



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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Add to Favorite/Delete from Favorite

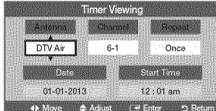
- 1. Select one or more channels in the All Channels list using the buttons and the Yellow Select button on your remote.
2. Press the TOOLS button on your remote. The Tools menu appears.
3. Select Add to Favorite in the Tools menu, and then press the ENTER button.

To delete channels from the Favorites list, follow these steps:

- 1. Select one or more channels in the Favorite Channels list using the buttons and the Yellow Select button on your remote.
2. Press the TOOLS button on your remote. The Tools menu appears.
3. Select Delete from Favorite in the Tools menu, and then press the ENTER button.

Timer Viewing

- 1. Select a channel in the Added Channels list using the buttons and the Yellow Select button on your remote.
2. Press the TOOLS button on your remote. The Tools menu appears.
3. Select Time Viewing in the Tools menu, and then press the ENTER button. The Time Viewing screen appears.



- 4. Use the buttons to move from entry field to entry field and the buttons to change the entries. Where numbers are displayed, you can also enter numbers directly using the number keypad on your remote.

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. Excluded, but not limited to, are any originally specified provisions for, in-home or on-site services, minimum or maximum repair times, exchanges or replacements, accessories, options, upgrades, or consumables. For the location of a SAMSUNG Authorized Service Center, please call toll-free:
- In the United States : 1-800-SAMSUNG (1-800-726-7864)
- In Canada : 1-800-SAMSUNG

Still image warning

Avoid displaying still images (such as jpeg picture files) or still image elements (such as TV channel logos, TV shows or movies in panorama or 4:3 format, stock or news scroll bars, etc.) on the screen. The constant display of still pictures can cause ghosting or image burn-in (image retention) on the LED screen, which will affect image quality. To reduce the risk of this effect, please follow the recommendations below:
- Always try to display any image in full screen mode. Use the TV's Picture Options menu to select the optimal screen size.
- Reduce brightness and contrast values to the minimum required to achieve the desired picture quality. Values that exceed the minimum may speed up the burn-in process.
- Frequently use all TV features designed to reduce image retention and screen burn-in. Refer to proper user manual section for details.

Contact SAMSUNG WORLDWIDE table with columns for Country (Canada, U.S.A.), Address, and Customer Care Center (1-800-SAMSUNG/726-7864).

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. A Tools menu symbol in the lower right side of the screen indicates that a Tools menu is available.

The Main menu has seven primary categories:

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

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

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

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

Picture Menu

Mode

- 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.
Warm1 and Warm2: deactvated when the picture mode is set to Dynamic.
Size: Set the size and aspect ratio of the picture on the screen.
Cool Tone (Cool / Standard / Warm / Warm2): Cool makes the picture blur (cooler). Warm 1 and Warm 2 make the picture redder (warmer).
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.

Advanced Settings

- Available in Standard and Movie mode only.
Compared to previous models, new Samsung TVs offer a more precise picture with more precise controls.
When your TV is connected to a PC, you can only make changes to Gamma and White Balance.
Color Space (Auto / Native): Auto automatically matches the range of colors available to create pictures of the color range of the video source. Native provides a color range wider than the color range of the video source.
White Balance: Adjusts the color temperature of the picture so that white objects look white (instead of, for example, slightly pink or slightly yellow) and the overall color of the picture looks natural.
R-Offset / G-Offset / B-Offset: Adjusts each color's (red, green, blue) darkness.
R-Gain / G-Gain / B-Gain: Adjusts each color's (red, green, blue) brightness.
Reset: Resets the White Balance to it's default settings.
Gamma: Adjusts the primary color intensity.
Dynamic Contrast (Off / Low / Medium / High): Adjusts the screen contrast.
Black Tone (Off / Dark / Darker / Darkest): Selects the black level to adjust the screen depth. Darker settings make blacks look darker.
Flesh Tone: Adjusts the amount of red in skin tones.
Motion Lighting (Off / On): When on, the TV automatically adjusts the brightness of the screen in response to the brightness of the room. In bright light, the screen brightens. In dim light, the screen dims.
Available in Standard mode only.

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 / Warm2): Cool makes the picture blur (cooler). Warm 1 and Warm 2 make the picture redder (warmer).
Warm1 and Warm2: deactvated when the picture mode is set to Dynamic.
Size: Set the size and aspect ratio of the picture on the screen.
Cool Tone (Cool / Standard / Warm / Warm2): Cool makes the picture blur (cooler). Warm 1 and Warm 2 make the picture redder (warmer).
Only available when the TV is connected to a PC.
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.
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.

To set the clock, follow these steps:

- 1. Select Setup -> Time -> Clock.
2. Press ENTER and select Auto or Manual, and then press ENTER again.
If you selected Auto:
The TV will automatically download the correct time from a digital channel.
Select Time Zone, and then press the ENTER button. Use the buttons to select your Time Zone, and then press ENTER.
Select DST (Daylight Savings Time), and then press ENTER. Select On if you want to turn the DST adjustment on and off manually. Select Off to turn off the DST adjustment. Select Auto if you want the TV to adjust to DST automatically. Press ENTER when done.
DST and Time Zone function are only available when the Clock Mode is set to Auto.
If you selected Manual:
The Clock Set screen appears. Use the buttons to change the values in each field or use the number buttons to enter the values directly. Use the buttons to move from field to field. When done with all the fields, press ENTER.
Available only when Clock Mode is set to Manual.
Sleep Timer (hours): Automatically shuts off the TV after a preset period of time. (30, 60, 90, 120, 150 and 180 minutes).
To cancel the Sleep Timer, select Off.

Other Channel Menu Functions

Channel Mode (Added Channels/Favorite Channels)

Lets you select the channel list displayed when you press the ACHV (Channel) button on your remote. For example, if you select Favorite Channels, you will only see Favorite channels when you press the ACHV button.

Fine Tune

- Analog channels only.
If the reception is clear, you do not have to fine tune the channel, as this is done automatically during the search and store operation. If the signal is weak or distorted, fine tune the channel manually.
Select the channel, and then select Fine Tune.
Fine tuned channels that have been saved are marked with an asterisk ** on the right-hand side of the channel number in the channel banner.
To reset fine-tuning, select the channel, select Fine Tune, and then select Reset on the Fine Tune screen.

Setup Menu

Plug & Play

Lets you re-run the Plug & Play initial setup procedure. For instructions, see your Quick Start Guide.

Language

- Set the menu language.
Choose between English, Español, and Français.

Setting the Time

- Time: The time you set will appear when you press the INFO button.
Clock: Set the clock so you can use the various timer features of the TV.
If you disconnect the power cord, you have to set the clock again.

Table with 2 columns: Input Source and Picture Size. Includes options like ATV, AV, Component, DTV, HDMI, and Digital Noise Filter settings.

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

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

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.

Sound Menu

Mode

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

Equalizer

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

SRS TruSurround HD

Available in Standard sound mode only. SRS TruSurround HD is a patented SRS technology that solves the problem of playing 5.1 multichannel content through 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.

- 2. Press the ENTER button. A list of folders on the device appears.
If there are no folders on your device, press the Yellow select button to select the Root folder, and then press the RETURN button. The Timer screen re-appears.
3. Use the buttons to highlight a folder that contains music or photos, and then press the Yellow select button to select the folder.
4. Press the RETURN button. The Timer screen re-appears.
Repeat: Select Once, Everyday, Mon-Fri, Mon-Sat, Sat-Sun or Manual. If you select Manual, you can select the days you want to activate the timer by using the buttons to highlight the day, and then pressing the ENTER button. To unselect a day, highlight it, and then press the ENTER button.
When you finished making all your selections on the Timer screen, press either the ENTER or RETURN button.

Other Features

Program Rating Lock

The Program Rating Lock feature lets you block programs you've determined are inappropriate for your children based on the program's ratings. To access the Program Rating Lock feature and make any changes, you must enter a PIN (personal identification number). To watch a blocked program, you must also enter the same PIN.
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". You can set your own PIN using the Change PIN function.

How It Works

When you access the Program Rating Lock Menu functions for the first time, the PIN input screen appears. Enter 0-0-0-0. The PIN screen closes and the Program Rating Lock Menu appears. Every time you access the Program Rating Lock functions, the PIN screen will appear and you must enter a PIN.

When the Rating Lock screen appears, select Program Rating Lock, and then press ENTER. Select On, and then press the ENTER key again. Depending on what type of programs or movies you want to block, select one of the options on the screen, and then press the ENTER button. The options are listed below:

- TV Parental Guidelines: You can block TV programs based on their ratings. This function allows you to control what your children are watching.
MPAA Rating: You can block movies based on their MPAA ratings. 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 based on their Anglophone Canadian ratings.
Canadian French: You can block TV programs based on their French Canadian ratings.
Downloadable U.S. Rating: Parental restriction information can be used while watching DIV channels.
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 only.
Service-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.

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:

- 1. Push MENU -> Channel -> Auto Program -> ENTER on your remote. The Antenna Source screen appears.
2. On the Antenna Source screen, select the source of your TV signal.
Air: If your TV is connected to an antenna choose Air, and then press ENTER. The TV will automatically start memorizing channels.
Cable: If your TV is connected to a cable outlet, choose Cable, and then press ENTER. Go to Step 3.

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

- 3. On the Cable Type screen, use the buttons to select the type of digital and analog cable systems you have: STD, HRC, 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.

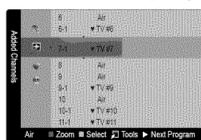
- Press the ENTER button to stop the Clear Scrambled Channel.

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 button.
Favorite: Shows all favorite channels.
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 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 menus may differ depending on the situation.)

Display Icons Used in the Channel List Screens

Table with 2 columns: Icons and Meaning. Includes symbols for selected channel, favorite channel, reserved program, and current broadcast.

The Channel List Tools Menu

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:

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

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

- 1. Select one or more channels in the All Channels list using the buttons and the Yellow Select button on your remote.
2. Press the TOOLS button on your remote. The Tools menu appears.
3. 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.

- 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.

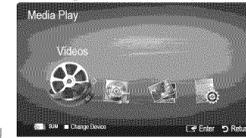
Media Play

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

Connecting a USB Device

- 1. Turn on your TV.
2. Connect a USB device containing photo, music, and/or movie files to the USB jack on the back of the TV. A pop up window appears.
3. Press the MEDIA.P button on your remote. The Media Play menu appears.

Using the Media Play Menu



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

- 1. Press the MENU button. Then, press the button to select Application on the left, and then press the ENTER button.
2. Press the button to select Media Play (USB), and then press the ENTER button.
3. Press the 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 supports 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.
- 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.

Supported Subtitle Formats

Name	File extension
MPEG-4 Timed text	.txt
SAM	.srt
SubRip	.srt
SubViewer	.sub
Micro DVD	.sub.or.txt
SubStation Alpha	.ssa
Advanced SubStation Alpha	.ass

Internal

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

Supported Video Formats

File Extension	Container	Video Codec	Resolution	Frame rate	Bit rate(kbps)	Audio Codec
*.mp4	MP4	DxV 3.11/4x5.1 /6.0	1920x1080	6-30	30Mbps	MP3 / AAC / AAC
		H264	1920x1080	6-30	30Mbps	
		AVC	1920x1080	6-30	30Mbps	
		MJPEG	640x480	6-30	10Mbps	
*.avi *.mkv	AVI, MKV	DxV 3.11/4x5.1 /6.0	1920x1080	6-30	30Mbps	MP3 / AAC / LPCM / AGRCM / DTS Core
		MPEG4 SP / ASP	1920x1080	6-30	30Mbps	
		H264	1920x1080	6-30	30Mbps	
		MJPEG	640x480	6-30	10Mbps	
*.avi *.wmv	ASF	DxV 3.11/4x5.1 /6.0	1920x1080	6-30	30Mbps	MP3 / AAC / LPCM / AGRCM / WMA / WMA Pro
		MPEG4 SP / ASP	1920x1080	6-30	30Mbps	
		H264	1920x1080	6-30	30Mbps	
		MJPEG	1920x1080	6-30	30Mbps	AAC / AAC / MP3 / DTS / HE-AAC
*.ts *.mp *.mpe *.mts	TS	DxV 4x/5.1 /6.0	1920x1080	6-30	30Mbps	MP3 / AAC / LPCM / AGRCM / WMA / WMA Pro
		MPEG4 SP / ASP	1920x1080	6-30	30Mbps	
		H264	1920x1080	6-30	30Mbps	
		MJPEG	1920x1080	24/25/30	30Mbps	AAC / AAC / MP3 / DTS / HE-AAC
*.dpg *.mpg *.mpeg *.vob	PS	MPEG2	1920x1080	24/25/30	30Mbps	AAC / AAC / MP3 / DTS / HE-AAC
		MPEG2	1920x1080	24/25/30	30Mbps	AAC / AAC / MP3 / DTS / HE-AAC
		H.264 BP / MP / HP	1920x1080	6-30	30Mbps	AAC / AAC / MP3 / DTS / HE-AAC
		MPEG4 SP / ASP	1920x1080	6-30	30Mbps	MP3
*.3gp	3GPP	H.264	1920x1080	6-30	30Mbps	MP3
		H.264	1920x1080	6-30	30Mbps	MP3
*.av *.avi	Flash formats	Sorenson	1920x1080	6-30	30Mbps	MP3
		H.263	1920x1080	6-30	30Mbps	MP3

Videos

- In the **Media Play** menu, press the ◀ or ▶ button to select **Videos**, and then press the ENTER button.
- Press the ◀/▶/▲/▼ buttons to select a video in the file list.
 - 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 ASP :
 - 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

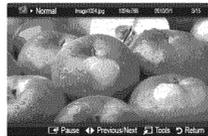
Supports up to WMA7, B, 9 STD, 9 PRO, 10 PRO
 WMA 9 PRO and WMA 10 PRO support 5.1 channel. (LBR mode of WMA Pro is not supported)
 WMA Lossless is not supported.

Music



- CMYK, YCCK Color space JPEG are not supported.
- Playing Multiple Files**
- Playing selected video/music/photo files**
- On the File List screen, highlight a file, and then press the Yellow button on your remote.
 - 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.
 - 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.)

Photos



- In the **Media Play** menu, press the ◀ or ▶ button to select **Photos**, then press the ENTER button.
- Press the ◀/▶/▲/▼ buttons to select a 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 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.

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

Other Restrictions

CMYK, YCCK Color space JPEG are not supported.

Playing Multiple Files

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

Media Play - Additional Functions

Videos/Music/Photos Play Option menu

When playing a file, press the TOOLS button.

Category	Operation	Video	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.	✓		✓
Auto Motion Plus	You can enhance motion in fast moving scenes.	✓		
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.	✓	✓	✓

Settings

- Using the Setup Menu**
- DiViX® Video On Demand :** Shows the registration code authorized for the TV. If you connect to the DiViX web site and register with the 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 DiViX® VOD, visit "http://vod.divx.com".
 - Information:** Select to view information about the connected USB 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 about 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.
- The wall mount kit 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	TV size in inches	VESA screw hole specs (A * B) in millimeters	Standard Screw	Quantity
LED-TV	19-22"	75 X 75	M4	4
	26"	100 X 100	M4	
	32-40"	200 X 200	M6	
	46-60"	400 X 400	M8	



Securing the TV to the Wall

- Caution:** Pulling, pushing, or climbing onto the TV may cause the TV to fall. In particular, ensure that your children do not hang over or destabilize the TV, doing so may cause the TV to tip over, resulting in serious injuries or death. Follow all safety precautions provided on the included Safety Flyer. For added stability, install the anti-fall device for safety purposes, as follows.

To prevent the TV from falling

- 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.
- 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.
- 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.

Display Modes (HDMI/DVI Input)

Optimal Resolution is 1920 x 1080@60Hz.

Mode	Resolution	Horizontal Frequency (kHz)	Vertical Frequency (Hz)	Pixel Clock Frequency (MHz)	Sync Polarity
BM	640 x 480	31.469	60.000	25.175	+/+
	720 x 480	31.469	60.000	25.175	+/+
MAC	640 x 480	35.000	60.000	30.240	-/-
	832 x 624	48.750	74.551	37.284	-/-
	1152 x 870	68.881	75.002	100.000	-/-
	640 x 480	31.469	59.940	25.175	-/-
	800 x 480	37.861	72.800	31.500	-/-
	640 x 480	37.500	75.000	31.500	-/-
	800 x 600	37.879	60.317	40.000	+/+
	800 x 600	48.077	72.188	50.000	+/+
	800 x 600	46.875	75.000	49.500	+/+
	1024 x 768	48.363	60.004	66.000	-/-
VEBA DMT	1024 x 768	66.474	70.000	76.000	-/-
	1024 x 768	60.023	75.029	78.750	+/+
	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	65.981	60.000	108.000	+/+
	1280 x 1024	73.975	75.005	135.000	+/+
	1366 x 768	47.712	59.700	85.500	+/+
	1440 x 960	55.925	59.987	108.000	+/+
	1600 x 900F	60.000	60.000	108.000	+/+
1680 x 1050	66.250	59.954	148.500	-/-	
1920 x 1080	67.500	60.000	148.500	+/+	

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 and Dimming	If your Samsung Television is flickering or dimming abruptly, 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. <ul style="list-style-type: none"> 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. <ul style="list-style-type: none"> Self Diagnosis - User Menu → Support → Self Diagnosis → Picture Test If the test is ok, by 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 video 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. <ul style="list-style-type: none"> Backlight, Contrast, Brightness, Sharpness, Color, Tint 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. <ul style="list-style-type: none"> 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 - User 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 - User Menu → Setup → Eco Solution → No Signal Power Auto Power Off - User Menu → Setup → Eco Solution → Auto Power Off
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. <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 it before making a call to the service department. <ul style="list-style-type: none"> If you happen to be using the TV as a monitor and the stand-by light only blinks for a few seconds when you press the power button, your PC is in sleep mode. To take your PC out of sleep mode, press a key on your keyboard or move the mouse. Then try turning your TV on. If you're sure your power cord, remote control, and PC are functioning properly, you may be having a cable issue. If you have a cable or satellite box, your TV may appear to be off because the cable or satellite box is not outputting a signal. To test the signal output of your cable or satellite box, press the guide or info button on the cable or satellite box remote control. If the screen displays the guide or info data, the problem is caused by the box.

Stand Assembly	• If you have any trouble assembling the stand, refer to "Install the Stands" in the Start Up or Stand Installation Guide.
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. <ul style="list-style-type: none"> 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. <ul style="list-style-type: none"> 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. 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.
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.
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.
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.
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)
There is a dotted line on the edge of the screen.	• 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)
The picture is black and white.	• If the picture size is set to Screen Fit , change it to 16:9. • Change the cable/satellite box resolution.
When changing channels, the picture freezes or is distorted or delayed.	• If you are using an AV composite input, connect the video cable (yellow) to the Green jack of Component Input 1 on the TV.
Sound Problems	• 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.
There is no sound or the sound is too low at maximum volume.	• 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.
The picture is good, but there is no sound.	• Check the volume of the device (Cable/Set Box, DVD, Blu-ray, etc.) connected to your TV.
The speakers are making an inappropriate noise.	• If you are using an external device, check the device's audio output option. 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. • 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.