



Figures and illustrations in this User Manual are provided for reference only and may differ from actual product appearance...

Important Warranty Information Regarding Television Format Viewing

See the warranty card for more information on warranty terms. Wide screen format LED Displays with aspect ratios of 16:9...

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...

For the location of a SAMSUNG Authorized Service Center, please call toll-free: In the United States : 1-800-SAMSUNG (1-800-726-7864)



© 2013 Samsung Electronics Co., Ltd. All rights reserved.

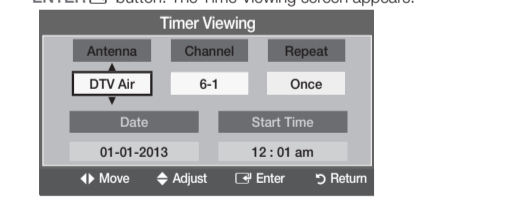
To add channels to the Added Channels list, follow these steps:

- 1. Select one or more channels in the All Channels list using the A/V buttons and the Yellow (Select) button on your remote.
2. Press the TOOLS button on your remote.
3. Select Add in the Tools menu, and then press the ENTER button.

To delete channels from the Favorites list, follow these steps: 1. Select one or more channels in the Favorite Channels list using the A/V buttons and the Yellow (Select) button on your remote.

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.

Time Viewing: You can schedule a channel to be displayed automatically at a set time, even when you are watching another channel. To schedule a channel, follow these steps: 1. Select a channel in the Added Channels list using the A/V buttons and the Yellow (Select) button on your remote.



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

Everyday or Every Week: 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.

Programmed List Screen Tools Menu: Channel List -> Programmed -> 000292. Change Info: Change the scheduling information for a show or channel you have scheduled.

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.

Still image warning

Avoid displaying still images (such as jpeg picture files) or still image elements (such as TV channel logos, TV shows or movies in panorama or 4:3 format, stock or news scroll bars, etc.) on the screen. The constant display of still pictures can cause ghosting or image burn-in (image retention) on the LED screen, which will affect image quality.

- Avoid displaying the same TV channel for long periods.
• Always try to display any image in full screen mode. Use the TV's Picture Options menu to select the optimal screen size.
• Reduce brightness and contrast values to the minimum required to achieve the desired picture quality.

Backlight / Contrast / Brightness / Sharpness / Color / Tint (G/R) Backlight: Adjusts the brightness of the screen by adjusting the brightness of the individual pixels.

Table with 3 columns: Country, Address, Customer Care Center, Web Site. Rows for Canada and USA.

© 2013 Samsung Electronics Co., Ltd. All rights reserved.

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.

- 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.

Picture Menu

- Mode: 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 room brightness.

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

Advanced Settings Available in Standard and Movie mode only. Compared to previous models, new Samsung TVs offer a more precise picture with more precise controls.

- When your TV is connected to a PC, you can only make changes to Gamma and White Balance.
• Dynamic Contrast: Adjusts the screen contrast.

- Black Tone: Selects the black level to adjust the screen depth. Darker settings make blacks look darker.
• Flesh Tone: Adjusts the amount of red in skin tones.
• Color Space: Auto automatically matches the range of colors (the variety and number of colors) available to create pictures with the color range of the video source.

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

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

DTSSurround Available in Standard sound mode only. DTS TruSurround is a patented DTS technology that solves the problem of playing 5.1 multichannel content through two speakers.

Table with 2 columns: Input Source, Picture Size. Rows for ATV, AV, Component (480, 480p) and DTV (1080i, 1080p), Component (1080i, 1080p), HDMI (720p, 1080i, 1080p).

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

- Change PIN: The Change PIN screen will appear. Choose any 4 digits for your PIN and enter them in Enter New PIN fields.
• Digital Caption Options: (Digital channels only) Size: Options include Default, Small, Standard and Large.
• Signal Strength: (Digital channels only) An HD channel's reception quality is either perfect or the channels are unavailable.

Setup Menu Lets you re-run the Plug & Play initial setup procedure.

Plug & Play Lets you re-run the Plug & Play initial setup procedure. Language Set the menu language. Choose between English, Español, and Français.

Setting the Time Time The time you set will appear when you press the INFO button. Clock: Set the clock so you can use the various timer features of the TV.

Other Channel Menu Functions Channel Mode Lets you select the channel list displayed when you press the CH/CHV (Channel) button on your remote.

Fine Tune Analog channels only. If the reception is clear, you do not have to fine tune the channel, as this is done automatically during the search and store operation.

Other Features Game Mode When you connect a game console such as a PlayStation™ or Xbox™ to your TV, you can enjoy a more realistic gaming experience.

Change PIN: The Change PIN screen will appear. Choose any 4 digits for your PIN and enter them in Enter New PIN fields. Digital Caption Options: (Digital channels only) Size: Options include Default, Small, Standard and Large.

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.

Auto Volume Because each station has its own broadcasting conditions, the volume may fluctuate each time you change the channel.

Channel Menu Memorizing Channels If you are not using a cable box or satellite box, 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.

Antenna (Switch to Cable / Switch to Air) Before your television can memorize the available channels, you must select your TV's signal source, Air (using an antenna) or Cable.

Auto Volume Because each station has its own broadcasting conditions, the volume may fluctuate each time you change the channel.

Channel Menu Memorizing Channels If you are not using a cable box or satellite box, 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.

Antenna (Switch to Cable / Switch to Air) Before your television can memorize the available channels, you must select your TV's signal source, Air (using an antenna) or Cable.

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.

Clear Scrambled Channel This function filters out scrambled channels after Auto Program is completed. This process may take 20-30 minutes.

Eco Solution Energy Saving: Lets you adjust the brightness of the TV to reduce power consumption. Picture Off: The screen is turned off, but the sound remains on.

Auto Protection Time If a still image remains on the screen for an amount of time you define, the screen saver is activated to prevent the formation of ghost images on the screen.

Support Menu Self Diagnosis Picture Test: Use to check for picture problems. If the problem appears in the test picture, select Yes and follow the directions on the screen.

Software Upgrade Software Upgrade can be performed by downloading the latest firmware from samsung.com to a USB memory device.

HD Connection Guide Refer to this information when connecting external devices to the TV. Contact Samsung View this information when your TV does not work properly or when you want to upgrade the software.

Managing Channels Channel List Screens icons are listed on the left side. Select an icon using the A/V buttons to view each list.

Channel List Tools Menu The Channel List Tools menu contains most of the functions you can use on the All Channel, Added Channels, and Favorite List screens.

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

Connecting a USB Device 1. Turn on your TV. 2. Connect a USB device containing photo, music, and/or movie files to the USB jack on the back of the TV.

Using the Media Play Menu To open Media Play in the Menu, follow these steps: 1. Application on the left, and then press the ENTER button.

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.

Software Upgrade Software Upgrade can be performed by downloading the latest firmware from samsung.com to a USB memory device.

HD Connection Guide Refer to this information when connecting external devices to the TV. Contact Samsung View this information when your TV does not work properly or when you want to upgrade the software.

Managing Channels Channel List Screens icons are listed on the left side. Select an icon using the A/V buttons to view each list.

Auto Volume Because each station has its own broadcasting conditions, the volume may fluctuate each time you change the channel.

Channel Menu Memorizing Channels If you are not using a cable box or satellite box, 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.

Antenna (Switch to Cable / Switch to Air) Before your television can memorize the available channels, you must select your TV's signal source, Air (using an antenna) or Cable.

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.

Clear Scrambled Channel This function filters out scrambled channels after Auto Program is completed. This process may take 20-30 minutes.

Eco Solution Energy Saving: Lets you adjust the brightness of the TV to reduce power consumption. Picture Off: The screen is turned off, but the sound remains on.

Auto Protection Time If a still image remains on the screen for an amount of time you define, the screen saver is activated to prevent the formation of ghost images on the screen.

Support Menu Self Diagnosis Picture Test: Use to check for picture problems. If the problem appears in the test picture, select Yes and follow the directions on the screen.

Software Upgrade Software Upgrade can be performed by downloading the latest firmware from samsung.com to a USB memory device.

HD Connection Guide Refer to this information when connecting external devices to the TV. Contact Samsung View this information when your TV does not work properly or when you want to upgrade the software.

Managing Channels Channel List Screens icons are listed on the left side. Select an icon using the A/V buttons to view each list.

Channel List Tools Menu The Channel List Tools menu contains most of the functions you can use on the All Channel, Added Channels, and Favorite List screens.

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

Connecting a USB Device 1. Turn on your TV. 2. Connect a USB device containing photo, music, and/or movie files to the USB jack on the back of the TV.

Using the Media Play Menu To open Media Play in the Menu, follow these steps: 1. Application on the left, and then press the ENTER button.

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.

Software Upgrade Software Upgrade can be performed by downloading the latest firmware from samsung.com to a USB memory device.

HD Connection Guide Refer to this information when connecting external devices to the TV. Contact Samsung View this information when your TV does not work properly or when you want to upgrade the software.

Managing Channels Channel List Screens icons are listed on the left side. Select an icon using the A/V buttons to view each list.

Channel Menu

Memorizing Channels If you are not using a cable box or satellite box, 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.

Antenna (Switch to Cable / Switch to Air) Before your television can memorize the available channels, you must select your TV's signal source, Air (using an antenna) or Cable.

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.

Clear Scrambled Channel This function filters out scrambled channels after Auto Program is completed. This process may take 20-30 minutes.

Eco Solution Energy Saving: Lets you adjust the brightness of the TV to reduce power consumption. Picture Off: The screen is turned off, but the sound remains on.

Auto Protection Time If a still image remains on the screen for an amount of time you define, the screen saver is activated to prevent the formation of ghost images on the screen.

Support Menu Self Diagnosis Picture Test: Use to check for picture problems. If the problem appears in the test picture, select Yes and follow the directions on the screen.

Software Upgrade Software Upgrade can be performed by downloading the latest firmware from samsung.com to a USB memory device.

HD Connection Guide Refer to this information when connecting external devices to the TV. Contact Samsung View this information when your TV does not work properly or when you want to upgrade the software.

Managing Channels Channel List Screens icons are listed on the left side. Select an icon using the A/V buttons to view each list.

Channel List Tools Menu The Channel List Tools menu contains most of the functions you can use on the All Channel, Added Channels, and Favorite List screens.

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

Connecting a USB Device 1. Turn on your TV. 2. Connect a USB device containing photo, music, and/or movie files to the USB jack on the back of the TV.

Using the Media Play Menu To open Media Play in the Menu, follow these steps: 1. Application on the left, and then press the ENTER button.

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.

Software Upgrade Software Upgrade can be performed by downloading the latest firmware from samsung.com to a USB memory device.

HD Connection Guide Refer to this information when connecting external devices to the TV. Contact Samsung View this information when your TV does not work properly or when you want to upgrade the software.

Managing Channels Channel List Screens icons are listed on the left side. Select an icon using the A/V buttons to view each list.

Channel List Tools Menu The Channel List Tools menu contains most of the functions you can use on the All Channel, Added Channels, and Favorite List screens.

Managing Channels

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

Channel List Tools Menu The Channel List Tools menu contains most of the functions you can use on the All Channel, Added Channels, and Favorite List screens.

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

Connecting a USB Device 1. Turn on your TV. 2. Connect a USB device containing photo, music, and/or movie files to the USB jack on the back of the TV.

Using the Media Play Menu To open Media Play in the Menu, follow these steps: 1. Application on the left, and then press the ENTER button.

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.

Software Upgrade Software Upgrade can be performed by downloading the latest firmware from samsung.com to a USB memory device.

HD Connection Guide Refer to this information when connecting external devices to the TV. Contact Samsung View this information when your TV does not work properly or when you want to upgrade the software.

Managing Channels Channel List Screens icons are listed on the left side. Select an icon using the A/V buttons to view each list.

Channel List Tools Menu The Channel List Tools menu contains most of the functions you can use on the All Channel, Added Channels, and Favorite List screens.

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

Connecting a USB Device 1. Turn on your TV. 2. Connect a USB device containing photo, music, and/or movie files to the USB jack on the back of the TV.

Using the Media Play Menu To open Media Play in the Menu, follow these steps: 1. Application on the left, and then press the ENTER button.

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.

Software Upgrade Software Upgrade can be performed by downloading the latest firmware from samsung.com to a USB memory device.

HD Connection Guide Refer to this information when connecting external devices to the TV. Contact Samsung View this information when your TV does not work properly or when you want to upgrade the software.

Managing Channels Channel List Screens icons are listed on the left side. Select an icon using the A/V buttons to view each list.

Channel List Tools Menu The Channel List Tools menu contains most of the functions you can use on the All Channel, Added Channels, and Favorite List screens.

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

- 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 video 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 number of files the TV can display, including sub folders, in one folder of a USB storage device is 2000.
- The media may not play smoothly if you use a USB device rated lower than USB 2.0.

## 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.

- 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
Xsub	AVI	Picture Format
SubStation Alpha	MKV	Text Format
Advanced SubStation Alpha	MKV	Text Format
SubRip	MKV	Text Format
MPEG-4 Timed text	MP4	Text Format

- Supported Video Formats

File Extension	Container	Video Codec	Resolution	Frame rate (fps)	Bit rate (Mbps)	Audio Codec
*.mp4	MP4	H.263, H.14, V.5.1E.0	1920x1080	6-30	30Mbps	MP3 / ADPCM / AAC
		H.264	1920x1080	6-30	30Mbps	
		AVC	1920x1080	6-30	30Mbps	
**.avi	AVI	MPEG2 SP	640x480	6-30	10Mbps	
		H.263, H.14, V.5.1E.0	1920x1080	6-30	30Mbps	MPEG / AC3 / LPCM / ADPCM / DTS Com
		MPEG2 SP	1920x1080	6-30	30Mbps	
**.asf	ASF	H.263, H.14, V.5.1E.0	1920x1080	6-30	30Mbps	MP3 / AC3 / LPCM / WMA
		MPEG2 SP	1920x1080	6-30	30Mbps	
		H.264	1920x1080	6-30	30Mbps	
**.ts	TS	MPEG2	1920x1080	6-30	30Mbps	AC3 / AAC / MP3 / DTS / HE-AAC
		H.264 BPI	1920x1080	6-30	30Mbps	
**.dat	PS	MPEG1	1920x1080	24/25/30	30Mbps	AC3 / MP3 / AAC
		MPEG2	1920x1080	24/25/30	30Mbps	
		H.264 BPI	1920x1080	6-30	30Mbps	
*.3gp	3GPP	MPEG4 SP	1920x1080	6-30	30Mbps	MP3
		H.264	1920x1080	6-30	30Mbps	
*.iv	IvM	H.264	1920x1080	6-30	30Mbps	MP3
		H.263	1920x1080	6-30	30Mbps	

## 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 contains an error, the Seek (Jump) function will not work.
- The menu may take longer to appear if the video's bit rate exceeds 10Mbps.
- Video content may not play if there is too much content 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, and 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 **◀▶** buttons 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 **◀▶** buttons.
  - **◀▶** (REW) and **▶▶** (FF) buttons do not function during play.

- 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**, and 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.
  - 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 **◀▶** (REW) or **▶▶** (FF) button.
  - You can move to other files using the **◀** 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 and YCKC color space JPEGs 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.

- **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 ENTER button, select **Play Folder**, and then press the ENTER button.

## Media Play - Additional Functions

- **Videos/Music/Photos Play Option menus**

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 video 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>Start Slide Show / Stop 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.	✓	✓	✓

## Using the Setup Menu

- **DiX® Video On Demand** : Shows the registration code authorized for the TV. If you connect to the web site and register with the 10-digit registration code, you can download the VOD activation file. Once you run the file using Media Play, the registration is completed.
- For more information on DiX® VOD, visit "http://vod.dvx.com."
- **Information** : Select to view information about the connected USB device.

## Other Information

- 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.

## Installing the Wall Mount Kit

- The wall mount kit is not supplied, but sold separately. Install your wall mount on a solid wall perpendicular to the floor. If you are attaching the wall mount to a wall made of building materials other than drywall, please contact your nearest dealer for information about the appropriate mounting hardware. If you install the TV on a ceiling or slanted wall, it may fall and result in severe personal injury.

- NOTE

- Standard dimensions for wall mount kits are shown in the table below.
- When purchasing our wall mount kit, a detailed installation manual and all parts necessary for assembly are provided.
- Do not use screws that do not comply with the VESA standard screw specifications.
- Do not use screws that are longer than the standard dimension or do not comply with the VESA standard screw specifications. Screws that are too long may cause damage to the inside of the TV set.
- For wall mounts that do not comply with the VESA standard screw specifications, the length of the screws may depend 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] x [B] in millimeters	Standard Screw	Quantity
LED-TV	19-22	75 x 75		4
	25-28	100 x 100	M4	
	32-42	200 x 200		
	46-60	400 x 400	M8	



## Securing the TV to the Wall

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

## To prevent the TV from falling

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

## Kensington Lock

- The Kensington Lock is not supplied by Samsung. It is a device used to physically fix the system when using it in a public place. Refer to the manual provided with the Kensington Lock for additional information on proper use.
- Please find a **Ⓛ** icon on the rear of the TV. The Kensington slot is beside the "Ⓛ" icon.
- The position and color may differ depending on the model.

## Display Modes (HDMI/DVI Input)

Optimal resolution: 1920 x 1080@90Hz

Mode	Resolution	Horizontal Frequency (KHz)	Vertical Frequency (Hz)	Pixel Clock Frequency (MHz)	Sync Polarity (H/V)
SBSM	720 x 480	31.469	70.067	28.522	-/+
	640 x 480	35.000	66.667	30.240	-/-
	852 x 624	49.726	74.551	57.284	-/-
MAC	1152 x 870	68.681	75.000	100.000	-/-
	640 x 480	31.469	59.940	25.175	-/-
	640 x 480	37.861	72.809	31.500	-/-
VESA DMT	640 x 480	37.500	75.000	31.500	-/-
	800 x 600	37.879	60.317	40.000	+/+
	800 x 600	48.067	72.188	50.000	+/+
VESA DMT	800 x 600	48.375	75.000	49.500	+/+
	1024 x 768	48.363	60.004	65.000	-/-
	1024 x 768	56.476	70.089	75.000	-/-
VESA DMT	1024 x 768	60.023	75.029	78.750	+/+
	1152 x 864	67.500	75.000	106.000	+/+
	1280 x 800	65.000	60.000	74.250	+/+
VESA DMT	1280 x 800	49.702	59.810	83.500	+/+
	1280 x 1024	63.981	60.020	106.000	+/+
	1280 x 1024	79.876	75.025	136.000	+/+
VESA DMT	1360 x 768	47.712	59.790	85.500	+/+
	1440 x 960	55.328	60.880	106.500	+/+
	1600 x 900	60.000	60.000	106.000	+/+
VESA DMT	1680 x 1050	65.290	59.954	146.250	-/-
	1920 x 1080	67.500	60.000	148.500	+/+

## Troubleshooting

- If the TV seems to have a problem, first review this list of possible problems and solutions. If none of these troubleshooting tips apply, visit [www.samsung.com](http://www.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 <b>Energy Saving</b> feature. Using your remote, follow the steps below to turn these features off or on. <ul style="list-style-type: none"> <li>• <b>Energy Saving : MENU -- Setup -- Eco Solution -- Energy Saving</b></li> </ul> </li> <li>• If you find that the color on your Samsung television's screen is not correct or black and white, first run a <b>Self Diagnosis</b> test on the TV to make sure there are no device issues. <ul style="list-style-type: none"> <li>• <b>Self Diagnosis : MENU -- Support -- Self Diagnosis -- Picture Test</b></li> </ul> </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, etc.</li> </ul> </li> </ul>
Component Connections / Screen Color	<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> and so on. Go to <b>Picture</b> on the User Menu, and then try adjusting these options.</li> </ul> </li> </ul>
Screen Brightness	<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 Timer settings or your Eco Friendly <b>No Signal Power Off</b> feature. First make sure your <b>Sleep Timer</b> is not accidentally set. The Sleep Timer allows you the comfort of falling asleep with the TV still on but, turns it off after a certain period of time so as not to waste energy. <ul style="list-style-type: none"> <li>• <b>Sleep Timer : MENU -- Setup -- Time -- Sleep Timer</b></li> <li>• If the Sleep Timer 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> </li> </ul>
Unwanted Powering off	<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. 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> </ul>
Trouble Powering On	<ul style="list-style-type: none"> <li>• If you have any trouble assembling the stand, refer to "Install the Stand" in the Start Up or Stand Installation Guide.</li> <li>• Cannot find channel: Re-run plug and play.</li> <li>• Poor picture: First, perform the <b>Picture Test</b> and to see if your TV is properly displaying the test image. Go to <b>MENU - Support - Self Diagnosis - Picture Test</b>. 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. <ul style="list-style-type: none"> <li>• Many HD channels broadcast SD contents upscaled to HD. The picture quality of upscaled SD content is low.</li> <li>• Adjust the Cable/Set top box video output resolution to 1080i or 720p.</li> </ul> </li> <li>• Compression of video contents may cause picture distortion, especially on fast moving pictures such as pictures from 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> </ul> </li> <li>• If you're using a component connection, make sure the component cables are connected to the correct jacks. Incorrect or loose connectors may cause color problems or a blank screen.</li> </ul>
The picture is distorted: macroblock error, small block, dots, pixelization.	<ul style="list-style-type: none"> <li>• Adjust the <b>Picture</b> 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 view the default picture setting. (Go to <b>MENU - Picture - Picture Reset</b>)</li> </ul>
The picture is distorted: macroblock error, small block, dots, pixelization.	<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>
Color is wrong or missing.	<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> </ul>
There is poor color or brightness.	<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>
There is a dotted line on the edge of the screen.	<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> </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> </ul>

- 9 -

- 10 -

- 11 -

- 12 -

Problem	Possible Solution
When changing channels, the picture freezes or is distorted or delayed.	<ul style="list-style-type: none"> <li>• If the TV is connected to a cable box, reset the cable box. (Disconnect and then reconnect the box's AC cord and wait until the cable box reboots. It may take up to 30 minutes.)</li> <li>• Set the output resolution of the cable box to 1080i or 720p.</li> </ul>
Sound Problem	<ul style="list-style-type: none"> <li>• Perform the <b>Sound Test</b> to confirm your TV's audio is working properly. (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> <li>• There is no sound or the sound is too low at maximum volume. Check the volume control of the device (Cable/Sat Box, DVD, Blu-ray, etc.) connected to your TV.</li> <li>• 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 option if you have the cable box's audio output connected to your TV using an HDMI cable.</li> <li>• Reboot the connected device by unplugging and then reconnecting the device's power cable.</li> </ul> </li> <li>• 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> </li> </ul>
No Picture, No Video	<ul style="list-style-type: none"> <li>• 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 caused by the remote. If the TV turns on, refer to "Remote control does not work" below.</li> </ul> </li> <li>• 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 into the wall outlet and TV securely.</li> <li>•</li></ul></li></ul>