



### 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.



BN68-05647X-00

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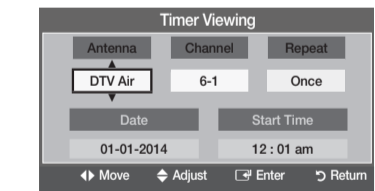
To delete channels from the Favorites list, follow these steps:

- 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: You can schedule a channel to be displayed automatically at a set time, even when you are watching another channel. You must set the current time first in the Time > Clock function to use Time Viewing.

To schedule a channel, follow these steps:

- 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.

• If you select Everyday or Every Week, the date you select in the Date field becomes the start date for your scheduled viewing. For Everyday, the TV will turn on every day, at the time you selected, starting from that date. For Every Week, the TV will turn on every week, on the same day of the week as the start date you selected, at the time you selected, from that day on. If you select Once, the TV will turn on once, on the date and time you selected.

- 5. Press the ENTER button on your remote when done.
• Only Added Channels can be scheduled.
• Scheduled programs and channels are displayed in the Programmed List.

• When you select a digital channel, press the ▶ button to view the digital program list. If you highlight a program in the list, and then press the ENTER (Schedule) button, you set Timer Viewing for that program directly.

■ Channel Name Edit: Analog channels only. Lets you assign a name of up to five characters to an analog channel. For example, Hist, Food, Golf, etc. This makes it easier to find and select a channel.

■ Select All: Select all the channels in the displayed channel list.
■ Deselect All: Deselect all the selected displayed channels.

• You can only select Deselect All when one or more channels are selected.

■ Auto Program: See Auto Program under Memorizing Channels.

### Programmed List (on the Channel List Screen)

The Programmed list displays the channels and programs you have scheduled for viewing using the Time Viewing function. You can view, modify, or delete a show you have scheduled using the functions on the Programmed List screen Tools menu.

### Programmed List Screen Tools Menu

■ Change Info: Change the scheduling information for a show or channel you have scheduled.

To change the information, follow these steps:

- 1. Select the Programmed List icon on the left side of the Channel List screen, and then press the ENTER button.
2. On the Programmed List screen, select the show or channel entry you want to change, and then press the TOOLS button. The Tools menu appears.
3. Select Change Info, 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.

5. Press the ENTER button when done.

■ Cancel Schedules: Cancel a show or channel you have scheduled.

To cancel a scheduled show or channel, follow these steps:

- 1. Select the Programmed List icon on the left side of the Channel List screen, and then press the ENTER button.
2. On the Programmed List screen, select the show or channel entry you want to cancel, and then press the TOOLS button. The Tools menu appears.
3. Select Cancel Schedules, and then press the ENTER button. The Cancel Schedule screen appears.
4. Select OK, and then press the ENTER button.

■ Information: Display the information for a show or channel you have scheduled. You can also change the schedule information.

- 1. Select the Programmed List icon on the left side of the Channel List screen, and then press the ENTER button.
2. On the Programmed List screen, select the show or channel entry you want information for, and then press the TOOLS button. The Tools menu appears.
3. Select Information, and then press the ENTER button. The Time Viewing Information screen appears.

- 4. Select Change Info and press the ENTER button to change information, or select Close and press the ENTER button to close the Information screen.

■ Select All / Deselect All: You can select or deselect all channels in the channel list.

## The On Screen Menus

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

The Main menu has seven primary categories:

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

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

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

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

## Picture Menu

Mode (TOOLS) Select your preferred picture mode.

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

■ Dynamic: Brightens the screen. Suitable for a bright room.

■ Standard: Suitable for a normal.

■ Movie: Darkens the screen, making it less glary. Suitable for watching movies in a darkened room.

■ Entertain: Sharpens the picture. Suitable for games.

• Only available when the TV is connected to a PC.

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

■ Backlight: Adjusts the brightness of the screen by adjusting the brightness of the individual pixels.

■ Contrast: Increases or decreases the contrast between dark and light areas of the picture.

■ Brightness: Adjusts the brightness of the screen. Not as effective as Backlight.

■ Sharpness: Sharpens or dulls the edges of objects.

■ Color: Adjusts the color saturation. The higher the Color setting, the more intense the color. Low settings remove color and the picture becomes black, white and gray.

■ Tint (G/R): Adjusts the amount of green and red in the picture. As you increase the amount of green, the amount of red decreases and vice versa.

• When the TV is connected to a PC, you can only make changes to Backlight, Contrast, Brightness, and Sharpness.

## Picture Options

• When the TV is connected to a PC, you can only make changes to the Color Tone, Size and HDMI Black Level.

■ Color Tone (Cool / Standard / Warm): Cool makes the picture bluer (cooler). Warm make the picture redder (warmer).

■ Size: Set the size and aspect ratio of the picture on the screen. Your cable box or satellite receiver may have its own set of screen sizes as well. However, we highly recommend you use the TVs 16:9 mode most of the time.

• The menu is deactivated, when the H. 264 (1080p) DTV is being played.

16:9: Sets the picture to the 16:9 wide screen format.

Zoom1: Provides moderate magnification of the picture. Sides, top, and bottom are cut off.

Zoom2: Provides larger magnification of the picture. Sides, top, and bottom are cut off.

Wide Fit: Enlarges the aspect ratio of the picture so the picture fits the entire screen.

4:3: Sets the picture to the old 4:3 format and puts black or gray borders on the right and left of the picture.

• Do not watch your TV in the 4:3 format for a long time. Traces of borders displayed on the left, right and center of the screen may cause image retention (screen burn) which is not covered by the warranty.

Screen Fit: Displays the full image without any cut-off when your TV is inputting HDMI (720p / 1080 / 1080p) or Component (1080 / 1080p) HD signals.

• HD (High Definition) has a 16:9 aspect ratio and 1080/1080p (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:

Table with 2 columns: Input Source and Picture Size. Rows include ATV, AV, Component (480i, 480p), DTV (1080i), Component (1080i, 1080p), HDMI (720p, 1080i, 1080p), and Digital Clean View (Off / Low / Medium / High / Auto).

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

• Motion Lighting (Off / On): Reduce power consumption by brightness control adapted method.

• Available in Standard mode only.

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

• When the TV is connected to a PC, you can only make changes to Backlight, Contrast, Brightness, and Sharpness.

## Sound Menu

Mode (TOOLS)

■ Standard: Selects the normal sound mode.

■ Music: Emphasizes music over voices.

■ Movie: Provides the best sound for movies.

■ Clear Voice: Emphasizes voices over other sounds.

## Equalizer

Available in Standard sound mode only.

■ Balance L/R: Adjusts the balance between the right and left speaker.

■ 100Hz / 300Hz / 1KHz / 3KHz / 10KHz (Bandwidth Adjustment): Adjusts the loudness of specific bandwidth frequencies.

■ Reset: Resets the equalizer to its default settings.

## DTS TruSurround

Available in Standard sound mode only.

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

## Preferred Language

Digital channels only.

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

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

## Multi-Track Sound (MTS)

Analog channels only.

■ Mono: Select for channels that are broadcasting in mono or if you are having difficulty receiving a stereo signal.

■ Stereo: Select for channels that are broadcasting in stereo.

■ SAP: Select to listen to the Separate Audio Program, which is usually a foreign-language translation.

• Depending on the program being broadcast, you can listen to Mono, Stereo or SAP.

## Auto Volume

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

## SPDIF Output

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

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

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

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

## Speaker Select

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

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

• When Speaker Select is set to External Speaker.

• TV Speaker: Off, External Speaker: On

• When Speaker Select is set to TV Speaker.

• TV Speaker: On, External Speaker: On

• If there is no video signal, both speakers will be mute.

## Visual Impaired

Digital channels only.

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

## Sound Reset

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

## Channel Menu

### Memorizing Channels

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

### Antenna (Air / Cable)

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

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

### Auto Program

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

To start Auto Program, follow these steps:

- 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.

• 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 DTV channels.

■ Locking/Blocking Programs or Movies

You lock or block programs and/or movies in essentially the same way for each option. Each option displays a grid or table. All the tables have ratings listed on the left. The TV Parental Guidelines option also has kinds of content listed across the top: ALL: Lock all TV ratings. /V: Fantasy violence /V: Violence /S: Sexual situation /L: Adult Language /D: Sexually Suggestive Dialog.

To lock/block movies or shows with certain ratings and/or kinds of content, click the square next to the rating and/or under the kind of content. A lock appears. To unlock/unlock, click the square again. When you click a lock rating, all the ratings above it will also display locks. You can also Allow All or Lock All. When done, press the RETURN button on your remote.

• Change PIN: The Change PIN screen will appear. Choose any 4 digits for your PIN and enter them in the Enter New PIN fields. Re-enter the same 4 digits in 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) button.

## 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.

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.

• 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.

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

• All Channels: Shows all currently available channels including those you deleted from the Added Channels list.

• Added Channels: Shows all Added Channels. These are the channels that appear when you press the CH LIST button.

• Favorite: Shows all favorite channels.

• 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/Delete option only appears for deleted channels.

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

To add channels to the Favorites 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 to Favorite in the Tools menu, and then press the ENTER button.

• Min. Backlight: When Eco Sensor is On, the minimum screen brightness can be adjusted manually.

• If Eco Sensor is On, the display brightness may change (become slightly darker in most cases) depending on the surrounding light intensity.

■ No Signal Power Off (Off / 15 min. / 30 min. / 60 min.): Sets how quickly the TV switches to standby mode, if no picture is being received.

• Disabled when the PC is in power saving mode.

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

• Eco Sensor: When Eco Sensor is On, the minimum screen brightness can be adjusted manually.

• If Eco Sensor is On, the display brightness may change (become slightly darker in most cases) depending on the surrounding light intensity.

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• Disabled when the PC is in power saving mode.

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

## Boot Logo

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

## Eco Solution

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

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

• If you adjust the Backlight, the Eco Sensor will be set to Off.

• Min. Backlight: When Eco Sensor is On, the minimum screen brightness can be adjusted manually.

- PTP devices are not supported.
- If an over-power warning message is displayed while you are connecting or using a USB device, the device may not be recognized or may malfunction.
- If the TV has no input during the time period set in **Auto Protection Time**, the Screensaver will run.
- If you use a USB extension cable, the TV may not recognize the USB device or may not be able to read the files on the device.
- If a USB device connected to the TV is not recognized, the list of files on the device is corrupted, or a file in the list is not played, connect the USB device to a PC, format the device, and check the connection.
- If a file you deleted from the PC is still found when you run **Media Play**, use the "Empty the Recycle Bin" function on the PC to permanently delete the file.
- **Photos** only supports the sequential jpeg format.
- The **Videos** option does not support the scene search and thumbnail functions.
- If the number of files and folders saved on a USB storage device is over approximately 4000, the files and folders may not appear and some folders may not open.
- The maximum displayed number of files, including sub folders, in one folder of USB storage device is 2000.
- The media may not be playing smoothly when using the device lower than USB 2.0.

#### Supported Subtitle Formats

External		
Name	File extension	
MPEG-4 timed text	.txt	
SAMI	.srt	
SubRip	.srt	
SubViewer	.sub	
Micro DVD	.sub.or_.txt	
SubStation Alpha	.ssa	
Advanced SubStation Alpha	.ass	
Internal		
Name	Container	Format
Xvid	AVI	Picture Format
SubStation Alpha	MKV	Text Format
Advanced SubStation Alpha	MKV	Text Format
SubRip	MKV	Text Format
MPEG-4 Timed text	MP4	Text Format

#### Supported Video Formats

File Extension	Container	Video Codec	Resolution	Frame rate(fps)	Bit rate(kbps)	Audio Codec
*.mp4	MP4	Dx3, H.14, H.264, Sx4, D, S	1920x1080	6-30	20Mbps	MPS / AAC
		H.264	1920x1080	6-30	20Mbps	LPCM / AAC
		VC-1	1920x1080	6-30	20Mbps	AAC
		MPEG4	640x480	6-30	10Mbps	
*.avi	AVI	Dx3, H.14, H.264, Sx4, D, S	1920x1080	6-30	20Mbps	MPS / AC3 / LPCM / ADPCM / DTS
		MPEG 1/2/4	1920x1080	6-30	20Mbps	
		H.264	1920x1080	6-30	20Mbps	
		MPEG4	640x480	6-30	10Mbps	
*.avi	ASF	Dx3, H.14, H.264, Sx4, D, S	1920x1080	6-30	20Mbps	MPS / AC3 / LPCM / ADPCM / WMA / AAC
		MPEG 1/2/4	1920x1080	6-30	20Mbps	
		H.264	1920x1080	6-30	20Mbps	
		MPEG4	640x480	6-30	10Mbps	
*.ts	TS	MPEG2-TS	1920x1080	6-30	20Mbps	AC3 / AAC / DTS / DOLBY
		H.264	1920x1080	6-30	20Mbps	
*.m2ts	PS	MPEG2	1920x1080	6-30	20Mbps	AC3 / LPCM / AAC
		H.264	1920x1080	6-30	20Mbps	
*.3gp	3GPP	MPEG 1/2/4	1920x1080	6-30	20Mbps	MPS
		H.264	1920x1080	6-30	20Mbps	
*.av	ts	Sonyson H.263	1920x1080	6-30	20Mbps	MPS

## Videos



1. In the **Media Play** menu, press the ◀ or ▶ button to select **Videos**, and then press the ENTER button.
2. Press the ◀/▶/▲/▼ buttons to select a video in the file list.
3. Press the ENTER button or [Play] button.
  - The file name is displayed on the top of the screen with the playing time.
  - If video time information is unknown, playing time and the progress bar are not displayed.
  - During video playback, you can search using the ◀ and ▶ buttons.

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

#### Other Restrictions

- Video content will not play, or not play correctly, if there is an error in the content or the container.
- Sound or video may not work if the contents have a standard bit rate/ frame rate above the compatible Frame/sec listed in the Supported Video Formats table.
- If the Index Table erroneous, the Seek (Jump) function is not supported.
- The menu may take longer to appear if the video's bit rate exceeds 10Mbps.
- Video content can not be played if there are many contents in one file.

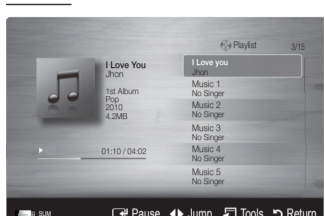
## Video Decoder

Supports up to H.264, Level 4.1  
 H.264 FMO / ASO / RS, VC1 SP / MP / AP-L4 and AVCHD are not supported.  
 MPEG4 SP, 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

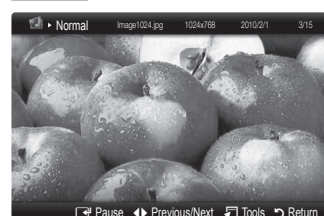
Supports up to WMA7, 8, 9 STD, 9 PRO, 10 PRO  
 WMA 9 PRO and WMA 10 PRO support 5.1 channel. (LBR mode of WMA Pro is not supported)  
 WMA Lossless is not supported.

## Music



1. In the **Media Play** menu, press the ◀ or ▶ button to select **Music**, and then press the ENTER button.
2. Press the ◀/▶/▲/▼ buttons to select the desired Music in the file list.
3. Press the ENTER button or [Play] button.
  - During music playback, you can search using the ◀ and ▶ button.
  - [REW] (REV) and [FF] (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



1. In the **Media Play** menu, press the ◀ or ▶ button to select **Photos**, then press the ENTER button.
2. Press the ◀/▶/▲/▼ buttons to select a photo in the file list.
3. Press the ENTER button or [Play] button.
  - NOTE
    - While a photo list is displayed, press the [Play] / ENTER button on the remote control to start a slide show.
    - All files in the file list section will be displayed in the slide show.
    - During the slide show, files are displayed in order.
    - During the slide show, you can adjust the slide show speed using [REV] (REV) 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 8704
	Progressive	1024 x 768

#### Other Restrictions

CMYK, YCCK Color space JPEG are not supported.

#### Playing Multiple Files

##### Playing selected video/music/photo files

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

## Media Play - Additional Functions

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

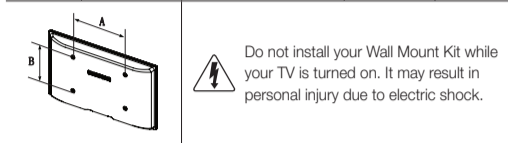
When playing a file, press the TOOLS button.

Category	Operation	Videos	Music	Photos
<b>Title</b>	You can select another video file to play directly.			
<b>Repeat Mode</b>	You can play movie and music files repeatedly.	✓	✓	
<b>Picture Size</b>	You can adjust the picture size to your preference.	✓		
<b>Picture Mode</b>	You can adjust the picture setting.	✓		✓
<b>Sound Mode</b>	You can adjust the sound setting.	✓	✓	✓
<b>Subtitle Setting</b>	You can play the video with Subtitles. This function only works if the subtitles have the same file name as the video.	✓		
<b>Audio Format</b>	You can select the digital audio output format.	✓		
<b>Audio Language</b>	You can change the audio language if the video has more than one language.	✓		
<b>Stop Slide Show / Start Slide Show</b>	You can start or stop a Slide Show.			✓
<b>Slide Show Speed</b>	You can select the slide show speed during the slide show.			✓
<b>Background Music</b>	You can set and select background music when watching a Slide Show.			✓
<b>Zoom</b>	You can zoom into images in full screen mode.			✓
<b>Rotate</b>	You can rotate images in full screen mode.			✓
<b>Information</b>	You can see detailed information about the played file.	✓	✓	✓

#### 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	24	75 X 75	M4	4



#### 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.

## Other Information

### Installing the Wall Mount Kit

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

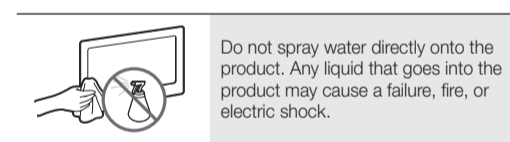
For detailed information about installing the wall mount, see the instructions provided with the wall mount items. Contact a technician for assistance when installing the wall mount bracket. Samsung Electronics is not responsible for any damage to the product or injury to yourself or others if you elect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

### Wall Mount Kit Specifications (VESA)

The wall mount kit is not supplied, but sold separately. 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.

## Storage and Maintenance

- If a sticker was attached to the TV screen, some debris can remain after you remove the sticker. Please clean it before watching the TV.
- The exterior and screen of the product can get scratched during cleaning. Be sure to wipe the exterior and screen carefully using a soft cloth to prevent scratches.



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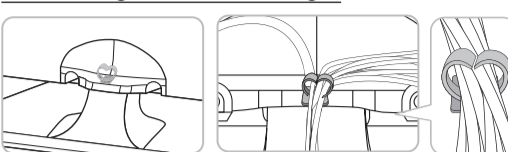
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## Kensington Lock

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.

### Assembling the Cable manager



## 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	<ul style="list-style-type: none"> <li>• If your Samsung Television is flickering or dimming sporadically, you may need to disable some of its energy efficient features like the Eco Sensor or the Energy Saving feature. Follow the steps below with your remote to turn these features off or on.</li> <li>• <b>Energy saving - MENU → Setup → Eco Solution → Energy Saving → Select Settings</b></li> <li>• 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.</li> <li>• <b>Self Diagnosis - MENU → Support → Self Diagnosis → Picture Test</b></li> <li>• If the test is ok, try making sure :           <ul style="list-style-type: none"> <li>• 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.</li> <li>• Try making sure you have connected to the correct jacks. For example, if you use the Component jacks, labeled Pb, Pr, and Y, to connect your TV and video source, make sure you have connected the blue Pb jack on the video source to the blue Pb jack on the TV, the red Pr jack on the source to the red Pr jack on the TV.</li> </ul> </li> <li>• 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"> <li>• <b>Backlight, Contrast, Brightness, Sharpness, Color, Tint (G/R/B)</b> and so on. Go to "Picture" in the Menu, and then try adjusting these options.</li> </ul> </li> </ul>
Component Connections / Screen Color	<ul style="list-style-type: none"> <li>• If your Samsung TV appears to turn off by itself, there may be an issue with either your TV settings or your Eco friendly <b>No Signal Power Off</b> feature. First make sure the <b>Sleep Timer</b> is not accidentally set. The <b>Sleep Timer</b> 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.           <ul style="list-style-type: none"> <li>• <b>Sleep Timer - MENU → Setup → Time → Sleep Timer</b></li> </ul> </li> <li>• If the <b>Sleep Timer</b> is not activated, you may have engaged the <b>No Signal Power Off</b> or <b>Auto Power Off</b> feature.           <ul style="list-style-type: none"> <li>• <b>No Signal Power Off - MENU → Setup → Eco Solution → No Signal Power Off</b></li> <li>• <b>Auto Power Off - MENU → Setup → Eco Solution → Auto Power Off</b></li> </ul> </li> </ul>
Screen Brightness	<ul style="list-style-type: none"> <li>• 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"> <li>• <b>Backlight, Contrast, Brightness, Sharpness, Color, Tint (G/R/B)</b> and so on. Go to "Picture" in the Menu, and then try adjusting these options.</li> </ul> </li> </ul>
Unwanted Powering off	<ul style="list-style-type: none"> <li>• If your Samsung TV appears to turn off by itself, there may be an issue with either your TV settings or your Eco friendly <b>No Signal Power Off</b> feature. First make sure the <b>Sleep Timer</b> is not accidentally set. The <b>Sleep Timer</b> 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.           <ul style="list-style-type: none"> <li>• <b>Sleep Timer - MENU → Setup → Time → Sleep Timer</b></li> </ul> </li> <li>• If the <b>Sleep Timer</b> is not activated, you may have engaged the <b>No Signal Power Off</b> or <b>Auto Power Off</b> feature.           <ul style="list-style-type: none"> <li>• <b>No Signal Power Off - MENU → Setup → Eco Solution → No Signal Power Off</b></li> <li>• <b>Auto Power Off - MENU → Setup → Eco Solution → Auto Power Off</b></li> </ul> </li> </ul>

Trouble Powering On	<ul style="list-style-type: none"> <li>• 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.</li> <li>• If you find that you are having trouble powering on your Samsung television, there are a number of things to check before making a call to the service department.           <ul style="list-style-type: none"> <li>• 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.</li> <li>• 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.</li> </ul> </li> <li>• If you have any trouble assembling the stand, refer to "Install the Stand" in the Start Up or Stand Installation Guide.</li> </ul>
Stand Assembly	<ul style="list-style-type: none"> <li>• Re-run Plug &amp; Play or run <b>Auto Program</b>. (go to <b>MENU - Channel - Auto Program</b>)</li> </ul>
Cannot find a channel	<ul style="list-style-type: none"> <li>• First, perform the <b>Picture Test</b> and to see if your TV is displaying the test image properly. Go to <b>MENU - Support - Self Diagnosis - Picture Test</b></li> <li>• If the test image is properly displayed, the poor picture may be caused by the source or signal.           <ul style="list-style-type: none"> <li>• 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.</li> <li>• Cable/Satellite subscribers: Try HD channels from the channel line up.</li> <li>• Air/Cable Antenna connection: Try HD channels after running Auto Program.</li> <li>• Many HD channels broadcast up scaled SD (Standard Definition) content. The picture quality of up scaled SD content is low.</li> <li>• Adjust the Cable/Set top box video output resolution to 1080i or 720p.</li> </ul> </li> </ul>
Poor Picture	<ul style="list-style-type: none"> <li>• Compression of video contents may cause picture distortion, especially on fast moving pictures such as those in sports and action movies.</li> <li>• A weak signal can cause picture distortion. This is not a TV problem.</li> <li>• Mobile phones used close to the TV (within 3.3ft) may cause noise in the picture on analog and digital channels.</li> <li>• 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.</li> <li>• Adjust the Picture options in the TV menu. (go to <b>Picture Mode / Color / Brightness / Sharpness</b>)</li> <li>• Adjust the <b>Energy Saving</b> option in the TV menu. (go to <b>MENU - Setup - Eco Solution - Energy Saving</b>)</li> <li>• Try resetting the picture to the default picture settings. (go to <b>MENU - Picture - Picture Reset</b>)</li> </ul>
The TV image does not look as good as it did in the store.	<ul style="list-style-type: none"> <li>• If the picture size is set to <b>Screen Fit</b>, change it to 16:9.</li> <li>• Change the cable/satellite box resolution.</li> </ul>
The picture is black and white.	<ul style="list-style-type: none"> <li>• If you are using an AV composite input, connect the video cable (yellow) to the Green jack of Component Input 1 on the TV.</li> <li>• 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)</li> <li>• Set the output resolution of the cable box to 1080i or 720p.</li> </ul>
When changing channels, the picture freezes or is distorted or delayed.	<ul style="list-style-type: none"> <li>• Perform the <b>Sound Test</b> to confirm that your TV audio is properly operating. (go to <b>MENU - Support - Self Diagnosis - Sound Test</b>)</li> <li>• If the audio is OK, the sound problem may be caused by the source or signal.</li> </ul>
There is no sound or the sound is too low at maximum volume.	<ul style="list-style-type: none"> <li>• Check the volume of the device (Cable/Set Box, DVD, Blu-ray, etc.) connected to your TV.</li> </ul>
The picture is good, but there is no sound.	<ul style="list-style-type: none"> <li>• If you are using an external device, check the device's audio output option. Ex, you may need to change your cable box's audio output to HDMI if the box is connected to your TV using an HDMI cable.</li> <li>• Reboot the connected device by reconnecting the device's power cable.</li> </ul>
The speakers are making an inappropriate noise.	<ul style="list-style-type: none"> <li>• Check the cable connections. Make sure a video cable is not connected to an audio input.</li> <li>• For Antenna or Cable connections, check the signal information. A weak signal may cause sound distortion.</li> <li>• Perform the <b>Sound Test</b> as explained above.</li> </ul>
No Picture, No Video	
The TV will not turn on.	<ul style="list-style-type: none"> <li>• Make sure the AC power cord is securely plugged into the wall outlet and the TV.</li> <li>• Make sure the wall outlet is working.</li> <li>• Try pressing the POWER button on the TV to make sure the problem is not the remote.</li> <li>• If the TV turns on, refer to "Remote control does not work" below.</li> </ul>
The TV turns off automatically.	<ul style="list-style-type: none"> <li>• Ensure the <b>Sleep Timer</b> is set to <b>Off</b> in the <b>Time</b> menu.</li> <li>• If your PC is connected to the TV, check your PC power settings.</li> <li>• Make sure the AC power cord is plugged securely into the wall outlet and the TV.</li> <li>• 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.</li> </ul>

There is no picture/video.	<ul style="list-style-type: none"> <li>• Check the cable connections. (Remove and reconnect all cables connected to the TV and external devices).</li> <li>• Set your external device's (Cable/Set Box, DVD, Blu-ray etc) video outputs to match the connectors to the TV input. For example, if an external device's output is HDMI, it should be connected to an HDMI input on the TV.</li> <li>• Make sure your connected devices are powered on.</li> <li>• Be sure to select the correct input source by pressing the SOURCE button on the remote control.</li> <li>• Reboot the connected device by reconnecting the device's power cable.</li> </ul>
RF (Cable/Antenna) Connection	
The TV is not receiving all channels.	<ul style="list-style-type: none"> <li>• Make sure the coaxial cable is connected securely.</li> <li>• Run Auto Program to add available channels to the channel list.</li> <li>• go to <b>MENU - Channel - Auto program</b> then select <b>Auto</b> and make sure the correct Cable TV signal type is set in the menu. There are 3 options. (STD, HRC and IRC)</li> <li>• Verify the antenna is positioned correctly.</li> </ul>
No Caption on digital channels.	<ul style="list-style-type: none"> <li>• Check the Caption Setup menu. Try changing <b>Caption Mode Service 1</b> to CC1.</li> <li>• Some channels may not have caption data.</li> </ul>
The picture is distorted: macroblock error, small black, dots, pixelization.	<ul style="list-style-type: none"> <li>• Compression of video contents may cause picture distortion, especially on fast moving pictures such as those in sports and action movies.</li> <li>• A weak signal can cause picture distortion. This is not a TV problem.</li> </ul>
Others	
Purple/green rolling horizontal bars and buzzing noise from the TV speakers with Component cable connection.	<ul style="list-style-type: none"> <li>• 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.</li> </ul>