# User Guide

This is a「User Guide」installed on the TV.

The contents of this guide are subject to change without prior notice for quality improvement.

## ❒ To view program information

**Wheel(OK) ⇨ Info.**

Displays information about the current program and/or current time, etc.

✎ Image shown may differ from your TV.

## ❒ To set favorite channels

HOME ⇨ Settings → CHANNEL → Channel Edit

1 Move to the desired channel on Wheel(OK) button. Channel is selected.
2 Press Set as Favorite.
3 Select the desired favorite channel group.
4 Select Enter. Favorite is set.

## ❒ To use Favorite

HOME ⇨ Ch. List

Channel list will appear. Select the desired preset favorite channel from Favorite List A to D.

# HOME ⇨ Program Guide

## [In Digital Mode Only]

Obtains information about programs and airtime. Obtains program information and viewing/recording schedules.

[Image shown may differ from your TV.]

Press Wheel(OK) button after moving to the desired program to view or view/record programs.

After viewing the schedule, makes revisions or deletions.

Schedule reservation by selecting date/time/channel. Makes repeat schedule reservation.

## ❐ To set Auto Tuning

HOME ⇨ Settings ➔ CHANNEL ➔ Auto Tuning

Automatically tunes the channels.

- ✎ Channels are not registered properly unless the antenna/cable is connected correctly.
- ✎ Auto Tuning only sets channels that are currently broadcasting.
- ✎ If Lock System is turned on, a pop-up window will appear asking for password.

## ❒ To set channels manually

HOME ⇨ Settings ➔ CHANNEL ➔ Manual Tuning

Adjusts channels manually and saves the results.

For digital broadcasting, signal strength, etc. can be checked.

## ❒ To edit channels

HOME ⇨ Settings → CHANNEL → Channel Edit

Edits the saved channels.

Set as favorite, block/unblock and skip etc. the selected channel.

## ❒ About Interactivity (DTVi)

This TV has the interactivity feature of Digital TV (DTVi) that allows using applications, also known as Ginga®.

- ✎ By selecting a digital channel that has interactivity, it will be possible to visualize and interact with applications transmitted by broadcasters. The contents can vary and some examples are: weather forecast, real time news, traffic situation, soap operas and program descriptions, interactive games, access to bank accounts, government services, soccer information and other sports.
- ✎ If your TV has internet connection and the application allows sending information, it'll be possible to interact with the applications* answering surveys, making purchases, casting votes, between others.

* The application must make the aforementioned resources available.

✎ Observations:

1 All contents of interactive applications (DTVi) are under responsibility of the TV broadcasters.

2 It's not possible to visualize interactivity (DTVi) and Closed Caption (Subtitles) at the same time.

3 More information can be obtained at:
http://www.forumsbtvd.org.br/
http://www.ginga.org.br/

## ❒ To set Interactivity (DTVi)

HOME ⇨ Settings → OPTION → Interactivity (DTVi)

- Automatic: At this mode, by selecting a digital channel that has interactivity, the application (DTVi) will be shown automatically on your TV.
- Manual: At this mode, by selecting a digital channel that has interactivity, the application (DTVi) will only be visible by pressing the red color key of the remote control.

## HOME ⇨ Settings → PICTURE → Aspect Ratio

Selects the screen aspect ratio.

| | |
|---|---|
| 16:9 | Resizes the image ratio to fit a 16:9 screen. |
| Just Scan | Displays high-quality image without loss.<br>✎ In DTV/HDMI/Component (over 720p) mode, Just Scan is available. |
| Set by Program | Depending on the input signal, screen aspect ratio changes to 4:3 or 16:9. |
| 4:3 | Resizes the image ratio to fit 4:3 screen. |
| Zoom | Resizes the image to fit the screen width. The top and bottom parts of the image may be cut off. |
| Zoom2 | [Only for SBTVD.]<br>Resizes the image to fit the screen width. The height of the image does not change. |

| | |
|---|---|
| Cinema Zoom | Formats an image to the cinemascope ratio (2.35:1) and zooms in on the ratio. |

- While viewing an external device, these cases may result in image burn:
  - a video with stationary caption (such as network name)
  - 4 : 3 aspect ratio mode for an extended period

  Take caution when using these functions.
- Available picture size may differ depending on the input signal.
- The screen aspect ratios on HDMI/RGB-PC input are available in 4:3 and 16:9 only.
- [For models supporting 2160p] When a 2160p signal is input or your PC resolution is set to 3840 x 2160, the Aspect Ratio is fixed to Just Scan.

## ❒ To adjust pictures in PC input mode

HOME ⇨ Settings → PICTURE → Screen (RGB-PC)

Adjusts picture in RGB-PC mode.

| | |
|---|---|
| Resolution | Sets the desired resolution.<br>✎ Resolution may only be selected when the PC resolution is set to 1024x768, 1280x768 or 1360x768. |
| Auto Configuration | Optimizes picture. |
| Position/Size/Phase | If screen size or location is distorted, user can directly adjust the screen size and position. |
| Reset | Resets all the changes on picture settings on PC input mode. |

## ❒ To set PC resolution

1 Right-click on the desktop of PC and select「Properties」.
2 Click on「Settings」and refer to supported formats to set the resolution.
3 Select「Advanced → Monitor → Monitor Settings」on the setting window. Refer to supported formats to select the optimal vertical frequency.

✎ On PC mode, 1920X1080 resolution delivers the optimum picture quality.

✎ Resolution settings differ depending on the type of PC.

## □ Formats Supported

| PC Input Mode | Resolution | Horizontal Frequency (KHz) | Vertical Frequency (Hz) |
|---|---|---|---|
| HDMI-PC/ RGB-PC | 640x350 | 31.468 | 70.09 |
| | 720x400 | 31.469 | 70.08 |
| | 640x480 | 31.469 | 59.94 |
| | 800x600 | 37.879 | 60.31 |
| | 1024x768 | 48.363 | 60.00 |
| | 1360x768 | 47.712 | 60.015 |
| | 1920x1080 | 67.5 | 60.00 |
| HDMI-PC | 1280x1024 | 63.981 | 60.020 |

## HOME ⇨ Quick Menu → AV Mode

Views the TV with the best picture / audio optimized for different AV modes.

| | |
|---|---|
| Off | Views with the value set at the picture / sound menu. |
| Cinema / THX Cinema | Optimizes picture and audio settings for movies. |
| Game | Optimizes picture and audio settings for games. |

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

## ❒ To adjust pictures with Picture Wizard

HOME ⇨ Settings → PICTURE → Picture Wizard II

Use the remote control and follow the instructions of the Picture Wizard to calibrate and adjust for the optimum picture quality without expensive pattern devices or help from a specialist.

Follow the instructions to obtain the optimum picture quality.

## ❒ To select Picture Mode

HOME ⇨ Settings → PICTURE → Picture Mode

Selects the picture mode optimized for the viewing environment or the program.

| | |
|---|---|
| Vivid | Heightens contrast, brightness, and sharpness to display vivid images. |
| Standard | Displays images in standard levels of contrast, brightness, and sharpness. |
| APS | APS: Auto Power Saving<br>This mode sets the optimum brightness depending on the ambient lightiing and have energy saving function. It also sets optimum picture quality and minimum power consumption depending on the input picture. |

| | |
|---|---|
| Cinema/ THX Cinema/ Game/Photo | Displays the optimum picture for movie, game and photo (still image).<br>[THX Cinema : Depending on model] |
| isf Expert | Menu for adjusting picture quality that allows experts and amateurs to enjoy the best TV viewing. This menu is ISF-certified and provided for picture tuning experts. (ISF logo can only be used on ISF-certified TV units.)<br>ISFccc: Imaging Science Foundation Certified Calibration Control |

✎ Depending on the input signal, available range of picture modes may differ.

✎ isf Expert mode is for picture tuning professionals to control and fine-tune using a specific image. For normal images, the effects may not be drastic.

## ❒ To fine-tune picture mode

**HOME ⇨ Settings → PICTURE → Picture Mode → Contrast/ Brightness/Sharpness/Color/Tint/Color Temp.**

Selects the desired Picture Mode first.

| | |
|---|---|
| Contrast | Adjusts the difference between bright and dark regions of the screen. |
| Brightness | Adjusts the overall screen brightness. |
| Sharpness | Adjusts the sharpness of the borders between bright and dark. |
| Color | Adjusts the color that appears on the screen darker or lighter. |

| | |
|---|---|
| Tint | Adjusts the red/green color balance. |
| Color Temp. | Adjusts the overall tone of colors to hot or cool. |

✎ Depending on the input signal or other picture settings, the range of detailed items for adjustment may differ.

## ❒ To set advanced control

**HOME ⇨ Settings → PICTURE → Picture Mode → Advanced control/ Expert Control**

For each picture mode, screen can be calibrated; or for a special screen, picture settings can be adjusted. Selects the desired Picture Mode first.

| | |
|---|---|
| Dynamic Contrast | Adjusts contrast and color to the optimal level according to the screen's brightness. |
| Preferred Color | Skin Color : Skin color spectrum can be separately set to implement the skin color defined by the user. |
| | Grass Color : Natural color spectrum (meadows, hills, etc.) can be separately set. |
| | Sky Color : Sky color is set separately. |

| | |
|---|---|
| Super Resolution | Provides a crystal-clear picture by improving the details in an area that has a blurry or unclear picture. |
| Gamma | Sets the gradation curve according to the output of picture signal in relation to the input signal. |
| Color Gamut | Selects the range of colors that can be expressed. |
| Edge Enhancer | Shows clearer and distinctive yet natural edges of the video. |
| xvYCC | Expresses richer colors. |
| Color Filter | Filters a specific color spectrum in RGB colors to fine-tune color saturation and hue accurately. |
| Expert Pattern | Patterns used for expert adjustment. |

| | |
|---|---|
| White Balance | Adjusts the overall tone of the screen as desired.<br>In Expert mode, detailed fine-tuning can be set via Method / Pattern and the like. |
| Color Management System | This is a function used by experts when they adjust colors with test pattern of six colors (Red/Green/Blue/Cyan/Magenta/Yellow) without affecting other color areas.<br>For normal images, adjustments may not result in noticeable color change. |

✎ Depending on input signal, or other picture settings, the range of detailed items for adjustment may differ.

## ❒ To set additional picture options

HOME ⇨ Settings → PICTURE → Picture Mode → Picture Option

Adjusts detailed setting for images

| | |
|---|---|
| Noise Reduction | Reduces screen noise in the video. |
| Black Level | Adjusts the brightness or darkness of the screen to fit the black level of the picture input using the screen's degree of darkness (black level). |
| Film Mode | Optimizes the screen for movie viewing. |
| Motion Eye Care | [Depending on model]<br>Adjusts screen brightness to prevent eye glare. |

## ❒ To reset Picture Mode

HOME ⇨ Settings → PICTURE → Picture Mode → Picture Reset

Resets the values customized by the user.

Each picture mode is reset. Select the desired picture mode.

## HOME ⇨ Settings → PICTURE → Picture Mode → Picture Option → TruMotion

Corrects images to display smoother motion sequences.

| | |
|---|---|
| Smooth | De-Judder value is set at 3. |
| Clear | De-Judder value is set at 7. |
| User | De-Judder can be set manually.<br>• De-Judder : This function adjusts juddering of the screen. |

✎ If the video signal is 60Hz, TruMotion may not work.

## ❒ To use Sound Mode

**HOME ⇨ Settings → SOUND → Sound Mode**

Optimizes TV audio to the selected sound mode.

| | |
|---|---|
| Standard | Suitable for all types of video |
| Music/Cinema/Sport/Game | Sets audio optimized for a specific genre. |
| Vivid | Delivers distinct voices with rich bass and clear, high-pitched sounds. |
| User Setting | Adjusts the volume to the desired level using the User EQ. |

## ❒ To fine-tune the volume

HOME ⇨ Settings → SOUND → User EQ

Sets Sound Mode at User Setting first.

| | |
|---|---|
| 100 Hz / 300 Hz / 1 kHz/ 3 kHz / 10 kHz | Sets EQ by manually adjusting sound bands. |
| Reset | Resets previously changed equalizer value. |

## ❒ To set Volume Mode

HOME ⇨ Settings → SOUND → Volume Mode

Sets various modes for volume control.

| | |
|---|---|
| Auto Volume | Sets Auto Volume to On. Different volume outputs from channel to channel. They are then automatically adjusted for convenient TV watching when, clicking through different channels. |
| Volume Control | Using a single volume curve may result in an inaudible or loud sound depending on the environment. This function adjusts comfortable volume levels depending on day/night. |

## ❒ To use Sound Optimizer function

HOME ⇨ Settings → SOUND → Sound Optimizer

Allows optimized sound for individual TV installation.

| | |
|---|---|
| Normal | General sound mode |
| Wall Mount Type | Optimizes sound for a wall-mounted TV. |
| Stand Type | Optimizes sound for a stand-mounted TV. |

## ❒ To use Virtual Surround feature

HOME ⇨ Settings → SOUND → Virtual Surround

LG's proprietary audio processing technology allows 5.1ch-like surround sound from two speakers.

✎ When Clear Voice II is set to On, Virtual Surround cannot be selected.

## ❒ To use Clear Voice II feature

HOME ⇨ Settings → SOUND → Clear Voice II

Boosts voice clarity.

## ❒ To set AV Sync

**HOME ⇨ Settings → SOUND → AV Sync.**

Synchronizes unmatched video and audio. Select AV Sync. to On to synchronize audio output (TV speaker or SPDIF) with the video.

| | |
|---|---|
| TV Speaker | Adjusts the sync of the sound from the TV's internal speakers. The "-" button makes the sound output faster and the "+" button slower than the default value. |
| SPDIF | (Sony Philips Digital InterFace) Adjusts the sync of the sound from speakers connected to digital audio out terminal. The "-" button makes the sound output faster and the "+" button slower than the default value. |

| | |
|---|---|
| Bypass | Outputs broadcasting signals or the audio of an external device without audio delay. Audio may be output before video as it takes time to process video input into the TV. |

## ❒ To use ARC mode

**HOME ⇨ Settings → SOUND → Sound Setting → ARC Mode**

External audio devices that support Audio Return Channel (ARC) can be connected with High-Speed HDMI® cable without an extra optical audio cable to output SPDIF. It interfaces with SIMPLINK.

For an external device that supports ARC (Audio Return Channel), connect it to the HDMI(ARC) port.

| | |
|---|---|
| Off | Even when the connected ARC-supported external audio device is turned on, audio output is not processed through the external audio device's speakers. |
| On | When an ARC-supported external audio device is turned on, audio output is automatically processed through the external audio device's speakers. SIMPLINK must be turned on.<br>For SIMPLINK, refer to「General → To use input device」. |

- Connect to ARC-only terminal when connecting to external devices.
- Use high-speed HDMI® cable when connecting to external devices.
- Use of a third-party device with an ARC function may cause malfunctions.

## ❒ To adjust audio balance

HOME ⇨ Settings → SOUND → Sound Setting → Balance

Adjusts left/right audio balance.

## ❒ To use TV's speakers

HOME ⇨ Settings → SOUND → Sound Setting → TV Speaker

When listening to the speakers on the external audio devices connected to TV such as home theater, TV speaker may be turned off. When there are SIMPLINK connected home theater devices, selecting TV Speaker to OFF will automatically turn on home theater.

| | |
|---|---|
| Off | There is no sound from the TV speakers.<br>Delivers TV sound through external audio device speakers connected to the TV.<br>✎ Adjusts the volume with the knob attached to the external device. |
| On | Produces TV sound through the TV's internal speaker. |

## ❒ To use Digital Sound Out

HOME ⇨ Settings → SOUND → Sound Setting → Digital Sound Out

Sets up Digital Sound Out.

| Item | Sound Input | Digital Sound output |
|---|---|---|
| Auto | MPEG | PCM |
| | Dolby Digital | Dolby Digital |
| | Dolby Digital Plus | Dolby Digital |
| | HE-AAC | Dolby Digital |
| PCM | All | PCM |

HOME ⇨ Quick Menu → Multi Audio

Multi Audio means stereo and multiple language broadcast from the channel provider.

## □ In the case of digital broadcast

Multiple languages can be selected depending on the multi-language signals from the TV station.

For default language, select at HOME ⇨ Settings → OPTION → Language → Audio Language.

## □ In the case of analog broadcast

| | |
|---|---|
| Mono | Left and right speakers produce sound, and the sound model is mono. Select this menu to listen in Mono mode regardless of broadcast state. This can be set for a stereo broadcast signal. Select Mono in poor reception areas (e.g., areas with weak or erratic signals) or when multi audio reception is not clear. |
| Stereo | The sound mode is in stereo when the sound comes out of both left and right speakers. |
| SAP | Changes the MTS sound. |

## ❒ To select external input

### HOME ⇨ Input List

Selects external input.

Selects speaker.

Selects input.

Sets SIMPLINK.

Edits the name of external device connected to external terminal.

## ❒ To use SIMPLINK

SIMPLINK allows users to control and manage multiple multimedia devices using the convenient TV remote control and SIMPLINK menu.

1 Connect the TV's HDMI IN terminal with SIMPLINK device's HDMI output terminal using HDMI cable. For home theater units with SIMPLINK function, connect HDMI terminals as above and use an optical cable to connect Optical Digital Audio Out from the TV to Optical Digital Audio In of the SIMPLINK device.
2 Select HOME ⇨ SIMPLINK. SIMPLINK menu window appears.
3 Select Set SIMPLINK on SIMPLINK menu window. SIMPLINK setup window appears.
4 Set SIMPLINK to On in SIMPLINK setup window.
5 Close SIMPLINK setup window.
6 Select the device to control from HOME ⇨ SIMPLINK.

- This function works only on devices with the SIMPLINK logo ( SIMPLINK ). Make sure that the external device has a SIMPLINK logo.
- To use SIMPLINK function, use a high-speed HDMI® cable (with CEC, or Consumer Electronics Control feature added) and No. 13 pin connected for information exchange between devices.
- Turn on or select the media of a device with home theater features to see the speaker switch to HT Speaker.
- Connect with an Optical cable (sold separately) to use HT Speaker.
- Switching to external input causes devices operating with SIMPLINK to stop.
- Use of a third-party device with HDMI-CEC features may cause malfunctions.

## □ Explanation on SIMPLINK features

| | |
|---|---|
| Direct Play | Play the multimedia device on the TV instantly without extra steps. |
| Select multimedia device. | Select the desired device through the SIMPLINK menu and instantly control it from the TV screen. |
| Disc playback | Manage the multimedia device with the TV remote control. |
| Power off all devices | Turning the TV off with Auto Power function On in SIMPLINK setting will turn the power off on all SIMPLINK-connected devices. |

| | |
|---|---|
| Sync Power on | If the Auto Power function is set to On in the SIMPLINK settings, turning on a SIMPLINK device will turn the TV on. |
| Speaker | Selects speaker on the home theater unit or TV. |

## HOME ⇨ Settings → PICTURE → Energy Saving

Reduces power consumption by adjusting screen brightness.

| | |
|---|---|
| Intelligent Sensor | TV sensor detects the ambient lighting and automatically adjusts the screen brightness. |
| Off | Turns off the Energy Saving mode. |
| Minimum/ Medium/ Maximum | Applies the pre-set Energy Saving mode. |
| Screen Off | Screen is turned off and only sound is played.<br>Press any button on the remote control to turn the screen back on. |

## ❒ To use Sleep Timer

HOME ⇨ Settings → TIME → Sleep Timer

Turns off the TV after a prescribed number of minutes.

To cancel the Sleep Timer, select Off.

## ❒ To set current time

HOME ⇨ Settings → TIME → Clock

Checks or changes the time while watching TV.

| | |
|---|---|
| Auto | Synchronizes the TV clock to the digital time information sent by the TV station. |
| Manual | Sets the time and date manually if the auto setup does not correspond to the current time. |

## ❒ To set the TV to turn on and off automatically

HOME ⇨ Settings → TIME → On Time/Off Time

Sets On/Off time.

Select Off on Repeat to discontinue On Time/Off Time.

✎ To use On Time/Off Time, set the current time correctly.

✎ Even when the On Time function is on, the TV will turn off automatically in 120 minutes when no button is pressed within that time.

## ❒ To set password

HOME ⇨ Settings → LOCK → Set Password

Sets or changes TV password.

✎ The initial password is set as「0000」.

## ❒ To lock system

HOME ⇨ Settings → LOCK → Lock System

Permits only specific programs by blocking channels or external input.

Select the Lock System to On.

| | |
|---|---|
| Block Channel | Blocks the programs that contain inappropriate contents for children. The programs can be selected but the screen blank is and the audio is muted.<br>To watch a locked programs, enter the password. |

| | |
|---|---|
| Rating | Blocks the movies that are only broadcasted on the TV and contain inappropriate contents.<br>• Blocking Off : (General audiences) All ages admitted<br>• 10 and above : (Parental guidance suggested) Some material may not be suitable for children<br>• 12 and above : (Patents strongly cautioned) Some material may be inappropriate for children under 12<br>• 14 and above : (Restricted) Under 14 requires accompanying parent or adult guardian<br>• 16 and above : No one 16 and under admitted.<br>• 18 and above : Adults only |
| Input Block | Block the input sources. |

## HOME ⇨ Settings → OPTION → Language

Selects Menu Language and Audio Language displayed on the screen.

| | |
|---|---|
| Menu Language | Selects a screen menu language. |
| Audio Language | [In Digital Mode Only]<br>Selects the desired language when watching digital broadcasting containing several audio languages. |
| Voice Search Language | Select the language to make voice search.<br>✎ Only the voice search adopted model can support this setting. |

## HOME ⇨ Settings → OPTION → Caption

View subtitles when the TV station provides subtitled programing. Program subtitles work only on digital/analog broadcasts or external input.

Change Caption to On and select caption setting.

| | |
|---|---|
| Mode | CC 1-2 (Closed Captioning) / Text 1-2<br>Displays the audio portion of a TV program as text on the TV screen.<br>CC1 is the most common mode in use.<br>Digital<br>This is only available for the digital broadcasting system.<br>Selects Portuguese or English. |

## ❒ To register the Magic Remote Control

To use the Magic Remote Control, register it with your TV first.

Register Magic Remote Control as follows:

1 Turn on the TV and wait for about 10 seconds and then press Wheel(OK) button while pointing the remote control at the TV.

2 The remote control is automatically registered and a registration completion message appears on the TV screen.

✎ If you failed to register the Magic Remote Control, turn off the TV and try again.

## ❒ To re-register the Magic Remote Control

1 Press the HOME and BACK buttons at the same time for about 5 seconds.
2 Point the remote control at the TV and press Wheel(OK) button for about 5 seconds.

✎ Press the BACK button while pointing the remote control at the TV for five seconds to reset and re-register it.

## ❒ To set the pointer of the Magic Remote Control

HOME ⇨ Settings → OPTION → Pointer

Sets the speed and shape of the pointer that appears on the TV screen.

| | |
|---|---|
| Speed | Sets the moving speed of the pointer. |
| Shape | Chooses from different shapes of the pointer. |
| Size | Chooses the size of the pointer. |
| Alignment | Set it to On. If there is any misalignment between the pointer and the actual direction the remote control indicates, move the Magic Remote Control left and right to realign. The pointer will automatically realign to the center, making it easier to control. |

- If the pointer has not been used for a certain period of time, it will disappear. When the pointer disappears from the screen, shake the Magic Remote Control to the right and left. Then, it appears again.
- If you press the navigation button while moving the pointer on the screen, the pointer disappears, and the Magic remote control works as a regular remote control.
- Use within an effective distance of 33 ft. (10 meters). Using the Remote Control from greater distances or when obstructions block the sight line may cause malfunctions.

- Electronic devices nearby may cause communication interference. Devices such as microwave oven and wireless LAN use the same frequency range (2.4 GHz) as the Magic Remote Control, which may interfere with the remote control.
- The Magic Remote Control may be broken if dropped or damaged in any other way.
- Do not drop or subject the Magic Remote Control to heavy impacts.

## ❒ To use the pattern gesture function

Press the Wheel(OK) button with the normal video screen on and draw a pattern toward the screen.

| | |
|---|---|
| | Previous channel: Moves back to the previous channel. |
| | Recent list: Shows channels recently watched. |

✎ It may not work when certain windows are open.

## ❒ To change TV mode

HOME ⇨ Settings → OPTION → Mode Setting

Selects Home Use or Store Demo.

For use in the home, select Home Use.

Store Demo is for store display.

## ❒ To use the ISM Method

HOME ⇨ Settings → OPTION → ISM Method

This function removes image sticking which is caused by the prolonged display of static images.

- Normal: Minimizes image sticking by gradually lowering the brightness when displaying static images and by increasing the brightness when displaying moving images.
- Orbiter: Minimizes image sticking by moving the image on the screen left, right, up or down every 2 minutes.

- Color Wash: Removes image sticking by moving every pixel in a certain pattern on the screen for a specific period of time. Please use this function to remove temporary image sticking.

✎ Image sticking is commonly known in plasma TV when it displays static images for a long time. ISM Method delays the image sticking effect; it does not completely prevent the phenomenon. Please use this function with caution.

## ❒ To return to initial settings

HOME ⇨ Settings → OPTION → Initial Setting

Returns to initial default mode by deleting all user settings.

Once initialization is completed, the TV will turn off and then back on.

✎ If Lock System is turned on, a pop-up will be prompted to ask for password.

✎ Do not turn off the power during initialization.

# ❐ Using the Home Screen

## Press HOME button on the remote control.

Thanks to the Smart TV's design, users have convenient access to a wealth of Content and applications via the easy-to-use menu arranged by themes (Live TV, Card, My Apps).

## ❒ To use and edit MY CARD

HOME ⇨ MY CARD

To enable you to easily check and access a wide variety of content and functions, the main functions are grouped into categories and displayed on cards.

By selecting the card name, you can go to that category page.

Select Edit at the top of the home screen to switch the position of the cards or create your own card. (You cannot edit the Live and Premium cards.)

## ❒ To use My Apps

### HOME ⇨ My Apps

Select My Apps at the bottom of the home screen or press the MY APPS button on the remote control.

Select My Apps to check apps pre-installed apps and apps you have downloaded.

Select the desired app to run.

## ❒ To edit items in My Apps

### HOME ⇨ My Apps → Edit

On the My Apps page, select Edit at the top of the screen to move or delete apps. Please note that system apps can be moved, but cannot be deleted.

✎ On models equipped with the Magic Remote Control, you can move apps or delete them by selecting and then dragging them.

Recycle Bin

## ❒ To manage LG Smart TV settings

HOME ⇨ Settings → OPTION → Smart TV Setting

Sets many Smart TV-related settings and manages IDs.

| | |
|---|---|
| Smart TV Country | Changes the Country Setting on the Smart TV. Receives Premium service and LG Smart World of the desired country. |
| Premium Version | Displays Premium service version. |
| ID List | Checks and delete IDs signed in to TV. |
| Reset | Deletes all registered ID information from TV. |
| Legal Notice | Shows Legal Notice for Smart TV. |

A wireless or wired network connection is necessary to use the Smart TV features.

Once the network connection is established, Premium Content, LG Smart World, DLNA, and more are available.

## ❒ Network connection by one-click

It's easy to connect to a wired/wireless network.

Select HOME ⇨ Settings → NETWORK → Network Connection to be automatically connected to an available network. Refer to prompts on the TV.

## ❒ To connect network through Set Expert

**HOME ⇨ Settings → NETWORK → Network Connection**

Used in special circumstances such as in offices (For example, when a static IP is needed).

1 Select a network connection either through Wired or Wireless.
2 When connecting via Wi-Fi, use the one of the following network connection methods.

| | |
|---|---|
| AP List | Connects the network by selecting a network from the AP (Access Point) List. |
| Enter the SSID | Connects by typing in the name of wireless AP. |
| WPS-PBC | Connects easily by pressing the button of the wireless AP supporting PBC. |

| | |
|---|---|
| WPS-PIN | Connects easily by typing in the PIN on the web site of the desired wireless AP. |
| Ad-hoc | Connects directly to via a wireless-enabled PC or mobile phone. |

## ❒ To use Wi-Fi Screen function

HOME ⇨ Settings → NETWORK → Wi-Fi Screen Share

This TV supports Wi-Fi Direct and WiDi wireless connections. It also supports Wi-Fi Screen Share in Smart Share. Use this menu to set up these types of connections.

1 Set Wi-Fi Screen Share to On. (If you do not use it, please change it to Off.)
2 Enable the Wi-Fi Direct settings on the device that you want to connect to.
3 A list of devices that can be connected to the TV is displayed.
4 Select a device to connect.
5 Select Yes, when the connection request message appears.
6 If the device that you want to connect to accepts the request, Wi-Fi Screen Share is connected.

- It is recommended to connect a laptop using Intel's WiDi within close range.
- Though Intel's WiDi can be connected without a wireless router, it is recommended to connect the wireless router first for optimal performance.
- While the Home menu is activated, the TV cannot detect Intel's WiDi devices. Make sure to close the Home menu before trying to detect Intel's WiDi devices.

## ❒ Warning when setting network

- ✎ Use standard LAN cable (connect to Cat5 or higher with RJ45 connector, 10 Base-T, or 100 Base TX LAN port).
- ✎ Resetting modem may fix some network connection problems. Turn the power OFF, disconnect and reconnect it, and then turn the power on to solve the problem.
- ✎ LG Electronics is not responsible for any network connection problems or any faults, malfunctions, or errors caused by network connection.
- ✎ The network connection may not work properly because of network settings or the Internet service provider.

- DSL service must use the DSL modem; and cable service must use the cable modem. Since only a limited number of network connections may be available, TV network setting may not be used depending on the contract with Internet service provider. (If the contract does not allow more than one device per line, only the already-connected PC may be used.)
- A wireless network can experience interference from other devices that use the 2.4 GHz frequency (wireless phone, Bluetooth device, or microwave oven). Although interference can also happen when using the 5 GHz frequency, it is less likely to occur.
- The wireless environment can make wireless network service run slowly.
- Failure to turn off all local home networks may cause excessive traffic on some devices.

- The access point device must support wireless connections and wireless connection feature must be enabled on the device to have AP (access point) connection. Contact the service provider for availability of wireless connections on the access point.
- Check SSID and security settings of the AP. Refer to the appropriate documentation for SSID and security settings of the AP.
- Invalid settings of network devices (wired/wireless line sharer, hub) can cause the TV to operate slowly or not operate properly. Install the devices correctly according to the appropriate manual and network.
- For ad-hoc connections, not all devices are supported.
- The connection method may differ depending on the AP manufacturer.

## ❒ To use Smart Share™

### HOME ⇨ Smart Share

Provides photo/music/video files on the TV by connecting a USB or home network (DLNA, Media Link).

Displays photo/music/video files on all devices connected to TV.

# ❒ To control movie playback

Controls playback and sets options while viewing movies.

## ❒ To control photo view

Controls playback and sets options while viewing pictures in full screen.

✎ For 3D pictures, the Slide Show Effect does not work even when the Slideshow function is enabled.

Displays photos as a slideshow.

Plays background music.

Rotates or enlarges the picture.

Stops playback and returns to the list.

Sets options.

Changes to 3D mode.

## ❒ To control music playback

Controls playback and sets options while playing music.

Selects the desired point and plays.

Returns to the list.

Playback Controls

Sets options.

## ❒ To set Smart Share™ related functions

HOME ⇨ Smart Share → Settings

Changes settings related to Smart Share content play.

### □ Advanced Setting

| | |
|---|---|
| TV Name | Changes the name that appears when searching for the TV from other devices. |
| Network Status | Checks the network connection. |
| Wi-Fi Screen Share | Allows use of wireless connection functions such as Wi-Fi direct and WiDi. |
| Share My TV | Allows/Disallows connecting to TV from other devices. Turns on/off DMR (Digital Media Renderer) connection. |

| | |
|---|---|
| Auto Play on Receive | Accepts/Rejects Content transferred from other devices. |
| DivX VOD | Registers or releases DivX.<br>Checks DivX Registration Code for playing DivX-protected videos. Register at http://vod.divx.com.<br>Uses Registration Code to rent or purchase movies at www.divx.com/vod.<br>✎ When using the DivX Registration Code of another device, the rented/purchased DivX file cannot be played. Use only the DivX Registration Code granted to this device.<br>✎ Converted files not conforming to DivX Codec Standard may produce abnormal images and sound. |

## History

To delete contents history, press button below. Use the contents at Contents Type and Linked device menu.

## Privacy

Check the device that you do not want to open at Newly Added and Recently Watched menu.

## ❒ Smart Share™ supporting file

Maximum data transfer rate :

20 Mbps (Mega bit per second)

External supported subtitle formats :

*.smi, *.srt, *.sub (MicroDVD, SubViewer 1.0/2.0),
*.ass, *.ssa, *.txt (TMPlayer), *.psb (PowerDivX)

Internal supported subtitle formats :

XSUB (Supports internal subtitles generated from DivX6)

## □ Video Supported Codec

Maximum: 1920 x 1080 @30p

| Extension | Codec | |
|---|---|---|
| .asf<br>.wmv | Video | VC-1 Advanced Profile, VC-1 Simple and Main Profile |
| | Audio | WMA Standard, WMA 9 Professional |
| .divx<br>.avi | Video | DivX3.11, DivX4, DivX5, DivX6, XViD, H.264/AVC, Motion Jpeg |
| | Audio | MPEG-1 Layer I, II, MPEG-1 Layer III (MP3), Dolby Digital, Dolby Digital Plus, LPCM, ADPCM, DTS |
| .mp4<br>.m4v<br>.mov | Video | H.264/AVC, MPEG-4 Part 2 |
| | Audio | AAC |

| Extension | Codec | |
|---|---|---|
| .mkv | Video | H.264/AVC |
| | Audio | HE-AAC, Dolby Digital |
| .ts<br>.trp<br>.tp<br>.mts<br>.m2ts | Video | H.264/AVC, MPEG-2, VC-1 |
| | Audio | MPEG-1 Layer I, II, MPEG-1 Layer III (MP3)<br>Dolby Digital, Dolby Digital Plus, AAC |
| .vob | Video | MPEG-1, MPEG-2 |
| | Audio | Dolby Digital, MPEG-1 Layer I, II, DVD-LPCM |
| .mpg<br>.mpeg | Video | MPEG-1 |
| | Audio | MPEG-1 Layer I, II |

## □ Available music file

| File type | Item | Info |
|---|---|---|
| mp3 | Bit rate | 32 Kbps - 320 Kbps |
| | Sample freq. | 16 kHz - 48 kHz |
| | Support | MPEG1, MPEG2, Layer2, Layer3 |

## □ Available photo file

| File type | Item | Profile |
|---|---|---|
| 2D(jpeg, jpg, jpe)<br>3D(jps) | Available file type | SOF0: baseline<br>SOF1: Extend Sequential<br>SOF2: Progressive |
| | Photo size | Minimum: 64 x 64<br>Maximum:<br>Normal Type: 15360 (W) x 8640 (H)<br>Progressive Type: 1920 (W) x 1440 (H) |
| 3D (mpo) | Available file type | mpo |
| | Photo size | 4:3 size:<br>3648 x 2736, 2592 x 1944, 2048 x 1536<br>3:2 size: 3648 x 2432 |

## ❒ Caution for playing video

- ✎ Some subtitles created by users may not work properly.
- ✎ The video and subtitle files should be placed in the same folder. In this case, you must assign the same names for the video and subtitle files for proper display.
- ✎ Subtitles on an NAS (Network Attached Storage) device may not be supported depending on the manufacturer and model.
- ✎ We do not support any stream that contains GMC (Global Motion Compensation) or Qpel (Quarterpel Motion Estimation).
- ✎ Only H.264/AVC profile level 4.1 and lower is supported.
- ✎ The file size limit is dependent on the encoding environment.

- Video files created by some encoders may not be played back.
- Video files in formats other than the ones specified here may not be played back.
- Playback of video files stored on the USB device that do not support High Speed, may not work properly.
- The TV supports DTS audio codec when the USB video file playback.

DLNA stands for Digital Living Network Alliance, which allows users to access video/music/photo files stored in a PC or server and enjoy them on TV via home networking.

## ❒ To connect a DLNA-authenticated Smartphone

TV and the smartphone should be on the same network.

1 Enable Wi-Fi on the smartphone.
2 Install/run the app to share content on the smartphone.
3 Run “Share my mobile phone Content”.
4 Select the kind of Content (video/audio/photo) to play.
5 Select the video, music, or photo file to play on TV.
6 Select Add to Play List.
7 Select TV model name on the device to replay content. (TV model name is on the label of the device.)
8 Play ▶ Enjoy the selected file on TV.

## ❒ To connect a DLNA DMR (Digital Media Renderer)

With Windows 7 PC operating system or DLNA-certified device (e.g. mobile phone), music/videos/photos may be played on the TV without installing a separate program

1 Configure the TV and PC on the same network. Configure Windows 7-installed PC on the network.
2 To replay a music/video/photo file, right-click on the file and use the “Remote Playback” Windows 7 feature.
For playback on devices like a mobile phone, refer to the model’s user guide.
3 Select Yes on the TV's pop-up window. Content will be played in only one device even though more than one TV or device is connected. Play speed can vary depending on network speed.

## ❒ To connect DLNA DMP (Digital Media Player)

With a PC having Nero MediaHome 4 Essentials, music/video/photo files may be replayed on the TV by linking them via home networking.

1 Configure the TV and the PC on the same network. TV and each device should be connected through a single access point to enable DLNA and Media Link service.
2 Install Nero MediaHome 4 on PC from the web site (http://www.lg.com). Before installation, close all running programs including firewall and Anti-Virus programs.

3 Indicate files/folders to share through Nero MediaHome 4 Essentials installed on PC.

1. Run "Nero MediaHome 4 Essentials" installed on PC.
2. Select folder items to share.
3. Configure the shared folder and click "Start Server." Server starts.

✎ If the shared folder does not appear on TV, click the Local Folder tab and search again.

✎ For more information and software-related information, refer to the web site http://www.nero.com.

- PC requirements for installing Nero MediaHome 4 Essentials program:
  - Windows® XP (Service pack 2 or later), Windows Vista®, Windows® XP Media Center Edition 2005 (Service pack 2 or later), Windows Server® 2003 (Service pack 1 or later)
  - Windows® 7 Home Premium, Professional, Enterprise or Ultimate (32- and 64-bit)
  - Windows Vista® 64-bit version (application runs in 32-bit mode)
  - Windows® 7 64-bit version (application runs in 32-bit mode)
  - Hard drive space: more than 200 MB

- CPU: 1.2 GHz Intel® Pentium® III or AMD Sempron™ 2200+ processor
- Memory: more than 256 MB RAM
- Graphic card: more than 32 MB, resolution of at least 800 x 600 pixels and at least 16-bit color settings supported
- Windows® Internet Explorer® 6.0 or later
- DirectX® 9.0c revision 30 (August 2006) or later
- Network environment: 100 MB Ethernet, Wireless LAN WLAN (IEEE 802.11g) or later

## □ If a DLNA malfunction occurs

- ✎ If a DLNA feature does not work properly, check network settings.
- ✎ A 5-GHz access point is needed to view 1080p pictures via DLNA.
  A 2.4-GHz access point may cause broken images or other problems.
- ✎ DLNA may not work properly in the wireless network. It is recommended to connect to the wired network.
- ✎ Multi audio and internal subtitles are not supported in DLNA mode.
- ✎ If more than one TV is connected to a single server in DLNA mode, the content may not play depending on server performance.
- ✎ Subtitles may not be supported depending on DLNA device.
- ✎ The DLNA feature may not work properly in all network environments.

- The DLNA feature cannot be used with some access points that do not support multicasting. For more information, refer to access point manual or consult with the manufacturer.
- Supported file types may differ depending on the DLNA server environment, even for the file types supported by TV.
- Too many sub-folders and files included in one folder may cause a malfunction.
- Information about the file from DLNA server may not be displayed correctly.
- Nero MediaHome 4 Essentials is recommended when watching video subtitles on DLNA server.
- To add a subtitle file later, turn off the shared folder and reset.
- DRM files located in MediaHome server are not played.

## ❒ To connect Media Link

Install Plex Media Server on a PC or laptop connected to the same network as your Smart TV to access a variety of multimedia including photos, videos, and music.

1 Install the Plex Media Server program on PC/laptop. Visit web site at (http://www.lg.com) and download the Plex program compatible with the operating system you are using.
2 After installing the program, right-click the Plex icon that should be in the computer's app tray. Choose a type of media to share and thn choose the folder it is in.
3 Select Media Link on the TV's Home.
4 Media Link will automatically find and connect to any Plex servers on the local network.

# ❒ To use Media Link

## HOME ⇨ Media Link

If Media Link can see Plex servers on your network, it will automatically connect and will show the folders on the main screen.

## ❒ System requirements for installing PLEX

- Minimum requirements
  PC with at least 1.6 GHz Intel Core Duo Processor and Windows XP SP3, minimum 512 MB of RAM
- Recommendations for HD Content transcoding (720p and 1080p)
  PC with at least 2.4 GHz Intel Core Duo Processor and Windows XP SP3, minimum 2 GB of RAM

  Supports Windows XP, Vista and Windows 7
- Network requirements
  ADSL/Cable/Wi-Fi Internet connection for media metadata output and update

  Wired network: Ethernet network with 100 Base-T or 1000 Base-T

  Wireless network: Recommends uncongested 802.11n & supports media play on wireless mobile devices

## ❒ Caution for using Media Link

- ✎ PLEX media server version installed on Mac or PC supports the version of 0.9.1.14 or later.
- ✎ For the following languages, GUI language is displayed in English and the data being delivered are not displayed:
  : Thai, Arabic, Persian, Hebrew, Kurdish

  When replaying video plug-in of a media not supported by the TV, there may be a delay in initial buffering due to extra processing time.
  The computer's conversion speed may differ depending on its performance and network speed.
- ✎ The file types supported when playing files stored on the PC (Movie, TV Show, Music) are the same as those for DLNA.

- When replaying music clips, there is no support for playing with clip moving. (Same as DLNA.)
- When playing high-definition videos through a Wi-Fi connection, there may be delays or improper playback.
- The TV may not recognize the computer if the AP settings are not correct. (e.g., When setting the “multicast forward” feature on the AP device, the TV cannot recognize the PC on a Wi-Fi connection.)
- For some plug-ins, play function may be limited depending on media types.
- Plug-ins are subject to change or becoming inoperable without prior notice according to the policy of the service provider.

## ❒ To connect USB

Connect a USB storage device (external HDD, USB memory) to the USB port of TV to enjoy the content files stored in the USB device on your TV.

To remove a USB storage device, choose the Quick Menu → USB Device to remove and check for message that the USB has been removed before taking it out physically. If detached early, an error may occur on the TV or USB storage device.

✎ After selecting to remove USB device, it is impossible to read the USB storage device. Remove USB storage device and reconnect it.

## ❒ Caution when using USB storage device

- ✎ If USB storage device has a built-in auto recognition program or uses its own driver, it may not work.
- ✎ Some USB storage devices may not work or work improperly.
- ✎ Use only USB storage devices formatted with FAT32 or NTFS File System provided by Windows.
- ✎ For external USB HDD, it is recommended to use device rated at 5V and less than 500 mA rated current.
- ✎ It is recommended to use a USB hub or hard disk drive with power supplied. (If the power supplied is not enough, the USB storage device may not be detected properly.)

- It is recommended to use USB Memory Stick with 32 GB or less and USB HDD with 2 TB or less.
- For USB HDD with energy-saving features, turn off and turn on again if it does not work properly. For more information, refer to the user manual of USB HDD.
- Data in USB storage device can be damaged so be sure to back up important files in a separate storage device. Data maintenance is the user's responsibility and the manufacturer is not responsible for any data loss.

## ❒ To use Premium

### HOME ⇨ Premium

This service gives you easy access to a wide variety of content, such as video, news and UCC (User Created Content), at any time, as long as you are connected to a network. For Premium content, specialized country-specific services are offered that take into account regional content, in addition to globally provided content.

## ❒ To use paid Content

Some Premium Content is provided as for-fee services. To purchase for-fee services, use either LG Electronics' proprietary billing system or that of each content provider.

Before using the LG billing system, you will need to sign up for membership and register payment information on TV or the website (www.lgappstv.com) .

You can sign up for membership on the login screen on your TV or our website. You can then log into both the TV and the website with one ID.

1 Click Sign In button in upper right corner of Home screen to sign in.
2 Move to the desired Premium service.
(For some premium services, separate sign-in is required after signing up for the premium service.)
3 After checking the content's pricing and service information, click the Purchase button. (There may be limitations on the available period and number of times depending on content.)
4 Once the purchasing process is completed, view the paid content by clicking the Buy button.
5 Select your ID on upper menu of Home screen and check history of purchases from My Page → Payment inquiry. It is also available on My Page → Purchase History of web site (www.lgappstv.com).

## ❒ To reset Premium

HOME ⇨ Settings → SUPPORT → Initialization of Premium

Premium list, Premium information, country setting, and user sign-in information will be reset. When an error occurs during Premium update, reset will fix the problem.

- Content on offer by service providers are subject to change to enhance their service quality or deletion without any prior notice. Refer to the web site of each content provider for questions, troubleshooting, or latest information about Content. LG Electronics does not take any legal responsibility for content services and related information including discontinuation of service by the service provider.
- The quality of Premium service may be affected by Internet connections. For any questions related to Internet speed or any other service problems, contact the Internet service provider.
- For best service quality, subscribe to an Internet service of 4.0 Mbps (1.5 Mbps or faster). Contact the ISP (Internet service provider) for any problems related to Internet speed.
- Content providers may make available content that is unsuitable for minors. Parental discretion advised.

# ❒ To use LG Smart World

## HOME ⇨ LG Smart World

LG Smart World is a TV application service available through Smart TV Service. You can download and enjoy many different apps (for fee or free) including education, entertainment, life and news.

Sign in.
When you sign in, ID is displayed.
When you select the ID, you can select My Page and Sign Out.

Select the app to install.

## ❒ To sign up with LG Smart World

HOME ⇨ Sign In

Sign up is required to download and run apps.

1 Select Sign Up and agree to Legal Notice.
2 Enter ID and password.
3 In Confirm Password box, enter password again.
4 Select OK to complete sign-up process.

✎ You can sign up for membership on either your TV or the website (www.lgappstv.com).

✎ After signing up for membership, log into your TV and our website with the same ID.

✎ You can sign in up to five TVs with a single ID.

## ❒ To install app on TV

### HOME ⇨ LG Smart World

1 Click the Sign In button at the top of the home screen to log in.
2 Select the LG Smart World card.
3 Select an app you want from the list.
4 Check the details of the app, then select the Install or Buy button.
5 Check that you have the functions or TV accessories required to install the app, then select the OK button.
6 For paid apps, payment and purchase authentication is required.
7 Select Run once installation is complete to run the app immediately.
If you do not want to run immediately, select Close. If you want to run the app later, select My Apps to check the list of apps installed on TV.

- You can purchase apps from PC or TV but you must use the TV to install and run them.
- If you have insufficient storage space on the TV, you can download apps to a USB storage device connected to the TV's USB Apps port. Apps stored on a USB device are available to run/delete/move via the My Apps screen.
- The USB storage device containing apps cannot be used for saving other data. (For USB Apps Only)

## ❐ To manage my information

HOME ⇨ LG Smart World

1 Sign in.
2 Select the currently signed-in ID at the top of the screen.
3 Select My Page.
4 Manages by examining Member Information, My Purchased Apps List and TV Installed Apps List.

| | |
|---|---|
| My Information | Shows basic information about the ID currently signed in. To change your member information, please visit www.lgappstv.com on your PC. |
| Payment Inquiry | Views Payment History with the ID you have signed in. |
| Purchased Apps | Views My Purchased Apps List with the ID you have signed in. You can delete/re-install the purchased apps. |

# HOME ⇨ Internet (Web browser)

You can type in a URL manually on TV or visit web sites in the Favorites list.

Type in Web addresses here.

Add the current page to favorites.

Open a new tab.

Moves to a previously visited website.

- The Internet (Web browser) supports up to Flash 10 but does not support platform-dependent technology like ActiveX.
- The Internet (Web browser) only works with pre-installed plug-ins.
- The Internet (Web browser) only replays the following media file formats: JPEG / PNG / GIF / WMV (ASF) / WMA / MP3 / MP4
- The Internet (Web browser) is forcibly closed when memory is insufficient.
- For the Internet (Web browser) , fonts installed on the TV are used and may not be displayed normally depending on the content played.
- The Internet (Web browser) does not support file and font download.
- The Internet (Web browser) is made for a TV so it may function differently from PC browsers.
- The Internet (Web browser) is a TV browser and may not work properly when playing some content files.

# HOME ⇨ Social Center

LG Smart TV provides the Social Center app that allows you to communicate via social network services (SNS) such as Facebook and Twitter while watching TV.

Using Social Center, you can communicate with friends while watching TV and view comments and pictures posted by your social networking friends at a glance.

You can edit the Social Center tab.

Select a tap such as Facebook / Twitter / Activity / Talk to communicate via social network services (SNS).

1 You can sign in with your LG TV account. If you are not a member yet, please sign up first.
2 Select a tab from Facebook, Twitter, Activity or Talk. Some functions are connected with other SNS, so you may need the SNS account to sign into the service.
3 Now, you can view content and post comments while watching TV.
Social Center allows you to write comments while using LG Smart TV services connected with Facebook or Twitter and to view the comments on the Web or mobile device.

| | |
|---|---|
| Facebook / Twitter | You can communicate via SNS such as Facebook and Twitter while watching TV. |
| Activity | With your Facebook account, you can easily see LG Smart TV's great content recommended by other users. Click a recommended program/show to move to the corresponding 3D World, K-pop, or LG app. |
| Talk | You can see what other twitter users think about the shows currently on. |

✎ The functions of Social Center are subject to change according to TV software update.

Sign up is required to use LG Smart World.

Free apps are available immediately after signing up, but you need to register your payment method in order to use paid apps.

You can sign up and register payment methods on the TV or on our website (www.lgappstv.com).

| Problem | Solution |
|---|---|
| When entering menu, the "Initializing" message always appears. | • The "Initializing" message shows you how long it takes to reboot the microprocessor and hardware, set up network communications, and communications with SDP (device authentication and basic information download). It takes about 20 seconds and this is a normal process. |
| There is no content shown on the Premium card. | • Content may not be shown when changing country setting on Smart TV. Change to desired country in HOME ⇨ Settings → OPTION → Smart TV Setting → Smart TV Country. |

| Problem | Solution |
| --- | --- |
| While using internet features, there is space that does not appear in some web sites. | • The internet of the TV supports up to Flash 10 and may not replay any file format other than the following<br>: JPEG, PNG, GIF, WMV (ASF), WMA, MP3, MP4 |
| Internet (Web Browser) closes automatically when visiting website. | • If memory is insufficient because of large volume of image information in the web page, internet may be forced to close. |
| I already signed up on TV. Do I need to sign up again at web site (www.lgappstv.com)? | • If you sign up on your TV, no additional sign-up on the LG website (www.lgappstv.com) is required.<br>After signing up on TV, you can sign into the website by using the same ID and password and entering the additional information to complete the email verification process. |

| Problem | Solution |
| --- | --- |
| Can each family member use a different ID with a single TV? | • It is possible to register and use more than one ID on one TV.<br>• To check the ID registered with TV from HOME ⇨ Settings → OPTION → Smart TV Setting → ID List.<br>• You can check the list of apps purchased by each ID. However, you can see all apps installed by each ID in My Apps. |
| What should I do if I forget my ID? | • After signing up on a PC, use “Forgot ID?” feature on web site (www.lgappstv.com) when needed.<br>• After signing up on TV, check it from HOME ⇨ Settings → OPTION → Smart TV Setting → ID List. |

| Problem | Solution |
| --- | --- |
| I purchased an app from website (www.lgappstv.com). How can I use it on TV? | • To check purchased apps on TV, sign in and view on the Purchased Apps menu.<br>Select the ID at the top of Home and check the app in My Page → Purchased Apps. |
| Can I see history of my purchased apps? | • Select the ID at the top of Home and check the app in My Page → Purchased Apps.<br>• Sign in to website (www.lgappstv.com) and then select My Page → Purchase History. |

| Problem | Solution |
| --- | --- |
| I deleted a paid app, then do I have to purchase again to download it? | • If a purchased app is accidentally deleted, you can download and reinstall it without having to buy it again, as long as it is still in service.<br>Select the ID at the top of Home and re-download apps in My Page → Purchased Apps. (Previously owned apps may not be re-downloaded or run depending on the software version.) |
| Can I use apps provided from LG Smart TV's LG Smart World on both TV and PC? | • Please check if the TV model supports LG Smart World.<br>• The apps provided from LG Smart TV's LG Smart World can only be run on LG Smart TV.<br>• Apps may be purchased from the website (www. lgappstv. com) but cannot be used on a PC or Mac. Use care when purchasing. |

| Problem | Solution |
| --- | --- |
| How can I check the ID currently signed in to TV? | • Select the ID at the top of Home and check the currently signed-in ID in My Page ➞ My Information. |
| I installed an app on TV. Where can I check the installed app? | • Select HOME ⇨ My Apps. All paid and free apps installed on TV are displayed. |
| There is a difference between the app size shown in the screen and the actual app size installed on TV. | • The app size shown in the screen includes the additional space needed for installing apps so it may be different from actually installed app size. |

| Problem | Solution |
| --- | --- |
| I forgot password on TV. What should I do? | • If you only provide the ID and password when signing up on your TV, you cannot recover your password when it is lost. Create a new ID and sign up with the ID.<br>• If you provide other information than the ID and password when signing up on your TV or the LG website (www.lgappstv.com), you can recover your password on the website. |

| Problem | Solution |
| --- | --- |
| Do I have to save the payment information to purchase paid apps? | • To purchase paid apps, you should have a credit card registered on with LG Smart World website (www.lgappstv.com) or have an account credit. If you do not want your credit card details to be saved, you may add a credit to your account before buying an app. credit in advance. Charging credit is only available on our website, and you cannot purchase paid apps if your credit card details are not registered or you don't have enough credit. |
| Can I cancel an app that I have purchased? | • As a member you cannot demand refund just because you changed your mind after purchase.<br>• If there is a defect in the product or a problem of using the product, which does not caused by your fault, you can ask for a refund. However, the valid reason for refund must be provided. |

| Problem | Solution |
| --- | --- |
| I signed up on my TV, but I cannot purchase paid apps. | • To purchase paid apps, you need to have a credit card registered with the website (www.lgappstv.com).<br>Also, you can have your credit ready by charging it on the website to purchase them.<br>You cannot purchase paid apps if your credit card details are not registered with us or you don't have enough credit. |
| Should I only use an email address for my ID? | • For new sign-up members, the ID format has changed from a combination of numbers and alphabets to the email address.<br>• You can only use the email address for your ID when signing up. |

| Problem | Solution |
| --- | --- |
| Do I need to change my ID format to the email address? | • For new sign-up members, the ID format has changed from a combination of numbers and letters to using an email address.<br>• If you are already a member, you can still use your existing ID or change it to an email address. |
| What is the LG account? | • The LG account allows you to sign into all of the LG Smart services with a single ID and password.<br>You can use the following services with your LG account: LG Smart TV, LG Cloud, LG Smart World (excluding some countries), LG Smart ThinQ, and LG Smart air conditioning, etc.<br>• Additional information may be required depending on the service. |

## ❒ To view 3D images

3D imaging is a technology that utilizes the slight difference in left/right eyes to make the images on TV appear just like real-life 3-dimensional space.

1 Play a 3D-image title or tune to a 3D channel.
2 Press the 3D button to activate 3D.
3 Turn on the 3D glasses and put them on.
4 While viewing 3D images, press the 3D button on the remote control to end 3D image viewing.

✎ Depending on the input signal, available 3D type may differ.

## ❒ To adjust details of 3D images

HOME ⇨ Settings → PICTURE → 3D Settings

Adjusts various aspects of 3D imaging.

| | |
|---|---|
| 3D Mode | Provides the appropriate 3D depth.<br>• 3D Depth : Adjust 3D depth between the foreground object(s) and the background.<br>• 3D Viewpoint : 3D image can be made closer or farther from user. |
| 3D Sound Zooming | Provides 3D-optimized sound. |
| 3D Pattern Recognition | This will activate and deactivate 3D mode automatically based on the input. |

| | |
|---|---|
| Normal Image View | This will down-convert a 3D signal to 2D. |
| 3D Image Correction | Switches the left/right images of 3D video. |
| 3D Wizard | Optimizes 3D mode with a 3D Wizard menu. |

## ❒ Caution when viewing 3D images

- ✎ When viewing 3D images, it is recommended that the viewer maintain a distance of at least twice the screen's diagonal length.
- ✎ If a future 3D broadcasting format that is not supported by this TV becomes the standard, an additional device such as a set-top box may be required.

## ❒ Warning when using 3D glasses

- ✎ Do not use the 3D glasses as a replacement for your own corrective glasses, sunglasses, or protective goggles. Improper use of 3D glasses may cause eye injuries.
- ✎ Do not store 3D glasses in extreme conditions. Exposure to excessively high or low temperatures may deform the lenses. Do not use deformed glasses.
- ✎ Do not apply pressure to or subject 3D glasses to any impact. Subjecting 3D glasses to rough handling may cause a defect.
- ✎ The lenses on 3D glasses are vulnerable to scratching. Use only a soft and clean cloth for cleaning. A dirty cloth may scratch the lens surface.
- ✎ Scratching the lens surface of the 3D glasses with sharp objects or cleaning with chemicals may distort 3D images.

## ❒ To connect a Time Machine dedicated USB storage device

1 Connect a USB HDD (40 GB or larger) to the Time Machine Ready jack on the TV. The Time Machine function works only with the Time Machine Ready jack.

2 The USB HDD must be initialized to be used for Time Machine.
When connecting a USB HDD that has not been initialized, select MY APPS ⇨ Time Machine. USB Device Initialization screen appears.

3 Complete the USB HDD initialization, and set Time Machine Mode to On.

✎ To remove USB storage device, be sure to select Quick Menu → USB Device and confirm the message that the USB storage device has been removed before removing.

## ❒ To change Time Machine mode or initialize USB storage device

### Wheel(OK) ⇨ Setting

Changes Time Machine settings while using Time Machine.

| | |
|---|---|
| Time Machine Mode | On: Automatically enables Timeshift Mode when the TV is turned on.<br>Off: Disables Timeshift Mode. |
| USB Device Initialization | The connected HDD becomes available for the use of Time Machine. All data stored on USB device will be deleted. |

- Using a HDD (Hard Disk Drive) is recommended. For SSD (Solid State Drive), the number of writes/clears is limited.
- A USB HDD size of between 40 GB and 2 TB is recommended.
- After USB Device Initialization the USB HDD will not be recognized on a PC.
- The data stored on USB device may be damaged. Data maintenance is the user's responsibility and the manufacturer is not responsible for any data loss.
- If there is problem with a data sector of the USB storage device, it may not work properly.

Time Machine enables storage of live TV programs onto a USB storage device while watching digital broadcast. Missed segments of the program being watched and previously aired programs may be viewed later.

✎ Time Machine has a 2-hour capacity.

✎ An error in the data sector of the USB storage device may result in a malfunction.

## Press Wheel(OK) during Time Machine.

Selects the desired point and plays

Moves to currently broadcasting playtime

Changes Timeshift Mode
Initialize USB Device

Starts recording from current point

DVR play control

Checks defined schedule list

Shows recorded programs

Sets schedule

✎ Image shown may differ from your TV.

## ❐ To immediately start recording

### Wheel(OK) ⇨ Recording Starts

Records a program when you must leave the room in the middle of viewing.

- ✎ Only records the digital broadcast you are currently watching.
- ✎ If you force your TV to power off whilst recording, the program may not be saved. Ideally, you should stop the recording and check that the program has recorded before turning it off.
- ✎ Programs are protected under relevant copyright laws and may require prior permission from the copyright holder for copying and replaying. Programs recorded with this device may only be used for personal viewing. It is prohibited to sell, transfer, or lend copyrighted recordings to a third party.

## □ To stop recording

**Wheel(OK) ⇨ Recording Stop**

Stops recording immediately

## □ To modify recording end time

**Wheel(OK) ⇨ Stop Option → Recording end time modify**

✎ Maximum recording time is 5 hours.

## ❒ To schedule recording

Wheel(OK) ⇨ Schedule

| | |
|---|---|
| Select schedule by program | Selects a program from the Program Guide screen to schedule a viewing or recording. |
| Select schedule by date | Selects date, time, and channel to schedule a viewing or recording. |

- ✎ The minimum length of Timer Recording is 2 minutes.
- ✎ If one sector of the disk is damaged, one or all of the items in the Schedule List may be affected.
- ✎ A maximum of 30 items may be entered in the Schedule List.

## ❐ To assure and/or modify schedules

Wheel(OK) ⇨ Schedule List

Assures, modifies, or deletes the scheduled viewing or recording.

## ❒ To Watch Recorded TV

### HOME ⇨ SmartShare → Recorded TV

Select the recording stored on the USB HDD to view/delete it.

| | |
|---|---|
| Play on previous playtime | For a recording once-played in the past, plays it from the previous playtime. |
| Play from the start | Plays the selected recording from the start. |
| Delete | Deletes the selected recording. |

✎ The maximum number of Recorded TV files is 300.

## ❒ To control recording playback

Press the Wheel(OK) button on the remote control during playback.

✎ Image shown may differ from your TV.

## ❒ To use MemoCaster

### HOME ⇨ MemoCaster

This function displays user-created content on the TV screen.

| | | |
|---|---|---|
| | Simple | You can leave messages for your family or set up alarms for specific events in your schedule. |
| | Advanced | You can create your own content using the templates provided. Use this function to create advertisements or notices. |

## ❒ To use MemoCaster Simple

### HOME ⇨ MemoCaster → Simple

You can display memos on TV screen or set up alarms for specific events in your schedule.

✎ Options

| | |
|---|---|
| Notification when you turn on the TV | • On: Displays a memo when TV is turned on.<br>• Off: Displays a memo at a specified time. Date and Time Configuration, Weekly Repeat, Alarm Count can be set. Except for Weekly Repeat, the time should be later than the current time. |

## ❒ To use MemoCaster Advanced

HOME ⇨ MemoCaster → Advanced

You can create your own content using the templates provided and display it on TV screen.

1 Select a template you want.
   Select Text/LED to change the template mode.

2 Edit images and text.

| | |
|---|---|
| | The area where the picture will be shown. Select a picture you want.<br>✎ Place the picture in the "lg_img" folder of USB. |

| | |
|---|---|
| T≡ | The area where text will be shown, Enter your message. |
| Option | Set the background color, font color, and font size. |
| History | Import the text recently used. |
| Effect | Add animation or LED effect to the content you created. |
| Play Setup | Set the start time, end time or weekly repeat of the memo to be displayed. |

✎ Supported format in MemoCaster
Resolution: Maximum 1920 x 1080
File Size: Up to 2MB
Supported format: JPG, JPEG, JPE (Not case sensitive)

3 Select Complete.
Then, the edition is complete and your content is saved.
4 Start the content you just created.

## ❒ To use the Pentouch function

1 Turn the touch pen's power on and switch to touch mode. (The touch pen icon will appear and disappear at the top of the screen.)

2 Press the TOUCH HOME button of the touch pen or touch the TV screen using the touch pen to select Touch Home. (Or select My Apps → Pentouch on the Home screen.)

✎ The Pentouch function only works with the touch pen.

## □ To use the Pentouch function (continued)

Shows the remaining battery of the touch pen

Quick owner's manual for Pentouch

You can import a picture or select the USB device path to save it.

## ❒ To use the drawing toolbar

If you select drawing mode on My Gallery, Office Viewer, Internet, the drawing toolbar appears at the bottom of the screen.

✎ Save is available only when a USB device is connected.

## □ To use the drawing toolbar (continued)

- If multiple pictures overlap each other, the eraser may function slower than normal.
- Cut/Move/Resize/Rotate can only be used for a single drawing object.
- If you use two touch pens, the drawing toolbar shows the setting of the touch pen that you used last.

# ❒ To use Sketch

## My Apps → Pentouch → Sketch

## ❒ To use My Gallery

### My Apps → Pentouch → My Gallery

✎ You can use My Gallery only when USB storage device is connected. Connect the USB device containing image files.

## □ To use My Gallery (continued)

My Apps → Pentouch → My Gallery → Select the picture you want

Switch to the drawing mode (The drawing toolbar will appear.)

Use as the mouse cursor

Previous/Next Picture

Slideshow

Delete

## ❒ To use Office Viewer

### My Apps → Pentouch → Office Viewer

✎ You can use Office Viewer only when a USB storage device is connected. Connect the USB device containing Microsoft Office (xls, xlsx, ppt, pptx, doc, docx), Adobe Acrobat (pdf) or text (txt) files.

## □ To use Office Viewer (continued)

**My Apps → Pentouch → Office Viewer → Select the file you want**

✎ If you draw a picture on Office Viewer, it will be saved in *.jpg format.

- You may not be able to open a file if it is too large.
- Some documents may look differently from the ones displayed on your PC screen.
- This function may not be available in some languages.

# ❒ To use the Internet

## My Apps → Pentouch → Internet

Use the Internet

Use as the mouse cursor

Switch to the drawing mode
(The drawing toolbar will appear.)

## ❒ To use the PC Link function

1 Connect an external device to your TV using an RGB or HDMI cable.

2 Go to My Apps → Pentouch → PC Link and select the input mode in which the external device is connected.

- Select the input, and then you can draw a picture using the drawing toolbar.
- ▶/❚❚ : You can play or pause a video file on the external device connected to PC Link.

Select the input mode in which the external device is connected.

- The recommended PC resolution is 1920x1080 at 60Hz.
- If nothing is displayed on the screen after selecting the input mode, check the external device connection.
- When using a PC or laptop via HDMI cable, you need to set the HDMI input name to the PC or laptop under Input List → Change Device Name before entering the Home.

Download the LG Magic Remote app from the Google Play Store or Apple App Store to watch TV with your smartphone.

- Now you can enjoy your favorite TV shows on your smartphone. (Some models only)
- Add your favorite channels on your smartphone.
- You can use the functions such as PREMIUM, MY APPS directly on your smartphone.
- The text input function is supported, so you can enter text easily. (Text cannot be entered on some screens.)
- Select the app's touch pad to control in the same way the pointer of the Magic Remote Control works.
- Select Game Pad on the LG Magic Remote app to control game apps on the TV.

✎ The supported functions may vary depending on the TV or the version of the LG Magic Remote app.

## ❒ To use a USB wired/wireless mouse

Connect your mouse to a USB port on the TV. Use the mouse to move the pointer on the TV screen and select the menu you want.

| Mouse | Magic Remote Control |
|---|---|
| Left Button | OK Button on Magic Remote Control |
| Wheel Button | Wheel Button on Magic Remote Control |

- ✎ The right mouse button and any special buttons will not work with the TV.
- ✎ The usability of a wireless USB mouse and keyboard may be affected by Radio Frequency environment and the distance.

## ❒ To use a USB wired/wireless keyboard

Connect your keyboard to a USB port on the TV. You can enter text with the keyboard when using the search function and the Web browser.

- ✎ Text cannot be entered on some screens.
- ✎ It is recommended to use a product which is tested for compatibility with LG TV.
  LOGITECH K200, LOGITECH K400, MICROSOFT Comfort Curve 2000, MICROSOFT MS800, and LG Electronics ST-800
- ✎ You can change the input language by pressing the language switch key (or the right Alt key) on your keyboard.

## ❒ To use a gamepad

Connect your gamepad to the USB port on the TV if the game requires a gamepad.

✎ It is recommended to use an authorized gamepad which is tested for compatibility with LG TV.
Logitech F310, Logitech F510, Logitech F710, Logitech Rumblepad 2, and Microsoft Xbox 360 Controller (wired)

## HOME ⇨ Settings → SUPPORT → Software Update

Uses Software Update to check and obtain the latest version.

It is also possible to check manually for available updates.

| | |
|---|---|
| Software Update | Set it to On.<br>When an update file is detected, the file is automatically downloaded.<br>When the file download is complete, the software update window appears. |
| Check Update Version | Checks the version installed and when an update is available, the download process can be performed manually. |

- The latest version can be obtained via digital broadcast signals or internet connections.
- Changing the channel while downloading the software via digital broadcast signal interrupts the download process. Returning to the initial channel allows downloading to resume.
- If software is not updated, certain functions may not work properly.

If the following symptoms occur, please recheck the system. It may not be a failure.

## ❒ General

| Problem | Solution |
|---|---|
| Cannot view certain channels. | • Adjust the location or orientation of the antenna.<br>• Save the desired channels on Auto Tuning or Channel Edit. |
| After turning on the TV, there is a delay before full images appear. | • It is not a problem because this process was intended to clean up the image noises that may occur when turning on the TV. |

## ❒ Pictures

### HOME ⇨ Settings → SUPPORT → Picture Test

Check if the image signal output is normal by beginning with Picture Test.

If there is no problem with the test image, check external device connections or broadcast signals.

| Problem | Solution |
|---|---|
| Images from previous channel or other channels linger or the screen shows annoying lines. | • Try adjusting the antenna to the direction of the TV station or refer to the manual for proper way to connect the antenna. |

| Problem | Solution |
| --- | --- |
| Vibrating horizontal/vertical lines and fishnet patterns appear momentarily. | • Such a problem may happen when there is strong electronic interference. Turn off other electronic devices such as mobile phones, power tools and other small electrical appliances. |
| The screen display freezes or does not work properly in digital broadcast. | • It may happen when the signals are weak or the reception unstable. Adjust the antenna's orientation or cable connections.<br>• If the signal strength or quality is low on Manual Tuning, call the TV station or administration office for checkup. |
| Digital broadcast is not on even though the cable is connected. | • Check with cable operator regarding the subscription and/or signal. (Depending on the subscription, digital broadcasting may not be supported.) |

| Problem | Solution |
| --- | --- |
| Image is not on or not clear when connected to HDMI. | • Check the HDMI® cable specifications. Use only HDMI® cable. Other cables may cause images to fade in and out or not be displayed properly.<br>• Verify that all cable connections are securely connected. When connections are not secure, images may not be properly displayed. |
| Does not work when USB storage device is connected. | • Verify that the USB device and cable is version 2.0 or higher. |

## ❒ Sound

### HOME ⇨ Settings → SUPPORT → Sound Test

Try Sound Test first to verify that sound signal output is normal.

When the test sound is normal, check external device connections or broadcast signals.

| Problem | Solution |
|---|---|
| Screen display is on but no sound. | • Check other TV channels.<br>• Make sure the TV Speaker is set to On. |
| For analog broadcast, stereo is not clear or sound comes from one speaker only. | • In a poor reception area (areas with weak or unstable signal) or if multi audio is not stable, select Mono on Multi Audio.<br>• Adjust the Balance with the Navigation button. |

| Problem | Solution |
| --- | --- |
| TV sound is not in sync with the lips or the sound breaks up occasionally. | • If it happens on a certain TV channel, it may be caused by problems with an individual station's broadcast signal. Check with the TV station or local cable operator. |
| Whenever changing the channel, the volume is different. | • Depending on the channel, there can be differences in volume.<br>• Please set Auto Volume to On. |

| Problem | Solution |
|---|---|
| On certain channels, sound does not come out or only the background music plays. (If it is a program created for overseas) | • On Language, set Language → Audio Language as the desired language. Even if the language on Multi Audio is changed, once the power is turned off or the channel is changed, the default settings will be reset. |
| There is no sound when connected to HDMI/USB. | • Verify that the HDMI® cable is high speed.<br>• Check if the USB device and cable is version 2.0 or higher.<br>• Use only regular music (*mp3) files. |

## ❒ PC connection problem

| Problem | Solution |
|---|---|
| The screen display is not on after connecting to the computer. | • Verify that the computer and the TV are securely connected.<br>• Turn the TV off and back on using the remote control.<br>• Restart the PC with the TV on.<br>• Check if the resolution is correctly set for PC input.<br>• To use the TV as a secondary monitor, check if the connected desktop or laptop supports dual monitor displays.<br>• Reconnect the RGB/HDMI cable. |
| There is no sound after connecting the computer with the HDMI cable. | • Check with the video card manufacturer to ensure it supports HDMI voice output. (Video cards manufactured in DVI format require connection of a separate sound cable.) |

| Problem | Solution |
| --- | --- |
| When connected to the computer, the display is partially cut off or shifts to one side. | • Set up the resolution supporting PC input. (If it does not work, please reboot the computer.)<br>• Select Screen (RGB-PC) and adjust Position/Size/Phase. |

## ❒ Trouble with replaying movies in My Media.

| Problem | Solution |
|---|---|
| Files on the Movie List are not displayed. | • Check if the file on the USB storage device can be read on a computer.<br>• Check that the file extension is supported. |
| "This file is invalid." The above error message appears or the image display is not normal even though the sound is okay. | • Verify that the file replays normally on the video player in the computer. (Check for damaged files.)<br>• Check if the resolution is supported by the computer.<br>• Verify that the video/audio codec is supported.<br>• Verify that the frame rate is one that is supported. |

| Problem | Solution |
| --- | --- |
| "Unsupported Audio."<br>The above error message appears or the sound is not normal even though the image display is okay. | • Verify that the file replays normally on the video player in the computer. (Check for damaged files.)<br>• Check that the audio codec is supported by the computer.<br>• Verify that the bit rate is supported.<br>• Verify that the sample rate is supported. |

| Problem | Solution |
| --- | --- |
| Subtitle is not displayed. | • Verify that the file replays normally on the video player in the computer. (Check for damaged files.)<br>• Check if the video file shares the same name with the subtitle file.<br>• Verify that the video and subtitle files are placed in the same folder.<br>• Verify that the subtitle file format is supported.<br>• Verify that the subtitle language is supported. (Open the subtitle files in Notepad to check for the language.) |

✎ Image shown may differ from your TV.

✎ For information on requesting service, refer to the TV's menu.
HOME ⇨ Settings ➔ SUPPORT ➔ Product/Service Info.

## ❒ ANATEL (Para Brasil)

Este equipamento opera em caráter secundário, isto é, não tem direito a proteção contra interferência prejudicial, mesmo de estações do mesmo tipo, e não pode causar interferência a sistemas operando em caráter primário..

[Somente para alguns modelos]

## ❒ Descarte (Apenas use lâmpadas utilizadas em televisores LCD)

- A lâmpada fluorescente usada neste aparelho contém uma pequena quantidade de mercúrio.
- Não descarte este produto com o resto do lixo comum.
- O descarte desse produto deve ser feito de acordo com a legislação de sua região.