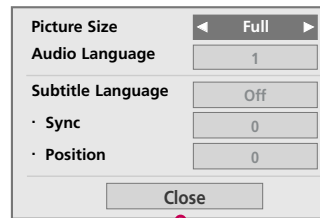


## Option Menu Selection

During the movie play, the following options are available.





- ▶ **Picture Size:** Select the Full screen or Original size.
- ▶ **Audio Language:** Select the language.  
But, the file with only one audio can not be selected.
- ▶ **Subtitle Language:** The subtitles can be turned on or off.  
If there are two or more subtitles, you can select one of them.


Subtitle Language Group	Supported Language
Latin1	English, Spanish, French
Korean	English, Korean

- .**Sync:** When the video is not synchronized with the captions, it can be adjusted by 0.5 second.
- .**Position:** Move the location of the subtitle.

1  Select **Option**.

2  Select **Picture Size, Audio Language, Subtitle Language, Sync** or **Position**.

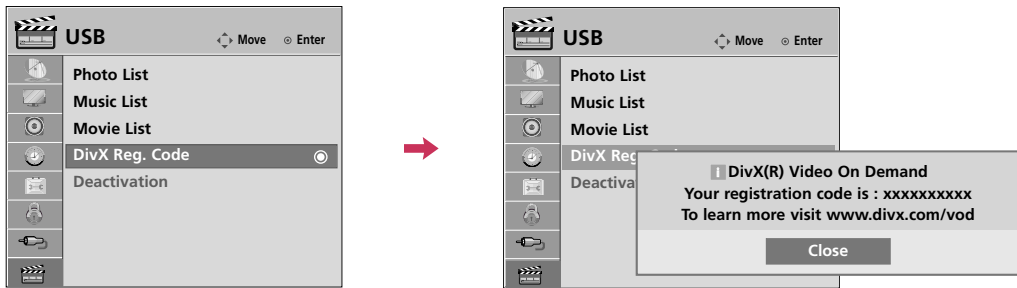
3  Select the desired option.

4  Return to movie viewing








# DIVX REGISTRATION CODE

Confirm the DivX registration code number of the TV. Using the registration number, movies can be rented or purchased at [www.divx.com/vod](http://www.divx.com/vod).

With a DivX registration code from other TV, playback of rented or purchased DivX file is not allowed. (Only DivX files matched with the registration code of the purchased TV are playable.)



USB

- 1   Select **USB**.
- 2   Select **DivX Reg. Code**.
- 3  Display **DivX Reg. Code**.
- 4  Return to the previous menu.
-  Return to TV viewing.

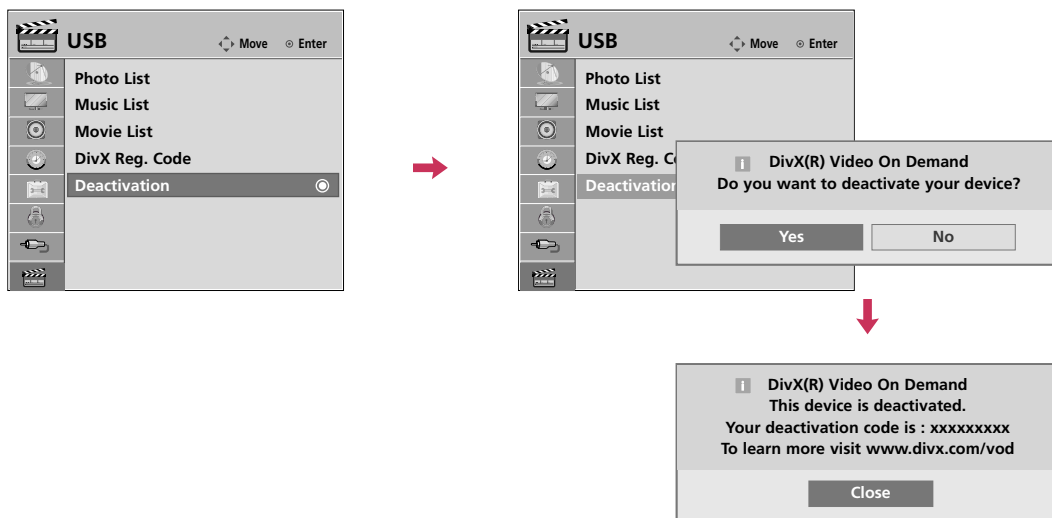
### NOTE

- ▶ When loading, some buttons may not work.
- ▶ If you use the DivX registration code of another device, the rented or purchased DivX file cannot be played. Therefore always use the DivX registration code assigned to this product.
- ▶ The video or audio of a file converted based on a standard other than the DivX codec standard may be corrupted or unable to be played.









# DEACTIVATION

The purpose of deactivation is to allow deactivation of devices for users who have activated all the available devices through the web server and are blocked from activating more devices. DivX VOD allows the consumer to activate up to 6 devices under one account.

Delete the existing authentication information to receive a new DivX user authentication for TV. Once this function is executed, a DivX user authentication is required again to see DivX DRM files.



USB

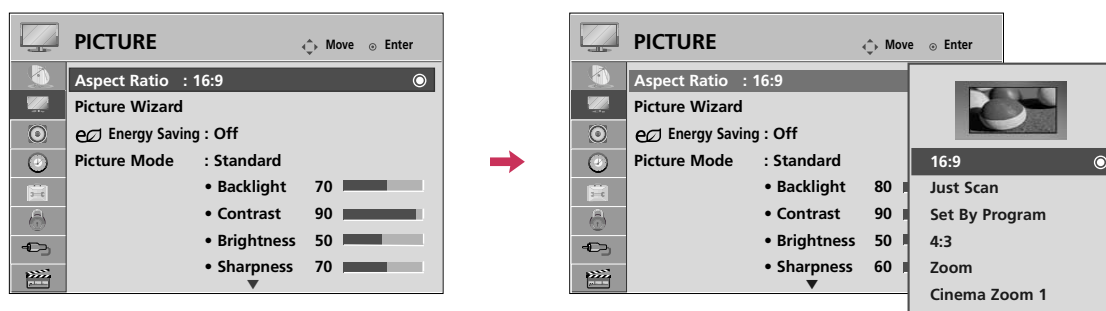
- 1   Select **USB**.
- 2   Select **Deactivation**.
- 3   Select **Yes**.
- 4  Display **Deactivation**.
- 5  Return to the previous menu.
-  Return to TV viewing.

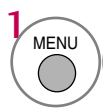


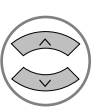

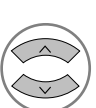

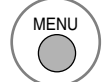
# PICTURE CONTROL

## PICTURE SIZE (ASPECT RATIO) CONTROL

This feature lets you choose the way an analog picture with a 4:3 aspect ratio is displayed on your TV. HDMI/RGB-PC input only support 4:3 or 16:9 aspect ratio. But you can select all aspect ratios in HDMI-PC 1920X1080 input.

You can select a different aspect ratio depending on input source (analog broadcasting, digital broadcasting, aux).



-   Select **PICTURE**.
-   Select **Aspect Ratio**.
-   Select the desired picture format.
-  Return to the previous menu.
-  Return to TV viewing.

■ You can also adjust **Aspect Ratio** in the **Q.MENU**.

## 16:9

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



## Just Scan

Normally the edges of video signals are cropped 1-2%. Just Scan turns off this cropping and shows the complete video.

Notes: If there is noise on the edges of the original signal, it will be visible when Just Scan is activated.

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



## Set By Program

Selects the proper picture proportion to match the source's image.

(4:3 → 4:3)



(16:9 → 16:9)



## 4:3

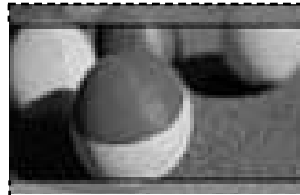
Choose 4:3 when you want to view a picture with an original 4:3 aspect ratio.



## Zoom

Choose Zoom when you want to view the picture without any alteration. However, the top and bottom portions of the picture will be cropped.

- When adjusting in Q.MENU menu,
  - a. < or > button: Adjust proportion of Zoom.
  - b. ^ or v button: Move the image on the screen.



## Cinema Zoom

Choose Cinema Zoom when you want to enlarge the picture in correct proportion.

This enlarges an image with cinemascope aspect ratio (2.35:1) without distortion.

Note: When enlarging or reducing the picture, the image may become distorted.

- < or > button: Adjust proportion of Cinema Zoom. The adjustment range is 1-16.
- ^ or v button: Move the image on the screen.



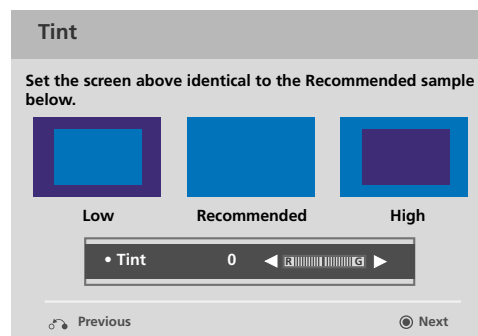
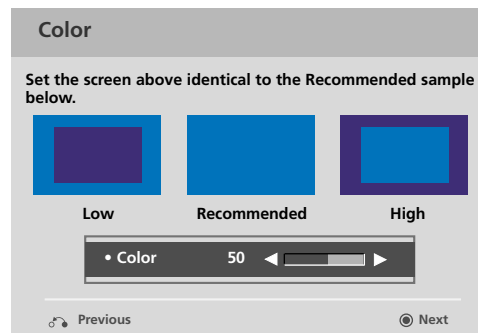
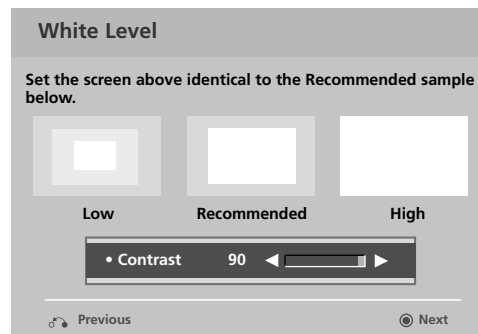
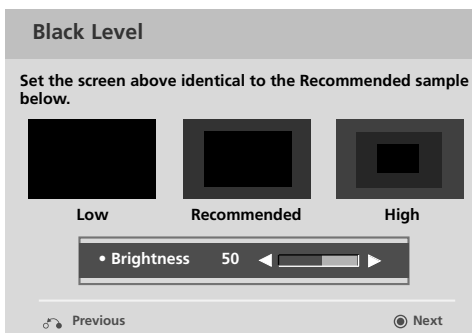
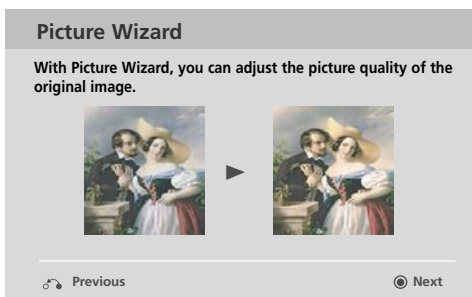
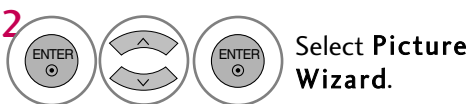
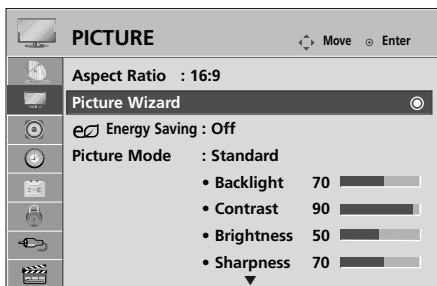
# PICTURE CONTROL

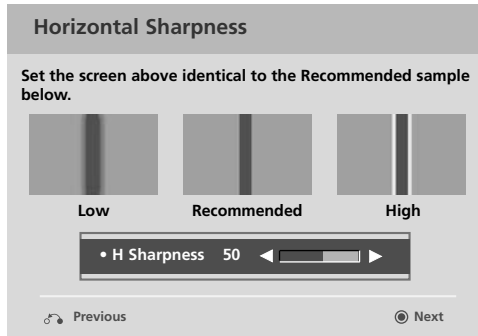
## PICTURE WIZARD

This feature lets you adjust the picture quality of the original image.

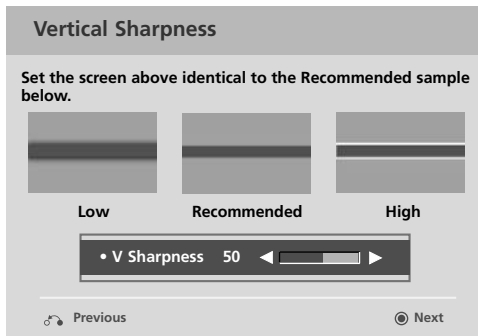
Use this to calibrate the screen quality by adjusting the Black and White Level etc. You can calibrate the screen quality by easily following each step.

When you adjust the image to **Low**, **Recommended** or **High**, you can see the example of the changes you made.

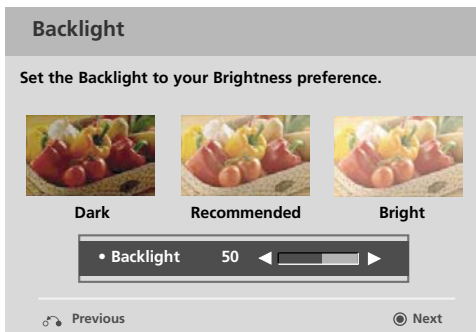




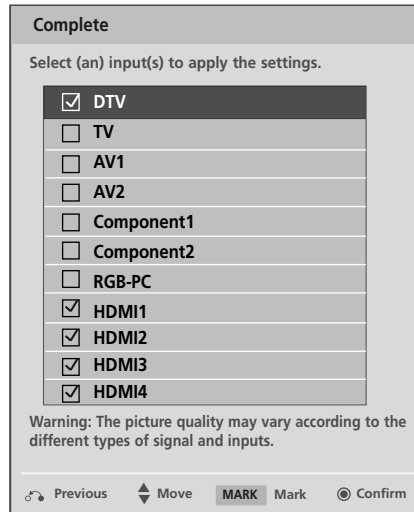
8   Adjust **Horizontal Sharpness**.





9   Adjust **Vertical Sharpness**.

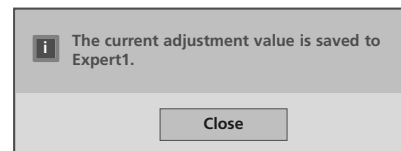



10   Adjust **Backlight**.



11   Select input source to apply the settings.

12  Save.



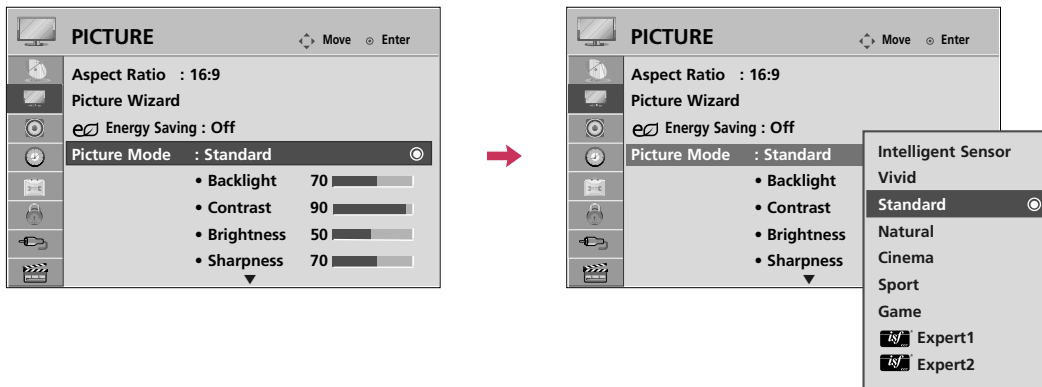
13  Finish the Picture Wizard.









- If you stop the setting before the final step, the changes will not be saved to the TV.
- Once the **Picture Wizard** sets the picture quality, **Energy Saving** is changed to **Off** automatically.
- **Picture Wizard** setup value is not applied for the HDMI5 input source.

# PICTURE CONTROL

## PRESET PICTURE SETTINGS (PICTURE MODE)

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



- 1   Select **PICTURE**.
- 2   Select **Picture Mode**.
- 3   Select **Intelligent Sensor, Vivid, Standard, Natural, Cinema, Sport, or Game**.
- 4  Return to the previous menu.
-  Return to TV viewing.













- When selecting **Intelligent Sensor**, **Energy Saving** is changed to **Auto** automatically.
- When selecting **Intelligent Sensor**, it is changed contrast, brightness, sharpness, color and tint automatically.
- **Vivid, Standard, Natural, Cinema, Sport, and Game** Settings are preset for the optimum picture quality at the factory.
- **Intelligent Sensor**: The most suitable picture is automatically adjusted according to the surrounding conditions.
- **Vivid**: This is the mode to maximize the effect of the video in the retail store. Strengthen the contrast, brightness, color and sharpness for vivid picture.
- **Standard**: This is the mode to realize optimum viewing condition for the general user.
- **Natural**: This is the mode to display the most natural screen status.
- **Cinema**: This mode optimizes video for watching movies.
- **Sport**: This is the video mode to emphasize dynamic video and primary color (e.g. white, uniform, grass, sky blue etc.) by realizing the optimal screen for sports.
- **Game**: This is the mode to realize fast response speed in a fast gaming screen.
- **Expert**: This is the mode to adjust the video in detail for video quality expert and general user.
- You can also adjust **Picture Mode** in the **Q.MENU**.



# MANUAL PICTURE ADJUSTMENT - USER MODE

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



- 1   Select **PICTURE**.
- 2   Select **Picture Mode**.
- 3   Select **Vivid, Standard, Natural, Cinema, Sport, or Game**.
- 4   Select **Backlight, Contrast, Brightness, Sharpness, Color, or Tint**.
- 5   Make appropriate adjustments.
- 6  Return to the previous menu.
-  Return to TV viewing.

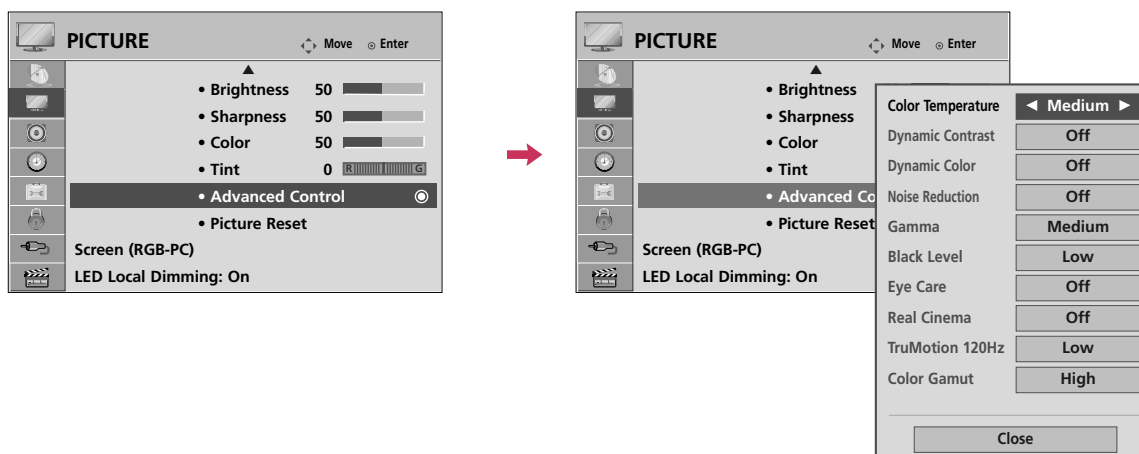
- When adjusting Energy Saving, **Backlight** function is disabled.
- **Backlight:** This function adjusts the brightness of LCD panel, to control the brightness of the screen. Adjusting the backlight is recommended when setting the brightness of the set. When decreasing the backlight, the brightness of the black becomes darker without any loss in video signal and the power consumption is reduced.
- **Contrast:** Increase or decrease the gradient of the video signal. You may use Contrast when the bright part of the picture is saturated.
- **Brightness:** Adjusts the base level of the signal in the picture. You may use Brightness when the dark part of the picture is saturated.
- **Sharpness:** Adjusts the level of crispness in the edges between the light and dark areas of the picture. The lower the level, the softer the image.
- **Color:** Adjusts intensity of all colors.
- **Tint:** Adjusts the balance between red and green levels.




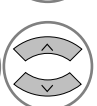

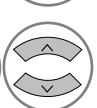


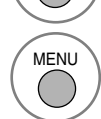
# PICTURE CONTROL

## PICTURE IMPROVEMENT TECHNOLOGY

You can calibrate the screen for each Picture Mode or set the video value according to the special video screen. You can set the video seeing differently for each input.

To reset to the factory default after making adjustments to each input source, execute the **Picture Reset** function for each Picture Mode.

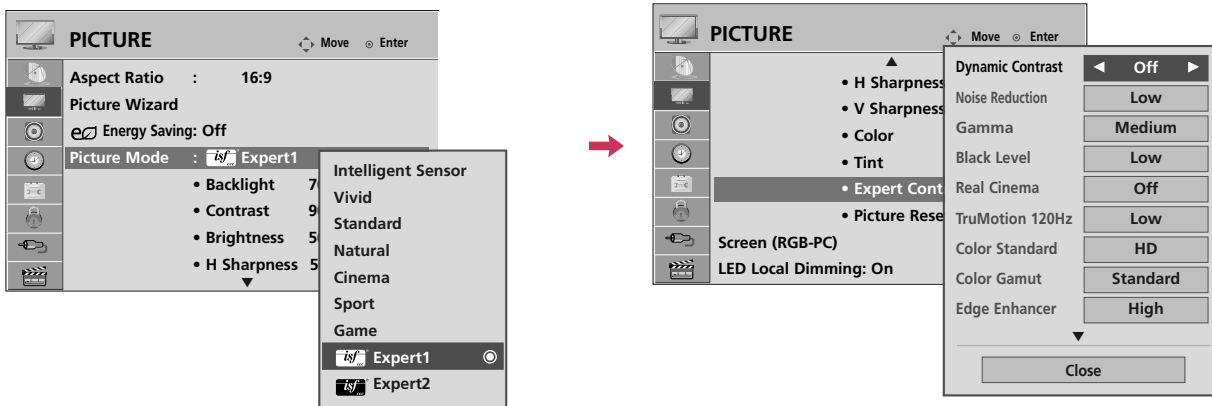


-   Select **PICTURE**.
-   Select **Advanced Control**.
-   Select your desired options.
-  Make appropriate adjustments.
-  Return to the previous menu.
-  Return to TV viewing.

# EXPERT PICTURE CONTROL

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

This may also be used by a professional to help optimize the TV performance in the environment the TV is in.



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

# PICTURE CONTROL

Color Temperature	<ul style="list-style-type: none"> <li>■ Set to warm to enhance hotter colors such as red, or set to cool to enhance cooler colors such as blue.</li> </ul>
Dynamic Contrast	<ul style="list-style-type: none"> <li>■ Adjusts the contrast to keep it at the best level according to the brightness of the screen. The picture is improved by making bright parts brighter and dark parts darker.</li> </ul>
Dynamic Color	<ul style="list-style-type: none"> <li>■ Adjusts screen colors so that they look livelier, richer and clearer. This feature enhances hue, saturation and luminance so that red, blue, green and white look more vivid.</li> </ul>
Noise Reduction	<ul style="list-style-type: none"> <li>■ Reduces screen noise without compromising video quality.</li> </ul>
Gamma	<p><i>Low : Make dark and middle gray level area of the picture brighter.</i>  <i>Medium: Express original picture levels.</i>  <i>High: Make dark and middle gray level area of the picture darker.</i></p> <ul style="list-style-type: none"> <li>■ You can adjust brightness of dark area and middle gray level area of the picture.</li> </ul>
Black Level	<p><i>Low: The reflection of the screen gets darker.</i>  <i>High: The reflection of the screen gets brighter.</i></p> <ul style="list-style-type: none"> <li>■ Set black level of the screen to proper level.</li> <li>■ This function is available in the following modes: AV (NTSC-M), HDMI or Component.</li> </ul>
Eye Care	<ul style="list-style-type: none"> <li>■ Adjust the brightness of the screen to prevent the screen from being too bright. Dims extremely bright pictures.</li> <li>■ This feature is disabled in “<b>Picture Mode-Vivid, Cinema, Intelligent Sensor</b>”.</li> </ul>
Real Cinema	<ul style="list-style-type: none"> <li>■ Makes video clips recorded in film look more natural by eliminating judder effect.</li> <li>■ DVD and Blu-ray movies are filmed at 24 frames per second (fps). With LG Real Cinema, every frame is consistently processed 5 times in 1/24 of a second producing 120 fps with TruMotion or 2 times in 1/24 of a second producing 48 fps without TruMotion, thus totally eliminating the judder effect.</li> <li>■ This function can work when TruMotion is off.</li> </ul>
TruMotion	<p><i>High: Provides smoother picture movement.</i>  <i>Low: Provides smooth picture movement. Use this setting for standard use.</i>  <i>Off: Use this setting when “High” and “Low” settings result in noise.</i></p> <ul style="list-style-type: none"> <li>■ TruMotion works with all inputs except PC mode.</li> <li>■ If you enable “TruMotion”, noise may appear on the screen. If this occurs, set “TruMotion” to “Off”.</li> </ul>

Color Gamut	<p><i>Standard: Displays standard set of colors.</i>  <i>Wide: Increase number of colors used.</i></p> <ul style="list-style-type: none"> <li>■ Maximize the utilization of color to increase color quality.</li> </ul>
Edge Enhancer	<ul style="list-style-type: none"> <li>■ Show clearer and distinctive yet natural edges in of the video.</li> <li>■ This function is enabled in "<b>Picture Mode - Cinema, Expert</b>".</li> </ul>
Color Standard	<ul style="list-style-type: none"> <li>■ Convert the color of a different video to HD color.</li> </ul>
Color Filter	<ul style="list-style-type: none"> <li>■ This is the function to filter the specific colors of the video.  You can use the RGB filter to set color saturation and hue accurately.</li> </ul>
xvYCC	<p><i>*This feature is not available for all models.</i></p> <ul style="list-style-type: none"> <li>■ This is the function to express richer color.</li> <li>■ This feature represents rich color as much as conventional video signal.</li> <li>■ This function is enabled in "<b>Picture mode - Cinema, Expert</b>" when xvYCC signal is inputted through HDMI.</li> </ul>
Expert Pattern	<ul style="list-style-type: none"> <li>■ This is the pattern necessary for expert adjustment.</li> <li>■ This function is enabled in "<b>Picture Mode - Expert</b>" when you watch DTV.</li> </ul>
White Balance	<ul style="list-style-type: none"> <li>■ Adjusts the overall color of the screen by changing the color of white. <ol style="list-style-type: none"> <li>Method : 2 Points <ul style="list-style-type: none"> <li>- Pattern: Inner, Outer</li> <li>- Red/Green/Blue Contrast, Red/Green/Blue Brightness:  The adjustment range is -50 - +50.</li> </ul> </li> <li>Method : 10 Point IRE <ul style="list-style-type: none"> <li>- Pattern: Inner, Outer</li> <li>- IRE (Institute of Radio Engineers) is the unit to display the size of the video signal and can be set among 10, 20, 30 - 100. You can adjust Red, Green or Blue according to each setting.</li> <li>- Luminance: This function displays calculated luminance value for 2.2 gamma. You can input luminance value you want at 100 IRE, than the target luminance value for 2.2 gamma is displayed at every 10 steps from 10 IRE to 90 IRE.</li> <li>- Red/Green/Blue: The adjustment range is -50 - +50.</li> </ul> </li> </ol> </li> </ul>
Color Management System	<ul style="list-style-type: none"> <li>■ As the tool used by the experts to make adjustments by using the test patterns, this does not affect other colors but can be used to selectively adjust the 6 color areas (Red/Green/Blue/Cyan/Mgt/Yellow).  Color difference may not be distinctive even when you make the adjustments for the general video.</li> </ul> <p>Adjusts Red/Green/Blue/Yellow/Cyan, Magenta.</p> <ul style="list-style-type: none"> <li>- Red/Green/Blue/Yellow/Cyan, Magenta Color: The adjustment range is -30 - +30.</li> <li>- Red/Green/Blue/Yellow/Cyan, Magenta Tint: The adjustment range is -30 - +30.</li> <li>- This feature is disable in RGB-PC and HDMI-PC mode.</li> </ul>
OPC	<p><i>*This feature is not available for all models.</i></p> <ul style="list-style-type: none"> <li>■ As the technology to reduce the power consumption while keeping the same brightness, this has the effect of reducing power consumption, improvement in contrast.</li> </ul>

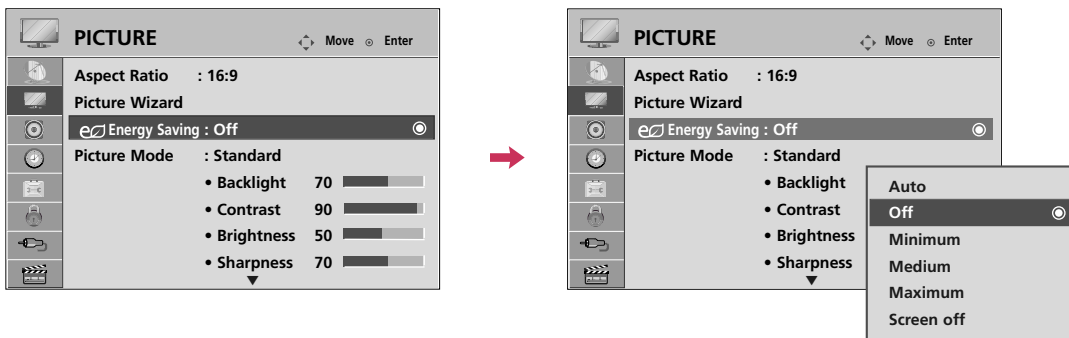
# PICTURE CONTROL









## ENERGY SAVING

It reduces the TV's power consumption by lowering the backlight level.

The default factory setting complies with the **Energy Star** requirements and is adjusted to the comfortable level to be viewed at home.

You can increase the brightness of your screen by adjusting the **Energy Saving** level or by setting the **Picture Mode**.

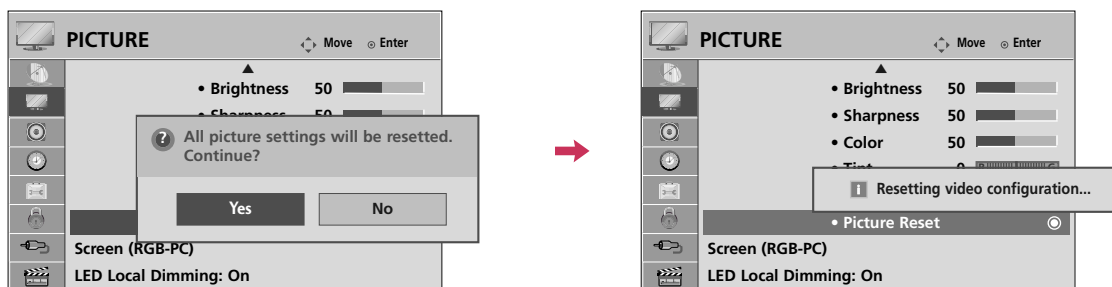










-   Select **PICTURE**.
-   Select **Energy Saving**.
-   Select **Auto, Off, Minimum, Medium, Maximum, or Screen Off**.
-  Return to the previous menu.
-  Return to TV viewing.

- When selecting **Screen off**, TV will turn off after 3 seconds.
- If you adjust “**Energy Saving-Auto, Minimum, Medium, Maximum**”, **Backlight** feature will not work.
- When selecting **Auto**, **Backlight** is automatically adjusted through **Intelligent sensor** according to the surrounding conditions.
- Press the **ENERGY SAVING** button repeatedly to select the appropriate Energy Saving setup.

# PICTURE RESET

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

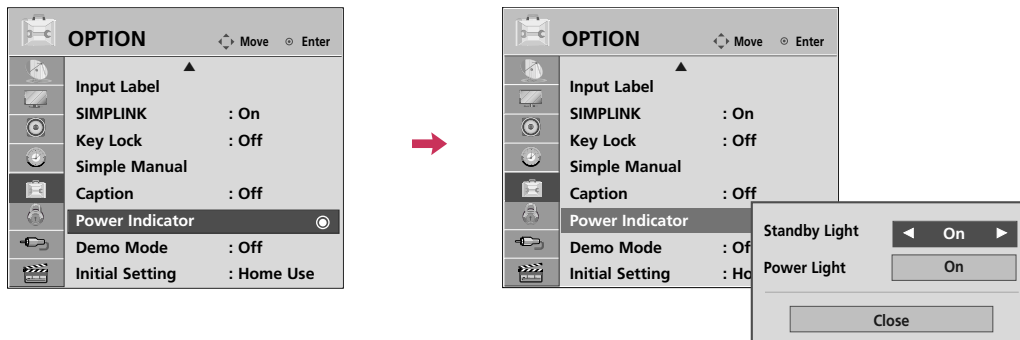












- 1   Select **PICTURE**.
- 2   Select **Picture Reset**.
- 3   Select **Yes**.
- 4  Initialize the adjusted value.
- 5  Return to TV viewing.

# PICTURE CONTROL

## POWER INDICATOR

Adjust the power/standby indicator light on the front of the TV.



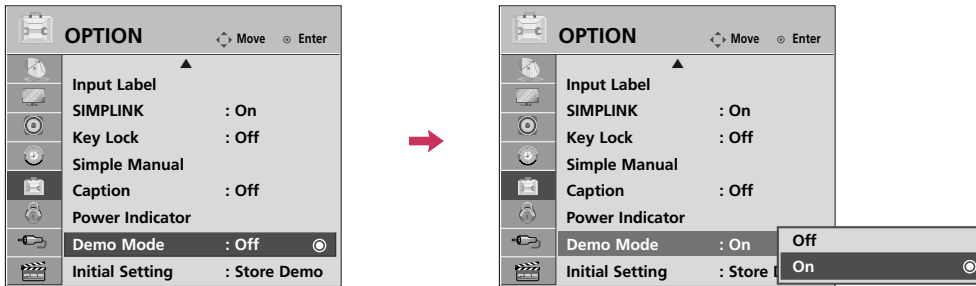
-   Select **OPTION**.
-   Select **Power Indicator**.
-   Select **Standby Light** or **Power Light**.
-   Select your desired options.
-  Return to the previous menu.
-  Return to TV viewing.








- **Standby Light:** Determines whether to set the indicator light on the front of the TV to **On** or **Off** in standby mode.
- **Power Light:** Determines whether to set the indicator light on the front of the TV to **On** or **Off** when the power turns on.



# DEMO MODE

Displays a slide show to explain the various feature of this TV.



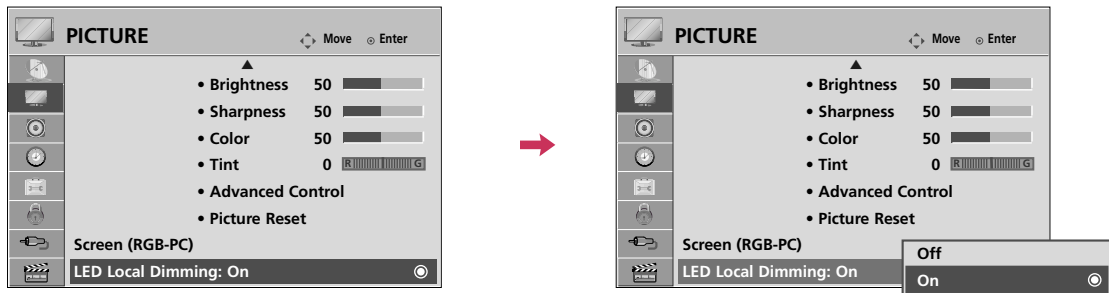
-   Select **OPTION**.
-   Select **Demo Mode**.
-   Select **On** to show the various feature of the TV.
-  Return to TV viewing.  
After a while, **Demo Mode** starts.  
If you want to stop the demo, press any button (Except VOL +, - and MUTE button).









■ This feature is disabled in “Initial Setting-Home Use”.

# PICTURE CONTROL

## LED LOCAL DIMMING - For 55LHX

After analyzing the signal of the input video by areas of the screen, it adjusts the backlight to improve the contrast ratio. This feature is disabled in "Picture Mode - Game" and PC mode.



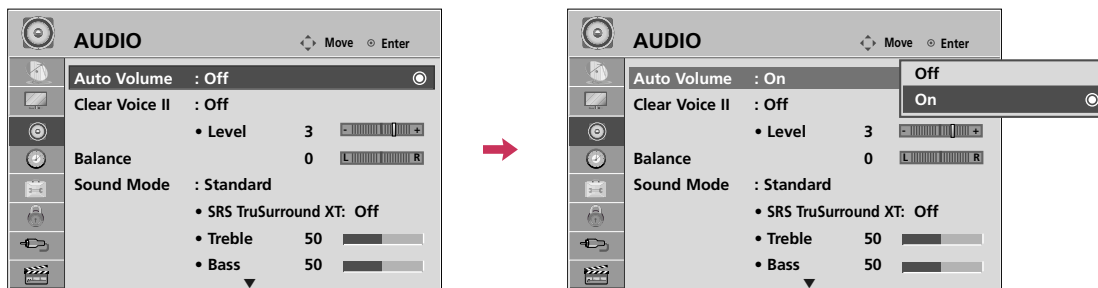
-   Select **PICTURE**.
-   Select **LED Local Dimming**.
-   Select **On** or **Off**.
-  Return to the previous menu.
-  Return to TV viewing.









# SOUND & LANGUAGE CONTROL

## AUTO VOLUME LEVELER (AUTO VOLUME)

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

Because each broadcasting station has its own signal conditions, volume adjustment may be needed every time the channel is changed. This feature allows users to enjoy stable volume levels by making automatic adjustments for each program.

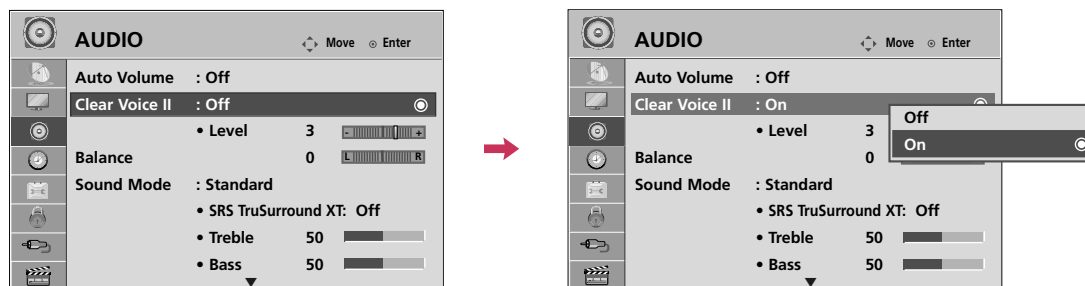



-   Select **AUDIO**.
-   Select **Auto Volume**.
-   Select **On** or **Off**.
-  Return to the previous menu.
-  Return to TV viewing.

# SOUND & LANGUAGE CONTROL




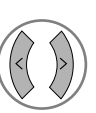

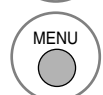
## CLEAR VOICE II

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



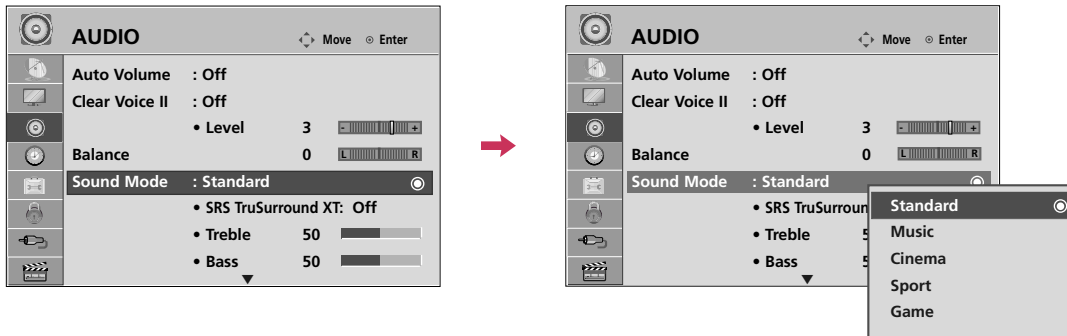
-   Select **AUDIO**.
-   Select **Clear Voice II**.
-   Select **On** or **Off**.









### Adjustment for Clear Voice Level With selecting **On**

-   Select **Level**.
-   Make appropriate adjustments.
-  Return to the previous menu.
-  Return to TV viewing.

# PRESET SOUND SETTINGS (SOUND MODE)

Sound Mode lets you enjoy the best sound without any special adjustment using factory presets.



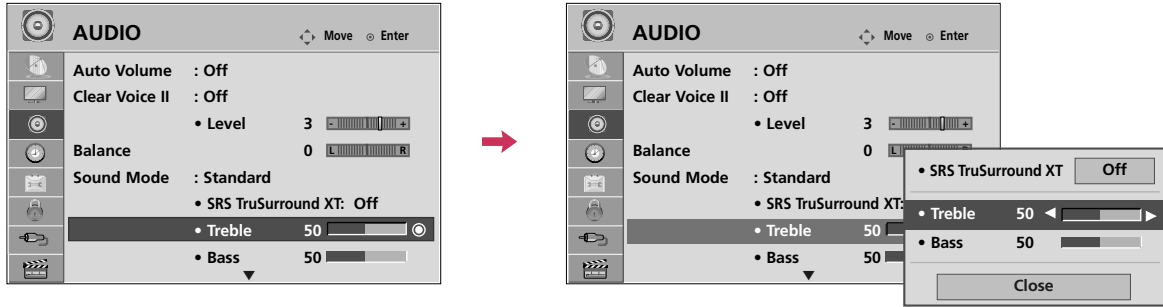
- 1   Select **AUDIO**.
- 2   Select **Sound Mode**.
- 3   Select **Standard, Music, Cinema, Sport, or Game**.
- 4  Return to the previous menu.
-  Return to TV viewing.






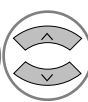
- **Standard, Music, Cinema, Sport, and Game** are preset for optimum sound quality at the factory.
- You can also adjust **Sound Mode** in the **Q.MENU**.
- **Standard:** Offers standard-quality sound.
- **Music:** Optimizes sound for listening to music.
- **Cinema:** Optimizes sound for watching movies.
- **Sport:** Optimizes sound for watching sports events.
- **Game:** Optimizes sound for playing games.


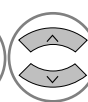

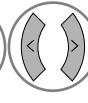


# SOUND & LANGUAGE CONTROL

## SOUND SETTING ADJUSTMENT - USER MODE

Adjust the sound to suit your taste and room situations.


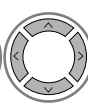

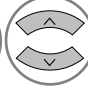

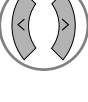
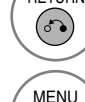



- 1   Select **AUDIO**.
- 2   Select **Sound Mode**.
- 3   Select **Standard, Music, Cinema, Sport, or Game**.

- 4   Select **Treble or Bass**.
- 5   Make appropriate adjustments.
- 6  Return to the previous menu.
-  Return to TV viewing.

## SRS TRUSURROUND XT

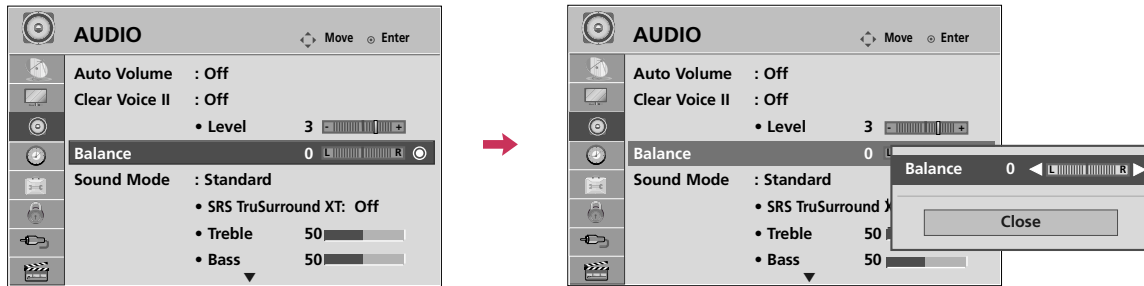
Select this option to sound realistic.









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

- If sound quality or volume is not at the level you want, it is recommended to use a separate home theater system or amp to cope with different user environments.
- If you select “**Clear Voice II-On**”, **SRS TruSurround XT** feature will not work.
- **SRS TruSurround XT**: TruSurround XT is a patented SRS technology that solves the problem of playing 5.1 multichannel content over two speakers.

# BALANCE

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



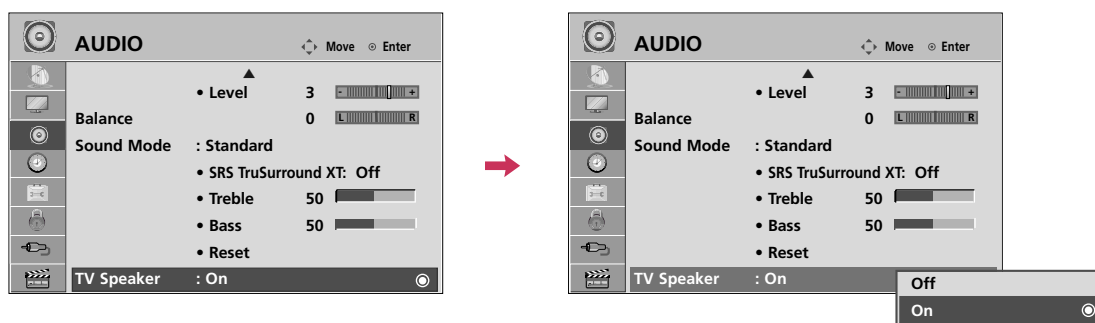
-   Select **AUDIO**.
-   Select **Balance**.
-   Make appropriate adjustments.
-  Return to the previous menu.
-  Return to TV viewing.









# SOUND & LANGUAGE CONTROL

## TV SPEAKERS ON/OFF SETUP

If you wish to use an external Hi-Fi system or a SRS System, turn off the TV's internal speakers.

In **AV**, **Component**, **RGB** and **HDMI** with HDMI to DVI cable, the TV speaker can be operational even when there is no video signal.

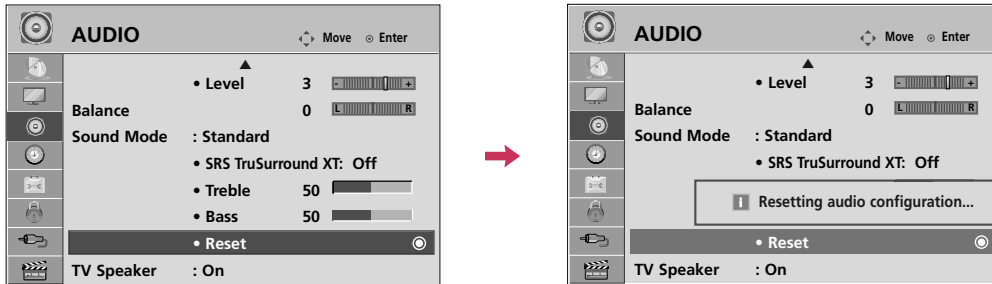








-   Select **AUDIO**.
-   Select **TV Speaker**.
-   Select **On** or **Off**.
-  Return to the previous menu.
-  Return to TV viewing.



# AUDIO RESET

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



- 1   Select **AUDIO**.
- 2   Select **Reset**.
- 3  Initialize the adjusted value.
- 4  Return to TV viewing.


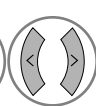


# SOUND & LANGUAGE CONTROL

## STEREO/SAP BROADCAST SETUP


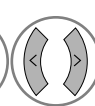


On analog signals, this TV can receive MTS stereo programs and any SAP (Secondary Audio Program) that accompanies the stereo program if the station transmits an additional sound signal. Mono sound is automatically used if the broadcast is only in Mono.



### Analog TV

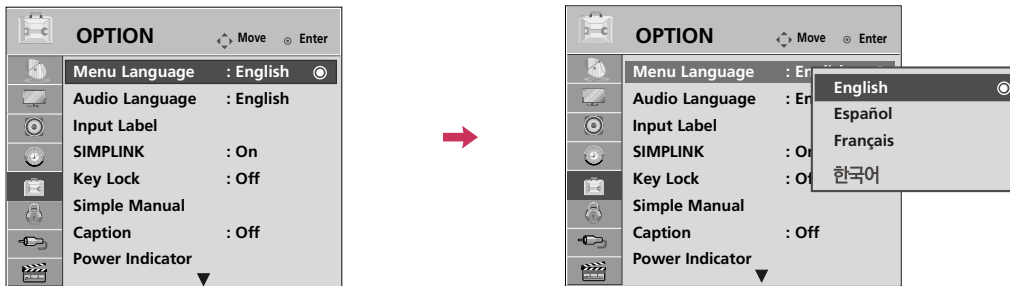
- 1   Select **SAP**.
- 2  Select **Mono, Stereo, or SAP**.
- 3  Return to TV viewing.









### Digital TV

- 1   Select **Multi Audio**.
- 2  Select other languages.
- 3  Return to TV viewing.

# ON-SCREEN MENUS LANGUAGE SELECTION

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

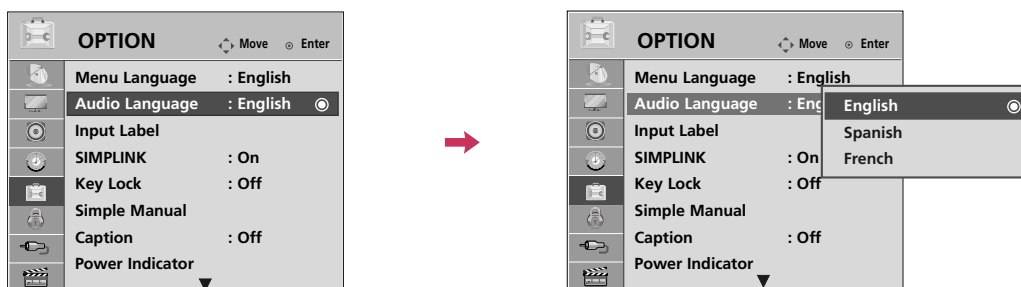










- 1   Select **OPTION**.
- 2   Select **Menu Language**.
- 3   Select your desired language.  
From this point on, the on-screen menus will be shown in the selected language.
- 4  Return to the previous menu.
-  Return to TV viewing.

# SOUND & LANGUAGE CONTROL

## AUDIO LANGUAGE

This feature operates only in DTV/CADTV mode.

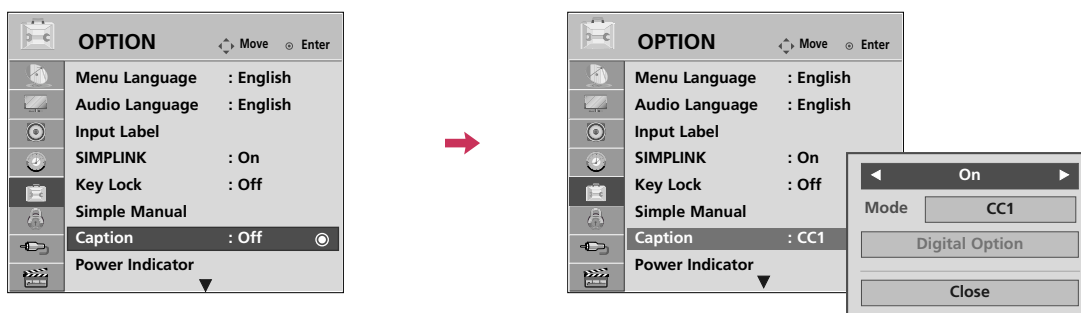












-   Select **OPTION**.
-   Select **Audio Language**.
-   Select your desired language.
-  Return to the previous menu.
-  Return to TV viewing.

# CAPTION MODE

## Analog Broadcasting System Captions

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



- 1   Select **OPTION**.
- 2   Select **Caption**.
- 3   Select **On**.
- 4   Select **CC1-4** or **Text1-4**.
- 5  Return to the previous menu.
-  Return to TV viewing.

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

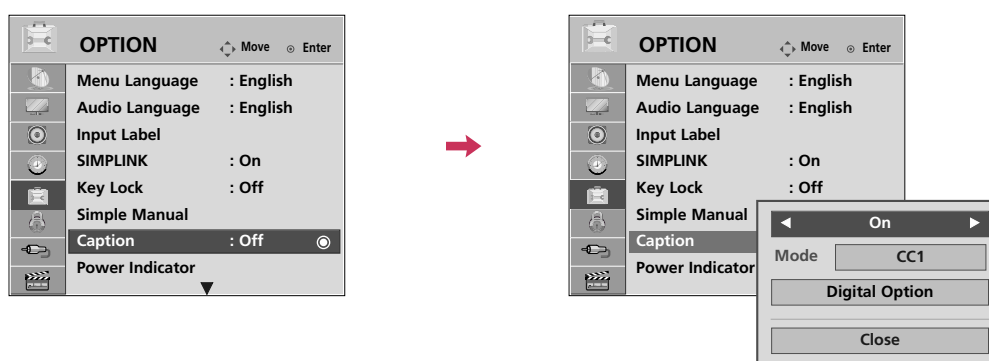
# SOUND & LANGUAGE CONTROL


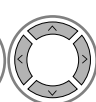

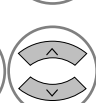

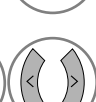




## Digital Broadcasting System Captions

Choose the language you want the DTV/CADTV Captions to appear in.

Other Languages can be chosen for digital sources only if they are included on the program.

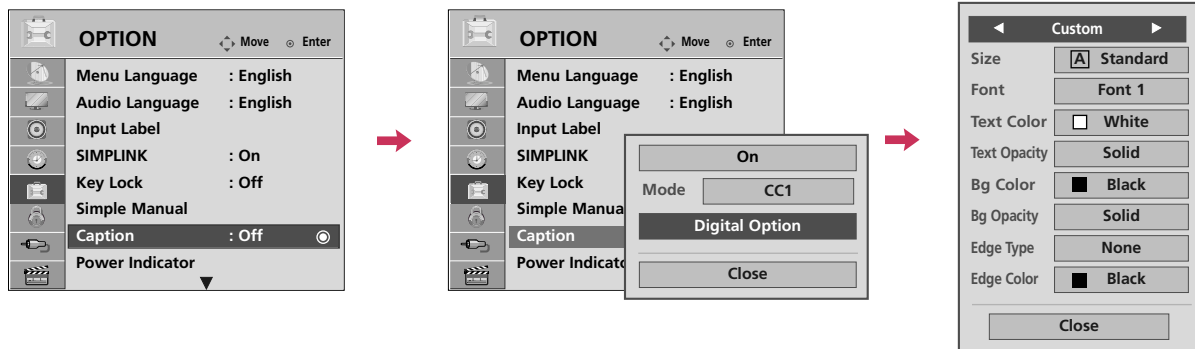
This function is only available when **Caption Mode** is set **On**.



-   Select **OPTION**.
-   Select **Caption**.
-   Select **On**.
-   Select **CC1-4, Text1-4, or Service1 - 6**.
-  Return to the previous menu.
-  Return to TV viewing.

## Caption Option

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



1 Select **OPTION**.

2 Select **Caption**

3 Select **On**.

4 Select **Digital Option**.

5 Select **Custom**.

6 Customize the **Size**, **Font**, etc., to your preference. A preview icon is provided at the bottom of the screen, use it to see the caption language.

7 Return to the previous menu.

Return to TV viewing.

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

# TIME SETTING

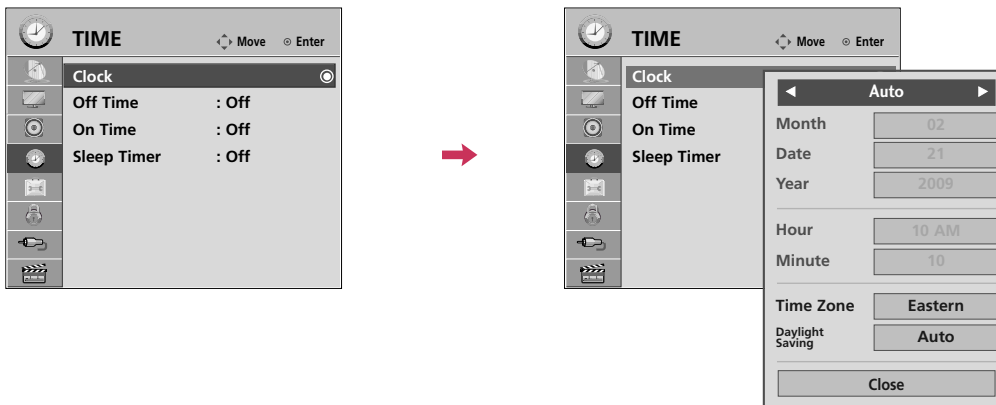
## CLOCK SETTING

### Auto Clock Setup

The time is set automatically from a digital channel signal.

The digital channel signal includes information for the current time provided by the broadcasting station.



Set the clock manually if the current time is set incorrectly by the auto clock function.






1   Select **TIME**.


2   Select **Clock**.

3   Select **Auto**.

4   Select your viewing area time zone.  
• U.S.A: **Eastern, Central, Mountain, Pacific, Alaska, or Hawaii.**  
• Canada: **Eastern, Central, Mountain, Pacific, New F.land, or Atlantic.**

5   Select **Auto, Off, or On** (depending on whether or not your viewing area observes Daylight Saving time).

6  Return to the previous menu.

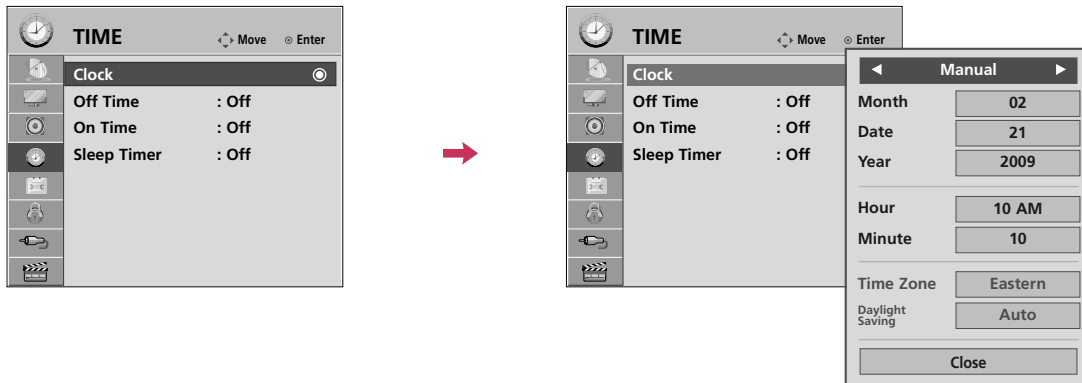
 Return to TV viewing.













## Manual Clock Setup

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

If the Media Box is unplugged once or turn off with the AC power control switch on the Media Box, reset the **Clock** function.



- 1   Select **TIME**.
- 2   Select **Clock**.
- 3   Select **Manual**.
- 4  Select the Year, Month, Date, Hour, or Minutes option.
- 5  Set the Year, Month, Date, Hour, or Minutes option.
- 6  Return to the previous menu.
-  Return to TV viewing.

# TIME SETTING

## AUTO ON/OFF TIME SETTING

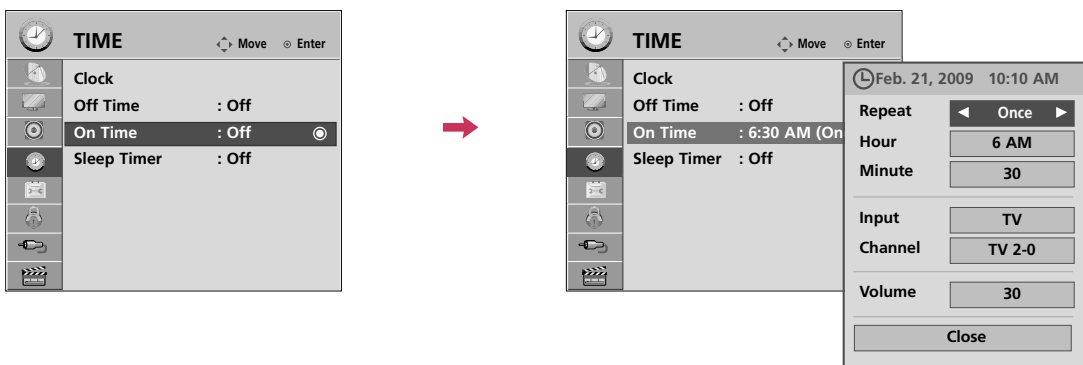
This function operates only if the current time has been set.

The **Off Time** function overrides the **On Time** function if they are both set to the same time.

The TV must be in standby mode for the **On Time** to work.

If you do not press any button within 2 hours after the TV turns on with the **On Time** function, the TV will automatically revert to standby mode.

If you turn the Media Box or TV off using the main power switch after setting **On Time**, the **On Time** function will not work because the main power is off.



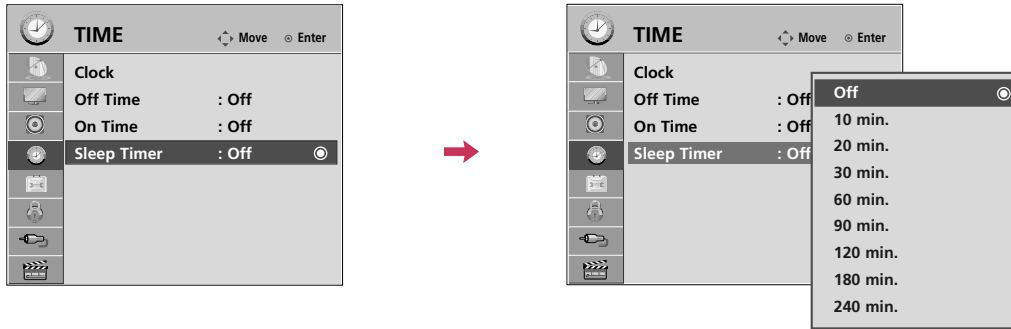
- 1 Select **TIME**.
- 2 Select **Off Time** or **On Time**.
- 3 Select **Repeat**.
- 4 Select **Off, Once, Daily, Mon.~Fri., Mon.~Sat., Sat.~ Sun., or Sun..**
- 5 Select and set **Hour** or **Minute**.
- 6 Return to the previous menu.
- Return to TV viewing.









- To cancel **On/Off Time** function, select **Off**.
- Only for **On Time** function

- 1 Select **Input**.
- 2 Select the desired input source.
- 3 When Selecting **TV**: set the channel at turn-on.
- 4 Adjust to sound level at turn-on.

# SLEEP TIMER SETTING

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



- 1   Select **TIME**.
- 2   Select **Sleep Timer**.
- 3   Make appropriate adjustments.
- 4  Return to the previous menu.
-  Return to TV viewing.

■ To cancel the **Sleep Timer**, select **Off**.  
■ You can also adjust **Sleep Timer** in the **Q.MENU**.

# PARENTAL CONTROL / RATINGS

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

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

1. Set ratings and categories to be blocked.
2. Specify a password
3. Enable the lock

## V-Chip rating and categories

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

## Ratings for Television programs including made-for-TV movies:

- TV-G (General audience)
- TV-PG (Parental guidance suggested)
- TV-14 (Parents strongly cautioned)
- TV-MA (Mature audience only)
- TV-Y (All children)
- TV-Y7 (Children 7 years older)

## SET PASSWORD & LOCK SYSTEM

### Setting up Your Password

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



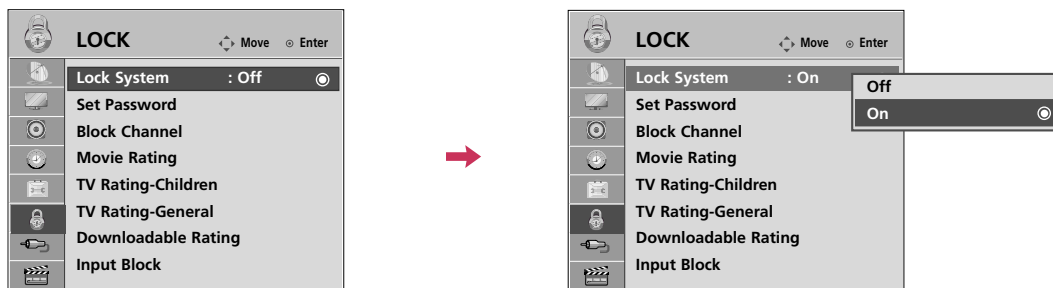
1 MENU Select LOCK.



2 Input the password.


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

## Lock System

Enables or disables the blocking scheme you set up previously.





1 MENU   Select **LOCK**.

2  Input the password.

3  Select **Lock System**.

4   Select **On** or **Off**.

5  Return to the previous menu.

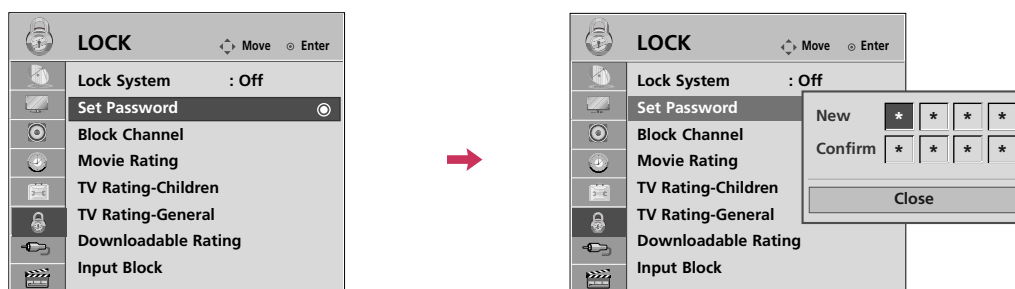
 Return to TV viewing.




- When you select **On**, the Lock System is enable.


# PARENTAL CONTROL / RATINGS

## Set Password



Change the password by inputting a new password twice.





1    Select **LOCK**.

2  Input the password.

3  Select **Set Password**.

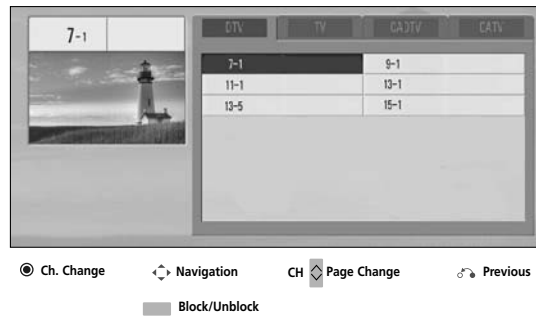
4   Choose any 4 digits for your new password.  
As soon as the 4 digits are entered, re-enter the same 4 digits on the **Confirm**.

5  Return to the previous menu.

 Return to TV viewing.

# CHANNEL BLOCKING

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



1 Select **LOCK**.

2 Input the password.

3 Select **Block Channel**.

4 Select a channel to block or unblock.

5 Block or unblock a channel.

6 Return to the previous menu.

Return to TV viewing.

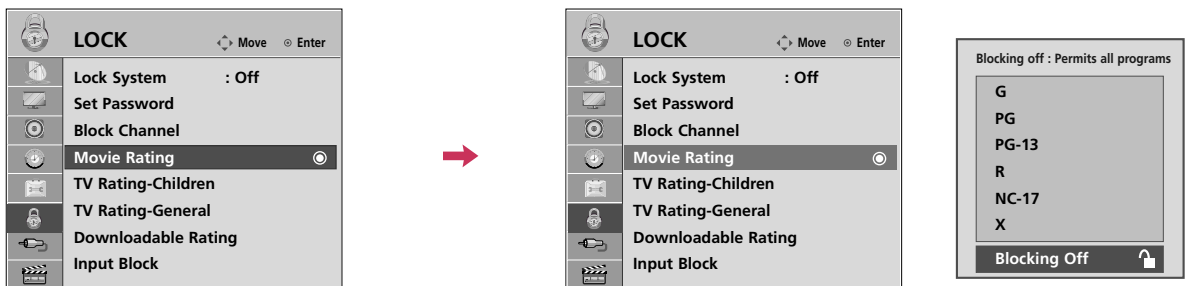
■ If a channel is locked, enter the password to unlock it temporarily.

# PARENTAL CONTROL / RATINGS

## MOVIE & TV RATING

### Movie Rating (MPAA) - For USA

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



1 Select **LOCK**.

2 Input the password.

3 Select **Movie Rating**.

4 Select **G, PG, PG-13, R, NC-17, X, or Blocking Off**.

5 Return to the previous menu.

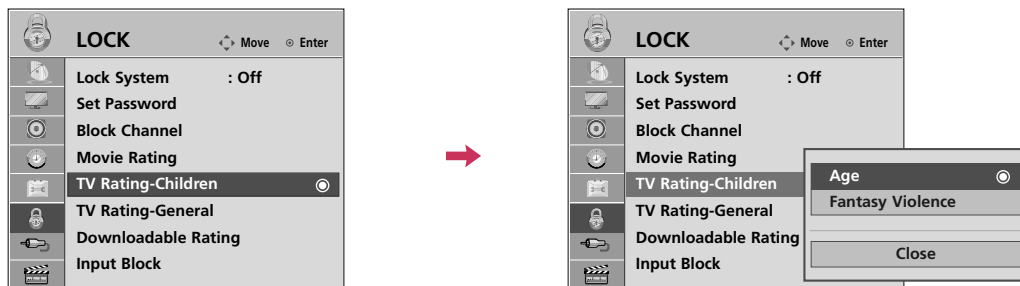
Return to TV viewing.




- If **Movie Rating, TV Rating-Children** or **TV Rating-General** is locked, enter the password to unlock it temporarily.
- G (General audience)
- PG (Parental guidance suggested)
- PG-13 (Parents strongly cautioned)
- R (Restricted)
- NC-17 (No one 17 and under admitted)
- X (Adult only)
- Blocking Off (Permits all programs)
- ▶ If you set PG-13: G and PG movies will be available, PG-13, R, NC-17 and X will be blocked.




## TV Rating Children - For USA


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




1 MENU    Select **LOCK**.


2  Input the password.

3  Select **TV Rating-Children**.

4   Select **Age** or **Fantasy Violence**.

5   Select block options.

6  Return to the previous menu.

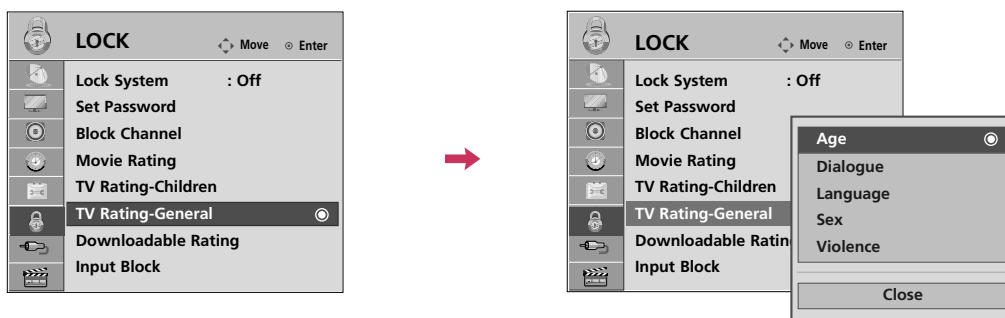
 Return to TV viewing.












- Age (applies to TV-Y, TV-Y7)
- Fantasy Violence (applies to TV-Y7)

# PARENTAL CONTROL / RATINGS

## TV Rating General - For USA

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

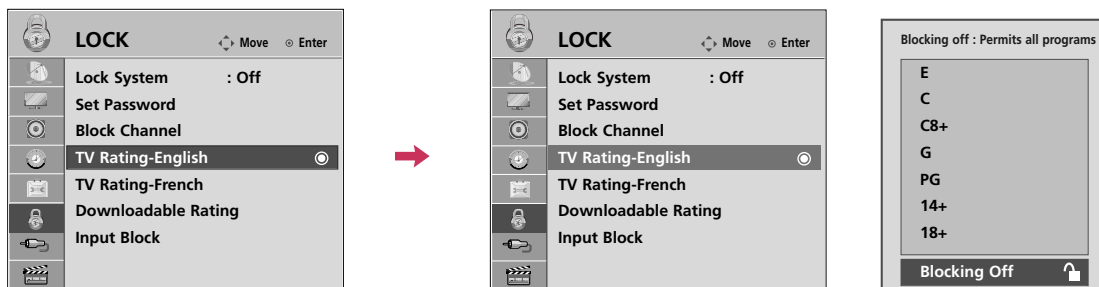


- 1    Select **LOCK**.
- 2  Input the password.
- 3  Select **TV Rating-General**.
- 4   Select **Age, Dialogue, Language, Sex or Violence**.
- 5   Select block options.
- 6  Return to the previous menu.
-  Return to TV viewing.

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

## TV Rating English - For CANADA

Selecting Canadian English rating system.



1 Select **LOCK**.

2 Input the password.

3 Select **TV Rating-English**.

4 Select **E, C, C8+, G, PG, 14+, 18+, or Blocking Off**.

5 Return to the previous menu.

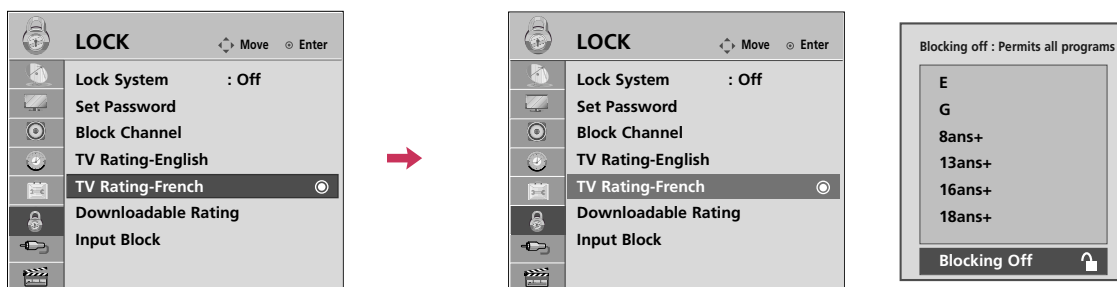
Return to TV viewing.

- If **TV Rating-English** or **TV Rating-French** is locked, enter the password to unlock it temporarily.
- E (Exempt)
- C (Children)
- C8+ (Children eight years and older)
- G (General programming, suitable for all audiences)
- PG (Parental Guidance)
- 14+ (Viewers 14 years and older)
- 18+ (Adult programming)
- Blocking Off (Permits all programs)

# PARENTAL CONTROL / RATINGS

## TV Rating French - For CANADA

Selecting Canadian French rating system.



1 MENU Select **LOCK**.

2 Input the password.

3 Select **TV Rating-French**.

4 Select **E, G, 8ans+, 13ans+, 16ans+, 18ans+, or Blocking off**.

5 Return to the previous menu.

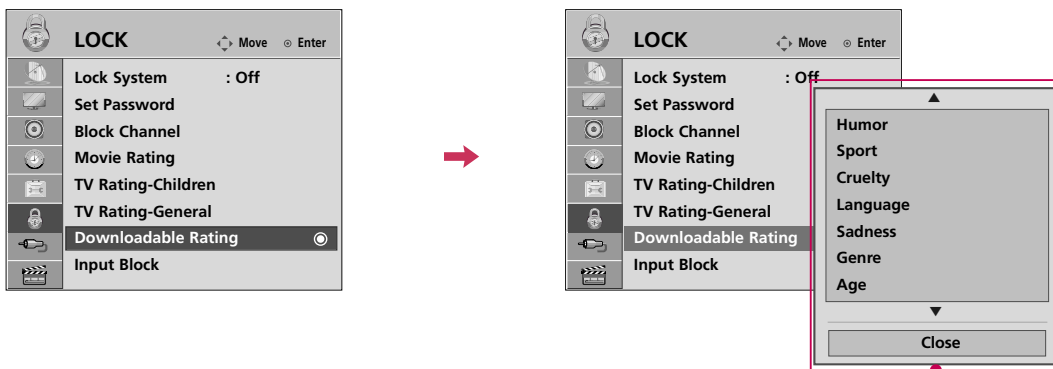
Return to TV viewing.

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












# DOWNLOADABLE RATING

This function is available only for digital channels.

This function operates only when TV has received Region5 Rating data.



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

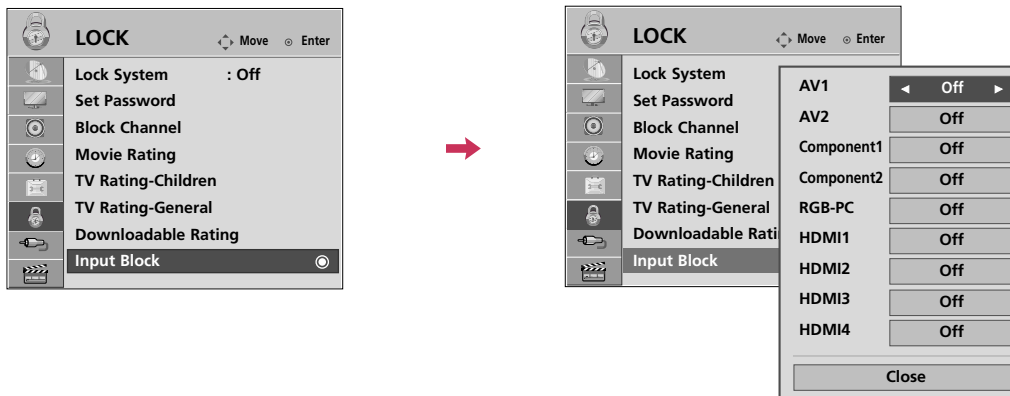
- 1    Select **LOCK**.
- 2  Input the password.
- 3  Select **Downloadable Rating**.
- 4   Select desired **Downloadable Rating** option.
- 5   Select desired option and block it.
- 6  Return to the previous menu.
-  Return to TV viewing.

■ If a Downloadable rating is locked, enter the password to unlock it temporarily.

# PARENTAL CONTROL / RATINGS

## EXTERNAL INPUT BLOCKING

Enables you to block an input.



1 MENU Select LOCK.

2 Input the password.

3 Select Input Block.

4 ENTER Select input source.

5 Select On or Off.

6 RETURN Return to the previous menu.

MENU Return to TV viewing.

# APPENDIX

## TROUBLESHOOTING

Abnormal Operation	
The remote control doesn't work	<ul style="list-style-type: none"> <li>Check to see if there is any object between the product and the remote control causing obstruction. Ensure you are pointing the remote control directly at the TV.</li> <li>Ensure that the batteries are installed with correct polarity (+ to +, - to -).</li> <li>Ensure that the correct remote operating mode is set: TV, VCR etc.</li> <li>Install new batteries.</li> </ul> <p style="text-align: right;">*This feature is not available for all models.</p>
Power is suddenly turned off	<ul style="list-style-type: none"> <li>Is the sleep timer set?</li> <li>Check the power control settings. Power interrupted.</li> <li>If there is no signal, the TV turns off automatically in 15 minutes.</li> </ul>

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

# APPENDIX

## Audio Problems

Picture OK & No sound	<ul style="list-style-type: none"> <li>■ Press the VOL or VOLUME button.</li> <li>■ Sound muted? Press MUTE button.</li> <li>■ Try another channel. The problem may be with the broadcast.</li> <li>■ Are the audio cables installed properly?</li> </ul>
No output from one of the speakers	<ul style="list-style-type: none"> <li>■ Adjust Balance in menu option.</li> </ul>
Unusual sound from inside the product	<ul style="list-style-type: none"> <li>■ A change in ambient humidity or temperature may result in an unusual noise when the product is turned on or off and does not indicate a fault with the product.</li> </ul>
No sound when connecting HDMI/USB	<ul style="list-style-type: none"> <li>■ Check HDMI cable over version 1.3.</li> <li>■ Check USB cable over version 2.0.</li> <li>■ Use normal MP3 file.</li> </ul> <p style="text-align: right;">*This feature is not available for all models.</p>

## PC Mode Problems

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



### Movie List Problems

The file does not appear on the Movie List.

- Check whether the extension is supported.

Message is displayed saying “This file is invalid” or the audio is working normally but the video is not working normally.

- Check whether the file is playing normally on a PC. (Check whether the file is damaged.)
- Check whether the resolution is supported.
- Check whether the video/audio codec is supported.
- Check whether the frame rate is supported.

Message is displayed saying “Unsupported Audio” or the video is working normally but the audio is not working normally.

- Check whether the file is playing normally on a PC. (Check whether the file is damaged.)
- Check whether the audio codec is supported.
- Check whether the bit rate is supported.
- Check whether the sample rate is supported.

Subtitle is not working.

- Check whether the file is playing normally on a PC. (Check whether the file is damaged.)
- Check whether the video file and subtitle file name are the same.
- Check whether the video file and subtitle file are located in the same folder.
- Check whether the subtitle file is supported.
- Check whether the language is supported. (When you open the subtitle file in Memo Pad, you can check the language of the subtitle file.)

### Wireless Connection Problems

Wireless connection is not established or is frequently disconnected.

- Adjust the location of the Media Box.
- Check if there are any obstacles near the TV or Media Box.
- Make sure the Media Box is turned on.

# APPENDIX

## MAINTENANCE

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

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

### Cleaning the Screen

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

### Cleaning the Cabinet

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

### Extended Absence

#### CAUTION

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

## PRODUCT SPECIFICATIONS

MODELS		47LH85 (47LH85-UC)	55LH85 (55LH85-UC)	55LHX (55LH95-UA)
Dimensions (Width x Height x Depth)	With stand	46.4 x 33.5 x 15.7 inches 1179.0 x 851.4 x 398.8 mm	54.0 x 37.9 x 17.8 inches 1373.0 x 964.3 x 454.2 mm	51.0 x 34.6 x 14.8 inches 1295.7 x 879.0 x 378.0 mm
	Without stand	46.4 x 30.7 x 4.1 inches 1179.0 x 780.6 x 105.9 mm	54.0 x 34.9 x 4.2 inches 1373.0 x 888.5 x 106.9 mm	51.0 x 31.4 x 1.4 inches 1295.7 x 798.0 x 37.5 mm
Weight	With stand	55.9 lbs / 25.4 kg	86.4 lbs / 39.2 kg	74.9 lbs / 34.0 kg
	Without stand	47.6 lbs / 21.6 kg	74.5 lbs / 33.8 kg	57.3 lbs / 26.0 kg
MODELS		ASW1000 (ASW1000-UA)		
Dimensions (Width x Height x Depth)		16.7 x 2.7 x 9.5 inches 426.0 x 68.6 x 234.5 mm		
Weight		5.7 lbs / 2.6 kg		
Power requirement Television System Program Coverage External Antenna Impedance		AC100-240V ~ 50/60Hz NTSC-M, ATSC, 64 & 256 QAM VHF 2-13, UHF 14-69, CATV 1-135, DTV 2-69, CADTV 1-135 75 ohm		
Environment condition	Operating Temperature Operating Humidity	32 ~ 104°F (0 ~ 40°C) Less than 80%		
	Storage Temperature Storage Humidity	-4 ~ 140°F (-20 ~ 60°C) Less than 85%		

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

## RF SPECIFICATIONS

FCC ID: BEJAX5296, IC: 2703L-EAX5296

Symbol	Parameter	Min.	Typical	Max.	Units
Fc (HRP)	HRP Frequency Range	59.4	60.48	61.56	GHz
Fc (LRP1)	LRP1 Frequency Range	60.272375	60.321375	60.370375	GHz
Fc (LRP2)	LRP2 Frequency Range	60.431	60.480	60.529	GHz
Fc (LRP3)	LRP3 Frequency Range	60.589625	60.638625	60.687625	GHz
BW (HRP)	HRP Occupied Bandwidth			1.76	GHz
BW (LRP)	LRP Occupied Bandwidth			92	MHz
P HREIRP	HRP Radiated Power (EIRP)	23	25	27	dBm
P LREIRP	LRP Radiated Power (EIRP)	8	11	21	dBm
G HRTX	HRP Transmit Antenna Gain		15	17	dBi
G LRTX	LRP Transmit Antenna Gain		3	13	dBi

# APPENDIX

## IR CODES

Code (Hexa)	Function	Note	Code (Hexa)	Function	Note
08	POWER	Remote control Button (Power On/Off)	D6	TV	Discrete IR Code (TV Input Selection)
F0	TV	Remote control Button			
45	Q.MENU	Remote control Button	C4	POWER ON	Discrete IR Code (Only Power On)
43	MENU	Remote control Button			
0B	INPUT	Remote control Button	C5	POWER OFF	Discrete IR Code (Only Power Off)
10-19	Number Key 0-9	Remote control Button			
4C	- (Dash)/LIST	Remote control Button	5A	AV1	Discrete IR Code (AV1 Input Selection)
1A	FLASHBK	Remote control Button			
09	MUTE	Remote control Button	D0	AV2	Discrete IR Code (AV2 Input Selection)
02	VOL +	Remote control Button			
03	VOL -	Remote control Button	BF	COMPONENT1	Discrete IR Code (Component1 Input Selection)
00	CH ^	Remote control Button			
01	CH v	Remote control Button	D4	COMPONENT2	Discrete IR Code (Component2 Input Selection)
1E	FAV/MARK	Remote control Button			
40	^	Remote control Button	D5	RGB-PC	Discrete IR Code (RGB-PC Input Selection)
41	v	Remote control Button			
07	<	Remote control Button	CE	HDMI1	Discrete IR Code (HDMI1 Input Selection)
06	>	Remote control Button			
44	ENTER	Remote control Button	CC	HDMI2	Discrete IR Code (HDMI2 Input Selection)
28	RETURN	Remote control Button			
95	ENERGY SAVING	Remote control Button	E9	HDMI3	Discrete IR Code (HDMI3 Input Selection)
7E	SIMPLINK	Remote control Button			
AA	INFO	Remote control Button	DA	HDMI4	Discrete IR Code (HDMI4 Input Selection)
30	AV MODE	Remote control Button			
72	RED	Remote control Button	76	Ratio 4:3	Discrete IR Code (Only 4:3 Mode)
71	GREEN	Remote control Button			
63	YELLOW	Remote control Button	77	Ratio 16:9	Discrete IR Code (Only 16:9 Mode)
61	BLUE	Remote control Button			
B1	■	Remote control Button	AF	Ratio Zoom	Discrete IR Code (Only Zoom Mode)
B0	▶	Remote control Button			
BA		Remote control Button			
8F	◀◀	Remote control Button			
8E	▶▶	Remote control Button			

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When a program is linked with a library, whether statically or using a shared library, the combination of the two is legally speaking a combined work, a derivative of the original library. The ordinary General Public License therefore permits such linking only if the entire combination fits its criteria of freedom. The Lesser General Public License permits more lax criteria for linking other code with the library.

We call this license the "Lesser" General Public License because it does less to protect the user's freedom than the ordinary General Public License. It also provides other free software developers less of an advantage over competing non-free programs. These disadvantages are the reason we use the ordinary General Public License for many libraries. However, the Lesser license provides advantages in certain special circumstances.

For example, on rare occasions, there may be a special need to encourage the widest possible use of a certain library, so that it becomes a de-facto standard. To achieve this, non-free programs must be allowed to use the library. A more frequent case is that a free library does the same job as widely used non-free libraries. In this case, there is little to gain by limiting the free library to free software only, so we use the Lesser General Public License.

In other cases, permission to use a particular library in non-free programs enables a greater number of people to use a large body of free software. For example, permission to use the GNU C Library in non-free programs enables many more people to use the whole GNU operating system, as well as its variant, the GNU/Linux operating system.

Although the Lesser General Public License is Less protective of the users' freedom, it does ensure that the user of a program that is linked with the Library has the freedom and the wherewithal to run that program using a modified version of the Library.

The precise terms and conditions for copying, distribution and modification follow. Pay close attention to the difference between a "work based on the library" and a "work that uses the library". The former contains code derived from the library, whereas the latter must be combined with the library in order to run.

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"Source code" for a work means the preferred form of the work for making modifications to it. For a library, complete source code means all the source code for all modules it contains, plus any associated interface definition files, plus the scripts used to control compilation and installation of the library.

Activities other than copying, distribution and modification are not covered by this license; they are outside its scope. The act of running a program using the Library is not restricted, and output from such a program is covered only if its contents constitute a work based on the library (independent of the use of the Library in a tool for writing it). Whether that is true depends on what the library does and what the program that uses the library does.

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  - You must cause the files modified to carry prominent notices stating that you changed the files and the date of any change.
  - You must cause the whole of the work to be licensed at no charge to all third parties under the terms of this license.
  - If a facility in the modified Library refers to a function or a table of data to be supplied by an application program that uses the facility, other than as an argument passed when the facility is invoked, then you must make a good faith effort to ensure that, in the event an application does not supply such function or table, the facility still operates, and performs whatever part of its purpose remains meaningful.

(For example, a function in a library to compute square roots has a purpose that is entirely well-defined independent of the application. Therefore, Subsection 2d requires that any application-supplied function or table used by this function must be optional: if the application does not supply it, the square root function must still compute square roots.)

These requirements apply to the modified work as a whole. If identifiable sections of that work are not derived from the library, and can be reasonably considered independent and separate works in themselves, then this license, and its terms, do not apply to those sections when you distribute them as separate works. But when you distribute the same sections as part of a whole which is a work based on the library, the distribution of the whole must be on the terms of this license, whose permissions for other licenses extend to the entire whole, and thus to each and every part regardless of who wrote it.

Thus, it is not the intent of this section to claim rights or contest your rights to work written entirely by you; rather, the intent is to exercise the right to control the distribution of derivative or collective works based on the library.

In addition, mere aggregation of another work not based on the library with the library (or with a work based on the library) on a volume of a storage or distribution medium does not bring the other work under the scope of this license.

# APPENDIX

3. You may opt to apply the terms of the ordinary GNU General Public License instead of this License to a given copy of the Library. To do this, you must alter all the notices that refer to this License, so that they refer to the ordinary GNU General Public License, version 2, instead of to this License. (If a newer version than version 2 of the ordinary GNU General Public License has appeared, then you can specify that version instead if you wish.) Do not make any other change in these notices.

Once this change is made in a given copy, it is irreversible for that copy, so the ordinary GNU General Public License applies to all subsequent copies and derivative works made from that copy.

This option is useful when you wish to copy part of the code of the library into a program that is not a library.

4. You may copy and distribute the library (or a portion or derivative of it, under Section 2) in object code or executable form under the terms of Sections 1 and 2 above provided that you accompany it with the complete corresponding machine-readable source code, which must be distributed under the terms of sections 1 and 2 above on a medium customarily used for software interchange.

If distribution of object code is made by offering access to copy from a designated place, then offering equivalent access to copy the source code from the same place satisfies the requirement to distribute the source code, even though third parties are not compelled to copy the source along with the object code.

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:
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Version 1.1

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

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