```
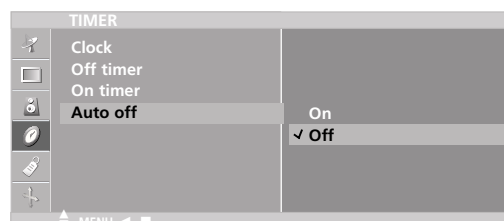
Special Menu Options

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

FOLLOW ME
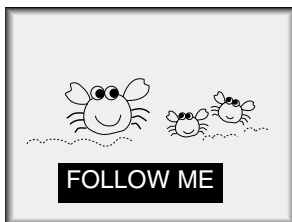
Captions are the subtitles of the dialogue and narration of television programs. For prerecorded programs, program dialogue can be arranged into captions in advance. Its possible to caption a live program by using a process called real-time captioning, which creates captions instantly. Real-time captioning 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**.
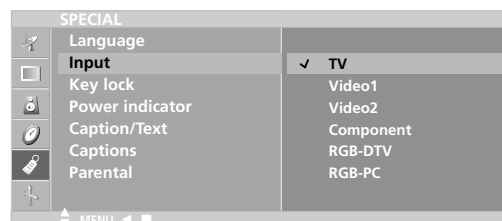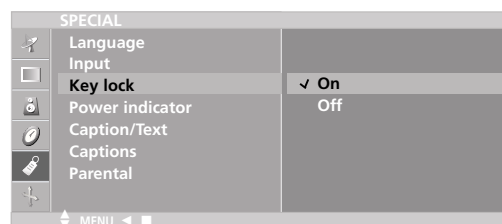
   - **Video (**or **Video1)**: VCR connected to the **VIDEO IN** socket of the set.
   - **Video2**: VCR connected to the **VIDEO IN 2** socket of the set. (23LC1R⋆)
   - **Component**: DVD connected to the COMPONENT sockets on the back of set.
   - **RGB-DTV**: SET TOP connected to the PC INPUT and PC 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.

SPECIAL	
Language	
Input	✓ TV
Key lock	Video1
Power indicator	Video2
Caption/Text	Component
Captions	RGB-DTV
Parental	RGB-PC
◆ MENU ◀ ■	

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.

SPECIAL	
Language	
Input	
Key lock	✓ On
Power indicator	Off
Caption/Text	
Captions	
Parental	
◆ MENU ◀ ■	

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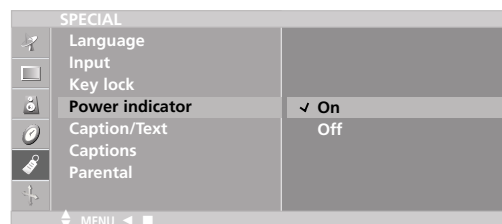
1. Press the **MENU** button and then use ▲ / ▼ button to select the **SPECIAL** menu.
2. Press the ▶ button and then use ▲ / ▼ button to select **Power indicator**.
3. Press the ▶ button and then use ▲ / ▼ button to select **On** or **Off**.
4. Press the **ENTER** button to save.

SPECIAL	
Language	
Input	
Key lock	
Power indicator	✓ On
Caption/Text	Off
Captions	
Parental	
◆ MENU ◀ ■	

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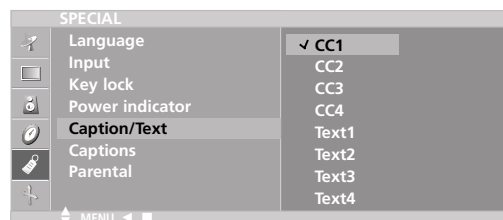
   • **CAPTION**
   The term for the words that scroll across the bottom of the TV screen; usually the audio portion of the program provided for the hearing impaired.

   • **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.

SPECIAL	
Language	✓ CC1
Input	CC2
Key lock	CC3
Power indicator	CC4
Caption/Text	Text1
Captions	Text2
Parental	Text3
	Text4
MENU ◀ ■	

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.

SPECIAL	
Language	
Input	
Key lock	
Power indicator	
Caption/Text	
Captions	✓ On
Parental	Off
MENU ◀ ■	
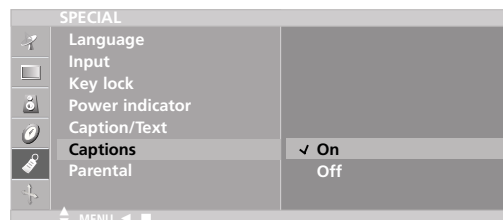
Screen Menu Options

- After setup, be sure to select PC source to see the PC image on TV screen.
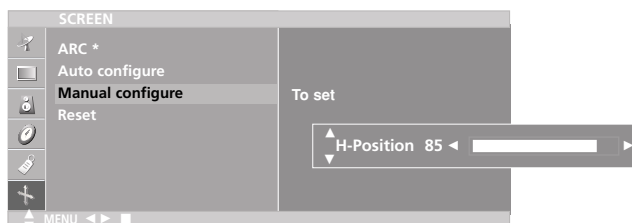
```
┌─────────────────────────────────────────────┐
│  SCREEN                                       │
│ ╱   ARC *                                     │
│ ▢   Auto configure                            │
│     Manual configure      To set              │
│ ◉   Reset                                     │
│ ⊘                         ▲                   │
│                           ┆H-Position 85 ◄ ▮▮▮▮▮▮▮  ► │
│ ✎                         ▼                   │
│ ✚                                             │
│ ▲                                             │
│ ▼ MENU ◄ ► ■                                  │
└─────────────────────────────────────────────┘
```
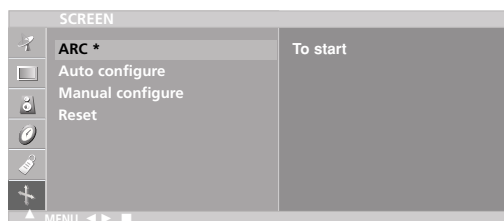
1. Press the **MENU** button and then use ▲ / ▼ button to select the **SCREEN** menu.

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∗)

```
SCREEN

ARC *              To start
Auto configure
Manual configure
Reset

MENU ◄ ► ■
```

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 avail-
   able 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 pic-
   ture 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