

LED TV user manual

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

IMPORTANT WARRANTY INFORMATION REGARDING TELEVISION FORMAT VIEWING

See the warranty card for more information on warranty terms.

Wide screen format LED Displays (with 16:9 aspect ratio, the ratio of the screen width to height) are primarily designed to view wide screen format full-motion video. The images displayed on them should primarily be in the wide screen, 16:9 ratio format, or expanded to fill the screen, if your model offers this feature, with the images constantly in motion. Displaying stationary graphics and images on the screen, such as the dark sidebars on non-expanded standard format television video and programming, should be limited to no more than 5% of the total television viewing time per week.

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

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

Be careful about the television formats you select and the length of time you view them. Uneven LED aging as a result of format selection and use, as well as burned in images, are not covered by your Samsung limited warranty.

SAMSUNG ELECTRONICS NORTH AMERICAN LIMITED WARRANTY STATEMENT

Subject to the requirements, conditions, exclusions and limitations of the original Limited Warranty supplied with Samsung Electronics (SAMSUNG) products, and the requirements, conditions, exclusions and limitations contained herein, SAMSUNG will additionally provide Warranty Repair Service in the United States on SAMSUNG products purchased in Canada, and in Canada on SAMSUNG products purchased in the United States, for the warranty period originally specified, and to the Original Purchaser only.

The above described warranty repairs must be performed by a SAMSUNG Authorized Service Center. Along with this Statement,



BN68-08225U-00

the Original Limited Warranty Statement and a dated Bill of Sale as Proof of Purchase must be presented to the Service Center. Transportation to and from the Service Center of TVs 40" or smaller is the responsibility of the purchaser. Conditions covered are limited only to manufacturing defects in material or workmanship, and only those encountered in normal use of the product. Exclusions include, but are not limited to, any originally specified repairs for in-home or on-site services, minimum or maximum repair times, exchanges or replacements, accessories, options, upgrades, or consumables. For the location of a SAMSUNG Authorized Service Center, please call toll-free:

In the United States: 1-800-SAMSUNG (1-800-726-7864)

In Canada: 1-800-SAMSUNG

Still image warning

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

- 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. Values that exceed the minimum may speed up the burn-in process.

Contact SAMSUNG WORLDWIDE

If you have any questions or comments relating to Samsung products, please contact the SAMSUNG customer care center.

Country	CANADA	U.S.A
Address	Samsung Electronics Canada Inc. 2050 Derry Road West, Mississauga, Ontario L5N 0B9 Canada	Samsung Electronics America, Inc. 85 Challenger Road Ridgefield Park, NJ 07660
Customer Care Center	1-800-SAMSUNG (726-7864)	
Web Site	www.samsung.com/ca/support (English) www.samsung.com/ca_fr/support (French)	www.samsung.com/us/support

The On Screen Menus

Your TV has two kinds of menus, the Main menu and the various Tools menus. The Main menu gives you access to most or all of the menu options available on your TV. The Tools menus display a selected number of frequently used menu options that change depending on the screen you are viewing. A Tools menu symbol (☞) in the lower right side of the screen indicates that a Tools menu is available.

The Main menu has seven primary categories:

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

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

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

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

Picture Menu

Mode

Select your preferred picture mode.

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

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

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

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

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

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

Sharpness: Sharpens or dulls the edges of objects.

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

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

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

Picture Options

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

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

Warm is deactivated when the picture mode is set to **Dynamic**.

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.

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.

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

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

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

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

HD (High Definition) has a 16:9 aspect ratio and 1080i/1080p (1920x1080) or 720p (1280x720) resolution.

You can adjust and store settings for each external device you have connected to an input on the TV. Picture Sizes available by Input Source are listed below:

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

Digital Clean View (Off / Low / Medium / High / Auto): If the broadcast signal received by your TV is weak, you can activate the Digital Clean View feature to reduce any static and ghosting that may appear on the screen.

When the signal is weak, try all the Digital Clean View options until the TV displays the best picture.

HDMI Black Level (Normal / Low): For HDMI signals, select the black level to adjust the screen depth. Low make blacks look darker.

Available only in HDMI mode (RGB signals).

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

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

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

Picture Off

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

Picture Reset

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

Sound Menu

Mode

Standard: Selects the normal sound mode.

Music: Emphasizes music over voices.

Movie: Provides the best sound for movies.

Clear Voice: Emphasizes voices over other sounds.

Equalizer

Available in Standard sound mode only.

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

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

Reset: Resets the equalizer to its default settings.

Auto Volume

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

Speaker Select

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

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

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

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

Preferred Language

Digital 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**.

SPDIF Output

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

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

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

Visually Impaired

(digital channels only)

Add a verbal description to the main audio to help the visually impaired.

Dolby Digital Comp

Sets Dolby Digital compression mode.

HDMI Audio Format

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

Sound Reset

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

Channel Menu

Memorizing Channels

When you first set up your TV using **Plug & Play**, the TV memorized the channels that were available over the air or through your cable system and added them to the **Channel List**. The **Antenna** and **Auto Program** functions described below 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**. If you are using a cable or satellite box, you do not need to run the **Auto Program** function.

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

1. Push MENU → **Channel** → **Auto Program** → ENTER on your remote. The Antenna Source screen appears.

2. On the Antenna Source screen, select the source of your TV signal.

Air

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

Cable

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

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 Channels** screen, pressing the ▲ / ▼ buttons, and then pressing the ENTER button.



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

All deleted channels will be shown on the **All Channels** list. You add channels back to the **Added Channels** list on the **All Channels** list.

A gray-colored channel indicates the channel has been deleted from the **Added Channels** list.

The **Add** menu option only appears for deleted channels.

-1-

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

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

To delete channels from the **Favorite Channels** 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 set time, even when you are watching another channel. You must set the current time first in the **Time > Clock** function to use **Timer 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 **Timer Viewing** in the Tools menu, and then press the ENTER button. The Timer 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 Schedules** 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 **Timer Viewing Info** screen appears.

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

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

-5-

Other Channel Menu Functions

Channel Mode (Added Channels/Favorite Channels)

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

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 **Timer 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 **Timer 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.

Videos



- In the **Media Play** menu, press the ◀ or ▶ button to select **Videos**, and then press the ENTER button.
- Press the ◀/▶/▲/▼ buttons to select a video in the file list.
- 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	.smi
SubRip	.srt
SubViewer	.sub
Micro DVD	.sub or .txt
SubStation Alpha	.ssa
Advanced SubStation Alpha	.ass

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
*.avi		Motion JPEG	640x480		8	
*.mkv		H.264 BP/MP9HP				Dolby Digital LPCM
*.asf		H.264 BP/MP1HP				ADPCM (IMA, MS)
*.wmv	AVI	H.264 BP/MP1HP				LPCM
*.mp4	MKV	Divx 3.11 / 4 / 5 / 6				AAC
*.mpg	ASF	MPEG4 SP/ASP				HE-AAC WMA
*.3gp	3GP	MPEG4 SP/ASP				Dolby Digital Plus
*.mpeg	MOV	Window Media Video v9(VCI)	1920x1080	MAX 30	30	MPEG(MP3) DTS (E-ore, LBR)
*.mpeg	FLV	MPEG2				G.711(A-Law, μ-Law)
*.ts	VRO					
*.tp	VOB					
*.ps	PS					
*.mov	TS					
*.flv						
*.divx		MPEG1				
*.dat						
*.webm	WebM	VP8	1920x1080	6-30	20	Vorbis

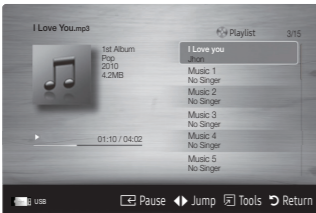
Other Restrictions

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

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

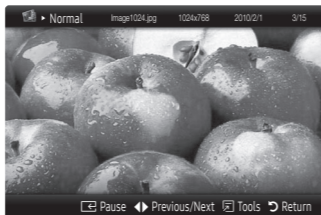
Audio Decoder
WMA 10 Pro supports up to 5.1 channels. Supports up to the M2 profile. WMA lossless audio is not supported.
QCELPL and AMR NB/WB are not supported.
Dolby Digital Plus is supported for up to 5.1 channels. The DTS LBR codec is only available for MKV / MP4 / TS containers.

Music



- In the **Media Play** menu, press the ◀ or ▶ button to select **Music**, and then press the ENTER button.
- Press the ◀/▶/▲/▼ buttons to select the desired Music in the file list.
- Press the ENTER button or ▶ (Play) button.
 - During music playback, you can search using the ◀ and ▶ button.
 - ☞ The ◀ (REW) and ▶ (FF) buttons do not function during play.
 - ☞ Media Play only displays files with an MP3 or PCM file extension. Other file extensions are not displayed, even if they are saved on the same USB device.
 - ☞ If the sound is abnormal when the TV plays MP3 files, adjust the **Equalizer** in the **Sound** menu. (An over-modulated MP3 file may cause a sound problem.)

Photos



- In the **Media Play** menu, press the ◀ or ▶ button to select **Photos**, then press the ENTER button.
- Press the ◀/▶/▲/▼ buttons to select a photo in the file list.
- Press the ENTER button or ▶ (Play) button.
 - NOTE**
 - While a photo list is displayed, press the ▶ (Play) / ENTER button on the remote control to start a slide show.
 - All files in the file list section will be displayed in the slide show.
 - During the slide show, files are displayed in order.
 - During the slide show, you can adjust the slide show speed using (◀) (REW) or (▶) (FF) button.
 - You can move to other files using ◀ or ▶ button.
 - ☞ **Media Play** can play Music files automatically during a Slide Show if **Background Music** is set to **On**.
 - ☞ You cannot change the **Mode** in **Background Music** until the **Background Music** file has finished loading.
- Supported Photo Formats

Image	Photo	Resolution
JPEG	Base-line	15360 x 8640
	Progressive	1024 x 768

Other Restrictions

- CMYK, YCKC Color space JPEGS are not supported.

Playing Multiple Files

- Playing selected video/music/photo files

- On the File List screen, highlight a file, and then press the Yellow button on your remote.
- Repeat Step 1 to select multiple files.
 - NOTE**
 - A ◀ mark appears to the left of the selected files.
 - To cancel a selection, press the Yellow button again.
 - To deselect all selected files, press the TOOLS button, select **Deselect All**, and then the ENTER button.
- Press the TOOLS button, select **Play Selected Contents**, and then press the ENTER button.

- Playing a video/music/photo folder
 - During music playback, you can search using the ◀ and ▶ button.

- With the folders on your USB device displayed, use the ◀/▶/▲/▼ buttons to highlight a folder.
- Press the TOOLS button, select **Play Folder**, and then press the ENTER button.

Media Play - Additional Functions

- Videos/Music/Photos Play Option menus** When playing a file, press the TOOLS button.

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

Settings

Using the Setup Menu

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

Using Sports Mode TOOLS

This mode provides optimized conditions for watching soccer and other sports.

- Zoom:** Pauses playback and divides the picture into 9 parts. Select a part to zoom it in.

- When **Sports Mode** is **On**, the picture and sound modes are set to **Stadium** automatically.
- If you turn the TV off while **Sports Mode** is on, **Sports Mode** is turned off.

Support Menu

Self Diagnosis

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

■ **Sound Test:** Use the built-in melody sound to check for sound problems. If the problem occurs during the test, select Yes and follow the directions on the screen.

■ **Signal Strength:** (Digital channels only) An HD channel's reception quality is either perfect or the channels are unavailable. Adjust your antenna to increase signal strength.

■ **Reset:** Reset all settings to the factory defaults.

- ☞ The PIN input screen appears before the setup screen.
- ☞ Enter your 4-digit PIN. Change the PIN using the **Change PIN** option.

Software Upgrade

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

Use Mode

You can turn the TV into a display model for retail environments by setting Use Mode to **Store Demo**.

- For all other uses, select **Home Use**.

- With **Store Demo**, some functions are disabled, and the TV automatically resets itself after a preset amount of time.

HD Connection Guide

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

Contact Samsung

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

Other Information

Installing the Wall Mount Kit

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

For detailed information about installing the wall mount, see the instructions provided with the wall mount 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.

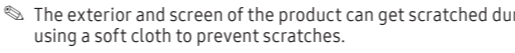
Install your wall mount on a solid wall perpendicular to the floor. When attaching to other building materials, please contact your nearest dealer. If you install the TV on a ceiling or slanted wall, it may fall and result in severe personal injury.

- 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.

- 11 -

Storage and Maintenance

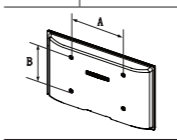
- ☞ If a sticker was attached to the TV screen, some debris can remain after you remove the sticker. Please clean it before watching the TV.
- ☞ The exterior and screen of the product can get scratched during cleaning. Be sure to wipe the exterior and screen carefully using a soft cloth to prevent scratches.



Do not spray water directly onto the product. Any liquid that goes into the product may cause a failure, fire, or electric shock.

- 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



⚠ Do not install your Wall Mount Kit while your TV is turned on. It may result in personal injury due to electric shock.

Securing the TV to the Wall

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

To prevent the TV from falling

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

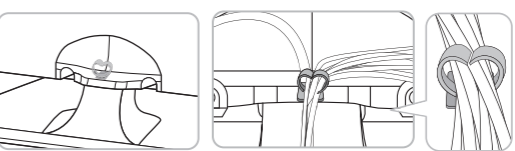
- Insert the screws into the wall brackets and firmly fasten them to the wall. Make sure the screws are firmly fixed to the wall.
- We strongly recommend you drive the screws into a stud.
- Using screws, insert the screws through the TV brackets, and then fasten the screws to the top VESA screw holes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

Kensington Lock

The Kensington Lock is not supplied by Samsung. It is a device used to physically fix the system when using it in a public place. Refer to the manual provided with the Kensington Lock for additional information on proper use.

- ☞ Please find a "K" icon on the rear of the TV. The Kensington slot is beside the "K" icon.
- ☞ The position and color may differ depending on the model.

Assembling the Cable manager



Mode	Resolution	Horizontal Frequency (MHz)	Vertical Frequency (MHz)	Pixel Clock Frequency (MHz)	Sync Polarity (/V)	1366 x 768
IBM	640 x 350	31.469	70.086	25.375	+/-	✓
	720 x 400	31.469	70.087	26.322	-/+	✓
	640 x 480	35.000	66.667	30.000	-/+	✓
	832 x 624	49.726	74.551	57.884	-/+	✓
	1152 x 870	68.881	75.062	100.000	-/+	✓
	640 x 480	31.469	69.960	25.375	-/+	✓
	640 x 480	37.861	72.889	31.500	-/+	✓
	640 x 480	37.500	75.000	31.500	-/+	✓
	800 x 600	37.879	60.317	40.000	+/+	✓
	800 x 600	48.077	72.988	50.000	+/+	✓
	800 x 600	48.875	75.000	49.500	+/+	✓
	1024 x 768	48.363	60.004	65.000	-/+	✓
	1024 x 768	54.476	70.669	75.000	-/+	✓
	1024 x 768	60.023	75.029	78.750	+/-	✓
	1152 x 864	67.500	75.000	108.000	+/+	✓
	1280 x 720	45.000	60.000	74.250	+/-	✓
	1280 x 800	49.702	59.810	83.500	-/+	✓
	1280 x 1024	63.981	60.020	108.000	+/+	✓
	1366 x 768	67.712	59.790	85.500	+/+	✓
	1440 x 900	55.935	59.887	104.500	+/+	✓
	1600 x 900iB	60.000	60.000	108.000	+/+	✓
	1680 x 1050	65.290	59.954	144.250	-/+	✓
	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 solution. If none of these troubleshooting tips apply, visit [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	<p>If your Samsung Television is flickering or dimming sporadically, you may need to disable some of its energy efficiency features such as the Energy Saving feature. Follow the steps below with your remote to turn these features off or on.</p> <ul style="list-style-type: none">Energy saving : MENU → Setup → Eco Solution → Energy Saving → Select Settings <p>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.</p> <ul style="list-style-type: none">Self Diagnosis : User Menu → Support → Self Diagnosis → Picture Test If the test is ok, try making sure ; <ul style="list-style-type: none">Your connections are all consistent. For example, if you've used the AV In jack on your TV, make sure you have used the AV Out Jack on your video source. Try making sure you have connected to the correct jacks. For example, if you use the Component jacks, labeled Pb, Pr, and Y, to connect your TV and video source, make sure you have connected the blue Pb jack on the video source to the blue Pb jack on the TV, the red Pr jack on the source to the red Pr jack on the TV, etc.
Component Connections / Screen Color	
Screen Brightness	<p>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.</p> <ul style="list-style-type: none">Backlight, Contrast, Brightness, Sharpness, Color, Tint and so on. Go to "Picture" in the Menu, and then try adjusting these options.
Unwanted Powering off	<p>If your Samsung TV appears to turn off by itself, there may be an issue with either your Timer settings or your Eco friendly No Signal Power Off feature.</p> <p>First make sure the Sleep Timer is not accidentally set. The Sleep Timer lets you fall asleep with the TV still on knowing that it will turn off after a certain period of time and not waste energy.</p> <ul style="list-style-type: none">Sleep Timer : User Menu → Setup → Time → Sleep Timer <p>If the Sleep Timer is not activated, you may have engaged the No Signal Power Off or Auto Power Off feature.</p> <ul style="list-style-type: none">No Signal Power Off : User Menu → Setup → Eco Solution → No Signal Power Auto Power Off : User Menu → Setup → Eco Solution → Auto Power Off

- 9 -

Trouble Powering On	<p>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.</p> <p>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.</p> <ul style="list-style-type: none">If you happen to be using the TV as a monitor and the stand-by light only blinks for a few seconds when you press the power button, your PC is in sleep mode. To take your PC out of sleep mode, press a key on your keyboard or move the mouse. Then try turning your TV on. <p>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 channels to 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.</p>
Stand Assembly	<ul style="list-style-type: none">If you have any trouble assembling the stand, refer to "Install the Stand" in the Start Up or Stand Installation Guide.
Cannot find a channel	<ul style="list-style-type: none">Re-run Plug & Play or run Auto Program. (Go to MENU - Channel - Auto Program)
Poor Picture	<p>First, perform the Picture Test and to see if your TV is displaying the test image properly. Go to MENU - Support - Self Diagnosis - Picture Test</p> <p>If the test image is properly displayed, the poor picture may be caused by the source or signal.</p> <ul style="list-style-type: none">If you have an analog cable/satellite box, upgrade to a digital set top box. Use HDMI or Component cables to deliver HD (high definition) picture quality. Cable/Satellite subscribers: Try HD channels from the channel line. Air/Cable Antenna connection: Try HD channels after running Auto Program. ☞ Many HD channels broadcast up scaled SD (Standard Definition) content. The picture quality of up scaled SD content is low. Adjust the Cable/Set top box video output resolution to 1080i or 720p.
The TV image does not look as good as it did in the store.	<ul style="list-style-type: none">If you have an analog cable/satellite box, upgrade to a digital set top box. Use HDMI or Component cables to deliver HD (high definition) picture quality. Cable/Satellite subscribers: Try HD channels from the channel line. Air/Cable Antenna connection: Try HD channels after running Auto Program. ☞ Many HD channels broadcast up scaled SD (Standard Definition) content. The picture quality of up scaled SD content is low. Adjust the Cable/Set top box video output resolution to 1080i or 720p.
The picture is distorted has macroblock error, small block, dots, pixelization.	<ul style="list-style-type: none">Compression of video contents may cause picture distortion, especially on fast moving pictures such as those in sports and action movies. A weak signal can cause picture distortion. This is not a TV problem. Mobile phones used close to the TV (within 3.3ft) may cause noise in the picture on analog and digital channels.
The color is wrong or missing.	<ul style="list-style-type: none">If you're using a component connection, make sure the component cables are connected to the correct jacks. Incorrect or loose connections may cause color problems or a blank screen.
There is poor color or brightness.	<ul style="list-style-type: none">Adjust the Picture options in the TV menu. (Go to Picture Mode / Color / Brightness / Sharpness) Adjust the Energy Saving option in the TV menu. (Go to MENU - Setup - Eco Solution - Energy Saving) Try resetting the picture to the default picture settings. (Go to MENU - Picture - Picture Reset)
There is a dotted line on the edge of the screen.	<ul style="list-style-type: none">If the picture size is set to Screen Fit, change it to 16:9. Change the cable/satellite box resolution.
The picture is black and white.	<ul style="list-style-type: none">If you are using an AV composite input, connect the video cable (yellow) to the Green jack of Component Input 1 on the TV.