



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

IMPORTANT WARRANTY INFORMATION REGARDING TELEVISION FORMAT VIEWING

See the warranty card for more information on warranty terms.

Wide screen format LED Displays (with 16:9 aspect ratios, which is the 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, with the images constantly in motion. Displaying stationary graphics and images on the 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 time per week.

Additionally, viewing other stationary images and text such as stock market crawls, video game displays, station logos, web sites, or computer graphics and patterns, should be limited as described above for all televisions.

Displaying stationary images that exceed the above guidelines can cause uneven aging of LED Displays that leave subtle, but permanent burned-in ghost images in the LED picture. To avoid this, vary the programming and images, and primarily display full screen moving images, not stationary patterns or dark bars. On LED models that offer picture sizing features, use these controls to view different formats as a full screen picture.

Be careful about the television formats you select and the length of time you view them. 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. A Tools menu symbol (E) 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 (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 normal room brightness.
- Movie:** Darkens the screen, making it less glary. Suitable for watching movies in a darkened room.
- Entertain:** Sharpens the picture. Suitable for games.
 - Only available when the TV is connected to a PC.

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).
- Warm:** Is deactivated when the picture mode is set to **Dynamic**.
- Cool and Standard** are only available when **Picture Mode** is set to **Dynamic**.
- 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 TV's 16:9 mode most of the time.
- 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. The borders displayed on the left, right, and center of the screen in 4:3 format 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.

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

Custom: Magnifies or shrinks 16:9 pictures vertically and/or horizontally. A magnified or shrunk picture can be moved left, right, up, and down.

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 / Auto1 / Auto2): Sets the TV to automatically sense and process film signals from all sources and adjusts the picture for optimum quality.

Available in **ATV**, **DTV** (interlace), **AV**, **COMPONENT** (480i / 1080i) and **HDMI** (480i / 1080p).

Motion Lighting (Off / On): When on, the TV automatically dims the screen's backlights when full brightness is not needed - for example when the TV is displaying dark scenes - to reduce power consumption. The backlights are returned to full brightness when the TV displays bright scenes.

Picture Off

The screen is turned off but the sound remains on. Press any button except the power key or volume button to turn on the screen.

Picture Reset

Reset Picture Mode: 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.

Auto Volume

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

Speaker Select

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

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

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

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

Preferred Language

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**.

SPDIF Output

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

- Audio Format:** You can select the Digital Audio output (SPDIF) format. The available Digital Audio output (SPDIF) format may differ depending on the input source.
- Audio Delay:** Lets you correct timing mismatches between the audio track and the video when you are watching the TV and listening to digital audio output 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).

Visual Impaired

(digital channels only)

Adds verbal description to the main audio to help the visually impaired.

Dolby Digital Comp

Sets Dolby Digital compression mode.

TV Installation Type

- Stand / Wall Mount:** Optimize TV sound as installed TV type. Adjust TV Sound automatically as stand or wall mount type.

HDMI Audio Format

You can select the HDMI Audio format. The available HDMI Audio format may differ depending on the input source.

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 help 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 show. You must select **Air** to see a picture.

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

Precautions and limitations for game mode:

- Before 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.

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.

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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.

Change PIN: Select **Change PIN** and the Change PIN screen appears. Choose any 4 digits for your PIN, and then enter them in the Enter New PIN fields. Re-enter the same 4 digits in the Confirm New PIN fields. When the Change PIN screen disappears, press the OK button. The TV has memorized your new PIN.

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

Caption

(On-Screen Text 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: (Digital 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)
Font Style: Options include **Default**, **Small**, **Standard**, **Large**, and **Extra large**. The default is **Standard**.

Size: Options include **Default**, **Small**, **Standard**, **Large**, and **Extra 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**.

Window Color Options include **Default**, **White**, **Black**, **Red**, **Green**, **Blue**, **Yellow**, **Magenta**, **Cyan**. **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**.

Window Opacity: This refers caption to window background, not character background. Options include **Default**, **Transparent**, **Translucent**, **Solid**, **Flashing**. **Default** is **Transparent**.

Edge Type: Options include **No Edge**, **Raised**, **Depressed**, **Uniform**, **Drop Shadow**. **Default** is **No Edge**.

Edge Color: Options include **Default**, **White**, **Black**, **Red**, **Green**, **Blue**, **Yellow**, **Magenta**, **Cyan**. **Default** is **White**.

Return to Default: This option sets **Size**, **Font Style**, **Foreground Color**, **Background Color**, **Window Color**, **Foreground Opacity**, **Background Opacity**, **Window Opacity**, **Edge Type**, and **Edge Color** 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.

Auto Program

The **Auto Program** function memorizes all channels that are available over the air or through your cable system and adds them to the **Channel List**. If you are using a cable or satellite box, you do not need to run the **Auto Program** function.

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.
 - 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**, **IRC**, or **IRG**. 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.

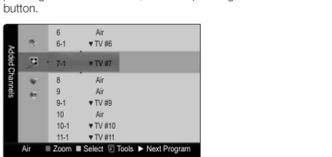
Press the ENTER button to stop the **Clear Scrambled Channel**.

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 Channels** 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.

Boot Logo

Enable or disable the display of the Samsung logo when you turn on the TV.

Eco Solution

Energy Saving (Off / Low / Medium / High): Lets you adjust the brightness of the TV to reduce power consumption.

Eco Sensor (Off / On): To enhance your power savings the picture settings will automatically adapt to the light in the room.

- Min. Backlight:** When **Eco Sensor** is **On**, you can adjust the minimum screen brightness manually.
- If **Eco Sensor** is **On**, the display brightness may change (become slightly darker in most cases) depending on the surrounding light intensity.
- This function may not be supported depending on the model or geographical area.

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 an attached PC is in power saving mode.

Auto Power Off (Off / On): When **Auto Power Off** is set to **On**, the TV will automatically turn off when no user operation is detected 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.

Input Menu

Use to select TV or other external input sources such as DVD / Blu-ray players / cable box / STB satellite receiver connected to the TV.

- Press the SOURCE 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.

Read the list below 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 file 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.
- P2P (Peer-to-Peer) 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.

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 Channels: 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 menu may differ depending on the situation.)

If you use a cable box or satellite box, you cannot use the **Channel List** or the **Channel List** functions.

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 Channels**, **Added Channels**, and **Favorite Channels** 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.
- Press the TOOLS button on your remote. The Tools menu appears.
- Select **Add** in the Tools menu, and then press the ENTER button.

All deleted channels will be shown on the **All Channels** list.

You can click 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.

Application Menu

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

- If the TV has no input during the time period set in **Auto Protection Time**, the Screen saver will run.
- The power-saving mode of some external hard disk drives may be released automatically when you connect them to the TV.
- If you use a USB extension cable, the TV may not recognize the USB device or may not be able to read the files on the device.
- If a USB device connected to the TV is not recognized, the list of files on the device is corrupted, or a file in the list is not played, connect the USB device to a PC, format the device, and check the connection.
- If a file you deleted from the PC is still found when you run **Media Play**, use the "Empty the Recycle Bin" function on the PC to permanently delete the file.
- Photos** only supports 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 a USB storage device is 1000.
- The media may not play smoothly if you use a USB device rated lower than USB 2.0.

Videos



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

- Supported Subtitle Formats
- External

Name	File extension
MPEG-4 Timed text	.txt
SAMI	.smi
SubPip	.sub
SubNewer	.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
SubPip	MKV	Text Format
MPEG-4 Timed text	MP4	Text Format

File Extension	Container	Video Codec	Resolution	Frame rate(fps)	Bit rate (Mbps)	Audio Codec
.avi		Motion JPEG	640 x 480		8	
*.wmv		H.264 BP1 / MP4HP				Dolby Digital LPCM
*.asf	AVI	H.264 BP1 / MP4HP				ADPCM (IMA, MS), AAC, HE-AAC
*.wmv	MKV	DxV 3, 11.4 / 5 / 6				HE-AAC, WMA
*.mp4	ASF	MPEG4 SP / ASP	1024 x 1080	MAX 30	30	Dolby Digital Plus, MPEG4(LP)
*.3gp	MP4	Window Media Video (WMV1)				DTS (Core, LBR), G.711A-Law (µ-Law)
*.3gp	MP4	Window Media Video (WMV1)				
*.mpg	FLV	MPEG2				
*.ts	VRO					
*.vob	VOB					
*.tip	PS					
*.mov	TS					
*.flv						
*.divx						
*.dat						

Other Restrictions

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

Video Decoder

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

Audio Decoder

WMA 10 Pro supports up to 5.1 channels. Supports up to the M2 profile. WMA lossless audio is not supported.
Dolby Digital Plus is supported for up to 2 channels.
Dolby Digital Plus is supported for up to 5.1 channels.
The DTS LBR codec is only available for MKV / MP4 / TS containers.

Music



- In the **Media Play** menu, press the ◀ or ▶ button to select **Music**, and then press the ENTER/OK button.
- Press the ◀/▶/▲/▼ buttons to select the desired Music in the file list.
- Press the ENTER/OK button or [Play] button.
 - During music playback, you can search using the ◀ and ▶ buttons.
 - [REW] and [FF] buttons do not function during play.
 - Media Play only displays files with an MP3 or 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 the TV plays 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/OK button.
- Press the ◀/▶/▲/▼ buttons to select a photo in the file list.
- Press the ENTER/OK button or [Play] button.
 - NOTE
 - While a photo list is displayed, press the [Play] / ENTER/OK 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 [REW] (REW) or [FF] (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 8640
	Progressive	1024 x 768

Other Restrictions

- CMYK, YCCK Color space JPEG are not supported.

Playing Multiple Files

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 Settings	You can play the video with Subtitles. The 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.	✓	✓	✓

- 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 unplugging and then 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 Service1** to **CC1**.
- 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.
 - Remove the left and right audio connections from the set-top-box. If the buzzing stops, this indicates that the set-top-box has a grounding issue. Replace the Component video cables with an HDMI connection.
- The picture will not display in full screen.
 - HD channels will have black bars on either side of the screen when displaying up scaled SD (4:3) contents.
 - Black bars on the top 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 remote control does not work.

- 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 5-8 feet away.

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

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

A "Mode Not Supported" message appears.

- Check the supported resolution of the TV and adjust the external device's output resolution accordingly. Refer to resolution settings in this manual.

Caption on the TV menu is greyed out.

- 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.

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 30 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 30 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/OK.

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 which require sophisticated technology to produce. However, there may be a few bright or dark pixels on the screen. These pixels will have no impact on the performance of the product.

You can watch detailed troubleshooting videos at www.samsung.com/spns.

Some functions and pictures shown in this manual are available on specific models only.

You can keep your TV in optimum condition by upgrading it with the latest firmware from the Samsung web site (samsung.com -> Support -> Downloads). To upgrade, download the firmware to your computer, copy the firmware file to a USB memory stick, insert the USB memory stick into the TV's USB slot, and then select Support > Software Upgrade in the TV's menu.

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/OK button.
- Press the TOOLS button, select **Play Selected Contents**, and then press the ENTER/OK 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/OK button.

Media Play - Additional Functions

Videos/Music/Photos Play Options 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 Settings	You can play the video with Subtitles. The 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.	✓	✓	✓

All care protection (Depending on the country and model)

- All care protection will update Picture quality every 5,000 hours.
- All care protection popup menu will show every 5,000 hours, Max 3 times (5,000/10,000/15,000 hours).
- The notification or popup menu will be closed by timeout (30 sec) or selecting any key on the remote except power key.
 - When user turns the power off and then on again, popup menu for requesting update is provided again.
 - Popup menu is provided only 3 times including initial popup menu.
 - Popup menu will show only at TV on time.

Settings

Using the Setup Menu

- DivX® Video On Demand:** Shows the registration code authorized for the TV. If you connect to the DivX web site and register with 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 DivX® VOD, visit "http://vod.divx.com".
- Information:** Select to view information about the connected USB device.

Using Soccer Mode [TOOLS]

- This mode provides optimized conditions for watching soccer and other sports.
- Soccer Mode is On:** The picture and sound modes are set to **Stadium** automatically.
 - If you turn the TV off while **Soccer Mode** is on, **Soccer Mode** is turned off.

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.

Use Mode

- You can turn the TV into a display model for retail environments by setting Use Mode to **Store Demo**.
- For all other uses, select **Home Use**.
- With **Store Demo**, some functions are disabled, and the TV automatically resets itself after a preset amount of time.

HD Connection Guide

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

Contact Samsung

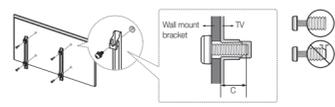
View this information when your TV does not work properly or when you want to upgrade the software. You can find information regarding our call centers and how to download products and software.

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.
- The Samsung wall mount kit contains 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 tighten 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.

Standard dimensions for wall mount kits are shown in the table below. If you are installing a third-party wall mount, note that the length of the screws you can use to attach the TV to the wall mount is shown in column C in the table below.

Product Family	TV size in inches	VESA screw hole specs (A * B) in millimeters	C (mm)	Standard Screw	Quantity
LED-TV	32	100 x 100	20.9-21.9	M4	4



To prevent the TV from falling

- Since the necessary brackets, screws, and string or cable are not supplied, please purchase these separately.
- 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.
- 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 wall 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.

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 described in the next column.
- The interface mode is not supported.
- The set might operate abnormally if you use a non-standard video format is selected.
- Optimal resolution depends on your model.

- When you have to relocate or lift the TV for replacement or cleaning, be sure not to pull out the stand.

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.