

SAMSUNG LED TV user manual

SERIES 45
4000
5000

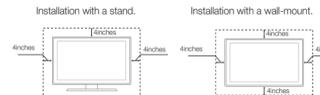
Figures and illustrations in this User Manual are provided for reference only and may differ from actual product appearance. Product design and specifications may be changed without notice.

Still image warning

- Avoid displaying still images (such as jpeg picture files) or still image elements (such as TV channel logos, panorama or 4:3 image format, stock or news bars at screen bottom etc.) on the screen. Constant displaying of still pictures can cause ghosting of LED screen, which will affect image quality. To reduce risk of this effect, please follow below recommendations:
- Avoid displaying the same TV channel for long periods.
- Always try to display any image on full screen, use TV set picture format menu for best possible match.
- Reduce brightness and contrast values to minimum required to achieve desired picture quality, exceeded values may speed up the burnout process.
- Frequently use all TV features designed to reduce image retention and screen burnout, refer to proper user manual section for details.

Securing the Installation Space

- Keep the required distances between the product and other objects (e.g. walls) to ensure proper ventilation.
- Falling to do so may result in fire or a problem with the product due to an increase in the internal temperature of the product.
- When using a stand or wall-mount, use parts provided by Samsung Electronics only.
 - If you use parts provided by another manufacturer, it may result in a problem with the product or an injury due to the product falling.
 - The appearance may differ depending on the product.
 - Be careful when you contact the TV because some parts can be somewhat hot.



© 2013 Samsung Electronics Co., Ltd. All rights reserved.

Warning! Important Safety Instructions

Please read the safety instructions below before installing and using the product.

CAUTION
RISK OF ELECTRIC SHOCK. DO NOT OPEN.

CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). THERE ARE NO USER SERVICEABLE PARTS INSIDE. REFER ALL SERVICING TO QUALIFIED PERSONNEL.

This symbol indicates that high voltage is present inside. It is dangerous to make any kind of contact with any internal part of this product.

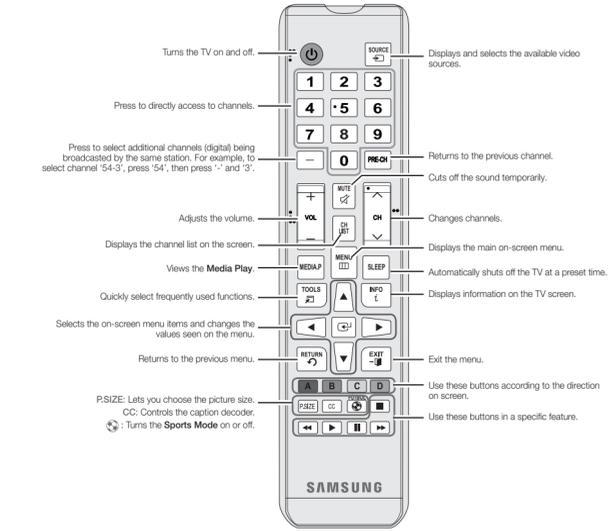
This symbol indicates that important literature concerning operation and maintenance has been included with this product.

• The slots and openings in the cabinet and in the back or bottom are provided for necessary ventilation. To ensure reliable operation of this apparatus, and to protect it from overheating, these slots and openings must never be blocked or covered.

- Do not cover the slots and openings with a cloth or other materials.
- Do not block the slots and openings by placing this apparatus on a bed, sofa, rug or other similar surface.
- Do not place this apparatus in a confined space, such as a bookcase or built-in cabinet, unless proper ventilation is provided.
- Do not place this apparatus near or over a radiator or heat register, or where it is exposed to direct sunlight.
- Do not place a vessel containing water (vases etc.) on this apparatus, as this can result in a risk of fire or electric shock.
- Do not expose this apparatus to rain or place it near water (near a bathtub, washbowl, kitchen sink, or laundry tub, in a wet basement, or near a swimming pool etc.). If this apparatus accidentally gets wet, unplug it and contact an authorized dealer immediately.
- Make sure to pull out the power cord from the outlet before cleaning.
- The apparatus uses batteries. In your community, there might be regulations that require you to dispose of these batteries properly to protect the environment. Please contact your local authorities for disposal or recycling information.
- Do not overload wall outlets, extension cords, or adaptors beyond their capacity, since this can result in fire or electric shock.
- Power-supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them. Pay particular attention to cords at the plug end, where connected to adaptors, and at the point where they exit from the apparatus.
- To protect this apparatus from a lightning storm, or when it is left unattended and unused for long periods of time, unplug it from the wall outlet and disconnect the antenna or cable system. This will prevent damage to the set due to lightning and power line surges.
- Before connecting the AC power cord to the DC adaptor outlet, make sure the voltage designation of the DC adaptor corresponds to the local electrical supply (depending on the model).
- Never insert anything metallic into the open parts of this apparatus. Doing so may create a danger of electric shock.
- To avoid electric shock, never touch the inside of this apparatus. Only a qualified technician should open this apparatus.
- Make sure to plug the power cord in until it is firmly inserted. Pull on the plug, not the cord, when removing the power cord from the outlet. Do not touch the power cord with wet hands.
- This apparatus does not operate normally - in particular, if there are any unusual sounds or smells coming from it - unplug it immediately and contact an authorized dealer or service center.
- Be sure to pull the power plug out of the outlet if the TV is to remain unused or if you are to leave the house for an extended period of time (especially when children, elderly or disabled people will be left alone in the house).
 - Accumulated dust can cause an electric shock, an electric leakage, or a fire by causing the power cord to generate sparks and heat, or cause the insulation to deteriorate.
- Be sure to contact an authorized service center, when installing your set in a location with heavy dust, high or low temperatures, high humidity, chemical substances or where it will operate for 24 hours a day such as in an airport, a train station, etc. Failure to do so may cause serious damage to your set.
- Use only a properly grounded plug and receptacle.
 - An improper ground may cause electric shock or equipment damage. (Class I Equipment only).
- To turn off the apparatus completely, you must pull the power plug out of the wall socket. Consequently, the power plug should be readily accessible at all times.
- Do not allow children to hang onto the product.
- Store the accessories (batteries, etc.) in a location safely out of the reach of children.
- Do not install the product in an unstable location such as a shaky shelf, a slanted floor, or a location exposed to vibration.
- Do not drop or impart a shock to the product. If the product is damaged, disconnect the power cord and contact a service center.
- To clean the product, unplug the power cord from the power outlet and wipe the product using a soft cloth dipped in a small amount of water. Do not use any chemicals such as wax, benzene, alcohol, thinners, insecticide, air freshener, lubricant or detergent. This may damage the appearance or erase the printing on the product.
- Do not expose the apparatus to dripping or splashing.
- Do not dispose of batteries in a fire.
- Do not short circuit, disassemble, or overheat the batteries.
- There is a danger of explosion if you replace the batteries with the wrong type of battery. Replace only with the same or equivalent type.
- **WARNING - TO PREVENT THE SPREAD OF FIRE, KEEP CANDLES OR OTHER OPEN FLAMES AWAY FROM THIS PRODUCT AT ALL TIMES.**

Remote Control

This remote control has Braille points on the Power, Channel, and Volume buttons and can be used by visually impaired persons.

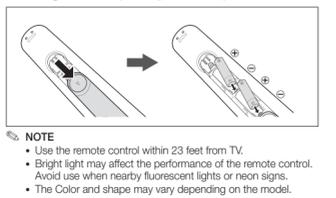


Display Modes (HDMI/DVI Input)

4 series: 1366 x 768@60Hz / 5 series: 1920 x 1080@60Hz

Mode	Resolution	Horizontal Frequency (kHz)	Vertical Frequency (Hz)	Pixel Clock (MHz)	Sync (H/V)	1366 x 768	1920 x 1080
IBM	720 x 400	31.469	70.087	26.522	-/+	✓	✓
	640 x 480	31.469	60.000	25.175	-/+	✓	✓
	832 x 624	49.726	74.551	57.284	-/+	✓	✓
	1152 x 870	68.881	75.952	100	-/+	✓	✓
	640 x 480	31.469	59.940	25.175	-/+	✓	✓
	640 x 480	37.861	72.809	31.5	-/+	✓	✓
	640 x 480	37.5	75	31.5	-/+	✓	✓
	800 x 600	37.879	60.317	40	-/+	✓	✓
	800 x 600	48.077	72.188	50	-/+	✓	✓
	800 x 600	48.875	75	49.5	-/+	✓	✓
MAC	1024 x 768	48.363	60.344	66	-/+	✓	✓
	1024 x 768	56.476	70.069	75	-/+	✓	✓
	1024 x 768	60.023	75.059	78.75	-/+	✓	✓
	1152 x 864	67.5	75	108	-/+	✓	✓
	1280 x 720	45	60	74.25	-/+	✓	✓
	1280 x 800	49.702	59.951	63.5	-/+	✓	✓
	1280 x 1024	63.881	60.232	108	-/+	✓	✓
	1280 x 1024	79.876	75.025	135	-/+	✓	✓
	1366 x 768	47.712	59.72	65.5	-/+	✓	✓
	1440 x 900	55.505	59.957	105.6	-/+	✓	✓
VESA DMT	1600 x 900P@60	60	60	108	-/+	✓	✓
	1680 x 1050	65.29	59.954	146.25	-/+	✓	✓
	1920 x 1080	67.5	60	148.5	-/+	✓	✓

Installing batteries (Battery size: AAA)



Channel Menu

Seeing Channels

- Channel List**
- Add, delete or set Favorite channels and use the program guide for digital broadcasts. Select a channel in the **All Channels**, **Added Channels**, **Favorite** or **Programmed** screen by pressing the **▲/▼** buttons, and pressing the **ENTER** button. Then you can watch the selected channel.
- **All Channels:** Shows all currently available channels.
 - **Added Channels:** Shows all added channels.
 - **Favorite:** Shows all favorite channels.
 - **Programmed:** Shows all currently reserved programs.
- Using the remote control buttons with the **Channel List**
- **Green (Zoom):** Enlarges or shrinks a channel number.
 - **Yellow (Select):** Selects multiple channel lists. Select desired channels and press the **Yellow** button to set all the selected channels at the same time. The **✓** mark appears to the left of the selected channels.
 - **Tools:** Displays the **Channel List** option menu. (The Options menu may differ depending on the situation.)

Channel Status Display icons

- **✓:** A channel selected.
- **♥:** A channel set as a Favorite.
- **Ⓢ:** A reserved program.
- **Ⓢ:** A program currently being broadcast.

Memorizing channels

- Antenna (Switch to Cable / Switch to Air [TOOLS2])**
- Before your television can begin memorizing the available channels, you must specify the type of signal source that is connected to the TV (i.e. an Air or a Cable system).
- When selecting the Cable TV system: Selects the cable system. **STD, HRC** and **IRC** identify various types of cable TV systems. Contact your local cable company to identify the type of cable system that exists in your particular area. At this point, the signal source has been selected.
 - After all the available channels are stored, it starts to remove scrambled channels. The **Auto Program** menu then reappears.
 - Press the **ENTER** button to stop the channel store during **Auto Program**.

Auto Program

- When selecting the Cable TV system: Selects the cable system. **STD, HRC** and **IRC** identify various types of cable TV systems. Contact your local cable company to identify the type of cable system that exists in your particular area. At this point, the signal source has been selected.
- After all the available channels are stored, it starts to remove scrambled channels. The **Auto Program** menu then reappears.
- Press the **ENTER** button to stop the channel store during **Auto Program**.

How to Stop Auto Programming

1. Press the **ENTER** button.
2. A message will ask **Stop Auto Program?** Select **Yes** by pressing the **▲** or **▶** button.
3. Press the **ENTER** button.

Other Features

- Clear Scrambled Channel**
- This function filters out scrambled channels after **Auto Program** is completed. This process may take up to 20-30 minutes.
- Press the **ENTER** button to stop the **Clear Scrambled Channel**.
 - This function is only available in **Cable** mode.

- Channel List**
- This function is only available in **Cable** mode.
- **Dynamic:** Suitable for a bright room.
 - **Standard:** Suitable for a normal environment.
 - **Movie:** Suitable for watching movies in a dark room.
 - **Entertain:** Suitable for watching movies and games.
 - Only available when connecting a PC.

- Channel List Option Menu**
- Set each channel using the **Channel List** menu options. Option menu items may differ depending on the channel status.
- **Channel List → [TOOLS2]**

Getting Started

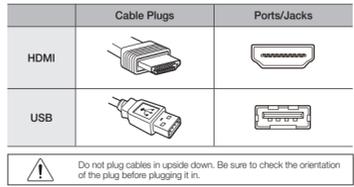
Accessories

- Remote Control & Batteries (AAA x 2)
- Warranty Card / Regulatory Guide
- Owner's Instructions
- Power Cord
- AC/DC Adaptor (for 19", 22" models)
- Cable Manager (for 28" models)

Input Cables (Sold Separately)

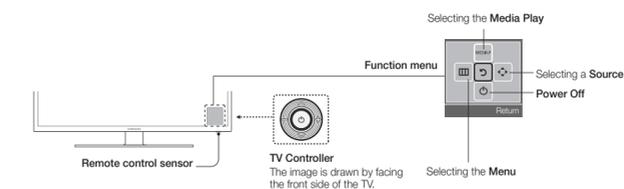
- Audio
- Composite (AV)
- Component
- Coaxial (RF)
- HDMI
- HDMI-DVI

Make sure you have the correct cable before plugging it in. Illustrations of common plugs and jacks are shown below.



TV Controller (Panel Key)

The TV's Controller, a small joystick like button on the rear left side of the TV, lets you control the TV without the remote control.



- Exits the menu when pressing the controller more than 1 second.
- When selecting the function by moving the controller to the up/down/left/right directions, be sure not to press the controller. If you press it first, you cannot operate it to move the up/down/left/right directions.

Plug & Play (Initial Setup)

When you turn the TV on for the first time, a sequence of screens and on-screen prompts will assist you in configuring the TV's basic settings. Press the **POWER** button. **Plug & Play** is available only when the Input source is set to TV. Set the initial setup following instructions that the TV guides.

- Connecting the power cord and antenna. (refer to 'Connections')

Samsung MagicAngle (for 19", 22" models)

- 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.
 - **Mode:** Adjust screen viewing angle.
 - When **Samsung MagicAngle** is set to **Lean Back Mode** or **Standing Mode**, **Gamma** is not available.

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

- Your television has several setting options for picture quality control.
- When connecting a PC, you can only make changes to **Background, Contrast, Brightness** and **Sharpness**.

Advanced Settings

- (available in **Standard / Movie** mode)
- Compared to previous models, new Samsung TVs have a more precise picture.
- When connecting 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.
 - **Flesh Tone:** Emphasize pink "flesh tone".
 - **Color Space:** Adjusts the range of colors available to create the image.
 - **White Balance:** Adjusts the color temperature for a more natural picture.
 - **R-Offset / G-Offset / B-Offset:** Adjusts each color's (red, green, blue) darkness.
 - **R-Gain / G-Gain / B-Gain:** Adjusts each color's (red, green, blue) brightness.
 - **Reset:** Resets the **White Balance** to it's default settings.
 - **Gamma:** Adjusts the primary color intensity.
 - **Motion Lighting:** Reduce power consumption by brightness control of the picture.
 - Available in **Standard** mode only.

Picture Options

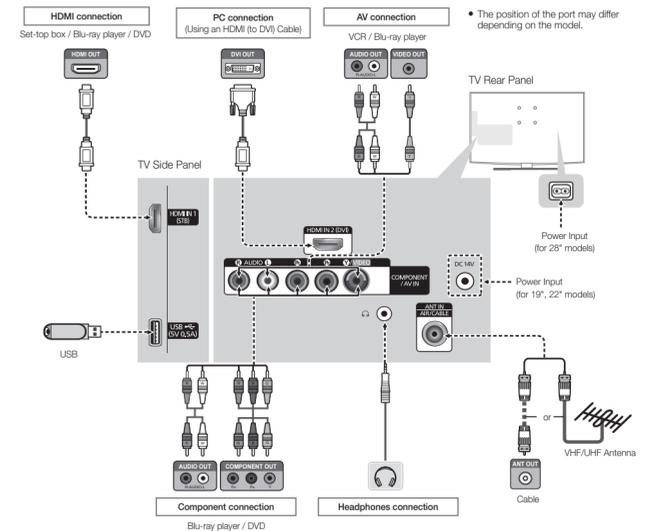
- When connecting a PC, you can only make changes to the **Color Tone, Size**, and **HDMI Black Level**.
- **Color Tone**
 - **Warm1** or **Warm2** will be deactivated when the picture mode is **Dynamic**.
- **Size:** Your cable box/satellite receiver may have its own set of screen sizes as well. However, we highly recommend you use 16:9 mode most of the time.
- **16:9:** Sets the picture to 16:9 wide mode.
- **Zoom1:** Use for moderate magnification.
- **Zoom2:** Use for a stronger magnification.
- **Wide Fit:** Enlarges the aspect ratio of the picture to fit the entire screen.
- **4:3:** Sets the picture to basic (4:3) mode.

Picture Menu

- Select your preferred picture type.
- When connecting a PC, you can only select **Entertain** and **Standard**.
 - **Dynamic:** Suitable for a bright room.
 - **Standard:** Suitable for a normal environment.
 - **Movie:** Suitable for watching movies in a dark room.
 - **Entertain:** Suitable for watching movies and games.
 - Only available when connecting a PC.

Connections

- For the best picture and audio quality, connect digital devices using an HDMI cable.
- If you connect an external device to the TV that uses an older version of HDMI, the video and audio may not work. If this occurs, ask the manufacturer of the device about the HDMI version and, if it is out of date, request an upgrade.
- Be sure to purchase a certified HDMI cable. Otherwise, the picture may not display or a connection error may occur.
- **PC/DVI AUDIO IN** input is not supported.
- For an HDMI to DVI cable connection, you must use the HDMI IN 2 (DVI) port.
- Connecting through the HDMI cable may not be supported depending on the PC.
- If an HDMI to DVI cable is connected to the HDMI IN 2 (DVI) port, the audio does not work.
- For Set-top box connection using HDMI cable, we highly recommend you to connect the HDMI IN 1 (STB) port.



Changing the Input Source

Source List

- To select TV or an external input source such as a DVD player / Blu-ray player / cable box / STB satellite receiver.
1. Press the **SOURCE** button.
 2. Select a desired external input source.
- **TV / AV / Component / HDMI / HDMI2/DVI**
 - You can only choose external devices that are connected to the TV. In the **Source List**, connected inputs will be highlighted.

Information

You can see detailed information about the connected external device.

DTS TruSurround

- (standard sound mode only)
- DTS TruSurround is a patented DTS technology that solves the problem of playing 5.1 multichannel content over two speakers. TruSurround delivers a compelling, virtual surround sound experience through any two-speaker playback system, including internet television speakers. It is fully compatible with all multichannel formats.
- **Preferred Language** (digital channels only)
 - Digital-TV broadcasts are capable of simultaneous transmission of many audio tracks (for example, simultaneous translations of the program into foreign languages).
 - You can only select a language from among the ones being broadcasted.

Multi-Track Sound

- (analog channels only)
- **Mono:** Choose for channels that are broadcasting in mono or if you are having difficulty receiving a stereo signal.
 - **Stereo:** Choose for channels that are broadcasting in stereo.
 - **SAP:** Choose 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 broadcasting station has its own signal conditions, the volume may fluctuate each time channel is changed. This feature lets you automatically adjust the volume of the desired channel by lowering the sound output when the modulation signal is high or by raising the sound output when the modulation signal is low.

Speaker Select

- If you are listening to the sound track of a broadcast or movie through an external receiver, you may hear a sound echo caused by the difference in decoding speed between the TV's speakers and the speakers attached to your audio receiver. If this occurs, set the TV to **External Speaker**.
- 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 **Speaker Select** is set 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 be mute.

Visual Impaired

- (digital channels only)
- Adds verbal description to the main audio to help the visually impaired.

Sound Reset

- **Reset All:** Resets all sound settings to the factory defaults.

Other Features

- Game Mode**
- When connecting to a game console such as PlayStation™ or Xbox™, you can enjoy a more realistic gaming experience by selecting the game menu.
- Precautions and limitations for game mode
 - To disconnect the game console and connect another external device, set **Game Mode** to **Off** in the setup menu.
 - If you display the TV menu in **Game Mode**, the screen shakes slightly.
 - **Game Mode** is not available when the input source is set to **TV**.
 - After connecting the game console, set **Game Mode** to **On**. Unfortunately, you may notice reduced picture quality.

Program Rating Lock

The **Program Rating Lock** feature automatically locks out programs that are deemed inappropriate for children. The user must enter a PIN (personal identification number) before any of the Program Rating Lock restrictions are set up or changed.

Program Rating Lock is not available in HDMI or Component mode.

The default PIN number of a new TV set is "0-0-0-0".

■ **Program Rating Lock:** You can block rated TV Programs.

■ **TV Parental Guidelines:** You can block TV programs depending on their rating. This function allows you to control what your children are watching.

■ **MPIAA Rating:** You can block movies depending on their MPIAA rating. The Motion Picture Association of America (MPIAA) has implemented a rating system that provides parents or guardians with advanced information on which films are appropriate for children.

■ **Canadian English:** You can block TV programs depending on their Anglophone Canadian.

■ **Canadian French:** You can block TV programs depending on their French Canadian rating.

■ **Downloadable U.S. Rating:** Parental restriction information can be used while watching DVD channels.

■ **Change PIN:** The Change PIN screen will appear. Choose any 4 digits for your PIN and enter it in **Enter New PIN**. Re-enter the same 4 digits in **Confirm New PIN**. When the Change PIN screen disappears, press the **OK** button. The TV has memorized your new PIN.

☞ If you forget the PIN, press the remote-control buttons in the following sequence, which resets the pin to "0-0-0-0": POWER (off) → MUTE → 8 → 2 → 4 → POWER (on)

Caption

(On-Screen Text Messages)

■ **Caption:** You can switch the caption function on or off. If captions are not available, they will not be displayed on the screen.

☞ The **Caption** feature does not work in **Component** or **HDMI** mode.

■ **Caption Mode:** You can select the desired caption mode.

Default / CC1-CC4 / Text1-Text4: (analog channels only) The Analog Caption function operates in either analog TV channel mode or when a signal is supplied from an external device to the TV. (Depending on the broadcasting signal, the Analog Caption function may or may not work with digital channels.)

Default / Service1-Service6 / CC1-CC4 / Text1-Text4: (digital channels only) The Digital Captions function works with digital channels.

☞ **Service1-6** may not be available in digital caption mode depending on the broadcast.

■ **Digital Caption Options:** (digital channels only)

Size: Options include Default, Small, Standard and Large. The default is Standard.

Font Style: Options include Default and Styles 0 to 7. The default is Style 0.

Foreground Color: Options include Default, White, Black, Red, Green, Blue, Yellow, Magenta and Cyan.

You can change the color of the letter. The default is White.

Background Color: Options include Default, White, Black, Red, Green, Blue, Yellow, Magenta and Cyan.

You can change the background color of the caption. The default is Black.

Foreground Opacity: This adjusts the opacity of text. Options include Default, Transparent, Translucent, Solid and Flashing.

Background Opacity: This adjusts the opacity of the caption background. Options include Default, Transparent, Translucent, Solid and Flashing.

Return to Default: This option sets each Size, Font Style, Foreground Color, Background Color, Foreground Opacity and Background Opacity to its default.

☞ **Digital Caption Options** are available only when **Default** and **Service1-Service6** can be selected in **Caption Mode**.
☞ The Foreground and Background cannot be set to have the same color.

Melody

Set so that a melody plays when the TV is turned on or off.

☞ The **Melody** does not play.

- When no sound is output from the TV because the MUTE button has been pressed.
- When no sound is output from the TV because the volume has been reduced to minimum with the VOL- button.
- When the TV is turned off by **Sleep Timer** function.

Eco Solution

■ **Energy Saving:** This adjust the brightness of the TV in order to reduce power consumption. If you select **Picture Off**, the screen is turned off, but the sound remains on. Press any button except volume button to turn on the screen.

■ **No Signal Power Off:** Sets how quickly the TV switches to standby mode, if no picture is being received.

■ **Auto Power Off:** The TV will be automatically turned off when no user operation is received for 4 hours.

Auto Protection Time

If the screen remains idle with a still image for a certain period of time defined by the user, the screen saver is activated to prevent the formation of ghost images on the screen.

Support Menu

Self Diagnosis

■ **Picture Test:** Use to check for picture problems. If the problem continues to occur, check the color pattern.

■ **Sound Test:** Use the built-in melody sound to check for sound problems.

■ **Signal Strength:** (digital channels only) An HD channel's reception quality is either perfect or the channels are unavailable. Adjust your antenna to increase signal strength.

■ **Reset:** Reset all settings to the factory defaults.

☞ The PIN input screen appears before the setup screen.

☞ Enter your 4-digit PIN. Change the PIN using the **Change PIN** option.

Software Upgrade

Software Upgrade can be performed by downloading the latest firmware from samsung.com to a USB memory device.

HD Connection Guide

Refer to this information when connecting external devices to the TV.

Contact Samsung

View this information when your TV does not work properly or when you want to upgrade the software. You can find information regarding our call centers and how to download products and software.

Application Menu

Using the Media Play

Enjoy photos, music and/or movie files saved on a USB Mass Storage Class (MSC) device.

Connecting a USB Device

- Turn on your TV.
- Connect a USB device containing photo, music and/or movie files to the USB jack on the side of the TV.
- When USB is connected to the TV, you can select **Media Play (USB)** in **Applications** menu.

Using the Media Play Menu

- Press the MENU button. Press the ▲ or ▼ button to select **Applications**, then press the ENTER button.
- Press the ▲ or ▼ button to select **Media Play (USB)**, then press the ENTER button.
- Press the ◀ or ▶ button to select an icon (**Videos**, **Music**, **Photos**, **Settings**), then press the ENTER button.

☞ It might not work properly with unlicensed multimedia files.

☞ Need-to-Know List before using **Media Play (USB)**

- Supported file systems are FAT and NTFS.
- Certain types of USB Digital camera and audio devices may not be compatible with this TV.
- Media Play** only supports USB Mass Storage Class (MSC) devices. MSC is a Mass Storage Class Bulk-Only Transport device. Examples of MSC are Thumb drives and Flash Card Readers. Devices should be connected directly to the TV's USB port. USB HDD is not supported.

☞ Before connecting your device to the TV, please back up your files to prevent them from damage or loss of data. SAMSUNG is not responsible for any data file damage or data loss.

☞ A USB device that requires high power (more than 0.5A) may not be supported.

☞ Do not disconnect the USB device while it is loading.

☞ The higher the resolution of the image, the longer it takes to display on the screen.

☞ The maximum supported JPEG resolution is 15360 x 8640 pixels.

☞ If a file is corrupted or the TV does not support the file type, the "Not Supported File Format" message appears.

☞ The TV cannot play MP3 files with DRM that have been downloaded from a for-pay site. Digital Rights Management (DRM) is a technology that supports the creation, distribution, and management of digital content in an integrated and comprehensive way, including protecting the rights and interests of content providers, preventing illegal copying of contents, and managing billings and settlements.

☞ PTP device is not supported.

☞ If an over-power warning message is displayed while you are connecting or using a USB device, the device may not be recognized or may malfunction.

☞ If the TV has no input during the time set in **Auto Protection Time**, the Screensaver will run.

☞ The power-saving mode of some external hard disk drives may be released automatically when you connect them to the TV.

* If you use a USB extension cable, the TV may not recognize the USB device or may not be able to read the files on the device.
* If a USB device connected to the TV is not recognized, the list of files on the device is corrupted, or a file in the list is not played, connect the USB device to a PC, format the device, and check the connection.
* If a file you deleted from the PC is still found when you run **Media Play**, use the "Empty the Recycle Bin" function on the PC to permanently delete the file.

☞ **Photos** only supports sequential jpeg format.

☞ The scene search and thumbnail functions are not supported in the **Videos**.

☞ If the number of files and folders saved on a USB storage device is approximately over 4000, the files and folders may not appear and some folders may not be opened.

☞ The maximum displayed number of files, including sub folders, in one folder of USB storage device is 2000.

☞ The media may not be playing smoothly when using the device slower than USB 2.0.

Videos

1. Press the ◀▶ buttons to select **Videos**, then press the ENTER button in the **Media Play** menu.

2. Press the ◀▶/▲▼ buttons to select the desired video in the file list.

3. Press the ENTER button or [▶] (Play) button.

- The selected file is displayed on the top with its playing time.

- If video time information is unknown, playing time and the progress bar are not displayed.

- During video playback, you can search using the ◀▶ buttons.

☞ In this mode, you can play movie clips contained in a game, but you cannot play the game itself.

☞ Supported Subtitle Formats

- External

Name	File extension
MPEG-4 Timed text	.tst
SAMI	.smi
SubRip	.srt
SubViewer	.sub
Micro DVD	.sub or .tst
SubStation Alpha	.ass

- Internal

Name	Container	Format
Xsub	AVI	Picture Format
SubStation Alpha	MKV	Text Format
Advanced SubStation Alpha	MKV	Text Format
SubRip	MKV	Text Format
MPEG-4 Timed text	MP4	Text Format

☞ Supported Video Formats

File Extension	Container	Video Codec	Resolution	Frame rate (fps)	Bit rate (Mbps)	Audio Codec
.mp4	MP4	Dxv3.11.4xV.5.1B.0	1920x1080	6-30	30Mbps	MP3 / AAC / ADPCM / AAC
		H264	1920x1080	6-30	30Mbps	
		AVC	1920x1080	6-30	30Mbps	
		MPEG	640x480	6-30	10Mbps	

.avi	AVI / MKV	Dxv3.11.4xV.5.1B.0	1920x1080	6-30	30Mbps	MP3 / ACS / LPCM / ADPCM / DTS / Com
		MPEG4 SP ASP	1920x1080	6-30	30Mbps	
		H264	1920x1080	6-30	30Mbps	
		MPEG	640x480	6-30	10Mbps	

File Extension	Container	Video Codec	Resolution	Frame rate (fps)	Bit rate (Mbps)	Audio Codec
.asf *.wmv	ASF	Dxv 3.11.4xV.5.1B.0	1920x1080	6-30	30Mbps	MP3 / ACS / LPCM / ADPCM / WMA / WMA Pro
		MPEG4 SP ASP	1920x1080	6-30	30Mbps	
*.ts *.ts *.ip *.m2ts	TS	H.264	1920x1080	6-30	30Mbps	AAC / AAC / MP3 / DTS / HE-AAC
		MPEG2	1920x1080	6-30	30Mbps	
*.dat *.m1v *.mpeg *.vob	PS	MPEG1	1920x1080	24/25/30	30Mbps	AAC / MP3 / LPCM / AAC
		MPEG2	1920x1080	24/25/30	30Mbps	
*.3gp	3GPP	MPEG4 SP ASP	1920x1080	6-30	30Mbps	MP3
		MPEG4 SP ASP	1920x1080	6-30	30Mbps	
*.sv	Flash formats	H.264	1920x1080	6-30	30Mbps	MP3
		Sorenson H263	1920x1080	6-30	30Mbps	

Other Restrictions

☞ Video content will not play, or not play correctly, if there is an error in the content or the container.

☞ Sound or video may not work if the contents have a standard bit rate/frame rate above the compatible Frame/sec listed in the table above.

☞ If the Index Table is in error, the Seek (Jump) function is not supported.

☞ The menu may take longer to appear if the video's bit rate exceeds 10Mbps.

☞ Video content can not be played, if there are many contents in one file.

Video Decoder Supports up to H.264, Level 4.1
H.264 FMO / ASD / RS, VCI SP / MP / AP/L4 and AVC/HD are not supported.
MPEG4 SP ASP :
- Below 1280 x 720: 60 frame max
- Above 1280 x 720: 30 frame max
H.265 is not supported.
GMC is not support.

Music

1. Press the ◀▶ buttons to select **Music**, then press the ENTER button in the **Media Play** menu.

2. Press the ◀▶/▲▼ buttons to select the desired Music in the file list.

3. Press the ENTER button or [▶] (Play) button.

☞ During music playback, you can search using the ◀▶ buttons.

☞ [◀] (Previous) and [▶] (Next) buttons do not function during play.

☞ Only plays the files with MP3 file extensions. Other file extensions are not displayed, even if they are saved on the same USB device.

☞ If the sound is abnormal when playing MP3 files, adjust the **Equalizer** in the **Sound** menu. (An over-modulated MP3 file may cause a sound problem.)

Photos

1. Press the ◀▶ buttons to select **Photos**, then press the ENTER button in the **Media Play** menu.

2. Press the ◀▶/▲▼ buttons to select the desired photo in the file list.

3. Press the ENTER button or [▶] (Play) button.

☞ **NOTE**

- While a photo list is displayed, press the [▶] (Play) / ENTER button on the remote control to start the slide show.

- All files in the file list section will be displayed in the slide show.

- During the slide show, files are displayed in order.

- During the slide show, you can adjust the slide show speed using **◀** (PREV) or **▶** (NEXT) button.

- You can move to other file using the ◀▶ buttons.

☞ Supported Photo Formats

Image	Photo	Resolution
JPEG	Base-line	15360 x 8704
	Progressive	1024 x 768

Other Restrictions

CMYK and YCCK Color space JPEGs are not supported.

Playing Multiple Files

- Press the Yellow button in the file list to select the desired file.
- Repeat the above operation to select multiple files.

☞ **NOTE**

- The ◀ mark appears to the left of the selected files.

- To cancel a selection, press the Yellow button again.

- To deselect all selected files, press the TOOLS button and select **Deselect All**.

3. Press the TOOLS button, and then select **Play Selected Contents**.

■ **Playing the video/music/photo file group**

- While a file list is displayed, move to any file in desired group.
- Press the TOOLS button, and then select **Play Folder**.

☞ **Media Play - Additional Functions**

■ **Videos/Music/Photos Play Option menus**

When playing a file, press the TOOLS button.

Category	Operation	Videos	Music	Photos
Title	You can move the other file directly.	✓		
Repeat Mode	You can play movie and music files repeatedly.	✓	✓	
Picture Size	You can adjust the picture size to your preference.	✓	✓	✓
Picture Mode	You can adjust the picture setting.	✓	✓	✓
Sound Mode	You can adjust the sound setting.	✓	✓	✓

☞ **Subtitle Settings**

You can play the video with Subtitles. This function only works if the subtitles are the same file name as the video.

☞ **Audio Format**

You can select the digital audio output format.

☞ **Audio Language**

You can change the audio language if it is more than one language.

☞ **Show Slide Show / Start Slide Show**

You can start or stop a Slide Show.

☞ **Slide Show Speed**

You can select the slide show speed during the slide show.

☞ **Background Music**

You can set and select background music when watching a Slide Show.

☞ **Zoom**

You can zoom into images in full screen mode.

☞ **Rotate**

You can rotate images in full screen mode.

☞ **Information**

You can see detailed information about the played file.

Troubleshooting

If the TV seems to have a problem, first review this list of possible problems and solutions. If none of these troubleshooting tips apply, visit samsung.com, then click on Support, or call Samsung customer service.

Problem	Possible Solution
Flickering and Dimming	If your Samsung television is flickering or dimming sporadically, you may not be able to turn some of its energy efficient features like the Energy Saving feature. If you follow below steps with your remote, you can disable these features or if not: • Energy Saving / MENU → Setup → Eco Solution → Energy Saving If you find that the color on your Samsung television's screen is not correct or black and White, first run a Self Diagnosis on the TV to make sure there are no device issues. • Self Diagnosis: MENU → Support → Self Diagnosis → Picture Test If the test is OK, try making sure: • Your connections are all consistent. For example, if you've used the AV In jack on your TV, make sure you have used the AV Out jack on your video source. • Try making sure you have connected to the correct jacks. For example, if you use the Component jacks, labeled Pb, Pr, and Y, to connect your TV and video source, make sure you have connected the blue Pb jack on the video source to the blue Pb jack on the TV, the red Pr jack on the source to the red Pr jack on the TV. • Backlight, Contrast, Brightness, Sharpness, Color, Tint (G/R) and so on. Go to "Picture" on User Menu then try adjusting options mentioned above.
Component Connectors / Screen Color	If your Samsung TV appears to turn off by itself, there may be an issue with either your Timer settings or your Eco-friendly No Signal Power Off feature. First make sure your Sleep Timer is not accidentally set. The sleep timer allows you the comfort of falling asleep with the TV still on, but turns it off after a certain period of time so as not to waste energy. • Sleep Timer: MENU → Setup → Time → Sleep Timer If the Sleep Timer is not activated, you may have engaged the No Signal Power Off or Auto Power Off feature. • No Signal Power Off: MENU → Setup → Eco Solution → No Signal Power Off • Auto Power Off: MENU → Setup → Eco Solution → Auto Power Off
Screen Brightness	If you find that the colors on your Samsung TV are correct but just a little too dark or bright, there are some settings you should check before calling for a repair. • Backlight, Contrast, Brightness, Sharpness, Color, Tint (G/R) and so on. Go to "Picture" on User Menu then try adjusting options mentioned above.
Unwanted Powering off	If your Samsung TV appears to turn off by itself, there may be an issue with either your Timer settings or your Eco-friendly No Signal Power Off feature. First make sure your Sleep Timer is not accidentally set. The sleep timer allows you the comfort of falling asleep with the TV still on, but turns it off after a certain period of time so as not to waste energy. • Sleep Timer: MENU → Setup → Time → Sleep Timer If the Sleep Timer is not activated, you may have engaged the No Signal Power Off or Auto Power Off feature. • No Signal Power Off: MENU → Setup → Eco Solution → No Signal Power Off • Auto Power Off: MENU → Setup → Eco Solution → Auto Power Off
Trouble Powering On	Before Turn on check red light on the right or left bottom of your TV. Press power on button on TV or remote and it will blink about 5 times before turning on. If you find that you are having trouble powering on your Samsung television, there are a number of things to check before making a call to the service department. • If you happen to be using the TV as a monitor and the stand-by light only blinks for a few seconds when you press the power button, your PC is in sleep mode. To take your PC out of sleep mode, press a key on your keyboard or move the mouse. Then try turning your TV on. If you're sure your power cord, remote control, and PC are functioning properly, you may be having a cable issue. If you have a cable or satellite box, your TV may appear to be off because the cable or satellite box is not outputting a signal. To test the signal output of your cable or satellite box, press the guide or info button on the cable or satellite box remote control. If the screen displays the guide or info data, the problem is caused by the box. • Stand Assembly If you have any trouble to assemble the stand though you refer to "install the Stand" mentioned at separate guide. • Cannot find channel Re-run plug and play. • Poor picture First, perform the Picture Test and to see if your TV is properly displaying the test image. Go to MENU → Support → Self Diagnosis - Picture Test If the test image is properly displayed, the poor picture may be caused by the HDMI or signal. If you have an analog cable/satellite box, upgrade to a digital set-top box. Use HDMI or Component cables to deliver HD (high definition) picture quality. Cable/Satellite subscribers: Try HD channels from the channel line up. Air/Cable Antenna connection: Try HD channels after performing Auto Program. ☞ Many HD channels are up scaled from SD(Standard Definition) contents. • Adjust the Cable/Set top box video output resolution to 1080i or 720p.
The TV image does not look as good as it did in the store.	• Compression of video contents may cause picture distortion, especially on fast moving pictures such as sports and action movies. • A weak signal can cause picture distortion. This is not a TV problem. • Mobile phones used close to the TV (within 3.3ft) may cause noise in the picture on analog and digital channels. • If you're using a component connection, make sure the component cables are connected to the correct jacks. Incorrect or loose connections may cause color problems or a blank screen. • Adjust the Picture options in the TV menu. (Go to Picture Mode / Color / Brightness / Sharpness) • Adjust the Energy Saving option in the TV menu. (Go to MENU → Setup - Eco Solution - Energy Saving) • Try resetting the picture to view the default picture setting. (Go to MENU → Picture - Picture - Picture Resolution) • If the picture size is set to Screen Fit , change it to 16:9. • Change the cable/satellite box resolution.
The picture is distorted: macroblock error, small black, dots, pixelation.	• Compression of video contents may cause picture distortion, especially on fast moving pictures such as sports and action movies. • A weak signal can cause picture distortion. This is not a TV problem. • Mobile phones used close to the TV (within 3.