



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

Important Warranty Information Regarding Television Format Viewing

See the warranty card for more information on warranty terms.

Wide screen format LED Displays (16:9, the aspect ratio of the screen width to height) are primarily designed to view 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 reports, 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, the Original Limited Warranty Statement and a dated Bill of Sale as Proof of Purchase must be presented to the Service Center.



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The On Screen Menus

Your TV has two kinds of menus, the Main menu and the various Tools menus. The Main menu gives you access to most or all of the menu options available on your TV. The Tools menus display a selected number of frequently used menu options that change depending on the screen you are viewing.

The Main menu has seven primary categories:

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

To view the Main menu, press the **MENU** button on your remote. To view a Tools menu, press the **TOOLS** button on your remote.

The menu options that appear in the Main menu depend on the Source you have selected. For example, if you have selected the HDMI source, the Channel category will not appear. To see the Channel category, you must first select TV in the Source List.

The Menu options are presented below, arranged by Main menu categories. A Tools button symbol **TOOLS** next to an option name indicates the option is also available in one of the Tools menus.

Picture Menu

Mode **TOOLS**

Select your preferred picture mode.

When your TV is connected to a PC, you can only select **Entertain** and **Standard**.

- Dynamic:** Brightens the screen. Suitable for a bright room.
- Standard:** Suitable for a normal.
- Movie:** Darkens the screen, making it less glary. Suitable for watching movies in a darkened room.
- Entertain:** Sharpens the picture. Suitable for games.
- Only available when the TV is connected to a PC.

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

- Backlight:** Adjusts the brightness of the screen by adjusting the brightness of the individual pixels.
- Contrast:** Increases or decreases the contrast between dark and light areas of the picture.
- Brightness:** Adjusts the brightness of the screen. Not as effective as Backlight.
- Sharpness:** Sharpens or dulls the edges of objects.
- Color:** Adjusts the color saturation. The higher the Color setting, the more intense the color. Low settings remove color and the picture becomes black, white and gray.
- Tint (G/R):** Adjusts the amount of green and red in the picture. As you increase the amount of green, the amount of red decreases and vice versa.
- When the TV is connected to a PC, you can only make changes to **Backlight, Contrast, Brightness, and Sharpness**.

Picture Options

- When the TV is connected to a PC, you can only make changes to the **Color Tone, Size and HDMI Black Level**.
- Color Tone (Cool / Standard / Warm):** Cool makes the picture bluer (cooler). Warm makes the picture redder (warmer).
- Size:** Set the size and aspect ratio of the picture on the screen. Your cable box or satellite receiver may have its own set of screen sizes as well. However, we highly recommend you use the TVs 16:9 mode most of the time.
- The menu is deactivated, when the H. 264 (1080p) DTV is being played.
- 16:9:** Sets the picture to the 16:9 wide screen format.
- Zoom1:** Provides moderate magnification of the picture. Sides, top, and bottom are cut off.
- Zoom2:** Provides larger magnification of the picture. Sides, top, and bottom are cut off.
- Wide Fit:** Enlarges the aspect ratio of the picture so the picture fits the entire screen.
- 4:3:** Sets the picture to the old, 4:3 format and puts black or gray borders on the right and left of the picture.
- Do not watch your TV in the 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 is not covered by the warranty.
- Screen Fit:** Displays the full image without any cut-off when your TV is inputting HDMI (720p / 1080i / 1080p) or Component (1080i / 1080p) HD signals.
- Custom:** Magnifies or shrinks 16:9 pictures vertically and/or horizontally. A magnified or shrunk picture can be moved left, right, up, and down.
- HD (High Definition) has a 16:9 aspect ratio and 1080i/1080p (1920x1080) or 720p (1280x720) resolution.
- You can adjust and store settings for each external device you have connected to an input on the TV. Picture Sizes available by Input Source are listed below:

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

- Digital Clean View (Off / Low / Medium / High / Auto)** - If the broadcast signal received by your TV is weak, you can activate the **Digital Clean View** feature to reduce any static and ghosting that may appear on the screen.
- When the signal is weak, try all the Digital Clean View options until the TV displays the best picture.
- HDMI Black Level (Normal / Low)** - For HDMI signals, select the black level to adjust the screen depth. Low make blacks look darker.
- Available only in HDMI mode (RGB signals).
- Film Mode (Off / Auto)** - Sets the TV to automatically sense and process film signals from all sources and adjusts the picture for optimum quality.
- Available in ATV, DTV (interface), AV, COMPONENT (480i / 1080i) and HDMI (480i / 1080i).
- Motion Lighting (Off / On):** Reduce power consumption by brightness control adapted motion.
- Available in **Standard** mode only.

Picture Reset

Picture Reset (Reset Picture Mode/Cancel): Resets the picture settings to their factory defaults.

Sound Menu

Mode **TOOLS**

- Standard:** Selects the normal sound mode.
- Music:** Emphasizes music over voices.
- Movie:** Provides the best sound for movies.
- Clear Voice:** Emphasizes voices over other sounds.

Equalizer

Available in Standard sound mode only.

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

DTS TruSurround

Available in Standard sound mode only.

DTS TruSurround is a patented DTS technology that solves the problem of playing 5.1 multichannel content over two speakers. TruSurround delivers a compelling, virtual surround sound experience through any two-speaker playback system, including internal television speakers. It is fully compatible with all multichannel formats.

Preferred Language

Digital channels only.

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

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

Multi-Track Sound (MTS)

Analog channels only.

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

Auto Volume

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 (PCM/Dolby Digital): You can select the Digital Audio output (SPDIF) format. The available Digital Audio output format may differ depending on the input source.

By connecting the TV to a receiver or home theater with **Dolby Digital** and 5.1ch speakers and selecting **Dolby Digital**, you can maximize your interactive 3D sound experience.

Audio Delay: Lets you correct timing mismatches between the audio track and the video when you are watching the TV and listening to digital audio output from the TV through an external device such as an AV receiver. When you select **Audio Delay**, a slider appears. Use the left and right arrow buttons to adjust the slider. Press **ENTER** when done (0ms ~ 250ms).

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 **Speaker Select**.

- 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:** On, **External Speaker:** On
- If there is no video signal, both speakers will be mute.

TV Installation Type

Specify the TV's installation type. Choose between Wall Mount and Stand to optimise the TV's sound automatically.

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.

Channel Menu

Memorizing Channels

When you first set up your TV using **Plug & Play**, the TV memorized the channels that were available over the air or through your cable system and added them to the **Channel List**. The **Antenna** and **Auto program** functions described below let you re-run the channel memorization function without having to re-run the **Plug & Play** procedure.

Antenna (Air / Cable)

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

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

Auto Program

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

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

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

Game Mode (On/Off)

When you connect a game console such as a PlayStation™ or Xbox™ to your TV, you can enjoy a more realistic gaming experience by turning on the **Game Mode** function.

Precautions and limitations for game mode:

- After you 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**. You may notice slightly reduced picture quality.

Caption

(On-Screen Text Dialogue)

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 letters. 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 captions. 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 you can select **Default** and **Service1 ~ Service6** in **Caption Mode**.

The Foreground and Background cannot be set to the same color.

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

Cable

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

Auto

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

- On the Cable Type screen, use the **◀▶/▲▼** buttons to select the type of digital and analog cable systems you have: **STD, HRC, or IRC**. Most systems are **STD (Standard)**. When done, select **Start**, and then press **ENTER**. The TV will start memorizing channels.
- Channel memorization can take up to 45 minutes, depending on your cable system.
- Memorized channels are added to the **Added Channels** list. These are the channels you will see when you use the Channel buttons on your remote.

Clear Scrambled Channel

This function filters out scrambled channels after **Auto Program** is completed. This process may take up to 20-30 minutes.

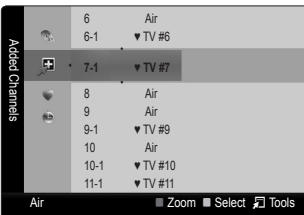
Press the **ENTER** button to stop the **Clear Scrambled Channel**.

This function is only available in **Cable** mode.

Managing Channels

Channel List

See your list of Added channels, Favorite channels, or channels you've scheduled for viewing. Add or delete Favorite channels, add or delete channels from the Added Channels list, schedule channels or programs for viewing. Watch a channel by selecting the channel in the **All Channels, Added Channels, or Favorite** screen, pressing the **▲ / ▼** buttons, and then pressing the **ENTER** button.



Channel List Screens icons are listed on the left side. Select an icon using the ▲ / ▼ buttons to view each list.

- All Channels:** Shows all currently available channels including those you deleted from the **Added Channels** list.
- Added Channels:** Shows all **Added Channels**. These are the channels that appear when you press the CH LIST button.
- Favorite:** Shows all favorite channels.

Boot Logo

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

Eco Solution

- Energy Saving (Off / Low / Medium / High / Picture Off):** 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 (Off / 15 min. / 30 min. / 60 min.):** Sets how quickly the TV switches to standby mode, if no picture is being received.
- Disabled when the PC is in power saving mode.
- Auto Power Off (Off / On):** The TV will be automatically turned off when no user operation is received for 4 hours.

Auto Protection Time

Auto Protection Time (Off / 2 hours / 4 hours / 8 hours / 10 hours): If the screen remains idle with a still image for a certain period of time you define, 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 appears in the test picture, select Yes and follow the directions on the screen.
- Sound Test:** Use the built-in melody sound to check for sound problems. If the problem occurs during the test, select Yes and follow the directions on the screen.
- 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.

Programmed: Shows all channels and programs currently scheduled using **Timer Viewing**.

Remote control buttons active on the **Channel List** screen.

- Green (Zoom):** Enlarges or shrinks a channel number.
- Yellow (Select):** Move the cursor to a channel. Press the Yellow button to select the channel. A check mark appears. Repeat to select additional channels. Then, open the Tools menu and apply a function to the channels you selected.
- Tools:** Displays the **Channel List Tools** menu. (The **Tools** menu may differ depending on the situation.)

Display Icons Used in the Channel List Screens

Icons	Meaning
✓	A selected channel.
♥	A Favorite channel.
Ⓢ	A reserved program.
Ⓢ	A program currently being broadcast.

The Channel List Tools Menu **TOOLS**

The Channel List Tools menu contains most of the functions you can use on the **All Channel, Added Channels, and Favorite** list screens. To view, select a list screen, select a channel, and then press the **TOOLS** button.

Add / Delete: Delete a channel from or add a channel to the **Added Channels** list.

To delete channels from the **Added Channels** list, follow these steps:

- Select one or more channels in the **Added Channels** list using the **▲ / ▼** buttons and the Yellow Select button on your remote.
- Press the **TOOLS** button on your remote. The Tools menu appears.
- Select **Delete** in the Tools menu, and then press the **ENTER** button.

To add channels to the **Added Channels** list, follow these steps:

- Select one or more channels in the **All Channels** list using the **▲ / ▼** buttons and the Yellow Select button on your remote.
- Select **Add** in the Tools menu, and then press the **ENTER** button.
- All deleted channels will be shown on the **All Channels** list. You add channels back to the **Added Channels** list on the **All Channels** list.
- A gray-colored channel indicates the channel has been deleted from the **Added Channels** list.
- The **Add** menu option only appears for deleted channels.

Add to Favorite/Delete from Favorites: Lets you add channels to and delete channels from your **Favorites** list.

To add channels to the **Favorites** list, follow these steps:

- Select one or more channels in the **All Channels** list using the **▲ / ▼** buttons and the Yellow Select button on your remote.
- Press the **TOOLS** button on your remote. The Tools menu appears.
- Select **Add to Favorite** in the Tools menu, and then press the **ENTER** button.

Media Play

Enjoy photos, music 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, or movie files to the USB jack on the back of the TV. A pop up window appears.
- Press the **Media Play** button on your remote. The **Media Play** menu appears.

Using the Media Play Menu



To open **Media Play** in the Menu, follow these steps:

- Press the **MENU** button. Then, press the **▲** or **▼** button to select **Application** on the left, and then press the **ENTER** button.
- Press the **▲** or **▼** button to select **Media Play (USB)**, and then press the **ENTER** button.
- Press the **◀** or **▶** button to select an icon (**Videos, Music, Photos, Settings**), and then press the **ENTER** button.
- Media Play** might not work properly with unlicensed multimedia files.
- Need-to-Know List before using Media Play (USB)**
 - The file system supported are FAT16, FAT32 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 billing and settlements.

- PTP devices are 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 period set in **Auto Protection Time**, the Screensaver will run.
- 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 the sequential jpeg format.
- The **Videos** option does not support the scene search and thumbnail functions.
- If the number of files and folders saved on a USB storage device is over approximately 4000, the files and folders may not appear and some folders may not open.
- 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.

Supported Subtitle Formats

- External		
Name	File extension	
MPEG-4 timed text	.txt	
SAMI	.smi	
SubRip	.srt	
SubViewer	.sub	
Micro DVD	.sub or .txt	
SubStation Alpha	.ssa	
Advanced 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 Codes	Resolution	Frame rate(fps)	Bit rate(Mbps)	Audio Codec
*.mp4	MP4	DivX 11.4.12 / 5.x6.0	1920x1080	6-30	20Mbps	MP3 / AAC
**avi	AVI	H264	1920x1080	6-30	20Mbps	MP3 / AAC
		VC-1	1920x1080	6-30	20Mbps	MP3 / AAC
		MPEG	640x480	6-30	10Mbps	MP3 / AAC
		DivX 11.4.12 / 5.x6.0	1920x1080	6-30	20Mbps	MP3 / AAC
**mkv	MKV	MPEG 1924	1920x1080	6-30	20Mbps	MP3 / AAC
		H264	1920x1080	6-30	20Mbps	MP3 / AAC
		MPEG5	640x480	6-30	10Mbps	MP3 / AAC
		DivX 11.4.12 / 5.x6.0	1920x1080	6-30	20Mbps	MP3 / AAC
**asf	ASF	MPEG 1924	1920x1080	6-30	20Mbps	MP3 / AAC
		H264	1920x1080	6-30	20Mbps	MP3 / AAC
		MPEG5	640x480	6-30	10Mbps	MP3 / AAC
		DivX 11.4.12 / 5.x6.0	1920x1080	6-30	20Mbps	MP3 / AAC
**ts	TS	MPEG2-TS	1920x1080	6-30	20Mbps	AAC / AAC
		H.264	1920x1080	6-30	20Mbps	AAC / AAC
		H.264	1920x1080	6-30	20Mbps	AAC / AAC
		MPEG2	1920x1080	6-30	20Mbps	AAC / AAC
**dat	PS	MPEG2	1920x1080	6-30	20Mbps	AAC / AAC
		MPEG2	1920x1080	6-30	20Mbps	AAC / AAC
		MPEG2	1920x1080	6-30	20Mbps	AAC / AAC
		MPEG2	1920x1080	6-30	20Mbps	AAC / AAC
**3gp	3GP	H.264	1920x1080	6-30	20Mbps	MP3
		H.264	1920x1080	6-30	20Mbps	MP3
		H.264	1920x1080	6-30	20Mbps	MP3
		H.264	1920x1080	6-30	20Mbps	MP3

1. In the **Media Play** menu, press the ◀ or ▶ button to select **Videos**, and then press the ENTER button.
2. Press the ◀/▶/▲/▼ buttons to select a video in the file list.
3. Press the ENTER button or [▶] (Play) button.
 - The file name is displayed on the top of the screen with the 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 ◀ and ▶ buttons.

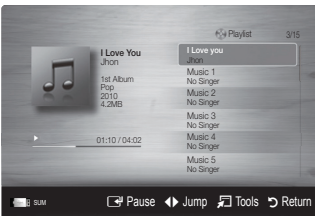
- In this mode, you can play movie clips contained in a game, but you cannot play the game itself.

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 Supported Video Formats table.
- If the Index Table erroneous, 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 / ASO / RS, VC1 SP / MP / AP L4 and AVCHD are not supported.
MPEG4 SP, AS :
- Below 1280 x 720: 60 frame max
- Above 1280 x 720: 30 frame max
H.263 is not supported.
GMC is not supported.
Audio Decoder
Supports up to WMA7, 8, 9 STD, 9 PRO, 10 PRO
WMA 9 PRO and WMA 10 PRO support 5.1 channel. (LBR mode of WMA Pro is not supported)
WMA Lossless is not supported.

Music



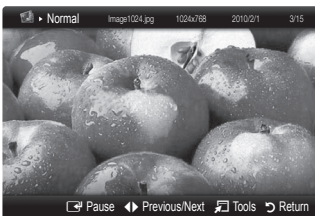
1. In the **Media Play** menu, press the ◀ or ▶ button to select **Music**, and then press the ENTER button.
2. Press the ◀/▶/▲/▼ buttons to select the desired Music in the file list.
3. Press the ENTER button or [▶] (Play) button.
 - During music playback, you can search using the ◀ and ▶ button.
 - [◀] (REV) and [▶] (FF) buttons do not function during play.

- **Media Play** only displays files with MP3 and PCM file extension. 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.)

Supported Music File Formats

File Extension	Type	Codec
*.mp3	MPEG	MPEG1 Audio Layer 3
*.wav	wav	wav

Photos



1. In the **Media Play** menu, press the ◀ or ▶ button to select **Photos**, then press the ENTER button.
2. Press the ◀/▶/▲/▼ buttons to select a 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 a 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 [◀] (REV) or [▶] (FF) button.
 - You can move to other files using ◀ or ▶ button.
 - **Media Play** can play Music files automatically during a Slide Show if **Background Music** is set to **On**.
 - You cannot change the **Mode** in **Background Music** until the Background Music file has finished loading.

Supported Photo Formats

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

Other Restrictions

- CMYK, YCCOK Color space JPEG are not supported.

Playing Multiple Files

- **Playing selected video/music/photo files**
 1. On the File List screen, highlight a file, and then press the Yellow button on your remote.
 2. Repeat Step 1 to select multiple files.
- NOTE
 - A ✓ 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, select **Deselect All**, and then the ENTER button.
- 3. Press the TOOLS button, select **Play Selected Contents**, and then press the ENTER button.
- **Playing a video/music/photo folder**
 1. With the folders on your USB device displayed, use the ◀/▶/▲/▼ buttons to highlight a folder.
 2. Press the TOOLS button, select **Play Folder**, and then press the ENTER button.

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 select another video file to play 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 Setting	You can play the video with Subtitles. This function only works if the subtitles have 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.	✓	✓	✓

Other Information

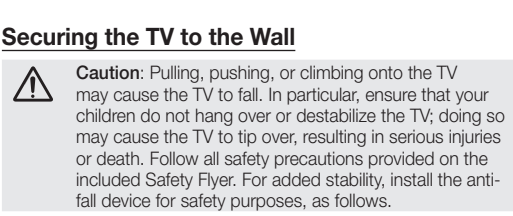
Installing the Wall Mount Kit

- The wall mount kit (sold separately) allows you to mount the TV on the wall.
- For detailed information about installing the wall mount, see the instructions provided with the wall mount kit. 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.

Product Family	Models	VESA screw hole specs (A" B) in millimeters	Standard Screw	Quantity
LED-TV	LT24E310ND	75 X 75	M4	4

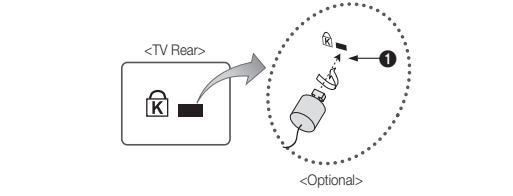


To prevent the TV from falling

- Since the necessary brackets, screws, and string or cable are not supplied, please purchase these separately.
- 1. Insert the screws into the wall brackets and firmly fasten them to the wall. Make sure the screws are firmly fixed to the wall.
- We strongly recommend you drive the screws into a stud.
- 2. Using screws, insert the screws through the TV brackets, and then fasten the screws to the top VESA screw holes on the back of the TV.
- 3. Connect the brackets on the TV and the brackets on the wall with a strong string or cable, and then tie the string or cable tightly to the brackets.
- Verify all connections are properly secured. Periodically check the connections for any sign of fatigue or failure. If you have any doubt about the security of your connections, contact a professional installer.
- Install the TV close to the wall so that it does not fall.
- Connect the string or cable so that the brackets on the wall are at the same height or lower than the brackets on the TV. Untie the string or cable before moving the TV.
- To purchase a TV Holder kit, contact Samsung customer care.

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 [K] icon on the rear of the TV. The Kensington slot is beside the [K] icon.
- The position and color may differ depending on the model.



To lock the product, follow these steps:

1. Wrap the Kensington lock cable around a large, stationary object such as desk or chair.
2. Slide the end of the cable with the lock attached through the looped end of the Kensington lock cable.
3. Insert the locking device into the Kensington slot on the product.
4. Lock the lock.
- These are general instructions. For exact instructions, see the User manual supplied with the locking device.
- The locking device has to be purchased separately.
- The location of the Kensington slot may be different depending on the TV model.

Troubleshooting

If the TV seems to have a problem, first review this list of possible problems and solution. 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 or 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. Follow the steps below with your remote to turn these features off or on. • Energy saving : MENU → Setup → Eco Solution → Energy Saving → Select Settings
Component Connections / Screen Color	• If you find that the color on your Samsung television's screen is not correct or black and white, first run a Self Diagnosis Test 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.
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" in the Menu, and then try adjusting these options.
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 the Sleep Timer is not accidentally set. The Sleep Timer lets you fall asleep with the TV still on knowing that it will turn off after a certain period of time and not 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 • Auto Power Off : MENU → Setup → Eco Solution → Auto Power Off
Stand Installation	• If you have any trouble in assembling the stand, refer to "Install the Stand" in the Wall Mount & Stand Quick setup guide.

Trouble Powering On	• Before you turn the TV on, find the red light on the right or left bottom of your TV. Press the power on button on the TV or remote and the light should blink about 5 times before the TV turns on. • If you find that you are having trouble powering on your Samsung television, there are a number of things to check it before making a call to the service department. • 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.
Cannot find a channel	• Re-run Plug & Play or run Auto Program. (go to MENU - Channel - Auto Program)
Poor Picture	• First, perform the Picture Test and to see if your TV is displaying the test image properly. Go to MENU - Support - Self Diagnosis - Picture Test • If the test image is properly displayed, the poor picture may be caused by the source or signal.
The TV image does not look as good as it did in the store.	• 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 running Auto Program. • Many HD channels broadcast up scaled SD (Standard Definition) content. The picture quality of up scaled SD content is low. • Adjust the Cable/Set top box video output resolution to 1080i or 720p.
The picture is distorted: macroblock error, small block, dots, pixelization.	• Compression of video contents may cause picture distortion, especially on fast moving pictures such as those in 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.
Color is wrong or missing.	• 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.
There is poor color or brightness.	• 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 the default picture settings. (go to MENU - Picture - Picture Reset)
There is a dotted line on the edge of the screen.	• If the picture size is set to Screen Fit, change it to 16:9. • Change the cable/satellite box resolution.
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 on the TV.
When changing channels, the picture freezes or is distorted or delayed.	• If connected to a cable box, please try to reset it. (Reconnect the AC cord and wait until the cable box reboots. It may take up to 20 minutes) • Set the output resolution of the cable box to 1080i or 720p.
Sound Problems	• 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 maximum volume.	• 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 output to HDMI if the box is connected to your TV using an HDMI cable. • 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.	• 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.
The TV turns off automatically.	• 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 securely into 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 connections 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 correct input 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. • Run 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 Service to CCI. • Some channels may not have caption data.
The picture is distorted: macroblock error, small block, dots, pixelization.	• Compression of video contents may cause picture distortion, especially on fast moving pictures such as those in 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.	• 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 and bottom appear when movies that have aspect ratios different from your TV play on the TV. • Adjust the picture size option on your external device or change the TV to full screen.
The picture will not display in full screen.	• Replace the remote control's batteries. Make sure you insert them with the polarity (+/-) correct . • 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 remote control does not work.	• 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.
The cable/set top box remote control does not turn the TV on or off, or adjust the volume.	• Check the supported resolution of the TV and adjust the external device's output resolution accordingly. Refer to resolution settings in this manual.
A "Mode Not Supported" message appears.	• You cannot select Caption in the TV menu when watching content from a device connected via HDMI or Component. • Caption must be activated on the external device.
There is a plastic smell from the TV.	• This smell is normal and will dissipate in a few days.
TV Signal Strength is unavailable in the Self Diagnosis test menu.	• This function is only available for digital channels received through an Antenna / RF/Coax connection.
The TV is tilted to the right or left side.	• Remove the stand base from the TV and reassemble it.
The Channel menu is grey out (unavailable).	• The Channel menu is only available when you select the TV source.
Your settings are lost after 5 minutes or every time the TV is turned off.	• If TV is in the Store Demo mode, it will reset audio and picture settings every 5 minutes. Please change from Store Demo mode to Home Use mode using the Plug & Play procedure. Press the SOURCE button to select TV mode, go to MENU → Setup → Plug & Play → ENTER.
You have intermittent loss of audio or video.	• Check the cable connections and reconnect them. • Loss of audio or video can be caused by using overly rigid or thick cables. Make sure the cables are flexible enough for long term use. If mounting the TV to the wall, we recommend using cables with 90 degree connectors.
You see small particles when you look closely at the edge of the frame of the TV.	• This is part of the product's design and is not a defect. •
POP (TV's internal banner ad) appears on the screen.	• Select Home Use under Plug & Play mode. For details, refer to Plug & Play (Initial Setup).

- This TFT LED panel uses a panel consisting of sub pixels