



LED TV user manual

Figures and illustrations in this User Manual are provided for reference only and may differ from actual product appearance. Product design and specifications may be changed without notice.

Important Warranty Information Regarding Television Format Viewing

See the warranty card for more information on warranty terms. Wide screen format LED Displays with aspect ratios of 16:9 (the ratio of the screen width to screen height) are primarily designed to display wide screen format full-motion video. The images displayed on them should primarily be in the wide screen 16:9 ratio format, or expanded to fill the screen if your model offers this feature and the images are constantly moving. Displaying stationary graphics and images on screen, such as the dark sidebars on non-expanded standard format television video and programming, should be limited to no more than 5% of the total television viewing per week. Additionally, viewing other stationary images and text such as stock market crawls, video game displays, station logos, web sites or content patterns should be limited as described above for all televisions. Displaying stationary images that exceed the above guidelines can cause uneven aging of LED Displays that leave subtle, but permanent burned-in ghost images in the LED picture. To avoid this, vary the programming and images, and primarily display full screen moving images, not stationary patterns or dark bars. On LED models that offer picture sizing features, use these controls to view different formats as a full screen picture. Be careful in the selection and duration of television formats you use for viewing. Uneven LED aging as a result of format selection and use, as well as burned-in images, are not covered by your Samsung limited warranty.

SAMSUNG ELECTRONICS NORTH AMERICAN LIMITED WARRANTY STATEMENT

Subject to the requirements, conditions, exclusions and limitations of the original Limited Warranty supplied with Samsung Electronics (SAMSUNG) products, and the requirements, conditions, exclusions and limitations contained herein, SAMSUNG will additionally provide Warranty Repair Service in the United States on SAMSUNG products purchased in Canada, and in Canada on SAMSUNG products purchased in the United States, for the warranty period originally specified, and to the Original Purchaser only. The above described warranty repairs must be performed by a SAMSUNG Authorized Service Center. Along with this Statement and the Original Limited Warranty Statement, a dated Bill of Sale as Proof of Purchase must be presented to the Service Center. Transportation to and from the Service Center is the responsibility of the purchaser. Conditions covered are limited only to manufacturing defects in material or workmanship, and only those encountered in normal use of the product. Exclusions include, but are not limited to, any originally specified provisions for in-home or on-site services, minimum or maximum repair times, exchanges or replacements, accessories, options, upgrades, or consumables.

For the location of a SAMSUNG Authorized Service Center, please call toll-free:
—In the United States : 1-800-SAMSUNG (1-800-726-7864)
—In Canada : 1-800-SAMSUNG



Still image warning

Avoid displaying still images (such as jpeg picture files) or still image elements (such as TV channel logos, TV shows or movies in panorama or 4:3 format, stock or news scroll bars, etc.) on the screen. The constant display of still pictures can cause ghosting or image burn-in (image retention) on the LED screen, which will affect image quality. To reduce the risk of this effect, please follow the recommendations below:

- Avoid displaying the same TV channel for long periods.
- Always try to display any image in full screen mode. Use the TV's Picture Options menu to select the optimal screen size.
- Reduce brightness and contrast values to the minimum required to achieve the desired picture quality. Values that exceed the minimum may speed up the burn-in process.
- Frequently use all TV features designed to reduce image retention and screen burn-in. Refer to proper user manual section for details.

Adjust screen viewing Angle to optimize screen quality according to your viewing position.

- **Samsung MagicAngle**: When viewing the screen at an angle from below or above by setting the appropriate mode for each position you can obtain a similar picture quality as viewing the screen directly from the front.
- **Off**: Select when viewing from the front position.
- **Lean Back Mode**: Select when viewing from a slightly lower position.
- **Standing Mode**: Select when viewing from the upper position.
- **Movie**: Adjust screen viewing angle.
- **When Samsung MagicAngle is set to Lean Back Mode or Standing Mode, Gamma is not available.**

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Country	CANADA	U.S.A
Address	Samsung Electronics Canada, Inc. Customer Service 55 Standish Court Mississauga Ontario L5R 4B2 Canada	Samsung Electronics America, Inc. 85 Challenger Road Ridgely Park, NJ 07660
Customer Care Center ☎	1-800-SAMSUNG (726-7864)	
Web Site	www.samsung.com/ca (English) www.samsung.com/ca/fr (French)	www.samsung.com

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The On Screen Menus

Your TV has two kinds of menus, the Main menu and the various Tools menus. The Main menu you access to most or all of the menu options available on your TV. The Tools menus display a selected number of frequently used menu options that change depending on the screen you are viewing. A Tools menu symbol () in the lower right side of the screen indicates that a Tools menu is available. The Main menu has seven primary categories:

- Picture
- Sound
- Channel
- Setup
- Input
- Application
- Support

To view the Main menu, press the MENU button on your remote. To view a Tools menu, press the TOOLS button on your remote. The menu options that appear in the Main menu depend on the Source you have selected. For example, if you have selected the HDMI source, the Channel category will not appear. To see the Channel category, you must first select TV in the Source List. The Menu options are presented below, arranged by Main menu categories. A Tools button symbol () next to an option name indicates the option is also available in one of the Tools menus.

Picture Menu

Mode (TOOLS2)

- Select your preferred picture mode.
- When your TV is connected to a PC, you can only select **Entertain** and **Standard**.
- **Dynamic**: Brightens the screen. Suitable for a bright room.
- **Standard**: Suitable for a normal room brightness.
- **Movie**: Darkens the screen, making it less glary. Suitable for watching movies in a darkened room.
- **Entertain**: Sharpens the picture. Suitable for games.
- Only available when the TV is connected to a PC.

Samsung MagicAngle (for 19", 22" models)

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Backlight / Contrast / Brightness / Sharpness / Color / Tint (G/R)

- **Backlight**: Adjusts the brightness of the screen by adjusting the brightness of the individual pixels.
- **Contrast**: Increases or decreases the contrast between dark and light areas of the picture.
- **Brightness**: Adjusts the brightness of the screen. Not as effective as Backlight.
- **Sharpness**: Sharpens or dulls the edges of objects.
- **Color**: Adjusts the color saturation. The higher the Color setting, the more intense the color. Low settings remove color and the picture becomes black, white, and gray.

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■ **Tint**: Adjusts the amount of green and red in the picture. As you increase the amount of green, the amount of red decreases and vice versa.

• When the TV is connected to a PC, you can only make changes to **Backlight, Contrast, Brightness, and Sharpness.**

Advanced Settings

- Available in **Standard** and **Movie** mode only. Compared to previous models, new Samsung TVs offer a more precise picture with more precise controls.
- When your TV is connected to a PC, you can only make changes to **Gamma** and **White Balance**.
- **Dynamic Contrast**: Adjusts the screen contrast.
- **Black Tone**: Selects the black level to adjust the screen depth. Darker settings make blacks look darker.
- **Flesh Tone**: Adjusts the amount of red in skin tones.
- **Color Space**: Auto automatically matches the range of colors (the variety and number of colors) available to create pictures with the color range of the video source. Native provides a color range wider than the color range of the video source.
- **White Balance**: Adjusts the color temperature of the picture so that white objects look white (instead of, for example, slightly pink or slightly yellow) and the overall color of the picture looks natural.
- **R-Offset / G-Offset / B-Offset**: Adjusts how dark each color (red, green, blue) is.
- **R-Gain / G-Gain / B-Gain**: Adjusts how bright each color (red, green, blue) is.

Reset: Resets the **White Balance** to it's default settings.

- **Gamma**: Adjusts the picture color intensity.
- **Motion Lighting**: When on, the TV automatically adjusts the brightness of the screen in response to the brightness of the room. In bright light, the screen brightens. In dim light, the screen dims.
- Available in **Standard** mode only.

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• You can adjust and store settings for each external device you have connected to an input on the TV. Picture Sizes available by Input Source are listed below.

Input Source	Picture Size
ATV, AV, Component (480i, 480p)	16:9, Zoom1, Zoom2, 4:3
DTV (1080i, 1080p), Component (1080i, 1080p), HDMI (720p, 1080i, 1080p)	16:9, Wide Fit, 4:3, Screen Fit

- **Digital Clean View**: If the broadcast signal received by your TV is weak, you can activate the **Digital Clean View** feature to reduce any static and ghosting that may appear on the screen.
- When the signal is weak, try all the **Digital Clean View** options until the TV displays the best picture.
- **MPEG Noise Filter**: Reduces MPEG noise to provide improved picture quality.
- **HDMI Black Level**: For HDMI signals, select the black level to adjust the screen depth. Low make blacks look darker.
- Available only in **HDMI** mode (RGB signals).
- **Film Mode**: Sets the TV to automatically sense and process film signals from all sources and adjusts the picture for optimum quality.
- Available in **ATV, DTV (interlace), AV, COMPONENT (480i / 1080i) and HDMI (480i / 1080i).**
- **LED Clear Motion**: Removes drag from fast scenes with a lot of movement to provide a clear picture.

Picture Reset

Resets the picture settings to their factory defaults.

Sound Menu

Mode (TOOLS2)

- **Standard**: Selects the normal sound mode.
- **Music**: Emphasizes music over voices.
- **Movie**: Provides the best sound for movies.
- **Clear Voice**: Emphasizes voices over other sounds.
- **Amplify**: Increase the intensity of high-frequency sounds to allow a better listening experience for the hearing impaired.

Equalizer

Available in **Standard** sound mode only.

- **Balance L/R**: Adjusts the balance between the right and left speaker.
- **100Hz / 300Hz / 1kHz / 3kHz / 10kHz (Bandwidth Adjustment)**: Adjusts the loudness of specific bandwidth frequencies.
- **Reset**: Resets the equalizer to its default settings.

DTS TruSurround

Available in **Standard** sound mode only. DTS TruSurround is a patented DTS technology that solves the problem of playing 5.1 multichannel content through two speakers. TruSurround delivers a compelling, virtual surround sound experience through its two-speaker playback system, including internet television speakers. It is fully compatible with all multichannel formats.

Preferred Language

Digital-TV broadcasts can transmit many audio tracks simultaneously (for example, simultaneous translations of a program into foreign languages).

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• You can only select a language from among the ones being broadcast.

Multi-Track Sound

- Analog channels only.
- **Mono**: Select for channels that are broadcasting in mono or if you are having difficulty receiving a stereo signal.
- **Stereo**: Select for channels that are broadcasting in stereo.
- **SAP**: Select to listen to the Separate Audio Program, which is usually a foreign-language translation.
- Depending on the program being broadcast, you can listen to **Mono, Stereo** or **SAP**.

Auto Volume

Because each station has its own broadcasting conditions, the volume may fluctuate each time you change the channel. This feature automatically adjusts the volume of a channel by lowering the sound output when the modulation signal is high or by raising the sound output when the modulation signal is low.

SPDIF Output (for 32" and above models)

The SPDIF (Sony Philips Digital Interface) outputs an uncompressed digital audio signal when you connect the digital audio jack on the back of the TV to a digital audio-in jack on a receiver or home theater.

- **Audio Format**: You can select the Digital Audio output (SPDIF) format. The available Digital Audio output format may differ depending on the input source.
- By connecting the TV to a receiver or home theater with **Dolby Digital** and 5.1-**ch** speakers and selecting **Dolby Digital**, you can maximize your interactive 3D sound experiences.
- **Audio Delay**: Lets you correct timing mismatches between the audio track and the video when you are watching the TV and listening to digital audio output from the TV through an external device such as an AV receiver. When you select **Audio Delay**, a slider appears. Use the left and right arrow buttons to adjust the slider. Press ENTER () when done (0ms – 250ms).

When you set **Speaker Select** to **External Speaker**, the TV's speakers are turned off. You will hear sound through the external speakers only. When you set **Speaker Select** to **TV Speaker** both the TV's speakers and the external speakers are on. You will hear sound through both.

When you set **Speaker Select** to **External Speaker**, the VOLUME and MUTE buttons will not operate and the sound settings will be limited.

If there is no video signal, both the TV's speakers and the external speakers will mute.

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Channel Menu

Memorizing Channels

If you are not using a cable box or satellite box, when you first set up your TV using **Plug & Play**, the TV memorized the channels that were available over the air or through your cable system and added them to the **Channel List**. The **Antenna** and **Auto program** functions described below let you re-run the channel memorization function without having to re-run the **Plug & Play** procedure.

Antenna (Switch to Cable / Switch to Air (TOOLS2))

Before your television can memorize the available channels, you must select your TV's signal source, **Air** (using an antenna) or **Cable**. Select Menu > **Channel** > **Antenna** > **Air** or **Cable**. After you have selected the signal source, go on to the Auto Program function.

- Selecting the signal source using the **Antenna** function also determines the signal source the TV is tuned to. For example, if you receive your TV signal over the air, and you select **Cable**, you will see only **Now**. You must select **Air** to see a picture.

Auto Program

The Auto Program function memorizes all channels that are available over the air or through your cable system and adds them to the **Channel List**.

If your TV is connected to a cable box or satellite box, you do not need to run **Auto Program**. You will use the tuner in the box, not the tuner in the TV, to select channels.

To start **Auto Program**, follow these steps:

1. Push MENU () → **Channel** → **Auto Program** → ENTER () on your remote. The Antenna Source screen appears.
2. On the Antenna Source screen, select the source of your TV signal.

Air

If your TV is connected to an antenna choose **Air**, and then press ENTER (). The TV will automatically start memorizing channels.

Cable

If your TV is connected to a cable outlet, choose **Cable**, and then press ENTER (). Go to Step 3.

Auto

If you choose **Auto**, and then press ENTER (), the TV will automatically select the correct Antenna source. Go to Step 3.

3. On the Cable type screen, use the ◀▶/▲▼ buttons to select the type of digital and analog cable systems you have: **STD**, **HRC**, **Q-IRC**. Most systems are **STD (Standard)**. When done, select **Start**, and then press ENTER (). The TV will start memorizing channels.

- Channel memorization can take up to 45 minutes, depending on your cable system.
- Memorized channels are added to the **Added Channels** list. These are the channels you will see when you use the Channel buttons on your remote.

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