

E-MANUAL

Thank you for purchasing this Samsung product.
To receive more complete service, please register
your product at

www.samsung.com/register

Model _____ Serial No. _____

Contents

e-Manual Guide

Viewing the e-Manual

- 1 Scrolling a Page
- 1 Using the Top Icons
 - 1 Returning to the Home Page
 - 1 Searching the Index
 - 2 Searching Pages
 - 2 Closing the e-Manual
- 2 Jumping to a Menu Item
- 2 Updating the e-Manual

Getting Started

- 3 Switching Between Video Sources

Programming

- 4 Auto Tuning

Channel Settings

- 5 Country (or Area)
- 5 Manual Tuning
- 7 Transfer Channel List

Channel Management

- 9 Remove Channels
- 9 Edit Channel Number
- 10 Programme Rating Lock
- 10 Channel Lock
- 10 Channel Unlock
- 10 Rename Analogue Channels

Audio Options

Favourite Channels

- 12 Add Channels
- 13 Remove Channels
- 13 Rearrange the Favourites Channels List
- 13 Rename a Favourites Channel List
- 13 Copy a Favourites Channels List

Network Configuration

- 14 Wired Network
- 15 Wireless Network
 - 15 Wireless Network Precautions

- 16 Network Security Protocols

Wired Network Setup

- 17 Automatic Wired Network Setup
- 18 Manual Wired Network Setup
- 20 Failed Wired Connection

Wireless Network Setup

- 21 Automatic Wireless Network Setup
- 22 Manual Wireless Network Setup
- 24 Using the WPS Button
- 24 Failed Wireless Connection
 - 25 Dynamic versus Static IP Addresses

Checking the Network Status

Mobile Device Connection

- 27 Wi-Fi Direct
- 28 AllShare Settings
- 28 Rename the TV

Controlling TV

Using the Smart Touch Control

- 29 Inserting the Batteries (AAA X 2)
- 29 Connecting to the TV
 - 30 Reconnecting the Smart Touch Control
- 30 Battery Low Alarm
- 31 Buttons and Descriptions
 - 33 Special Functions

Using the touchpad

- 34 Dragging
- 34 Press
- 35 Flicking
- 35 Pressing and Holding
- 35 Pressing and Dragging
- 36 Scrolling Up/Down
- 36 Scrolling Left/Right
- 37 Changing Channels by Entering Numbers
 - 37 Numerical Input Guide
- 38 Adjusting the Touchpad
- 38 Show Status and Notification Banner
- 38 Recommendations

- 38 History
 - 38 Deleting History Data
- 38 Searching

Using the Virtual Remote Control

- 39 Changing the Virtual Remote Control Panel
- 39 Change a position of the Virtual Remote Panel
- 39 Using the Number Panel
- 39 Using the Playback Control Panel
- 39 Using the Quick Access Panel
- 39 Adjusting the virtual remote control

Universal Remote Setup

- 40 Add the External Device
- 40 Using the Universal Remote Control
- 40 Registered External Device Management

Entering Text using the Onscreen Keypad

- 41 Entering Text using the QWERTY Keypad
 - 41 Additional Features

SMART Interaction

- 42 Precautions
 - 42 Face Recognition
 - 42 TV Camera Use
 - 43 Motion Control
 - 43 Voice Recognition

Voice Recognition

- 45 Operating Environment
- 45 Voice Recognition Environment Test
- 45 Voice Recognition Tutorial
- 46 Enabling Voice Recognition
- 46 Basic Voice Recognition Use
- 47 Voice Recognition Settings
 - 48 Interactive Voice Recognition Commands
 - 48 Deactivating Voice Recognition

Motion Control

- 49 Operating Environment
- 50 Motion Control Environment Test
- 50 Motion Control Tutorial
- 50 Motion Control Options
- 51 Motion Control Activation
- 51 Using the Basic Motion Controls
- 52 Motion Control Screen
 - 52 The Screen Composition while Viewing TV
 - 53 The Smart Hub Screen Composition

Face Recognition

- 55 Operating Environment
- 56 Face Registration
- 56 Face Recognition Login

Using Peripheral Devices

- 57 Keyboard Connection
 - 58 Keyboard Use
- 58 Mouse Connection
 - 58 Mouse Use

TV Viewing

TV Viewing

- 59 Programme Info
- 60 Guide
 - 60 Change Channels
 - 60 Recording the Current Programme
 - 60 Change Category
 - 60 Quick Navigation
 - 61 Schedule Viewing
 - 61 Schedule Recording
 - 61 Checking the Programme Info
- 62 Channel List
 - 62 Change Channels
 - 62 Sorting
 - 62 Genre
 - 63 Change the Broadcast Signal
 - 63 Change the Channel List

Schedule Viewing

- 64 Digital Channel Schedule Viewing
 - 64 Guide
 - 64 Programme Info
- 65 Analogue Channel Schedule Viewing
- 65 Cancel a Schedule Viewing
- 65 Edit Schedule List

Schedule Recording

- 66 Precautions
- 68 Dedicated Recording Device Setup
 - 68 Plug & Play
 - 69 Dedicated Recording Device Management
- 70 Programme Recording
 - 70 Instant Recording
 - 70 Guide
 - 70 Programme Info
 - 71 Specified Time and Date
 - 71 Cancel the Schedule Recording function
- 71 Edit Timer List

Recorded Programme Playback

- 72 Changing the Viewing Mode
- 72 Filtered View
- 72 Playlist Creation
- 73 Recording Lock / Unlock
- 73 Deleting Saved Programmes
- 73 Rename
- 74 Device Management
- 74 Playing a Different Programme
- 74 Programme Scan
- 75 Additional Recorded Programme Playback Settings

Timeshift

- 76 Precautions
- 77 Activating the Timeshift function

3D TV

- 78 Precautions
- 78 Tips
- 79 Activating 3D Mode
- 80 Setting 3D Effects
 - 80 LED TV
 - 80 PDP TV

PIP

Analogue Screen Calibration

- 82 Fine Tune

Subtitles

- 84 Show Subtitles
- 84 Subtitle Options

Changing the Teletext Language

Digital Text

TV Settings

Basic Picture Settings

- 86 Changing the Picture Mode
- 87 Picture Quality
 - 87 Applying the Current Picture Quality Setting to Another Input
- 88 Picture Size
- 89 Screen Position
- 89 4:3 Screen Size
- 89 Picture Off
- 89 Reset Image Settings

Advanced Settings

Picture Options

Basic Sound Settings

- 94 Changing the Sound Mode
- 95 Adjusting the Sound Settings
- 96 Auto Volume
- 96 3D Audio
- 96 Resetting the Sound

Sound Customiser

- 97 Creating Custom sound
- 98 Editing Custom Sound
- 98 Managing Custom Sounds

Speaker Settings

- 99 Speaker Select
- 99 Additional Settings
- 100 DTV Audio Level
- 100 Digital Audio Out
- 101 Dolby Digital Comp
- 101 Samsung Audio Device Connection

Clock and Timer

- 102 Setting the Time
 - 102 Auto
 - 103 Time Offset
 - 103 Manual
- 104 Sleep Timer
- 104 On Timer
- 105 Off Timer

Screen Protection and Maintenance

- 106 Eco Solution
- 107 Screen Burn Protection
 - 108 Pixel Shift
 - 108 Auto Protection Time

- 109 Scrolling
- 109 Side Grey

109 Auto Protection Time

Password

- 110 Change Password

Additional Features

- 111 Changing the Menu Language
- 111 Game Mode
 - 111 Precautions and Restrictions
- 112 BD Wise
- 112 Menu Transparency
- 112 Sound Feedback
- 112 Auto Stand Adjustment
- 112 Panel Locking
- 113 Booting Logo
- 113 Light Effect
- 113 Flash Adjustment
- 113 Smart Evolution Kit Backup
- 113 DivX® Video On Demand

SMART TV Features

Smart Hub

- 115 Agreements Required to Use Smart Hub
- 115 Samsung Account
 - 115 Creating a Samsung Account
 - 116 Terms and Conditions, Privacy Policy
 - 116 Logging In
 - 116 Linking a Samsung Account to Other Accounts
 - 117 Managing Accounts
 - 117 Resetting Smart Hub
- 118 Searching
 - 118 Keyword Search
 - 118 Setting Search Scope
- 118 Sports Mode

Status and Notification

- 119 Show Status and Notification Banner
 - 119 Voice Recognition & Motion Control Configuration
 - 119 Samsung Account Configuration
 - 119 Network Configuration
 - 119 Notifications

Social

- 120 Social Settings
 - 120 Checking the Application
 - 120 Connecting a Service to a Samsung Account
- 121 Watching Videos
- 121 Friend Profile
- 121 Select a friend to call

121 Filters

Apps

- 122 Precautions
- 123 Installing Standard Applications
- 123 Launching an Application
- 124 Samsung Apps
 - 124 Searching for Apps
 - 124 Installing Applications
- 124 Apps Management
 - 125 Edit My Apps
 - 125 Deleting Applications
 - 126 Managing Application Folders
 - 126 Application Lock/Unlock
 - 126 Application Update
- 126 Fitness
 - 126 Creating a Profile
- 127 Kids
- 127 Web Browser
- 128 Social Networks
 - 128 Linking Service Accounts
- 128 Apps Settings
 - 128 Ticker Autorun
 - 129 Push Notification Settings
 - 129 Channel-Bound Apps
 - 129 Properties

On TV

- 130 On TV Settings
 - 130 On TV Setup
 - 130 Recommendation Notice
 - 131 Recommendation Method
 - 131 Adult Content Block
- 131 Starting Smart Hub
- 131 Watching an On-Aerial Recommended Programme
- 131 Scheduled Recommended Programme Info
- 132 Activating the Guide
- 132 Programme Recommendations by Time
- 132 Watching Recorded Programmes

Photos, Videos & Music

- 133 Restrictions
- 134 Supported File Formats
- 135 USB Device Connection
 - 135 USB Device Removal
- 135 Playing all the Content on a Storage Device
- 135 Watching Recorded Programmes
- 135 Clearing the Photos, Videos & Music Screen
- 136 Using Networked External Storage Devices
 - 137 Allowing DLNA Device Connections
 - 137 AllShare
- 137 Exporting Contents

Video Playback

- 138 Changing the view mode
- 138 Playlist Creation
- 138 Opening a Different File
- 139 Video Scanning
- 139 Show Subtitles
- 140 Additional Video Playback Settings

Music Playback

- 141 Changing the view mode
- 141 Playlist Creation
- 141 Music Scanning
- 142 Opening a Different File
- 142 Additional Music Playback Settings

Photo Playback

- 143 Changing the view mode
- 143 Slideshow
 - 143 Slideshow Settings
- 144 Playlist Creation
- 144 Opening a Different File
- 144 Background Music
 - 144 Mini Player
- 145 Additional Photo Playback Settings

Anynet+ (HDMI-CEC)

- 146 Precautions
- 147 Anynet+ (HDMI-CEC) Setup
- 147 Anynet+ (HDMI-CEC) Use
 - 147 Switching between Anynet+ Devices
 - 148 Anynet+ (HDMI-CEC) Device Menu
- 149 ARC

Sharing Mobile Device Screens on the TV

- 149 MHL
- 149 MHL USE
 - 150 Restrictions

Other Information

Support

- 151 Remote Management
 - 151 What is Remote Support?
 - 152 How Does it Work?
- 153 e-Manual
- 153 Self Diagnosis
 - 153 Picture Test
 - 154 Sound Test
 - 154 Signal Information
 - 154 Reset
- 155 Updating the Software
 - 155 Update now
 - 155 Manual Update
 - 155 Auto update
- 156 Use Mode
- 156 Support Info

Teletext Feature

Display Resolution

- 159 IBM
- 159 MAC
- 160 VESA DMT
- 161 Picture Size and Input Signal

Subtitle and Media Contents file formats, and Codec

- 162 Subtitle
 - 162 External
 - 162 Internal
- 163 Supported image resolutions
- 163 Supported music file formats
- 164 Video Codec
- 165 Video Codecs
 - 165 Other Restrictions
 - 165 Video Decoders
 - 165 Audio Decoders

Supported 3D Resolutions

- 166 HDMI
 - 166 3D Format: L/R, T/B
 - 166 3D Format: Frame Packing
- 166 Component
- 166 Digital Channel
- 167 Videos / Photos
- 167 Computer via HDMI

3D Precautions

- 167 CAUTION
- 168 SAFETY PRECAUTIONS
- 169 WARRANTY

Licence

Troubleshooting

Screen

Sound

3D TV

Aerial (Air / Cable) Connection

Computer Connection

Networking

Miscellaneous

Schedule Recording / Timeshift

Anynet+ (HDMI-CEC)

Photos, Videos & Music

Apps

Web Browser

Viewing the e-Manual

The embedded e-Manual contains information about your TV's key features.

This TV has a built-in user guide. To read it, use one of the following methods:

- Open the **Support** menu and choose **e-Manual**.
- Press the **E-MANUAL** button on the standard remote control.
- Press the **MORE** button on the Smart Touch Control to display control buttons on the screen. Flick the Touchpad until **e-Manual** appears and select it.







Words in blue refer to screen menu options and words in light blue refer to remote control buttons.



A printable version of this guide is also available at www.samsung.com/support.

Scrolling a Page

To scroll a page, use one of the following methods:

- Press the  or  button on the scroll bar at the right edge of the screen.
- Drag or flick up or down the line on either the left or right edge of the touchpad.
- Place the focus on the  or  button at the right edge of the screen, drag or flick up or down on the touchpad.



Using the Top Icons

Use the **Back**, **Forward**, and **Opened pages** icons on the top left of the screen to navigate through pages. These icons are available when two or more pages are passed.

Returning to the Home Page

To return to the home page, press the  button or select  on the top right of the screen.



Searching the Index

Press the  button or select  on the top right of the screen to display the index. Select a term to display the page containing the term.




This feature may not be available, depending on the country.

Searching Pages

Press the  button or select  on the top of the screen to access the search screen. Enter a search phrase and select **Done**. Select an item from the search results list to navigate to the relevant page.

Closing the e-Manual

To close the e-Manual, press hold the **RETURN** button or select  at the upper-right corner of the screen.

Jumping to a Menu Item

To directly jump to the menu item that is described in the current section, select **Try Now**. It is possible to jump from a menu item directly to the related section in the e-Manual. On the screen menu, press the **MORE** button on the Smart Touch Control and then select **e-Manual** on the virtual control panel that appears on the screen.

 This feature may not be available, depending on the menu.

Updating the e-Manual

Open the **Smart Hub** and navigate to **Apps** screen, and then select **More Apps**. The e-manual can be updated in the same way with an application update.

On the **More Apps** screen, select **Apps to update**. Select e-Manual from the list. The e-Manual starts updating to the latest version. However, **Apps to update** appears on the screen only when the update is required.

Switching Between Video Sources

Press **SOURCE** button to switch between devices connected to the TV.

For example, to switch to a game console connected to the second HDMI connector, press **SOURCE** button. From the **Source** list, select **HDMI2**. The connector names may vary depending on the product.

Select **Tools** at the upper-right corner of the **Source** screen to access the following functions.

- **Refresh**

Select this if a connected device does not appear in the list. If the list does not show the device after selecting **Refresh**, check the status of the TV-to-device connection. Refresh only available when Anynet+ function is turn On.

- **Edit Name**

You can rename devices connected to the TV to more easily identify external sources.

With a computer connected to the TV's HDMI (DVI) port via an HDMI cable, for example, you can change **Edit Name** to **PC**.

With a computer connected to the TV's HDMI (DVI) port via an HDMI-to-DVI cable, for example, you can change **Edit Name** to **DVI PC**.

With an AV device connected to the TV's HDMI (DVI) port via an HDMI-to-DVI cable, for example, you can change **Edit Name** to **DVI Devices**.

- **Information**

View detailed information about the connected devices.

- **Disconnect USB Device**

Remove the USB device from the list safely. This function is only available when the USB device selected.

- **Universal remote setup**

To add a new external device to control it with the Touch Remote Control, press the **SOURCE** button and select **Universal remote setup** on the top right of the screen. Using the universal remote control, users can control external devices connected to the TV, such as a settop box, Blu-ray player, and AV receiver.

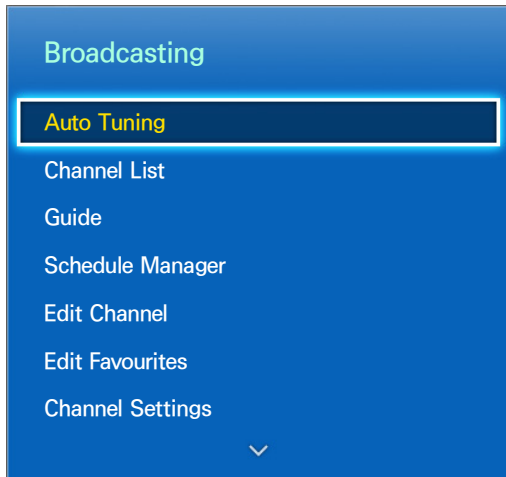
Programming

Scan and index available channels.

You can also remove channels from the index, and designate favourites channels for a more convenient TV viewing experience. Programming is not necessary if you are connected to a cable or satellite receiver.

Auto Tuning

Screen Menu > **Broadcasting** > **Auto Tuning** [Try Now](#)



 The displayed image may differ depending on the model.

Automatically scans and indexes all channels received through the TV's aerial input connector.

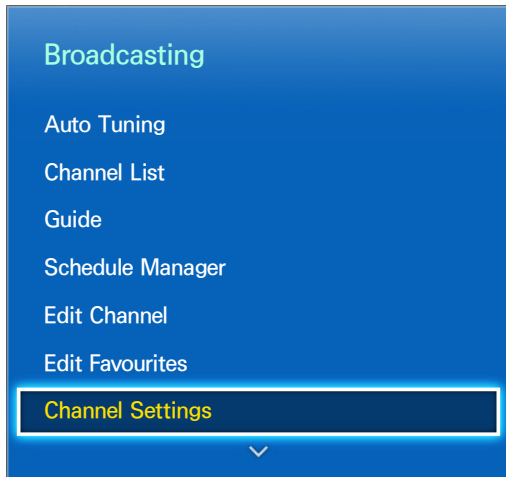
1. To start, navigate to **Broadcasting** and select **Auto Tuning**.
 2. Select **Start** when prompted with a message. This initiates the Auto Tuning function. The process can take up to 30 minutes to complete. If starting the Auto Tuning function when there is an existing index of channels overwrites the previous index.
- **Auto Tuning**


Scans for channels automatically and stores them in the TV's memory.

- **Digital & Analogue / Digital / Analogue**: Select the channel source to memorise.

Channel Settings

Screen Menu > **Broadcasting** > **Channel Settings** [Try Now](#)



 The displayed image may differ depending on the model.

Country (or Area)

Screen Menu > **Broadcasting** > **Channel Settings** > **Country** (or **Area**)

(Depending on the country)

Select your country (or area) so that the TV can correctly auto-tune the broadcasting channels.

 The PIN input screen appears. Enter your 4 digit PIN number.

Manual Tuning

Screen Menu > **Broadcasting** > **Channel Settings** > **Manual Tuning** [Try Now](#)

Scans for a channel manually and stores in the TV.

 If a channel is locked using the Channel Lock function, the PIN input window appears.

 This function may not be supported depending on the country.

- **Digital Channel Tuning**

Scans for a digital channel.

1. Select the **New**.
2. Set the **Channel**, **Frequency**, **Bandwidth**.



The **Bandwidth** function may not be supported depending on the region.

3. Select the **Search**. When scanning has finished, a channel is updated in the channel list.

- **Analogue Channel Tuning**

Scans for a analogue channel.

1. Select the **New**.
2. Set the **Programme**, **Colour System**, **Sound System**, **Channel** and **Search**.
3. Select the **Store**. When scanning has finished, a channel is updated in the channel list.

Channel mode

- **P** (programme mode)

When tuning is complete, the broadcasting stations in your area have been assigned to position numbers from P0 to P99. You can select a channel by entering the position number in this mode.

- **C** (aerial channel mode) / **S** (cable channel mode)

These two modes allow you to select a channel by entering the assigned number for each aerial broadcasting station or cable channel.

Transfer Channel List

Screen Menu > [Broadcasting](#) > [Channel Settings](#) > [Transfer Channel List](#) [Try Now](#)

(Depending on the country)

Imports or exports the channel map.



You should connect USB storage to use this function.

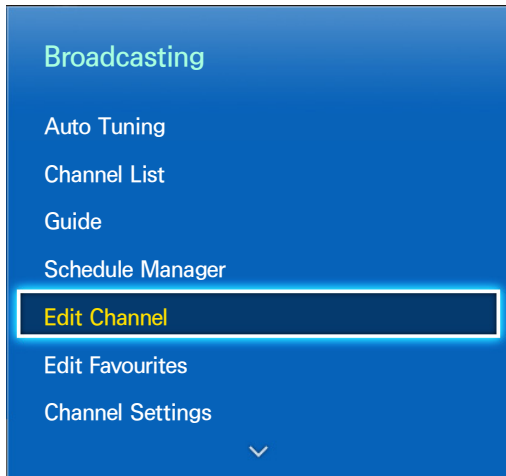



The PIN input screen appears. Enter the PIN using your remote.

- [Import from USB](#): Import channel list from USB. [Try Now](#)
- [Export to USB](#): Export channel list to USB. This function is available when USB is connected. [Try Now](#)




Channel Management

Screen Menu > [Broadcasting](#) > [Edit Channel](#) [Try Now](#) [Try Now](#)



 The displayed image may differ depending on the model.

Remove channels from the index, and rename analogue channels. The [Edit Channel](#) screen icons indicate the following:

-  : An analogue channel
-  : A favourites channel
-  : A locked channel

From the [Edit Channel](#) screen, select the Virtual Remote panel's [TOOLS](#) button to access the following options:

- [Sorting](#)

(digital channels only)

Change the list ordered by name or number.

- [Category](#)

The TV's channel index is divided into different categories such as [All](#), [TV](#), [Radio](#), [Analogue](#), [Recently Viewed](#) and [Most Viewed](#). Choose a category.

- [Edit Favourites](#)

Organize favorites lists to find favorite channels and switch between channels more easily. For details, see "Favourite Channels".

- **Channel Info**

Check the information of the channel.


- **Information**

Check the information of the broadcast.

Remove Channels

Screen Menu > **Broadcasting** > **Edit Channel**



Remove registered channels from the index. Removing channels appearing in the **Recently Viewed** or **Most Viewed** list clears the channels from the list only and does not remove them from the index.

1. From the screen, select the channels you wish to remove. Unselect channels by choosing them again.
2. Press  button. The selected channel(s) will be deleted.

Edit Channel Number

Change the number of the channels in edit channels list.

This function may not be supported depending on the region.

1. Press  button to bring up the edit channels list and select the channel you wish to change the number of the channels.
2. Select the number you wish change. Select **Done**  or press touchpad to finish.

Programme Rating Lock

Screen Menu > [Broadcasting](#) > [Programme Rating Lock](#) [Try Now](#)

(Depending on the country)

The [Programme Rating Lock](#) blocks programmes with ratings higher than those desired. This is useful for controlling what children watch on TV. This will not function for programmes originating from external sources, such as DVD players or USB files.

This PIN is required to watch a blocked programme.

The [Programme Rating Lock](#) is not available in HDMI or Component mode.

Channel Lock

Screen Menu > [Broadcasting](#) > [Channel Lock](#) [Try Now](#)

You can lock channels you don't want your children to view.

[Lock](#) is only available with [Channel Lock](#) set to [On](#).

Navigate to the [Edit Channel](#) screen, select the channels you wish to lock, press **B** button, and then enter the password. This locks the selected channels.

Channel Unlock

Unlock locked channels. Navigate to the [Edit Channel](#) screen, select the locked channels you wish to unlock, press **B** button and then enter the password. This unlocks the selected channels.

Rename Analogue Channels

From the screen, select an analogue channel, and then select the virtual remote panel's [TOOLS](#) button. The list screen appears. Select [Rename channel](#) from the list.

You can now rename the selected channel. The new name can be up to 5 characters long.

Audio Options

Screen Menu > [Broadcasting](#) > [Audio Options](#) [Try Now](#)

- [Audio Language](#) [Try Now](#)

(Digital channels only)

Change the default value for audio languages.



The available language may differ depending on the broadcast.

- [Primary audio](#): Set the primary audio language.
- [Secondary audio](#): Set the secondary audio language.

- [Audio Format](#) [Try Now](#)

(Digital channels only)

Change a desired audio format. The supported audio format may vary depending on the broadcast programme.

- [Audio Description](#) [Try Now](#)

(Not available in all locations) (Digital channels only)

This function handles the Audio Stream for the AD (Audio Description) which is sent along with the main audio from the broadcaster.



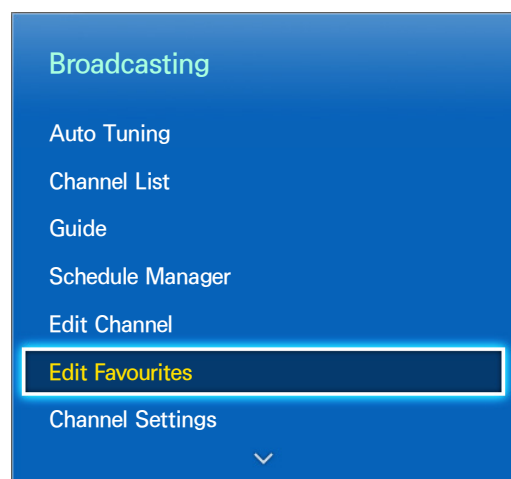
[Audio Description](#): Turn the audio description function on or off.





[Volume](#): Adjust the audio description volume.

Favourite Channels

Screen Menu > **Broadcasting** > **Edit Favourites** [Try Now](#)



 The displayed image may differ depending on the model.

You can designate frequently watched channels as favourites. The channels assigned as a favourite are displayed with the  symbol on the **Edit Channel** and channel list screens. You can create up to 5 favourites channel lists. You can also rename and edit favourites channel lists.

From the **Edit Favourites** screen, select the Virtual Remote panel's **TOOLS** button to access the following options:

- **Sorting**

Change the list ordered by name or number. This function is not available on analogue channel.

- **Edit Channel**

You can manage the channels saved on the TV.

- **Information**

View detailed information about the current programme.

Add Channels

Add a channel to a favourites channels list.

1. Press **A** button to bring up the channel list containing the channels you wish to add and then select the channels.
2. Press **B** button to bring up a favourites channels list and then **C** button to add the selected channels.


Remove Channels

Remove channels from a favourites channels list.

1. Press **B** button to bring up a favourites channels list and then select the channels you wish to remove.
2. Press **C** button to remove the channels from the list.

Rearrange the Favourites Channels List

Rearrange the order of the channels in a Favourites Channels List.

1. Press **B** button to bring up the a favourites channels list and select the channel you wish to move.
2. Press **A** button to rearrange the order of the selected channel. Select **Done**  or press the touchpad to finish.

Rename a Favourites Channel List

Rename an existing favourites channels list.

1. Select the Virtual Remote panel's **TOOLS** button to display the list. Select **Rename Favourites** from the list.
2. Rename the list in the popup window. The new name can be up to 20 characters long.

Copy a Favourites Channels List

Copy channels from one favourites channels list to another.

1. Press **B** button to bring up a Favourites Channels List and select the channels you wish to copy.
2. Select the Virtual Remote panel's **TOOLS** button to display the list. Select **Copy to Favourites** from the list, and then select the Favourites Channels List(s) you wish to copy to. This copies over the channels to the selected Favourites Channels List(s).

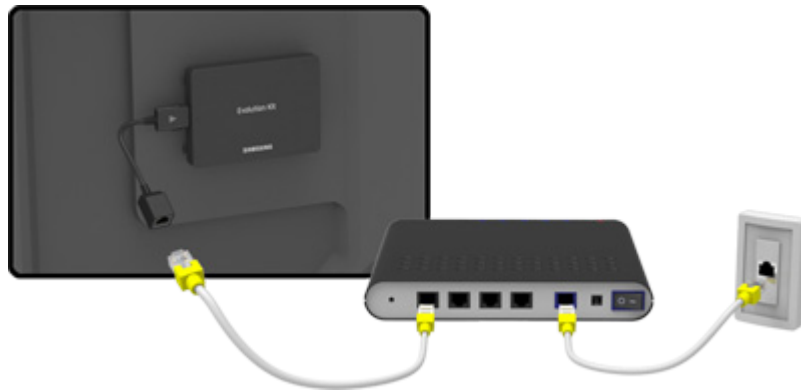
Network Configuration

Connecting the TV to a network gives you access to online services such as the Smart Hub and Samsung Link, as well as software updates.

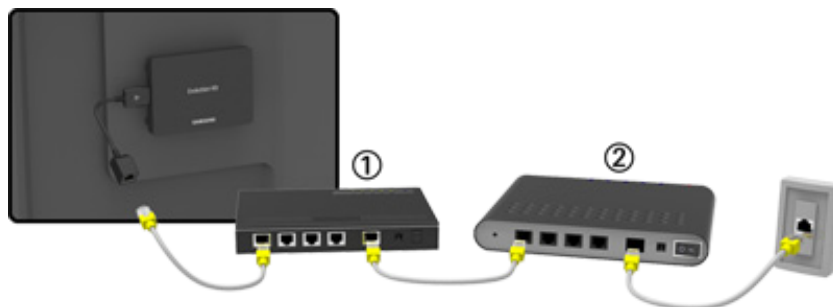
Wired Network

There are three ways to connect the TV to a Local Area Network (LAN).

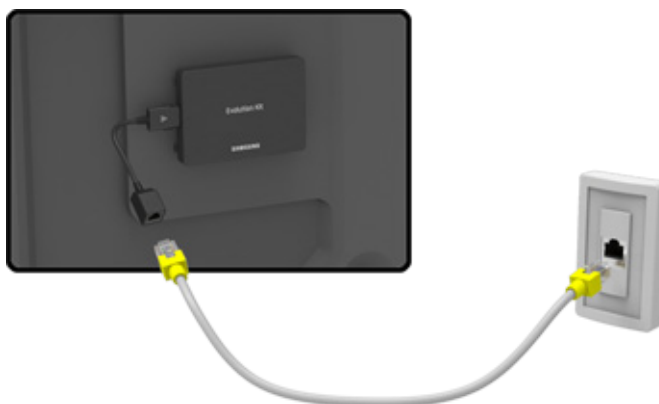
- External Modem



- ① IP Router + ② External Modem



- Wall-mounted LAN Outlet



Wireless Network

Connect the TV to the Internet using a standard router or modem.



Wireless Network Precautions

- This TV supports the IEEE 802.11a/b/g/n communication protocols. Samsung recommends using IEEE 802.11n. Otherwise when you play video over a network connection, the video may not play smoothly.
- To use a wireless network, the TV must be connected to a wireless router or modem. If the wireless router supports DHCP, the TV can use a DHCP or static IP address to connect to the wireless network.
- Select a channel that is not currently in use for the wireless router. If the channel set for the wireless router is currently being used by another device, the result is usually interference and/or a communications failure.
- Most wireless networks have an optional security system. To enable a wireless network's security system, you need to create a security key using characters and numbers. This security key is then needed to connect to the wireless network.

Network Security Protocols

The TV only supports the following wireless network security protocols and is unable to connect to non-certified wireless routers:

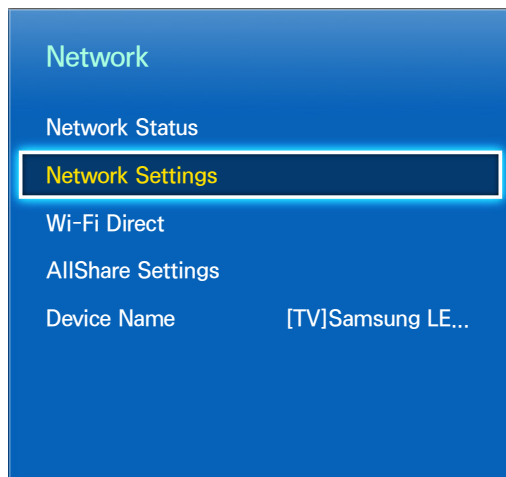
- Authentication Modes: WEP, WPAPSK, WPA2PSK
- Encryption Types: WEP, TKIP, AES

If the wireless router has been set to Pure High-throughput (Greenfield) 802.11n mode and the Encryption Type to WEP or TKIP, Samsung SMART TVs will not support the connection in compliance with the new Wi-Fi certification specifications.

If the wireless router supports WPS (Wi-Fi Protected Setup), it is possible to connect to the network using PBC (Push Button Configuration) or a PIN (Personal Identification Number). WPS automatically configures the SSID and WPA key settings.

Wired Network Setup

Screen Menu > Network > Network Settings [Try Now](#)



 The displayed image may differ depending on the model.

Automatic Wired Network Setup

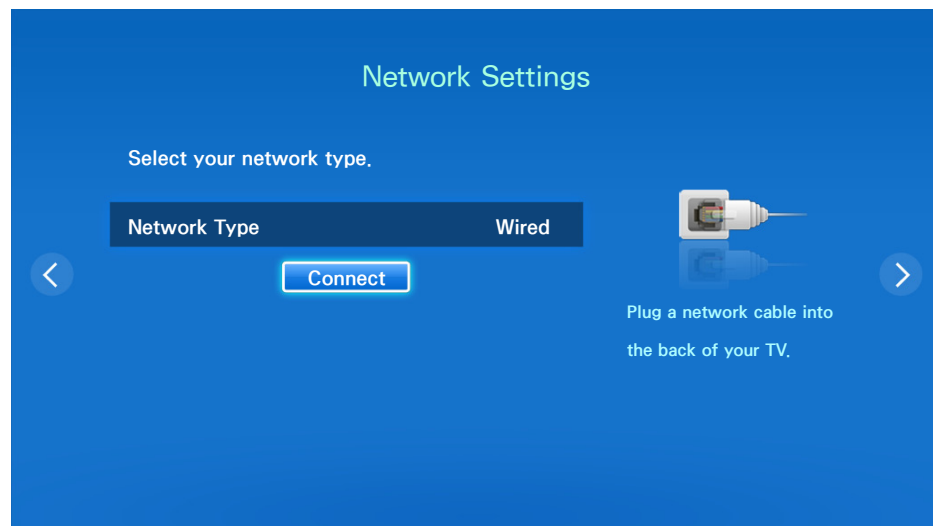
The TV's wired network connection is automatically configured when it is connected to a network that supports DHCP.

1. Set **Network Type** to **Wired** and then select **Connect**.
2. The TV attempts to connect to the network. A confirmation message is then shown once a connection is established. Select **OK** to proceed. If the attempt fails, try again or connect manually.

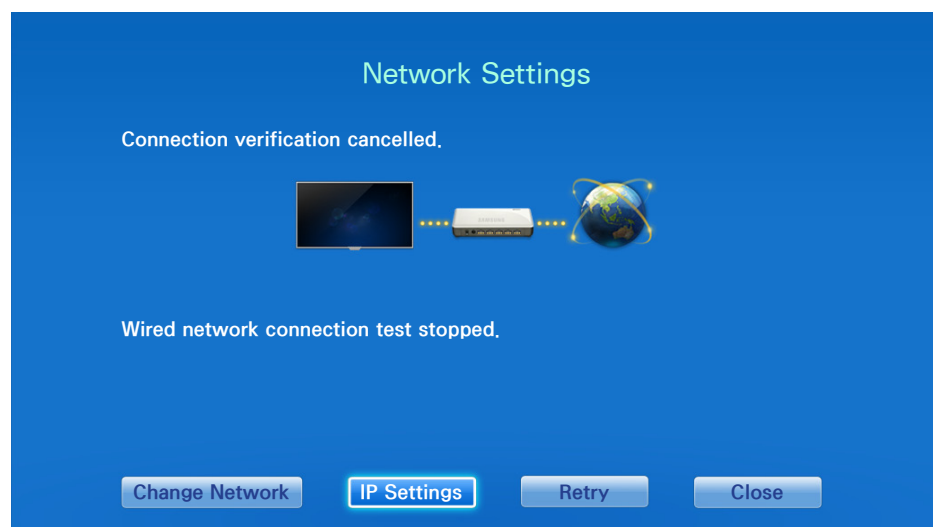
Manual Wired Network Setup

If the network requires a static IP address, enter the IP address, subnet mask, gateway and DNS values to connect to the network manually. To get the IP address, subnet mask, gateway and DNS values, contact your Internet Service Provider (ISP). Refer to the "Dynamic versus Static IP Addresses" for more information.

1. Set **Network Type** to **Wired** and then select **Connect**.



2. Select **Stop** when the TV attempts to connect to the network. Once the network connection has been interrupted, select **IP Settings**.



- From the **IP Settings** screen, set **IP setting** to **Enter manually**, enter **IP Address**, **Subnet Mask**, **Gateway**, and the **DNS Server** values, and then select **OK**.

IP Settings	
IP setting	Enter manually
IP Address	0.0.0.0
Subnet Mask	0.0.0.0
Gateway	0.0.0.0
DNS setting	Enter manually
DNS Server	0.0.0.0
OK Cancel	

- The TV attempts to connect to the network again using the specified settings. A confirmation message is then shown once a connection is established. Select **OK** to proceed.

Failed Wired Connection

No network cable found [Try Now](#) [Try Now](#)

Make sure the network cable is plugged in. If it is connected, make sure the router is turned on. If it is on, try turning it off and on again.

IP auto setting failed [Try Now](#)

Perform the following or set the IP address manually from [IP Settings](#).

1. Ensure that the DHCP server is enabled on the router and reset the router.
2. If this does not work, contact your Internet Service Provider for more information.

Unable to connect to the network [Try Now](#)

Check the following:

1. Check the [IP Settings](#).
2. Ensure that the DHCP server is enabled on the router and unplug and then plug the router back in.
3. If this does not work, contact your Internet Service Provider for more information.

Connected to a local network, but not to the Internet [Try Now](#)

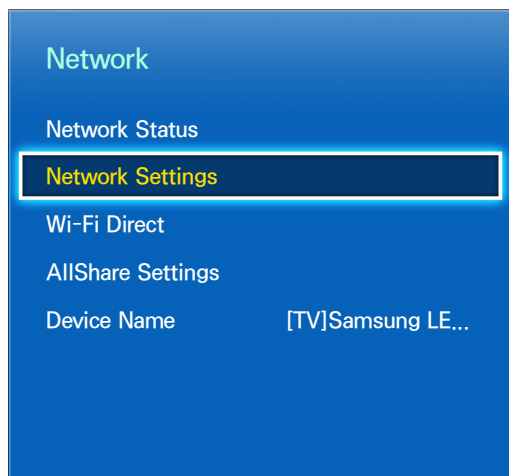
1. Make sure that the Internet LAN cable is connected to the router's external LAN port.
2. Check the DNS settings under [IP Settings](#).
3. If the problem persists, contact your Internet Service Provider.


Network setup complete, but unable to connect to the Internet [Try Now](#)

If the problem persists, contact your Internet Service Provider.

Wireless Network Setup

Screen Menu > **Network** > **Network Settings** [Try Now](#)



 The displayed image may differ depending on the model.

Automatic Wireless Network Setup

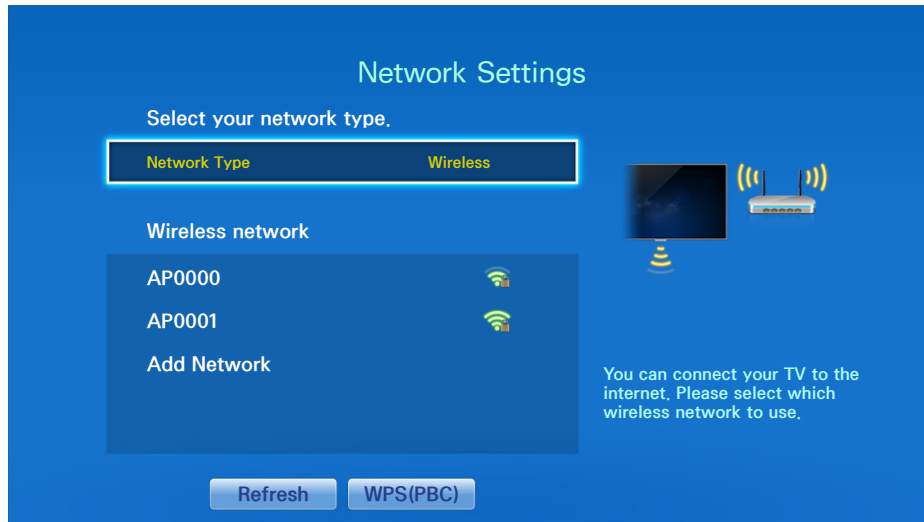
Connect the TV to the Internet via a wireless router. Check the wireless router's SSID and security key settings before attempting to connect. The security key can be found on the wireless router's configuration screen.

1. Setting **Network Type** to **Wireless** automatically displays a list of available wireless networks.
2. Select the network (SSID) you wish to connect to. If the desired wireless router doesn't appear in the list, select **Add Network** and enter the network's SSID manually.
3. Enter the security key and select **Done**. If the selected network is not security-enabled, the TV will attempt a connection right away.
4. The TV attempts to connect to the network. A confirmation message is then shown once a connection is established. Select **OK** to proceed. If the attempt fails, try again or connect manually.

Manual Wireless Network Setup

If the network requires a static IP address, enter the IP address, subnet mask, gateway and DNS values to connect to the network manually. To get the IP address, subnet mask, gateway and DNS values, contact your Internet Service Provider (ISP). Refer to the "Dynamic versus Static IP Addresses" for more information.

1. Setting **Network Type** to **Wireless** automatically displays a list of available wireless networks.



2. Select the network (SSID) you wish to connect to. If the desired wireless router doesn't appear in the list, select **Add Network** and enter the network's SSID manually.
3. Enter the security key and select **Done**. If the selected network is not security-enabled, the TV will attempt a connection right away.
4. Select **Stop** when the TV attempts to connect to the network. Once the network connection has been interrupted, select **IP Settings**.



- From the **IP Settings** screen, set **IP setting** to **Enter manually**, enter **IP Address**, **Subnet Mask**, **Gateway**, and the **DNS Server** values, and then select **OK**.

IP Settings	
IP setting	Enter manually
IP Address	0.0.0.0
Subnet Mask	0.0.0.0
Gateway	0.0.0.0
DNS setting	Enter manually
DNS Server	0.0.0.0
OK Cancel	

- The TV attempts to connect to the network again using the specified settings. A confirmation message is then shown once a connection is established. Select **OK** to proceed.

Using the WPS Button

If the router has a WPS push button, you can use it to connect the TV to the router automatically. WPS automatically configures the SSID and WPA key settings.

1. Setting **Network Type** to **Wireless** automatically displays a list of available wireless networks.
2. Select **WPS(PBC)** and then press the router's WPS button within two minutes.
3. The TV automatically acquires the SSID and security key settings and connects to the network. A confirmation message is then shown once a connection is established. Select **OK** to proceed.

Failed Wireless Connection

Wireless network connection failed, or no wireless router selected. [Try Now](#) [Try Now](#)

Go to **Network Settings** and select the correct router.

Unable to connect to a wireless router [Try Now](#) [Try Now](#)

Check the following:

1. Check that the router is turned on, and if it is, turn it off and on again.
2. Enter the correct security key if required.

IP auto setting failed [Try Now](#)

Perform the following or set the IP address manually from **IP Settings**.

1. Make sure that the DHCP server is enabled on the router and unplug and plug the router back in.
2. Enter the correct security key if required.
3. If this does not work, contact your Internet Service Provider for more information.

Unable to connect to the network [Try Now](#)

Check the following:

1. Check the [IP Settings](#).
2. Enter the correct security key if required.
3. If this does not work, contact your Internet Service Provider for more information.

Connected to a local network, but not to the Internet [Try Now](#)

1. Make sure that the Internet LAN cable is connected to the router's external LAN port.
2. Check the DNS settings under [IP Settings](#).
3. If the problem persists, contact your Internet Service Provider.

Network setup complete, but unable to connect to the Internet [Try Now](#)

If the problem persists, contact your Internet Service Provider.

Dynamic versus Static IP Addresses

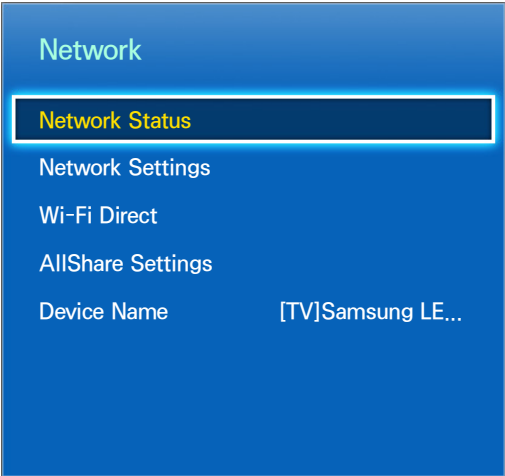
If the network requires a dynamic IP address, use an ADSL modem or router that supports the Dynamic Host Configuration Protocol (DHCP). Modems and routers that support DHCP automatically provide the IP address, subnet mask, gateway and DNS values the TV needs to access the Internet, so they do not have to be entered manually. Most home networks use a dynamic IP address.


If the network requires a static IP address, enter the IP address, subnet mask, gateway, and DNS values manually when setting up the network connection. To get the IP address, subnet mask, gateway and DNS values, contact your Internet Service Provider (ISP).

If the network requires a static IP address, use an ADSL modem that supports DHCP. ADSL modems that support DHCP also allow static IP addresses.

Checking the Network Status

Screen Menu > Network > Network Status [Try Now](#)



 The displayed image may differ depending on the model.

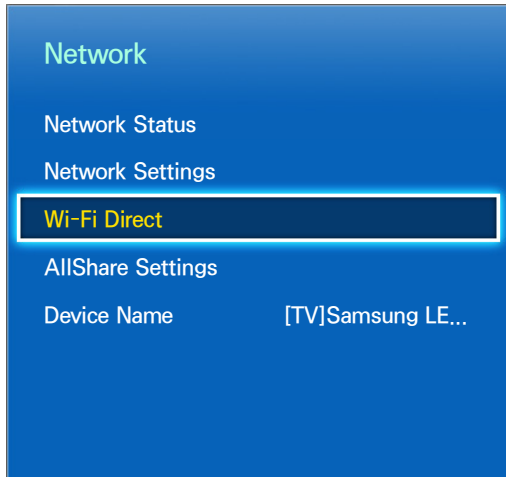
View the current network and Internet status.


Mobile Device Connection

You can either directly connect a mobile device to the TV with no need for a wireless router or connect them on the same network to play media files from the mobile device on the TV.

Wi-Fi Direct

Screen Menu > **Network** > **Wi-Fi Direct** [Try Now](#)



 The displayed image may differ depending on the model.

Connect a mobile device that supports Wi-Fi Direct to the TV without using a wireless router.

1. Enable Wi-Fi Direct on the mobile device and then launch **Wi-Fi Direct**. The TV automatically scans for and displays a list of available devices. The TV's name also appears on the mobile device.
2. Select the device from the list to initiate a connection. If a connection request is made by the TV, a permission message appears on the mobile device and vice versa. Accept the request to connect the mobile device to the TV.

AllShare Settings

Screen Menu > [Network](#) > [AllShare Settings](#)

This TV can play media files from computers or other DLNA-enabled devices connected to the TV via a network. For details, see "Using Networked External Storage Devices".

Rename the TV

Screen Menu > [Network](#) > [Device Name](#) [Try Now](#)

Assign a unique name for your TV. The assigned name appears on the external devices connected to the TV via the network.


Using the Smart Touch Control

The Smart Touch Control makes it easier and more convenient to use the TV. For example, you can use the remote control's built-in touchpad to move the focus and make selections as you would on a computer using a mouse. In addition, you can use the virtual remote panel displayed on the screen to change channels, play media files, and access favourites.

Inserting the Batteries (AAA X 2)



1. Slightly lift the battery cover using a plastic card. Next, pull on the cover's notch with a fingernail to remove the cover completely.

 Check the location of the battery cover groove. The groove's location may vary depending on the type of Smart Touch Control is provided with the product.

2. Insert 2 AAA batteries, making sure to align the positive and negative ends correctly.
3. Align the battery cover with the back of the remote control and press down along the edges until it is cleanly attached to the remote control.

Connecting to the TV

In order to operate the TV using a Smart Touch Control, you must first pair it to the TV via Bluetooth. However, the Smart Touch Control is only available for the paired Samsung TV.

1. When the TV is off, point the Smart Touch Control at the remote control receiver of the TV and press the **TV** button for the first pairing. Only this button sends an IR signal. The remote control receiver's location may vary depending on the model.
2. A Bluetooth icon will appear at the bottom left of the screen as shown below. The TV will then attempt to connect to the Smart Touch Control automatically.



<Attempting to connect and completion icons>

Reconnecting the Smart Touch Control

If you need to reestablish the connection between the TV and the Smart Touch Control, press the pairing button at the back of the Smart Touch Control toward the Remote receiver of the TV.



<The Smart Touch Control pairing button>

The pairing button can be accessed by removing the Smart Touch Control's battery cover. Pressing the pairing button automatically reestablishes the connection between the control unit and the TV.

Battery Low Alarm

If the battery becomes and blanks low while using the Smart Touch Control, the following alarm window blinks and appears at the bottom left of the screen. If the alarm window pops up, replace the batteries of the Smart Touch Control. Use alkaline batteries for longer usage.



<Low battery alarm window>




Buttons and Descriptions

<For Australia>





<For the other countries>



Buttons	Descriptions
TV	Turns the TV on/off.
SOURCE	Changes the source.
STB	Turns on and off the satellite or cable set-top box connected to the TV. For this, the Smart Touch Control must be configured as a universal remote control.
+  -	Adjusts the volume.
VOICE	Run Voice Recognition . To speak a voice command, press and hold the VOICE button and say a voice command.
MUTE / AD	Turns the TV sound on/off.
^ P v	Changes the channel.
MORE	Displays the virtual remote panel on the screen. The the virtual remote panel consists of a number panel, a colour and playback control panel, and a quick access panel. Use the touchpad to select numbers and buttons.
Touchpad	Drag your finger on the touchpad as you would on the touchpad of a laptop to move the focus displayed on the screen. To select item, press the touchpad.
	The colour buttons work differently, depending on the function that the TV is currently performing.
RETURN / EXIT	Returns to the previous menu.
SMART HUB	Launch Smart Hub . While an application is running, pressing the  button terminates the application.
GUIDE	View each digital channel's programming schedule, including showtimes. In addition, sets a Schedule Viewing or Schedule Recording to press the touchpad on the programme entry scheduled to air later.

Special Functions

Press and hold the following Smart Touch Control buttons to access various special functions.

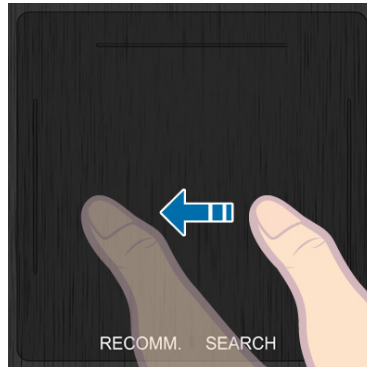
Buttons	Descriptions
MUTE / AD	Press and hold this button to select Audio Description and Subtitle . (Depending on the country or region.)
Touchpad	Press and hold the touchpad while watching TV to display CH List on the screen. In addition, you can press and hold the touchpad for 2 seconds or more while an application is running to access the application's hidden features. (Not available with all applications.)
RETURN / EXIT	Press and hold this button to quit the current process or app.
MORE	Press and hold the MORE button to select a desired function (e.g. MENU (▢), TOOLS (🔧), INFO (i), etc.) easily.
 button	Press and hold the  button while watching TV to view information about the current programme.

Using the touchpad

Use the touchpad to perform various commands. Navigate to [Tutorial](#) ([System](#) > [Device Manager](#) > [Smart Touch Control Settings](#) > [Tutorial](#)) to view an on-screen guide to using the Smart Touch Control. [Try Now](#)

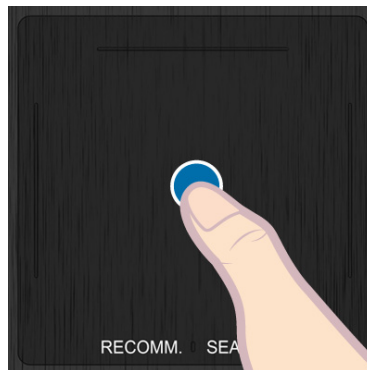
Dragging

Drag on the touchpad in the desired direction. Move the focus or the pointer in the direction the finger is dragging.



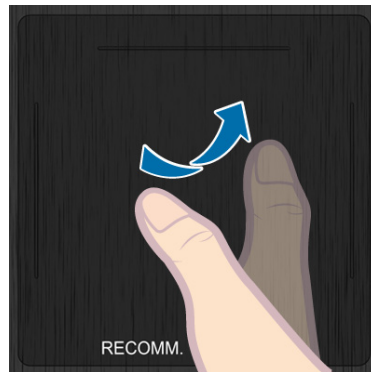
Press

Press the touchpad. This selects the focused item.



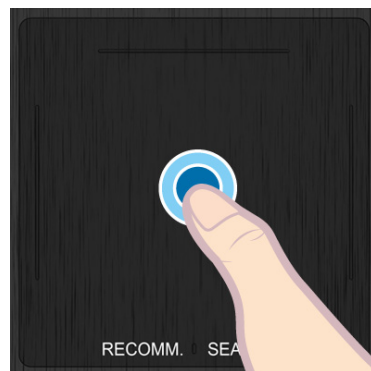
Flicking

Flick on the touchpad in the desired direction. This moves the focus or scrolls the screen based on the direction and speed of the flick.



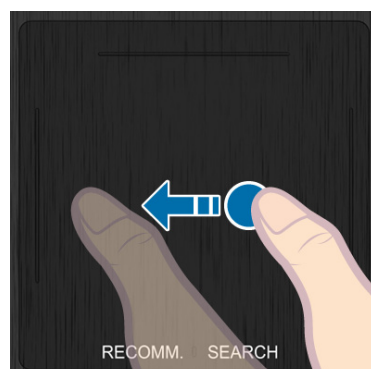
Pressing and Holding

Press and hold the touchpad while watching TV to display **CH List** on the screen. In addition, you can tap and hold the touchpad for 2 seconds or more while an application is running to access the application's hidden features. (Not available with all applications.)



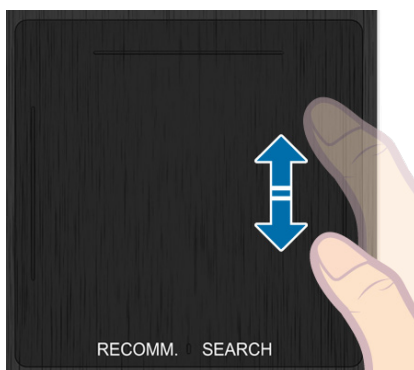
Pressing and Dragging

Press the touchpad, drag and release. This moves the selected web item in a webpage or your current location on a map.



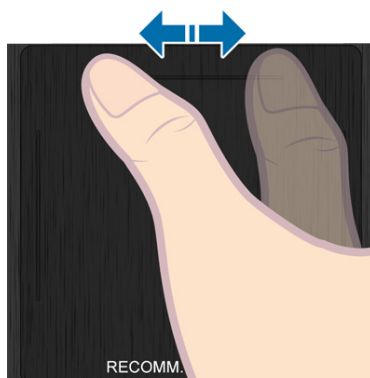
Scrolling Up/Down

Scroll up/down the line on either the left or right edge of the touchpad. This scrolls a webpage or a list up/down. This scrolling feature easily accommodates both right-handed and left-handed users.



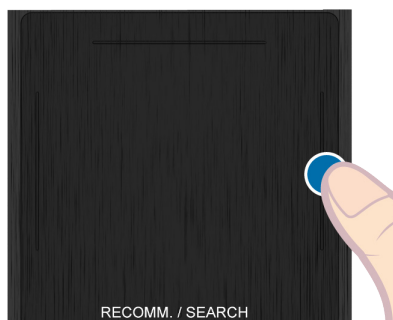
Scrolling Left/Right

Move your finger horizontally on the projected line at the top of the touchpad. You can horizontally scroll a horizontal list or the Smart Hub panel.



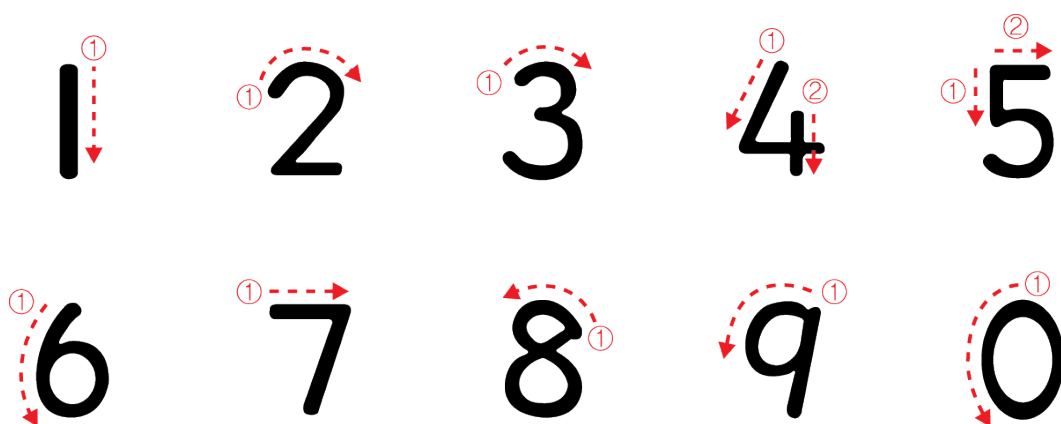
Changing Channels by Entering Numbers

While watching TV, tap on the protruding line on the left or right edge of the touchpad to bring up the numerical input window on the screen. Use your finger to enter the number for the channel you want to watch. The recognised number is displayed on the screen and the TV switches to the corresponding channel. However, the number you have entered may not be recognised properly by the TV. Refer to the guide below to ensure that your numerical entries are recognised accurately.



Numerical Input Guide

Refer to the diagrams below when entering numerical values. The TV may not recognise your entries if you do not follow the sequences shown below.



Adjusting the Touchpad

Screen Menu > **System** > **Device Manager** > **Smart Touch Control Settings** > **Touch Sensitivity** **Try**
Now

Users can adjust the sensitivity of the Smart Touch Control's touchpad. Set **Touch Sensitivity** to adjust sensitivity and make it more convenient to use.

Show Status and Notification Banner

Press the **MORE** button on the Smart Touch Control and then select **STATUS** on the Virtual Remote panel. The status and notification banner is shown at the top of the screen. Refer to the section on using the "Status and Notification" banner for more information.

Recommendations

(Depending on the country)

Press the **RECOMM. / SEARCH** button and then select **Recommended** from the list displayed at the bottom of the screen. Select a programme that is currently airing to jump to the corresponding channel or a programme that is scheduled to air to set up a **Schedule Viewing** or **Schedule Recording** setting. Refer to the "Scheduled Recommended Programme Info" for more information.

Select an application to launch. **Samsung Apps** will launch if the selected application is not installed on the TV. Refer to the "Samsung Apps" for more information.

History

Press the **RECOMM. / SEARCH** (or **HISTORY/SEARCH**) button and then select **History** from the list displayed at the bottom of the screen. This displays an interactive list of recently accessed channels, media content and applications.

Deleting History Data

Screen Menu > **Smart Features** > **Clear viewing history** > **History**

You can delete the history information about recently viewed channels, content and applications.

Searching

Press the **RECOMM. / SEARCH** (or **HISTORY/SEARCH**) button and select **Search** from the **Recommended** list. The keypad will appear on the screen. Enter search criteria to search not only many apps and their contents on the TV but also the Web.

Using the Virtual Remote Control

Press **MORE** button to display the virtual remote panel on the screen. The virtual remote panel consists of a number panel, a playback control panel, and a quick access panel. Use the touchpad to select numbers and buttons. Press and hold the **MORE** button. A quick access panel of virtual remote panel appears. You can select screen buttons easily.

 The displayed virtual remote control on the TV screen may differ depending on the country.

Changing the Virtual Remote Control Panel

Choose the number panel, playback control panel, or quick access panel as the panel to be shown on the screen.

Use the touchpad to keep moving the focus left or right. The panel changes when the focus is moved beyond the leftmost or rightmost edge.

Use left/right scroll function on the touchpad to change the panel easily.

Change a position of the Virtual Remote Panel

Press the **MORE** button on the Smart Touch Control. The virtual remote panel appears on the screen. Press and hold the touch pad for one second. Users can change a position of the virtual remote panel of the screen.

Using the Number Panel

Use the number panel to enter numbers on a keypad screen or webpage or to change the channel while watching TV. Changing the channel using the number pad leaves a record, allowing you to easily return to previous channels.

Using the Playback Control Panel

Use the playback control panel to pause, rewind, fast forward, skip to the next file, and much more while enjoying media content.

Using the Quick Access Panel

Quickly access the **INFO**, **MENU** and **e-Manual** buttons. However, the availability of buttons may vary depending on the operating mode of the Smart Touch Control (with the TV only, as a universal remote, etc.).

Adjusting the virtual remote control

Screen Menu > **System** > **Device Manager** > **Smart Touch Control Settings** > **Onscreen Remote Size**


Try Now

You can resize the virtual remote control. If the virtual remote control buttons are too small, enlarge the remote control window before using the virtual remote control.

Universal Remote Setup

Screen Menu > [System](#) > [Device Manager](#) > [Universal Remote Setup](#) [Try Now](#)

This TV has a universal remote control feature that lets you control cable boxes, Blu-ray players, home theatres, and other third-party external devices connected to the TV using the TV's remote control. You can also use the Anynet+ (HDMI-CEC) function to operate Samsung external devices with your TV's remote control without any additional setup. Refer to the "Anynet+ (HDMI-CEC)" for more information.

 Some or new models of the external device connected to the TV, may not be supported from the [Universal Remote Setup](#).

Add the External Device

1. Turn on the external device you wish to set up universal remote function for and then press [SOURCE](#) to bring up the [Source](#) screen.
2. Select [Universal remote setup](#) from the top of the screen. This initiates the universal remote setup process.
3. Follow the on-screen instructions for the Universal remote setup. If it does not respond properly, set up the remote control by entering the model number manually.

Using the Universal Remote Control

By configuring the universal remote control feature for a connector to which an external device is already connected, you can use the Smart Touch Control as a universal remote control simply by sending the input signals to the corresponding connector.

Registered External Device Management

From the [Universal remote setup](#) screen, select a registered external device. The following options are available:

- [Source Setup](#)
Change the TV's input connector that the external device is connected to.
- [Synced Power Off](#)
Configure the external device to turn off when the TV is turned off.
- [Rename](#)
Rename the registered external device (up to 15 characters long).
- [Delete](#)
Delete the registered external device.


Entering Text using the Onscreen Keypad

An onscreen keypad appears when you need to enter text (entering the network password, logging into your Samsung account, etc.), allowing you to enter text using your remote control.

Entering Text using the QWERTY Keypad

Use the QWERTY keypad as you would a normal keyboard. Simply select the letters you want to enter them.

Additional Features

Select the  icon from the keypad to access the following features:

- **Language**

Select a language from the list.

- **Recommend text**

Enable/disable the Recommended Text feature. Enabling the Recommended Text feature displays word recommendations based on the entered characters. To enter the word "Internet", for example, all you have to do is enter "In" and select the word "Internet" from the list of recommended words.

- **Predict Next Letter**

Enable/disable the Text Prediction feature. Enabling the Text Prediction feature eliminates the need to find and select individual character keys. However, this feature is limited to words that have previously been added to the dictionary. To enter the word "Internet", for example, select "I". A predicted word will then appear next to the I key. Simply select the predicted word to enter "Internet".

SMART Interaction

Using this function, you can access and control menu options and functions using motions.

When using the Motion Control feature for the first time, the TV must be connected to the Internet so that it can download the software module related to Motion Control. Users can control the TV more easily and quickly using this feature. It takes about 15 seconds after the TV turns on to get ready for Motion Control.

Precautions

Face Recognition

This product saves thumbnail images of users' faces for use during the Face Login. Logging into the Smart Hub via face recognition may be less secure than logging in using an ID and password.

TV Camera Use

Under some circumstances and under certain legal conditions, the use/misuse of the TV camera may result in legal liability. There may be obligations under local privacy laws regarding the protection of individuals concerning personal data and on the free movement of such data, and possibly other laws including criminal laws, regulating camera surveillance both in the workplace and elsewhere.

By using the TV camera, users agree that it will not be used (i) in locations where cameras are generally prohibited (such as bathrooms, locker rooms or changing rooms), (ii) in any manner that will result in an invasion of a person's privacy or (iii) in violation of any applicable laws, regulations or statutes.

If you are using a camera, first check the back for a sticker.

Remove the sticker cover before adjusting the TV camera angle.

When you are no longer using the camera, rotate the lens downward and secure it in place. This prevents any inadvertent or unintentional camera operation.

Motion Control

Motion Control works by using the camera, so the user must be within the camera's recognition range. The camera's recognition range varies depending on the ambient light level and other factors. User may experience physical fatigue when using Motion Control for extended periods.

Voice Recognition

For the best Voice Recognition experience, we recommend that you use a Smart Touch Control.

Voice Recognition is not available in all languages, dialects or regions. The performance varies depending on the language chosen, voice volume and ambient noise levels in the surrounding area.

Perform a [Voice Recognition Environment Test](#) prior to using Voice Recognition to test the level and clarity and the ambient sound of the surrounding area.


Voice Text Input requires the user's agreement with any third-party app's voice privacy policy and to provide Samsung with the user's MAC address and other private information.

Voice Text Input lets users enter text using voice commands instead of a mouse, keyboard or remote control. This feature is particularly useful for searching, browsing the web, and using applications that require text input.

Voice Recognition

Screen Menu > Smart Features > Voice Recognition [Try Now](#)



 The displayed image may differ depending on the model.

Voice Recognition lets you access and control specific functions of the TV using voice commands. For the accurate recognition of voice commands, pronounce words and phrases clearly in the language selected in [Languages](#). The TV's clock has to be set before you use Voice Recognition. Set the [Clock](#) ([System](#) > [Time](#) > [Clock](#)).

Voice Recognition can be used in the following ways:

- Using the TV's built-in microphone (from a distance)
- Using the [VOICE](#) button (up close)

Voice Control is not available in all languages and dialects.

Performance may vary depending on the language spoken and surrounding environment, including ambient noise. Voice Control does not include Voice Interaction (Natural Language) feature.

Ambient noise can interfere with voice recognition. If this is the case, press [VOICE](#) and then say the command word/phrase 10cm to 15cm away from the microphone on the Smart Touch Control. Commands may not be recognized if you speak too softly or loudly. The optimal volume is approximately 60dB (ex: 60 dB: general conversation, 70 dB: telephone ring).

Operating Environment

Voice Recognition and the **Turn TV On** voice command should be used within 4m of the TV.

Perform a **Voice Recognition Environment Test** prior to using Voice Recognition to test the level and clarity and the ambient sound of the surrounding area. Ambient noise can cause Voice Recognition to malfunction. (Suitable Ambient Noise Level: Less than 40 dB, *40 dB – the sound at library or residential area in the daytime.) Visit the Samsung website for a list of standard voice commands.

The voice recognition rate varies depending on the volume/tone, pronunciation, and ambient environment (TV sound and ambient noise).

Voice Recognition Environment Test

Screen Menu > **Smart Features** > **Voice Recognition** > **Voice Recognition Environment Test** [Try Now](#)

This test determines how well Voice Recognition will work in the TV's current environment. This test must be performed before using Voice Recognition to make sure it functions properly. Complete the Voice Recognition Environment Test, following the on-screen instructions.

Voice Recognition Tutorial

Screen Menu > **Smart Features** > **Voice Recognition** > **Voice Recognition Tutorial** [Try Now](#)

This lets you familiarize yourself with the basics of using Voice Recognition. Run **Voice Recognition Tutorial** or activate Voice Recognition.

Enabling Voice Recognition

Say the trigger word or press **VOICE** button to run **Voice Recognition**. Say a command. You can use Voice Recognition to operate the TV. If **Voice Recognition** is not working, check to see if **Voice Recognition** (**Smart Features** > **Voice Recognition** > **Voice Recognition**) has been enabled. To use Voice Recognition, **Voice Recognition** must be set to **On**.



While Voice Recognition is activated, the TV can turn on automatically due to an environmental input.

Basic Voice Recognition Use

You can use the following commands anytime while Voice Recognition is active:

- **All Voice Commands:** Say "Show all commands" to display a complete list of voice commands by category. Say the name of a category.
- **Available Voice Commands:** A list of basic voice commands available in the current state is shown.
- **TV Basics**
 - **Adjust Volume:** Say "Volume up" / "Volume down".
 - **Change Channels:** Say "Channel up" / "Channel down".
 - **Power off:** Say "TV Power Off".
 - **Moving the Focus:** Say "Focus left", "Focus right", "Focus up", or "Focus down" to move the focus. However, these commands can only be used in situations when the focus can be moved.
 - **Select Item:** Say "Select".
- **Apps and Services**

A list of the words associated with the Apps and Services available in the current state is shown as "Explore 3D", "Web Browser", "Samsung Apps".

Only preset voice commands are recognised. Available voice commands may vary, depending on the software version.

Voice Recognition Settings

Screen Menu > [Smart Features](#) > [Voice Recognition](#)

- **Language:**

Select a language for Voice Recognition. [Try Now](#)

- **Trigger Word:**

Designate certain commands as trigger words. Saying a trigger word activates Voice Recognition. To turn on the TV using a voice command, say "(a trigger word) + Power On". (Example: "Hi TV, Power On") [Try Now](#)

- **Use TV Voice:**

(Depending on the country)

Enable/disable the TV's voice responses to your Voice Recognition commands and choose between a male and female voice.

Interactive Voice Recognition Commands

(Depending on the country)

Interactive Voice Recognition allows you to set up a Timer Recording / Timer Viewing, access VODs, search and launch applications, and execute various other commands without having to remember specific commands or keywords. Saying "Turn off the TV in 30 minutes," for example, instructs the TV to turn off after 30 minutes (Sleep Timer).

Activate Interactive Voice Recognition and say a command. See the examples below:

- When you don't know which channel a specific programme is on:
"Play <programme title>."
- When you need information about a specific genre:
"Which *(genre name) shows are on today?"
- When you want to watch a programme featuring a specific actor or directed by a specific director:
"Please look up programmes featuring *(cast member). / Find me works directed by *(director name)."
- When you want to find out more information about the programme you are watching:
"Who are the cast members in this programme? / "What's the title of this programme?"
- When you want programme recommendations:
"Please recommend something to watch this evening. " / "Are there any shows worth watching today?"
- When you want to operate the TV:
"Adjust the volume to ten." / "Change to channel *."

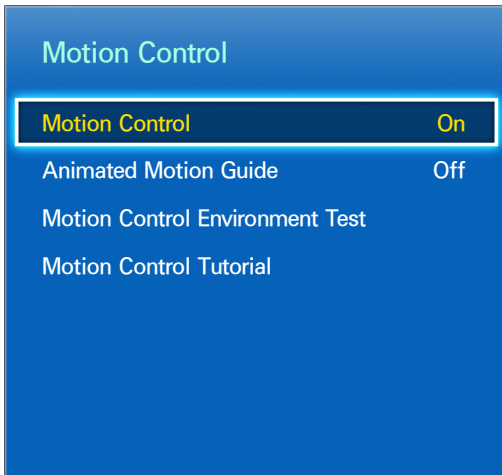
Deactivating Voice Recognition


(Depending on the country)

To deactivate Voice Recognition, say "Close Voice Recognition".

Motion Control

Screen Menu > [Smart Features](#) > [Motion Control](#) [Try Now](#)



 The displayed image may differ depending on the model.

Use Motion Control to change the channel, adjust the volume, move the pointer, and control other TV functions.

Some applications may not support Motion Control.

Operating Environment

Make sure that the TV camera is extended before using motion controls.

Users should be located between 1.5m and 4m from the camera. The actual recognition range may vary depending on the camera angle and other factors.

Motion Control relies on the TV camera and therefore will not function if the camera is pointed up or down. Adjust the camera angle using the wheel on the back of the camera. Do not point the camera directly at the sun or any other light source or obstruct its view.

In order for the camera to recognise movement, the user has to stand out from the background.

The appropriate ambient brightness is between 50 to 500 lux. (ex: 100 Lux: bathroom, 400 Lux: living room)

Avoid direct sunlight when using Motion Control.

Run [Motion Control Environment Test](#) to assess the camera's recognition range before using Motion Control.

Motion Control Environment Test

Screen Menu > [Smart Features](#) > [Motion Control](#) > [Motion Control Environment Test](#)

Run this test before using [Motion Control](#) to ensure proper functionality.

1. Run [Motion Control Environment Test](#) and select [Start](#) within 1.5m and 4m of the TV. If light reflects on the TV screen, user can be difficult to use [Motion Control](#).
2. Adjust the camera angle so that you appear inside the square displayed on the screen. Once you have finished adjusting the camera angle, wave one hand slowly from left to right. Spread your hand out with the palm facing the TV. An arrow cursor appears on the screen when the TV recognizes the action. If recognition fails, try again

Motion Control Tutorial

Screen Menu > [Smart Features](#) > [Motion Control](#) > [Motion Control Tutorial](#)

A fun and easy way to learn about Motion Control. Launch Motion Control and follow the guide's instructions.

Motion Control Options

Screen Menu > [Smart Features](#) > [Motion Control](#)

- [Animated Motion Guide](#)

Displays an animated guide when user motion is detected.


- [Pointer Speed](#)

Set the speed of the pointer used in Motion Control.

Motion Control Activation

Screen Menu > [Smart Features](#) > [Motion Control](#) > [Motion Control](#) [Try Now](#)

Raise your hand with the palm facing the TV. Hold it for a moment and slowly wave your hand from side to side three or four times. When your hand is successfully recognised, the Motion Control is activated and a pointer is displayed on the screen.

 Dropping your hand out of the range of the TV camera deactivates Motion Control. Raise your hand within 3 seconds to reactivate it.

Using the Basic Motion Controls

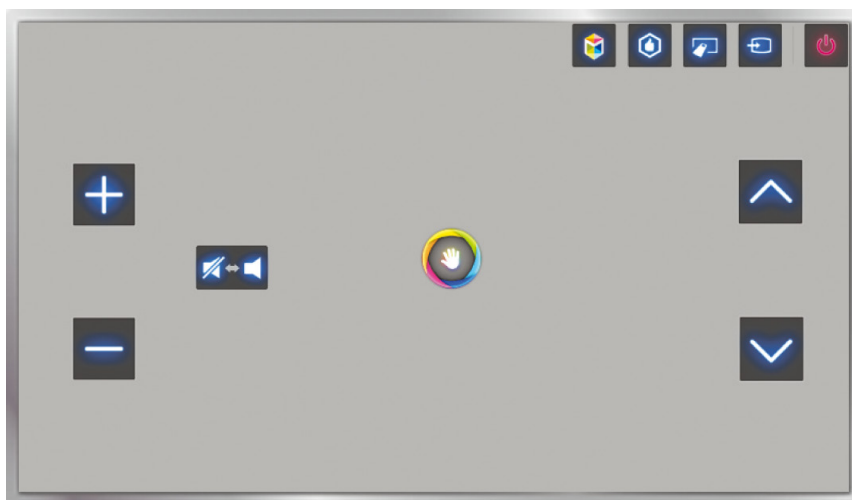
Available motion commands may vary, depending on what the TV is currently doing.









- **Pointing Navigation:** This action moves the cursor to the desired position.
- **Run / Select:** Make a fist to select an option or execute a command. Keeping your fist clenched is like holding down a remote control button.
- **Return:** Make a circle with your hand in the counterclockwise direction to return to the previous menu.
- **Turning over screens:** Hold one palm vertical, and swing to the left or right to change the Smart Hub screens.
- **Zoom in / Zoom out:** Clench two fists, and make the gap between them wider or narrower. Use these actions with webpages, maps, or photos.
- **Rotate:** Clench two fists, and rotate them clockwise or anticlockwise as if turning a steering wheel. Use these actions with photos.
- **Like:** Without activating the [Motion Control](#), raise and hold your thumb for 2 seconds. This automatically adds Facebook's "Like" option.
- **Pan:** While zoomed into the photo, make a fist and then move it left / right / up / down to pan.
- **Scrolling a webpage:** While viewing a web page, make a fist and then move it up / down to scroll the page up / down.

Motion Control Screen

The Screen Composition while Viewing TV

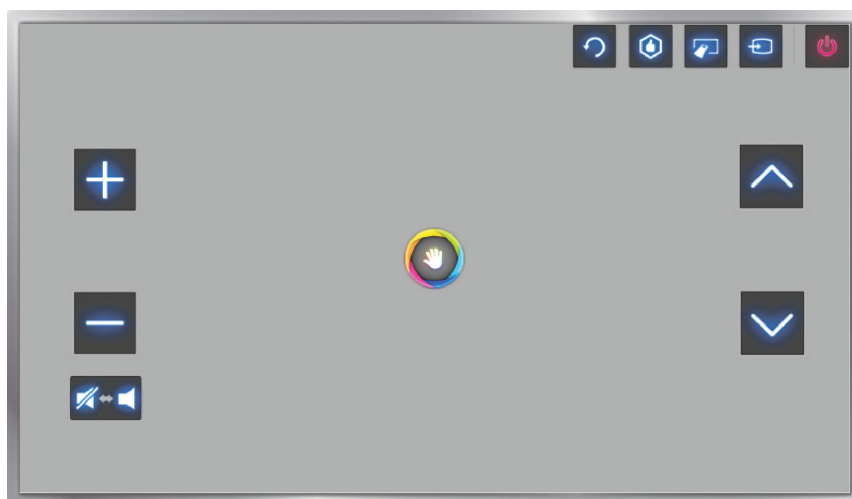
Launching Motion Control while watching TV displays the following icons on the screen.











Icon	Description
	Adjust the volume.
	Turns the TV sound on / off.
	Changes the channel.
	Check the recommended programme information and aerial times. Select a programme from the list to view detailed information about that programme.
	Launch Smart Hub.
	Enter a channel number using the number panel to jump to the channel. Use the playback control panel with the on-screen colour buttons to control a media file that is currently playing.
	Change the source.
	Turn off the TV.

The Smart Hub Screen Composition

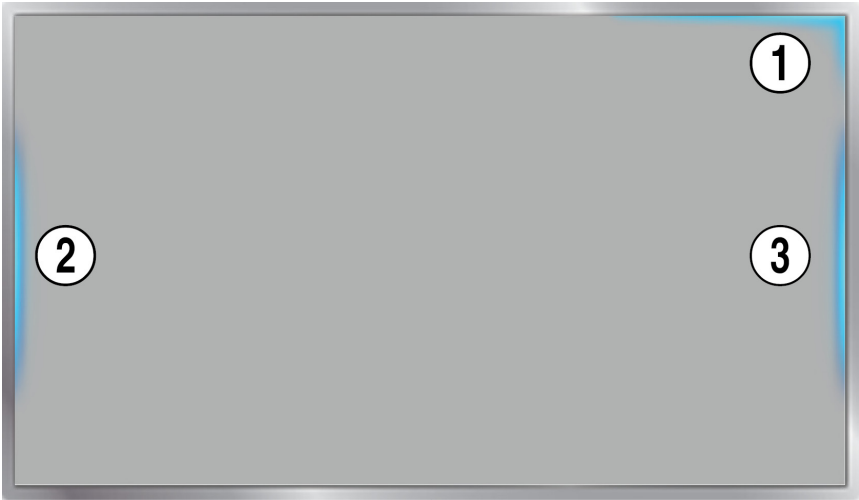
Launching Motion Control while using Smart Hub displays the following icons on the screen.













Icon	Description
	<p><For Australia> Adjust the volume. However, this can only be used from On TV.</p> <p><For the other countries> Adjust the volume. However, this can only be used from Apps.</p>
	<p><For Australia> Turns the TV sound on / off. However, this can only be used from On TV.</p> <p><For the other countries> Turns the TV sound on / off. However, this can only be used from Apps.</p>
	<p><For Australia> Changes the channel. However, this can only be used from On TV.</p> <p><For the other countries> Changes the channel. However, this can only be used from Apps.</p>
	Return to the previous menu.
	Check the recommended programme information and aerial times. Select a programme from the list to view detailed information about that programme.
	Enter a channel number using the number panel to jump to the channel. Use the playback control panel with the on-screen colour buttons to control a media file that is currently playing.
	Change the source.
	Turn off the TV.

Retrieving Icons on the Screen

When using Motion Control with Smart Hub, the icons will disappear automatically after two seconds of inactivity. To retrieve the icons, move the pointer to one of the three edges shown below (marked in blue) and then hold it there for 1 second. The icons will reappear on the screen.



Icon	Description
①	 /  /  /  / 
②	 /  / 
③	 / 

Face Recognition

Users can register their faces and log into their Smart Hub accounts through Face Recognition. One face may be registered per account. Depending on the ambient brightness level and the user's skin tone, the TV may have difficulty recognizing the user's face.

Operating Environment

The user should be located between 1.5m and 4m from the camera. The actual recognition range may vary depending on the camera angle and other factors.

The appropriate ambient brightness is 50 to 500 lux. (100 Lux: Bathroom, 400 Lux: Living Room)




Face Recognition can recognize up to 5 different users at a time. The TV may have difficulty recognising twins and people with similar faces as two different individuals.

Note the following when using **Face Recognition**.

- Do not cover your face with a hat, a pair of sunglasses, or your hair.
- The user's entire face must be visible to the camera. Avoid shadows over your face. Shadows prevent the camera from recognising your face accurately.
- Keep your expression as neutral as possible. In addition, keep your mouth closed but at the same time as neutral as possible.
- Your facial expression when logging into your Samsung account must be the same as the facial expression during the registration process.




Face Registration

A Smart Hub login is required to register a face. Log into the Smart Hub. Create a new account if you do not already have one.

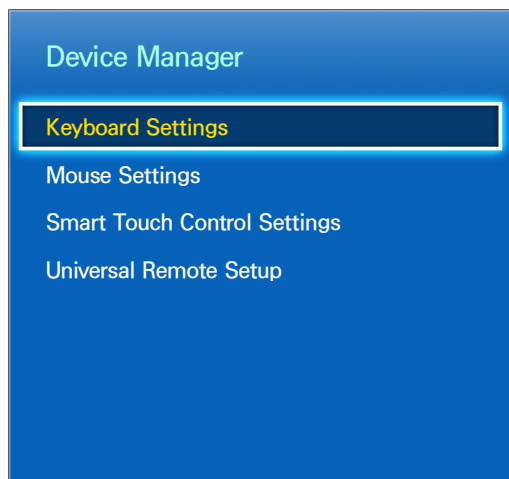
1. Open the [Smart Features](#) > [Samsung Account](#) > [Edit profile](#) menu, and select [Register face](#).
2. Read the instruction, select [OK](#), and then enter the password for the Samsung account.
3. Select [Take picture](#), and the user's face appears on the screen. Keep the face to be completely in the red dotted frame. The face is successfully registered when the frame turns green. If it fails, select [Retry](#).
 -  The user's entire face must be visible to the camera. Avoid shadows over your face. Shadows prevent the camera from recognising your face accurately.
 -  Keep your expression as neutral as possible. In addition, keep your mouth closed but at the same time as neutral as possible.
 -  It is better to select the checkbox beside [I want to enter a password as well for increased security](#) for higher security. With the checkbox selected, the user must enter the password when logging in using face recognition.
4. Select [Save](#) to finish.

Face Recognition Login

Select [Face Recognition](#), and then select [Start](#) from the login window. The TV automatically recognises a user's face. If recognition fails, try again. If the password entry option has been enabled under [Edit profile](#), you need to enter your password as well in order to log into the Smart Hub.

-  The user's entire face must be visible to the camera. Avoid shadows over your face. Shadows prevent the camera from recognising your face accurately.
-  Keep your expression as neutral as possible. In addition, keep your mouth closed but at the same time as neutral as possible.
-  Once recognition succeeds, the TV logs into the Smart Hub automatically. If the TV recognises two or more registered faces, a list of corresponding accounts appears. Select the appropriate account. Recognition of an unregistered face prompts a warning.

Using Peripheral Devices



 The displayed image may differ depending on the model.

This TV can be controlled with a keyboard and a mouse instead of a remote control. These peripheral devices make it easier and more convenient to use the TV.

Certain models do not support USB HID class keyboards and mice.

Keyboard Connection

Screen Menu > [System](#) > [Device Manager](#) > [Keyboard Settings](#) [Try Now](#)

Connect a keyboard to the TV for easier text entry. To use a USB keyboard, plug the keyboard cable into the TV's USB port. With a Bluetooth keyboard, pair it using the TV's Bluetooth function.

- [Select Keyboard](#)

Designate which keyboard to use. Only one keyboard can be used at a time. [Try Now](#)

- [Add Bluetooth Keyboard](#)




View a list of Bluetooth keyboards within range. Select the keyboard you wish to use.

- [Keyboard Options](#)

Configure the language, type and other basic keyboard settings. [Try Now](#)

Keyboard Use

Use the following keyboard keys to control the TV.

- Windows () , Menu (**TOOLS**), Enter (Selects and activates), ESC (**RETURN**), Numbers (Numbers), Arrows key (Moves the focus)
- F1 (**A**), F2 (**B**), F3 (**C**), F4 (**D**), F5 () , F6 (**SOURCE** button), F7 (**CH LIST** button), F8 (**MUTE** button), F9/F10 (**+**  **-** button), F11/F12 (**^ P v** button)
- Page Up / Page Down: Scroll a webpage up or down.

Mouse Connection

Screen Menu > **System** > **Device Manager** > **Mouse Settings** [Try Now](#)

Connect a mouse to the TV and right-click on the mouse to bring up the **Go To** screen. You can then use the screen menu, Smart Hub, and other TV functions using the mouse as you would on a computer.

To use a USB mouse, plug the mouse cord into the TV's USB port. To use a Bluetooth mouse, pair it using the TV's Bluetooth function.

- **Select Mouse**

Designate which mouse to use. Only one mouse may be used at a time. [Try Now](#)

- **Add Bluetooth Mouse**

View a list of Bluetooth mice within range. Select the mouse you wish to use.

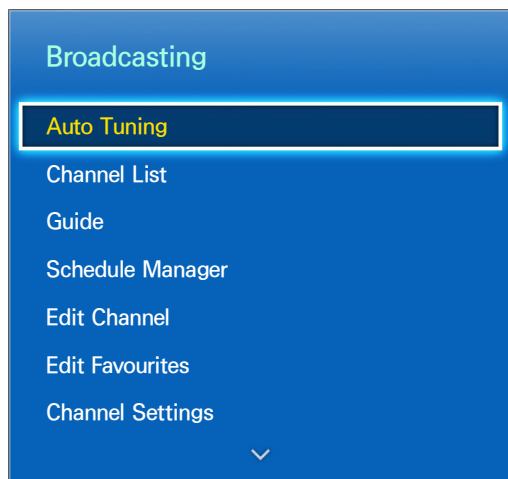
- **Mouse Options**


Configure button assignments, pointer speed and other basic mouse settings. [Try Now](#)

Mouse Use

- **Left Button:** Selects and activates.
- **Right Button:** Brings up the Go To screen, which includes options such as Power Off, Screen Menu, Smart Hub, and Tools.
- **Mouse wheel:** Scroll a webpage up or down.

TV Viewing



 The displayed image may differ depending on the model.

Use this feature to view the programme guide and programme information more easily. However, these features are not available when viewing TV using a cable box or satellite receiver.

Programme Info

Select the Virtual Remote panel's **INFO** button while watching TV to view information about the current programme.

However, Programme Info is only available with digital channels. In order to use the Programme Info, you must first set the TV's clock. To set the clock, navigate to **Time** (**System** > **Time** > **Clock**). The Programme Info may vary depending on the type of incoming signal and may not be available at all for certain programmes.

Tap on the touchpad while the programme information screen is shown to start recording the current programme. In addition, drag left/right on the touchpad to check out other programmes or tap on the touchpad to set up a Timer Viewing or Timer Recording setting for the selected programme.

Press and hold the  button while watching TV to view information about the current programme.

Guide

Screen Menu > [Broadcasting](#) > [Guide](#) [Try Now](#)

View each digital channel's programming schedule, including showtimes. Check the programming schedules and even setup a [Schedule Viewing](#) or [Schedule Recording](#). Press **GUIDE** to launch the guide.

Some country, if [Digital Text](#) is set to [Enable](#), the EPG (Electronic Programme Guide) will work.

Change Channels

Select a channel from [Guide](#) to jump to that channel right away.

Recording the Current Programme

Select the virtual remote panel's or the regular remote's **INFO** button to display the information screen. Select Record from the detailed information screen to start recording programme currently being shown.

Change Category

Press **B** button to change the desired category.

Quick Navigation

Press **A** button. A popup window will open. Dragging left or right on the touchpad moves the focus 24 hours back or forward, enabling faster browsing of the programming schedule. However, the focus cannot be on a time prior to the current time.

Schedule Viewing

Select a programme that you wish to view, and then select the Virtual Remote panel's **INFO** button to display the detailed information screen. Select **Schedule Viewing** from the detailed information screen to set up a **Schedule Viewing**. **Schedule Viewing** is only available for programmes that haven't aired yet. Press **G** button and navigate to the **Schedule Manager** screen to view a list of reserved programmes.

Schedule Recording

Select a programme that you wish to record, and then select the Virtual Remote panel's **INFO** button to display the detailed information screen. **Schedule Recording** is only available for programmes that haven't aired yet. Press **G** button and navigate to the **Schedule Manager** screen to view a list of reserved programmes.

Checking the Programme Info






Select a programme that you wish to view, and then select the Virtual Remote panel's **INFO** button. This displays detailed information about the highlighted programme. The Programme Info may vary depending on the type of incoming signal and may not be available at all for certain programmes.

Channel List

Screen Menu > [Broadcasting](#) > [Channel List](#) [Try Now](#)

Launch [Channel List](#) while watching TV to change channels or to check what's on other digital channels. Press and hold the touchpad for 2 seconds. The [Channel List](#) screen appears.

The Channel List screen icons indicate the following:

-  : An analogue channel
-  : A favourites channel
-  : A Schedule Viewing reserved channel
-  : A Schedule Recording reserved channel
-  : A locked channel

Change Channels

Select a channel to jump to it right away. To quickly scroll through the list, use the channel up/down buttons. The focus moves up and down the list in one page.

Sorting

(digital channels only)

Drag left on the touchpad. Change the list ordered by name or number.

Genre

Drag left on the touchpad and then select [Genre](#). Select a desired TV channel genre. Genre can only be used when the Channel List's Channel Mode is set to Added Channels. However, the Added Channels must contain genre information.

Change the Broadcast Signal

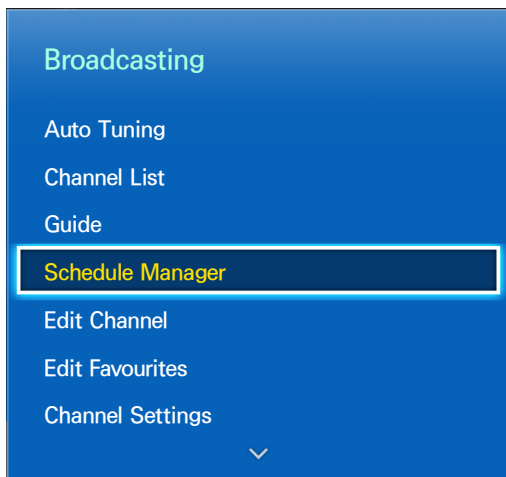
Drag right on the touchpad and then select a broadcasting signal. This will change the signal source immediately.

Change the Channel List

Drag right on the touchpad and then switch to the Added Channels or Favourites list. However, the Favourites list can only be selected if it contains at least one favourites channel. If no favourites channel was previously added, select [Edit Favourites](#) and add channels from the [Edit Favourites](#) screen.


Schedule Viewing

Screen Menu > Broadcasting > Schedule Manager [Try Now](#)



 The displayed image may differ depending on the model.

Configure the TV to show a specific channel or programme at a specific time and date. Before scheduling TV watching, make sure that the date and time is set properly under the [System](#) > [Time](#) > [Clock](#) menu.

The  icon appears next to programmes that have been configured for a Schedule Viewing.

Digital Channel Schedule Viewing

Schedule Viewing for programmes on digital channels can be set up through the following two options:

- Guide
- Programme Info

Guide

From [Guide](#), select a programme you wish to view.

Programme Info

Select the Virtual Remote panel's [INFO](#) button to display information about the current programme. From the programme information screen, drag left/right on the touchpad to select a programme that has not yet aired and set up a [Schedule Viewing](#) for it.

Analogue Channel Schedule Viewing

The Schedule Viewing function for programmes on analogue channels can be set up by specifying the time and date.

1. Run **Schedule Manager** and then select **Schedule**. A popup menu will appear. Select **Schedule Viewing** to process.
2. Specify that programme's **Aerial**, **Channel**, **Repeat**, and **Start Time** and then select, **OK** to finish.

Cancel a Schedule Viewing

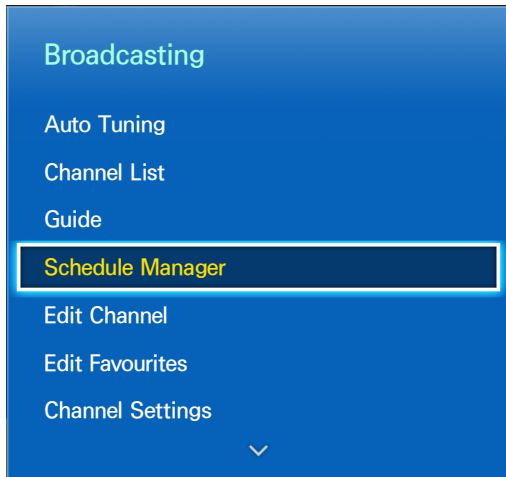
To cancel a Schedule Viewing for a specific programme, select the programme from the **Schedule Manager** screen. A popup menu will appear. Select **Delete** to cancel.


Edit Schedule List

Select an entry from the **Schedule Manager** screen and then select **Edit** from the popup menu. Edit the settings of the selected entry.


Schedule Recording

Screen Menu > [Broadcasting](#) > [Schedule Manager](#)



 The displayed image may differ depending on the model.

This SMART TV is capable of recording current and future programmes onto a USB storage device for later viewing without the use of an external recording device.

Schedule Recording is available for digital channels only. The  icon appears next to channels and programmes that have been configured for a Schedule Recording.

You can view recordings by selecting **Recorded TV** of the **On TV** or **Photos, Videos & Music**.

Precautions


- To set up a Schedule Recording, you must first set the TV's clock. Set the **Clock** from **System** > **Time** > **Clock**.
- Recordings are DRM-protected and therefore cannot be played back on a computer or on a different TV. In addition, these files cannot be played back on your TV if its video circuit is replaced.
- A USB hard drive with a speed of 5,400rpm or above is recommended.
- A USB memory Stick is not supported.
- The total recording capacity may vary depending on the amount of available hard drive space and the recording quality level.

- **Schedule Recording** requires at least 100MB of free space on the USB storage device. Recording will stop if the available storage space falls below 50MB while recording is in progress.
- If the available storage space falls below 500MB while the Schedule Recording and Timeshift functions are in progress, only the recording will stop.
- The maximum recording time is 360 minutes.
- The TV's settings apply when playing back recordings and using the Timeshift function.
- If the input signal is changed while recording is in progress, the screen will go blank until the switch is made. Recording will resume, but **●** will not be available.
- **Device Performance Test** must be performed on the USB storage device connected to the TV before a recording can be made. A Device Performance Test can be performed from the **On TV** or **Photos, Videos & Music > Recorded TV**. If recording is selected from **Guide** or the Programme Info and the USB storage device has failed the **Device Performance Test**, the TV will initiate **Format Device** and conduct **Device Performance Test** again.
- When using the recording function, the actual recording may start a second or two later than the specified time.
- If the Schedule Recording function is running at the same time as a recording is being made on an HDMI-CEC-compliant external device, the priority is given to the Schedule Recording function.
- Connecting a TV-recording USB device automatically deletes abnormally saved Timeshift and recording files.
- If **Off Timer** or **Auto Power Off** has been configured, the TV will override the setting if recording is in progress at the specified time and turn off after the recording has ended.

Dedicated Recording Device Setup


After connecting an external storage device, it must be configured as a dedicated Recorded TV device before the Schedule Recording and Timeshift features can be used.

Plug & Play

1. Press  and launch Smart Hub. Select **Recorded TV** from the bottom of the **On TV** or **Photos, Videos & Music** screen to display a list of connected devices. Select the device you wish to use. A popup window appears.
2. Select **Yes**. From the Format Device screen, you can format the device to a system compatible for video recording. Note that formatting the device erases all existing data.
3. Once formatting is complete, test the device to see if it supports the recording and Timeshift functions. Once testing is complete, the device is ready for use with the Schedule Recording and Timeshift functions. A test failure indicates that the selected device cannot be used as a dedicated recording device. Select a different device.

Dedicated Recording Device Management

Manage the external storage device that has been configured as the dedicated recording device.

1. Press  and launch Smart Hub. Select **Recorded TV** from the bottom of the **On TV** or **Photos, Videos & Music** screen to display a list of connected devices. Select the dedicated recording device to display the list of files stored on the device.
2. Select **Options** from the top of the screen and then **Manage Devices**.

The following options are available from the **Manage Devices** screen:

- **Format Device:** Format the external storage device to a system compatible for video recording.
- **Check Device:** Check if the external storage device uses a system compatible for video recording.
- **Device Performance Test:** Test the external storage device to see if it supports the recording and Timeshift functions.
- **Default Recording Device:** If there are multiple external storage devices connected to the TV, you can designate a default device to use with the recording and Timeshift functions.

Programme Recording

The following options are available for programme recording:

- Instant Recording
- Guide
- Programme Info
- Specified Time and Date

Instant Recording

To record the programme currently being aired, select the virtual remote panel's **●** button, and then set a desired recording duration.

Guide

From **Guide**, select a programme currently being aired, select the virtual remote panel's **INFO** button. You can record the selected programme. Alternatively, when you select a programme scheduled to air later, you can reserve the recording. This function is only available with digital channels.

Programme Info

Select the virtual remote panel's **INFO** button. The information screen for the programme currently watching appears.

From the information screen, press the touchpad, and then you can record the programme. Alternatively, drag left or right on the touchpad and select a programme scheduled to air later, you can reserve the recording. This function is only available with digital channels.

Specified Time and Date

1. Run **Schedule Manager** and then select **Schedule**. A popup menu will appear. Select **Schedule Recording** to proceed.
2. Specify the programme's **Aerial**, **Channel**, **Repeat**, **Start Time**, and **End Time** and then select **OK** to finish.


Cancel the Schedule Recording function

To cancel a Schedule Recording for a specific programme, select the programme from the **Schedule Manager** screen. A popup menu will appear. Select **Delete** to cancel.

Edit Timer List

Select an entry from the **Schedule Manager** screen and then select **Edit** from the popup menu. Edit the settings of the selected entry.

Recorded Programme Playback

Press  and launch Smart Hub. Select **Recorded TV** from the bottom of the **On TV** or **Photos, Videos & Music** screen. Select the external storage device containing the recorded programmes to display a list of available recordings.

Select a programme from the list or press ► to play the selected programme. Use the remote control or onscreen control buttons while playing the files. Press touchpad or **TOOLS** to show the on-screen control buttons. Press **RETURN** to hide them.

To exit, select the virtual remote panel's ■ button or press the **RETURN** button.

Changing the Viewing Mode

Select **View** at the top of the list and then select a viewing mode. The list will be sorted in the order corresponding to the selected viewing mode.

Filtered View

Select **Filter** at the top of the list and then select a filter. Only the recorded programmes corresponding to the selected filter will be listed.

Playlist Creation

From the **Options** list at the top of the screen, select **Play Selected**. Select the programmes you wish to play and then select **Play**. You can create a playlist. However, if the list is in Folder view mode, you can only select recordings from within the same folder. To add programmes from other folders to the playlist, change the viewing mode.

Recording Lock / Unlock

From the **Options** list at the top of the screen, select **Lock**. Select the programmes you wish to lock and then select **Lock**. This locks all the selected programmes.

To unlock a programme, go to the **Options** list at the top of the screen and select **Unlock**. Select the programmes you wish to unlock and select **Unlock**. This unlocks all selected programmes.

Deleting Saved Programmes

From the **Options** list at the top of the screen, select **Delete**. Select all the programmes you wish to delete and select **Delete**. This deletes all selected programmes.

Rename

From the **Options** list at the top of the screen, select **Rename**. Select the programme you wish to rename. Enter the new name using the keypad and then select **Done** to finish renaming the programme. The new name can be up to 29 characters long.

Device Management

Designate a device connected to the TV as a dedicated recording device. Refer to the "Dedicated Recording Device Management" section for more information.

Playing a Different Programme

- Select the ⏮ / ⏭ on-screen button.
- Select the **Search** on-screen button and then **Search Titles**.

Programme Scan

- Drag left/right on the touchpad. Scan 10 seconds backward or forward.
- Press ⏮ / ⏭. You can change the playback speed by a factor of up to 7. To restore normal playback speed, press ▶. Alternatively, press ⏭ while paused to reduce the playback speed (1/4). Slow playback doesn't support audio and is available in the forward direction only.
- Press ⏸ to pause the screen and then ⏸ to scan through the paused video in 1-frame increments. Audio is not supported while the video is paused.
- Select **Search** from the on-screen control buttons and then select **Search Scene**. You can play the file from a particular scene. However, this function is not available with the following.
 - Scene thumbnails are not created.
 - Only sound is recorded.
 - The recording time is under 60 seconds.
 - The **Programme Rating Lock** is enabled
- Select the **Search** on-screen button and then **Search Time Bar**. This lets you skip to the specified time frame.
- Select the ⏮ on-screen button. This plays the video from the beginning.

Additional Recorded Programme Playback Settings

- **Repeat**

Select the **Repeat** on-screen button. This changes the repeat mode. **Repeat One** repeats the current programme only. **Repeat All** repeats all programmes contained in the folder.

- **Audio Language**

Select a language from the list.

- **Picture Size**

Select the **Picture Size** on-screen button and then select the picture size.

- **Receiver**

Select the **Receiver** on-screen button and then power on the receiver.

- **Picture Mode**

Select the **Settings** on-screen button and then select **Picture Mode**. Select the Picture Mode setting.

- **Sound Mode**

Select the **Settings** on-screen button and then select **Sound Mode**. Select the Sound Mode setting.

- **Multi-Track Sound**

Select **Settings** from the Screen Control buttons and then **Multi-Track Sound**. You can select the language. However, you can only use this function for programmes that support Multi-Track Sound.

- **Information**

In the Screen Control button, select **Settings** and **Information**. You can view more detailed information about the current programme.

Timeshift

Timeshift temporarily records the current programme. Using this feature, users can pause and resume a live programme and even scan through it backward or forward. However, Timeshift is only available for digital channels. In addition, activating the Timeshift function, only certain function disable in [Broadcasting Menu](#).

Precautions

- Recordings are DRM-protected and therefore cannot be played back on a computer or on a different TV. In addition, these files cannot be played back on your TV if its video circuit is replaced.
- The maximum amount of time available for the Timeshift function is 90 minutes.
- The Timeshift function is not available for locked channels.
- A USB hard drive with a speed of 5,400rpm or above is recommended.
- A USB memory Stick is not supported.
- [Device Performance Test](#) must be performed on the USB storage device connected to the TV before the Timeshift function can be used. [Device Performance Test](#) can be initiated from [Smart Hub > On TV](#) or [Photos, Videos & Music > Recorded TV](#).
- The total recording capacity may vary depending on the amount of available hard drive space and the recording quality level.
- The TV's settings apply when playing back recordings and using the Timeshift function.
- Connecting a TV-recording USB device automatically deletes abnormally saved Timeshift and recording files.
- The Timeshift function may terminate automatically once it reaches its maximum capacity.
- The Timeshift function requires at least 1.5GB of free space available on the USB storage device.
- Launching an application, switching to an analogue channel, and otherwise changing the TV to a state that does not support the Timeshift function automatically terminates the Timeshift function. The Timeshift operation will resume if the TV is changed back to a digital channel again.

Activating the Timeshift function

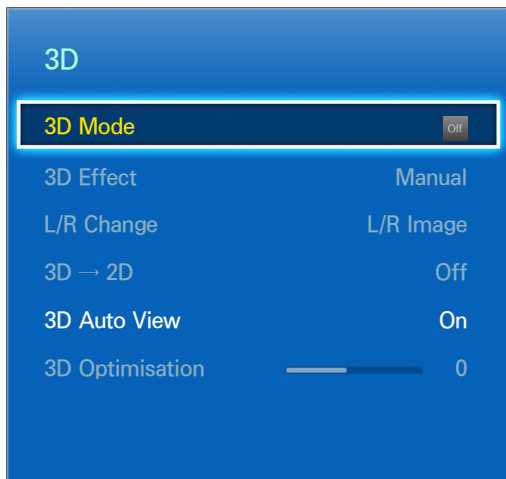
Press ► while watching TV to activate the Timeshift function. The Timeshift Progress Bar appears on the screen.


The Timeshift control buttons and functions are as follows:

- ◀◀ / ▶▶: You can change the playback speed by a factor of up to 7. To restore normal playback speed, press ► button.
- Drag left / right on the touchpad. Scan 10 seconds backward or forward.
- ■: Press while viewing a Timeshift segment to return to real time. Press while in real-time viewing mode to deactivate the Timeshift function.
- ||: Pause the screen. Press || button while in the paused state to scan one paused frame at a time. Audio is not available when the TV is paused in Timeshift mode, and frame-by-frame scanning is only available in the forward direction. Press ◀◀ / ▶▶ button while in the paused state to resume playback at 1/4th the normal speed.

3D TV

Screen Menu > Picture > 3D [Try Now](#)



 The displayed image may differ depending on the model.

This TV is 3D-enabled. For the best 3D viewing experience, users must wear Samsung's 3D Active Glasses.

The ideal viewing distance is three times or more the height of the screen. We also recommend sitting with your eyes level with the screen.

Precautions

Carefully read the health and safety information concerning 3D viewing before viewing the TV in 3D. Refer to the "3D Precautions", for more information.















Tips

- The left and right 3D images may initially overlap when the TV is turned on. It takes a moment for the display to optimize and the overlapping to go away.
- The 3D Active Glasses may not work properly if there is another 3D product or electronic device turned on near the glasses or TV. If there is a problem, keep other electronic devices as far away as possible from the 3D Active Glasses.
- Whether or not 3D video is displayed in true HD is usually determined by the quality of the content.

Activating 3D Mode

Screen Menu > **Picture** > **3D** > **3D Mode** [Try Now](#)

Choose a 3D mode according to the input signal. Available 3D modes may vary depending on the input signal. Some 3D contents may differ preferred 3D mode. In this case, change the desired 3D mode for watching. Select a 3D mode from the available 3D modes depending on the input signal. Available 3D modes may vary depending on the input signal.

-  Off: Deactivates 3D viewing.
 -  Normal: Converts normal images to 3D images. Some formats do not support this mode.
 -  L/R: Splits a single image into left and right overlapping images to create the 3D effect.
 -  T/B: Splits a single image into top and bottom overlapping images to create the 3D effect.
 -  Horizontal Line: Switches between left and right images one horizontal line at a time.
 -  Vertical Line: Switches between left and right images one vertical line at a time.
 -  Pixel: Switches between left and right images one pixel at a time.
 -  Frame: Switches between left and right images one frame at a time.
-   (Horizontal Line),  (Vertical Line), and  (Pixel) can only be selected when the computer's resolution is set to 1920x1080 or the computer is connected to the TV via an HDMI-DVI cable.
-   (Frame) can only be selected when the computer's resolution is set to 1920x1080 and the frequency to 60Hz.

Resolutions supported by the TV may vary, depending on the 3D mode. For details, see "Supported 3D Resolutions".

Setting 3D Effects

There are several adjustments that can be made to make 3D content more enjoyable. However, 3D Effects may differ depending on the product family.

LED TV



- **3D Effect**

Configure **3D Effect** to **Manual** or **Auto**. **Auto** automatically selects the best **3D Perspective** and **Depth** settings for the 3D signal, and **Manual** allows the user to adjust the **3D Perspective** and **Depth** settings manually.

- **L/R Change**

Swaps the left and right pictures.

- **3D → 2D**

Converts 3D images to normal images. This function is not available if 3D mode is set to  (Normal) or  (Off).

- **3D Auto View**

Setting **3D Auto View** to **On** switches the TV to 3D automatically. Setting **3D Auto View** to **Message Alert** brings up a message screen when the TV receives a 3D signal. If some applications are running, The TV can not switch 3D. In this case, close the application and then watch the 3D.

- **3D Optimisation**

Automatically adjusts the picture overall to provide an optimal 3D effect.

PDP TV

- **3D Perspective**

Adjusts the 3D perspective.



- **Depth**

Adjusts the 3D depth. This option cannot be used if 3D mode is set to  (L/R) or .

- **L/R Change**

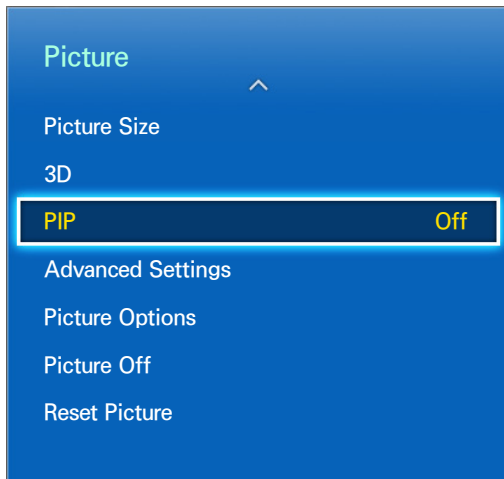
Swaps the left and right pictures.


- **3D → 2D**

Converts 3D images to normal images. This function is not available if 3D mode is set to  (Normal) or  (Off).

PIP

Screen Menu > **Picture** > **PIP** [Try Now](#)




 The displayed image may differ depending on the model.

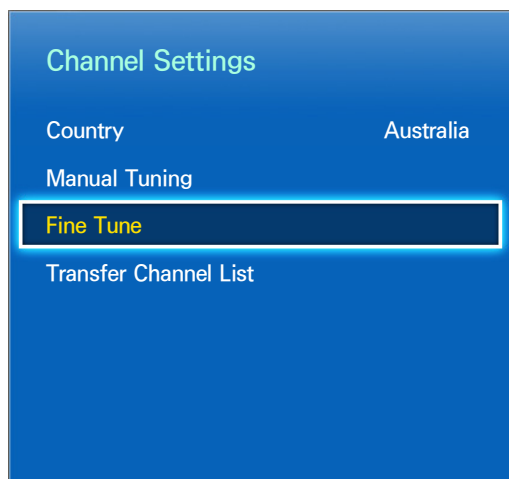
When watching a 2D video from an external device connected to the TV, users can still watch TV in an inset window. Open the **Picture** menu and choose **PIP**. Turn on PIP to activate it, and set any necessary options. PIP is not available while the Smart Hub, 3D TV or 3D DVD movie is active. Turning off the TV while PIP is active automatically deactivates PIP.

- **PIP**: Activates/deactivates PIP.
- **Channel**: Selects the PIP sub-picture channel.
- **Size**: Selects the PIP sub-picture size.
- **Position**: Selects the PIP sub-picture position.
- **Sound Select**: Selects the audio source.

 Playing a game or using the karaoke feature on the main screen can result in a lower **PIP** picture quality.

 To enjoy PIP, the main screen's source must be Component or HDMI and the input resolution must be less than FHD. The sub screen supports digital channels and AV only. However, AV may not be supported depending on the country or model.

Analogue Screen Calibration



 The displayed image may differ depending on the model.

Analogue pictures can become shaky and full of noise. If this happens, you can fine tune the signal and/or reduce noise to clear up the picture.

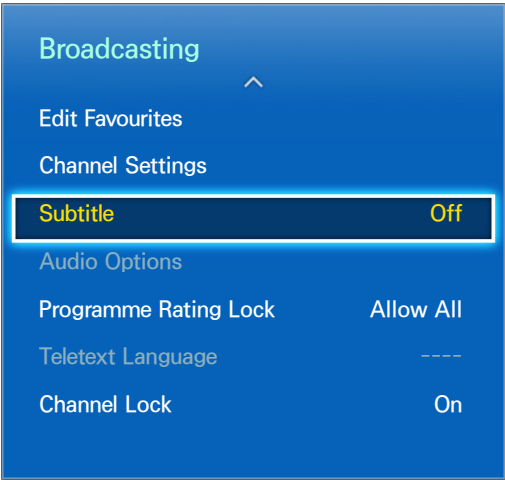
Fine Tune


Screen Menu > [Broadcasting](#) > [Channel Settings](#) > [Fine Tune](#) [Try Now](#)

Clear up shaky pictures. Fine tune the pictures until they are clear and then select [Save](#) or [Close](#). Select [Reset](#) to reset the Fine Tune operation. This option is only available for analogue broadcasts.

Subtitles

Screen Menu > Broadcasting > Subtitle [Try Now](#)



 The displayed image may differ depending on the model.

View subtitles along with subtitle-enabled digital and analogue broadcasts.

Show Subtitles

Screen Menu > [Broadcasting](#) > [Subtitle](#) > [Subtitle](#) [Try Now](#)

Show subtitles. Subtitles will be displayed when you choose a broadcast that supports subtitles. Switches subtitles [On](#) or [Off](#).

- [Subtitle Mode](#)

Sets the subtitle mode. [Try Now](#)

- [Subtitle Language](#)

Sets the subtitle language. [Try Now](#)



DVD Subtitles are only available when connected to an external input connector.

Subtitle Options

Screen Menu > [Broadcasting](#) > [Subtitle](#)

Select a subtitle mode. The list of modes may vary depending on the broadcast.

- [Primary Subtitle](#)

Set the primary subtitle language. [Try Now](#)

- [Secondary Subtitle](#)

Set the secondary subtitle language. [Try Now](#)

Changing the Teletext Language

Screen Menu > [Broadcasting](#) > [Teletext Language](#) [Try Now](#)

Use this to set the teletext language.

Digital Text

The Digital Text function may not be supported depending on the region. If the programme broadcasts with digital text, this feature is enabled. MHEG (Multimedia and Hypermedia Information Coding Experts Group):

An International standard for data encoding systems used in multimedia and hypermedia. This is at a higher level than the MPEG system which includes data-linking hypermedia such as still images, character service, animation, graphic and video files as well as multimedia data. MHEG is user runtime interaction technology and is being applied to various fields including VOD (Video-On-Demand), ITV (Interactive TV), EC (Electronic Commerce), teleeducation, tele-conferencing, digital libraries and network games.

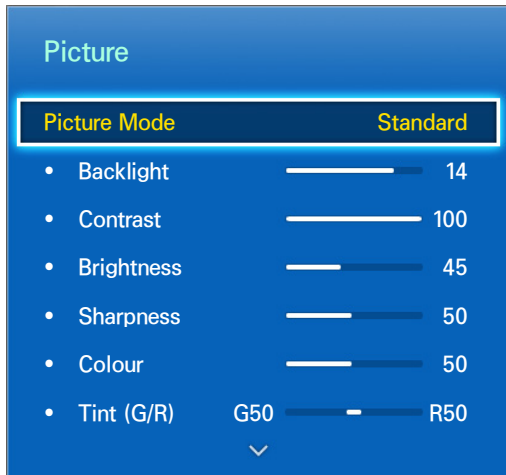
Basic Picture Settings

Screen Menu > [Picture](#)

The basic image settings alter the look and feel of the image displayed on the TV screen.

Changing the Picture Mode

Screen Menu > [Picture](#) > [Picture Mode](#) [Try Now](#)



 The displayed image may differ depending on the model.

Choose the optimal picture mode for your TV viewing conditions. When connected to a PC via an HDMI-to-DVI cable, only the [Standard](#) and [Entertain](#) modes can be chosen.

- [Dynamic](#)

This increases the brightness of the screen. It is most suitable for bright environments.

- [Standard](#)

This is the default mode.

- [Natural](#)

This is useful for reducing eye strain. This mode is available for LED TVs only.

- [Relax](#)

Consumes less power and reduces eye strain. This mode is only available for PDP TVs.

- [Movie](#)

Darkens the screen and reduces glare. Appropriate for darkened rooms, for watching movies, and when experiencing eye fatigue.

- [Entertain](#)

Sharpens images for a more dynamic viewing experience. This mode is only available when connected to a computer via an HDMI-to-DVI cable.

- [Stadium](#)

This is chosen automatically when [Sports Mode](#) is turned on under the Smart Features menu.

Picture Quality

Screen Menu > Picture

Choose a **Picture Mode** and then select the following options to display a slide bar that allows the corresponding setting to be adjusted. Use the left and right arrow buttons to adjust the value and the up and down arrow buttons to move up and down the list. Adjusted values are applied to the current source and will remain in effect the next time the source is selected. When connected to a computer via an HDMI-to-DVI cable, only the **Colour** and **Tint (G/R)** adjustment options can be chosen.

- **Backlight**

Adjusts the brightness of individual pixels. Decreasing the brightness reduces power consumption. This option is only available for LED TVs.

- **Cell Light**

Adjusts the brightness of the panel. Decreasing the brightness reduces power consumption. This option is only available for PDP TVs.

- **Contrast**

Adjusts the screen contrast. [Try Now](#)

- **Brightness**

Adjusts the overall brightness. [Try Now](#)

- **Sharpness**

Sharpens or dulls the edges of objects. [Try Now](#)

- **Colour**

Adjusts the overall colour saturation. [Try Now](#)

- **Tint (G/R)**

Adjusts the ratio of green to red. Increase the green value to saturate the greens and the red value to saturate the reds. [Try Now](#)

Applying the Current Picture Quality Setting to Another Input

Screen Menu > Picture > Apply Picture Mode

You can apply the picture quality setting that you configured for the TV to all external devices connected to the TV.

To apply the setting to all external devices connected to the TV, select **All Sources**. To only apply the setting to the current input, select **Current Source**.

Picture Size

Screen Menu > **Picture** > **Picture Size** > **Picture Size** [Try Now](#)

Most TV programmes and videos are displayed in full screen, but some programmes and videos don't fit the screen. Users can change the picture size for such programmes and videos. However, the available size options may differ, depending on the video source. Refer to the "Picture Size and Input Signal" for more information.

- **Auto Wide**

Automatically adjusts the picture size to the 16:9 aspect ratios.

The **Auto Wide** function may not be available depending on the country.

- **16:9**

Set the picture to the 16:9 wide-screen format.

- **Wide Zoom**

Magnifies the picture size more than 4:3. A magnified picture can be moved up and down.

- **Zoom**

Magnifies the 16:9 wide pictures vertically to fit the screen size. A magnified picture can be moved up and down.

- **4:3**

Sets the picture to basic 4:3 mode.

⚠ Do not leave the TV in 4:3 mode for an extended period. The dark borders displayed on the left and right/top and bottom of the screen may cause image retention - This feature is only available for LED and PDP TVs. - (screen burn - This feature is only available for PDP TVs.). This is not covered by the warranty.

- **Screen Fit**

Displays the full image without any cut off.

- **Smart View 1**

Reduces a 16:9 picture by 50%. This mode is only available for LED TVs and in HDMI mode.

- **Smart View 2**

Reduces a 16:9 picture by 25%. This mode is only available for LED TVs and in HDMI or DTV mode.

Screen Position

Screen Menu > [Picture](#) > [Picture Size](#) > [Zoom/Position](#) [Try Now](#)

The screen position can be adjusted if [Picture Size](#) is set to [Wide Zoom](#), [Zoom](#), or [Screen Fit](#).

 Zoom is not available when Picture Size set to Wide Zoom.

1. To adjust the screen position, select [Zoom/Position](#) and then [Zoom/Position](#) from the popup window.
2. Use the arrow buttons to adjust the screen position and select [Position](#) and then [Close](#). Select [Reset](#) to reset the screen position.

4:3 Screen Size

Screen Menu > [Picture](#) > [Picture Size](#) > [4:3 Screen Size](#) [Try Now](#)

(Depending on the country)

Available only when picture size is set to Auto Wide. You can determine the desired picture size at the 4:3 WSS (Wide Screen Service) size or the original size.

 Not available in Component or HDMI mode.

Picture Off

Screen Menu > [Picture](#) > [Picture Off](#) [Try Now](#)

Turns off the screen and plays audio only. To turn the screen back on, press any button. (except the volume buttons)

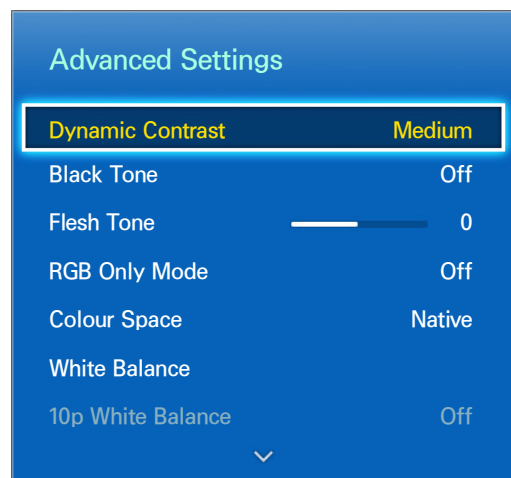
Reset Image Settings


Screen Menu > [Picture](#) > [Reset Picture](#) [Try Now](#)

Reset all image settings for the current [Picture Mode](#) to the default settings. This does not affect other Picture Modes.

Advanced Settings

Screen Menu > Picture > Advanced Settings [Try Now](#)



 The displayed image may differ depending on the model.

Use **Advanced Settings** to fine-tune how images are displayed on the TV screen. The **Advanced Settings** option is only available when **Picture Mode** is set to **Standard** or **Movie**. When the TV is connected to a computer via an HDMI-DVI cable, only **White Balance** and **Gamma** can be adjusted.

- **Dynamic Contrast**

Automatically adjusts the screen contrast. Use this option to achieve the optimal contrast setting. [Try Now](#)

- **Black Tone**

Adjusts the black colour depth. [Try Now](#)

- **Flesh Tone**

Adjusts the amount of red in skin-colour tones. [Try Now](#)

- **RGB Only Mode**

Adjusts the red, green, and blue levels individually. [Try Now](#)

- **Colour Space**

Adjusts the range of colours that can be expressed on screen. **Auto** automatically adjusts the colour space depending on the input signal, and **Native** applies a range that is wider than the input signal. **Custom** allow the user to manually adjust a range of the desired colour in the colours of the input signal. [Try Now](#)

- **White Balance**

Adjusts the colour temperature of the picture to make white objects look white and the overall picture appear natural. Adjust each colour's luminosity with the offset menu and the brightness with the gain menu. To restore the default values, select **Reset**. [Try Now](#)

- **10p White Balance**

Adjusts the white balance by adjusting the brightness of the red, green, and blue elements in 10-point intervals. This option is only available when **Picture Mode** is set to **Movie** and may not be supported by some external devices. [Try Now](#)

- **Gamma**

Adjusts the primary colour intensity. [Try Now](#)

- **Expert Pattern**

Displays picture calibration patterns on the screen without using a separate pattern generator or filter. **Pattern1** is used to calibrate the contrast, and **Pattern2** is used for calibrating the colour and colour saturation. If the screen menu disappears or a different menu is activated while the screen is being calibrated, this option will save the changes up to that point and automatically deactivate that menu. This feature is enabled in Component and HDMI modes only. [Try Now](#)

- **Motion Lighting**

Adjusts the picture brightness depending on the on-screen movements for reduced power consumption. This feature is only available when **Picture Mode** is set to **Standard** and is not available in 3D mode. In addition, adjusting **Contrast** or **Brightness** automatically deactivates this feature. [Try Now](#)

- **Black enhancer**

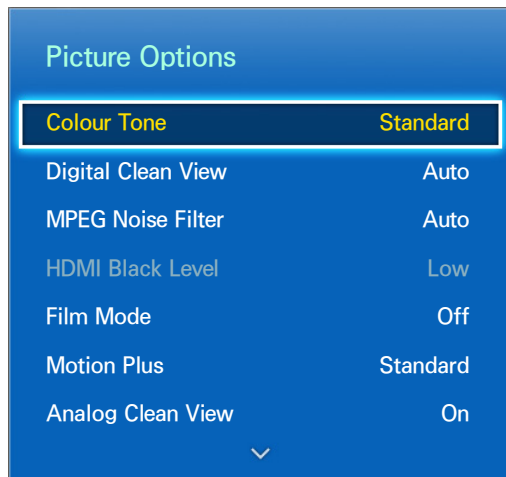
Enhance picture depth by adjusting black colour depth.



Available only when **Picture Mode** is set to **Movie**.

Picture Options

Screen Menu > **Picture** > **Picture Options** [Try Now](#)



 The displayed image may differ depending on the model.

Use **Picture Options** to further improve the picture quality. When connected to a computer via an HDMI-to-DVI cable, users can only change **Colour Tone**.

- **Colour Tone**

Adjusts the colour tone. The setting is applied on an individual **Picture Mode** basis. When **Picture Mode** is changed, the corresponding setting will apply automatically. If **Picture Mode** is set to **Dynamic**, users can only choose between **Cool** and **Standard**. [Try Now](#)

- **Digital Clean View**

Reduces static and ghosting caused by weak signals. **Green** indicates the best possible signal. Selecting **Auto Visualisation** displays the signal strength on the screen. This feature is only available for ATV channels. [Try Now](#)

- **MPEG Noise Filter**

Reduces MPEG noise and improves the video quality. [Try Now](#)

- **HDMI Black Level**


This is available only for video input via an HDMI cable. Use this to reduce image retention that may occur when watching video from an external device. Choose one of the black levels. [Try Now](#)

- **Film Mode**

Optimizes the picture quality for movies. Select the mode for watching movies. This feature is only available when watching TV or when the input signal is AV, Component (480i, 1080i), or HDMI (1080i). [Try Now](#)


- **Motion Plus**

Removes blurring and judders from scenes with rapid movement. If you select **Custom**, you can configure the after image and screen trembling removal ratio and you can view a sharper image through the **LED Clear Motion** function. This function is only available for LED TVs.

 The Info screen on your TV displays the resolution and frequency of the incoming signal (60Hz), but not the frequency the TV is generating for the image it is displaying by using **Motion Plus** function.

 If noise occurs on the screen, please set up the **Motion Plus** to **Off**. If **Motion Plus** is **Custom**, you can set up the **Blur Reduction**, **Judder Reduction**, **LED Clear Motion** and **Reset** manually.

- **Blur Reduction**: Adjusts the blur reduction level from video sources.
- **Judder Reduction**: Adjusts the judder reduction level from video sources when playing films.
- **LED Clear Motion** : Removes drag from fast scenes with a lot of movement to provide a clear picture.
- **Reset**: Reset the custom settings to the factory defaults.

 While **Motion Plus** is running, select the Virtual Remote panel's **INFO** button to display the resolution and frequency of the incoming video signal (60Hz). The displayed frequency is not the same as the frequency of the picture the TV is displaying when Motion Plus is activated.

- **Analog Clean View**

This function reduces diagonal noise in the picture caused by signal crosstalk (interference). If your TV picture displays diagonal noise or distortion when you watch, turn on this function.

- **Smart LED**

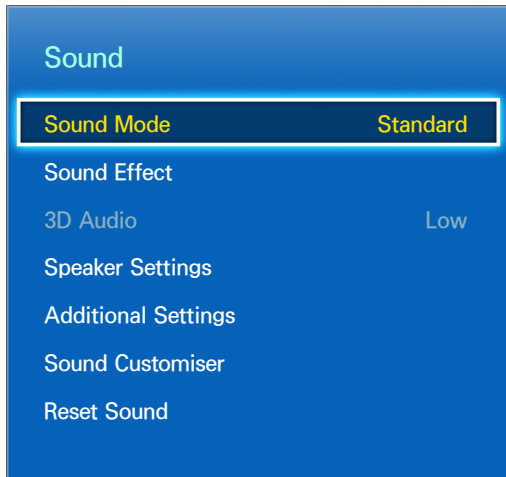
This controls the brightness of individual areas on screen to maximum contrast automatically. This function is not supported depending on the region or model. This function is only available for LED 9000 series.


- **Cinema Black**

In Movie mode, this feature dims the top and bottom areas of the video image to provide a more immersive viewing experience. This feature is only available for LED 9000 series.

Basic Sound Settings

Screen Menu > **Sound**



 The displayed image may differ depending on the model.

Use the Sound Settings to change the sound mode, enable/disable surround sound, adjust the equalizer, and optimize the TV's sound.

Changing the Sound Mode

Screen Menu > **Sound** > **Sound Mode** [Try Now](#)

Sound modes make adjustments to the sound output. However, Sound Modes are not available when using external speakers only.

- **Standard**

This is the normal sound mode.

- **Music**

This mode emphasizes normal music instead of voices.

- **Movie**

This mode is calibrated to provide the best sound for movies.

- **Clear Voice**

This mode emphasizes voices.

- **Amplify**

This increases the overall intensity of high-frequency sounds for a better listening experience. It is designed for hearing-impaired listeners.

- **Stadium**

This is chosen automatically when **Sports Mode** is turned on under the **Smart Features** menu.

Adjusting the Sound Settings

Screen Menu > **Sound** > **Sound Effect** **Try Now**

Use sound effects to alter how the TV projects sound. These options are available only when **Speaker Select** is set to **TV Speaker** and **Sound Mode** is set to **Standard**.

- **Virtual Surround**

Produces sound that will make you feel like you are sitting in a movie theatre or concert hall. **Try Now**

- **Dialog Clarity**

Increases the voice intensity to make dialog clearer. **Try Now**

- **Equaliser**

Adjusts the speaker balance and makes bandwidth adjustments. Select **Reset** to reset the settings. **Try Now**

Auto Volume

Screen Menu > [Sound](#) > [Speaker Settings](#) > [Auto Volume](#) [Try Now](#)

Because each station has its own set of broadcasting conditions, the volume may fluctuate as the channel changes. The Auto Volume function automatically adjusts the volume of a channel by lowering or raising the sound output. [Normal](#) applies a normal level of volume adjustment, whereas [Night](#) applies a slightly lower volume level than [Normal](#) and is ideal for nighttime TV viewing. To use the volume control of a connected source device, deactivate the Auto Volume function. When using the Auto Volume function with a source device, the device's volume control may not function properly.

3D Audio

Screen Menu > [Sound](#) > [3D Audio](#) [Try Now](#)

This TV can make the sound more immersive to match it with 3D video. When watching 3D video, open the [Sound](#) menu, choose [3D Audio](#), and then choose a 3D sound level.

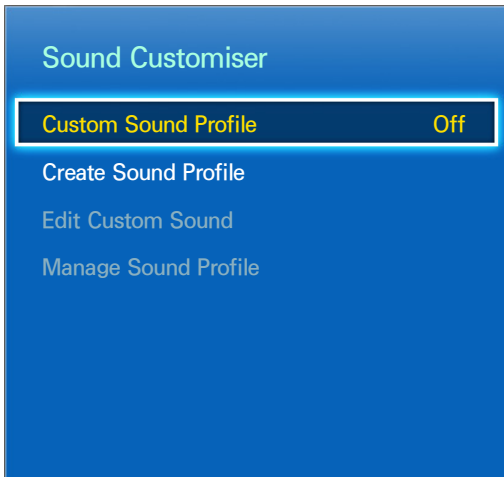
Resetting the Sound


Screen Menu > [Sound](#) > [Reset Sound](#) [Try Now](#)

This resets all sound settings to the factory defaults.

Sound Customiser

Screen Menu > [Sound](#) > [Sound Customiser](#) [Try Now](#)



 The displayed image may differ depending on the model.

Sound Customiser lets you calibrate the TV for the optimal sound quality based on the user's hearing level and the ambient conditions.

Creating Custom sound

Screen Menu > [Sound](#) > [Sound Customiser](#) > [Create Sound Profile](#) [Try Now](#)

Remain quiet and run **Create Sound Profile**.

1. Select **Start** to preview a test tone. Select **Next** to proceed.
2. A 6-step test will start. During each stage, select **Stop** when you can hear the test tone. If you want to listen to it again, select **Retry**. Once the test is complete, you can compare the original sound to the calibrated sound.
3. Select **Next** and enter a name for the calibrated sound profile.

You can select a custom sound profile from **Custom Sound Profile** ([Sound](#) > [Sound Customiser](#) > [Custom Sound Profile](#)). [Try Now](#)

Editing Custom Sound

Screen Menu > [Sound](#) > [Sound Customiser](#) > [Edit Custom Sound](#) [Try Now](#)

Choose one of the custom sound profiles to modify it. Follow the same steps as used in creating a sound profile. This function is only available when you add a custom sound mode in the [Custom Sound Profile](#).

Managing Custom Sounds

Screen Menu > [Sound](#) > [Sound Customiser](#) > [Manage Sound Profile](#) [Try Now](#)

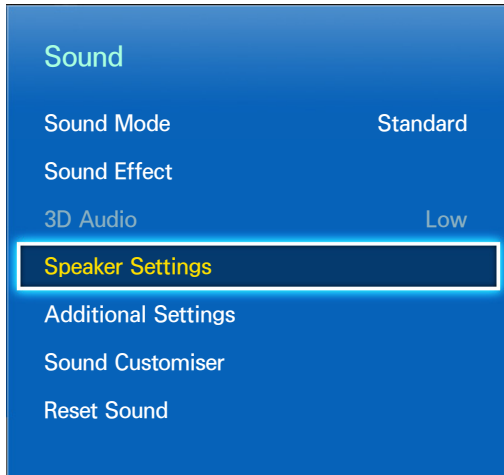
Rename or delete custom sound profiles. This function is only available when you add a custom sound mode in the [Custom Sound Profile](#).


Speaker Settings

If the TV's audio is sent to an external device such as a home theatre system, you can designate which speakers to use and make adjustments to eliminate decoding speed echoes.

Speaker Select

Screen Menu > [Sound](#) > [Speaker Settings](#) > [Speaker Select](#) [Try Now](#)



 The displayed image may differ depending on the model.

You can choose which speakers to use from among available several speakers. Choose one from the list of speakers. To use both the TV speakers and the AV receiver speakers simultaneously, set this option to [TV Speaker](#). If there is a delay between the two sounds, choose any other than [TV Speaker](#) to mute the TV speakers.

 Using the external speakers only disables the volume button and the mute function. In addition, certain [Sound](#) options will be disabled.

Additional Settings

Screen Menu > [Sound](#) > [Additional Settings](#) [Try Now](#)

Configure additional settings for optimum audio output.


DTV Audio Level

Screen Menu > [Sound](#) > [Additional Settings](#) > [DTV Audio Level](#) [Try Now](#)

(Digital channels only)

The TV cannot freely control the volume of the digital audio that it sends to the AV receiver. Use this to set the digital audio volume at a comfortable level.

 According to the type of broadcast signal, MPEG / HE-AAC can be adjusted between -10dB and 0dB.

 To increase or decrease the volume, adjust between the range 0 and -10 respectively.

Digital Audio Out

Screen Menu > [Sound](#) > [Additional Settings](#) > [Digital Audio Out](#) [Try Now](#)

This SMART TV is SPDIF-enabled. The Sony Philips Digital Interface (SPDIF) provides digital audio output to speakers and various digital devices, including A/V Receivers and home theatres. This feature reduces interference and distortion.

- [Audio Format](#)

Selects the Digital Audio output (SPDIF) format. The available Digital Audio output (SPDIF) formats may vary depending on the input source.

- [Audio Delay](#)

This setting helps correct timing mismatches between the audio and video tracks when watching TV and listening to audio through a digital audio device. Enabling the feature displays a slide bar that you can use to adjust the delay by up to 250ms.

Dolby Digital Comp

Screen Menu > [Sound](#) > [Additional Settings](#) > [Dolby Digital Comp](#) [Try Now](#)

Some digital TV programmes provide 5.1-channel Dolby audio. This TV converts Dolby audio to stereo audio so that it can play the sound through the TV's speakers. There are two methods to choose from. [RF](#) is for better sound at lower volumes, and [Line](#) is for higher volumes.

Samsung Audio Device Connection

Screen Menu > [Sound](#) > [Speaker Settings](#) > [SoundShare Settings](#)

Connect the TV to a Samsung audio device for a richer, clearer sound. This function is available for Samsung Audio Device supported the SoundShare function.

Pair the Samsung audio device using the TV's Bluetooth function. Refer to the Samsung audio device's operating manual for more information on pairing.

- [Add New Device](#)

Enables/disables SoundShare. Connection signals from new devices are ignored if they are set to Off.

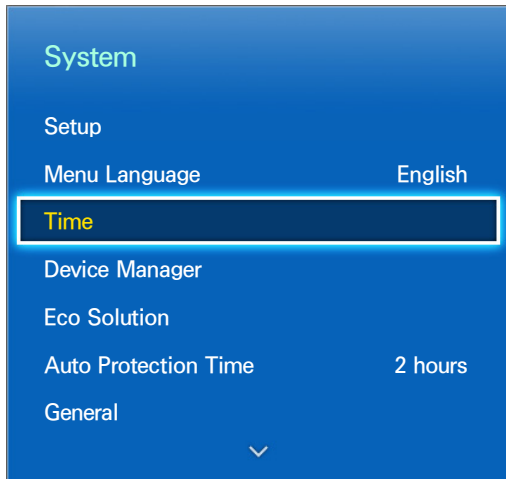
- [Samsung Audio Device List](#)


Displays a list of paired Samsung audio devices. Select a device to display its menu options. Activate/deactivate the audio device or remove it from the list.



When using a Bluetooth audio device, a slight mismatch between the audio and video may occur, depending on the content.

Clock and Timer



 The displayed image may differ depending on the model.

Use the clock and timer to make scheduled use of the TV easier and more efficient. Once the clock has been set, you can select the Virtual Remote panel's **INFO** button to check the current time. The clock must be reset every time the power is disconnected.

Setting the Time

Screen Menu > **System** > **Time** > **Clock** [Try Now](#)

Set the clock manually or automatically.

Auto

Automatically download the correct time from a digital channel. To enable this option, an aerial cable has to be connected to the TV. The accuracy of the time information received may vary depending on the channel and signal. Set **Clock Mode** to **Auto**.

Time Offset

Screen Menu > **System** > **Time** > **Clock** > **Time Offset** [Try Now](#)

If the set time is not accurate, users can set the time offset to adjust the time difference hourly from -12 to +12 hour. Changing **Time Offset** is only available, when the **Time** is set to **Auto**, and is set through a network.

The current time will be set through a network, if the TV fails to receive the time information including the broadcast signal from TV stations. (ex: Watching TV via set-top box, Satellite receiver, or etc)

Manual

Manually enter the time. Set **Clock Mode** to **Manual** and then select **Clock Set** to enter the current time and date.

Clock Set: Set the current **Date** and **Time**. [Try Now](#)

Time Zone: Select your time zone.



This function is only available when the Clock Mode is set to Auto.



The **Time Zone** function may not be supported depending on the region.

Sleep Timer

Screen Menu > [System](#) > [Time](#) > [Sleep Timer](#) [Try Now](#)

This function automatically shuts off the TV after a preconfigured period of time. You can set the timer up to 180 minutes in 30 minute increments.

On Timer

Screen Menu > [System](#) > [Time](#) > [On Timer](#) [Try Now](#)

Set the On Timer so that the TV turns on automatically at a chosen time. Only three On Timer settings can run concurrently. The clock must be set for the On Timer to work.

- [Setup](#)

Use the left and right arrow buttons to specify the time period. Use [Manual](#) to specify the days of the week.

- [Time](#)

Specifies the on time.

- [Volume](#)

Specifies the volume when the TV turns on.

- [Source](#)

Selects a signal source from the list. Specify a channel or source to be displayed when the TV turns on. To specify a USB device, a USB device must first be connected to the TV. To playback media from an HDMI or Component source such as a DVD player or Blu-ray player, the device must already be turned on and playing the media when the TV is turned on.

- [Aerial](#)

Set [Source](#) to [TV](#) to select a broadcast signal.

- **Channel**

Set **Source** to **TV** to select a channel.

- **Music / Photo**

Set **Source** to **USB** to specify a USB device folder containing music and image files. Selecting both music and image files plays the music files and displays the images at the same time.



This feature will not function properly if the selected USB device does not contain media files or a folder has not been specified.



The slideshow will not start if there is only one image file on the USB device.



Folders with long names cannot be selected.



Always use different folder names for multiple USB devices.



Use a USB memory stick or multi-card reader. **On Timer** may not work with certain battery-powered USB devices, MP3 players, or PMPs because the TV may take too long to recognise the device.

Off Timer

Screen Menu > **System** > **Time** > **Off Timer** **Try Now**

Set the Off Timer to turn the TV off automatically at a specific time. Only three Off Timer settings can be entered concurrently. The clock must be set for the Off Timer to work.

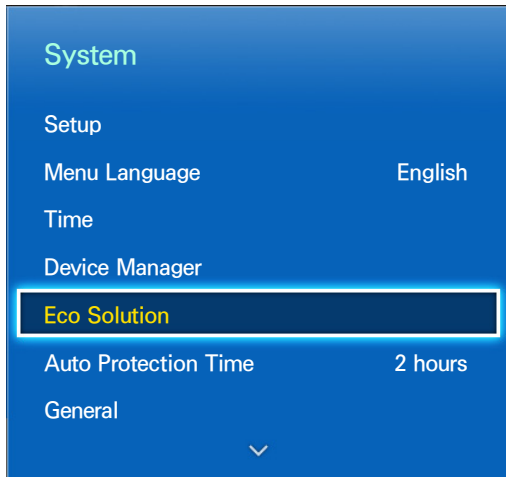
- **Setup**


Use the left and right arrow buttons to specify the time period. Use **Manual** to specify the days of the week.

- **Time**

Sets the time for the TV to automatically turn off.

Screen Protection and Maintenance



 The displayed image may differ depending on the model.

Several onboard functions exist that help maintain the TV beyond its useful lifespan and decrease power consumption.

Eco Solution

Screen Menu > [System](#) > [Eco Solution](#) [Try Now](#)

Eco Solution adjusts the TV's brightness level and prevents overheating to reduce overall power consumption.

- [Energy Saving](#)

Select a brightness setting from the list to reduce the TV's power consumption. [Try Now](#)

- [Eco Sensor](#)

Automatically adjusts the TV's brightness level based on the ambient light level to reduce the TV's power consumption. If the Eco Sensor has adjusted the screen's brightness level, you can manually adjust the screen's minimum brightness level by adjusting [Min. Backlight](#) or [Min Cell Light](#) (applicable models). If [Eco Sensor](#) is enabled and the [Picture](#) menu's [Backlight](#) or [Cell Light](#) (applicable models) value is changed, [Eco Sensor](#) is automatically disabled. [Try Now](#)

- **No Signal Power Off**

Select a time from the list. If no signal is received for the specified duration, the TV will automatically cut off the power to reduce power consumption. [Try Now](#)

- **Auto Power Off**

If the TV remains turned on for four hours without any user input, the TV will automatically turn off to prevent overheating. [Try Now](#)

Screen Burn Protection

Screen Menu > **System** > **Screen Burn Protection**

This feature is only available for PDP TVs.

To reduce the possibility of screen burn, the TV uses **Pixel Shift** screen burn prevention technology. **Pixel Shift** moves the picture slightly on the screen to avoid over-using some elements and underusing others. The **Pixel Shift** Time setting allows users to programme the time between picture movements, in minutes.

The TV also has the following additional screen burn protection functions:

- **Pixel Shift**
- **Auto Protection Time**
- **Scrolling**
- **Side Grey**

Pixel Shift

Screen Menu > **System** > **Screen Burn Protection** > **Pixel Shift**

Set the TV to very slightly shift pixels on the PDP screen in a horizontal or vertical direction to minimize burned-in after-images.

The **Pixel Shift** value may differ depending on the monitor size and mode. It is not available in **Screen Fit** mode.

Settings:

- **Horizontal**: Available Settings: 0 - 4 (pixels), Optimum settings for TV/AV/Component/HDMI: 4
- **Vertical**: Available Settings: 0 - 4 (pixels), Optimum settings for TV/AV/Component/HDMI: 4
- **Time** (minutes): 1 - 4 min, Optimum settings for TV/AV/Component/HDMI: 4 min

Auto Protection Time

Screen Menu > **System** > **Screen Burn Protection** > **Auto Protection Time**

If the screen displays a still image for a certain period of, the TV activates the screen saver to prevent the formation of burnt-in ghost images.

Scrolling

Screen Menu > System > Screen Burn Protection > Scrolling

This removes after-images on the screen by illuminating all the pixels on the PDP according to a set pattern. Use this when there are after-images or symbols on the screen, especially when a still image was displayed on the screen for a long time.

The after-image removal function has to be executed for approximately 1 hour to effectively remove after-images. If the after-image is not removed the first time, repeat the process.

Press any button to cancel this process.

Side Grey

Screen Menu > System > Screen Burn Protection > Side Grey

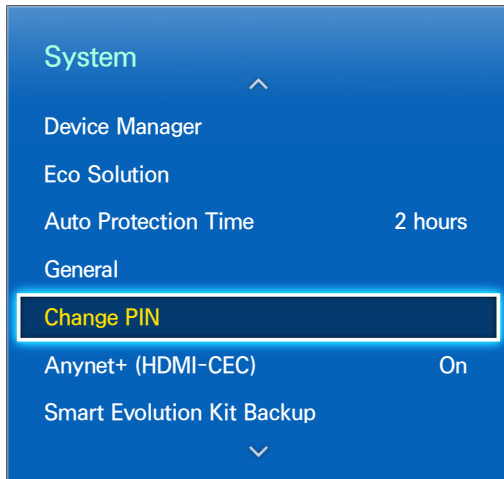
This allows selection of colors for the sidebars the TV displays when the screen size is set to 4:3. The default color is gray.


Auto Protection Time

Screen Menu > System > Auto Protection Time

Select a time from the list. If a still image is shown on the screen for the specified duration of time, the TV will automatically activate the Screen Burn Protection function to prevent burnt-in ghost images. This feature is only available for LED TVs.

Password



 The displayed image may differ depending on the model.

This TV requires a password to lock out channels and to reset its settings to the factory default.

Change Password

Screen Menu > **System** > **Change PIN** [Try Now](#)

Change the TV's password.

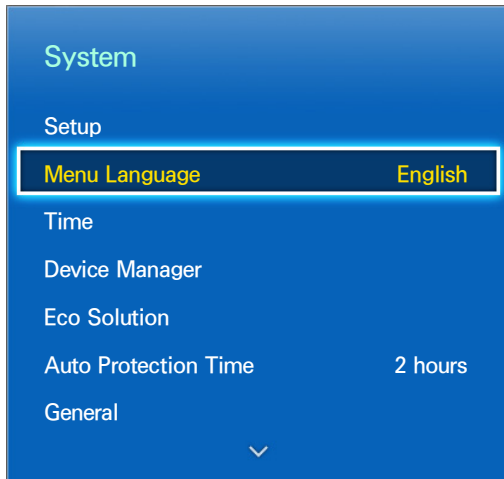
1. Run **Change PIN** and then enter the current password in the password field. The default password is 0000.
2. Enter a new password and then enter it again to confirm it. The password change is complete.

If you forget the PIN code, press the buttons in the following sequence which resets the PIN to “0-0-0-0”:

For Standard Remote Control: In Standby mode: **MUTE** → **8** → **2** → **4** → **POWER** (on)

For Smart Touch Control: When the TV turns on: **MUTE** → Volume up → **RETURN** → Volume down → **RETURN** → Volume up → **RETURN**

Additional Features



 The displayed image may differ depending on the model.

There are many elements available for customizing the TV for individual user preferences.

Changing the Menu Language

Screen Menu > **System** > **Menu Language** [Try Now](#)

(Depending on the country)

Select a menu language from the list.

 This function may not be supported depending on the country.

Game Mode

Screen Menu > **System** > **General** > **Game Mode** [Try Now](#)

Game Mode optimizes the TV's settings for playing video games on a gaming console such as PlayStation™ or Xbox™. Read the following information before using Game Mode.

Precautions and Restrictions

- Game Mode cannot be used for normal TV viewing.
- Connect the gaming console before enabling Game Mode. Otherwise, the picture quality may suffer.
- Game Mode can result in some images shaking.
- Enabling Game Mode automatically sets **Picture Mode** to **Standard** and **Sound Mode** to **Movie**.
- Once finished, disconnect the gaming console and disable Game Mode before plugging in a different external device.

BD Wise

Screen Menu > [System](#) > [General](#) > [BD Wise](#) [Try Now](#)

Connecting a Samsung DVD player, Blu-ray player, or home theatre system that supports BD Wise enables you to enjoy the richest colours and picture quality possible. Enabling BD Wise automatically optimizes the TV's resolution. This feature is only available when the external device is connected via an HDMI cable.

Menu Transparency

Screen Menu > [System](#) > [General](#) > [Menu Transparency](#) [Try Now](#)

Adjust the menu screen's transparency.

Sound Feedback

Screen Menu > [System](#) > [General](#) > [Sound Feedback](#) [Try Now](#)

Adjust the sound feedback volume or disable it entirely. Sound feedback is an audio cue that plays when you move the focus or make a selection.

Auto Stand Adjustment

Screen Menu > [System](#) > [General](#) > [Auto Stand Adjustment](#)

You can adjust the stand to the desired angle.

 This function is not available with 60 or more inch models.

Panel Locking

Screen Menu > [System](#) > [General](#) > [Panel Lock](#) [Try Now](#)

Lock or unlock all the keys on the front panel. The panel keys are located at the back of the TV and can be used to select options, to change the channel, and to adjust the volume.

Booting Logo

Screen Menu > [System](#) > [General](#) > [Boot Logo](#) [Try Now](#)

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

Light Effect

Screen Menu > [System](#) > [General](#) > [Light Effect](#)

This function may not be available, depending on the model.

Users can turn the LED on the TV's front panel on or off. Turn it off to save power or if the LED is too bright for you. The colour of light may vary depending on the model. This function is only available for LED TVs.

Flash Adjustment

Screen Menu > [System](#) > [General](#) > [Anti Flicker](#) [Try Now](#)

Change the power frequency for the cable to stop the camera from flickering.

Smart Evolution Kit Backup

Screen Menu > [System](#) > [Smart Evolution Kit Backup](#)

Back up your data before you remove your old Smart Evolution Kit. The data will be stored on your TV temporarily.

DivX® Video On Demand


Screen Menu > [System](#) > [DivX® Video On Demand](#) [Try Now](#)

Product registration is required to play back videos protected with DivX® DRM. Visit the DivX website and register the code displayed on the screen.

Smart Hub

Screen Menu > [Smart Features](#) > [Open Smart Hub](#) [Try Now](#)

Smart Hub is the core of Samsung Smart TV. It turns the TV into a multi-purpose entertainment centre. With Smart Hub, viewers can surf the web, download applications, and stay in touch with family and friends through social networking services. In addition, you can enjoy photo, video, and music files stored on external storage devices.

Press  to launch Smart Hub. Choose a service using the icons displayed in the top part of the screen.

- **Social**

Watch the latest YouTube videos, you and your friends' video posts on Facebook and Twitter. You can also make video calls to friends by connecting the TV to a camera.

- **Apps**

Download and install applications such as Web Browser



- **On TV**

(Depending on the country)

Check a listing of programmes that are currently airing and are scheduled to aerial and watch recorded TV programmes.

- **Photos, Videos & Music**

Play back photo, video, and music files from an external storage device or watch recorded videos.

Use  or  to change the Smart Hub screens.

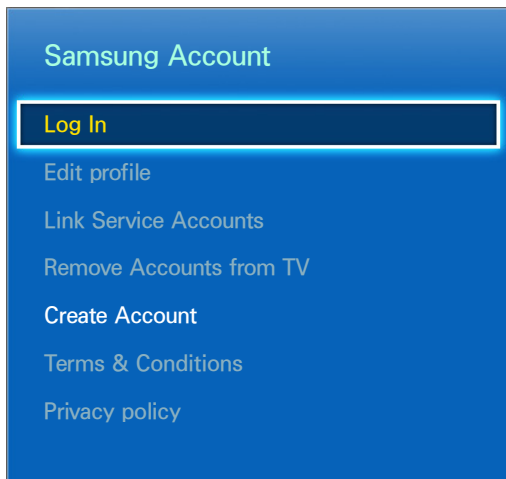
Agreements Required to Use Smart Hub

Screen Menu > [Smart Features](#) > [Terms & Policy](#)

Carefully read the terms and conditions to use Smart Hub, and determine whether or not to agree to them. Users cannot use Smart Hub fully unless they agree to them.

Samsung Account

A Samsung account is necessary to maximize this TV's usefulness. A case in point is to download apps from the Samsung TV app store. You can create a Samsung account using your email address.




 The displayed image may differ depending on the model.

Creating a Samsung Account

Screen Menu > [Smart Features](#) > [Samsung Account](#) > [Create Account](#) > [Create a Samsung account](#)

From the login screen, select [Create Account](#) and then follow the on-screen instructions.

 Once a Samsung account has been created, a confirmation email will be sent to the email address you entered as your ID. Open the confirmation email and click on the confirmation button to finalize the Samsung account setup process.

Creating a Samsung Account Using a Facebook Account

Screen Menu > [Smart Features](#) > [Samsung Account](#) > [Create Account](#) > [Create a Samsung account using Facebook](#)

A Facebook account makes it easier to create a Samsung account. When a Samsung account is created using a Facebook account, the Facebook account is also registered on the TV.

Terms and Conditions, Privacy Policy

Screen Menu > [Smart Features](#) > [Samsung Account](#)> [Terms & Conditions](#) (or [Privacy policy](#))

Carefully read the terms and conditions to use Samsung Account, and determine whether or not to agree to them. Users cannot use Samsung Account fully unless they agree to them. However, you can only view the entire terms and conditions after signing in with your Samsung account and you can use your Samsung Account after agreeing to the terms and conditions.

Logging In

Screen Menu > [Smart Features](#) > [Samsung Account](#) > [Log In](#)

Use your Samsung account to log into the Smart Hub. Enter your ID and password and then select [Log In](#).

The [Remember my password](#) option lets you login without having to enter your password each time. Check this option to enable it. Check the [Sign me in automatically](#) option if you want to log into Smart Hub automatically.

If you forgot your password, select [Reset password](#) to receive the password resetting instructions via email.

Linking a Samsung Account to Other Accounts

Screen Menu > [Smart Features](#) > [Samsung Account](#) > [Link Service Accounts](#)

Linking your Samsung account to other accounts lets you automatically log into your linked accounts when you log into your Samsung account. For example, you can download the Facebook application and link your Facebook account to your Samsung account. Logging into your Samsung account then automatically logs you into your Facebook account as well.

Log into your Samsung account and select [Link Service Accounts](#) to view a list of applications that require login information.

- **Register Service Account:** Select an application, select [Register](#), and then provide the ID and password.
- **Edit:** It is possible to change a registered account. Select an application, select [Edit](#), and enter the ID and password for the new account.
- **Remove:** Select an application to which an account has been registered and then select [Deregister](#).

Managing Accounts

Screen Menu > [Smart Features](#) > [Samsung Account](#)

Using the Samsung Account menu, you can manage your Samsung account. You can only use this function after signing in with your Samsung account.

- **Edit profile:** You can change the basic user information and register your photo and credit card information.
- **Remove Accounts from TV:** The Samsung account used to sign into the Smart Hub is automatically saved on the TV. You can delete your account information from among the saved accounts on the TV.

Resetting Smart Hub

Screen Menu > [Smart Features](#) > [Reset Smart Hub](#)

It is possible to remove Samsung accounts and everything linked to them, including apps, from the TV. Enter the password when accessing this menu.

After resetting Smart Hub, you will need to read and agree to the service agreement again before using Smart Hub. Run [Setup](#) ([System](#) > [Setup](#)) again.


Searching

Users can search many apps and their contents on the TV as well as the Web.

Keyword Search

Press the **RECOMM. / SEARCH** (or **HISTORY/SEARCH**) button twice. Enter search criteria using the on-screen keyboard that appears, and then select **Done**. A list of search results appears. Select a desired item from a list of search results. The selected item's page appears.

Setting Search Scope

If you select  in the search result screen, you can set the search range. With **Keyword recommendation** selected, suggested words appear above the on-screen keyboard when entering search criteria.

Sports Mode

Screen Menu > **Smart Features** > **Sports Mode** [Try Now](#)

Enable Sports Mode for the optimal sports viewing experience. However, enabling Sports Mode disables the **Picture**, **Sound** and **Broadcasting** menu options. Disabling Sports Mode restores the previous **Picture** and **Sound** settings.

Status and Notification

A notification message window appears at the top of the screen when important messages concerning application updates and Samsung account logins are available. This message window notifies the user of the TV's operating status.

Show Status and Notification Banner

Press the **MORE** button on the Smart Touch Control and then select **STATUS** on the Virtual Remote panel. The status and notification banner is shown at the top of the screen.

Voice Recognition & Motion Control Configuration

Enable/disable the status and notification banner's Voice Recognition and Motion Control functions. It's also possible to perform the **Voice Recognition Environment Test** and the **Motion Control Environment Test**.

Samsung Account Configuration

Select **My Account** from the status and notification banner to manage your Samsung account.

Network Configuration

Select **Network Settings** from the status and notification banner to configure the network.

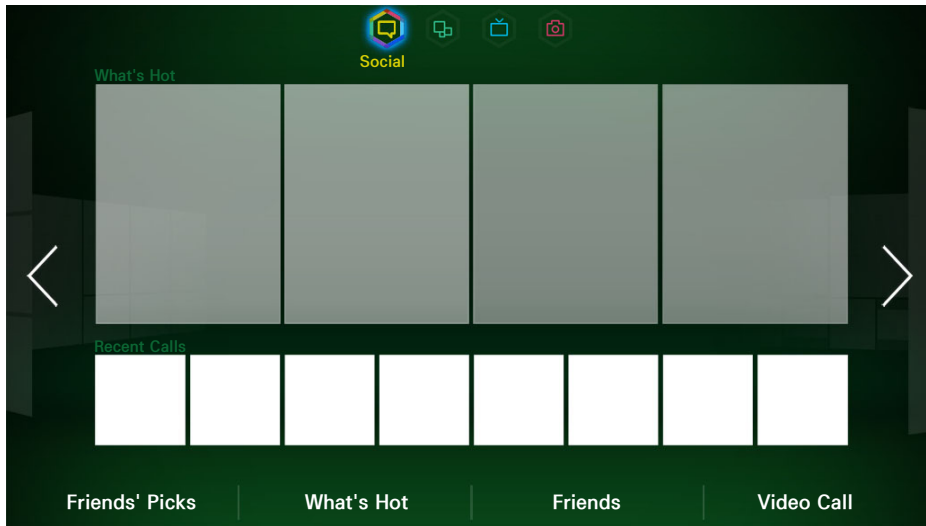
Notifications


If you missed any alarm messages displayed on the TV, you can view the alarm messages through the **Notifications** in the notifications menu. You can also check notifications from **Notifications (Smart Features > Notifications)**. However, the **Notifications** item is only available when you have unread notifications. **Try Now**

Selecting a notification from the list allows you to perform corresponding actions with ease. To delete all notifications, select **Delete All**.

Selecting **Service Notice** launches WebBrowser to display the notification webpage of the Samsung website.

Social



 The displayed image may differ depending on the model.

Watch the latest YouTube videos, you and your friends' video posts on Facebook and Twitter. You can also make video calls to friends by the TV Camera.

Social Settings

Screen Menu > [Smart Features](#) > [Social Settings](#) [Try Now](#)

Checking the Application

Certain applications need to be installed on the TV in order to use the Social feature. If a selected application has not been installed on your TV, you will need to install it first.

Connecting a Service to a Samsung Account

Social service accounts need to be linked to a user's Samsung account first. If you do not have a social service account, create one by visiting the website of that service.

Watching Videos

Select **Friends' Picks** or **What's Hot** at the bottom of the Social screen to display a list of videos. Select a video from the list to view its information and then select Play.

Friend Profile

Select **Friends** at the bottom of the **Social** screen to display a list of Facebook and Twitter friends. Select a friend from the list. The selected friend's profile containing his/her basic information and posts is displayed.

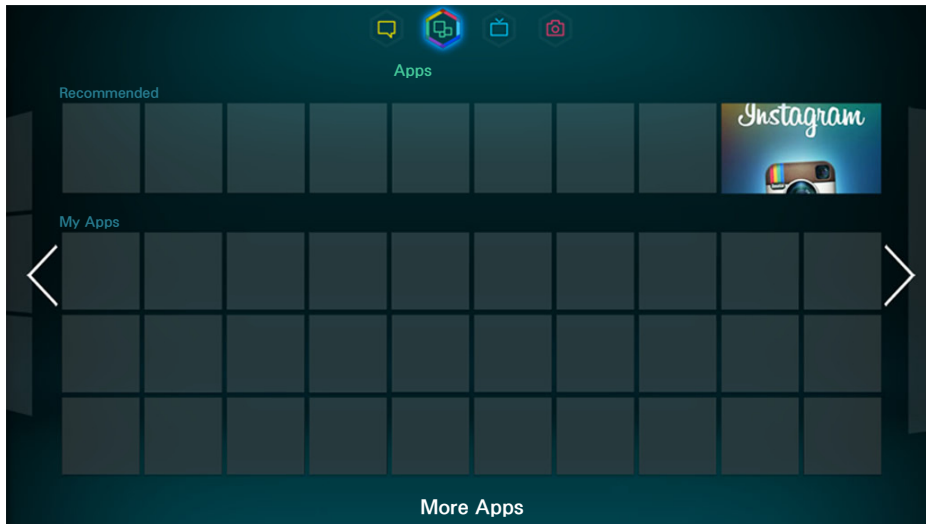
Select a friend to call


Select **Video Call** at the bottom of the **Social** screen. This launches Skype and displays a list of friends. Select a friend to call.

Filters

Log in to a Samsung account to use this function. Select either **Friends' Picks** or **Friends** and **Video Call** on the **Social** screen. Use the filter option at the top of the screen to rearrange the list. Select a filter. However, this option cannot be used in the **What's Hot** list.

Apps



 The displayed image may differ depending on the model.

Samsung Apps offers an extensive collection of free and paid news, sports, weather, and gaming content you can directly download to and enjoy on your TV. First, check the network and make sure the TV is connected to the Internet. Your TV needs to be connected to the Internet in order to use Apps.

Precautions

- Due to the product characteristics featured on the Samsung Smart Hub, as well as limitations in available content, certain features, applications, and services may not be available on all devices or in all territories. Some Smart Hub features may also require additional peripheral devices or membership fees. Visit <http://www.samsung.com> for more information on specific device information and content availability. Services and content availability are subject to change without prior notice.
- Samsung Electronics takes no legal responsibility for any interruption of the Smart Hub service caused by the service provider for any reason.
- Application services may be provided in English only and available content may vary, depending on the country.
- For more information about applications, visit the applicable service provider's website.

- An unstable Internet connection may cause delays or interruptions. In addition, applications may terminate automatically depending on the network environment. If this occurs, check your Internet connection and try again.
- Application services and updates may become unavailable.
- Application content is subject to change by the service provider without prior notice.
- The service details may vary depending on the user's firmware version.
- The application usage method may vary with future versions of the application. If this is the case, run the application's tutorial or visit the service provider's website.
- In some applications, depending on the policy of the service provider, multi-tasking is not supported.

Installing Standard Applications

Launching Smart Hub for the first time and loading the **Apps** screen, the TV is automatically downloads and installs the basic applications that correspond to the network your TV is connected to. The types of basic applications may vary depending on your location.

Launching an Application

Navigate to the Smart Hub's Apps screen and then select **More Apps** screen located at the bottom of the screen. The list of applications currently installed on your TV is displayed. From this list, select the application you want to launch. Select **View** (right top of the screen) to rearrange the list of downloaded applications by the **Date Downloaded**, **Recently Opened**, or **Title**.

Samsung Apps

Samsung Apps offers various free and paid news, sports, weather, and gaming applications. Samsung Apps lets you search for applications and install them directly on your TV. Read and agree to the terms and conditions of use and then browse through the categories or directly search for applications.

[Try Now](#)

Searching for Apps

Search for applications by name. On the [Samsung Apps](#) screen, select the [Search Samsung Apps](#) to bring up the keypad. Enter the application's name and then select [Done](#).

Installing Applications

Select the application you wish to install to bring up a screen with detailed information about that application. Select [Download](#) to install the selected application. Paid applications, however, must be purchased before you can install them. Visit the Samsung Apps TV website at <http://tv.samsungapps.com> and recharge your account with App Cash before purchasing paid applications.


Apps Management

You can customise the My Apps screen. You can also manage installed applications and configure application update settings.

Edit My Apps

Move applications to My Apps. Navigate to **More Apps**, select **Options**, and then select **Edit My Apps**. You can customise the My Apps screen.

Change Order

From the **Edit My Apps** screen, select the applications you wish to rearrange, change the order, and then tap on the touchpad or  button.

Removing Applications

Remove unused applications from the My Apps' application list. Removed applications are moved to the **More Apps** list.

From the **Edit My Apps** screen, select the applications you wish to remove and then move them to the first or last row of the My Apps list. An X will appear at the top or bottom of the icons of the selected applications. Move the applications in the direction of the X. A popup window will appear. Select **Yes** from the popup window to remove the selected applications from the My Apps list.

From the **Edit My Apps** screen, select **Remove All** to remove all applications from the My Apps list.

Adding Applications

Applications that have been installed on the TV but do not show up in the My Apps list can be added to the list.

Select the applications you wish to add from the **More Apps** list at the top of the **Edit My Apps** screen. Selected apps are added to the My Apps list.

Deleting Applications

Delete applications installed on your TV. Deleting an application deletes all data associated with that application. Navigate to **More Apps**, select **Options**, and then select **Delete**. Select all the applications you wish to delete. Select all the applications you wish to uninstall, select **Delete**, and then select **Yes** from the popup window. Applications in gray cannot be deleted.



You can reinstall deleted applications for free from Samsung Apps.

Managing Application Folders

Create folders and manage applications by group. Navigate to **More Apps**, select **Options**, and then **Create Folder**. Enter a name for the new folder.

Select **Options** to rename the folder or move applications to that folder.

Application Lock/Unlock

Lock / unlock applications. Navigate to **More Apps**, select **Options**, and then select **Lock/Unlock**. Enter the password and then select the applications you wish to lock. A lock symbol appears on the selected applications. To unlock, simply select the application again.

Application Update

When the application require to update to the latest version, navigate to **Apps** screen, and then select **More Apps**. On the **More Apps** screen, select **Apps to update**, and then select application from the list. The application starts updating to the latest version. However, **Apps to update** appears on the screen only when the update is required.

Setting up the Application Auto Update

To update the applications automatically, select **Options** in the **More Apps** screen, and then select **Auto Update Apps**. Applications will then be updated automatically when an update becomes available.

Fitness

Fitness is an application that helps you stay fit. Create a profile, set up an exercise plan, and start exercising according to a structured regimen. Read and agree to the terms and conditions before using Fitness. **Try Now**

⚠ Do a warm-up or some stretches before exercising. Users must stop exercising immediately if they experience pain, or become dizzy, exhausted or short of breath.

Creating a Profile

Follow the on-screen instructions and enter your information to create a profile.

Kids

This is a quick launcher and recommended list for applications and content that is suitable for children and even provides services not currently installed on your TV. Using Kids, you can download applications and content for your children to your TV. Certain services, however, are fee-based. [Try Now](#)

On the Kids screen, select the virtual remote panel's **TOOLS** button. The list screen appears. Select Tutorial Video from the list, user can view the introductory video for more information about Kids anytime.

Web Browser

Web Browser is a web-browsing application. Using Web Browser, you can browse the Internet on your TV as you would on your computer and even watch TV while you surf the web. The browsing experience, however, may not be the same as it is on your computer. Use a keyboard and mouse for a more convenient web browsing experience. [Try Now](#)

Social Networks

Share your thoughts and comments about a programme on the aerial through social networking services. Social Networks displays social network services such as Twitter, Facebook, Google Talk, and NateOn on a single screen. You can even post messages and comments in the same manner as you would using a computer. You must first link your Samsung account to the respective SNS accounts before you can access them using Social Networks.

For more information about using the service, visit the application's website.

Linking Service Accounts

Link your SNS (Twitter, Facebook, Google Talk, NateOn, etc.) to your Samsung account. Launch Social Networks, select an SNS, and then register the account you have with that SNS.

Once linked, you can use the buttons at the bottom of the screen to access the registered SNS. You can update your feed, post comments, and even change the viewing mode.

Apps Settings

Screen Menu > [Smart Features](#) > [Apps Settings](#) [Try Now](#)

Configure the apps installed on your TV.

Ticker Autorun

Screen Menu > [Smart Features](#) > [Apps Settings](#) > [Auto Ticker](#)

Configure selected tickers to display automatically when the TV is turned on. A ticker is a service that displays stock values, news, and weather updates on the screen in real-time. Enabling the Ticker service brings you up-to-the-minute information while you watch TV. From the [Auto Ticker](#) list, select the applications to run. If a selected application has not been installed on your TV, you will need to install it first.



Depending on your country, the Ticker application may have a different service or not be supported.

Push Notification Settings

Screen Menu > Smart Features > Apps Settings > Push Notification Settings

Enable/disable push notifications from applications. **Push Notification Settings** are displayed on the screen as you watch TV. You can then select these notifications to get more information.

Channel-Bound Apps

Screen Menu > Smart Features > Apps Settings > Channel-Bound Apps

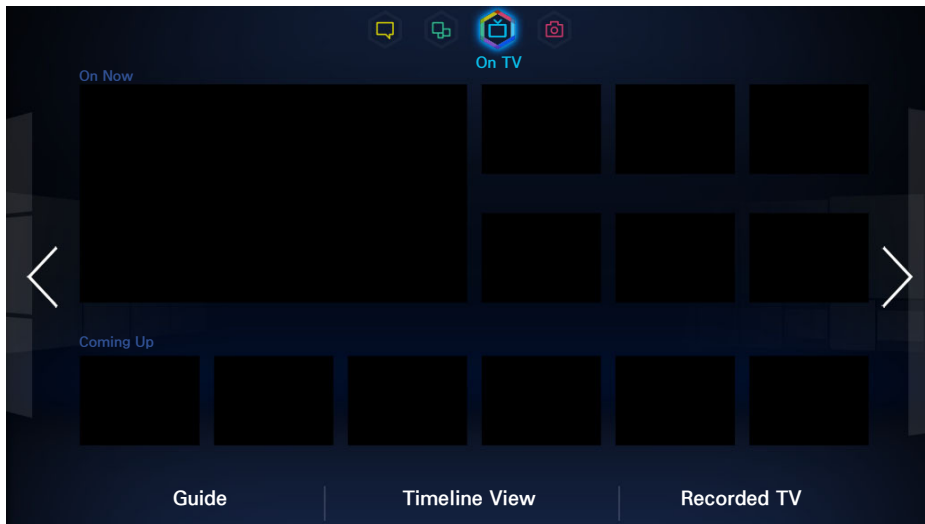
Channel-Bound Apps can be used when watching a channel that supports applications for the current programme's data services.


Properties

Screen Menu > Smart Features > Apps Settings > Properties

Users can view the Apps version, the TV's serial number. In addition, you can check the TV's total and available memory capacity.

On TV




 The displayed image may differ depending on the model.

This service may be not available depending on the country or region.

While you watch TV, a list of recommended programmes on other channels appears on the screen. You can use this list to change the channel and find out more information about the recommended programmes including how much time is left until they aerial. You can also launch the Recorded TV function and watch recorded programmes.

Certain features within Smart Hub require internet access and may not be available based on service provider, language, dialect and region.

 **On TV's** programme and channel information recommendations may differ from actual programmes depending on service providers and broadcasts.

On TV Settings

Screen Menu > Smart Features > On TV Settings

Customize the On TV screen.

On TV Setup

Set a broadcast media type and TV stations for the On TV screen, following the on-screen instructions.

Recommendation Notice

With this enabled, when one of popular TV programmes that the user has often watched is currently on the air, the TV gives notice of it.

Recommendation Method

Determine whether to display upcoming TV programmes by user preference or general popularity.

Adult Content Block

With this enabled, adult TV programmes are not listed on the [On TV](#) screen.

Starting Smart Hub

Screen Menu > [Smart Features](#) > [On TV Settings](#) > [Auto Start](#)



This service may be not available depending on the country or region.

You can configure Smart Hub to automatically launch when the TV is turned on.

Watching an On-Aerial Recommended Programme

Select a programme from the right side of the screen. This changes the channel to the selected programme.

Scheduled Recommended Programme Info

The following list displays the information and viewing times of recommended programmes that have not yet aired. Select a programme from the list to see more information about the programme and to access the following options:

- **Jump to Channel:** Jump to the selected programme's channel.
- **Timer:** Set up a Schedule Viewing or Schedule Recording.
- **Related Contents:** Displays the related contents list of the selected programme. Select a desired contents in the list. User can view the information screen of the selected contents.
- **Share:** Like/dislike the selected programme or share information about the selected programme via an SNS.

Activating the Guide

Select **Guide** at the bottom of the screen to launch the **Guide**. For more information, refer to "Guide".

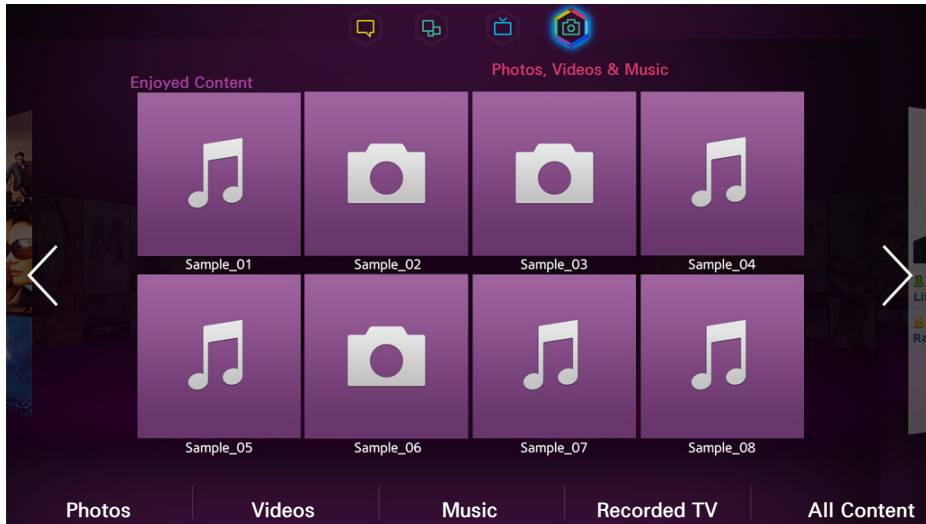
Programme Recommendations by Time


Select **Timeline View** at the bottom of the screen to display programme recommendations for different times of the day.

Watching Recorded Programmes

Select **Recorded TV** at the bottom of the screen to launch **Recorded TV**. [Try Now](#)

Photos, Videos & Music




 The displayed image may differ depending on the model.

Open Smart Hub and select **Photos, Videos & Music**.

Enjoy photo, video and music files from an external storage device directly on your TV. Back up important files before connecting an external storage device to the TV. Samsung will not be held responsible for damaged or lost files.

This service may be not available depending on the country or region.

 On the **Photos, Videos & Music** screen, the **Enjoyed Content** panel only shows recently-played media files from either removable storage devices connected to the TV via USB, or DLNA-enabled devices connected to the TV via network.

Restrictions

- Supports MSC (Mass Storage Class) USB devices only. MSC is a class designation for mass storage devices. Types of MSC devices include external hard drives, flash card readers, and digital cameras. (USB hubs are not supported.) These kinds of devices must be connected directly to the TV's USB port. The TV may not be able to recognise the USB device or read the files on the device if it is connected to the TV via a USB extension cable. Do not disconnect the USB device while transferring files.
- When connecting an external hard drive, use the USB (HDD) port. We recommend that you use an external hard drive with its own power adapter.
- Certain digital cameras and audio devices may not be compatible with the TV.
- If there are multiple USB devices connected to the TV, the TV might not be able to recognise some or all the devices. USB devices that use high-power input (500mA or 5V) may not be supported.

- Supported file systems are FAT, exFAT, and NTFS.
- Sorting the files in Folder view mode can display up to 1,000 files per folder. If the USB device contains more than 8,000 files and folders, however, some files and folders might not be accessible.
- PTP connection mode is fully available only with digital cameras. When connecting a smartphone or tablet to the TV using PTP mode, it may not be recognised.

Supported File Formats

This TV is capable of playing back the following types of files. For more information, refer to the "Subtitle and Media Contents file formats, and Codec" section.

- Photos: bmp, jpg, mpo, png
- Music: aac, flac, m4a, mpa, mp3, ogg, wma
- Video: 3gp, avi, asf, flv, m2ts, mkv, mov, mp4, mpg, mts, svi, ts, tp, trp, vob, vro, webm, wmv
- Subtitles: ass, psb, smi, srt, ssa, sub, ttxt, txt

With .avi, .mkv, and .mp4 files, the TV supports embedded subtitles.



Certain files, depending on how they were encoded, may not play on the TV.

USB Device Connection

Plug the USB device into the TV's USB port. Play back stored media files as follows:

- Connecting a USB device while the TV is turned on displays a popup window. Select the type of media you want to play.
- Move to [Photos, Videos & Music](#) at the top of the Smart Hub screen. Select the type of media you want to play and then the USB device that contains the files.
- Select the USB device from the [Source](#) screen. A popup window appears. Select the type of media you want to play.

USB Device Removal

Press [SOURCE](#) to access the Source screen. Select the USB device you want to remove and then select [Tools](#) at the top of the screen. Select [Disconnect USB Device](#) from the list to safely remove the selected USB device.

Playing all the Content on a Storage Device

You can play [All Content](#) saved on a storage device regardless of the type of content ([Photos, Videos & Music](#)).

Select the [All Content](#) on the [Photos, Videos & Music](#) screen. You can play all the content saved on a storage device regardless of the type of content ([Photos, Videos & Music](#)).

Watching Recorded Programmes

Select [Recorded TV](#) at the bottom of the screen to launch [Recorded TV](#). [Try Now](#)

Clearing the Photos, Videos & Music Screen



Screen Menu > [Smart Features](#) > [Clear viewing history](#)

The [Photos, Videos & Music](#) screen displays thumbnails of recently-played media files. Selecting a thumbnail plays the media file.

Using Networked External Storage Devices

Your TV can directly display media files from web storage devices and computers and DLNA-enabled devices connected to the TV over a network. To display the media files on an external storage device, the device must support DLNA and be connected to the same network as the TV.

For example, you can display the media files on your Smartphone or web storage in the following ways:

- Send a media playback request to the TV from a Smartphone or computer.
 - Establish a link between the TV and a computer/Smartphone/web storage and play the media files.
 - Use a Smartphone to send a request to the TV to play the media files stored on a computer or use a computer to request playing the media files stored on a Smartphone.
 - Log into your Samsung account and play the media files stored on your web storage.
-  Certain media files stored on a networked external storage device may not play on the TV, depending on their resolution and format. In addition, certain functions may not be available.
-  Certain files may not play smoothly. If this is the case, use a USB storage device.

Move to **Photos, Videos & Music** at the top of the Smart Hub screen. Select the media type and then the device where the media file is located. The folder and file list of the selected external storage device are shown.

Allowing DLNA Device Connections

Screen Menu > **Network** > **AllShare Settings** > **Content Sharing**

Select **Content Sharing**, and a list of devices connected to the same network as the TV appears. Select a device to connect it to the TV. Select a device to allow it to connect to the TV. You can only play media files from devices that have been allowed to connect to the TV. This function is available for all DLNA DMC devices. Alternatively, you can send a media playback request from an external device that has not yet been allowed to connect to the TV and then accept the connection when prompted.

AllShare

AllShare makes it easy to retrieve and enjoy media files from computers and DLNA-enabled devices. However, computers need to be installed with AllShare PC and mobile devices need to support AllShare. For more information, visit the Samsung Content & Service portal (<http://link.samsung.com>).

 You may experience compatibility issues when attempting to play media files via a third-party DLNA server.

Exporting Contents

From the **Options** list located at the top of the screen, select **Send**. Select all the contents files you wish to export and then select **Send**. This exports the selected files to a different storage device. Possible file export pairings are as follows:

Source Device	Target Device
USB Device	DLNA Device, SugarSync, Dropbox, SkyDrive, Mobile Device
Camera	DLNA Device
DLNA Device	USB Device
SugarSync, Dropbox, SkyDrive	USB Device
Mobile Device	USB Device

Video Playback

Select the video file from the list or press ► to play video. Use the remote control or the on-screen buttons to control the video playback. Tap the touchpad to display the screen control buttons. Press RETURN to hide them. To stop playing the file, press ■ or RETURN. [Try Now](#)


Changing the view mode

On the file list screen, select **View** on the top right of the screen and choose a category. The file list is sorted by the chosen category.



Playlist Creation

From the **Options** list located at the top of the screen, select **Play Selected**, specify all the video files you wish to play, and then select **Play**. This creates a playlist. If the list is displayed in Folder view mode, only the files contained in the current folder can be selected. To select files from other folders, change the view mode.

Opening a Different File

- Select the ⏮/⏭ on-screen button.
- Select the  **Search** on-screen button and then select **Search Titles**.

Video Scanning

- Drag left/right on the touchpad. Scan 10 seconds backward or forward.
- Press ◀ / ▶. This changes the playback speed by up to 300%. To restore normal playback speed, press ▶. Alternatively, pause the video and then press ▶ to reduce the playback speed (1/8 normal, 1/4 normal, 1/2 normal). Slow playback doesn't support audio and is available in the forward direction only.
- Press ⏸ to pause the screen and then ⏮ to scan through the paused video in 1-frame increments. Audio is not supported while the video is paused.
- Select the  **Search** on-screen button and then select **Search Scene**. This will take you to a scene in the video. If the index information is damaged or unsupported, user will not be able to use the **Search Scene** function.
- Select the  **Search** on-screen button and then select **Search Time Bar**. This will take you to a time frame in the video.
- Select the ⏮ on-screen button. This plays the video from the beginning.

Show Subtitles

If the external storage device contains a subtitle file with the same name as the video file being played, you can choose to display subtitles on the screen. Select the **Settings** on-screen button and then select **Subtitle Settings** to show subtitles.

If the subtitles appear corrupted, try changing the encoding setting. If the subtitles do not match the video, adjust the sync. If the subtitles are too small, increase the font size.

Additional Video Playback Settings

- **Repeat**

Select the **Repeat Mode** on-screen button. This changes the repeat mode. **Repeat One** repeats the current file only, whereas **Repeat All** repeats all files contained in the folder.

- **Picture Size**

Select the **Picture Size** button and then select the picture size.

- **Rotate**

Select the **Rotate** on-screen button to rotate the current video 90 degrees clockwise.

- **Receiver**

Select the **Receiver** button and then power on the AV receiver.

- **Picture Mode**

Select the **Settings** on-screen button and then select **Picture Mode**. Select a picture mode.

- **Sound Mode**

Select the **Settings** on-screen button and then select **Sound Mode**. Select a sound mode.

- **Audio Language**

Select the **Settings** on-screen button and then select **Audio Language**. Select an audio language. However, this option is only available with streaming videos that support multiple audio formats.

- **Information**

Select the **Settings** on-screen button and then select **Information** to view detailed information about the current video.

Music Playback

Select the music file from the list or press ► to play music. To stop playing the file, press ■ or RETURN. [Try Now](#)

Changing the view mode

On the file list screen, select **View** on the top right of the screen and choose a category. The file list is sorted by the chosen category.



Playlist Creation

From the **Options** list located at the top of the screen, select **Play Selected**, specify all the music files you want to play, and then select **Play**. This creates a playlist. If the list is displayed in Folder view mode, only the files contained in the current folder can be selected. To select files from other folders, change the view mode.

Music Scanning

- Press ◀ / ▶. This scans through the file in 10-second increments.
- Press ⏸. This pauses the currently playing music file.

Opening a Different File

- Select the  /  on-screen button.
- Select a file from the playlist.

Additional Music Playback Settings

- **Repeat**

Select the **Repeat** on-screen button. This changes the repeat mode. **One Song** repeats the current file only, whereas **All** repeats all files contained in the playlist.

- **Shuffle**

Select the **On** on-screen button. Choose between normal and random play.

- **Receiver**

Select the **Receiver** button and then power on the AV receiver.

- **Sound Mode**

Select the **Sound Mode** on-screen button. Select a sound mode.

- **Information**

Select the Virtual Remote panel's **INFO** button from the playlist to view detailed information about the selected file.

Photo Playback

Select a photo from the list to display it on the screen. Use the remote control or the on-screen buttons to control the photo playback. Tap the touchpad to display the screen control buttons. Press **RETURN** to hide them. To stop playing the file, press **■** or **RETURN**. [Try Now](#)

Changing the view mode

On the file list screen, select **View** on the top right of the screen and choose a category. The file list is sorted by the chosen category.

Slideshow

- From the **Options** list located at the top of the screen, select **Slide Show**. You can view all photos in the list as a slideshow.
- Press **►** from the list.
- Press **►** or select the **Start Slide Show** on-screen button to begin the slideshow.

Slideshow Settings

- **Slide Show Speed:** Press **◀ / ▶** or select the **Slideshow Settings** on-screen button and then select **Speed**.
- **Slide Show Effect:** Select the **Slideshow Settings** on-screen button and then select **Effects**.

Playlist Creation

From the **Options** list located at the top of the screen, select **Play Selected**, specify all the photos you want to play, and then select **Play**. This creates a playlist. If the list is displayed in Folder view mode, only the files contained in the current folder can be selected. To select files from other folders, change the view mode.

Opening a Different File

- Press ◀ / ▶.
- Select the **Previous/Next** on-screen button.

Background Music

Enable music to play in the background during a slideshow. However, all music files must be located on the same storage device.

Select the **Background Music** on-screen button while a photo is displayed on the screen or a slideshow is in progress. Select the music files you want to listen to and then **Play**. To play the files in a random order, select **Shuffle**.

Mini Player

When viewing photos with background music, you can control the music.

Select **Background Music** from among the on-screen control buttons and select **Mini Player**.

You can pause playback or skip to the previous or next song.

Additional Photo Playback Settings

- **Zoom:** Select the [Zoom](#) on-screen button. Zoom in by up to a factor of 4.
- **Rotate:** Select the [Rotate](#) on-screen button. This rotates the current photo 90 degrees clockwise..
- **Receiver:** Select the [Receiver](#) button and then power on the AV receiver.
- **Picture Mode:** Select the [Settings](#) on-screen button and then select [Picture Mode](#). Select a picture mode.
- **Sound Mode:** Select the [Settings](#) on-screen button and then select [Sound Mode](#). Select a sound mode. However, this option is not available while background music is playing.
- **Information:** Select the [Settings](#) on-screen button and then select [Information](#) to view detailed information about the current video.

Anynet+ (HDMI-CEC)

This SMART TV is enabled with Anynet+ (HDMI-CEC), a feature that makes it possible to control Samsung external devices connected to the TV with ease. With Anynet+ (HDMI-CEC), you can use the TV remote control to operate all compatible Samsung devices that are connected to the TV. However, Anynet+ (HDMI-CEC) only works with the remote control and not with the panel keys.

Precautions

- This feature does not support other manufacturer's products.
- Anynet+ devices must be connected to the TV using an HDMI cable. Some HDMI cables may not support Anynet+ (HDMI-CEC). In this case, you will need to replace the HDMI cable.
- The TV remote control may not function under certain circumstances. In this case, select the Anynet+ device again.
- Anynet+ (HDMI-CEC) only works with external devices that support Anynet+ (HDMI-CEC) and only when those devices are either in standby mode or turned on.
- Anynet+ (HDMI-CEC) can control up to 12 compatible external devices (up to 3 of the same type). With home theatre systems, however, the number of systems that can be controlled is limited to one.
- A home theatre system that has been connected to the TV using an HDMI cable and an optical cable supports 2-channel audio only. However, the home theatre is capable of supporting 5.1-channel audio from digital broadcasts.
- To listen to 5.1-channel audio from an external device, connect the device to the TV via an HDMI cable and the device's digital audio output connector directly to the home theatre system.

Anynet+ (HDMI-CEC) Setup

Screen Menu > [System](#) > [Anynet+ \(HDMI-CEC\)](#) [Try Now](#)

Enable/disable Anynet+ (HDMI-CEC).

- [Anynet+ \(HDMI-CEC\)](#)

Enables/disables Anynet+ (HDMI-CEC). Disabling this turns off all Anynet+ related features. [Try Now](#)

- [Auto Turn Off](#)

Turns off external devices when the TV is turned off. Some devices do not support this option. [Try Now](#)

Anynet+ (HDMI-CEC) Use

You can operate external devices using just the TV remote control.

Switching between Anynet+ Devices

1. Select the Virtual Remote panel's [TOOLS](#) button to display the list. Select [Anynet+ \(HDMI-CEC\)](#) from the list. A device selection screen will appear.
2. Select a device and wait for the switch to take place. This process may take up to 2 minutes to complete and cannot be cancelled when started.



Alternatively, switch to a different Anynet+ (HDMI-CEC) device by selecting its name from the [Source](#) list. However, Anynet+ (HDMI-CEC) cannot be used if a connected input connector is selected.

Anynet+ (HDMI-CEC) Device Menu

Once the TV has switched over to the selected device, you can access the device's menu using the TV's remote control. Select the Virtual Remote panel's **TOOLS** button to display the list. Select **Anynet+ (HDMI-CEC)** from the list. The following Anynet+ device options will appear. The displayed Anynet+ device options may vary depending on the external device.

- **View TV**

Select this to switch the remote control mode to the TV.

- **Device List**

Displays a list of Anynet+ (HDMI-CEC) devices connected to the TV. To change a device, select a desired device in the list.

- (Connected Device) **Menu**

Display the menu of the connected device. If the target device is a DVD player, the DVD menu is shown.

- (Connected Device) **Tools**

Display a list of frequently-used functions that are available for the device. If the target device is a DVD player, the DVD playback menu is shown. Some external devices may not support this option.

- (Connected Device) **Title Menu**

Display the connected device's title menu. If the target device is a DVD player, the DVD title menu is shown. Some external devices may not support this option.

- **Receiver**

Listen to audio from the connected external device through an AV receiver, such as a home theatre system, instead of the TV speakers. This option is only available when there is an AV receiver connected to the TV. The menu may not be shown with receivers that support audio only.

ARC

ARC enables digital sound to be output using just an HDMI cable. However, ARC is only available with AV receivers that support ARC.

To use ARC, enable it from the Anynet+ (HDMI-CEC) device menu [Receiver](#).

Sharing Mobile Device Screens on the TV

This TV is capable of displaying mobile device screens. You can use the following features to enjoy video, photo, and music files from mobile devices directly on your TV.

- Use an MHL cable to display a mobile device's screen on the TV.

MHL

This SMART TV supports MHL (Mobile High-definition Link) via an MHL cable. Connect an MHL cable to the mobile device and the TV. However, MHL is only available through the TV's HDMI (MHL) port and only when used in conjunction with an MHL-enabled mobile device.

This feature is only available with MHL-certified mobile devices. To find out if your mobile device is certified, visit its manufacturer's website. You can also view a list of MHL-certified devices on the official MHL website (<http://www.mhlconsortium.org>).

MHL USE

Connect an MHL cable to the mobile device and the TV. Press [SOURCE](#) button and then select the MHL connector to display the mobile device's screen on the TV. The following remote control functions will also be available:

- Touchpad (Menu navigation / Select), ⏮ (REW), ⏭ (FF), ▶ (Play), ⏸ (Pause), ■ (Stop), ⏮ (Previous menu)



When your device is connected with an MHL cable, it charges even when the TV is in Standby mode.

Restrictions

MHL has several requirements:

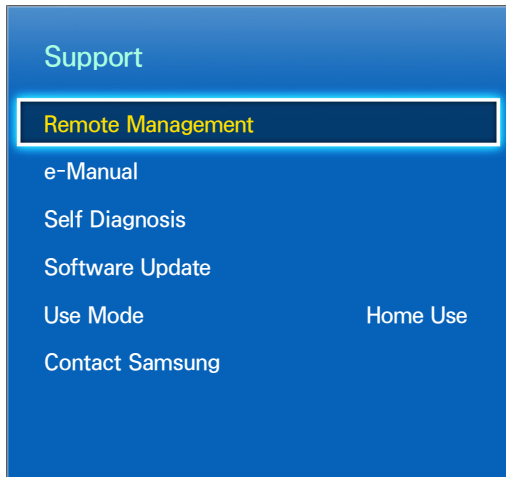
- If you are using an HDMI adapter, the TV recognizes the signal as an HDMI signal and may respond differently than it would to an MHL-to-HDMI cable connection.
- Upgrade the software to the latest version.
- This product is officially MHL-certified. If users encounter any problem when using the MHL function, they must contact the manufacturer of the device.
- Some mobile devices may not have sufficient specifications or features to support MHL.
- Because the TV screen is wider than most mobile device screens, the picture quality may appear lower on the TV.


Support

The TV has several built-in systems designed for user and TV system support.

Remote Management

Screen Menu > [Support](#) > [Remote Management](#) [Try Now](#)



 The displayed image may differ depending on the model.

If you need assistance with your TV, you can use this feature to let Samsung Electronics diagnose your TV remotely. You will need to read and agree to the service agreement before using this feature. A Samsung Electronics technician will then diagnose, repair, and update your TV remotely. However, these features are only available when your TV is connected to the Internet.

What is Remote Support?

Samsung Remote Support service offers you one-on-one support with a Samsung Technician who can remotely.

- **Diagnose** your TV
- **Adjust the TV settings** for you
- **Perform a factory reset** your TV
- Install recommended **firmware updates**

How Does it Work?

Having a Samsung Tech remotely service your TV is really pretty simple.



Call Samsung Contact Centre and ask for remote support.



Open the menu on your TV and go to the Support section.



Select Remote Management and Provide the Pin# to the agent.



The agent will then access your TV. That's it!

e-Manual

Screen Menu > [Support](#) > [e-Manual](#)

This TV features a built-in electronic user manual. It is a comprehensive guide for using your Samsung SMART TV. Refer to the "Viewing the e-Manual" for more information.

Self Diagnosis

Screen Menu > [Support](#) > [Self Diagnosis](#) [Try Now](#)

Your TV is capable of diagnosing itself for picture-, sound-, and signal-related issues. The self-diagnosis function consists of the following options:

- Picture Test
- Sound Test
- Signal Information
- Reset

Picture Test

Screen Menu > [Support](#) > [Self Diagnosis](#) > [Picture Test](#) [Try Now](#)

The Picture Test displays HD pictures to examine it for flaws or faults throughout three attempts.

If the test picture does not appear or there is noise or distortion, the TV may have a problem. Contact Samsung's Call Centre for assistance. If the test picture is displayed properly, there may be a problem with the external device. Please check the connections. If the problem persists, check the signal strength or refer to the external device's user manual.

Sound Test

Screen Menu > [Support](#) > [Self Diagnosis](#) > [Sound Test](#) [Try Now](#)

Use the built-in melody to check for sound problems.

If no melody is played by the TV's speakers, make sure [Speaker Select](#) is set to [TV Speaker](#) and then try again. If the problem persists, there may be a problem with the TV. Contact Samsung's Call Centre for assistance. If the melody is played, there may be a problem with the external device. Please check the connections. If the problem persists, refer to the external device's user manual.

Signal Information

Screen Menu > [Support](#) > [Self Diagnosis](#) > [Signal Information](#) [Try Now](#)

The signal Information displays the digital channel signal information and strength. Users can then adjust the aerial to increase the signal strength and receive HD channels. This option is only available for digital channels.

Reset

Screen Menu > [Support](#) > [Self Diagnosis](#) > [Reset](#) [Try Now](#)

This resets all settings to the factory default settings except for the network settings. Select Reset, enter the PIN code when requested, and then select [Yes](#). All settings are then reset. The TV turns off and on again automatically and then displays the [Setup](#) screen. For more information on resetting the TV, refer to the user manual that came with the TV.

Updating the Software

Screen Menu > [Support](#) > [Software Update](#) [Try Now](#)

Check your TV's software version and upgrade it if necessary.

⚠ DO NOT turn off the TV's power until the upgrade is complete. The TV will turn off and on automatically after completing the software upgrade. All video and audio settings return to the default settings after a software upgrade.

The software can be upgraded in the following ways:

- Update now
- Manual Update
- Auto update

Update now

Screen Menu > [Support](#) > [Software Update](#) > [Update now](#) [Try Now](#)

An online upgrade downloads and installs the upgrade software directly from the Internet. Configure the TV to connect to a network and make sure it can access the Internet.

Manual Update

Download the latest update file from the Samsung website. Decompress the file and copy it into the root directory of a flash drive. Insert the flash drive one of the TV's USB ports to install the update.

Auto update

Screen Menu > [Support](#) > [Software Update](#) > [Auto update](#) [Try Now](#)

This option upgrades the TV while it is in Standby Mode. In Standby Mode, the TV appears to be turned off but still has access to the Internet. This allows the TV to upgrade itself automatically not in use. Because the TV's internal processes are operating, the screen may emit a faint glow, and this may continue for more than 1 hour until the software download is complete. Check the network configuration and internet connectivity and then enable this option.

Auto update Settings

Specify when you want the upgrade to take place. The TV will search for available software upgrade files and automatically install them at the specified time.

Use Mode

Screen Menu > [Support](#) > [Use Mode](#) [Try Now](#)

Select the TV's usage mode. If your TV has been unintentionally set to [Store Demo](#), you can change the mode with this option. [Store Demo](#) should be used in retail environments only.

Support Info


Screen Menu > [Support](#) > [Contact Samsung](#) [Try Now](#)


Check the information below if your TV is not working properly or you need information on upgrading the software. The section below contains useful information about the product and instruction on obtaining the latest software.

Teletext Feature


(Depending on the country)


The index page of the Teletext service gives you information on how to use the Service. For Teletext information to be displayed correctly, channel reception must be stable. Otherwise, information may be missing or some pages may not be displayed.

 You can change Teletext pages by select numeric using your remote control.


 **Teletext on / mix / off:** Activates the Teletext mode for the current channel. Press the button twice to overlap the Teletext mode with the current broadcasting screen. Press it one more time to exit teletext.

 **Store:** Stores the Teletext pages.


 **Size:** Displays the teletext on the upper half of the screen in double-size. To move the text to the lower half of the screen, press it again. For normal display, press it once again.

 **Hold:** Holds the display at the current page, in the case that there are several secondary pages that follow automatically. To undo, press it again.

Colour buttons (red, green, yellow, blue): If the FASTEXT system is used by the broadcasting company, the different topics on a Teletext page are colour-coded and can be selected by coloured buttons. Press the colour corresponding to the topic of your choice. A new colour coded page is displayed. Items can be selected in the same way. To display the previous or next page, select corresponding coloured button.


 **Mode:** Selects the Teletext mode (LIST / FLOF). If pressed during LIST mode, switches the mode to List save mode. In List save mode, you can save a Teletext page into a list using the 8 (store) button.

 **Sub-page:** Displays the available sub-page.

 **Page up:** Displays the next Teletext page.

 **Page down:** Displays the previous Teletext page.

 **Index:** Displays the index (contents) page at any time while you are viewing Teletext.

 **Reveal:** Displays the hidden text (answers to quiz games, for example). To display the normal screen, press it again.

 **Cancel:** Shrinks the Teletext display to overlap with the current broadcast.

Typical Teletext page



Part	Contents
A	Selected page number.
B	Broadcasting channel identity.
C	Current page number or search indications.
D	Date and time.
E	Text.
F	Status information, FASTEXT information.

Display Resolution

You can also select one of the standard resolutions listed in the Resolution column. The TV will automatically adjust to the resolution you choose.

IBM

Resolution	Standard frequency	Horizontal Frequency (KHz)	Vertical Frequenzcy (Hz)	Pixel Clock Frequency (MHz)	Sync Polarity (H / V)
720x400	70Hz	31.469	70.087	28.322	-/+

MAC

Resolution	Standard frequency	Horizontal Frequency (KHz)	Vertical Frequenzcy (Hz)	Pixel Clock Frequency (MHz)	Sync Polarity (H / V)
640x480	67Hz	35.000	66.667	30.240	-/-
832x624	75Hz	49.726	74.551	57.284	-/-
1152x870	75Hz	68.681	75.062	100.000	-/-

VESA DMT

Resolution	Standard frequency	Horizontal Frequency (KHz)	Vertical Frequency (Hz)	Pixel Clock Frequency (MHz)	Sync Polarity (H / V)
640x480	60Hz	31.469	59.940	25.175	-/-
640x480	72Hz	37.861	72.809	31.500	-/-
640x480	75Hz	37.500	75.000	31.500	-/-
800x600	60Hz	37.879	60.317	40.000	+/+
800x600	72Hz	48.077	72.188	50.000	+/+
800x600	75Hz	46.875	75.000	49.500	+/+
1024x768	60Hz	48.363	60.004	65.000	-/-
1024x768	70Hz	56.476	70.069	75.000	-/-
1024x768	75Hz	60.023	75.029	78.750	+/+
1152x864	75Hz	67.500	75.000	108.000	+/+
1280x720	60Hz	45.000	60.000	74.250	+/+
1280x800	60Hz	49.702	59.810	83.500	-/+
1280x1024	60Hz	63.981	60.020	108.000	+/+
1280x1024	75Hz	79.976	75.025	135.000	+/+
1366x768	60Hz	47.712	59.790	85.500	+/+
1440x900	60Hz	55.935	59.887	106.500	-/+
1600x900RB	60Hz	60.000	60.000	108.000	+/+
1680x1050	60Hz	65.290	59.954	146.250	-/+
1920x1080	60Hz	67.500	60.000	148.500	+/+

Picture Size and Input Signal

Picture Size	Input Signal
Auto Wide	ATV, AV, DTV (576i/p, 720p), DTV (1080i, 1080p)
16:9	ATV, AV, DTV (576i/p, 720p, 1080i, 1080p), Component (480i/p, 576i/p, 720p, 1080i, 1080p), HDMI (480i/p, 576i/p, 720p, 1080i, 1080p)
Wide Zoom, Zoom	ATV, AV, DTV (576i/p, 720p, 1080i, 1080p), Component (480i/p, 576i/p, 720p, 1080i, 1080p), HDMI (480i/p, 576i/p, 720p, 1080i, 1080p)
4:3	ATV, AV, DTV (576i/p, 720p, 1080i, 1080p), Component (480i/p, 576i/p, 720p, 1080i, 1080p), HDMI (480i/p, 576i/p, 720p, 1080i, 1080p)
Smart View 1	HDMI (480i/p, 576i/p, 720p, 1080i, 1080p)
Smart View 2	DTV (576i/p, 720p, 1080i, 1080p), HDMI (480i/p, 576i/p, 720p, 1080i, 1080p)
Screen Fit	DTV (1080i, 1080p), Component (1080i, 1080p), HDMI (720p, 1080i, 1080p)

The **Picture Size** setting is applied to the current source and the applied **Picture Size** will remain in effect the next time the source is selected.



The **Auto Wide** function may not be available depending on the country.

Subtitle and Media Contents file formats, and Codec

Subtitle

External

Name	File Extension
MPEG-4 Timed text	.ttx
SAMI	.smi
SubRip	.srt
SubViewer	.sub
Micro DVD	.sub or .txt
SubStation Alpha	.ssa
Advanced SubStation Alpha	.ass
Powerdivx	.psb

Internal

Name	Container
Xsub	AVI
SubStation Alpha	MKV
Advanced SubStation Alpha	MKV
SubRip	MKV
MPEG-4 Timed text	MP4

Supported image resolutions

File Extension	Type	Resolution
*.jpg *.jpeg	JPEG	15360x8640
*.png	PNG	4096x4096
*.bmp	BMP	4096x4096
*.mpo	MPO	15360x8640

Supported music file formats

File Extension	Type	Codec	Comments
*.mp3	MPEG	MPEG1 Audio Layer 3	
*.m4a *.mpa *.aac	MPEG4	AAC	
*.flac	FLAC	FLAC	Supports up to 2 channel
*.ogg	OGG	Vorbis	Supports up to 2 channel
*.wma	WMA	WMA	WMA 10 Pro supports up to 5.1 channel. WMA lossless audio is not supported. Supports up to M2 profile
*.wav	wav	wav	
*.mid *.midi	midi	midi	type 0, type 1 are supported.
*.ape	ape	ape	

Video Codec

File Extension	Container	Video Codec	Resolution	Frame rate (fps)	Bit rate (Mbps)	Audio Codec
*.avi	AVI MKV ASF MP4 3GP MOV FLV VRO TS SVAF	Divx 3.11 / 4 / 5 / 6	1920x1080 (WMV v7,v8, MSMPEG4 v3: 1280x720)	6~30	30	AC3 LPCM ADPCM(IMA, MS) AAC HE-AAC WMA DD+ MPEG(MP3)
*.mkv		MPEG4 SP/ASP				
*.asf		H.264 BP/MP/HP				
*.wmv		Motion JPEG				
*.mp4		Microsoft MPEG-4 v3				
*.3gp		Window Media Video v7,v8,v9				
*.vro		MPEG2				
*.mpg		MPEG1				
*.mpeg		VP6	640x480		4	
*.ts		MVC		24/25/30	60	
*.tp						
*.trp						
*.mov						
*.flv						
*.vob						
*.svi						
*.m2ts						
*.webm	WebM	VP8	1920x1080	6~30	20	Vorbis

Video Codecs

Other Restrictions

Codecs may not function properly if there is a problem with the content data.

Video content does not play or does not play correctly if there is an error in the content or container.

Sound or video may not work if they have standard bit rates/frame rates above the TV's compatibility ratings.

If the Index Table is wrong, the Seek (Jump) function does not work.

When 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 player.

Video Decoders

- Supports up to H.264, Level 4.1 (does not support FMO/ASO/RS)
- VC1 AP L4 is not supported.
- All video codecs excluding WMV v7, v8, MSMPEG4 v3, MVC, and VP6:
Below 1280x720: 60 frame max
Above 1280x720: 30 frame max
- GMC 2 is not supported
- Supports SVAF top/bottom and left/right only.
- Supports Blu-ray/DVD MVC specs only.

Audio Decoders

- WMA 10 Pro supports up to 5.1 channels. Supports up to M2 profile.
- QCELP, AMR NB / WB is not supported.
- WMA lossless audio is not supported.
- Vorbis is supported for up to 2 channels.
- DD+ is supported for up to 5.1 channels.

Supported 3D Resolutions

These specifications apply to a display ratio of 16:9 only.

HDMI

3D Format: L/R, T/B

Resolution	Frequency (Hz)
1280 x 720p	50 / 59.94 / 60 Hz
1920 x 1080i	50 / 59.94 / 60 Hz
1920 x 1080p	23.98 / 24 / 25 / 29.97 /30 / 50 / 59.94 / 60 Hz

3D Format: Frame Packing

Resolution	Frequency (Hz)
1280 x 720p	50 / 59.94 / 60 Hz
1920 x 1080i	50 / 59.94 / 60 Hz
1920 x 1080p	23.98 / 24 / 25 /29.97 / 30 Hz

Component

Resolution	Frequency (Hz)
1280 x 720p	50 / 59.94 / 60 Hz
1920 x 1080i	50 / 59.94 / 60 Hz
1920 x 1080p	23.98 / 24 / 25 / 29.97 / 30 / 50 / 59.94 / 60 Hz

Digital Channel

Resolution	Frequency (Hz)
1280 x 720p	50 / 59.94 / 60 Hz
1920 x 1080i	50 / 59.94 / 60 Hz
1920 x 1080P	25 Hz

Videos / Photos

Refer to the "Subtitle and Media Contents file formats, and Codec".

Computer via HDMI

The optimal resolution for using the computer display is 1920 x 1080. Only LED TVs can convert a 2D computer display into 3D. If the resolution is not set properly, 3D display and full-screen display may not be available.

3D Precautions

CAUTION

IMPORTANT HEALTH AND SAFETY INFORMATION FOR 3D IMAGES. READ THE FOLLOWING CAUTIONS BEFORE YOU OR YOUR CHILD USE THE 3D FUNCTION.

- Adults should frequently check on children who are using the 3D function. If there are any complaints of tired eyes, headaches, dizziness or nausea, stop the child from viewing the 3D TV and ensure that they rest.
- Do not use the 3D glasses for other purposes such as general wear, sunglasses, protective goggles, etc.
- While watching 3D content, you may experience eye strain, headache, dizziness and nausea. If eye fatigue occurs, stop viewing 3D video immediately, take off the 3D glasses, and rest.
- Viewing 3D video for an extended period of time may cause eye fatigue. If eye fatigue occurs, stop viewing 3D video immediately, take off the 3D glasses, and rest.
- Do not use the 3D function or 3D glasses while walking or moving around. Using the 3D function or 3D Active Glasses while moving around may result in injury from running into objects, tripping, and / or falling.
- If you sleep with the 3D glasses on, the temples on the glasses may become broken.
- Note that the temples on your 3D glasses are not foldable. Trying to fold the temples by force may damage the glasses.
- Do not shake your 3D glasses repeatedly. Shaking the glasses will power them on and can cause the battery to discharge faster than it should.

SAFETY PRECAUTIONS

The following safety instructions are to ensure your personal safety and prevent property damage. Please read them to ensure the proper use of the product.

- Do not place the product in a location exposed to direct sunlight, heat, fire or water. This may result in a product malfunction or fire.
- Do not apply force to the lenses of the 3D glasses. Do not drop or bend the product. This may result in a product malfunction.
- Keep components of the 3D glasses out of reach of children, and especially ensure children do not swallow one of the components. If your child swallowed a component, consult your doctor immediately.
- Keep the used battery out of the reach of children so that they do not accidentally swallow the battery. If your child has swallowed the battery, consult your doctor immediately.
- When cleaning the product, do not spray water or cleaner directly onto the surface of the product. Spraying water or cleaner directly onto the glasses may result in fire or electric shock, damage to the product's surface, or cause the indicator labels on the product's surface to come loose.
- Do not disassemble, or attempt to repair or modify your 3D active glasses by yourself.
- Be careful not to let the temple ends of the 3D active glasses harm your eye.
- Do not sleep with the 3D glasses on. The arms on the glasses may become broken.
- Use your hands to put on or remove the 3D glasses.

WARRANTY

This Samsung product is warranted for the period of the listed period at the table (Refer to the warranty period table by the country) from the original date of purchase, against defective materials and workmanship. In the event that warranty service is required, you should first return the product to the retailer from whom it was purchased. However, Samsung Authorised Service Centres will comply with this warranty during the Warranty Period. To obtain details, please contact your nearest Authorised Service Centre.

PROCEDURE FOR MAKING A WARRANTY CLAIM

To make a claim under the warranty, you must contact the Samsung Centre during the Warranty Period to discuss the problems you are having with the product. If a repair or replacement is required, you will be provided with a Warranty Claim Number and address of an Authorised Service Centre.

If you are provided with a Warranty Claim Number, to obtain a repair or replacement of the product, you must send the product to the Authorised Service Centre advised together with:

- a copy of your completed warranty card or, if you have already provided this to Samsung, your name, address and contact telephone number;
- your original receipt, invoice or sales slip for the purchase of the product as new;
- your Warranty Claim Number.

Samsung will then repair or replace the product and return it to you using the contact details provided.

WARRANTY CONDITIONS

1. The warranty is only valid if the above procedure for making a warranty claim is followed.
2. Samsung's obligations are limited to the repair or, at its discretion, replacement of the product or the defective part.
3. Warranty repairs must be carried out by Samsung Authorised Service Centres. No re-imbusement will be made for repairs carried out by service centres or dealers that are not authorised by Samsung and any such repair work and damage to the products caused by such repair work will not be covered by this warranty.
4. This product is not considered to be defective in materials nor workmanship by reason that it requires adaptation in order to conform to national or local technical or safety standards in force in any country other than the one for which the product was originally designed and manufactured. This warranty will not cover, and no reimbursement will be made for such adaptation, nor any damage which may result.
5. The warranty does not apply to any product that has been damaged or rendered defective as a result of any of the following excluded reasons, namely:
 - as a result of accident, misuse, or abuse;
 - through the failure to use this product for its normal purposes;
 - by the use of parts not manufactured or sold by Samsung;
 - by modification without the written permission of Samsung;
 - by damage resulting from transit, neglect, power surge or failure;
 - by damage resulting from lightning, water, fire, or acts of God;
 - as a result of normal wear and tear; or
 - differences in broadcasting methods or product standards between countries.

6. This warranty is valid for any person who legally acquired possession of the product during the warranty period.
7. NOTHING IN THESE WARRANTY CONDITIONS SHALL EXCLUDE OR LIMIT SAMSUNG'S LIABILITY FOR DEATH OR PERSONAL INJURY CAUSED BY THE PROVEN NEGLIGENCE OF SAMSUNG, UNLESS SUCH LIMITATION OR EXCLUSION IS PERMITTED BY APPLICABLE LAW.
8. WITH THE EXCEPTION OF SAMSUNG'S LIABILITY WHICH CANNOT BE EXCLUDED OR LIMITED BY LAW, SAMSUNG SHALL NOT BE LIABLE FOR: ANY INDIRECT, INCIDENTAL, SPECIAL OR CONSEQUENTIAL DAMAGES LOSSES OR EXPENSES; OR LOST PROFITS; OR LOSS OF USE OR LOSS OF DATA; OR DAMAGE TO GOODWILL, REPUTATION OR LOST BUSINESS, ARISING DIRECTLY OR INDIRECTLY, FROM THE PURCHASE, USE OR SALE OF THE PRODUCT, WHETHER OR NOT SAMSUNG WAS ADVISED OR AWARE OF THE POSSIBILITY OF SUCH DAMAGES, LOSSES OR EXPENSES.
9. WITH THE EXCEPTION OF SAMSUNG'S LIABILITY WHICH CANNOT BE EXCLUDED OR LIMITED BY LAW, SAMSUNG'S LIABILITY UNDER OR IN CONNECTION WITH THIS WARRANTY OR THE PURCHASE, USE OR SALE OF THE PRODUCT SHALL NOT EXCEED THE PRICE PAID FOR THE PRODUCT AS NEW.
10. UNLESS PROVIDED FOR IN THIS WARRANTY, ALL CONDITIONS, WARRANTIES AND TERMS IMPLIED BY STATUTE OR OTHERWISE ARE HEREBY EXCLUDED TO THE MAXIMUM EXTENT PERMISSIBLE BY LAW.
11. The above warranty conditions do not affect your statutory rights as a consumer or otherwise.

Licence



DivX Certified® to play DivX® video up to HD 1080p, including premium content.

DivX®, DivX Certified® and associated logos are trademarks of Rovi Corporation or its subsidiaries and are used under licence.

ABOUT DIVX VIDEO: DivX® is a digital video format created by DivX, LLC, a subsidiary of Rovi Corporation. This is an official DivX Certified® device that plays DivX video. Visit divx.com for more information and software tools to convert your files into DivX videos.

ABOUT DIVX VIDEO-ON-DEMAND: This DivX Certified® device must be registered in order to play purchased DivX Video-on-Demand (VOD) movies. To obtain your registration code, locate the DivX VOD section in your device setup menu. Go to vod.divx.com for more information on how to complete your registration.

Covered by one or more of the following U.S. patents: 7,295,673; 7,460,668; 7,515,710; 7,519,274



Manufactured under a licence from U.S. Patent No's: 5,956,674, 5,974,380, 5,978,762, 6,487,535, 6,226,616, 7,212,872, 7,003,467, 7,272,567, 7,668,723, 7,392,195, 7,930,184, 7,333,929 and 7,548,853. DTS, the Symbol, and DTS and the Symbol together are registered trademarks & DTS Premium Sound | 5.1 is a trademark of DTS, Inc. ©2012 DTS, Inc. All Rights Reserved.



Manufactured under licence from Dolby Laboratories.

Dolby and the double-D symbol are trademarks of Dolby Laboratories.



The terms HDMI and HDMI High-Definition Multimedia Interface, and the HDMI Logo are trademarks or registered trademarks of HDMI Licensing LLC in the United States and other countries.



Open Source Licence Notice

In the case of using open source software, Open Source Licences are available on the product menu.

Screen

If there is a problem with the screen, run [Picture Test](#) ([Support](#) > [Self Diagnosis](#) > [Picture Test](#)) to diagnose the issue. If the test fails to identify a problem, there may be a problem with an external device or the signal strength.

There is something wrong with the TV.	Try this!
Flickering and Dimming	If your Samsung Television is flickering or dimming sporadically, you may need to disable some of the energy efficiency features. Disable Energy Saving (System > Eco Solution > Energy Saving) and/or Eco Sensor (System > Eco Solution > Eco Sensor) and check again.
Component Connections / Screen Colour	If you find that the colour on your Samsung television screen is not correct or the black and white colours are off, run Self Diagnosis (Support > Self Diagnosis > Picture Test). If the test results are negative, check the following: Are the TV's video input connectors connected to the correct external device video output connectors? Check other connections as well. If the TV is connected to an external device via a component cable, check that the Pb, Pr, and Y jacks are plugged into their proper connectors.
Screen Brightness	If you find that the colours on your Samsung TV are correct but just a little too dark or bright, try adjusting the following settings first. Navigate to Picture and adjust Backlight / Cell Light (applicable models), Contrast , Brightness , Sharpness , Colour , Tint (G/R) and other picture quality adjustment settings.
Motion Plus / Blur (for LED TV)	If you find that there is a blur or "ghost" shadow to the images on your television screen, you might be able to correct the issue using Motion Plus (Picture > Picture Options > Motion Plus).
Unwanted Powering Off	If your Samsung TV appears to turn off by itself, try disabling some of the TV's energy efficiency features. Check if Sleep Timer (System > Time > Sleep Timer) has been enabled. Sleep Timer automatically turns off the TV to save energy after a specified period of inactivity. If the Sleep Timer has not been enabled, see if No Signal Power Off (System > Eco Solution > No Signal Power Off) or Auto Power Off (System > Eco Solution > Auto Power Off) has been enabled. If your PC is connected to the TV, check your PC power settings. Make sure the AC power cord is plugged in securely to the wall outlet and the TV. When watching TV from an aerial or cable connection, the TV will turn off after 10~15 minutes if there is no signal.
Problems Powering On	When the TV is turned on, the remote control receiver flashes 5 times before the screen turns on. If you find that you are having problems powering on your Samsung television, there are a number of things to check before calling the service department. If the power cord is connected properly and the remote control is operating normally, the problem might be with the aerial cable connection or the cable/satellite box not being turned on. Check the aerial connection or turn on the cable/satellite box.
Unable to find a Channel	Run Setup (System > Setup) or Auto Tuning (Broadcasting > Auto Tuning).

There is something wrong with the TV.	Try this!
<p>The TV image does not look as good as it did in the store.</p>	<p>Store displays are all tuned to digital, HD (high definition) channels. If you have an analogue cable/set top box, upgrade to a digital set top box. Use HDMI or Component cables to deliver HD (high definition) picture quality. Many HD channels are upscaled from SD (Standard Definition) content. Look for a channel that is broadcasting true HD content.</p> <p>Cable/Satellite Subscribers: Try HD channels from the channel lineup.</p> <p>Air/Cable Aerial Connection: Try HD channels after performing the Auto Tuning operation.</p> <p>Adjust the cable/satellite box's video output resolution to 1080i or 720p.</p> <p>Make sure you are watching the TV at the minimum recommended distance based on the size and definition of the signal.</p>
<p>The picture is distorted.</p>	<p>The compression of video content may cause picture distortions, especially in fast moving pictures such as sports and action movies.</p> <p>A weak or bad quality signal can cause picture distortions. This is not an issue with the TV.</p> <p>Mobile phones used close to the TV (within 1m) may cause noise in analogue and digital channels.</p>
<p>The colour is wrong or missing.</p>	<p>If you're using a Component connection, make sure that the component cables are connected to the correct jacks. Incorrect or loose connections may cause colour problems or a blank screen.</p>
<p>The colour is poor or the picture is not bright enough.</p>	<p>Navigate to Picture and adjust Picture Mode, Brightness, Sharpness, Colour, and other picture adjustment settings.</p> <p>See if Energy Saving (System > Eco Solution > Energy Saving) has been enabled.</p> <p>Try resetting the picture. (Picture > Reset Picture)</p>
<p>There is a dotted line on the edge of the screen.</p>	<p>If Picture Size is set to Screen Fit, change it to 16:9.</p> <p>Change the cable/satellite box resolution.</p>
<p>The picture is black and white.</p>	<p>If you are using AV composite input, connect the video cable (yellow) to the TV's green component jack.</p>
<p>The colour is wrong or missing.</p>	<p>If you are using a Component connection, make sure that the component cables are connected to the correct jacks. Incorrect or loose connections may cause colour problems or a blank screen.</p>
<p>When changing channels, the picture freezes or is distorted or delayed.</p>	<p>If the TV is connected to a cable box, try to reset the box. (Disconnect and then reconnect the AC cord and wait until the cable box reboots. It may take up to 20 minutes.)</p> <p>Set the output resolution of the cable box to 1080i or 720p.</p>

Sound

If you find that there is a problem with the TV's speakers, run [Sound Test](#) ([Support](#) > [Self Diagnosis](#) > [Sound Test](#)) to diagnose the issue. If the audio is OK, the sound problem may be caused by the source or signal.

There is something wrong with the TV.	Try this!
There is no sound or the sound is too low at maximum volume.	Please check the volume of the device (cable/satellite box, DVD, Blu-ray, etc.) connected to your TV.
The picture is good but there is no sound.	<p>Navigate to Sound and set Speaker Select to TV Speaker.</p> <p>If you are using an external device, check the device's audio output option. (For example, you may need to change your cable box's audio option to HDMI if the box connected to your TV is using an HDMI cable.)</p> <p>If you are using a DVI to HDMI cable, a separate audio cable is required.</p> <p>If your TV has a headphone jack, make sure there is nothing plugged into it.</p> <p>Reboot the connected device by disconnecting and then reconnecting the device's power cable.</p> <p>If you are using an external device, make sure the audio cables are connected to the correct audio input jacks on the TV.</p>
The speakers are making an odd sound.	<p>Make sure that the audio cable is connected to the correct audio output connector on the external device.</p> <p>For aerial or cable connections, check the signal information. A low signal level may cause sound distortions.</p> <p>Run Self Diagnosis (Support > Self Diagnosis > Sound Test).</p>

3D TV

There is something wrong with the TV.	Try this!
The 3D Active Glasses are not working correctly.	Make sure the glasses are turned on. The 3D Active Glasses may not work properly if there is another 3D product or electronic device turned on near the glasses or TV. If there is a problem, keep other electronic devices as far away as possible from the 3D Active Glasses.
The 3D images don't look quite right.	The ideal viewing distance is three times or more the height of the screen. We also recommend sitting with your eyes level with the screen.
The batteries in the 3D glasses don't last.	Turn off the 3D glasses when you are not using them. If you leave the 3D glasses on, the battery lifespan is shortened.

Aerial (Air / Cable) Connection

There is something wrong with the TV.	Try this!
The TV is not receiving all channels.	Make sure the coaxial cable is connected securely. Run Auto Tuning (Broadcasting > Auto Tuning) to add all available channels to the channel list. Verify that the aerial is positioned correctly.
There are no Subtitle on digital channels.	Navigate to Subtitle (Broadcasting > Subtitle) and change the Subtitle Mode setting. Some channels may not have Subtitle data.
The picture is distorted.	The compression of video content may cause picture distortions. This is especially true with fast moving pictures such as sports and action movies. A weak signal can cause picture distortions. This is not a problem with the TV.

Computer Connection

There is something wrong with the TV.	Try this!
The "Mode Not Supported" message appears.	Set your PC's output resolution so it matches a resolution supported by the TV.
The video is OK but there is no audio.	If you are using an HDMI connection, check the audio output setting on your PC. If you are using a DVI to HDMI cable, a separate audio cable is required.

Networking

There is something wrong with the TV.	Try this!
The wireless network connection failed.	Make sure the TV is connected to a wireless IP router.
The Software Update over the network has failed.	Check the network connection status. If the TV is not connected to a network, connect to a network. The upgrade will not proceed if you already have the latest software version.

Miscellaneous

There is something wrong with the TV.	Try this!
The TV is hot.	Watching TV for an extended period of time causes the panel to generate heat. The heat from the panel is dissipated through internal vents running along the top part of the TV. The bottom portion, however, may feel hot to the touch after extended use. Children watching TV need constant adult supervision to prevent them from touching the TV. This heat, however, is not a defect and does not affect the TV's functionality.
The picture won't display in full screen.	HD channels will have black bars on either side of the screen when displaying upscaled SD (4:3) content. Black bars will appear at the top and bottom of the screen when you watch movies that have aspect ratios different from your TV. Adjust the picture size options on your external device or set the TV to full screen.
The "Mode Not Supported" message appears.	Check the supported resolutions of the TV and adjust the external device's output resolution accordingly.
The Subtitle item in the TV menu is grayed out.	You cannot select the Subtitle menu if you have selected a source connected to the TV via HDMI or Component. The external device's Subtitle function must also be activated.
The TV smells of plastic.	This smell is normal and will dissipate over time.
The TV's Signal Information option is not activated in the Self Diagnosis .	Verify that the current channel is a digital channel. Signal Information is only available with digital channels.
The TV is tilted to the side.	Remove the base stand from the TV and reassemble it.
Broadcasting is grayed out.	The Broadcasting menu is only available when Source is set to TV . The Broadcasting menu cannot be accessed while watching TV using a cable box or satellite receiver.

There is something wrong with the TV.	Try this!
There is an intermittent loss of audio or video.	Check the cable connections and reconnect them. Loss of audio or video can be caused by using overly rigid or thick cables. Make sure the cables are flexible enough for long term use. If you are mounting the TV to a wall, we recommend using cables with 90-degree connectors.
There are small particles on the TV's bezel.	This is part of the product's design and is not a defect.
The PIP menu is not available.	PIP functionality is only available when you are using an HDMI or Component source.
A POP (TV's internal banner ad) appears on the screen.	Change Use Mode (Support > Use Mode) to Home Use .
The TV is making a popping noise.	The expansion and contraction of the TV's outer casing may cause a popping noise. This does not indicate a product malfunction. The TV is safe to use.
The TV is making a humming noise.	Your TV utilizes high-speed switching circuits and high levels of electrical current, and depending on the brightness level being used may seem slightly noisier than a conventional TV. Your TV has undergone strict quality control procedures that meet our demanding performance and reliability requirements. Some noise coming from the TV is considered normal and is not an acceptable cause for an exchange or refund.
Image Retention (Burn In) Issue	This issue affects PDP TVs only. Watching TV for an extended period of time or using the 4:3 screen ratio only may result in burn-ins. PDP TVs are equipped with Pixel Shift screen burn reduction technology. Pixel Shift technology reduces screen burn-ins in PDP TVs. It does this by moving the picture slightly vertically or horizontally. Use Screen Burn Protection (System > Screen Burn Protection) to prevent screen burn-ins.

Schedule Recording / Timeshift

There is something wrong with the TV.	Try this!
The TV cannot recognise the USB device or the Format Device , Check Device and Device Performance Test functions fail.	Refer to the USB device's manual and see if data can be stored on it. Check if the USB device is in a locked state. Check if the USB device was formatted when it was connected to a computer. Formatting a USB device after connecting it to the TV may result in a formatting failure. If Device Performance Test or Format Device has failed, there may be a problem with the USB device or its specifications. Try using a different USB device.
There is a message saying I need to format the USB storage device.	Check if the USB device is in a locked state. Use the USB recovery function to recover the USB device.
Schedule Recording cannot be used.	Check if there is a USB device connected to the TV. Check if the channel is a digital channel that can be recorded. Recording will automatically stop if the signal becomes too weak. The Timeshift function will not work if there isn't enough storage space on the USB device.
I get a performance test failure message and then Schedule Recording and the Timeshift operation stops working.	This problem can occur when using a low-performance USB storage device that does not support recording. A USB hard drive with a speed of 5,400rpm or above is recommended. A USB memory Stick is not supported.

AnyNet+ (HDMI-CEC)

There is something wrong with the TV.	Try this!
AnyNet+ does not work.	<p>Check if the device is an AnyNet+ device. The AnyNet+ system supports AnyNet+ devices only.</p> <p>Only one external device may be connected to Receiver.</p> <p>Check if the power cord of the AnyNet+ device is properly connected.</p> <p>Check the cable connections of the AnyNet+ device.</p> <p>Navigate to the System menu and verify that AnyNet+ (HDMI-CEC) is set to On.</p> <p>Check whether the TV remote control is in TV mode.</p> <p>Check whether the remote control is AnyNet+ compatible.</p> <p>AnyNet+ may not function under certain circumstances. (Searching channels, operating Smart Hub or Setup, etc.)</p> <p>If you have disconnected and then reconnected the HDMI cable, scan for devices again or turn your TV off and on.</p>
I want to start AnyNet+.	<p>Check if the AnyNet+ device is properly connected to the TV and then navigate to the System menu to see if AnyNet+ (HDMI-CEC) is set to On.</p> <p>After checking, select the Virtual Remote panel's TOOLS button to display the list.</p> <p>Select AnyNet+ (HDMI-CEC) from the list.</p>
I want to exit AnyNet+.	<p>Select View TV from the AnyNet+ menu.</p> <p>Select a non-AnyNet+ device from Source.</p>
The message "Connecting to AnyNet+ device..." or "Disconnecting from AnyNet+ device" appears on the screen.	<p>You cannot use the remote control when you are configuring AnyNet+ or switching to a viewing mode. Use the remote control after the TV has completed the AnyNet+ configuration or has switched to a viewing mode.</p>
The AnyNet+ device won't play.	<p>You cannot use the play function when Setup is progress.</p>
The connected device is not displayed.	<p>Check whether the device supports AnyNet+.</p> <p>Check whether the HDMI cable is properly connected.</p> <p>Navigate to the System menu and verify that AnyNet+ (HDMI-CEC) is set to On.</p> <p>Scan for AnyNet+ devices again.</p> <p>AnyNet+ devices must be connected to the TV using an HDMI cable. Make sure the device is connected to your TV with an HDMI cable. Some HDMI cables may not support AnyNet+.</p> <p>If the connection is terminated because there has been a power failure or the HDMI cable has been disconnected, please scan for the device again.</p>
The TV audio is not being played through the receiver.	<p>Connect an optical cable to the TV and the receiver.</p> <p>ARC enables digital sound to be output via the HDMI (ARC) port.</p> <p>However, ARC is only available when the TV is connected to an audio receiver that supports ARC.</p>

Photos, Videos & Music

There is something wrong with the TV.	Try this!
Some files can't be played back.	This problem may occur with high-bitrate files. Most files can be played back, but you might experience problems with high-bitrate files.

Apps

There is something wrong with the TV.	Try this!
Some application content only appears in English. How can I change the language?	The application content language may be different from the user interface language. The ability to change the language depends on the service provider.
Some application services do not work.	Check with the service provider. Refer to the help section on the application service provider's website.

Web Browser

(May not be available, depending on your country.)

1. Select **Web Browser**. The browsing screen may differ from the one on your computer.
2. The web browser is not compatible with Java applications.
3. You cannot download files. If you attempt to download a file, you will receive an error message instead.
4. The web browser may not be able to access certain websites.
5. Playing Flash videos may be restricted.
6. E-commerce for online purchases is not supported.
7. With websites that have scrollable windows, scrolling through such a window can result in corrupted characters.
8. ActiveX is not supported.
9. Certain options are not accessible in Link Browsing mode. (Switch to Pointer Browsing to activate this.)
10. Only a limited number of fonts are supported. Certain symbols and characters may not be displayed properly.
11. The response to remote commands and the resulting on-screen display may be delayed while a webpage is loading.
12. Loading a webpage may be delayed or suspended completely with certain operating systems.
13. The copy and paste operations are not supported.
14. When composing an email or a simple message, certain functions such as the font size and colour selection may not be available.
15. There is a limit to the number of bookmarks and the size of the log file that can be saved.
16. The number of windows that can be opened concurrently varies depending on the search conditions and the TV model.
17. The web browsing speed will vary depending on the network environment.

18. Playing embedded video automatically disables PIP. Video playback may not commence after PIP is disabled. In this case, you will have to reload the page.
19. The web browser supports .mp3 audio files only.
20. The web browser supports a specific file format for importing and exporting bookmarks.
(Compatible Format: Netscape-bookmarkfile- 1)
21. The folder tree information is not included when importing and exporting bookmarks.
22. Exporting bookmarks to a USB device connected to the TV saves the bookmarks under a folder named "Samsung SmartTV Bookmark".
23. If **Clock** (**System** > **Time** > **Clock**) has not been enabled, the browsing history will not be saved.
24. The browsing history is saved in the order of latest to oldest, with the oldest entries being overwritten first.
25. Depending on the types of video/audio codecs supported, it might not be possible to play back certain video and audio files during Flash playback.
26. A sudden change in the picture brightness inside a video window may affect the brightness of the screen. This problem applies to PDP TVs only.
27. Video sources from PC-optimized streaming service providers may not play properly on our proprietary web browser.
28. Using the on-screen QWERTY keyboard automatically disables PIP. (Except when entering a URL.)