



# LED TV

## user manual

SERIES **45**

4000  
4050  
5000  
5050  
5070

### 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 is 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 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. Transportation to and from the Service Center is the responsibility of the purchaser. Conditions covered are limited only to manufacturing defects in material or workmanship, and only those encountered in normal use of the product. Excluded, but not limited to, are any originally specified provisions for in-home or on-site services, minimum or maximum repair times, exchanges or replacements, accessories, options, upgrades, or consumables.

For the location of a SAMSUNG Authorized Service Center, please call toll-free: 1-800-449-9611. In the United States: 1-800-SAMSUNG (1-800-726-7864)

— In Canada: 1-800-SAMSUNG



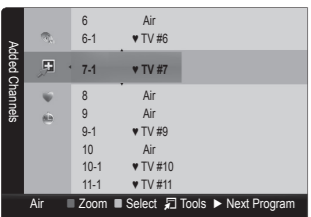
BN98-04499-01

## Channel Menu

### Seeing Channels

#### Channel List

Add, delete or set Favorite channels and use the program guide for digital broadcasts. Select a channel in the **All Channels, Added Channels, Favorite or Programmed** screen by pressing the **▲ / ▼** buttons, and pressing the **ENTER** button. Then you can watch the selected channel.



- All Channels:** Shows all currently available channels.
- Added Channels:** Shows all added channels.
- Favorite:** Shows all favorite channels.
- Programmed:** Shows all currently reserved programs.

Using the remote control buttons with the **Channel List**

- Green (Zoom):** Enlarges or shrinks a channel number.
- Yellow (Select):** Selects multiple channel lists. Select desired channels and press the Yellow button to set all the selected channels at the same time. The **✓** mark appears to the left of the selected channels.
- Tools:** Displays the Channel List option menu. (The Options menu may differ depending on the situation.)

#### Channel Status Display icons

| Icons | Operations                           |
|-------|--------------------------------------|
|       | A channel selected.                  |
|       | A channel set as a Favorite.         |
|       | A reserved program.                  |
|       | A program currently being broadcast. |

### Memorizing channels

#### Antenna (Air / Cable)

Before your television can begin memorizing the available channels, you must specify the type of signal source that is connected to the TV (i.e. an Air or a Cable system).

#### Auto Program

When selecting the Cable TV system: Selects the cable system. **STD, HRC** and **IRC** identify various types of cable TV systems. Contact your local cable company to identify the type of cable system that exists in your particular area. At this point, the signal source has been selected.

After all the available channels are stored, it starts to remove scrambled channels. The **Auto program** menu then reappears.

Press the **ENTER** button to stop the channel store during **Auto Program**.

### Still image warning

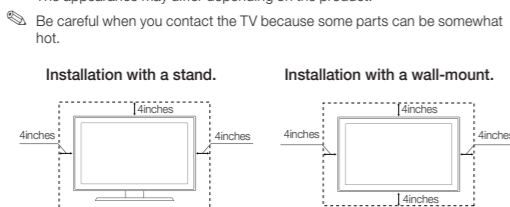
Avoid displaying still images (such as jpeg picture files) or still image elements (such as TV channel logos, panorama or 4:3 image format, stock or news bars at screen bottom etc.) on the screen. Constant displaying of still pictures can cause ghosting of LED screen, which will affect image quality. To reduce risk of this effect, please follow below recommendations:

- Avoid displaying the same TV channel for long periods.
- Always try displaying any image on full screen, use TV set picture format menu for best possible match.
- Reduce brightness and contrast values to minimum required to achieve desired picture quality, exceeded values may speed up the burnout process.
- Frequently use all TV Features designed to reduce image retention and screen burnout, refer to proper user manual section for details.

### Securing the Installation Space

Keep the required distances between the product and other objects (e.g. walls) to ensure proper ventilation. Failing to do so may result in fire or a problem with the product due to an increase in the internal temperature of the product.

- When using a stand or wall-mount, use parts provided by Samsung Electronics only.
- If you use parts provided by another manufacturer, it may result in a problem with the product or an injury due to the product falling.
- The appearance may differ depending on the product.
- Be careful when you contact the TV because some parts can be somewhat hot.



**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  |
|-------------------------------|---|--|
| <b>Address</b>                | Samsung Electronics Canada Inc., Customer Service 55 Standish Court Mississauga, Ontario L5R 4S2 Canada | Samsung Electronics America, Inc. 85 Challenger Road Ringfield, NJ 07069 |
| <b>Customer Care Center ☎</b> | 1-800-SAMSUNG (726-7864)  |  |
| <b>Web Site</b>               | www.samsung.com/ca (English)<br>www.samsung.com/ca_fr (French)  | www.samsung.com/us   |

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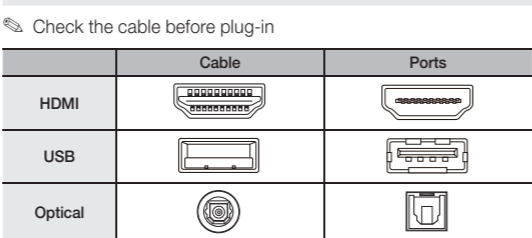
## Getting Started

### Accessories

- Remote Control (AA59-00600A) & Batteries (AAA x 2)
- Warranty Card / Safety Guide
- Owner's Instructions
- Power Cord
- RS232 (AA38-0031A)
- Audio
- HDMI
- HDMI-DM
- Component
- Composite (AV)
- Coaxial (RF)

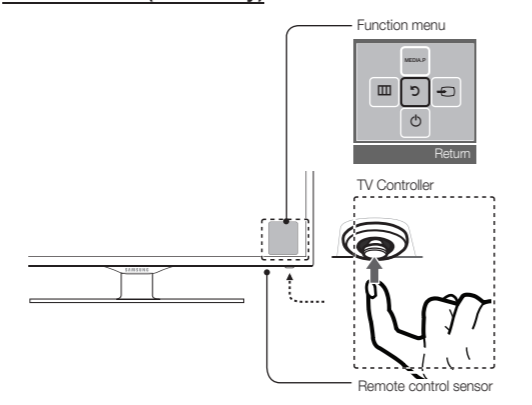
### Input Cables (Sold Separately)

- HDMI
- USB
- Optical



Do not plug cable upside down. Be sure to check before plug-in.

### TV Controller (Panel Key)



|                                 |   |
|---------------------------------|---|
| <b>Power on</b>                 | Turns the TV on by pressing the controller in standby mode.   |
| <b>Adjusting the volume</b>     | Adjusts the volume by moving the controller from side to side when the power is on.   |
| <b>Selecting a channel</b>      | Selects a channel by moving the controller up and down when the power is on.  |
| <b>Using the function menu</b>  | Presses the controller when the power is on, then the function menu screen appears. If you press it again, the function menu screen disappears. |
| <b>Selecting the Media Play</b> | Selects the <b>MEDIA P</b> by moving the controller in the function menu screen. The <b>Media Play</b> main screen appears.                     |
| <b>Selecting the MENU</b> (M)   | Selects the <b>MENU</b> by moving the controller in the function menu screen. The OSD/On-Screen Display of your TV's feature appears.           |
| <b>Selecting the Source</b> (S) | Selects the <b>Source List</b> (S) by moving the controller in the function menu screen. The <b>Source List</b> screen appears.                 |
| <b>Power Off</b> (C)            | Selects the <b>Power Off</b> (C) by turn the TV off by moving the controller in the function menu screen.                                       |

Exits the menu when pressing the controller more than 1 second.

### Channel Mode

Change the channel mode directly between **Added Channels** and **Favorite Channels**.

- The **Favorite Channels** is enabled only when you set **Add to Favorite**.

### Fine Tune

(analog channels only)

If the reception is clear, you do not have to fine tune the channel, as this is done automatically during the search and store operation. If the signal is weak or distorted, fine tune the channel manually.

- Fine tuned channels that have been saved are marked with an asterisk "\*" on the right-hand side of the channel number in the channel banner.
- To reset the fine-tuning, select **Reset**.

## Picture Menu

### Mode

Select your preferred picture type.

- When connecting a PC, you can only select **Entertain** and **Standard**.

- Dynamic:** Suitable for a bright room.
- Standard:** Suitable for a normal environment.
- Movie:** Suitable for watching movies in a dark room.
- Entertain:** Suitable for watching movies and games.
- Only available when connecting a PC.

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

Your television has several setting options for picture quality control.

- When connecting a PC, you can only make changes to **Backlight, Contrast, Brightness and Sharpness**

**Advanced Settings** (available in **Standard / Movie** mode)

Compared to previous models, new Samsung TVs have a more precise picture.

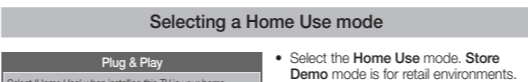
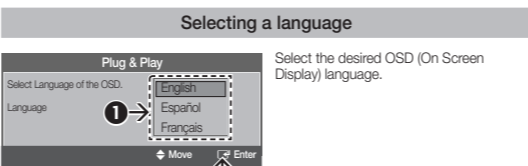
- When connecting a PC, you can only make changes to **Gamma** and **White Balance**.
- Color Space (Auto / Native):** Adjusts the range of colors available to create the image.
- White Balance:** Adjusts the color temperature for a more natural picture.
- R-Offset / G-Offset / B-Offset:** Adjusts each color's (red, green, blue) darkness.
- R-Gain / G-Gain / B-Gain:** Adjusts each color's (red, green, blue) brightness.
- Reset:** Resets the **White Balance** to it's default settings.
- Gamma:** Adjusts the primary color intensity.
- Dynamic Contrast (Off / Low / Medium / High):** Adjusts the screen contrast.
- Black Tone (Off / Dark / Darker / Darkest):** Select the black level to adjust the screen depth.
- Flesh Tone:** Emphasize pink "flesh tone".
- Motion Lighting (Off / On):** Reduce power consumption by brightness control adapted motion.
- Available in **Standard** mode only.

When selecting the picture by moving the controller to the up/down/left/right directions, be sure not to press the controller. If you press it first, you cannot operate it to move the up/down/left/right directions.

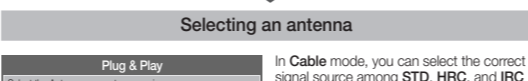
### Plug & Play (Initial Setup)

When you turn the TV on for the first time, a sequence of on-screen prompts will assist in configuring basic settings. Press the **POWER** button. **Plug & Play** is available only when the Input source is set to TV.

- Connecting the power cord and antenna. (refer to 'Connections')



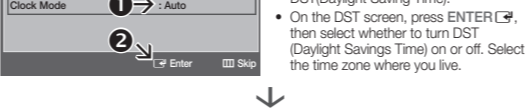
- Select the **Home Use mode**. **Store Demo** mode is for retail environments.
- When pressing TV controller, the function menu screen appears. Select the **MENU** and press it more than 5 seconds using the controller. The **Store Demo** mode is set. Cancel the **Store Demo** by selecting **Source List** (S) and pressing it more than 5 seconds.



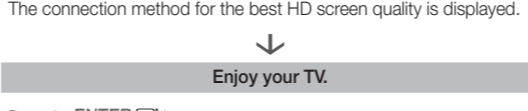
In **Cable mode**, you can select the correct signal source among **STD, HRC, and IRC** by pressing the **▲, ▼, ◀, ▶** button.



- Turns the TV on by pressing the controller automatically or manually.
- If you select the **Auto**, set the **DST(Daylight Saving Time)**.
- On the **DST** screen, press **ENTER**, then select whether to turn **DST (Daylight Saving Time)** on or off. Select the time zone where you live.



The connection method for the best HD screen quality is displayed.



Press the **ENTER** button.

Exits the menu when pressing the controller more than 1 second.

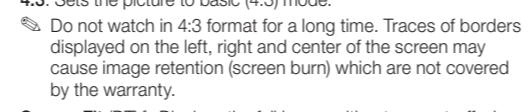
### Picture Options

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

- Color Tone (Cool / Standard / Warm1 / Warm2)**
- Warm1 or Warm2** will be deactivated when the picture mode is **Dynamic**.

- Size:** Your cable box/satellite receiver may have its own set of screen sizes as well. However, we highly recommend you use 16:9 mode most of the time.
- 16:9:** Sets the picture to 16:9 wide mode.
- Zoom1:** Use for moderate magnification.
- Zoom2:** Use for a stronger magnification.
- Wide Fit:** Enlarges the aspect ratio of the picture to fit the entire screen.
- 4:3:** Sets the picture to basic (4:3) mode.
- Do not watch in 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 are not covered by the warranty.
- Screen Fit (DTV):** Displays the full image without any cut-off when HDMI (720p / 1080i / 1080p) or Component (1080i / 1080p) signals are input.
- HD High Definition:** 16:9 - 1080i/1080p (1920x1080), 720p (1280x720)
- Settings can be adjusted and stored for each external device you have connected to an input on the TV.
- Picture Sizes available by Input Source:**

| 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 Noise Filter (Off / Low / Medium / High / Auto):** If the broadcast signal received by your TV is weak, you can activate the **Digital Noise Filter** feature to reduce any static and ghosting that may appear on the screen.
- When the signal is weak, try other options until the best picture is displayed.
- HDMI Black Level (Normal / Low):** Selects the black level on the screen to adjust the screen depth.
- Available only in **HDMI** mode (RGB signals).
- Film Mode (Off / Auto):** 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)**.
- LED Motion Plus (Off / On):** Removes drag from fast scenes with a lot of movement to provide a clear picture.

**Picture Reset**

Resets your current picture mode to its default settings.

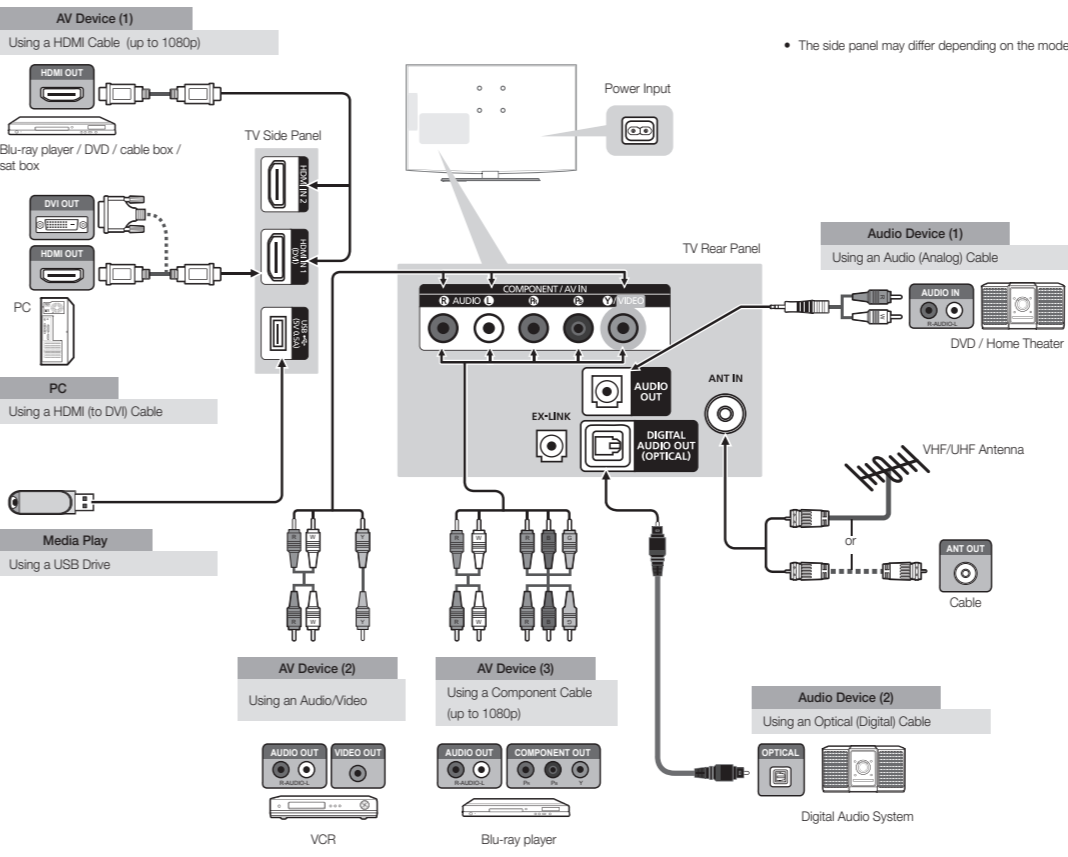
- Reset Picture Mode:** Returns all picture values in the currently selected mode to the default settings.

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.
- 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.

## Connections

- For better picture and audio quality, connect to a digital device using an HDMI cable.
- The picture may not display normally if all or the audio may not work if an external device that uses an older version of HDMI mode is connected to the TV. If such a problem occurs, ask the manufacturer of the external device about the HDMI version and, if out of date, request an upgrade.
- Be sure to purchase a certified HDMI cable. Otherwise, the picture may not display or a connector error may occur.
- PC(D-Sub)** and **PC(DVI) Audio IN** input are not supported.
- For **HDMI/DVI** cable connection, you must use the **HDMI IN 1(DVI)** jack.
- Connecting through the **HDMI** cable may not be supported depending on the PC.
- If an **HDMI to DVI** cable is connected to the **HDMI IN 1(DVI)** port, the audio does not work.
- EX-LINK**: Connector for service only.



## Changing the Input Source

### Source List

Use to select TV or an external input source such as a DVD player / Blu-ray player / cable box / STB satellite receiver.

- Press the **SOURCE** button.
- Select a desired external input source.

- TV / AV / Component / HDMI1/DVI / HDMI2**

You can only choose external devices that are connected to the TV. In the **Source List**, connected inputs will be highlighted.

### How to use Edit Name

Edit Name lets you associate a device name to an input source. To access **Edit Name**, press the **TOOLS** button in **Source List**. The following selections appear under **Edit Name**:

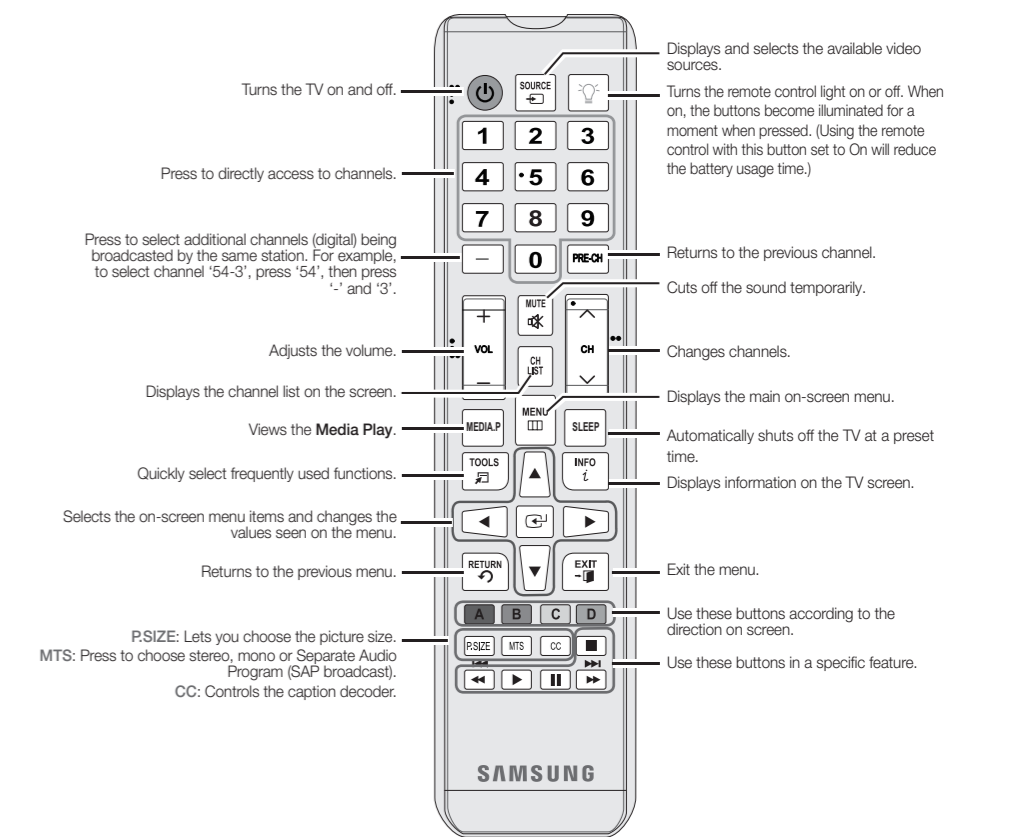
- VCR / DVD / Cable STB / Satellite STB / PVR STB / AV Receiver / Game / Camcorder / PC / DVI PC / DVI / TV / IPTV / Blu-ray / HD DVD / DMA:** Name the device connected to the input jacks to make your input source selection easier.
- When connecting a PC to the **HDMI IN 1(DVI)** port with **HDMI** cable, you should set the TV to **PC mode** under **Edit Name**.
- When connecting a PC to the **HDMI IN 1(DVI)** port with **HDMI to DVI** cable, you should set the TV to **DVI PC mode** under **Edit Name**.
- When connecting an AV devices to the **HDMI IN 1(DVI)** port with **HDMI to DVI** cable, you should set the TV to **DVI mode** under **Edit Name**.

You can see detailed information about the connected external device.

The side panel may differ depending on the model.

## Remote Control

This remote control has Braille points on the Power, Channel, and Volume buttons and can be used by visually impaired persons.



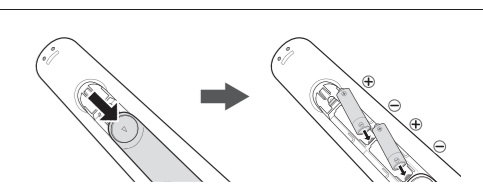
### Display Modes (HDMI/DVI Input)

Optimal resolution 4000 series: 1366 x 768@60Hz / 5000 series: 1920 x 1080@60Hz

| Mode | Resolution  | Horizontal Frequency (Hz) | Vertical Frequency (Hz) | Pixel Clock Frequency (MHz) | Sync Polarity H/V | 1366 x 768 | 1920 x 1080 |
|------|-------------|---------------------------|-------------------------|-----------------------------|-------------------|------------|-------------|
| ISM  | 650 x 350   | 31.469                    | 70.266                  | 25.175                      | -/+               | ✓          | ✓           |
|      | 720 x 400   | 31.469                    | 70.267                  | 25.222                      | -/+               | ✓          | ✓           |
|      | 640 x 480   | 35.000                    | 60.000                  | 30.240                      | -/+               | ✓          | ✓           |
| MAC  | 650 x 450   | 49.228                    | 74.561                  | 57.284                      | -/+               | ✓          | ✓           |
|      | 1125 x 470  | 49.288                    | 75.282                  | 60.388                      | -/+               | ✓          | ✓           |
|      | 862 x 460   | 31.469                    | 59.840                  | 25.175                      | -/+               | ✓          | ✓           |
|      | 862 x 480   | 37.861                    | 72.839                  | 31.820                      | -/+               | ✓          | ✓           |
|      | 862 x 480   | 37.861                    | 72.839                  | 31.820                      | -/+               | ✓          | ✓           |
|      | 800 x 600   | 37.879                    | 60.317                  | 40.000                      | +/-               | ✓          | ✓           |
|      | 800 x 600   | 48.077                    | 72.188                  | 50.000                      | +/-               | ✓          | ✓           |
|      | 800 x 600   | 48.079                    | 72.000                  | 48.000                      | +/-               | ✓          | ✓           |
|      | 1024 x 768  | 48.363                    | 60.354                  | 60.000                      | +/-               | ✓          | ✓           |
|      | 1024 x 768  | 56.176                    | 75.000                  | 75.000                      | -/+               | ✓          | ✓           |
|      | 1024 x 768  | 60.000                    | 75.000                  | 75.000                      | -/+               | ✓          | ✓           |
|      | 1152 x 864  | 67.500                    | 75.000                  | 108.000                     | +/-               | ✓          | ✓           |
|      | 1280 x 800  | 37.500                    | 60.000                  | 37.500                      | +/-               | ✓          | ✓           |
|      | 1280 x 800  | 49.702                    | 59.870                  | 65.500                      | +/-               | ✓          | ✓           |
|      | 1280 x 1024 | 65.981                    | 60.020                  | 108.000                     | +/-               | ✓          | ✓           |
|      | 1280 x 1024 | 75.079                    | 75.000                  | 108.000                     | +/-               | ✓          | ✓           |
|      | 1366 x 768  | 47.712                    | 59.790                  | 65.500                      | +/-               | ✓          | ✓           |
|      | 1440 x 900  | 56.250                    | 59.867                  | 108.000                     | +/-               | ✓          | ✓           |
|      | 1600 x 900  | 60.000                    | 60.000                  | 108.000                     | +/-               | ✓          | ✓           |
|      | 1680 x 1050 | 65.290                    | 59.954                  | 148.200                     | +/-               | ✓          | ✓           |
|      | 1920 x 1080 | 67.500                    | 60.000                  | 148.500                     | +/-               | ✓          | ✓           |

VEGA DART

### Installing batteries (Battery size: AAA)



**NOTE**

- Use the remote control within 23 feet from TV.
- Bright light may affect the performance of the remote control. Avoid use when nearby fluorescent lights or neon signs.
- The Color and shape may vary depending on the model.



## 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 buttons to turn on the screen.

■ **Eco Sensor (Off / On)** *for LED 5000 series* : 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.

⚡ 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.

## Support Menu

### Self Diagnosis

■ **Picture Test**: Use to check for picture problems. If the problem continues to occur, check the color pattern.

■ **Sound Test**: Use the built-in melody sound to check for sound problems.

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

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

⚡ The PIN input screen appears before the setup screen.

⚡ Enter your 4-digit PIN. Change the PIN using the **Change PIN** option.

### Software Upgrade

**Software Upgrade** can be performed by downloading the latest firmware from [samsung.com](http://samsung.com) to a USB memory device.

### HD Connection Guide

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

### Contact Samsung

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

## Media Play

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



### □ Connecting a USB Device

1. Turn on your TV.

2. Connect a USB device containing photo, music and/or movie files to the **USB** jack on the side of the TV.

When USB is connected to the TV, you can select **Media Play (USB)** in **Application** menu.

### □ Using the Media Play Menu



1. Press the MENU button. Press the **▲** or **▼** button to select **Application**, then press the ENTER **↵** button.

2. Press the **▲** or **▼** button to select **Media Play (USB)**, then press the ENTER **↵** button.

3. Press the **◀** or **▶** button to select an icon (**Videos**, **Music**, **Photos**, **Settings**), then press the ENTER **↵** button.

⚡ It might not work properly with unlicensed multimedia files.

⚡ **Need-to-Know List before using Media Play (USB)**

- The file system supports FAT16, FAT32 and NTFS.
- Certain types of USB Digital camera and audio devices may not be compatible with this TV.

• **Media Play** only supports USB Mass Storage Class (MSC) devices. MSC is a Mass Storage Class Bulk-Only Transport device. Examples of MSC are Thumb drives and Flash Card Readers. Devices should be connected directly to the TV's USB port. USB HDD is not supported.

• Before connecting your device to the TV, please back up your files to prevent them from damage or loss of data. SAMSUNG is not responsible for any data file damage or data loss.

• A USB device that requires high power (more than 0.5A) may not be supported.

• Do not disconnect the USB device while it is taking.

• The higher the resolution of the image, the longer it takes to display on the screen.

• The maximum supported JPEG resolution is 15360 x 8640 pixels.

• If a file is corrupted or the TV does not support the file type, the "Not Supported File Format" message appears.

• The TV cannot play MP3 files with DRM that have been downloaded from a for-pay site. Digital Rights Management (DRM) is a technology that supports the creation, distribution, and management of digital content in an integrated and comprehensive way, including protecting the rights and interests of content providers, preventing illegal copying of contents, and managing billings and settlements.

• PTP device is 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 set in **Auto Protection Time**, the Screensaver will run.

• The power-saving mode of some external hard disk drives may be released automatically when you connect them to the TV.

• If you use a USB extension cable, the TV may not recognize the USB device or may not be able to read the files on the device.

• If a USB device connected to the TV is not recognized, the list of files on the device is completed, or a file is not displayed, 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 sequential jpeg format.

• The scene search and thumbnail functions are not supported in the **Videos**.

• If the number of files and folders saved on a USB storage device is approximately over 4000, the files and folders may not appear and some folders may not be opened.

• 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.

### Videos

| File Extension | Container | Video Codec        | Resolution | Frame rate(bits) | Bit rate(bits/s) | Audio Codec |
|----------------|-----------|--------------------|------------|------------------|------------------|-------------|
| *.mp4          | MP4       | DxV                | 1920x1080  | 6~30             | 30Mbps           | MP3 / AAC / |
|                |           | H264               | 1920x1080  | 6~30             | 30Mbps           | MP3 / AAC / |
|                |           | MPEG4 AVC          | 1920x1080  | 6~30             | 30Mbps           | MP3 / AAC   |
| *.avi          | AVI, MKV  | DxV                | 1920x1080  | 6~30             | 30Mbps           | MP3 / AAC / |
|                |           | MPEG4 SP / ASP     | 1920x1080  | 6~30             | 30Mbps           | MP3 / AAC / |
|                |           | H264               | 1920x1080  | 6~30             | 30Mbps           | MP3 / AAC / |
| *.avi          | ASF       | MPEG4 SP / ASP     | 1920x1080  | 6~30             | 30Mbps           | MP3 / AAC / |
|                |           | DxV                | 1920x1080  | 6~30             | 30Mbps           | MP3 / AAC / |
|                |           | MPEG4 SP / ASP     | 1920x1080  | 6~30             | 30Mbps           | MP3 / AAC   |
| *.ts           |           | MPEG2              | 1920x1080  | 6~30             | 30Mbps           | AAC /       |
| *.tp           |           |                    |            |                  |                  | MP3 / Core  |
| *.ts           | TS        | H.264 BP / MP / HP | 1920x1080  | 6~30             | 30Mbps           | HE-AAC      |
| *.mts          |           |                    |            |                  |                  | HE-AAC      |
| *.ts           |           | MPEG1              | 1920x1080  | 24/25/30         | 30Mbps           | MPEG /      |
| *.msg          | PS        | H.264 BP / MP / HP | 1920x1080  | 6~30             | 30Mbps           | MPEG /      |
| *.m2p          |           |                    |            |                  |                  | LPCM / AAC  |
| *.3gp          | 3GPP      | MPEG4 SP / ASP     | 1920x1080  | 6~30             | 30Mbps           | MP3         |
| *.avi          | format    | H.264              | 1920x1080  | 6~30             | 30Mbps           | MP3         |
| *.avi          | format    | Sorenson H.263     | 1920x1080  | 6~30             | 30Mbps           | MP3         |

1. Press the **◀** or **▶** button to select **Videos**, then press the ENTER **↵** button in the **Media Play** menu.

2. Press the **◀/▶/▲/▼** button to select the desired video in the file list.

3. Press the ENTER **↵** button or **⏪** (Play) button.

- The selected file is displayed on the top with its 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 **▶** button.

⚡ 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                      | .sml           |
| 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(bits) | Bit rate(bits/s) | Audio Codec |
|----------------|-----------|--------------------|------------|------------------|------------------|-------------|
| *.mp4          | MP4       | DxV                | 1920x1080  | 6~30             | 30Mbps           | MP3 / AAC / |
|                |           | H264               | 1920x1080  | 6~30             | 30Mbps           | MP3 / AAC / |
|                |           | MPEG4 AVC          | 1920x1080  | 6~30             | 30Mbps           | MP3 / AAC   |
| *.avi          | AVI, MKV  | DxV                | 1920x1080  | 6~30             | 30Mbps           | MP3 / AAC / |
|                |           | MPEG4 SP / ASP     | 1920x1080  | 6~30             | 30Mbps           | MP3 / AAC / |
|                |           | H264               | 1920x1080  | 6~30             | 30Mbps           | MP3 / AAC / |
| *.avi          | ASF       | MPEG4 SP / ASP     | 1920x1080  | 6~30             | 30Mbps           | MP3 / AAC / |
|                |           | DxV                | 1920x1080  | 6~30             | 30Mbps           | MP3 / AAC / |
|                |           | MPEG4 SP / ASP     | 1920x1080  | 6~30             | 30Mbps           | MP3 / AAC   |
| *.ts           |           | MPEG2              | 1920x1080  | 6~30             | 30Mbps           | AAC /       |
| *.tp           |           |                    |            |                  |                  | MP3 / Core  |
| *.ts           | TS        | H.264 BP / MP / HP | 1920x1080  | 6~30             | 30Mbps           | HE-AAC      |
| *.mts          |           |                    |            |                  |                  | HE-AAC      |
| *.ts           |           | MPEG1              | 1920x1080  | 24/25/30         | 30Mbps           | MPEG /      |
| *.msg          | PS        | H.264 BP / MP / HP | 1920x1080  | 6~30             | 30Mbps           | MPEG /      |
| *.m2p          |           |                    |            |                  |                  | LPCM / AAC  |
| *.3gp          | 3GPP      | MPEG4 SP / ASP     | 1920x1080  | 6~30             | 30Mbps           | MP3         |
| *.avi          | format    | H.264              | 1920x1080  | 6~30             | 30Mbps           | MP3         |
| *.avi          | format    | Sorenson H.263     | 1920x1080  | 6~30             | 30Mbps           | MP3         |

### 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 table above.

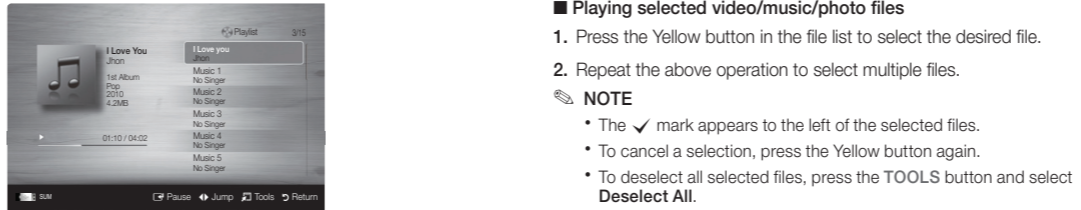
• If the Index Table is in error, the Seek (Jump) function is not supported.

• 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.

|  |
|--|
| <b>Video Decoder</b>   |
| 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 <span> </span> :   |
| - Below 1280 x 720: 60 frame max   |
| - Above 1280 x 720: 30 frame max   |
| H.263 is not supported.  |
| GMC is not supported.  |
| <b>Audio Decoder</b>   |
| 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. Press the **◀** or **▶** button to select **Music**, then press the ENTER **↵** button in the **Media Play** menu.

2. Press the **◀/▶/▲/▼** button to select the desired Music in the file list.

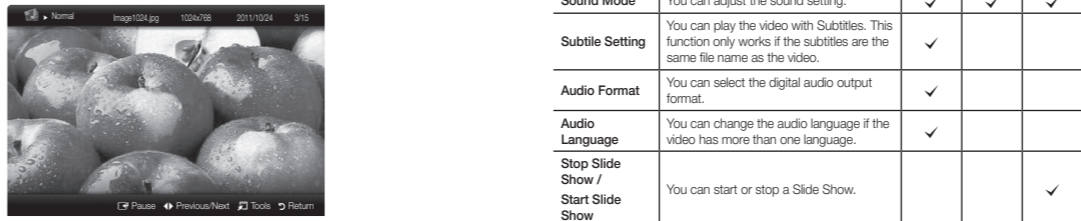
3. Press the ENTER **↵** button or **▶** (Play) button.

⚡ During music playback, you can search using the **◀** and **▶** button.

⚡ **⏮** (REW) and **⏭** (FF) buttons do not function during play. Only displays the 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. Press the **◀** or **▶** button to select **Photos**, then press the ENTER **↵** button in the **Media Play** menu.

2. Press the **◀/▶/▲/▼** button to select the desired 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 the 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 file using **◀** or **▶** button.

• Supported Photo Formats

| Image | Photo       | Resolution   |
|-------|-------------|--------------|
| JPEG  | Basic-Info  | 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. Press the Yellow button in the file list to select the desired file.

2. Repeat the above operation to select multiple files.

⚡ **NOTE**

- The **✓** 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 and select **Deselect All**.

3. Press the **TOOLS** button, and then select **Play Selected Contents**.

■ **Playing the video/music/photo file group**

1. While a file list is displayed, move to any file in desired group.

2. Press the **TOOLS** button, and then select **Play Folder**.

### Media Play - Additional Functions

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

| Category                | Operation   | Videos | Music | Photos |
|-------------------------|---|--------|-------|--------|
| <b>Title</b>            | You can move the other file 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 are 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</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.   | ✓      | ✓     | ✓      |

### Settings

#### Using the Setup Menu

■ **DiX® Video On Demand** : Shows the registration code authorized for the TV. If you connect to the DiX web site and register with 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 DiX® VOD, visit "http://vod.divx.com".

■ **Information**: Select to view information on the connected device.

## Other Information

### 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 clamps, screws, and string are not supplied, please purchase these additionally.

1. Drive the screws into the clamps and firmly fasten them onto the wall. Make sure the screws are firmly fixed into the wall.

2. Remove the screws from the back center of the TV, put the screws into the clamps, and then fasten the screws onto the TV again.

3. Connect the clamps fixed onto the TV and the clamps fixed onto the wall with a strong cable and then tie the string tightly.

⚡ 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.

⚡ It is safe to connect the string so that the clamps fixed on the wall are equal to or lower than the clamps fixed on the TV. Untie the string 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.

| Product Family | TV size in inches | VESA screw hole specs (A * B) in millimeters  | Standard Screw | Quantity |
|----------------|-------------------|---|----------------|----------|
| LED-TV         | 19~22             | 75 X 75   | M4             | 4        |
|                | 26                | 100 X 100   |                |          |
|                | 32~40             | 200 X 200   | M6             |          |
|                | 46~60             | 400 X 400   | M8             |          |
|                |                   | <b>⚠ Do not install your Wall Mount Kit while your TV is turned on. It may result in personal injury due to electric shock.</b> |                |          |

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### 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://samsung.com), then click on Support, or call Samsung customer service at 1-800-SAMSUNG.

| Problem                              | Possible Solution  |
|--------------------------------------|--|
| Flickering and Dimming               | If your Samsung Television is flickering or dimming sporadically, you may need to disable some of its energy efficient features like the Eco Sensor or the Energy Saving feature. If you follow below step with your remote, you can turn these features off or on. <ul style="list-style-type: none"><li><b>Energy saving<span> </span>: User Menu → Setup → Eco Solution → Energy Saving</b></li> <li><b>Eco Sensor<span> </span>: User Menu → Setup → Eco Solution → Eco Sensor</b></li></ul> |
| Component Connections / Screen Color | If you find that the color on your Samsung television's screen is not correct or black and White, first run a Self Diagnosis on the TV to make sure there are no device issues. <ul style="list-style-type: none"><li><b>Self Diagnosis<span> </span>:</b></li></ul>   |