



SAMSUNG LED TV user manual

SERIES 45
4000
5003

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

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 computer graphics and 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

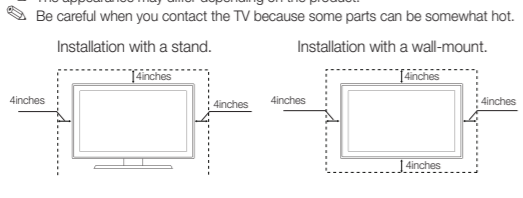
Avoid displaying still images (such as jpeg picture files) or still image elements (such as TV channel logos, panorama or 4:3 image format, stock or news bars at screen bottom etc.) on the screen. Constant displaying of still pictures can cause ghosting of LED screen, which will affect image quality. 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. Failing 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.



Contact SAMSUNG WORLD WIDE
If you have any questions or comments relating to Samsung products, please contact the SAMSUNG customer care center.

Country	CANADA	USA
Address	Samsung Electronics Canada Inc. 2050 Derry Road West, Mississauga, Ontario L5N 0B9 Canada	Samsung Electronics America, Inc. 85 Challenger Road Ridgefield, NJ, U0700
Customer Care Center	1-800-SAMSUNG (726-7864)	1-800-SAMSUNG (726-7864)
Web Site	www.samsung.com/ca/support (English) www.samsung.com/ca/fr/support (French)	www.samsung.com/us/support

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.

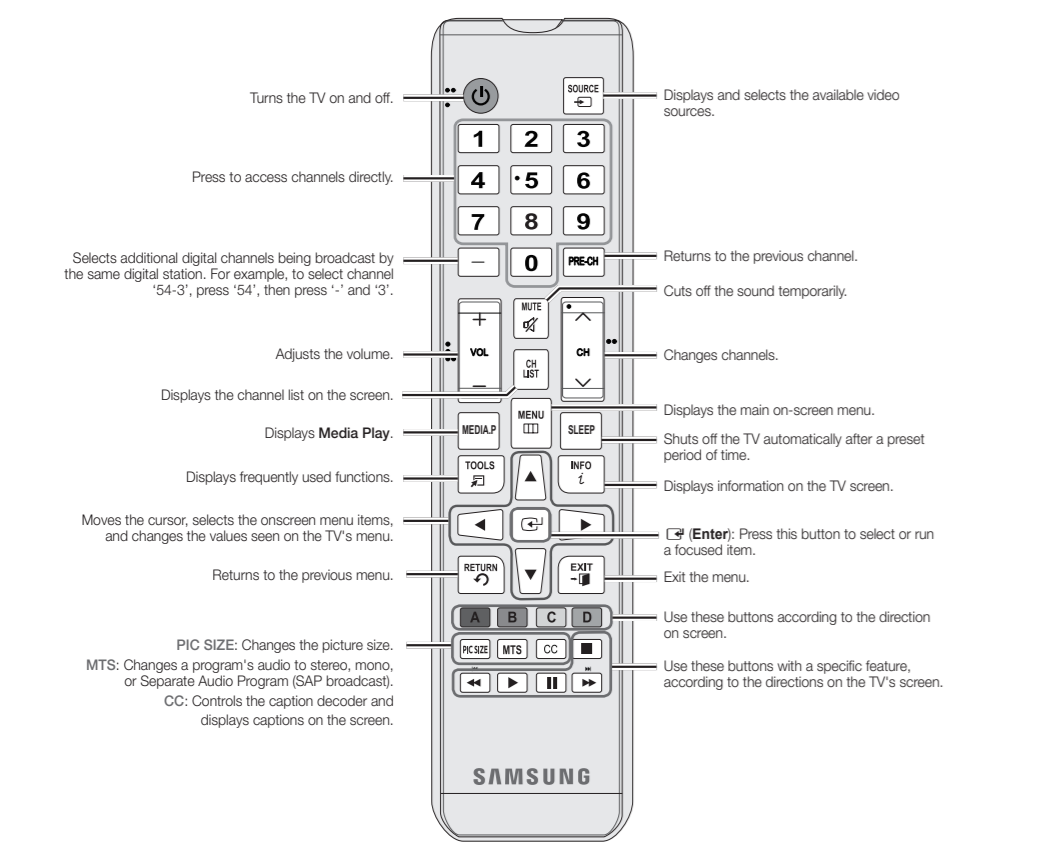
- The slots and openings in the cabinet and in the back or bottom are provided for necessary ventilation. To ensure reliable operation of this apparatus, and to protect it from overheating, these slots and openings must never be blocked or covered.
 - Do not cover the slots and openings with a cloth 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.
- This 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.
- If 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.



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Remote Control

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



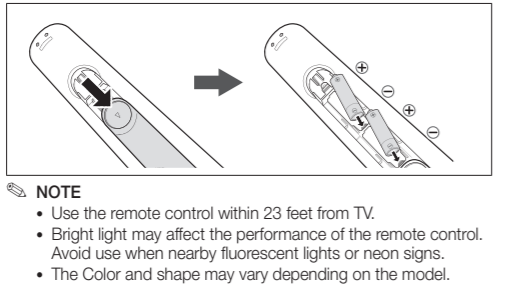
The button names above may differ from the actual names. Some buttons on the remote control may not be available. This remote control has Braille points on the Power, Channel, and Volume buttons and can be used by visually impaired persons.

Display Modes (HDMI/DVI Input)

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

Mode	Resolution	Horizontal Frequency [kHz]	Vertical Frequency [Hz]	Pixel Clock Frequency [MHz]	Sync Polarity	1366 x 768	1920 x 1080
4@ 60	640 x 350	31.469	70.086	25.175	-/+	✓	✓
	720 x 400	31.469	75.087	28.322	-/+	✓	✓
	640 x 480	35.000	60.087	30.240	-/+	✓	✓
	800 x 624	49.728	74.551	37.284	-/+	✓	✓
5@ 60	1152 x 870	66.881	75.082	100.000	-/+	✓	✓
	800 x 600	37.879	60.317	40.000	-/+	✓	✓
	800 x 600	49.877	72.186	50.000	-/+	✓	✓
	800 x 600	46.875	75.000	49.800	-/+	✓	✓
	1024 x 768	48.363	60.004	65.000	-/+	✓	✓
	1024 x 768	65.476	75.085	75.000	-/+	✓	✓
	1024 x 768	65.023	75.029	75.750	-/+	✓	✓
	1152 x 864	67.500	75.000	108.000	-/+	✓	✓
	1280 x 720	45.000	60.000	74.250	-/+	✓	✓
	1280 x 800	49.702	59.810	83.500	-/+	✓	✓
	1280 x 1024	63.981	60.000	108.000	-/+	✓	✓
	1280 x 1024	73.978	75.025	138.000	-/+	✓	✓
VESA DMT	1366 x 768	47.712	60.760	85.500	-/+	✓	✓
	1440 x 900	55.935	59.887	108.000	-/+	✓	✓
	1600 x 900	60.000	60.000	108.000	-/+	✓	✓
	1680 x 1050	65.250	59.854	148.260	-/+	✓	✓
	1920 x 1080	67.500	60.000	148.500	-/+	✓	✓

Installing batteries (Battery size: AAA)



Getting Started

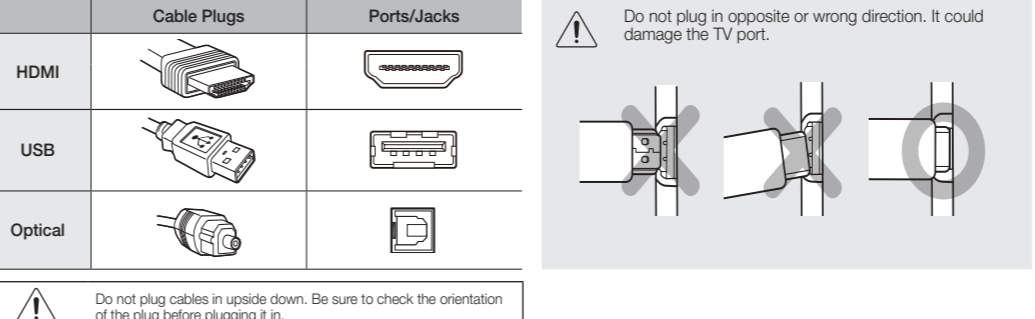
Accessories

- Remote Control & Batteries (AAA x 2)
- Warranty Card / Regulatory Guide
- Owner's Instructions
- Power Cord
- Wall Mount Adapter (4EA)
- AC/DC Adapter

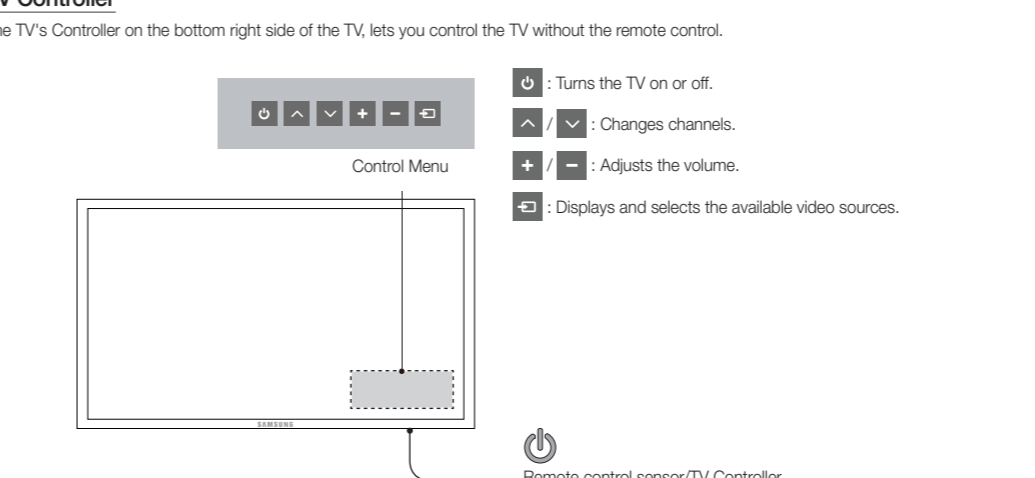
Input Cables (Sold Separately)

- 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



The product color and shape may vary depending on the model. You cannot input the numbers by pressing the TV's controller. When you press it first, the control menu appears. You can select the function by pressing and holding the TV's controller. With the TV's Controller, you cannot perform other operations except for turning the TV on or off, changing the channel, adjusting the volume, and switching the input source.

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')

Picture Menu

Mode [TOOLS] [F2]

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.

Backlight / 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 **Backlight**, **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-Gain / 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 its default settings.
- **Gamma**: Adjusts the primary color intensity.
- **Motion Lighting**: Reduce power consumption by brightness control adapted motion.
- Available in **Standard** mode only.

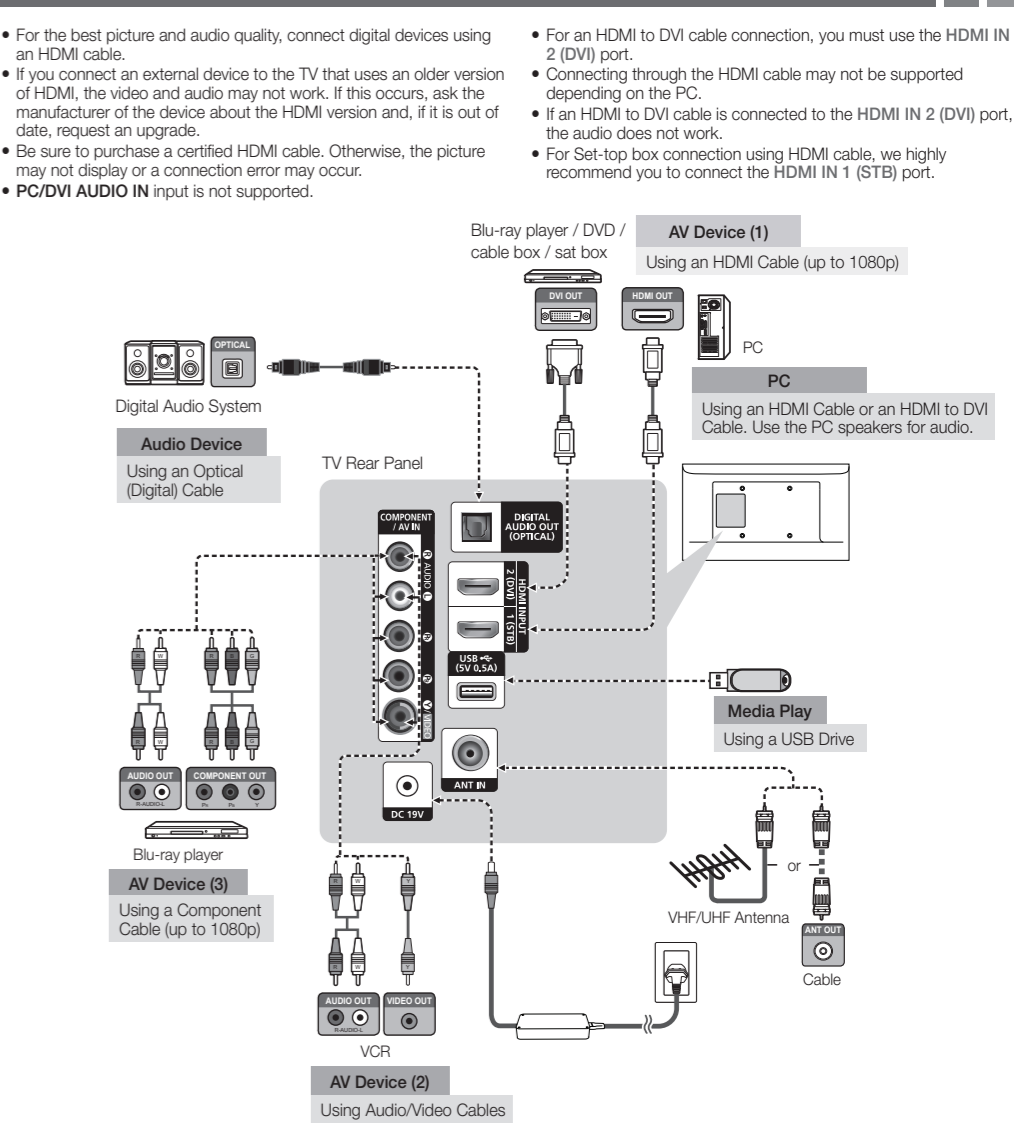
Picture Options

- 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.
 - Do not watch in 4:3 format for a long time. Traces of borders displayed on the left, right and center of the screen may cause image retention (screen burn) which are not covered by the warranty.
- **Screen Fit**: (DTV) Displays the full image without any cut-off when HDMI (720p / 1080i / 1080p) or Component (1080i / 1080p) signals are inputted.
- HD (High Definition): 16:9 - 1080i/1080p (1920x1080), 720p (1280x720)
- Settings can be adjusted and stored for each external device you have connected to an input on the TV.

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 broadcast.

Connections



Changing the Input Source

Source List

Use 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 / HDMI1 / HDMI2/DVI**
- You can only choose external devices that are connected to the TV. In the **Source List**, connected inputs will be highlighted.

How to use Edit n Name

Edit Name lets you associate a device name to an input source. To access **Edit Name**, press the **TOOLS** button in **Source List**. Name the device connected to the input jacks to make your input source selection easier.

- When connecting a PC to the HDMI IN 2(DVI) port with HDMI to DVI cable, you should set the TV to **DVI PC mode** under **Edit Name**.
- When connecting a PC to the HDMI IN 2(DVI) port with HDMI to DVI cable, you should set the TV to **DVI PC mode** under **Edit Name**.
- When connecting an AV devices to the HDMI IN 2(DVI) port with HDMI to DVI cable, you should set the TV to **DVI mode** under **Edit Name**.

Information

You can see detailed information about the connected external device.

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

Automatically adjusts the volume level when you change video sources or content so the level remains the same.

SPDIF Output

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 (SPDIF) format may differ depending on the input source.
- **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 on 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).

Speaker Select

A sound echo may occur due to a difference in decoding speed between the main speaker and the audio receiver. In this case, set the TV to **External Speaker**.

- When **Speaker Select** is set to **External Speaker**, the volume and MUTE buttons will not operate and the sound settings will be limited.
- When **Speaker Select** is set to **External Speaker**.
 - **TV Speaker**: Off, **External Speaker**: On
 - When **Speaker Select** is set to **TV Speaker**.
 - **TV Speaker**: Off, **External Speaker**: On
 - If there is no video signal, both speakers will be mute.

Visual Impaired

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

Dolby Digital Comp

Set Dolby Digital compression mode.

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** is not available in **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.
- MPEG Rating**: You can block movies depending on their MPAA rating. The Motion Picture Association of America (MPAA) 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 DTV 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 changed your new PIN.
- You forget the PIN, press the remote-control "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 background 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.

Boot Logo

Enable/disable displaying the logo while the TV starts up.

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.
- Display Off**: When the PC is in power saving mode.
- 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.

Use Mode

You can turn the TV into a display model for retail environments by depending on the broadcast.

- Eco Solution - Select Settings**:
 - For all other uses, select **Home Use**.
 - With **Store Demo**, some functions are disabled, and the TV automatically resets itself after a preset amount of time.

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.

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.

- Supported Video Formats

File Extension	Container	Video Codec	Resolution	Frame rate(fps)	Bit rate (Mbps)	Audio Codec
<ul style="list-style-type: none">avi mkv ast wmv mp4 mkv mov asf mp4 spg vro mpg mpeg flv vob ts trp avi ts mov web avi divx 	<ul style="list-style-type: none">AVI MKV ASF NP4 SPG MOV FLV VRO VOB TS MPEG2 MPEG1 	<ul style="list-style-type: none">Motion_JPEG H.264 B/P/ MP/HP H.264 B/P/ MP / HP Dxv.3.11 / 4 / 5 / 6 MPEG4 SP/ ASF Window Media Video v9VC1) VC1 VC1 (LSP) G.711(A-Law, u-Law) MPEG1 	<ul style="list-style-type: none">640x480		<ul style="list-style-type: none">8	<ul style="list-style-type: none">LPCM ADPCM (IMA, MS) AAC HE-AAC DD+ MPEG(Core) DTCS (SPE, LSP) G.711(A-Law, u-Law)
<ul style="list-style-type: none">MP4	<ul style="list-style-type: none">MP4		<ul style="list-style-type: none">1920x1080	<ul style="list-style-type: none">MAX.30	<ul style="list-style-type: none">30	<ul style="list-style-type: none">VMA
<ul style="list-style-type: none">WebM	<ul style="list-style-type: none">WebM	<ul style="list-style-type: none">VP8	<ul style="list-style-type: none">1920x1080	<ul style="list-style-type: none">6-30	<ul style="list-style-type: none">20	<ul style="list-style-type: none">Vorbis

- If you delete files 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 lower than USB 2.0.

Videos

- Press the ◀/▶ buttons to select **Videos**, then press the ENTER/↵ button in the **Media Play** menu.
- Press the ◀/▶/▲/▼ buttons to select the desired video in the file list.
- 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.

- Certain types of USB Digital camera and audio devices may not be compatible with this TV.
- Supported Subtitle Formats
 - External

Other Restrictions

- Codecs may not function properly if there is a problem with the content.
- Video content does not play or does not play correctly if there is an error in the content or container.
- Sound or video may not work if they have standard bit rates/frame rates above the TV's compatibility ratings.
- If the Index Table is an error, the Seek (Jump) function will not work.
- When playing video over a network connection, the video may not play smoothly because of data transmission speeds.
- Some USB/digital camera devices may not be compatible with the TV.
- While the TV is playing a video at the bit rate of 10 Mbps or higher, the menu screens may be displayed slowly.

Video Decoder
Supports up to H.264, Level 4.1
H.264 FMO / ASO / RS, VC1 / AP L4 are not supported.
GMC 2 or above is not supported.

Audio Decoder

WMA 10 Pro supports up to 5.1 channels. Supports up to the M2 profile. WMA lossless audio is not supported.
OQCEL and AMR NB/WB are not supported.
Vorbis is supported for up to 2 channels.
Dolby Digital Plus is supported for up to 5.1 channels.
The DTS LBR code is only available for MKV / MP4 / TS containers.

Music

- Press the ◀/▶ buttons to select **Music**, then press the ENTER/↵ button in the **Media Play** menu.
- Press the ◀/▶/▲/▼ buttons to select the desired Music in the file list.
- Press the ENTER/↵ button or ▷ (▶) (Play) button.
 - During music playback, you can search using the ◀/▶ buttons.
 - ◀ (REW) and ▶ (FF) buttons do not function during play.
 - Only displays 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

- Press the ◀/▶ buttons to select **Photos**, then press the ENTER/↵ button in the **Media Play** menu.
- Press the ◀/▶/▲/▼ buttons to select the desired photo in the file list.
- 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 ◀ (REW) or ▶ (FF) button.
 - You can move to other file using the ◀/▶ buttons.

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

Other Restrictions

- CMYK and YOCK Color space JPEGs are not supported.

Playing Multiple Files

▶ Playing selected video/music/photo 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**.
 - 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 **File 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 the video has more than one language.	✓		
Stop 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.	✓	✓	✓

Settings

Using the Setup Menu

■ **DivX® Video On Demand**: Shows the registration code authorized for the TV. If you connect to the DivX web site and register with 10-digit registration code, you can download the VOD activation file. Once you play it using Media Play, the registration is completed.

- For more information on DivX® VOD, visit "http://vod.divx.com".

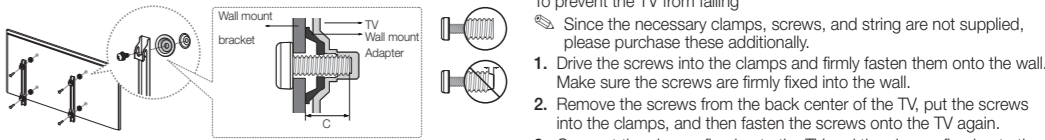
■ **Information**: Select to view information on the connected device.

Other Information

Installing the Wall Mount Kit

The wall mount kit (sold separately) allows you to mount the TV on the wall.

For detailed information on installing the wall mount, see the instructions provided with the wall mount items. Contact a technician for assistance when installing the wall mount bracket. Samsung Electronics is not responsible for any damage to the product or injury to yourself or others if you elect to install the wall mount on your own.



Wall Mount Kit Specifications (VESA)

The wall mount kit is not supplied, but sold separately.
Install your wall mount on a solid wall perpendicular to the floor. When attaching to other building materials, please contact your nearest dealer. If you install the TV on a ceiling or slanted wall, it may fall and result in severe personal injury.

- NOTE**
 - Standard dimensions for wall mount kits are shown in the table below.
 - When purchasing our wall mount kit, a detailed installation manual and all parts necessary for assembly are provided.
 - Do not use screws that do not comply with the VESA standard screw specifications.
 - Do not use screws that are longer than the standard dimension or do not comply with the VESA standard screw specifications. Screws that are too long may cause damage to the inside of the TV set.
 - For wall mounts that do not comply with the VESA standard screw specifications, the length of the screws may differ depending on the wall mount specifications.
 - Do not fasten the screws too firmly. This may damage the product or cause the product to fall, leading to personal injury. Samsung is not liable for these kinds of accidents.
 - Samsung is not liable for product damage or personal injury when a non-VESA or non-specified wall mount is used or the consumer fails to follow the product installation instructions.
 - Do not mount the TV at more than a 15 degree tilt.
 - Always have two people mount the TV on a wall.

Kensington Lock

The Kensington Lock is not supplied by Samsung. It is a device used to physically fix the system when using it in a public place. Refer to the manual provided with the Kensington Lock for additional information on proper use.

- Please find a "ⓧ" icon on the rear of the TV. The Kensington slot is beside the "ⓧ" icon.
- The position and color may differ depending on the model.

The picture is black and white.

- If you are using an AV composite input, connect the video cable (yellow) to the Green jack of component input 1 on the TV.
- When changing channels, the picture freezes or is distorted or delayed.

Sound Problem

- First of all, please perform the **Sound Test** to confirm that your TV audio is properly operating. (Go to MENU → **Support** - **Self Diagnosis** - **Sound Test**)
- If the audio is OK, the sound problem may be caused by the source or signal.

There is no sound or the sound is too low at certain volume.

- Please check the volume of the device (Cable/Sat Box, DVD, Blu-ray, etc.) connected to your TV.

The picture is good but there is no sound.

- If you are using an external device, check the device's audio output option (ex. you may need to change your cable box's audio option to HDMI when you have a HDMI connected to your TV).
- Reboot the connected device by reconnecting the device's power cable.

The speakers are making an inappropriate noise.

- Check the cable connections. Make sure a video cable is not connected to an audio input.
- For Antenna or Cable connections, check the signal information. A weak signal may cause sound distortion.
- Perform the **Sound Test** as explained above.

No Picture, No Video

- The TV will not turn on.

The TV turns off automatically.

- Make sure the AC power cord is securely plugged into the wall outlet and the TV.
- Make sure the wall outlet is working.
- Try pressing the POWER button on the TV to make sure the problem is not the remote. If the TV turns on, refer to "Remote control does not work" below.

There is no picture/video.

- Ensure the **Sleep Timer** is set to **Off** in the **Time** menu.
- If your PC is connected to the TV, check your PC power settings.
- Make sure the AC power cord is plugged in securely to the wall outlet and the TV
- When you are watching TV connected to an antenna or cable connection, the TV will turn off after 10 ~ 15 minutes if there is no signal.

There is no picture/video.

- Check the cable connections. (Remove and reconnect all cables connected to the TV and external devices).
- Set your external device's (Cable/Sat Box, DVD, Blu-ray etc) video outputs to match the connectors to the TV input. For example, if an external device's output is HDMI, it should be connected to an HDMI input on the TV.
- Make sure your connected devices are powered on.
- Be sure to select the TV's correct source by pressing the SOURCE button on the remote control.
- Reboot the connected device by reconnecting the device's power cable.

RF(Cable/Antenna) Connection

- The TV is not receiving all channels.
- Make sure the coaxial cable is connected securely.
- Please try Auto Program to add available channels to the channel list.
- Go to MENU - **Channel** - **Auto Program** then select **Auto** and make sure the correct Cable TV signal type is set in the menu. There are 3 options. (**STD, HRC** and **IRC**)
- Verify the antenna is positioned correctly.

No Caption on digital channels.

- Check the Caption Setup menu. Try changing **Caption Mode Service1 to CC1**.
- Some channels may not have caption data.

The picture is distorted: macroblock, error, small block, 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.

Others

- Purple/green rolling horizontal bars and buzzing noise from the TV speakers with Component cable connection.
 - Remove the left and right audio connections from the set-top-box, this indicates that the set-top-box has a grounding issue. Replace the Component video cables with an HDMI connection.

The picture will not display in full screen.

- HD channels will have black bars on either side of the screen when displaying up scaled SD (4:3) contents.
- Black bars on the Top & Bottom will be shown on movies that have aspect ratios different from your TV.
- Adjust the picture size option on your external device or change the TV to full screen.

The remote control does not work.

- Replace the remote control batteries with correct polarity (+/-).
- Clean the transmission window located on the top of the remote control.
- Try pointing the remote directly at the TV from 5-6 feet away.

The cables/set top box remote control does not turn the TV on or off, or adjust the volume.

- Program the Cable/Set top box remote control to operate the TV. Refer to the Cable/Set top box user manual for the SAMSUNG TV code.

A **"Mode Not Supported"** message appears.

- Check the supported resolution of the TV and adjust the external device's output resolution accordingly. Refer to resolution settings in this manual.
- You cannot select **Caption** in the TV menu when watching content from a device connected via HDMI or Component.

Caption on the TV menu is greyed out.

- Caption must be activated on the external device.**

There is a plastic smell from the TV.

- This smell is normal and will dissipate over time.

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 at 1-800-SAMSUNG.

Problem	Possible Solution
Flickering and Dimming	If your Samsung Television is flickering or dimming sporadically, you may need to disable some of its energy efficient features like the Energy Saving feature. If you follow below step with your remote, you can turn these features off or on. <ul style="list-style-type: none">Energy Saving: MENU → Setup → Eco Solution — Energy Saving — Select Settings <ul style="list-style-type: none">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. <ul style="list-style-type: none">Self Diagnosis: MENU → Support → Self Diagnosis — Picture Test If the test is ok, try making sure: <ul style="list-style-type: none">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.
Component Connections / Screen Color	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. <ul style="list-style-type: none">Backlight, Contrast, Brightness, Sharpness, Color, Tint (G/R) and so on. Go in to "Picture" on user Menu then try adjusting options mentioned above.
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. <ul style="list-style-type: none">Backlight, Contrast, Brightness, Sharpness, Color, Tint (G/R) and so on. Go in 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. <ul style="list-style-type: none">First make sure you 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 <ul style="list-style-type: none">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. <ul style="list-style-type: none">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.