SAMSUNG

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

Quick Guides

Connecting the Samsung Smart Remote to the TV

Using Smart Hub

Using Voice Interaction

3 Running Voice Interaction

5 Read Before Using Voice Interaction

Updating the TV's Software

6 Updating the TV's software to the latest version

6 Updating the TV automatically

Getting Support

7 Getting support through Remote Management

8 Finding the contact information for service

8 Requesting service

Connections

Connection Guide

Connecting an Antenna (Aerial)

Connecting to the Internet

11 Connecting to your Internet network

Connecting to a Network via a Mobile Dongle

Troubleshooting Internet Connectivity Issues

15 Troubleshooting wired Internet connectivity issues

16 Troubleshooting wireless Internet connectivity issues

Connecting Video Devices

17 Connecting with an HDMI cable

18 Connecting with a component cable (Only for models with COMPONENT IN / AV IN)

19 Connecting with a composite cable (Only for models with COMPONENT IN / AV IN)

Audio Input and Output Connections

20 Connecting with an HDMI (ARC) cable

20 Connecting with a digital audio (optical) cable

20 Connecting through a wireless network

21 Connecting Bluetooth Devices

Connecting a Computer

21 Connecting through the HDMI port — Screen Sharing (HDMI)

Connecting a Mobile Device

22 Connecting to a Network

22 Viewing the screen of a mobile device on your TV (Screen Sharing)

23 Managing a Mobile Device

Switching between external devices connected to the TV

23 Changing the input signal

24 Editing the name and icon of an external device

25 Using additional functions

Connection Notes

25 Connection notes for HDMI

26 Connection notes for audio devices

27 Connection notes for computers

27 Connection notes for mobile devices

Remote Control and Peripherals

About the Samsung Smart Remote

Connecting to the Samsung Smart Remote

Controlling External Devices with the Samsung Smart Remote - Using the Universal Remote

Using Anynet+ (HDMI-CEC)

31 Connecting an external device through Anynet+ and using their menus

Controlling the TV with a Keyboard

32 Connecting a USB keyboard

32 Connecting a Bluetooth keyboard

32 Using the keyboard

Entering Text using the On-Screen QWERTY Keyboard

34 Using additional functions

34 Entering Text using the remote control's microphone and the on-screen QWERTY keyboard

Smart Features

Smart Hub

36 Displaying the Home Screen

38 Launching Smart Hub automatically

38 Launching the last used app automatically

39 Testing Smart Hub connections

39 Resetting Smart Hub

Using a Samsung account

39 Creating and managing your Samsung account

40 Signing in to a Samsung account

Using the Apps Service

43 Installing and running an app

44 Managing purchased or installed apps

Using the e-Manual

46 Launching the e-Manual

46 Using the buttons in the e-Manual

Using the Internet

Playing pictures/video/music

48 Playing media content

Using Voice Interaction

49 Running Voice Interaction

50 Read Before Using Voice Interaction

TV Viewing

Viewing Digital Broadcast Information at a Glance

52 Using the guide

Recording Programmes

54 Recording programmes

55 Managing the schedule recording list

55 Viewing recorded programmes

Setting Up a Schedule Viewing

56 Setting up a schedule viewing for a channel

57 Editing a schedule viewing

57 Setting the Schedule Viewing Time

Using Timeshift

58 Buttons and functions available while recording a programme or Timeshift

Using the Channel List

Editing channels

60 Removing registered channels

60 Editing registered channels

Creating a Personal Favourites List

61 Registering channels as favourites

61 Viewing and selecting channels on Favourites lists only

Editing a Favourites List

62 Adding channels to favourites list

62 Removing channels from a favourites list

62 Rearranging a favourites list

62 Renaming a favourites list

TV-Viewing Support Functions

63 Changing the broadcast signal

63 Scanning for available channels

63 Restricting Viewing to Specific Channels

64 Selecting the broadcasting audio option

64 Using Programme Rating Lock

64 Configuring advanced broadcasting settings

65 Selecting the broadcast audio language

66 Tuning broadcast signals manually

66 Fine-tuning analogue broadcasts

67 Deleting CAM operator profile

67 Setting satellite system

67 Changing teletext language

68 Showing common interface menu

Picture and Sound

Adjusting the Picture Quality

69 Choosing a picture mode

70 Configuring advanced picture settings

Setting the Viewing Environment for External Devices

72 Playing games on an optimised screen

72 Using HDMI black level

73 Registering the TV as a DivX-certified device (watching for pay DivX movies)

Picture Support Functions

73 Changing the picture size

74 Changing the picture size automatically

74 Changing the picture size in 4:3 or Screen Fit mode

Adjusting the Sound Quality

75 Choosing a sound mode

75 Configuring advanced sound settings

Using the Sound Support Functions

76 Selecting speakers

76 Listening to the TV through Bluetooth devices

77 Listening to the TV through a Multiroom speaker

System and Support

Setting the Time and Using the Timer

78 Setting the current time

79 Using the timers

Using the Screen Burn Protection and Energy Saving Functions

80 Preventing screen burn

80 Reducing the energy consumption of the TV

Updating the TV's Software

81 Updating the TV's software to the latest version

81 Updating the TV automatically

Protecting the TV from Hacking and Malicious Code

82 Scanning the TV and connected storage for malicious code

Using Other Functions

82 Running the accessibility functions

83 Enabling voice guides for the visually impaired

83 Audio Description

84 Watching TV broadcasts with subtitles

85 White text on black background (high contrast)

85 Enlarging the font (for the visually impaired)

85 Learning about the remote control (for the visually impaired)

85 Learning about the TV menu

85 Listening to the TV through Bluetooth devices (for the hearing impaired)

86 Configuring advanced system settings

87 Checking digital channel signal info and strength

87 Restoring the TV to the factory settings

HbbTV

Using a TV Viewing Card ("CI or CI+ Card")

89 Connecting the "CI or CI+ Card" via COMMON INTERFACE slot with the CI CARD Adapter

90 Using the "CI or CI+ Card"

Teletext Feature

92 Typical Teletext page

Troubleshooting

Getting Support

93 Getting support through Remote Management

94 Finding the contact information for service

94 Requesting service

Diagnosing TV operational issues

There Is a Problem with the Picture

95 Testing the picture

I Can't Hear the Sound Clearly

97 Testing the sound

There Is a Problem with the Broadcast

My Computer Won't Connect

The TV Won't Connect to the Internet

The Schedule Recording/Timeshift Function Isn't Working

Anynet+ (HDMI-CEC) Isn't Working

I Have Trouble Launching/Using Apps

My File Won't Play

I Want to Reset the TV

Other Issues

Precautions and Notes

Before Using the Recording and Timeshift Functions

105 Before using the recording and schedule recording functions

107 Before using the timeshift function

Supported broadcasting audio options

Read Before Using Apps

Read Before Using the Internet

Read Before Playing Photo, Video, or Music Files

111 Limitations on use of photo, video, and music files

112 Supported external subtitles

112 Supported internal subtitles

113 Supported image formats and resolutions

113 Supported music formats and codecs

114 Supported video codecs

Read After Installing the TV

116 Picture sizes and input signals

117 Installing an anti-theft lock

117 Read before setting up a wireless Internet connection

Read Before Connecting a Computer (Supported Resolutions)

118 IBM

118 MAC

119 VESA DMT

Supported Resolutions for Video Signals

120 CEA-861

Read Before Using Bluetooth Devices

121 Restrictions on using Bluetooth

Buttons and Functions

122 Buttons and functions available while playing multimedia content

Licence

Accessibility Guidance

Using the Remote control

125 Orientation of the Samsung Smart Remote

125 Description of the Samsung Smart Remote

Using the accessibility menu

127 Accessibility short cut menu

128 Step by Step instructions to.

130 Setting accessibility settings using Voice Interaction

Using the TV with Voice Guide on

131 Watching TV

Using the guide

Setting Up a Schedule Viewing

Using the Channel List

138 Creating a Personal Favourites List

Recording

140 Using the instant and schedule recording options from the guide screen:

141 Using the Instant and Schedule Recording options from programme info window

141 Recording a programme you are currently watching directly from live TV

141 Changing the recording time

142 Viewing recorded programmes

142 Deleting a recorded programme

Using Smart Hub

143 Smart Hub

144 Displaying the Home Screen in the Smart Hub

Using the e-Manual

146 Launching the e-Manual

Using Voice Interaction

147 Running Voice Interaction

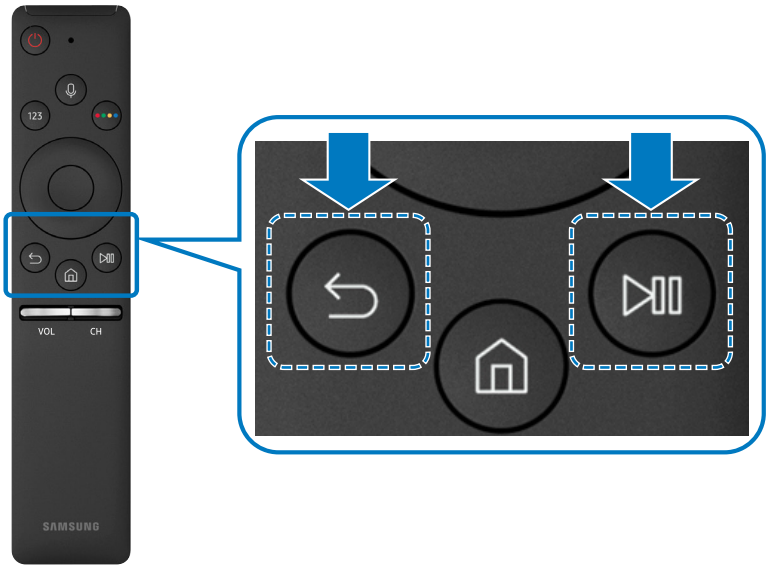
Quick Guides

You can learn quickly how to run and use the frequently used functions.

Connecting the Samsung Smart Remote to the TV

Connect the Samsung Smart Remote to your TV to operate the TV.

When you turn on the TV for the first time, the Samsung Smart Remote pairs to the TV automatically. If the Samsung Smart Remote does not pair to the TV automatically, point it at the remote control sensor of the TV, and then press and hold the and buttons simultaneously for 3 seconds or more.

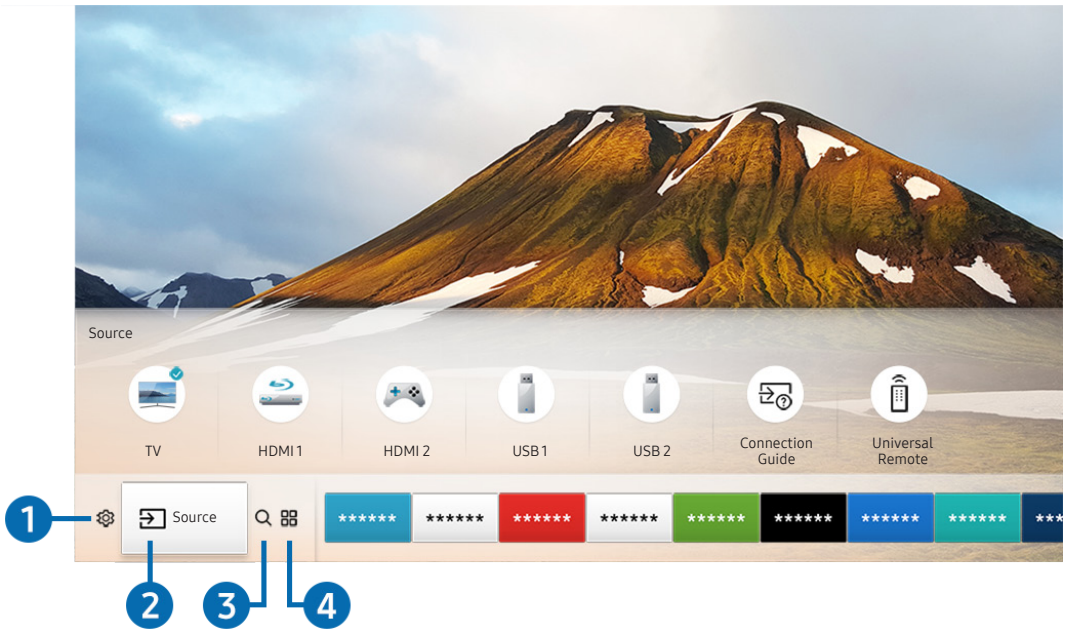


- The images, buttons, and functions of the Samsung Smart Remote may differ by model.
- For more information, refer to "About the Samsung Smart Remote."
- Availability depends on the specific model.

Using Smart Hub

Connect to Smart Hub for apps, games, movies, and more.

Enjoy the multiple functions provided by Smart Hub simultaneously on a single screen.



The image on your TV may differ from the image above depending on your model and geographical area.

When you press the button on your remote control, you can use the following functions and features.

1 Settings

When the focus is moved to the icon, a list of quick settings icons appears above the top of the menu. You can quickly set frequently used functions by clicking the icons.

2 Source

You can select an external device connected to the TV.

For more information, refer to "Switching between external devices connected to the TV."

3 Search

You can search data for channels, programmes, movie titles, and apps from Smart Hub.

For more information, refer to "Smart Hub."

4 APPS

You can enjoy a wide range of content including news, sports, weather, and games by installing the corresponding apps on your TV.

To use this feature, the TV must be connected to the Internet.

For more information, refer to "Using the Apps Service."

Using Voice Interaction

Speak into the microphone on your Samsung Smart Remote to control your TV.

Availability depends on the specific model.

Running Voice Interaction

Press and hold the button on your Samsung Smart Remote, say a command, and then release the button. The TV recognises the voice command.

When you press the button once, the Help Guide is displayed. Use the Voice Interaction function as instructed in the Guide.

During voice analysis, the system cannot receive voice commands.



- If you say voice commands like "**Channel number 11**" and "**Volume 10,**" you can set the channel and volume.
- If you say an accessibility-related command such as "**Subtitle**" or "**Voice Guide,**" the command is applied directly and you will see a notification that the function is operating.
- When playing back media content, you can execute commands such as "**Play,**" "**Pause,**" "**Stop,**" "**Rewind,**" and "**Fast Forward.**"

  The function does not operate for all apps.
- You can set the timer with the command "**Sleep reservation in 30 minutes.**"
- To change the source, say "**HDMI,**" "**TV,**" or "**USB.**"
- To change the picture mode, say "**Movie Picture Mode**" or "**Set Picture Mode to Standard.**"
- To search, say "**Search ****" or "**Search **** in YouTube.**"
- To view Help, say "**Help,**" "**What can I say**" or "**User guide.**"

  The supported language may differ by geographical region.

  When you press the button once, the Help Guide is displayed. Use the Voice Interaction function as instructed in the Guide.

Read Before Using Voice Interaction

Precautions for voice interaction

- To use Voice Interaction, you must have a Samsung account. For more information, refer to "Using a Samsung account."
- The supported voice interaction languages and features may differ by geographical region.
- If the language set differs from the language of your country, some features are not available.
- The function is available only when the TV is connected to the Internet.
- Voice interaction is available only on TVs that support it and come with remote controls that have a microphone.
- Symbols including "-" and special characters are not supported. Consequently, if a word or sentence contains numeric values or symbols, the function may not operate properly.
- Searched results may not provide complete results.
- You may be required to pay for some apps. Consequently, you may encounter a service application or contract.
- To change the current channel by saying channel names as voice commands, you must finish Set Up Service Provider. (> Settings > General > Start Setup)
- To use the voice text input function and Smart search function, you must consent to provisions allowing third parties to collect and use your voice data.
- To use the interactive voice interaction function, you must.
  - Agree to Smart Hub's Terms of Use
  - Agree to a guidance regarding the collection and use of personal information for the Smart Hub service.
  - Consent to the collection and use of personal information for the voice interaction-based service.

Requirements for using voice interaction

- The voice interaction rate differs with the volume/tone, pronunciation, and ambient sound environment (TV sound and ambient noise).
- The optimal volume for voice commands is between 75 dB and 80 dB.

Updating the TV’s Software

View your TV's software version and update it if necessary.

Settings > Support > Software Update

Updating the TV’s software to the latest version

⚠ DO NOT turn off the TV’s power until the update is complete. The TV will turn off and on automatically after completing the software update. Video and audio settings will be reset to their defaults after a software update.

Updating through the Internet

Settings > Support > Software Update > Update Now

Updating from the Internet requires an active Internet connection.

Updating through a USB device

Settings > Support > Software Update > Update Now

After downloading the update file from the Samsung website and storing it on a USB device, connect the USB device to the TV to update.

To update using a USB flash drive, download the update package from Samsung.com to your computer. Then, save the update package in the USB device's top-level folder. Otherwise, the TV will not be able to locate the update package.

Updating the TV automatically

Settings > Support > Software Update > Auto update

If the TV is connected to the Internet, you can have the TV update its software automatically while you are watching the TV. When the background update is completed, it is applied the next time the TV is turned on.

If you agree to the Smart Hub terms and conditions, Auto update is set to On automatically. If you want this function disabled, use the Select button to turn it off.

This function may take a longer time if another network function is running concurrently.

This function requires an Internet connection.

Getting Support

Get help directly from Samsung if you have a problem with your TV.

Getting support through Remote Management

Settings > Support > Remote Management

After consenting to our service agreement, you can use Remote Management to access Remote Support and have a Samsung service technician diagnose your TV, correct problems, and update your TV's software, remotely, via the web. You can also turn Remote Management on and off.

This function requires an Internet connection.

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 on your TV
- Install recommended **firmware updates**

How does Remote Support Work?

You can easily have a Samsung Tech service your TV remotely:

1. Call the Samsung Contact Centre and ask for remote support.
2. Open the menu on your TV and go to the Support section.
3. Select Remote Management, then read and agree to the service agreements. When the PIN screen appears, provide the PIN number to the agent.
4. The agent will then access your TV.

Finding the contact information for service

Settings > Support > About This TV

You can view the address of the Samsung website, the call centre phone number, your TV's model number, your TV's software version, Open Source Licence and other information you may need to get service support from a Samsung call agent or the Samsung website.

- You can also view information by scanning the QR code of your TV.
- You can also start this function by pressing and holding the button for 5 or more seconds.
- This function is not available on certain models in specific geographical areas.

Requesting service

Settings > Support > Request Support

You can request service when you encounter a problem with the TV. Select the item matching the problem that you encountered, and then select Request Now or Schedule Appointment > Send. Your service request will be registered. The Samsung Contact Centre will contact you to set up or confirm your service appointment.

- This function is not available in specific geographical areas.
- You must agree to the terms and conditions for the service request.
- This function requires an Internet connection.

Connections

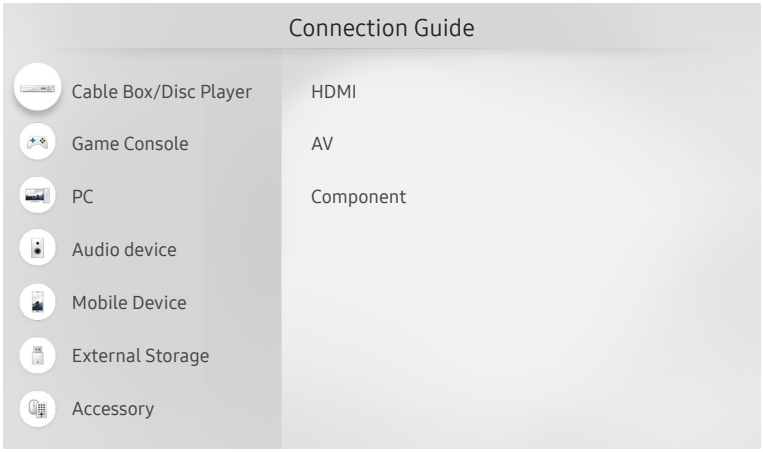
You can watch live broadcasts by connecting an antenna and antenna cable to your TV and can get access to the Internet by using a LAN cable or wireless router. Using various connectors, you can also connect external devices.

Connection Guide

You can view detailed information about external devices that can be connected to the TV.

Home > Source > Connection Guide

It guides you the way to connect various external devices such as the cable box, game console, and PC through pictures. If you select the connection method to an external device, the information details appear.

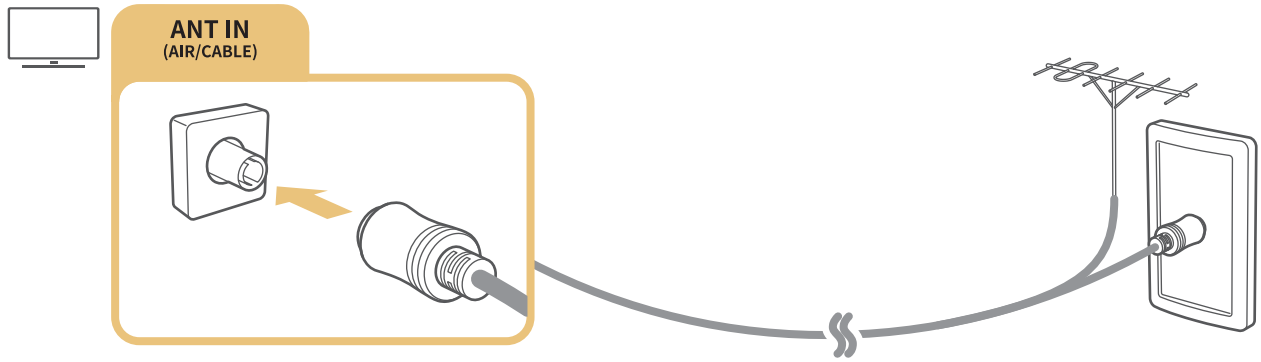


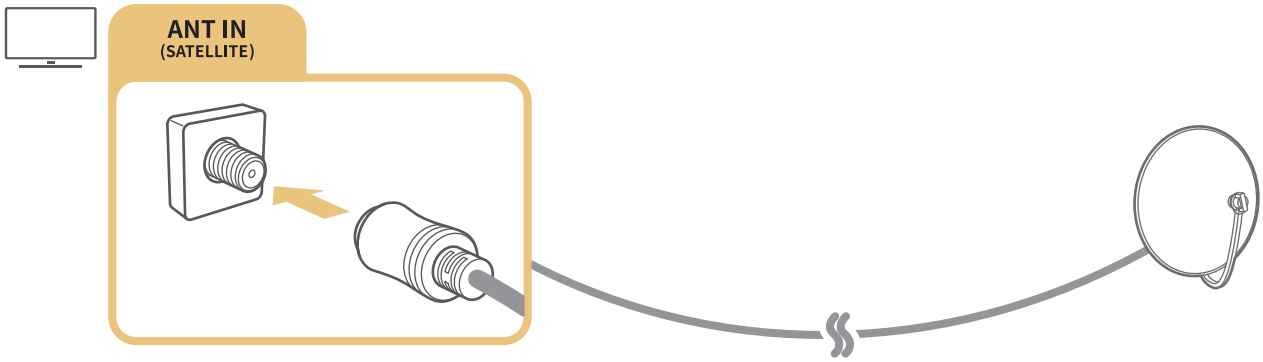
The image on your TV may differ from the image above depending on your model and geographical area.

Connecting an Antenna (Aerial)

You can connect an antenna cable to your TV.

An antenna connection is not necessary if you connect a cable or satellite box.





Availability depends on the specific model and geographical area.

Connecting to the Internet

You can get access to the Internet through your TV.

Connecting to your Internet network

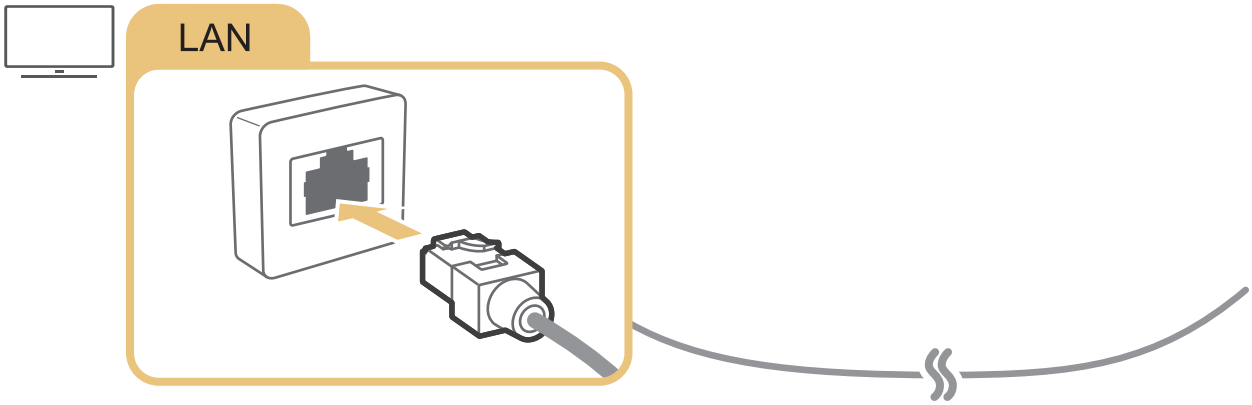
> Settings > General > Network > Open Network Settings Try Now

Connect to an available network.

Establishing a wired Internet connection

> Settings > General > Network > Open Network Settings > Wired

If you connect a LAN cable, the TV automatically accesses the Internet.



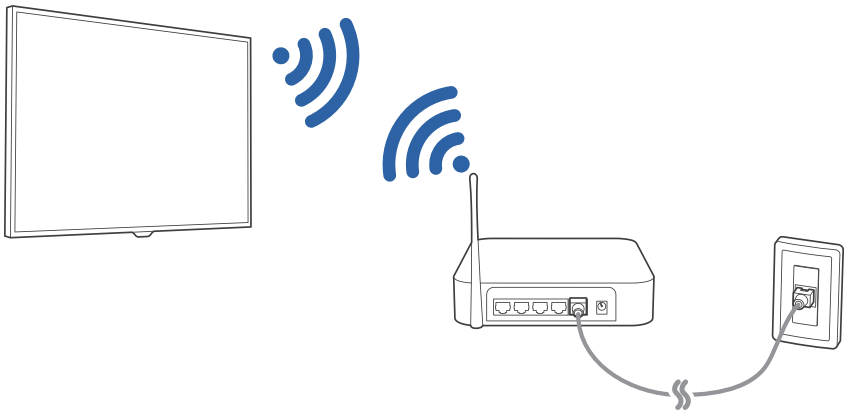
Use a CAT 7 (*STP type) cable for the connection.
* Shielded Twist Pair

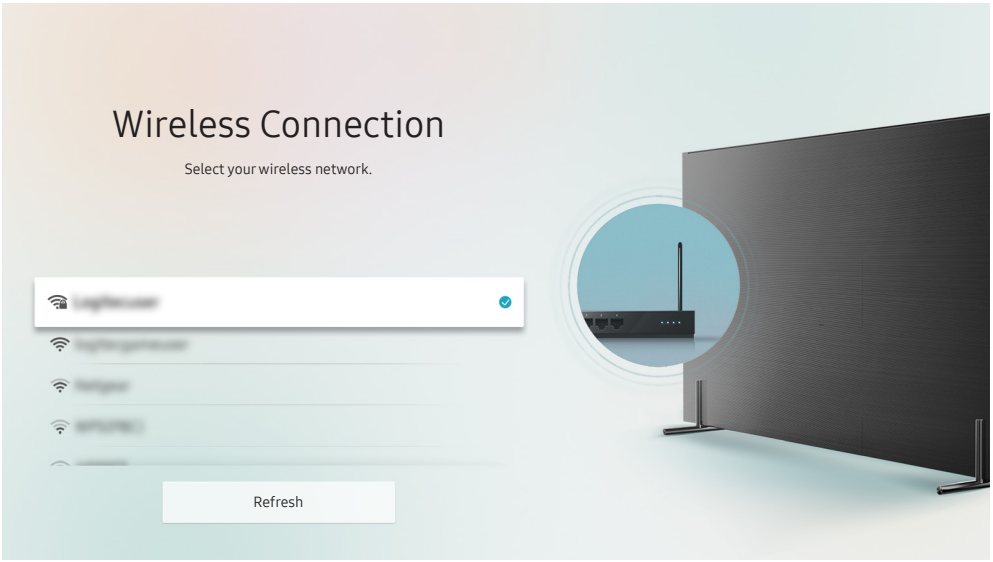
The TV will not be able to connect to the Internet if your network speed is below 10 Mbps.

Establishing a wireless Internet connection

> Settings > General > Network > Open Network Settings > Wireless

Make sure that you have the wireless router's SSID (name) and password settings before attempting to connect, and then follow the directions on the screen.





- The image on your TV may differ from the image above depending on your model and geographical area.
- If no wireless router is found, select **Add Network** at the bottom of the list and enter the network name (SSID).
- If your wireless router has a WPS or PBC button, select **Use WPS** at the bottom of the list, and then push the WPS or PBC button on your router within 2 minutes. The TV will connect automatically.

Checking the Internet connection status

Settings > General > Network > Network Status Try Now

View the current network and Internet status.

Turning on the TV with a Mobile Device

Settings > General > Network > Power On with Mobile

By using a mobile device on the same network, you can turn on the TV.

Changing the name of the TV on a network

Settings > General > System Manager > Device Name

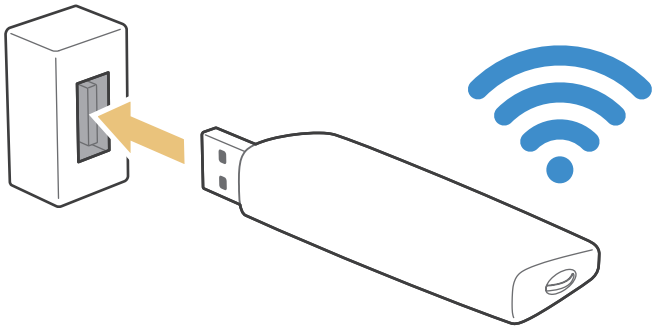
You can change the name of the TV on the network. Select User Input at the bottom of the list and change the name.

Connecting to a Network via a Mobile Dongle

Make network connection by connecting a mobile dongle to the TV.

You can make the TV to connect to a network via a mobile device by connecting a mobile dongle to the TV. Connect the mobile dongle to the USB port in the TV.

- This function is not available on certain models in specific geographical areas.
- When you use a large mobile dongle(Data Card), USB devices may not work properly due to interferences among the USB ports, or the wireless network may not work properly due to interferences from the peripherals and surroundings. In this case, use a USB extension cable.
- Channel-Bound Apps is not available when you set up mobile network.
- If you have any problems using online services, please contact your Internet service provider.



The mobile service providers and their devices that support this function are as follows:

(For India only)

- Airtel (Model No: E3276S, E3276s-920, E8231)
- Idea (Model No: E1732, E8231)
- Tata Docomo (Model No: E177, E8231)
- Open Dongles (Airtel, Idea, TataDocomo, Aircel, Vodafone) (Model No: E303C, E303U, E3121B, E3131B, E8221)

Troubleshooting Internet Connectivity Issues

If your TV won't connect to the Internet, try the solutions below.

Troubleshooting wired Internet connectivity issues

After reading the following content, troubleshoot the wired Internet connection issue. If the problem persists, contact your Internet Service Provider.

No network cable found

Make sure that the LAN cable is plugged in on both ends. If it is plugged in, make sure that the router is turned on. If the router is on, try turning it off and then on.

IP auto setting failed

1. Configure the settings in IP Settings.
2. Make sure that the DHCP server is enabled on the router, and then reset the router.

Unable to connect to the network

1. Check all IP Settings.
2. After checking the DHCP server status (must be active) on the router, remove the LAN cable, and then connect it again.

Connected to a local network, but not to the Internet

1. Make sure that the Internet LAN cable is connected to the router's external LAN port.
2. Check the DNS values in IP Settings.

Network setup is complete, but unable to connect to the Internet

If the problem persists, contact your Internet Service Provider.

Troubleshooting wireless Internet connectivity issues

After reading the following content, troubleshoot the wireless Internet connection issue. If the problem persists, contact your Internet Service Provider.

Wireless network connection failed

If a selected wireless router is not found, go to Open Network Settings, and then select the correct router.

Unable to connect to a wireless router

1. Check if the router is turned on. If it is, turn it off and then on.
2. Enter the correct password if required.

IP auto setting failed

1. Configure the settings in IP Settings.
2. Make sure that the DHCP server is enabled on the router. Then, unplug the router and plug it back in.
3. Enter the correct password if required.

Unable to connect to the network

1. Check all IP Settings.
2. Enter the correct password if required.

Connected to a local network, but not to the Internet

1. Make sure that the Internet LAN cable is connected to the router's external LAN port.
2. Check the DNS values in IP Settings.

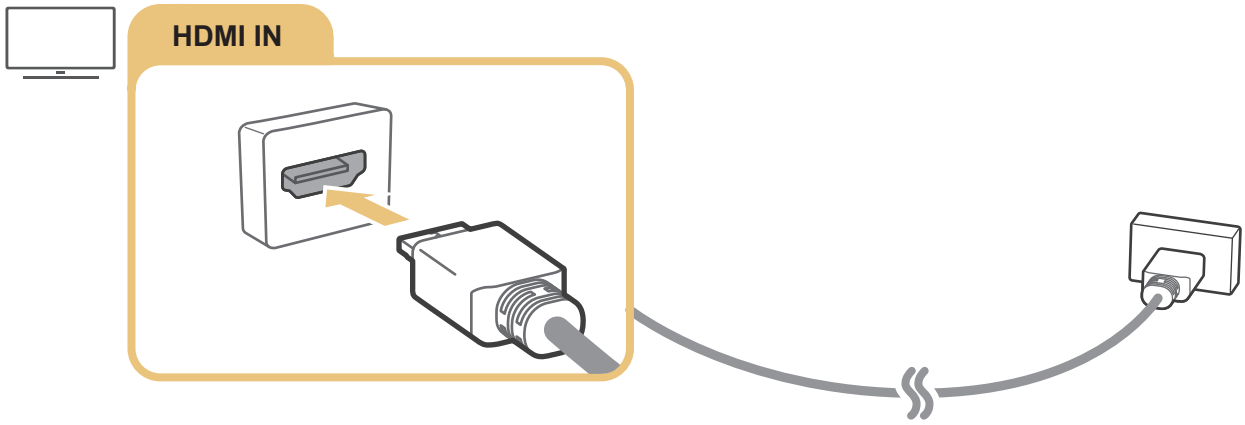
Network setup is complete, but unable to connect to the Internet

If the problem persists, contact your Internet Service Provider.

Connecting Video Devices

Make the correct video connections between your TV and your external devices.

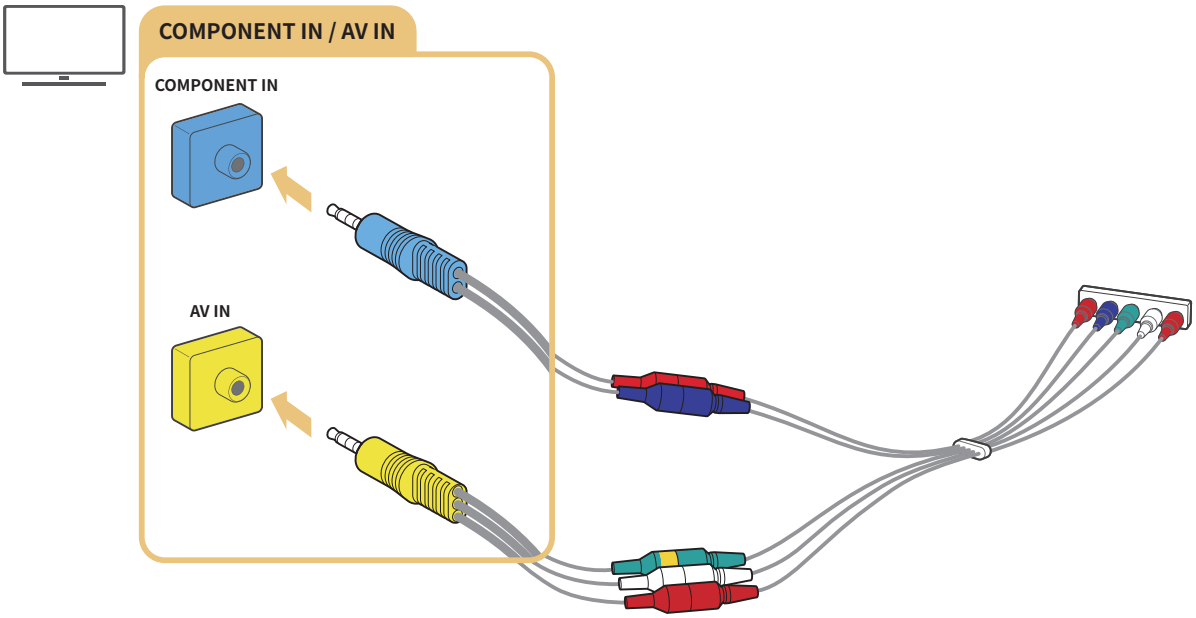
Connecting with an HDMI cable



Connecting with a component cable (Only for models with COMPONENT IN / AV IN)

A Component connection lets you enjoy video resolutions up to 1080p. To watch video from most DVD and Blu-ray players, use the Component connection.

Review the illustration below, and then connect Component IN and AV IN on the TV to Component OUT on the external device by using the provided component and AV adaptors. Make sure to connect the same colour connectors together. (blue to blue, yellow to yellow, etc.)

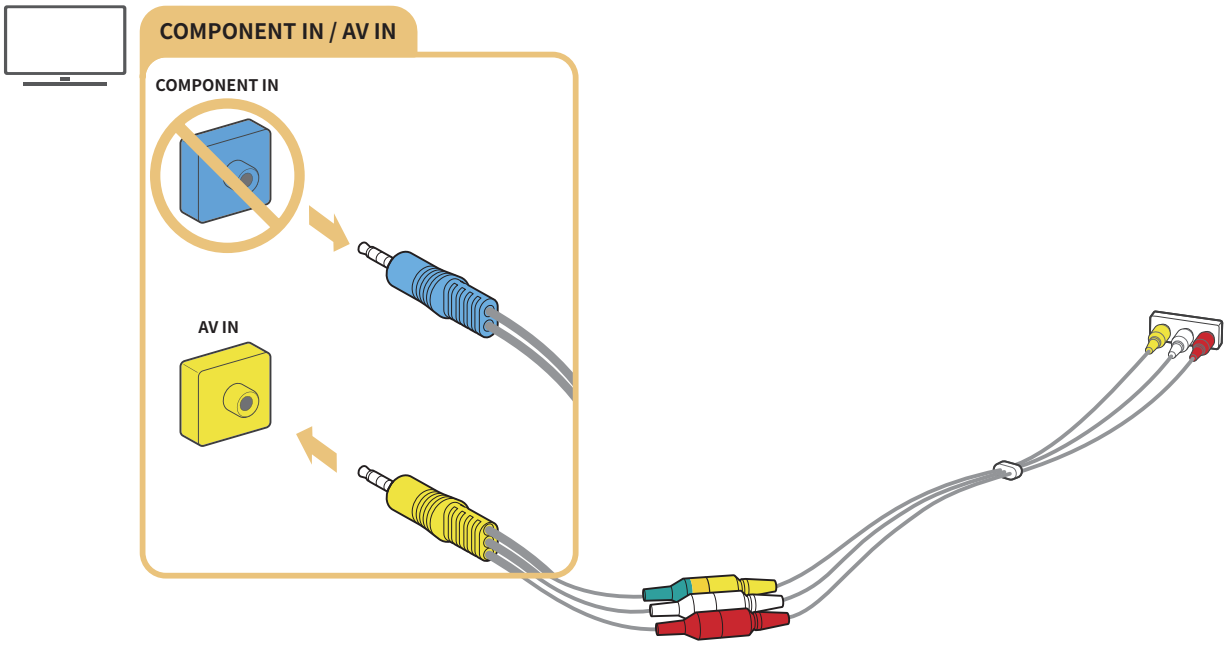


To use component equipment, connect both the component adapter (blue) and the AV adapter (yellow).

Connecting with a composite cable (Only for models with COMPONENT IN / AV IN)

Through the Composite connection, you can enjoy the resolution up to 576i.

Review the illustration below, and then connect AV IN on the TV to AV OUT on the external device using the provided AV adapter and composite cable. When connecting the cables, be sure to match the colours of the cables to the colours of the ports.



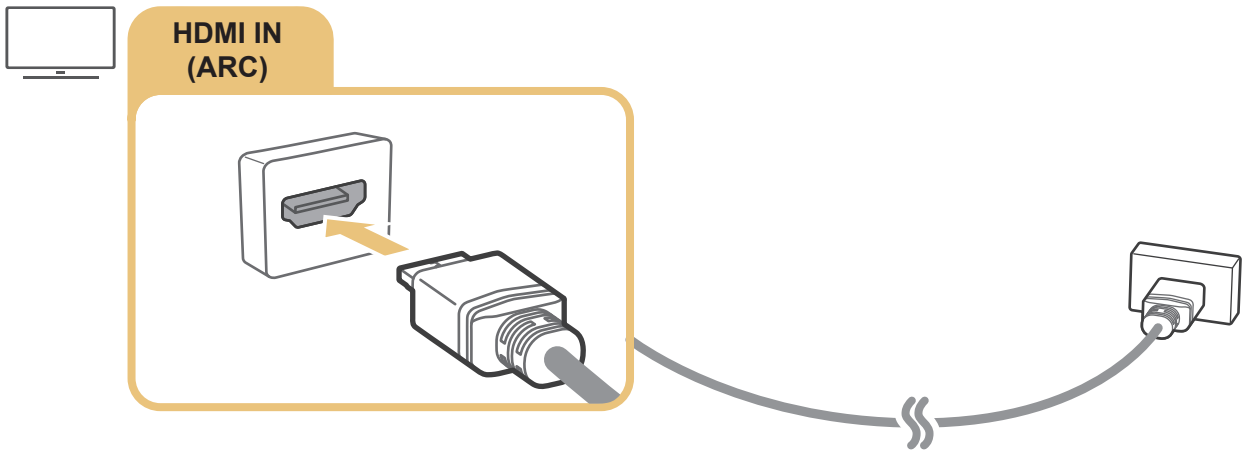
Connect AV (composite) equipment to AV In only. Do not connect to Component In.

Audio Input and Output Connections

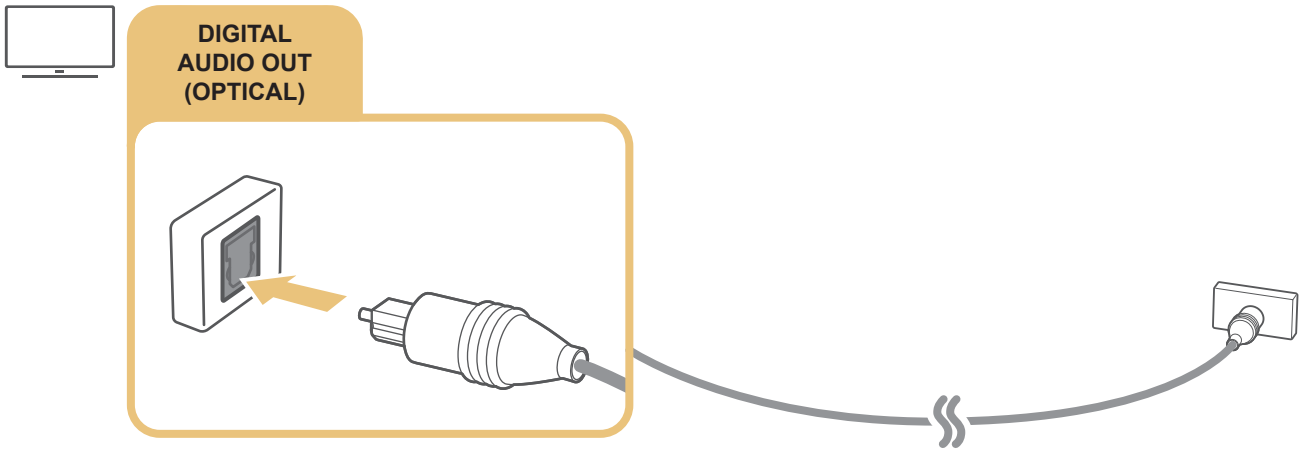
Make the correct audio connections between your TV and your external devices.

For more information about how to select external speakers, refer to "Selecting speakers."

Connecting with an HDMI (ARC) cable



Connecting with a digital audio (optical) cable



Connecting through a wireless network

You can connect the TV to a Samsung wireless audio device through your wireless network. The two devices must be connected to the same network. For more information about the connection and its use, refer to the user manual of the audio device.

Connecting Bluetooth Devices

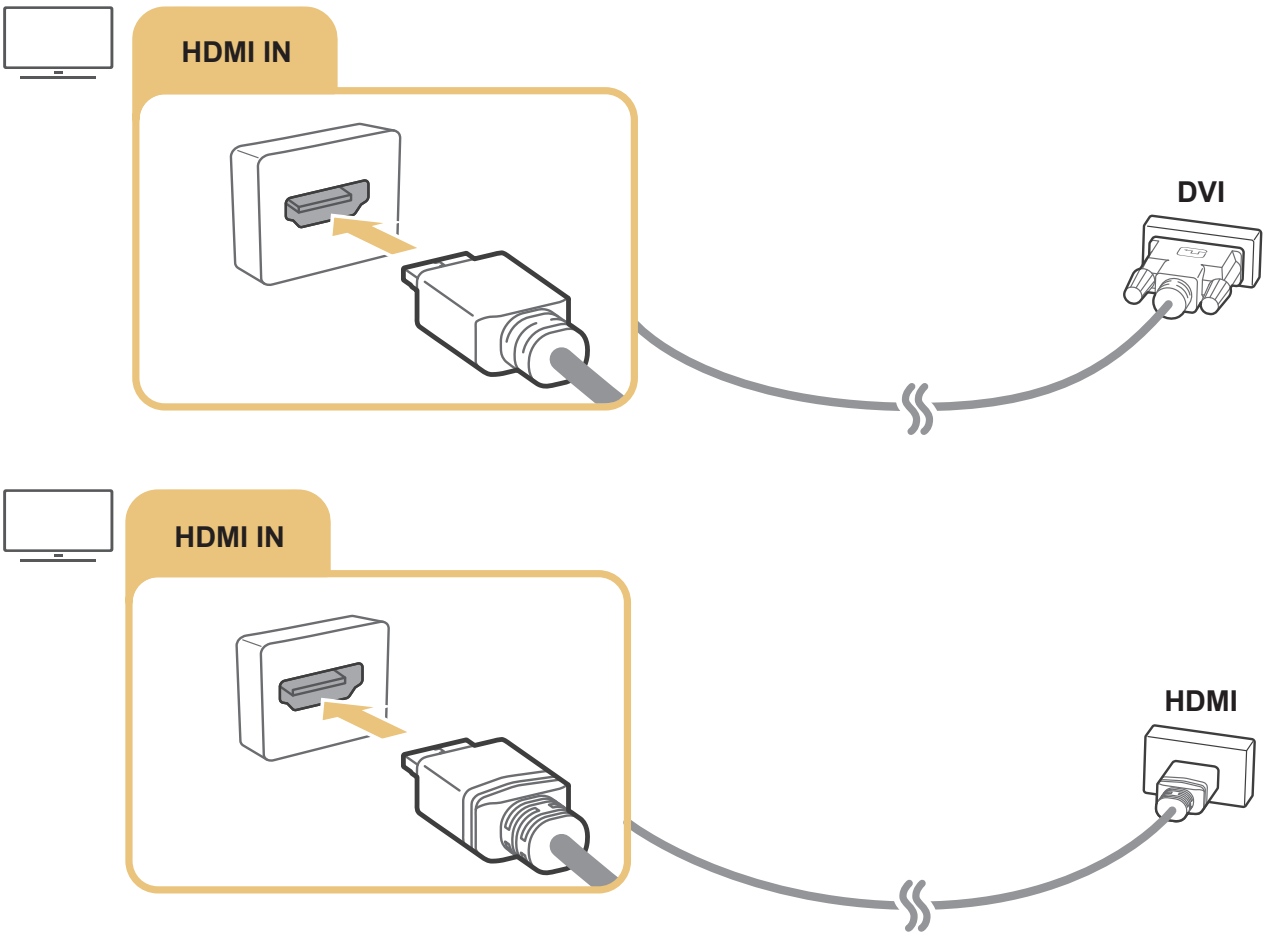
For more information about how to connect and use external speakers, refer to the Connection Guide (> Source > Connection Guide) and their user manuals.

This function is not available on certain models in specific geographical areas.

Connecting a Computer

Use the TV as a computer monitor or connect the TV to a computer via your network and access the computer's content.

Connecting through the HDMI port — Screen Sharing (HDMI)



When your PC is connected, select PC for the Device Icon. For more information about the port settings, refer to "Editing the name and icon of an external device."

Connecting a Mobile Device

View a mobile device's screen and multi-media content by connecting the mobile device to your TV or network.

After you connect a mobile device that supports screen mirroring to your TV, you can use screen mirroring to view the screen of the mobile device on your TV wirelessly and play the video, audio, or photo files currently playing on the mobile device on your TV.

Connecting to a Network

Connecting to the Same Wireless Network

Connect the mobile device and TV to the same wireless network.

- For more information about the wireless network connection, refer to "Establishing a wireless Internet connection."
- For more information about the wireless network connection from a mobile device, refer to its user guide.
- When a mobile device is connected to the TV using the Wi-Fi direct function, you can enjoy the photos, videos, and music stored on the mobile device through the TV.

Viewing the screen of a mobile device on your TV (Screen Sharing)

When you run the Smart View on a mobile device, you can view the screen of the mobile device on the TV.

1. Run the Smart View on your mobile device. The device searches for TVs that can be connected.
2. Select the desired TV from the searched result. The TV and the mobile device are connected.

- If there is no TV found, try again after turning both off and on.
- If you have multiple TVs, assign a different name to each TV in > Settings > General > System Manager > Device Name to make selection easy.

Managing a Mobile Device

> Settings > General > External Device Manager > Device Connection Manager

- Access Notification

  Set whether to display a notification when a mobile device attempts to connect to the TV for the first time.

- Device List

  View and manage a list of mobile devices that have requested permission to connect to the TV.

Switching between external devices connected to the TV

You can switch between TV programmes and the content of external devices.

Changing the input signal

> Source

When you select a connected external device on the Source screen, the output of the selected device is displayed on the TV's screen.

On the standard remote control, press the SOURCE button.

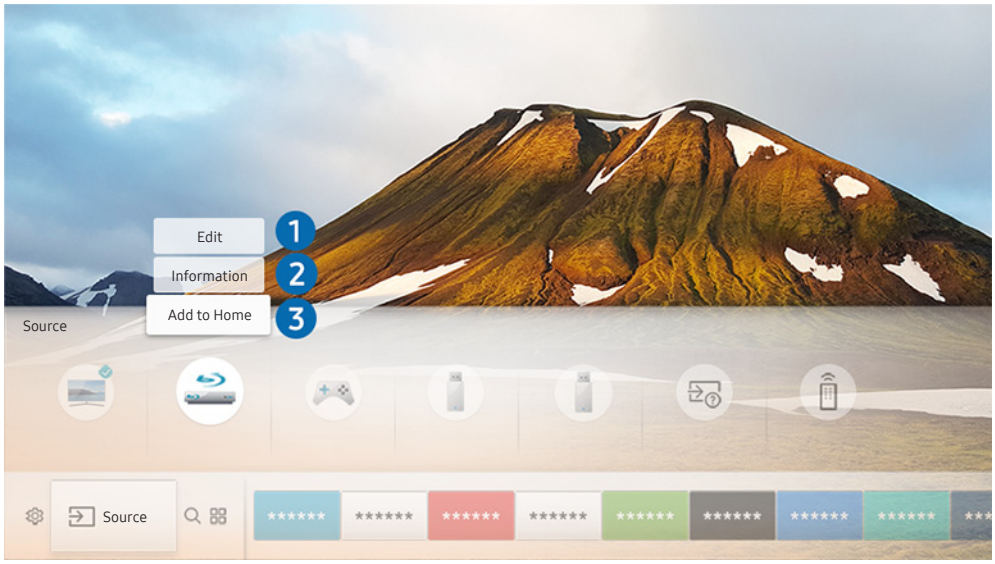
To control a device (Blu-ray player, game console, etc.) that supports universal remote control with the TV's remote, connect the device to an HDMI port on the TV, and then turn on the device. Lets you switch to the output of the device automatically or lets you configure universal remote control for the device automatically. To configure the device for universal remote control automatically, point the TV's remote control at the device. Note that this function may not be supported depending on the device and geographical area.

When a USB device is connected to the USB port, a pop-up message appears that lets you switch easily to the media content listed on the device.

Editing the name and icon of an external device

> Source

You can change the port name for a connected external device or add it to Home Screen.



The image on your TV may differ from the image above depending on your model and geographical area.

1. Move the focus to a connected external device.
2. Press the Up directional button. The following 2 functions become available. (Note that available functions may differ with the port type.)

1 Edit

You can change the port name of an external device for easy identification.

2 Information

You can view the detailed information about the external devices connected to the TV.

3 Add to Home

You can add the port of an external device to the Home Screen for quick switching.

Using additional functions

You can use the following features on the Source screen.

- Connection Guide: The guide to device connections
- Universal Remote: The function that lets you register external devices to your Samsung Smart Remote and control them using the standard remote control.

  This function is not available on certain models in specific geographical areas.

  For more information, refer to "Controlling External Devices with the Samsung Smart Remote - Using the Universal Remote."

Connection Notes

When connecting an external device, note the following:

The number of connectors and their names and locations may differ with the model.

Refer to the external device's operating manual when connecting it to the TV. The number of external device connectors and their names and locations may differ with the manufacturer.

Connection notes for HDMI

- The following types of HDMI cables are recommended:
  - High-Speed HDMI Cable
  - High-Speed HDMI Cable with Ethernet
- Use an HDMI cable with a thickness of 0.66 inches (17 mm) or less.
- Using a non-certified HDMI cable may result in a blank screen or a connection error.
- Some HDMI cables and devices may not be compatible with the TV due to different HDMI specifications.
- This TV does not support HDMI Ethernet Channel. Ethernet is a Local Area Network (LAN) built with coaxial cables standardised by the IEEE.
- Many computer graphics adaptors do not have HDMI ports, but have DVI ports instead. If your PC does not support HDMI video out, connect your PC with an HDMI-DVI cable.

  For more information, refer to "Connecting a Computer."

Connection notes for audio devices

- For better audio quality, it is a good idea to use an AV receiver.
- Connecting a device using an optical cable does not automatically change the audio output to the devices speakers. To change the audio output to the device, do one of the following:
  - Use the Quick Settings screen to change to the connected device:

    Use the Select button to select Audio Out/Optical on the Sound Output menu. (> Settings > up directional button > Sound Output).
  - Use the Settings screen to change to the connected device:

    Select Audio Out/Optical on the Sound Output menu. (> Settings > Sound > Sound Output).
- An unusual noise coming from a connected audio device while you are using it may indicate a problem with the audio device itself. If this occurs, ask for assistance from the audio device's manufacturer.
- Digital audio is only available with 5.1-channel broadcasts.

Connection notes for computers

- For the resolutions supported by the TV, refer to "Read Before Connecting a Computer (Supported Resolutions)."
- As long as file sharing is activated, unauthorised access may occur. When you do not need to access data, disable file sharing.
- Your PC and Smart TV must be connected to each other on the same network.
- When sharing content with other network-based devices such as those in an IP (Internet Protocol) storage system, sharing may not be supported due to the network's configuration, quality, or functionality, for example, if the network has an NAS (Network-Attached Storage) device.

Connection notes for mobile devices

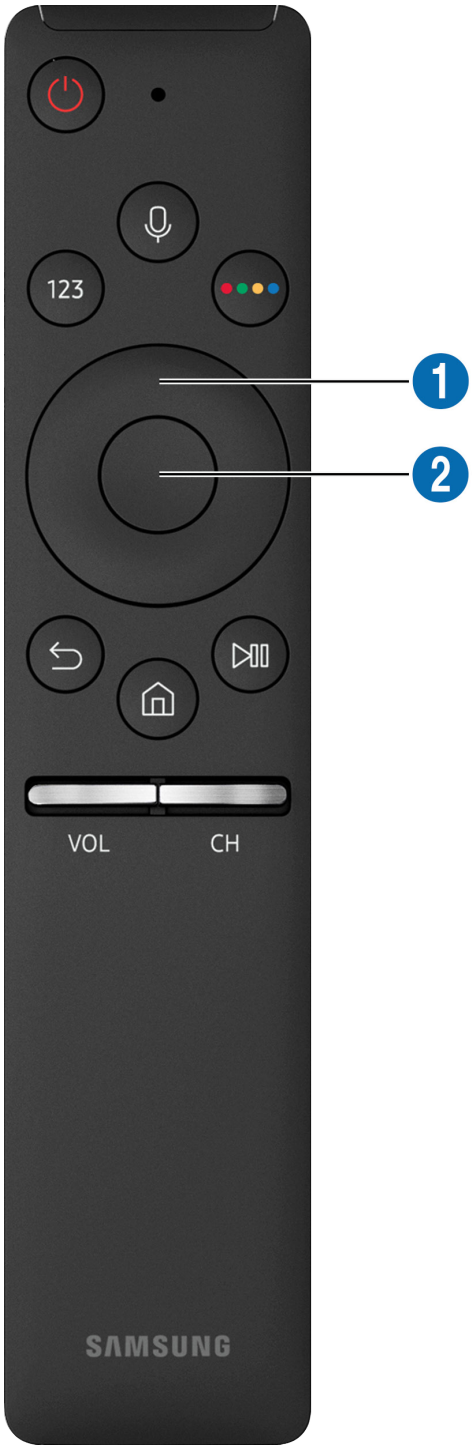
- To use the Smart View function, the mobile device must support a sharing function such as AllShare Cast or Smart View. To check whether your mobile device supports the sharing function, please visit the mobile device manufacturer's website.
- To use Wi-Fi Direct, the mobile device must support the Wi-Fi Direct function. Please check if your mobile device supports Wi-Fi Direct.
- The mobile device and your Smart TV must be connected to each other on the same network.
- The video or audio may stop intermittently, depending on network conditions.
- When sharing content with other network-based devices such as those in an IP (Internet Protocol) storage system, sharing may not be supported due to the network's configuration, quality, or functionality, for example, if the network has an NAS (Network-Attached Storage) device.

Remote Control and Peripherals

You can control TV operations with your Samsung Smart Remote. Pair external devices such as a keyboard for ease of use.

About the Samsung Smart Remote

Learn about the buttons on the Samsung Smart Remote.



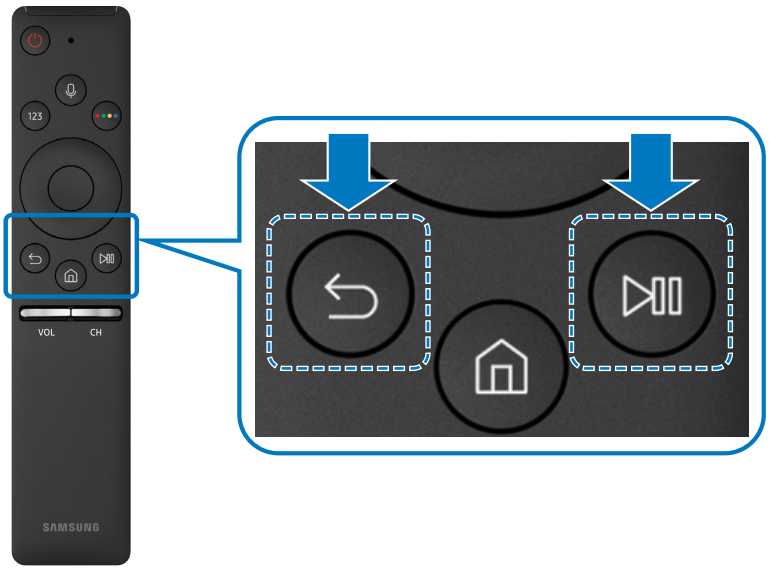
Button	Description
(Voice recognition)	Runs Voice Interaction. Press the button, say a voice command, and then release the button to run Voice Interaction. When pressed once, the guide to Voice Interaction appears.
123 Virtual numeric pad	When pressed, the virtual numeric pad appears on the screen so that you can enter a numeric value using it. Select numbers and then select Done to enter a numeric value. Use to change the channel, enter a PIN, enter a ZIP code, etc. If the Colour Button appears with a number strip on the screen, select the Colour Button and then select a specific colour by using the directional pad (up/down/left/right). Use this to access additional options that are specific to the feature in use.
4 Colour button	Use these coloured buttons to access additional options that are specific to the feature in use.
1 Directional pad (up/down/left/right)	Moves the focus.
2 Select	Selects or runs a focused item. When pressed while you are watching content, detailed programme information appears.
(Return)	Press to return to the previous menu. When pressed for 1 second or more, the running function is terminated. When pressed while you are watching a programme, the previous channel appears.
(Smart Hub)	Press to return to the Home Screen.
(Play/pause)	When pressed, the playback controls appear. Using these controls, you can control the media content that is playing.
VOL (Volume)	Move the button up or down to adjust the volume. To mute the sound, press the button. When pressed for 1 second or more, the Accessibility Shortcuts appears.
CH (Channel)	Move the button up or down to change the channel. To see the Guide screen, press the button. Press and hold the button up or down to quickly change the channel.

- Use the Samsung Smart Remote less than 6 m from the TV. The usable distance may vary with the wireless environmental conditions.
- The images, buttons, and functions of the Samsung Smart Remote may differ with the model.
- To use the Samsung Smart Remote to control a compatible external device that does not support HDMI-CEC (Anynet+), you must configure universal remote control for the device. For more information, refer to "Controlling External Devices with the Samsung Smart Remote - Using the Universal Remote."
- To use the Samsung Smart Remote to control a compatible external device that does support HDMI-CEC (Anynet+), connect the device to an HDMI port on the TV using an HDMI cable. For more information, refer to "Using Anynet+ (HDMI-CEC)."
- This function may not be supported depending on the model or geographical region.
- Availability depends on the specific model.

Connecting to the Samsung Smart Remote

Pair the TV with the Samsung Smart Remote.

When you turn on the TV for the first time, the Samsung Smart Remote pairs to the TV automatically. If the Samsung Smart Remote does not pair to the TV automatically, point it at the remote control sensor of the TV, and then press and hold the and buttons simultaneously for 3 seconds or more.



Availability depends on the specific model.

Controlling External Devices with the Samsung Smart Remote - Using the Universal Remote

Control the TV and connected external devices with the Samsung Smart Remote.

> Source > Universal Remote

You can control external devices connected to the TV using the remote control. To control external devices, register them by following the instructions on the screen.

- Availability depends on the specific model.
- You can also use the Anynet+ (HDMI-CEC) function to operate external Samsung devices with your TV's remote control without any additional setup.
- Certain external devices connected to the TV may not support the universal remote feature.
- Do not place any obstacles in front of an external device. It may cause signals from the remote control to be transmitted improperly.
- The TV memorises both the external device and its connection port (HDMI 1, HDMI 2, etc.).

Using Anynet+ (HDMI-CEC)

Control an external device connected via Anynet+ (HDMI-CEC) with the remote control.

You can use the TV's remote control to control external devices that are connected to the TV by an HDMI cable and that support Anynet+ (HDMI-CEC). Note that you can only set up and operate Anynet+ (HDMI-CEC) with the remote control.

Connecting an external device through Anynet+ and using their menus

Settings > General > External Device Manager > Anynet+ (HDMI-CEC)

1. Set Anynet+ (HDMI-CEC) to On.
2. Connect an HDMI-CEC-compliant device to the TV.
3. Turn on the connected external device. The device is automatically connected to the TV. After connection is finished, you can access the menu of the connected device on your TV screen using your TV remote and control the device.

The connecting process can take up to 2 minutes to complete.

Read before connecting an Anynet+ (HDMI-CEC) device

- You can configure the TV's Universal Remote to control third-party cable boxes, Blu-ray players, and home theatres that do not support HDMI-CEC. For more information, refer to "Controlling External Devices with the Samsung Smart Remote - Using the Universal Remote." (This function is not available on certain models in specific geographical areas.)
- Anynet+ cannot be used to control external devices that do not support HDMI-CEC.
- Anynet+ (HDMI-CEC)-enabled devices must be connected to the TV with an HDMI cable. Note that some HDMI cables may not support Anynet+ (HDMI-CEC).
- The TV remote control may not work under certain circumstances. If this occurs, set up the device as an Anynet+ (HDMI-CEC)-enabled device again.
- Anynet+ (HDMI-CEC) works only with external devices that support HDMI-CEC and only when those devices are either in standby mode or turned on.
- Anynet+ (HDMI-CEC) can control up to 12 compliant external devices (up to 3 of the same type) except for home theatres. Anynet+ (HDMI-CEC) can control only one home theatre system.
- To listen to 5.1-channel audio from an external device, connect the device to the TV via an HDMI cable and connect a 5.1 home theatre system directly to the external device's digital audio output connector.
- If an external device has been set up for both Anynet+ and a universal remote control, the device can be controlled only with the universal remote control. (This function is not available on certain models in specific geographical areas.)

Controlling the TV with a Keyboard

Connecting a keyboard makes it easier to control the TV.

Connecting a USB keyboard

Plug the keyboard cable into the USB port.

Connecting a Bluetooth keyboard

Home > Settings > General > External Device Manager > Keyboard Manager > Add Bluetooth Keyboard

- This function is not available on certain models in specific geographical areas.
- If your device was not detected, position the keyboard close to the TV, and then select **Refresh**. The TV scans for available devices again.

Using the keyboard

Keyboard	Remote control functions
Directional keys	Moves the focus
Windows key	Displays the TV settings
Enter key	Selects or runs a focused item
ESC key	Returns to the previous screen
F1 / F2 / F3 / F4 key	Colour buttons — / / /
F5 key	Launches the Home Screen
F6 key	Displays the source screen
F7 key	Launches the Channel List
F8 key	Mutes the sound
F9 / F10 key	Adjusts the volume
F11 / F12 key	Changes the channel

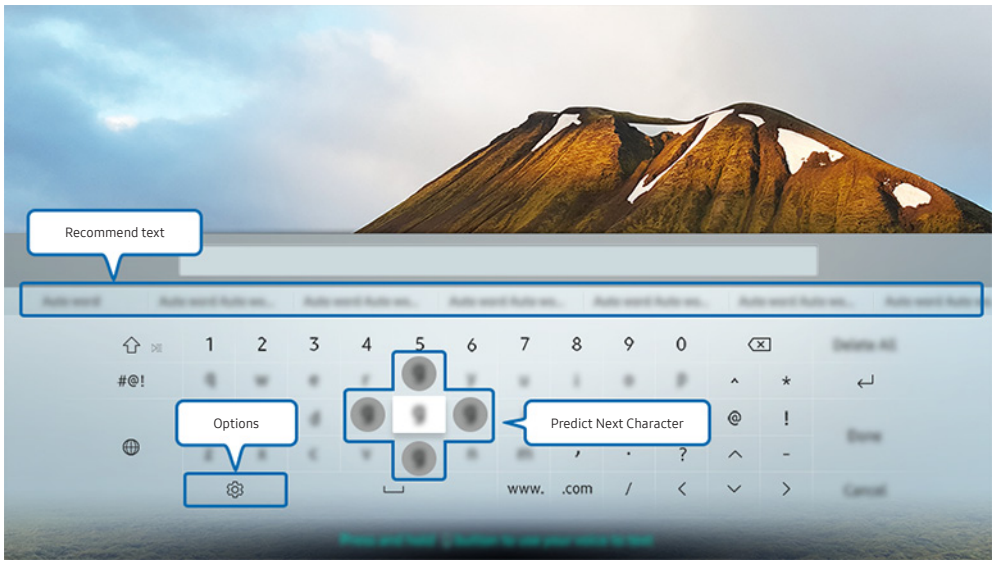
Setting up the keyboard

In > Settings > General > External Device Manager > Keyboard Manager, you can set the following functions.

- Keyboard Language
- Keyboard type

Entering Text using the On-Screen QWERTY Keyboard

Use the QWERTY keyboard to enter text on your TV.



The image on your TV may differ from the image above depending on your model and geographical area.

Using additional functions

Select ⚙ on the QWERTY keyboard screen. The following options are available:

The options available may differ depending on the function running currently.

- Recommend text
- Reset Recommended Text Memory
- Predict Next Character (when using direction buttons)
- Language

Entering Text using the remote control's microphone and the on-screen QWERTY keyboard

When the QWERTY keyboard is on the screen, press and hold the 🎤 button on the Samsung Smart Remote, speak into the microphone on the Samsung Smart Remote, and then release the button. What you say appears on the screen as text.

This function is not available on certain models in specific geographical areas.

Smart Features

You can enjoy various apps with Smart Hub.

Smart Hub

View descriptions of Smart Hub's basic functions.

After pressing the button on your remote control, you can surf the web and download apps with Smart Hub.

- Some of the **Smart Hub** services are paid services.
- To use **Smart Hub**, the TV must be connected to the Internet.
- Some **Smart Hub** features may not be available depending on the service provider, language, or region.
- **Smart Hub** service outages can be caused by disruptions in your Internet service.
- You can view the entire text of the **Terms and Privacy Policy** document by navigating to > **Settings** > **Support** > **Terms and Privacy Policy**. If you want to stop using **Smart Hub**, you can cancel the agreement. Try Now
- To cancel the Smart Hub service agreement though it is a required one, select **Reset** (> **Settings** > **Support** > **Self Diagnosis** > **Reset**), and then press the right directional button at the **Smart Hub Terms & Conditions, Privacy Policy** step.

Displaying the Home Screen

Press the button.



The image on your TV may differ from the image above depending on your model and geographical area.

On the Home Screen, you can easily run the apps you have used previously or frequently. The apps can also be moved or deleted from the screen. Pressing Settings displays all setting menus available.

1 Settings

When the focus is moved to the icon, a list of quick settings icons appears above the top of the menu. You can quickly set frequently used functions by clicking the icons.

- Picture Mode

  You can select the picture mode that provides the best viewing experience.

- Sound Mode

  You can select a sound mode to optimise your listening experience.

- Sound Output

  You can select which speakers the TV uses for audio output.

- Sound Mirroring

  You can listen to audio sound on a mobile device through the TV speaker.

  This function is not available on certain models in specific geographical areas.

- **Audio Language**

  You can select a audio language.

  > This function is not available on certain models in specific geographical areas.

- **Subtitle**

  Turns the subtitles on or off.

  > The actual name may differ with the geographical area. (**Subtitle** or **Caption**)

- **Sleep Timer**

  You can automatically shut off the TV after a pre-set period of time.

- **Network**

  You can view the current network and Internet status.

2 Source

You can select an external device connected to the TV.

> For more information about connecting external devices, refer to "Switching between external devices connected to the TV."

3 Search

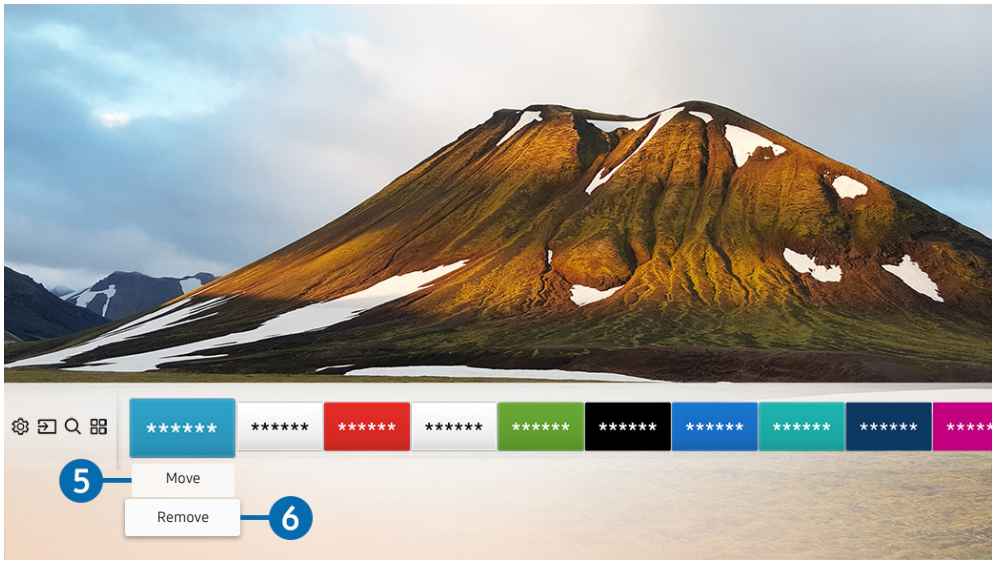
You can search the apps or games in Smart Hub services.

4 APPS

You can enjoy a wide range of content including news, sports, weather, and games by installing the corresponding apps on your TV.

> To use this feature, the TV must be connected to the Internet.

> For more information, refer to "Using the Apps Service."



5 Moving an item on the Home Screen

Move the focus to the app you want to move, press the down directional button on the remote control, and then select Move. Move the app to the desired position by pressing the left or right directional button, and then press the Select button. The selected app is moved on the Home screen.

6 Removing an item on the Home Screen

Move the focus to the app you want to delete, press the down directional button on the remote control, and then select Remove. The selected app is deleted.

Launching Smart Hub automatically

Settings > General > Smart Features > Autorun Smart Hub

When you set Autorun Smart Hub to On, the TV displays the Home Screen automatically when you turn the TV on.

Launching the last used app automatically

Settings > General > Smart Features > Autorun Last App

If Autorun Last App is set to On, the last used app is automatically run when you turn on the TV.

Testing Smart Hub connections

> Settings > Support > Self Diagnosis > Start Smart Hub Connection Test

Resetting Smart Hub

> Settings > Support > Self Diagnosis > Reset Smart Hub

Using a Samsung account

Create and manage your own Samsung account.

> Settings > General > System Manager > Samsung Account

Creating and managing your Samsung account

- You can view the entire text of the Terms and Privacy Policy in > Settings > General > System Manager > Samsung Account > My Account > Samsung account Privacy Policy after logging in to your Samsung account.
- You can also create a Samsung account at http://account.samsung.com. Once you have an account, you can use the same ID on both the TV and the Samsung website.

Creating a new account

> Settings > General > System Manager > Samsung Account > (Add Account) > Create Account

To create a new Samsung account, follow the instructions on the screen.

- For more information about the terms, select View Details.
- To protect personal information, select Profile image selection and password entry (High security) in the field below the password entry bar.
- If you want the TV to log you into your account automatically whenever you turn on the TV, click Sign me in automatically.

Creating a Samsung account using a Facebook account

Settings > General > System Manager > Samsung Account > (Add Account) > Create with Facebook

Creating a Samsung account using a PayPal account

Settings > General > System Manager > Samsung Account > (Add Account) > Create with PayPal

This function is only available on certain models in specific geographical areas.

Signing in to a Samsung account

Settings > General > System Manager > Samsung Account > Sign In

Changing and adding information to a Samsung account

Settings > General > System Manager > Samsung Account > My Account > Edit profile

To change the account information, you must be logged in to your Samsung account.

Managing payment information saved on the TV

Settings > General > System Manager > Samsung Account > My Account > Payment Info

To manage the payment information, you must be logged in to your Samsung account.

Configure the sync internet settings

Settings > General > System Manager > Samsung Account > My Account > Sync Internet

To configure the sync internet settings, you must be logged in to your Samsung account.

Deleting a Samsung account from the TV

Settings > General > System Manager > Samsung Account > My Account > Remove Account

To remove account information, you must be logged in to your Samsung account.

Signing out of your Samsung account

To sign out of your Samsung account, move the focus to your account at > Settings > General > System Manager > Samsung Account, and then press the Select button. When a pop-up message appears, select Yes.

Viewing the user agreement and privacy policy

Settings > General > System Manager > Samsung Account > My Account > Samsung account Privacy Policy

To view the user agreement and privacy policy, you must be logged in to your Samsung account.

Using the Apps Service

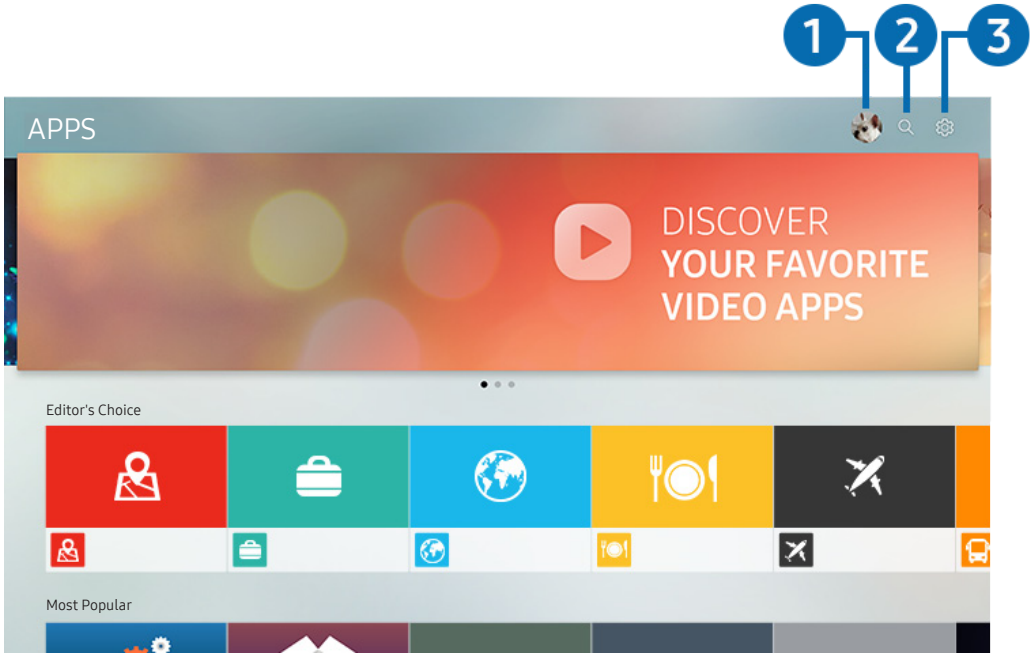
Download and run various apps from Smart Hub.

> APPS

You can enjoy a wide range of content including news, sports, weather, and games by installing the corresponding apps on your TV.

To use this feature, the TV must be connected to the Internet.

When Smart Hub is launched for the first time, the default apps are automatically installed. The default apps may differ with the geographical area.



The image on your TV may differ from the image above depending on your model and geographical area.

1 Sign In

Selecting Sign In displays the Samsung Account screen on which you can create a Samsung account or log in to the system.

2 App Search

You can search for available apps.

3 Settings

You can manage the installed apps.

Installing and running an app

Installing an app

1. Move to the app you want to install, and then press the Select button. The detailed information screen appears.
2. Select Install. When the installation is complete, you can run the app immediately.

You can view installed apps on the Settings screen.

When the TV's internal memory is insufficient, you can install an app on a USB device.

You can run an app installed on a USB device only when the USB device is connected to the TV. If the USB device is disconnected while an app is running, the app is terminated.

You cannot run an app installed on a USB device on a PC or another TV.

Launching an app

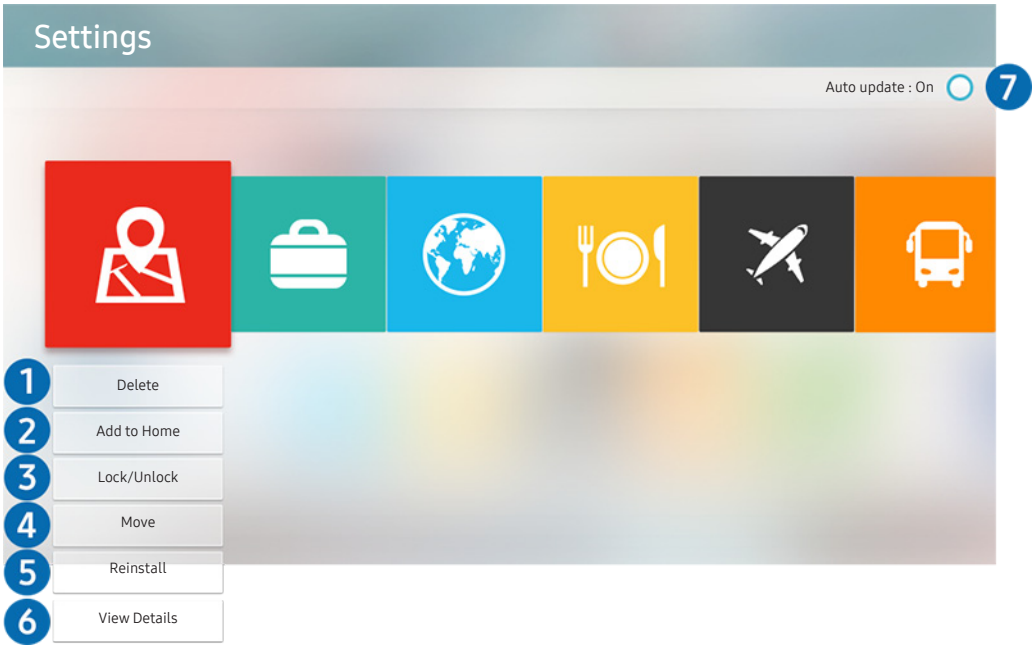
You can run the app desired from Downloaded App.

The icons below appear within the selected app's icon and indicate the following:

- : The app is installed on a USB device.
- : The app has a password.
- : The app is installed.
- : The app needs to be updated.
- : The app supports Smart View.

Managing purchased or installed apps

Select Settings on APPS. You can manage installed apps.



The image on your TV may differ from the image above depending on your model and geographical area.

1 Removing an app

1. Select an app to delete.
2. Select Delete. The selected app is deleted.

Ensure that the related app data is also removed when you remove an app.

2 Adding apps to the Home Screen

1. Select an app to add.
2. Select Add to Home.
3. After the Home screen appears, move the selected app to the desired location.
4. Press the Select button. The selected app is added to the Home Screen.

3 Locking and unlocking apps

1. Select an app to lock or unlock.
2. Select Lock/Unlock. The selected app is locked or unlocked.

To lock or unlock an app, enter the PIN. The default PIN is "0000." You can set the PIN in > Settings > General > System Manager > Change PIN.

4 Moving apps

1. Select an app to move.
2. Select Move.
3. Press the Select button.

This function is not available on certain models in specific geographical areas.

5 Reinstalling an app

1. Select the app to install again.
2. Select Reinstall. Reinstallation starts.

6 Checking the app information details

1. Select the app to check.
2. Select View Details.
3. The app information screen appears.

You can rate an app on the detailed information screen using the left or right directional button on the remote.

7 Automatically updating apps

Installed apps can be automatically updated. If you do not want apps automatically updated, set Auto update to Off.

Automatic update is enabled only when the TV is connected to the Internet.

Using the e-Manual

Control and read the manual embedded in your TV.

Launching the e-Manual

> Settings > Support > Open e-Manual

You can view the embedded e-Manual that contains information about your TV's key features.

Alternatively, you can download a copy of the e-Manual from Samsung's website.

Words in blue (e.g., Picture Mode) indicate a menu item.

Using the buttons in the e-Manual

- (Search)
- A-Z (Index)
- (Recent pages)
- (Try Now): Allows you to access the corresponding menu item and try out the feature right away.
- (Link): Allows you to access the corresponding reference page.

Some menu screens cannot be accessed from the e-Manual.

Using the Internet

Surf the Internet on your TV.

> Internet

When you select > Internet, you can see recently viewed web sites or featured recommendations. When you select a desired web site, you can get immediate access to it.

You can use the Internet more easily after connecting a keyboard and mouse.

You can scroll web pages with the Directional pad.

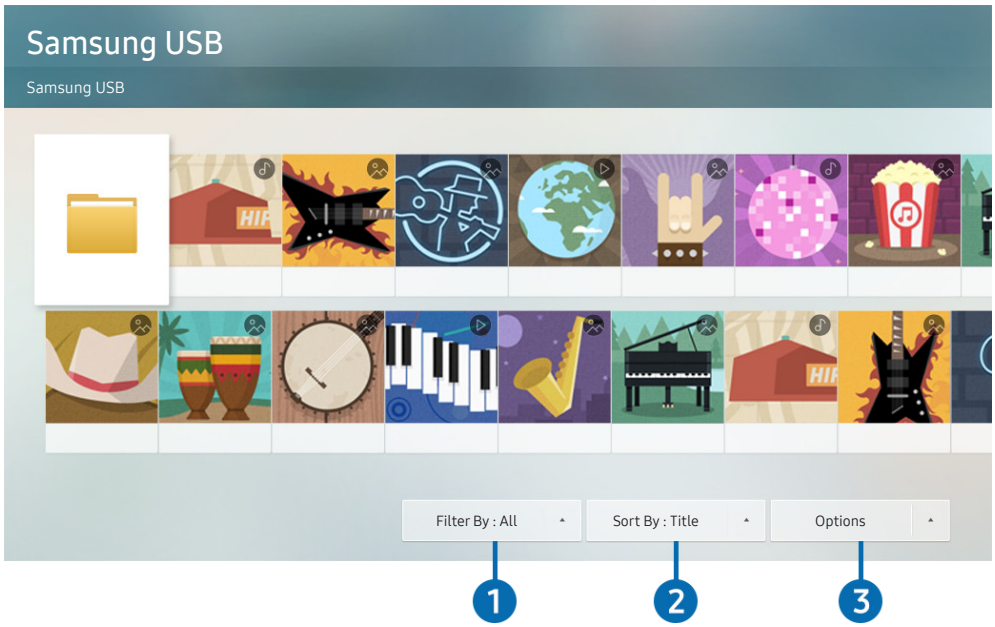
The web pages may differ from those on a PC.

For more information about the Internet, refer to "Read Before Using the Internet."

Playing pictures/video/music

Play media content stored on your TV, USB devices, smartphones, cameras, PCs, etc.

Home > Source > Connected Device



The image on your TV may differ from the image above depending on your model and geographical area.

You can play media content saved on storage devices, such as USB devices, mobile devices, and cameras, on the TV.

- You cannot play media content if the content or the storage device is not supported by the TV. For more information, refer to "Read Before Playing Photo, Video, or Music Files."
- To connect the TV to a computer, refer to "Connecting a Computer."
- Backup important files before connecting a USB device. Samsung is not responsible for damaged or lost files.
- To connect the TV to a mobile device, refer to "Connecting a Mobile Device."

You can use the following functions on the media content list screen of a storage device.

1 Filter By

Filters the media content by type of media. (music, photo, video, recorded contents, etc.)

2 Sort By

Sorts the content list.

3 Options

Deletes or plays the selected media content in the media content list. When you select Refresh, the content list is reloaded.

You can delete only the recorded content. To delete content, change the Filter By option to Recorded.

Playing media content

Playing multimedia content on USB device

1. Connect a USB device to the USB port. A pop-up message appears that lets you move easily to the multimedia content list on the device.
2. Select a content item to play from the list. The content is played back.

Playing multimedia content on PC or mobile device

1. Select a device with media content in > Source. The media content list in the device appears.
2. Select a media content item from the list. The content is played.

For more information about buttons, refer to "Buttons and functions available while playing multimedia content."

The content may not be played depending on the encoding method or file format. Furthermore, several functions may be restricted.

Content on devices connected to the TV via your network may not play smoothly due to the network communication problems. If this occurs, use a USB device.

For more information about connection to PC, refer to "Connecting a Computer."

For more information about connection to mobile device, refer to "Connecting a Mobile Device."

Using Voice Interaction

Speak into the microphone on your Samsung Smart Remote to control your TV.

Availability depends on the specific model.

Running Voice Interaction

Press and hold the button on your Samsung Smart Remote, say a command, and then release the button. The TV recognises the voice command.

When you press the button once, the Help Guide is displayed. Use the Voice Interaction function as instructed in the Guide.

During voice analysis, the system cannot receive voice commands.



- If you say voice commands like "**Channel number 11**" and "**Volume 10,**" you can set the channel and volume.
- If you say an accessibility-related command such as "**Subtitle**" or "**Voice Guide,**" the command is applied directly and you will see a notification that the function is operating.
- When playing back media content, you can execute commands such as "**Play,**" "**Pause,**" "**Stop,**" "**Rewind,**" and "**Fast Forward.**"

The function does not operate for all apps.

- You can set the timer with the command "**Sleep reservation in 30 minutes.**"
- To change the source, say "**HDMI,**" "**TV,**" or "**USB.**"
- To change the picture mode, say "**Movie Picture Mode**" or "**Set Picture Mode to Standard.**"
- To search, say "**Search ****" or "**Search **** in YouTube.**"
- To view Help, say "**Help,**" "**What can I say**" or "**User guide.**"

  The supported language may differ by geographical region.

  When you press the button once, the Help Guide is displayed. Use the Voice Interaction function as instructed in the Guide.

Read Before Using Voice Interaction

Precautions for voice interaction

- To use Voice Interaction, you must have a Samsung account. For more information, refer to "Using a Samsung account."
- The supported voice interaction languages and features may differ by geographical region.
- If the language set differs from the language of your country, some features are not available.
- The function is available only when the TV is connected to the Internet.
- Voice interaction is available only on TVs that support it and come with remote controls that have a microphone.

- Symbols including "-" and special characters are not supported. Consequently, if a word or sentence contains numeric values or symbols, the function may not operate properly.
- Searched results may not provide complete results.
- You may be required to pay for some apps. Consequently, you may encounter a service application or contract.
- To change the current channel by saying channel names as voice commands, you must finish Set Up Service Provider. (> Settings > General > Start Setup) Try Now
- To use the voice text input function and Smart search function, you must consent to provisions allowing third parties to collect and use your voice data.
- To use the interactive voice interaction function, you must agree.
  - Agree to Smart Hub's Terms of Use
  - Agree to a guidance regarding the collection and use of personal information for the Smart Hub service.
  - Consent to the collection and use of personal information for the voice interaction-based service.

Requirements for using voice interaction

- The voice interaction rate differs with the volume/tone, pronunciation, and ambient sound environment (TV sound and ambient noise).
- The optimal volume for voice commands is between 75 dB and 80 dB.

TV Viewing

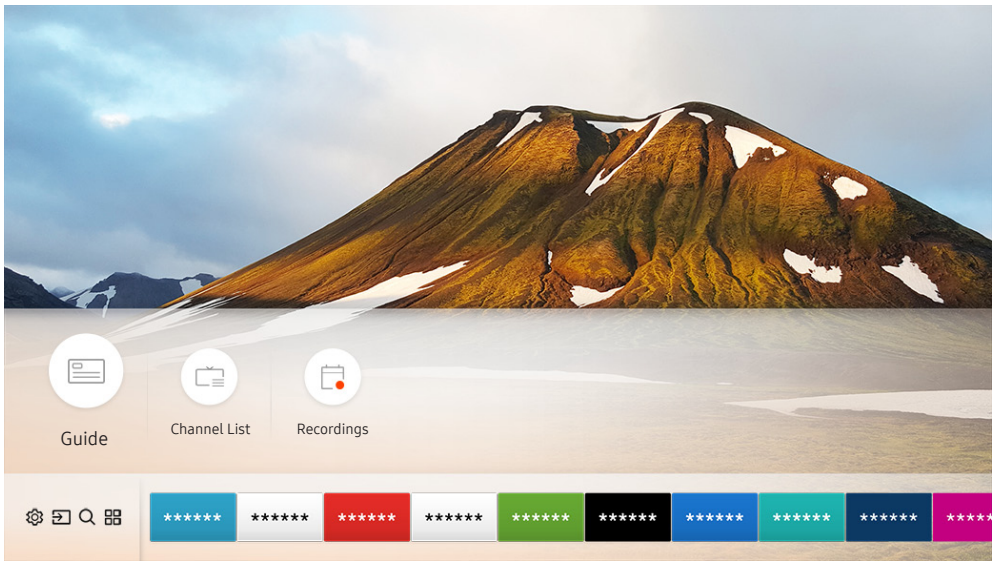
You can use convenient features while watching TV. Additionally, you can edit the channel list or create favourite channel lists.

Viewing Digital Broadcast Information at a Glance

See an overview of each channel's programme lineup.

Using the guide

Home > Live TV > Guide



The image on your TV may differ from the image above depending on your model and geographical area.

In the Guide, you can see the daily programme schedules for each broadcaster, see programme information, choose a programme to watch, and set up a schedule viewing or recording.

The Guide also appears when you press the CH button while watching TV.

This function is not available on certain models in specific geographical areas.

To see information about analogue channels and use the analogue channel functions of the Guide, you must finish the service provider settings in initial setup.

To view the Guide, you must first set the TV's clock (Home > Settings > General > System Manager > Time > Clock).

To start Scheduled viewing, Scheduled recording, and other function for a programme listed in the Guide, first move the cursor to it and then operate the remote control as follows:

– For a programme currently being broadcast: Press and hold the Select button.

– For a programme scheduled to be broadcast: Press the Select button.

– To move to the Channel Filter or Schedule Manager screen: Press the button.

This function is not available on certain models in specific geographical areas.

- Record: You can make a recording of a current programme.
- Timeshift: The current broadcasting programme you are viewing is automatically saved on a USB device so that you can play, pause, rewind, fast forward, slow rewind, slow forward, and even perform slow motion on the programme like a DVD title.
- Schedule Viewing: You can schedule viewing of a broadcast scheduled programme.

  For more information about watching or Schedule Viewing, refer to "Setting Up a Schedule Viewing."
- Schedule Recording: You can schedule recording of a broadcast scheduled programme.

  For more information about recording or Schedule Recording, refer to "Recording Programmes."
- Edit Recording Time: You can change the start and end times of scheduled programme recordings.
- Stop: You can stop the recording or Timeshift function that is currently running.
- Cancel Scheduled Viewing / Cancel Scheduled Recording: You can cancel scheduled viewings or recordings.
- View Details: You can see detailed information about the selected programme. The information may differ with the broadcast signal. If information is not provided with the programme, nothing appears.
- Channel Filter: You can select a channel filter from a filter list to see a list of channels filtered accordingly.
- Schedule Manager: You can see the Recording & Schedule Manager screen.
- Aerial: You can change the broadcast signal to receive.

Recording Programmes

Record a current or upcoming programme using a USB device instead of a video recorder.

- Read all precautions before using the recording feature. Refer to "Before Using the Recording and Timeshift Functions" for more information.
- You can record only the programmes that have been received through an aerial.
- The appears next to the programmes and channels scheduled for recording.
- This function is only available on certain models in specific geographical areas.
- If you go to > Live TV while no USB device is connected, the Schedule Manager screen appears in place of the Recordings screen.

Recording programmes

Using the instant and schedule recording options from the guide screen

- Instant Recording

  Select a live programme from the Guide, press and hold the Select button, and then select Record from the pop-up menu to start recording immediately.

- Schedule Recording

  Select a programme scheduled to be broadcast, press the Select button, and then select Schedule Recording to set up a schedule recording of the scheduled programme.

Using the instant and schedule recording options while watching a programme

- Instant Recording

  If you select Record after pressing the button while watching a broadcast, recording starts.

  - This function is not available on certain models in specific geographical areas.

- Schedule Recording

  Press the Select button while watching a programme to display the programme info window. Use the left or right directional button to select a scheduled programme. Press the Select button, and then select Schedule Recording to set up a schedule recording of the scheduled programme.

Scheduling a video recording after entering the date and time

> Live TV > Schedule Manager or Recordings > Schedules > Add Recording

To schedule a recording, set the values for Aerial, Channel, Repeat, Date, Start Time, and End Time of the broadcast programme to record, and then select Save.

Check the current time in > Settings > General > System Manager > Time > Clock.

Managing the schedule recording list

> Live TV > Schedule Manager or Recordings > Schedules

You can change scheduled recording information or cancel scheduled recordings.

You can schedule up to 30 recordings or viewings at once using Schedule Recording and Schedule Viewing.

Setting the Schedule Recording Time

> Live TV > Schedule Manager or Recordings > Schedules > Edit

You can set the start and end times for a schedule recording. You can set the start time up to 10 minutes before the programme starts and the end time up to 10 minutes after the programme ends.

Canceling a schedule recording

> Live TV > Schedule Manager or Recordings > Schedules > Delete

Checking scheduled recordings

> Live TV > Schedule Manager or Recordings > Schedules > View Details

Viewing recorded programmes

> Live TV > Schedule Manager or Recordings > Recordings

Select a file containing a recording from the list. The file is played back.

Buttons that appear may differ depending on the file being played. For more information about control buttons, refer to "Buttons and functions available while recording a programme or Timeshift."

This function is only available on certain models in specific geographical areas.

Setting Up a Schedule Viewing

Configure the TV to show a specific channel or programme at a specific time and date.

- The appears next to programmes that have been configured for a schedule viewing.
- To set up a schedule viewing, you must first set the TV's clock (> Settings > General > System Manager > Time > Clock).

Setting up a schedule viewing for a channel

Using the schedule viewing options from the guide screen

On the Guide screen, select a programme you would like to view, press the Select button, and then select Schedule Viewing in the pop-up menu that appears.

Using the schedule viewing options in the programme info window

Press the Select button while watching TV. The Programme Info window appears. Select a programme that will be broadcast using the left or right directional buttons. Press and hold the Select button, and then select Schedule Viewing to schedule viewing of that programme.

Using schedule viewing to view programmes at a specified time on a specified date

> Live TV > Schedule Manager or Recordings > Schedules > Add Viewing

To schedule a Viewing, set the values for Aerial, Channel, Repeat, Date, and Start Time of the broadcast programme to record, and then select Save.

Check the current time in > Settings > General > System Manager > Time > Clock.

Editing a schedule viewing

> Live TV > Schedule Manager or Recordings > Schedules

You can set up a maximum total of 30 Schedule Viewing and Schedule Recording entries.

Setting the Schedule Viewing Time

> Live TV > Schedule Manager or Recordings > Schedules > Edit

You can set the start time of a schedule viewing. The start time can be set up to 10 minutes before the programme starts.

Canceling a schedule viewing

> Live TV > Schedule Manager or Recordings > Schedules > Delete

Checking scheduled viewings

> Live TV > Schedule Manager or Recordings > Schedules > View Details

Using Timeshift

Play, pause, or rewind live TV.

You can pause and rewind live TV by using Timeshift. Activating this function disables the Broadcasting function.

To activate the Timeshift function while watching TV, press the button and then select Timeshift, or press the button.

When the Timeshift function is running, some of function is not available in > Settings > Broadcasting.

To use Timeshift, you must connect a USB device for recording.

Read all precautions before using the Timeshift function. For more information, refer to "Before Using the Recording and Timeshift Functions."

This function is only available on certain models in specific geographical areas.

For more information about control buttons, refer to "Buttons and functions available while recording a programme or Timeshift."

Buttons and functions available while recording a programme or Timeshift

The available buttons and functions may differ with the functions.

If you press the down directional button, the following buttons appear.

- Edit Recording Time

  You can set for what period of time the programme will be recorded.

  This function is only available when a programme is being recorded.

- Record

  You switch from the Timeshift function to the recording function. When switching to the recording function, you can include the content recorded by the Timeshift function into the new recording.

  This function is only available when the Timeshift function is running.

- Go to Live TV

  Select to return to the current scenes of the programme when the recording or Timeshift function is playing its past scenes.

- Stop Recording / Stop Timeshift

  Ends the recording or Timeshift function.

- Info

  Displays the programme info window about the programme on which the recording or Timeshift function is working.

- Pause / Play

  You can use the following functions when the video is paused. (Note that with the video paused, the TV does not play audio.)

  – Slow Rewind or Slow Forward: Allows you to play the video slowly (1/8, 1/4, 1/2) backward or forward by selecting the ◁◁ or ▷▷ button. To increase the rewind or forward speed in slow mode up to 3 times, select the button repeatedly. To return to normal speed, select the ▷ button.

    When the Slow Rewind function is activated, you can view the difference between the current recording time and the current rewind time.

  – Jump Backward / Jump Forward: Allows you to move backward or forward by 10 seconds in the video by selecting the left or right directional button in the playback control bar.

    When the Jump Backward function is activated, you can view the difference between the current recording time and the current rewind time.

- Rewind / Fast Forward

  This function is not available while you are watching a programme that is currently being broadcast.

Using the Channel List

Change the channel or check programmes on other digital channels.

> Live TV > Channel List

Using the Channel List, you can change the channel or check programmes on other digital channels while watching TV. On standard remote control, press the CH LIST button.

The All screen contains the following icons:

- : A favourite channel
- : A locked channel.

If you press the right directional button when viewing the Channel List screen, you can use the following functions:

- All

  Displays the channels that have been automatically searched.

- TV PLUS

  While the TV is connected to the Internet, you can watch popular programmes or highlights for each theme through a virtual channel at any time. As in a general channel, it provides the daily programme schedules of TV PLUS.

  This option is only available on certain models in specific geographical areas.

- Favourites

  Displays favourites lists 1 to 5.

- Channel Type

  Sorts the list so that it includes channels of a selected genre only. However, Channel Type can only be used channels contain the genre information.

  This option is only available on certain models in specific geographical areas.

- Sort

  Sorts the list by Channel Number or by Name.

  This option is only available on digital channels.

- Aerial

  Allows you to choose between Terrestrial, Cable, and Satellite.

  This option is only available on certain models in specific geographical areas.

Editing channels

Edit the channels stored on your TV.

> Live TV > Channel List > All > Edit Channels

The Edit Channels screen icons indicate the following:

- : A favourite channel
- : A locked channel.

Removing registered channels

To remove a channel, select it, and then select Delete.

Editing registered channels

You can access the following options by selecting All > Edit Channels:

- Locking or unlocking a channel

  After selecting a target channel in Edit Channels, select Lock or Unlock. Then the channel is locked or unlocked. A locked channel cannot be viewed.

  If you want to set the password, set > Settings > Broadcasting > Apply Channel Lock to On.

  For more information about how to set your password, refer to "Setting up a password."

- Changing a channel name

  After selecting a channel to change in Edit Channels, select Rename channel to change the channel name.

  This function is only available for selected channels.

  This function is only available for analogue broadcasts.

- Change Number

  This function is only available on certain models in specific geographical areas.

  When a channel number is changed, its channel information is not updated automatically.

- Restore TV PLUS

  You can re-scan and store TV PLUS channels that have been received.

  This function is only available on certain models in specific geographical areas.

  If there are TV PLUS channels on the TV, after deleting the stored channels, the system stores the newly scanned channels.

  If the TV has saved TV PLUS channels, Restore TV PLUS deletes the existing list, and then saves the newly scanned channels.

Creating a Personal Favourites List

Designate frequently watched channels as favourite channels.

Favourite channels are highlighted in the Edit Channels and All screens with the ♥ symbol.

Registering channels as favourites

Home > Live TV > Channel List

1. Press the right directional button on your remote control.
2. Select Favourites.
3. Select one of the five favourites lists.
4. Move to Edit Favourites.
5. Select a channel to add to the favourites list.
6. Select [>]. The selected channel is registered in the favourites list.

Viewing and selecting channels on Favourites lists only

Home > Live TV > Channel List

1. Press the right directional button on your remote control.
2. Select Favourites.
3. Select the desired list among the five favourites lists on the screen. The channels in the selected favourites list appear.

Only favourites lists that contain registered channels will display channels.

Editing a Favourites List

Edit a favourites channel list.

Live TV > Channel List

After pressing the right directional button on your remote control, select Favourites > Favourites 1 - Favourites 5 > Edit Favourites. The Edit Favourites screen appears.

Adding channels to favourites list

Select channels to add and select the [>] icon. The selected channels are added to Favourites.

Removing channels from a favourites list

Select channels in a favourites list, and then select the [<] button.

Rearranging a favourites list

Select one or more channels, and then select Change order. The Change order highlight appears. Press the up/down directional buttons to indicate the new location for the channels. Press the Select button to set the channels into their new location.

Renaming a favourites list

Select the favourites list you want to rename, and then select Rename Favourites. Enter a new name using the on-screen keyboard that appears, and then select Done.

TV-Viewing Support Functions

Use the functions that are supported by digital or analogue channels.

Changing the broadcast signal

> Live TV > Channel List

After pressing the right directional button on your remote control, select Aerial to choose Terrestrial or Cable.

You do not need to use this function if your TV is connected to a cable or satellite box.

Scanning for available channels

> Settings > Broadcasting > Auto Tuning Try Now

This function is only available on certain models in specific geographical areas.

If the TV is connected to a cable box or satellite receiver, you do not need to do this.

DVB-T2 system may not be available in specific geographical areas.

Restricting Viewing to Specific Channels

> Settings > Broadcasting > Apply Channel Lock Try Now

By selecting the Select button on the menu, you can turn on or off the channel lock function.

Selecting the broadcasting audio option

> Settings > Broadcasting > Dual Sound Try Now

Set audio options for stereo or bilingual broadcasts. For more information, refer to "Supported broadcasting audio options."

This function is not available on certain models in specific geographical areas.

Using Programme Rating Lock

> Settings > Broadcasting > Programme Rating Lock

This function is dependent on the specific model and area.

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 Broadcasting is not available in HDMI or Component mode.

Programme Rating Lock may not be supported depending on your input signal.

Configuring advanced broadcasting settings

> Settings > Broadcasting > Expert Settings Try Now

Selecting the broadcast audio language

Settings > Broadcasting > Expert Settings > Audio Options

This is the language you will hear while watching TV if the language is included in the broadcast signal. Audio Options functions differently for analogue and digital channels.

This function is not available on certain models in specific geographical areas.

Selecting a Language

Settings > Broadcasting > Expert Settings > Audio Options > Audio Language Settings

The available language may differ with the broadcast.

Selecting a Audio Format

Settings > Broadcasting > Expert Settings > Audio Options > Audio Format

The supported audio format may differ with the broadcast programme.

This option is only available on digital channels.

Tuning broadcast signals manually

Settings > Broadcasting > Expert Settings > Manual Tuning

You can scan for all the channels manually and store the scanned channels in the TV. To stop scanning, select Stop.

This function is only available on certain models in specific geographical areas.

Tuning digital channels

Settings > Broadcasting > Expert Settings > Manual Tuning > Digital Channel Tuning

Select New > Search to scan for digital channels automatically and store the scanned channel list in the TV.

This function is only available on certain models in specific geographical areas.

Tuning analogue channels

Settings > Broadcasting > Expert Settings > Manual Tuning > Analogue Channel Tuning

Select New and configure Programme, Colour System, Sound System, Channel, and Search to scan for analogue channels. Then, select Store to store the scanned channels in the TV.

This function is only available for analogue broadcasts.

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.

Fine-tuning analogue broadcasts

Settings > Broadcasting > Expert Settings > Fine Tune

This function is only available for analogue broadcasts.

Deleting CAM operator profile

> Settings > Broadcasting > Expert Settings > Delete CAM Operator Profile

This function is only available on certain models in specific geographical areas.

Setting satellite system

> Settings > Broadcasting > Expert Settings > Satellite System

You can configure a set of satellite dish settings before performing a channel scan.

This function is only available on certain models in specific geographical areas.

Changing teletext language

> Settings > Broadcasting > Expert Settings > Teletext Language Settings > Teletext Language

You can set or change the teletext language. To watch the teletext broadcast in your preferred language, select a language to use in Primary Teletext Language. If this language is not supported, you can watch the teletext broadcast in your secondary preferred language set in Secondary Teletext Language.

This function is only available on certain models in specific geographical areas.

Showing common interface menu

Settings > Broadcasting > Common Interface

You can view information about common interfaces.

This function is only available on certain models in specific geographical areas.

- CI Menu

  Enables the user to select from the CAM-provided menu. Select the CI menu based on the menu PC Card.

- Application Info

  Displays information about the CAM inserted into the CI slot and about the “CI or CI+ CARD” inserted into the CAM. You can install the CAM any time, with or without the TV turned on.

- CICAM PIN Manager

  Manages Common Interface Common Access Module (CICAM) PIN. Save PIN or change stored PIN and then set other PIN options.

  This function is only available on certain models in specific geographical areas.

- Descramble Mode

- CAM video transcoding

  Configures the setting to transcode the video codec from the CAM automatically. Turn it Off if you do not want to use it.

  You must use a CAM that supports video codec transcoding.

Picture and Sound

You can change the settings for the picture and the sound according to your preference.

Adjusting the Picture Quality

Change the Picture Mode and adjust Expert Settings.

Choosing a picture mode

> Settings > Picture > Picture Mode Try Now

You can select the Picture Mode that provides the best viewing experience.

- Dynamic

  Makes the picture brighter and clearer in bright viewing environments.

- Standard

  Is the default mode suitable for general viewing environments.

- Natural

  Reduces eye strain for a comfortable viewing experience.

- Movie

  Is suitable for watching TV or movies in a dark room.

Configuring advanced picture settings

Settings > Picture > Expert Settings Try Now

Configure the screen settings to your taste by using the following functions:

- Backlight
- Brightness
- Contrast
- Sharpness
- Colour
- Tint (G/R)
- Apply Picture Settings
- Digital Clean View
- Auto Motion Plus Settings

  When LED Clear Motion is set to On, the screen appears darker than when it is Off.

- Local Dimming

  Controls the brightness of individual areas on the screen to maximise contrast automatically.

  This function is not available on certain models in specific geographical areas.

- Contrast Enhancer
- HDR+ Mode

  Automatically provide an optimal HDR effect based on the video source.

  The HDR (High Dynamic Range) technology implements video images that are very similar to the images seen through human eyes by finely adjusting the contrast of the source.

  This function is only available on certain models in specific geographical areas.
- Film Mode

  This function is only available when the input signal is TV, AV, Component (480i, 1080i), or HDMI (1080i).
- Colour Tone

  Cool and Standard are only available when Picture Mode is set to Dynamic.

  Colour Tone is only available when the TV is connected to a computer via an HDMI-to-DVI cable.
- White Balance
- Gamma
- RGB Only Mode
- Colour Space Settings
- Reset Picture

Setting the Viewing Environment for External Devices

You can optimise the TV for viewing specific video formats.

Playing games on an optimised screen

> Settings > General > External Device Manager > Game Mode

You can enable the game mode to optimise the TV's settings for playing video games with a gaming console, such as a PlayStation™ or Xbox™.

- The game mode is not available for normal TV viewing.
- The screen may shake somewhat.
- When **Game Mode** is enabled, **Picture Mode** and **Sound Mode** are switched to **Game** automatically.
- To use other external device on the same port, remove the game console connection, turn off the function, and then connect the external device to the port.

Using HDMI black level

> Settings > General > External Device Manager > HDMI Black Level

Use HDMI Black Level to adjust the black level to compensate for low black levels, low contrast, or dull colours generated by external devices connected to the TV via an HDMI cable.

- This function is only available when the input signal, connected to the TV via an HDMI connector, is set to RGB444.

Registering the TV as a DivX-certified device (watching for pay DivX movies)

Settings > General > External Device Manager > DivX® Video On Demand

Digital Rights Management (DRM) is a technical security mechanism that protects the content provider's copyright.

You can watch recorded movies or free DivX movies without registration.

Visit the DivX website (http://www.divx.com) and log in to your user account before registering the TV as a DivX-certified device. If you do not have an account, create one.

Picture Support Functions

Configure the picture settings for your TV.

Changing the picture size

Settings > Picture > Picture Size Settings > Picture Size Try Now

You can change the size of the picture displayed on the TV screen.

- 16:9 Standard
- Custom
- 4:3

⚠ Do not watch TV in 4:3 mode for an extended period of time. This may cause black bars to appear and rest for a while at the top, bottom, left, and right sides of the screen. Note that this information is not presented on the warranty.

Supported picture sizes differ with the input signal. For more information about supported picture sizes, refer to "Picture sizes and input signals."

Changing the picture size automatically

> Settings > Picture > Picture Size Settings > Auto Wide

This function is not available on certain models in specific geographical areas.

Changing the picture size in 4:3 or Screen Fit mode

> Settings > Picture > Picture Size Settings > 4:3 Screen Size

You can select a picture size suitable for your geographical area while you are watching TV in the 4:3 or Fit to screen mode. The supported screen sizes differ with the country and this function allows you to adjust the picture size in this case.

The 4:3 mode is not available when an external device is connected to the TV via a Component connector or an HDMI connector.

This function is not available on certain models in specific geographical areas.

Fitting the picture to the screen

> Settings > Picture > Picture Size Settings > Fit to Screen

The availability of this function depends on the Picture Size.

The availability of this function depends on broadcasting signals.

Adjusting the picture size and/or position

> Settings > Picture > Picture Size Settings > Zoom and Position

This function is available only if Picture Size is set to Custom.

To change the picture position on analogue channels, first enlarge the picture and then change the position.

Adjusting the Sound Quality

Change the Sound Mode and adjust Expert Settings.

Choosing a sound mode

> Settings > Sound > Sound Mode Try Now

You can select a favourite sound mode suitable for the content type or the listening environment.

- Standard
- Optimised
- Amplify

Configuring advanced sound settings

> Settings > Sound > Expert Settings Try Now

You can personalise the sound quality by adjusting the following settings.

- Balance
- Equaliser
- HDMI Input Audio Format
- Digital Output Audio Format

  If you use a receiver that does not support Dolby Digital Plus, you will hear no sound if you select Dolby Digital+.
- Audio Delay
- Sound Mirroring

  This function is not available on certain models in specific geographical areas.
- Sound Feedback
- Reset Sound

  Standard audio signals are sampled at 48 kHz while HD audio signals are sampled at 96 kHz.

  Some S/PDIF receivers may not be compatible with HD audio format.

Using the Sound Support Functions

Configure the sound settings for your TV.

Selecting speakers

Settings > Sound > Sound Output Try Now

You can select which speakers the TV uses for audio output.

External speakers may not be controlled with the Samsung Smart Remote. When an external speaker is enabled, some sound menus are not supported.

Listening to the TV through Bluetooth devices

Settings > Sound > Sound Output > Speaker List

You can connect Bluetooth audio devices to the TV. They must be paired using the TV's Bluetooth function. For more information on pairing, refer to the Bluetooth audio device's operating manual.

This function is not available on certain models in specific geographical areas.

If the TV fails to find a Bluetooth audio device, place the device closer to the TV, and then select **Refresh**.

When you turn on a paired Bluetooth audio device, the TV detects it automatically, and then displays a pop-up window. Use this pop-up window to activate/deactivate the Bluetooth audio device.

The sound quality may be affected by the condition of the Bluetooth connection.

Before using a Bluetooth audio device, refer to “Read Before Using Bluetooth Devices."

Listening to the TV through a Multiroom speaker

For more information about connection and usage, refer to the user manual of the multi-room audio device.

This function is not available on certain models in specific geographical areas.

Using the surround effect function and Multiroom speakers to create a surround sound configuration

> Settings > Sound > Wi-Fi Speaker Surround Setup Try Now

If you've connected one or more multiroom speakers to the TV, you can create an optimal sound set up by configuring the surround effect settings. You can select any of the Multiroom speaker configurations, with or without a sound bar.

After you have configured the surround effect, you can hear the TV's audio through the Multiroom speaker(s).

The Wi-Fi Speaker Surround Setup function is only available when at least one Samsung Multiroom Link compatible speaker is connected to the TV.

The Multiroom Link function is deactivated when you activate Smart View (Screen Mirroring).

The audio from the secondary device(s) may lag behind the audio and video of the main device that is playing the source content.

For more information, refer to the Multiroom Link manual on the Samsung web site. (www.samsung.com)

System and Support

You can configure system and support settings such as time, screen burn protection, software update, etc.

Setting the Time and Using the Timer

Set the current time and use the timer function.

Setting the current time

Settings > General > System Manager > Time

You can set the Clock manually or automatically. Once the Clock is set, you can view the current time on the TV anytime.

You must set the clock in the following cases:

- The power cable is disconnected and then connected.
- The Clock Mode is changed from Manual to Auto.
- The TV is not connected to the Internet.
- No broadcast signals are received.

Setting the clock automatically

Settings > General > System Manager > Time > Clock > Clock Mode > Auto

This function works only when the TV is connected to the Internet or is receiving digital broadcasts through an antenna connected.

Depending on the broadcast signal, the displayed time may differ.

The accuracy of the time information received may differ with the channel and signal.

Setting the clock manually

Settings > General > System Manager > Time > Clock > Clock Mode > Manual

When Clock Mode is set to Manual, you can directly enter the current time. Select the date and time by using the arrow buttons on the remote control.

Setting the clock automatically

Settings > General > System Manager > Time > Clock > Time Zone

Sets the right time by setting Daylight Savings Time (DST) and your local time zone.

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

This option is only available on certain models in specific geographical areas.

- GMT

  Selects your time zone.

- DST

  Switches the Daylight Saving Time (DST) function on or off.

Changing the current time

Settings > General > System Manager > Time > Clock > Time Offset

Time Offset adjusts the time through a network connection. This function is only available if Clock Mode is set to Auto and the TV is connected to the Internet though a local area network.

Time Offset adjusts the time if the TV fails to receive time information through normal digital broadcast signals.

Using the timers

Using the sleep timer

Settings > General > System Manager > Time > Sleep Timer

You can use this function to automatically shut off the TV after a pre-set period of time. You can set the sleep timer to up to 180 minutes to automatically turn off the TV.

Turning off the TV using the off timer

Settings > General > System Manager > Time > Off Timer

You can set Off Timer to shut off the TV automatically at a specific time. Off Timer is only available if the Clock has been set.

Using the Screen Burn Protection and Energy Saving Functions

Protect the screen from screen burn-in and reduce the TV's energy consumption.

Preventing screen burn

Home > Settings > General > System Manager > Auto Protection Time

Still images can leave burned-in after-images if left on the screen for a long period of time. If a still image continues for two hours, the screen burn protection function can be activated automatically to protect the screen from burned-in after-images.

Reducing the energy consumption of the TV

Home > Settings > General > Eco Solution Try Now

You can adjust the brightness level of the TV, reduce overall power consumption, and prevent overheating.

- Ambient Light Detection

  Automatically adjusts the brightness level of the TV, according to the ambient light level, to reduce power consumption. If the Ambient Light Detection has adjusted the screen brightness to a too bright or dark level, you can select Minimum Backlight to manually adjust the minimum screen brightness.

- Minimum Backlight

  When the Ambient Light Detection is turned on, you can manually adjust the minimum brightness of the TV screen to consider the brightness level of the surroundings. This function acts only when the value is less than the setting in Home > Settings > Picture > Expert Settings > Backlight.

- Energy Saving Mode

  Allows you to select a brightness setting from the list to reduce the TV's power consumption.

- Motion Lighting

  Adjusts the brightness in response to on-screen movements to reduce power consumption.

- Auto Power Off

  Automatically turns off the TV to reduce unnecessary power consumption if there is no operation for 4 hours.

Updating the TV’s Software

View your TV's software version and update it if necessary.

Settings > Support > Software Update Try Now

Updating the TV’s software to the latest version

⚠ DO NOT turn off the TV’s power until the update is complete. The TV will turn off and on automatically after completing the software update. Video and audio settings will be reset to their defaults after a software update.

Updating through the Internet

Settings > Support > Software Update > Update Now

Updating from the Internet requires an active Internet connection.

Updating through a USB device

Settings > Support > Software Update > Update Now

After downloading the update file from the Samsung website and storing it on a USB device, connect the USB device to the TV to update.

To update using a USB flash drive, download the update package from Samsung.com to your computer. Then, save the update package in the USB device's top-level folder. Otherwise, the TV will not be able to locate the update package.

Updating the TV automatically

Settings > Support > Software Update > Auto update

If the TV is connected to the Internet, you can have the TV update its software automatically while you are watching the TV. When the background update is completed, it is applied the next time the TV is turned on.

If you agree to the Smart Hub terms and conditions, Auto update is set to On automatically. If you want this function disabled, use the Select button to turn it off.

This function may take a longer time if another network function is running concurrently.

This function requires an Internet connection.

Protecting the TV from Hacking and Malicious Code

Protect your TV from hacking attempts and malicious code.

Settings > General > System Manager > Smart Security

You can use Smart Security to protect the TV from hacking and malicious code when it is connected to the Internet.

Scanning the TV and connected storage for malicious code

Settings > General > System Manager > Smart Security > Scan

If malicious code is found, the results of the scan will appear on the screen. This result window displays all malicious code found. You can quarantine (isolate) the code. Quarantining prevents it from executing.

1. Select all the malicious code to quarantine.
2. Select Isolate. The selected malicious code is relocated to the Isolated List.

   The Isolated List displays all quarantined malicious codes.

Using Other Functions

View other functions.

Running the accessibility functions

Settings > General > Accessibility Try Now

The Accessibility Shortcuts provide access to the accessibility functions. To display the Accessibility Shortcuts, press and hold the Volume button for 1 second or more. You can easily turn on or turn off the functions such as Voice Guide, Audio Description, High Contrast, Enlarge, Learn TV Remote, Menu Learning Screen, Subtitle, Multi-output Audio, etc.

Even if the Voice Guide is set to Off or muted, the voice guide for Accessibility Shortcuts is enabled.

This function is not available on certain models in specific geographical areas.

Enabling voice guides for the visually impaired

Settings > General > Accessibility > Voice Guide Settings > Voice Guide

You can activate voice guides that describe the menu options aloud to aid the visually impaired. To activate this function, set Voice Guide to On. With Voice Guide on, the TV provides voice guides for channel change, volume adjust, information on current and upcoming programmes, schedule viewing, other TV functions, various content in the Web Browser, and in Search.

The Voice Guide is provided in the language that is specified on the Language screen. However, some languages are not supported by Voice Guide even though they are listed in the Language screen. English is always supported.

Changing the volume, speed, and pitch of the Voice Guide

You can configure the volume, pitch, speed, and level of the Voice Guide.

Audio Description

Settings > General > Accessibility > Audio Description Settings

You can use the Audio Stream for the Audio Description (AD) which is sent along with the Main audio from the broadcaster. Adjust the audio description volume using Audio Description Volume.

This function is only available on digital channels.

- Audio Description

  Turns the audio description function on or off.

- Audio Description Volume

  Adjusts the audio description volume.

Watching TV broadcasts with subtitles

Settings > General > Accessibility > Subtitle Settings

Set Subtitle to On. Then you can watch the programme with the subtitle displayed.

The actual name may differ with the geographical area. (Subtitle or Caption)

This function is only available on certain models in specific geographical areas.

The TV cannot control or modify DVD or Blu-ray subtitles. To control DVD or Blu-ray subtitles, use the sub-title feature of the DVD or Blu-ray player and the player's remote control.

- Subtitle

  Turns on or off the subtitle.

- Subtitle Mode

  Sets the subtitle mode.

- Subtitle Language

  Sets the subtitle language.

  The TV cannot control or modify DVD or Blu-ray subtitles. To control DVD or Blu-ray subtitles, use the subtitle feature of the DVD or Blu-ray player and the player's remote control.

Selecting the broadcasting subtitle language

You can select the default subtitle language. The list of modes may vary depending on the broadcast.

- Primary Subtitle Language

  Sets the primary subtitle language.

- Secondary Subtitle Language

  Sets the secondary subtitle language.

White text on black background (high contrast)

> Settings > General > Accessibility > High Contrast

You can change major service screens to white text on a black background or change the transparent TV menus to opaque so that text can be more easily read. To activate this function, set High Contrast to On.

Enlarging the font (for the visually impaired)

> Settings > General > Accessibility > Enlarge

You can enlarge the size of the font on the screen. To activate this function, set Enlarge to On.

Learning about the remote control (for the visually impaired)

> Settings > General > Accessibility > Learn TV Remote

This function helps individuals with a visual impairment to learn the positions of the buttons on the remote control. When this function is activated, you can press a button on the remote control and the TV will tell you its name. To return to the previous screen, press the button twice. To exit, press and hold the button.

This function is only available when Voice Guide is enabled.

Learning about the TV menu

> Settings > General > Accessibility > Menu Learning Screen

Learn the menus on the TV screen. Once enabled, your TV will tell you the structure and features of the menus you select.

Listening to the TV through Bluetooth devices (for the hearing impaired)

> Settings > General > Accessibility > Multi-output Audio

You can turn on both the TV speaker and Bluetooth devices at the same time. When this function is active, you can set the volume of the Bluetooth devices higher than the volume of the TV speaker.

This function is not available on certain models in specific geographical areas.

When you connect Bluetooth devices to the TV, Multi-output Audio is activated. For more information about connecting Bluetooth devices to the TV, refer to "Listening to the TV through Bluetooth devices."

Configuring advanced system settings

> Settings > General > System Manager Try Now

Changing the menu language

> Settings > General > System Manager > Language

Setting up a password

> Settings > General > System Manager > Change PIN

The PIN input window appears. Enter a PIN. Enter it again to confirm it. The default PIN is 0000.

If you forget your PIN, you can reset it with your remote control. With the TV turned on, press the following buttons on the remote control in the order shown to reset the PIN to 0000.
On the Samsung Smart Remote: VOL → Volume Up → → Volume Down → → Volume Up → .

On the standard remote control: → (+) (Volume Up) → RETURN → (—) (Volume Down) → RETURN → (+) (Volume Up) → RETURN.

Checking Notifications

> Settings > General > System Manager > View Notifications

You can view the list of event messages generated by the TV. View Notifications appears on the screen when events such as an update release for an app or a Samsung account login/logout occurs.

To delete all notifications, select Delete All.

To check the SMART TV's service notifications in a Internet, select Service Notice.

Using the TV as a display model (for retail stores)

Settings > General > System Manager > Usage Mode

You can turn the TV into a display model for retail environments by setting Usage Mode to Retail Mode.

For all other uses, select Home Mode.

With Retail Mode, some functions are disabled, and the TV automatically resets itself after a preset amount of time.

Checking digital channel signal info and strength

Settings > Support > Self Diagnosis > Signal Information

If your TV is attached to a separate, over-the-air antenna, you can use the signal strength information to adjust the antenna for increased signal strength and improved HD channel reception.

Restoring the TV to the factory settings

Settings > Support > Self Diagnosis > Reset

You can restore all TV settings (excluding the Internet and network settings) to the factory defaults.

1. Select Reset. The security PIN entry window appears.
2. Enter the security PIN, and then select Reset. All settings are then reset. The TV turns off and on again automatically and displays the Start Setup screen.

For more information on Start Setup, refer to the user manual that came with the TV.

HbbTV

Access services from entertainment providers, online providers and CE manufactures through HbbTV.

This function is only available on certain models in specific geographical areas.

Some channels may not include the HbbTV service.

In some countries, HbbTV is disabled by default. In this case, HbbTV can be used by installing the HbbTV widget (the HbbTV Activation Widget) from Samsung APPS.

To set the HbbTV automatic start to on or off, access > Settings > Broadcasting > Expert Settings > HbbTV Settings and set HbbTV to on or off. (Depending on the country)

If you want this function enabled or disabled, use the Select button to turn it on or off.

- HbbTV is not available when Timeshift is running or when a recorded video is being played back.
- An application on HbbTV may malfunction temporarily depending on the circumstances of the broadcast station or application provider.
- An application is only available for use on HbbTV when the TV network is connected to an external network. The application may malfunction depending on the network conditions.
- It is possible to use both Digital Teletext and Traditional Teletext in several limited channels by pressing the TTX/MIX button in a toggling manner.

Using HbbTV:

- When the screen indicates (with the red colour button etc.) that HbbTV is being accessed.
- Select TTX using the remote once to enter the HbbTV text-input mode.
- Select TTX using the remote twice to enter the non-HbbTV text-input mode.

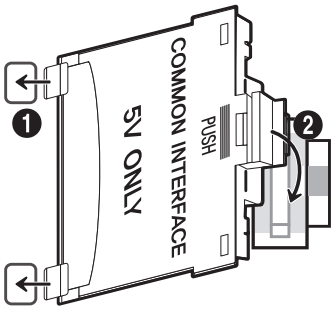
Using a TV Viewing Card (“CI or CI+ Card”)

Watches paid channels by inserting your TV viewing card slot into the COMMON INTERFACE slot.

- 2 CI card slots are available, depending on the model.
- Turn the TV off to connect or disconnect a “CI or CI+ Card”.
- Availability depends on the specific model.

Connecting the “CI or CI+ Card” via COMMON INTERFACE slot with the CI CARD Adapter

Attaching the CI CARD Adapter via COMMON INTERFACE slot

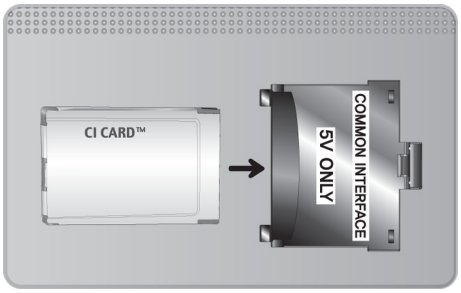


To attach the CI CARD Adapter to the TV, follow these steps:

1. Insert the CI CARD Adapter into the two holes on the product 1.
   - Please locate the two holes at the back of the TV next to the COMMON INTERFACE slot.
2. Connect the CI CARD Adapter to the COMMON INTERFACE slot on the product 2.

Connecting the “CI or CI+ Card”

Connect the “CI or CI+ Card” to the COMMON INTERFACE slot as shown in the image below.



Using the “CI or CI+ Card”

To watch paid channels, the “CI or CI+ CARD” must be inserted.

- Samsung TV follow up CI+ 1.3 standard. When TV product display the "Scrambled Signal", it may happen due to CI+ 1.3 Version inconsistency. If you have a problem, please contact Samsung Call Centre.
- If you don’t insert the “CI or CI+ CARD”, some channels will display the “Scrambled Signal” message.
- The pairing information containing a telephone number, the “CI or CI+ CARD” ID, the Host ID, and other information will be displayed in about 2~3 minutes. If an error message is displayed, please contact your service provider.
- When the configuration of channel information has finished, the message “Updating Completed” is displayed, indicating the channel list is updated.

You must obtain a “CI or CI+ CARD” from a local cable service provider.

When removing the “CI or CI+ CARD”, carefully pull it out with your hands since dropping the “CI or CI+ CARD” may cause damage to it.

Insert the “CI or CI+ CARD” in the direction marked on the card.

The location of the COMMON INTERFACE slot may be different depending on the model.

“CI or CI+ CARD” is not supported in some countries and regions; check with your authorised dealer.

If you have any problems, please contact a service provider.

Insert the “CI or CI+ CARD” that supports the current aerial settings. The screen will be distorted or will not be seen.

Teletext Feature

Learn how to use Teletext and run the functions provided by Teletext Service.

This function is only available on certain models in specific geographical areas.

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 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 appears. 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 (store) button.

Sub-page: Displays the available sub-page.

Page up: Displays the next Teletext page.

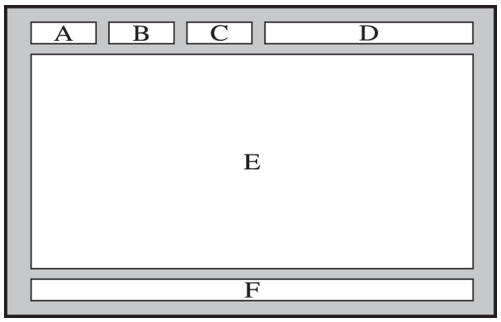
Page down: Displays the previous Teletext page.

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.

Troubleshooting

If you have a problem with your TV, you can access various solutions while watching TV. If your problem is not addressed in the Troubleshooting section, contact the Samsung Call Centre.

Getting Support

Get help directly from Samsung if you have a problem with your TV.

Getting support through Remote Management

> Settings > Support > Remote Management Try Now

After consenting to our service agreement, you can use Remote Management to access Remote Support and have a Samsung service technician diagnose your TV, correct problems, and update your TV's software remotely, via the web. You can also turn Remote Management on and off.

This function requires an Internet connection.

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 on your TV
- Install recommended **firmware updates**

How does Remote Support Work?

You can easily have a Samsung Tech service your TV remotely:

1. Call the Samsung Contact Centre and ask for remote support.
2. Open the menu on your TV and go to the Support section.
3. Select Remote Management, then read and agree to the service agreements. When the PIN screen appears, provide the PIN number to the agent.
4. The agent will then access your TV.

Finding the contact information for service

Settings > Support > About This TV Try Now

You can view the address of the Samsung website, the call centre phone number, your TV's model number, your TV's software version, Open Source Licence and other information you may need to get service support from a Samsung call agent or the Samsung website.

- You can also view information by scanning the QR code of your TV.
- You can also start this function by pressing and holding the button for 5 or more seconds.
- This function is not available on certain models in specific geographical areas.

Requesting service

Settings > Support > Request Support Try Now

You can request service when you encounter a problem with the TV. Select the item matching the problem that you encountered, and then select Request Now or Schedule Appointment > Send. Your service request will be registered. The Samsung Contact Centre will contact you to set up or confirm your service appointment.

- You must agree to the terms and conditions for the service request.
- This function is not available in specific geographical areas.
- This function requires an Internet connection.

Diagnosing TV operational issues

You can diagnose issues with your TV and Smart Hub and run reset functions.

Settings > Support > Self Diagnosis Try Now

You can use the Picture Test to help diagnose video issues and the Sound Test to diagnose sound issues. You can also view signal strength information for over-the-air digital signals, test the Smart Hub Internet connection, and run the Smart Hub and TV factory reset functions.

There Is a Problem with the Picture

When the TV has trouble with the picture, these steps may help resolve the problem.

Testing the picture

Home > Settings > Support > Self Diagnosis > Start Picture Test

Before you review the list of problems and solutions below, use Start Picture Test to determine if the problem is caused by the TV. Start Picture Test displays a high definition picture you can examine for flaws or faults.

The problem	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 Mode (Home > Settings > General > Eco Solution > Energy Saving Mode), Ambient Light Detection (Home > Settings > General > Eco Solution > Ambient Light Detection), or Motion Lighting (Home > Settings > General > Eco Solution > Motion Lighting).
Component Connections/ Screen Colour	If the colour on your Samsung television screen is not correct or the black and white colours are off, run Start Picture Test (Home > Settings > Support > Self Diagnosis > Start Picture Test). If the test results indicate that the problem is not caused by the TV, do the following: • Confirm that the video input connectors are connected to the correct external device video output connectors. • Check the other connections as well. If the TV is connected to an external device via a component cable, confirm that the Pb, Pr, and Y jacks are plugged into their proper connectors.
Screen Brightness	If the colours on your Samsung TV are correct but just a little too dark or bright, try adjusting the following settings first. • Select Home > Settings > Picture > Expert Settings and adjust the Backlight, Contrast, Brightness, Sharpness, Colour, or Tint (G/R) settings.
Ghosting, Blurring, or Juddering	If you notice ghosting or blurring on the screen, use the Auto Motion Plus Settings function (Home > Settings > Picture > Expert Settings > Auto Motion Plus Settings) to resolve the issue.
Unwanted Powering Off	If your Samsung TV appears to turn off by itself, try disabling some of the TV's energy efficiency functions. See if Sleep Timer (Home > Settings > General > System Manager > Time > Sleep Timer) has been enabled. The Sleep Timer automatically turns the TV off after a specified period of time. If the Sleep Timer has not been enabled, see if Auto Power Off (Home > Settings > General > Eco Solution > Auto Power Off) has been enabled and disable it.
Problems Powering On	If you are having problems powering on your Samsung television, there are a number of things to check before calling the service department. Confirm that the TV's power cord is connected correctly at both ends and that the remote control is operating normally. Make sure that the antenna cable or cable TV cable is firmly connected. If you have a cable or satellite box, confirm that it is plugged in and turned on.

The problem	Try this!
Unable to find a Channel	If your TV is not connected to a cable or satellite box, run Auto Tuning (Home > Settings > Broadcasting > Auto Tuning). This function is only available on certain models in specific geographical areas.
The TV image does not look as good as it did in the store.	Store displays are all tuned to digital, HD (high definition) channels. If you have an analogue cable or satellite box, upgrade to a digital cable or satellite 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 HD content. • Cable/Satellite Subscribers: Try HD channels from the channel lineup. • Terrestrial/Cable Antenna Connection: Try HD channels after running the Auto Tuning function. Adjust the cable or satellite box's video output resolution to 1080i or 720p.
The picture is distorted.	The compression of video content may cause picture distortions, especially in fast moving pictures from sports programmes and action movies. If the signal reception is weak or poor, screen distortion may be visible but it is not a malfunction. Mobile phones used close to the TV (within 1 m) may cause noise on analogue and digital channels.
The colour is wrong or missing.	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.
The colour is poor or the picture is not bright enough.	Go to Picture and then adjust the Picture Mode, Brightness, Sharpness, and Colour settings. See if Energy Saving Mode (Home > Settings > General > Eco Solution > Energy Saving Mode) has been enabled. Try resetting the picture. (Home > Settings > Picture > Expert Settings > Reset Picture)
There is a dotted line on the edge of the screen.	Change Picture Size to 16:9 Standard.
The picture is black and white.	If you are using AV, analogue equipment, disconnect the adapter from the Component (Blue) input jack on the TV and connect it to the AV In (Yellow) input jack.

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 an external device. Please check the connections.

If the problem persists, check the signal strength or refer to the external device's user manual.

I Can't Hear the Sound Clearly

When the TV has difficulties with sound, these steps may help resolve the problem.

Testing the sound

Settings > Support > Self Diagnosis > Start Sound Test

If the TV plays the Start Sound Test melody without distortion, there may be a problem with an external device or the broadcast signal's strength.

The problem	Try this!
There is no sound or the sound is too low at maximum volume.	Check the volume control of the device (cable or satellite box, DVD, Blu-ray, etc.) connected to your TV.
The picture is good but there is no sound.	Set > Settings > Sound > Sound Output to TV Speaker. 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.) To listen to computer sound, connect an external speaker to the computer's audio output connector. If your TV has a headphone jack, make sure there is nothing plugged into it. Reboot the connected device by disconnecting and then reconnecting the device's power cable.
No sound is heard.	Check whether the Digital Output Audio Format is set to Dolby Digital+ in > Settings > Sound > Expert Settings > Digital Output Audio Format. If you are using a receiver that does not support Dolby Digital Plus, you will hear no sound when you select Dolby Digital+.
The speakers are making an odd sound.	Make sure that the audio cable is connected to the correct audio output connector on the external device. For antenna or cable connections, check the signal information. A low signal level may cause sound distortions. Run Start Sound Test (> Settings > Support > Self Diagnosis > Start Sound Test).

There Is a Problem with the Broadcast

When the TV has difficulties receiving broadcasts, these steps may help resolve the problem.

The problem	Try this!
“Weak or No Signal” displayed in TV mode/cannot find channel.	Select > Source to confirm that the correct input source has been selected. If the TV is not connected to a cable or satellite box, run Auto Tuning to search for channels (> Settings > Broadcasting > Auto Tuning). This function is only available on certain models in specific geographical areas.
The TV is not receiving all channels.	Confirm that the coaxial cable is securely connected to the TV. Run Start Setup (> Settings > General > Start Setup) or Auto Tuning (> Settings > Broadcasting > Auto Tuning). This function is only available on certain models in specific geographical areas.
There are no subtitles with digital channels.	Go to Subtitle (> Settings > General > Accessibility > Subtitle Settings > Subtitle) and change the Subtitle Mode. Some channels may not have subtitle data. The actual name may differ with the geographical area. (Subtitle or Caption)
The picture is distorted.	The compression of the video content may cause picture distortions. This is especially true with fast moving pictures from sports programmes and action movies. A weak signal can cause picture distortions. This is not a problem with the TV.
The picture quality is low.	Select high definition (HD) channels or programmes.

My Computer Won't Connect

When the TV has difficulties connecting to a PC, these steps may help resolve the problem.

The problem	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 an HDMI-to-DVI cable, a separate audio cable is required. Note that the HDMI-to-DVI connection is only supported by the HDMI (DVI) port and does not transmit audio. To listen to the computer sound, connect external speakers to the audio output connection of the computer.

The TV Won't Connect to the Internet

When the TV has difficulties connecting to the Internet, these steps may help resolve the problem.

The problem	Try this!
The TV cannot connect to your network or apps (for Internet compatible models only).	Make sure the TV has a network connection (> Settings > General > Network > Network Status). Contact your Internet service provider.
The wireless network connection failed.	Confirm your wireless modem/router is on and connected to the Internet.
The wireless network signal is too weak.	Position your wireless router, modem router, or access point in a central location. Avoid putting it in a corner. Use a wireless repeater to get an instant boost in your wireless signal strength. Place the repeater halfway between your wireless router and your TV. The most common wireless technology, 802.11g (wireless-G), operates at a frequency of 2.4 GHz. This frequency is widely used by many cordless phones, microwave ovens, baby monitors, garage doors, and other wireless devices. Reduce interference by not using or turning off wireless devices that use the 2.4 GHz frequency. Instead, use devices that communicate via the 5.0 GHz frequency.
The software update over the Internet has failed.	Check the network connection status (> Settings > General > Network > Network Status). If the TV is not connected to a network, connect it to a network. The upgrade stops if you already have the latest software version.

The Schedule Recording/Timeshift Function Isn't Working

When Timeshift or Schedule recording aren't working, these steps may help resolve the problem.

The problem	Try this!
Schedule Recording cannot be used.	Check if there is a USB device connected to the TV. Recording will automatically stop if the signal becomes too weak. Check the free space on the USB device. The function will not work if there isn't enough storage space on the USB device.

Anynet+ (HDMI-CEC) Isn't Working

When Anynet+ (HDMI-CEC) isn't working, these steps may help resolve the problem.

The problem	Try this!
Anynet+ does not work.	Confirm that the device is an Anynet+ device. The Anynet+ system supports Anynet+ devices only. Check if the power cord of the Anynet+ device is properly connected. Check the cable connections of the Anynet+ device. Go to Anynet+ (HDMI-CEC) (> Settings > General > External Device Manager > Anynet+ (HDMI-CEC)) and see if Anynet+ (HDMI-CEC) has been set to On. Anynet+ may not function when some other functions are active, including Channel Search, Smart Hub, Initial Setup, etc. If you have disconnected and then reconnected the HDMI cable, scan for devices again or turn your TV off and on.
I want to start Anynet+.	Move the focus to the Anynet+ device at > Source, and then press the up directional button. Check if the Anynet+ device is properly connected to the TV, and then select Anynet+ (HDMI-CEC) (> Settings > General > External Device Manager > Anynet+ (HDMI-CEC)) menu to see if Anynet+ (HDMI-CEC) is set to On.
I want to exit Anynet+.	Set Anynet+ (HDMI-CEC) (> Settings > General > External Device Manager > Anynet+ (HDMI-CEC)) to Off.
The message "Connecting to Anynet+ device..." or "Disconnecting from Anynet+ device" appears on the screen.	You cannot use the remote control when the TV is 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.
The Anynet+ device won't play.	You cannot use the play function when Start Setup is in progress.

The problem	Try this!
The connected device is not displayed.	Check whether the device supports Anynet+. Check whether the HDMI cable is properly connected. Go to Anynet+ (HDMI-CEC) (> Settings > General > External Device Manager > Anynet+ (HDMI-CEC)) and see if Anynet+ (HDMI-CEC) has been set to On. Scan for Anynet+ devices again. 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+. 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.
The TV audio is not being played through the receiver.	Connect an optical cable to the TV and the receiver. ARC enables the TV to output digital sound via the HDMI (ARC) port. However, ARC is only available when the TV is connected to an audio receiver that supports ARC.

I Have Trouble Launching/Using Apps

When apps aren't working, these steps may help resolve the problem.

The problem	Try this!
I launched an app, but it's in English. How can I change the language?	Languages supported by the app may be different from the user interface language. The ability to change the language depends on the service provider.
My application is not working.	Check with the service provider. Refer to the Help section on the application service provider's website.

My File Won't Play

When files aren't playing, this may help resolve the problem.

The problem	Try this!
Some files can't be played.	This problem may occur with high-bitrate files. Most files can be played back, but you might experience problems with high-bitrate files.

I Want to Reset the TV

Initialise the settings to factory defaults.

Reset	Path	Description
Reset Settings	> Settings > Support > Self Diagnosis > Reset	Resets Picture, Sound, Broadcasting, and all other settings, except for the network settings, to the default settings.
Reset Smart Hub	> Settings > Support > Self Diagnosis > Reset Smart Hub	Resets all Smart Hub settings to their factory defaults and deletes all information related to Samsung accounts, linked service accounts, Smart Hub service agreements, and Smart Hub applications.

Other Issues

Use these procedures to resolve other issues that may occur.

The problem	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 of the TV. The bottom, 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.	The output resolution of the attached device is not supported by the TV. Check the TV's supported resolutions and adjust the external device's output resolution accordingly.
The Subtitles item in the TV is greyed out.	When an external device is connected with an HDMI or Component cable, the Subtitle function is unavailable. Adjust the subtitle setting on the external device. The actual name may differ with the geographical area. (Subtitle or Caption)
The TV smells of plastic.	This smell is normal and will dissipate over time.
Signal Information under Self Diagnosis isn't activated.	Verify that the current channel is a digital channel. Signal Information is only available for digital channels.
The TV is tilted to the side.	Remove the base stand from the TV and reassemble it.
The stand is wobbly or crooked.	Make sure the indicator arrows on the stand and stand holder are properly aligned.
The remote control and/or voice control does not work.	The TV ships with protective stickers covering some of the sensors. Make sure all of the stickers have been removed.

The problem	Try this!
The Broadcasting function has been deactivated.	Broadcasting is only available when the Source is set to TV. Broadcasting cannot be accessed while you watch TV using a cable or satellite box. Broadcasting cannot be accessed while a recording is in progress or the Timeshift function is running.
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 settings are lost after 5 minutes or every time the TV is turned off.	If Usage Mode is set to Retail Mode, the TV's audio and video settings are automatically reset every 5 minutes. Change Usage Mode (> Settings > General > System Manager > Usage Mode) to Home Mode.
A POP (TV’s internal banner ad) appears on the screen.	Change Usage Mode (> Settings > General > System Manager > Usage Mode) to Home Mode.
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 utilises high-speed switching circuits and high levels of electrical current. Depending on the TV's brightness level, the TV 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.

Precautions and Notes

You can get instructions and information that you must read after installation.

Before Using the Recording and Timeshift Functions

Read these instructions before using Recording and Timeshift.

This function is only available on certain models in specific geographical areas.

Before using the recording and schedule recording functions

- To set up a Schedule Recording, you must first set the TV's clock. Set the Clock (> Settings > General > System Manager > Time > Clock).
- You can set up a maximum total of 30 Schedule Viewing and Schedule Recording entries.
- 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 has been replaced.
- A USB hard drive with a speed of 5,400 rpm or above is recommended. However, RAID-type USB hard drives are not supported.
- USB memory sticks are not supported.
- The total recording capacity may differ with the amount of available hard drive space and the recording quality level.

- Schedule Recording requires at least 100 MB of free space on the USB storage device. Recording will stop if the available storage space falls below 50 MB while recording is in progress.
- If the available storage space falls below 500 MB while both the Schedule Recording and Timeshift functions are in progress, only the recording will stop.
- The maximum recording time is 720 minutes.
- Videos are played according to the TV settings.
- If the input signal is changed while recording is in progress, the screen will go blank until the change is made. In this case, recording will resume, but ● will not be available.
- When using the Record or Schedule Recording function, the actual recording may start a second or two later than the specified time.
- If the Schedule Recording function is operating while a recording is being made on an HDMI-CEC external device, the priority is given to the Schedule Recording.
- Connecting a recording device to the TV automatically deletes abnormally saved recorded files.

Before using the timeshift function

- A USB hard drive with a speed of 5,400 rpm or above is recommended. However, RAID-type USB hard drives are not supported.
- USB memory sticks or flash drives are not supported.
- The total recording capacity may differ with the amount of available hard drive space and the recording quality level.
- If the available storage space falls below 500 MB while both the Schedule Recording and Timeshift functions are in progress, only the recording will stop.
- The maximum amount of time available for the Timeshift function is 90 minutes.
- The Timeshift function is not available for locked channels.
- Time-shifted videos are played according to the TV settings.
- The Timeshift function may be terminated automatically once it reaches its maximum capacity.
- The Timeshift function requires at least 1.5 GB of free space available on the USB storage device.

Supported broadcasting audio options

	Audio Type	Dual Sound	Default
A2 Stereo	Mono	Mono	Automatic change
	Stereo	Stereo, Mono	Automatic change
	Dual	Dual I, Dual II	Dual I
NICAM Stereo	Mono	Mono	Automatic change
	Stereo	Mono, Stereo	Automatic change
	Dual	Mono, Dual I, Dual II	Dual I

If the Stereo signal is too weak and an automatic switching occurs, select Mono.

Available only for the stereo signals.

Available only when the input source is set to TV.

Read Before Using Apps

Read this information before using Apps.

- Due to the product characteristics featured on 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. 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 whatsoever for any interruption of app services caused by the service provider for any reason.
- Application services may be provided in English only and available content may differ with the geographical area.
- 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.
- Specific services may differ with the version of the application installed on the TV.
- An application's functionality may change in future versions of the application. If this occurs, run the application's tutorial or visit the service provider's website.
- Depending on the service provider's policies, certain applications may not support multitasking.

Read Before Using the Internet

Read this information before using the Internet.

- The Internet is not compatible with Java applications.
- You can download the supported types of files, such as videos, mp3 files, and images, but you cannot download files that are not supported by the TV. If you attempt to download an unsupported file, you will receive an error message instead.
- The Internet may not be able to access certain websites.
- The TV does not support playback of flash videos.
- E-commerce for online purchases is not supported.
- With websites that have scrollable windows, scrolling a window can result in corrupted characters.
- ActiveX is not supported.
- Only a limited number of fonts are supported. Certain symbols and characters may not be displayed properly.
- The response to remote commands and the resulting on-screen display may be delayed while a web page is loading.
- Loading a web page may be delayed or suspended completely with certain operating systems.
- The copy and paste operations are not supported.

- When composing an email or a simple message, certain functions such as the font size and colour selection may not be available.
- There is a limit to the number of bookmarks and the size of the log file that can be saved.
- The number of windows that can be opened concurrently differs with the search conditions and the TV model.
- The web browsing speed will differ with the network environment.
- If the Clock (> Settings > General > System Manager > Time > Clock) has not been set, the browsing history will not be saved.
- The browsing history is saved from latest to oldest, with the oldest entries being overwritten first.
- Depending on the types of video/audio codecs supported, it might not be possible to play certain video and audio files while playing HTML5 Video/Audio.
- Video sources from PC-optimised streaming service providers may not play properly on our proprietary Internet.

Read Before Playing Photo, Video, or Music Files

Read this information before playing media content.

Limitations on use of photo, video, and music files Try Now

- The TV 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 USB port. The TV may not be able to recognise a USB device or read the files on the device if it is connected with a USB extension cable. Do not disconnect USB devices while they are 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 should be connect to the USB [5V, 1A] port.
- The TV supports the FAT, exFAT, and NTFS file systems.
- After sorting files in the Folder view mode, the TV 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.
- Certain files, depending on how they are encoded, may not play on the TV.
- Certain files are not supported on all models.

Supported external subtitles

Name	Format
MPEG-4 Timed text	.ttxt
SAMI	.smi
SubRip	.srt
SubViewer	.sub
Micro DVD	.sub or .txt
SubStation Alpha	.ssa
Advanced SubStation Alpha	.ass
Powerdivx	.psb
SMPTE-TT Text	.xml

Supported internal subtitles

Name	Container
Xsub	AVI
SubStation Alpha	MKV
Advanced SubStation Alpha	MKV
SubRip	MKV
VobSub	MKV
MPEG-4 Timed text	MP4
TTML in smooth streaming	MP4
SMPTE-TT TEXT	MP4
SMPTE-TT PNG	MP4

Supported image formats and resolutions

File extension	Format	Resolution
*.jpg *.jpeg	JPEG	15360 x 8640
*.png	PNG	4096 x 4096
*.bmp	BMP	4096 x 4096
*.mpo	MPO	15360 x 8640

The MPO format is supported partly.

Supported music formats and codecs

File extension	Format	Codec	Note
*.mp3	MPEG	MPEG1 Audio Layer 3	
*.m4a *.mpa *.aac	MPEG4	AAC	
*.flac	FLAC	FLAC	Supports up to 2 channels
*.ogg	OGG	Vorbis	Supports up to 2 channels
*.wma	WMA	WMA	Supports WMA 10 Pro up to 5.1 channels. WMA lossless audio is not supported. Supports up to the M2 profile.
*.wav	wav	wav	
*.mid *.midi	midi	midi	Supports type 0 and type 1. Seek is not supported. Supports USB device only.
*.ape	ape	ape	
*.aif *.aiff	AIFF	AIFF	
*.m4a	ALAC	ALAC	

Supported video codecs

<table>
<tr><th>File format</th><th>Container</th><th>Video codecs</th><th>Resolution</th><th>Frame rate (fps)</th><th>Bitrate (Mbps)</th><th>Audio codecs</th></tr>
<tr><td rowspan="14">*.avi
*.mkv
*.asf
*.wmv
*.mp4
*.mov
*.3gp
*.vro
*.mpg
*.mpeg
*.ts
*.tp
*.trp
*.mov
*.flv
*.vob
*.svi
*.m2ts
*.mts
*.divx</td><td rowspan="14">AVI
MKV
ASF
MP4
3GP
MOV
FLV
VRO
VOB
PS
TS
SVAF</td><td>H.264 BP/MP/HP</td><td rowspan="15">1920 x 1080</td><td rowspan="2">60</td><td rowspan="15">20</td><td rowspan="13">Dolby Digital
LPCM
ADPCM(IMA, MS)
AAC
HE-AAC
WMA
Dolby Digital Plus
MPEG(MP3)
DTS (Core, LBR)
G.711(A-Law, µ-Law)</td></tr>
<tr><td>HEVC (H.265 - Main, Main10)</td></tr>
<tr><td>Motion JPEG</td><td>30</td></tr>
<tr><td>MVC</td><td rowspan="6">60</td></tr>
<tr><td>DivX 3.11 / 4 / 5 / 6</td></tr>
<tr><td>MPEG4 SP/ASP</td></tr>
<tr><td>Window Media Video v9 (VC1)</td></tr>
<tr><td>MPEG2</td></tr>
<tr><td>MPEG1</td></tr>
<tr><td>Microsoft MPEG-4 v1, v2, v3</td><td rowspan="4">30</td></tr>
<tr><td>Window Media Video v7 (WMV1), v8 (WMV2)</td></tr>
<tr><td>H.263 Sorrenson</td></tr>
<tr><td>VP6</td></tr>
<tr><td>*.webm</td><td>WebM</td><td>VP8</td><td rowspan="2">60</td><td>Vorbis</td></tr>
<tr><td>*.rmvb</td><td>RMVB</td><td>RV8/9/10 (RV30/40)</td><td>RealAudio 6</td></tr>
</table>

Other restrictions

- Codecs may not function properly if there is a problem with the content.
- 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 has an error, the Seek (Jump) function will 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 TV.
- HEVC codec is only available in MKV / MP4 / TS containers.
- The MVC codec is supported partly.

Video decoders

- H.264 FHD is supported up to Level 4.1. (TV does not support FMO / ASO / RS)
- VC1 AP L4 is not supported.
- GMC 2 or above is not supported.

Audio decoders

- Supports WMA 10 Pro up to 5.1 channels. Supports up to the M2 profile. WMA lossless audio is not supported.
- QCELP and AMR NB/WB are not supported.
- Vorbis is supported for up to 5.1 channels.
- Dolby Digital Plus is supported for up to 5.1 channels.
- The DTS LBR codec is only available for MKV / MP4 / TS containers.
- The supported sample rates are 8, 11.025, 12, 16, 22.05, 24, 32, 44.1, and 48 KHz, and differ with the codec.

Read After Installing the TV

Read this information after installing the TV.

Picture sizes and input signals

The Picture Size settings are applied to the current source. The applied Picture Size Settings will remain in effect whenever you select that source unless you change them.

Input signal	Picture size
Component	16:9 Standard, Custom, 4:3
Digital channel (720p)	16:9 Standard, Custom, 4:3
Digital channel (1080i, 1080p)	16:9 Standard, Custom, 4:3
HDMI (720p)	16:9 Standard, Custom, 4:3
HDMI (1080i, 1080p)	16:9 Standard, Custom, 4:3
USB (720p)	16:9 Standard, Custom, 4:3
USB (1080i/p @ 60 Hz)	16:9 Standard, Custom, 4:3

Installing an anti-theft lock

An anti-theft lock is a physical device that can be used to protect the TV against theft. Look for the lock slot on the back of the TV. The slot has a icon next to it. To use the lock, wrap the lock cable around an object that is too heavy to carry and then thread it through the TV's lock slot. The lock is sold separately. The method of using an anti-theft lock may differ for each TV model. Refer to the lock's user manual for more information.

This function is not available on certain models in specific geographical areas.

Read before setting up a wireless Internet connection

Precautions for wireless Internet

- This TV supports the IEEE 802.11 a /b /g /n /ac communication protocols. Samsung recommends using IEEE 802.11n. Video files stored on a device connected to the TV via a Home Network may not play back smoothly.

  IEEE 802.11 ac communication protocol is not available on certain models.

- To use wireless Internet, 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 password using characters and numbers. This password is then needed to connect to a security-enabled AP.

Wireless security protocols

The TV only supports the following wireless network security protocols. The TV cannot connect to non-certified wireless routers.

– Authentication Modes: WEP, WPAPSK, WPA2PSK

– Encryption Types: WEP, TKIP, AES

In compliance with the newest Wi-Fi certification specifications, Samsung TVs do not support WEP or TKIP security encryption in networks running in the 802.11n mode. If the wireless router supports WPS (Wi-Fi Protected Setup), you can connect the TV to your network using PBC (Push Button Configuration) or a PIN (Personal Identification Number). WPS automatically configures the SSID and WPA key settings.

Read Before Connecting a Computer (Supported Resolutions)

Check the supported resolution for PC input signals.

When you connect your TV to a computer, set the computer's video card to one of the standard resolutions listed in the tables below or on the next page. The TV will automatically adjust to the resolution you choose. Note that the optimal and recommended resolution is 1920 x 1080 at 60 Hz. Choosing a resolution not included in the tables can result in a blank screen or just the power indicator turning on. Refer to the user manual of your graphics card for compatible resolutions.

IBM

Resolution (Dots x lines)	Display format	Horizontal frequency (KHz)	Vertical frequency (Hz)	Clock frequency (MHz)	Polarity (horizontal / vertical)
720 x 400	70 Hz	31.469	70.087	28.322	- / +

MAC

Resolution (Dots x lines)	Display format	Horizontal frequency (KHz)	Vertical frequency (Hz)	Clock frequency (MHz)	Polarity (horizontal / vertical)
640 x 480	67 Hz	35.000	66.667	30.240	- / -
832 x 624	75 Hz	49.726	74.551	57.284	- / -
1152 x 870	75 Hz	68.681	75.062	100.000	- / -

VESA DMT

Resolution (Dots x lines)	Display format	Horizontal frequency (KHz)	Vertical frequency (Hz)	Clock frequency (MHz)	Polarity (horizontal / vertical)
640 x 480	60 Hz	31.469	59.940	25.175	- / -
640 x 480	72 Hz	37.861	72.809	31.500	- / -
640 x 480	75 Hz	37.500	75.000	31.500	- / -
800 x 600	60 Hz	37.879	60.317	40.000	+ / +
800 x 600	72 Hz	48.077	72.188	50.000	+ / +
800 x 600	75 Hz	46.875	75.000	49.500	+ / +
1024 x 768	60 Hz	48.363	60.004	65.000	- / -
1024 x 768	70 Hz	56.476	70.069	75.000	- / -
1024 x 768	75 Hz	60.023	75.029	78.750	+ / +
1152 x 864	75 Hz	67.500	75.000	108.000	+ / +
1280 x 720	60 Hz	45.000	60.000	74.250	+ / +
1280 x 800	60 Hz	49.702	59.810	83.500	- / +
1280 x 1024	60 Hz	63.981	60.020	108.000	+ / +
1280 x 1024	75 Hz	79.976	75.025	135.000	+ / +
1366 x 768	60 Hz	47.712	59.790	85.500	+ / +
1440 x 900	60 Hz	55.935	59.887	106.500	- / +
1600 x 900RB	60 Hz	60.000	60.000	108.000	+ / +
1680 x 1050	60 Hz	65.290	59.954	146.250	- / +
1920 x 1080	60 Hz	67.500	60.000	148.500	+ / +

Supported Resolutions for Video Signals

Check the supported resolution for video signals.

CEA-861

Resolution (Dots x lines)	Display format	Horizontal frequency (KHz)	Vertical frequency (Hz)	Clock frequency (MHz)	Polarity (horizontal / vertical)
720(1440) x 480i	60 Hz	15.734	59.940	27.000	- / -
720(1440) x 576i	50 Hz	15.625	50.000	27.000	- / -
720 x 480	60 Hz	31.469	59.940	27.000	- / -
720 x 576	50 Hz	31.250	50.000	27.000	- / -
1280 x 720	60 Hz	45.000	60.000	74.250	+ / +
1280 x 720	50 Hz	37.500	50.000	74.250	+ / +
1920 x 1080i	60 Hz	33.750	60.000	74.250	+ / +
1920 x 1080i	50 Hz	28.125	50.000	74.250	+ / +
1920 x 1080	60 Hz	67.500	60.000	148.500	+ / +
1920 x 1080	50 Hz	56.250	50.000	148.500	+ / +
1920 x 1080	30 Hz	33.750	30.000	74.250	+ / +
1920 x 1080	25 Hz	28.125	25.000	74.250	+ / +
1920 x 1080	24 Hz	27.000	24.000	74.250	+ / +

Read Before Using Bluetooth Devices

Read this information before using a Bluetooth device.

This function is not available on certain models in specific geographical areas.

Restrictions on using Bluetooth

- You can't use Bluetooth devices and the Surround feature simultaneously.
- Compatibility issues may occur, depending on the Bluetooth device. (A Mobile exclusive headphone may not be available, depending on the environment.)
- Lip-sync errors may occur.
- The TV and Bluetooth device may disconnect, depending on the distance between them.
- A Bluetooth device may hum or malfunction:
  - When a part of your body is in contact with the receiving/transmitting system of the Bluetooth device or the TV.
  - When the device is subject to electrical variation from obstructions caused by a wall, corner, or office partitioning.
  - When the device is exposed to electrical interference from same frequency-band devices including medical equipment, microwave ovens, and wireless LANs.
- If the problem persists, try connecting the device using the digital optical port or the HDMI (ARC) port.

Buttons and Functions

Review available media playback, control, and record buttons and descriptions of how they are used.

The available buttons and functions may differ with the content you are viewing or playing.

Buttons and functions available while playing multimedia content

Press the Select button while playing any video, photo, or recorded content. The following buttons appear.

The provided buttons or functions may differ with the media content type.

- Pause / Play

  Pauses or plays the multimedia content. You can use the following functions when the video is paused.

  – Slow Rewind or Slow Forward: Allows you to play the video slowly (1/8, 1/4, 1/2) backward or forward by selecting the ◁◁ or ▷▷ button. To increase the rewind or forward speed in slow mode up to 3 times, select the button repeatedly. To return to normal speed, select the ▷ button or press the ▷II button.

- Previous / Next

  Displays the previous or the next multimedia content file.

- Rewind / Fast Forward

  Rewinds or fast forwards the multimedia content. To increase the rewind or fast forward speed up to 3 times faster than normal, select the button repeatedly. To return to normal speed, select the ▷ button or press the ▷II button.

- Repeat

  Plays the current multimedia content repeatedly or all multimedia content files in the same folder repeatedly.

- Shuffle

  Plays music files in random order.

- Picture Off

  Plays multimedia content with the screen off.

- Rotate left / Rotate right

  Rotates a photo left or right.

- **Zoom**

  Zooms a photo in by up to a factor of 4.

- **Fit to Screen**

  Fits a photo to the screen.

- **Background Music**

  During a slideshow, plays or pauses the background music.

- **Options**

  The available options may differ with the model and content.

Function	Description
Slideshow Speed	Sets the slideshow speed.
Slideshow Effect	Applies transition effects to the slide show.
Background Music	Plays background music while the TV displays photos. The music files must be saved in the same USB device as the photo files. To pause the background music, select Background Music on the playback screen.
Information	Displays detailed information about the current multimedia content.
Subtitles	Controls video subtitles. Subtitles: Turns the subtitles on or off. Language: Sets the subtitle language. Sync: Adjusts the synchronization when the video and the subtitles are not synchronised. Reset Sync: Resets the subtitle synchronization adjustment to 0. Size: Changes the font size of the subtitles. Encoding: Displays a list of encoding languages. Allows you to change the encoding language when subtitles are displayed incorrectly. Edge Type: Adjusts the position of text and subtitle edges. Edge Color: Changes the colour of subtitle edges.
Rotate	Rotates the video.
Dolby Sound	Select a sound channel.
Audio Language	This function is only available if the video supports multi-track sound.

Licence

Check the licence information and trademarks applied in your TV.

This DivX Certified® device can play DivX® HD video files (including .avi, .divx).
Download free software at www.divx.com to create, play and stream digital videos.
To play purchased DivX movies, first register your device at vod.divx.com. Find your registration code in the DivX VOD section of your device setup menu.
This DivX Certified® device can play DivX® HD video (including .avi, .divx).
DivX®, DivX Certified® and associated logos are trademarks of DivX, LLC and are used under license.
Covered by one or more of the following U.S. patents: 7,295,673; 7,460,668; 7,515,710; 8,656,183; 8,731,369; RE45,052.

Premium Sound | 5.1

For DTS patents, see http://patents.dts.com. Manufactured under license from DTS, Inc. DTS, the Symbol, DTS in combination with the Symbol, DTS Premium Sound|5.1, DTS Digital Surround, DTS Express, and DTS Neo2:5 are registered trademarks or trademarks of DTS, Inc. in the United States and/or other countries.
© DTS, Inc. All Rights Reserved.

Manufactured under license from Dolby Laboratories. Dolby, Dolby Audio, Pro Logic, and the double-D symbol are trademarks of Dolby Laboratories.

HIGH-DEFINITION MULTIMEDIA INTERFACE

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 License Notice

Open Source used in this product can be found on the following webpage. (http://opensource.samsung.com) Open Source License Notice is written only English.

POWERED BY

This licence may not be supported depending on your country or model.

Accessibility Guidance

Provides a menu and a remote control guide that aid the visually impaired.

Menu Learning Screen

Learn the menus on the TV screen. Once enabled, your TV will tell you the structure and features of the menus you select.

Using the Remote control

Guide for Samsung Smart Remote and standard remote control.

Orientation of the Samsung Smart Remote

Hold the remote control with the buttons facing towards you. The remote is slightly thinner towards the top and thicker towards the bottom. There are two thin horizontal silver rocker buttons next to each other which stand out more than other buttons or small pips, and these are located slightly below the middle of the remote.

Availability depends on the specific model.

Description of the Samsung Smart Remote

Availability depends on the specific model.

From top to bottom and left to right you will find:

- Pip at the top left is the button.
- Top middle is a small LED.
- Below the LED is a round button which is the button.
- Underneath the voice recognition button are two small pips, the one on the left is the number pad button and the one on the right is the button.
- Underneath these two buttons is the directional pad which consists of a large outer circle with a round button in the middle.
- Underneath the directional pad are again two pips, left and right hand side, with a round button in the middle. The one on the left is the return button and the one on the right the button. The round button in the middle is the button.

- Below the button are two thin horizontal silver rocker buttons, these are the only buttons that protrude from the remote. The one on the left is the volume button and the one on the right is the channel button. Push up from beneath or down from above to use these as rocker buttons to change channel or volume.
  - Press on top of the volume button to mute the sound.
  - Press and hold on top of the volume button to open the accessibility menu.
  - Press on top of the channel button to open the programme guide.
  - Press and hold the channel button to open the Channel List.

  This function is only available on certain models in specific geographical areas.

The colour buttons

Pressing the button displays on the screen a button for recording the programme or starting the Timeshift function (when the programme is paused) together with 4 colour buttons: red, green, yellow, and blue. You can press the button while watching live TV.

The play/pause button

Pressing the button displays a window containing the Rewind, Play, Fast Forward, Stop Timeshift, Record, Go to Live TV, Info buttons. Then, pressing the up arrow button on the remote control displays the timeshift time and recording time on the control bar.

Using the accessibility menu

View descriptions of accessibility menu functions.

Your TV should be set up and tuned. To use Voice Interaction you will need the TV connected to the internet. You can do this yourself if you are confident enough through the settings menu.

This quick start guide assumes that the TV is set up and tuned and connected to the internet for the Voice Interaction section. If it is not yet connected, then the Voice Interaction section will not be relevant.

This function is not available on certain models in specific geographical areas.

Accessibility short cut menu

The accessibility short cut menu allows you to change a number of settings that might help you use the TV including turning voice guide on and off. Voice Guide is text-to-speech that speaks the menu items on screen making the TV usable by people who cannot see or read the information on screen.

The menu contains a number of items including:

- Voice Guide. This works on every screen on the TV and when turned on speaks to identify items displayed on screen. For example, it tells you the selected volume, the current channel and programme information. It also reads out the programme information in the Electronic Programme Guide (EPG).
- High Contrast mode allows you to display all menus with an opaque black background and a white font, providing maximum contrast.
- Enlarge enables the important elements on the screen such as the name of programmes to be larger.
- Learn TV Remote opens a menu screen containing a picture of the remote control. On this screen, pressing the power button (top left button) will turn off the TV, but when any other button is pressed the TV will say the button name and briefly tell what that button does. This teaching mode helps you to learn the location and operation of the buttons on the Samsung Smart Remote without affecting normal TV operation. Press the return button twice to return to the previous screen.
- Menu Learning Screen. Learn the menus on the TV screen. Once enabled, your TV will tell you the structure and features of the menus you select.

Opening the accessibility short cut menu:

On the Samsung Smart Remote there are two thin horizontal silver rocker buttons next to each other located slightly below the middle of the remote. The one on the left is the volume rocker button. This button is called the AD/SUBT. button in the e-Manual. To open the accessibility short cut menu, press and hold on top of this button.

To find the AD/SUBT. button on the standard remote control, go to the second row from the bottom and the second button from the right side of the remote. To open the accessibility menu, press this button.

This menu will speak regardless of the Voice Guide settings. It contains several options including turning Voice Guide on and off, turning Audio Description on and off, changing menu High Contrast, Enlarge, Menu Learning Screen, and Learn TV Remote.

Using the accessibility menu

To use the accessibility short cut menu, you will need to locate the arrow keys and select button. See the description of the remote control to learn where these are.

Use the up and down arrow buttons to move between the menu items. Press Select to open a menu item. Generally, this will open a sub-menu with options on. Again, use the up and down arrows to move between options and press Select to choose an option. To close this menu, use the right arrow button to get to the Close button and select this, or press the Return or Exit button.

Step by Step instructions to.

Turn Voice Guide on

1. Press and hold the VOL button on the remote. The Accessibility Shortcuts menu appears.
2. Press the up or down arrow on the remote to move to and highlight the Voice Guide option.
3. Press the Select button on the remote to turn Voice Guide on or off.
4. Close the menu either by pressing on the remote or by pressing the right arrow to highlight Close and then pressing the Select button.

Turn Audio Description on

1. Press and hold the VOL button on the remote. The Accessibility Shortcuts menu appears.
2. Press the up or down arrow on the remote to move to and highlight the Audio Description option.
3. Press the Select button on the remote to turn Audio Description on or off.
4. Close the menu either by pressing on the remote or by pressing the right arrow to highlight Close and then pressing the Select button.

Learn the remote

1. Press and hold the VOL button on the remote. The Accessibility Shortcuts menu appears.
2. Press the up or down arrow on the remote to move to and highlight the Learn TV Remote option.
3. Press the Select button on the remote. You are now in the e-Manual and specifically on the Learn TV Remote page.
4. When you have finished and want to exit the e-Manual, press the button twice to go to the previous page.

Accessing the main accessibility menu to change Voice Guide settings

You can also go to an accessibility menu from the main TV menu. This provides more options, for example, to change the speed of Voice Guide.

The TV will not verbalize this menu unless Voice Guide is already turned on.

1. Press the button.
2. Press the left arrow key until you reach Settings.
3. Press Select and a menu will open.
4. Press the down arrow to reach General, and then press Select to open this menu.
5. Use the arrow buttons to go to the Accessibility option, and then press Select to open this menu.
6. The menu will appear with Voice Guide Settings being the first option. Highlight Voice Guide Settings, and then press Select.
7. A menu appears with the options to change speed, and pitch and tone.
8. Select the options using the arrow buttons, and then press Select.

Setting accessibility settings using Voice Interaction

There are many commands you can say to control the TV. These can be used together with Voice Guide to have voice input and voice output. You will need to use the Samsung Smart Remote for this and the TV must be connected to the Internet.

To speak a command, press and hold the button (the round button near the top of the Samsung Smart Remote, directly below the LED power indicator and above the directional navigation pad). The TV will give a “speak now” prompt. Say the command, and then release the button. The TV will confirm the command.

For example you can:

Turn Voice Guide on:

Press the button on the Samsung Smart Remote and say “**Voice Guide on**”. When you turn off Voice Guide, there is no audible confirmation that it is turned off.

Turn Audio Description on:

Press the button on the Samsung Smart Remote, and then say “**Audio Description on**”.

Turn High Contrast on.

Press the button on the Samsung Smart Remote, and then say “**High Contrast on**”.

Using the TV with Voice Guide on

You can turn on Voice Guide that describe the menu options aloud to aid the visually impaired.

To use your TV with Voice Guide enabled, your TV must be set up and connected to the Internet.

This function is not available on certain models in specific geographical areas.

Watching TV

Turning the TV on

Press the button to turn the TV on. Voice guide will speak the channel number, channel name, programme title and the start and end times for this programme.

Changing channel

You can change the channel in a number of ways. Every time you change channels, the new channel details will be announced.

- Channel up/down rocker button
- Open the channel list, use the up and down arrow buttons to move between channels, and then press Select.
- Use the number buttons directly on the standard remote control.
- Use the 123 button on the Samsung Smart Remote to display the virtual numeric pad on the screen.

Using on-screen number entry via the Samsung Smart Remote:

The virtual numeric pad entry is used to enter numbers e.g. to enter a channel number or to enter a PIN.

Press the 123 button on the Samsung Smart Remote and the virtual numeric pad with 2 rows appears on screen. Voice Guide speaks "**virtual numeric pad, 6**" which indicates that the number strip is on screen and the focus is on the number 6. This strip has the following buttons:

- On the bottom row: From the far left: TTX, 1 – 9, 0, move the virtual numeric pad to the top
- The top row: is one button, Done.

Use the left and right arrow buttons to move along the row, and then press Select to choose a number or button. When you have finished selecting all the numbers you need (for example, 123), press the up arrow to move to the Done button, and then press Select to finish.

When entering a channel number, you can enter the number, and then select the Done button on the top row or you can enter the channel number and wait. After a short while, the channel will change and the virtual number pad will disappear from the screen.

Changing volume

Use the volume rocker button on the left to change the volume. Every time you change the volume, the new volume level will be announced.

Using programme information

When watching live TV, press the Select button to bring up programme information at the top of the screen. Voice Guide will speak the programme details and say if it has Audio Description and Subtitles available. Press the left and right arrow buttons to see what is on later on the same channel. Press the up and down arrow buttons to move to the other channels and see what is on at the moment on these channels.

Press and hold Select to bring up more detailed programme information.

Voice Guide will speak the programme details including the synopsis. Beneath the synopsis there are buttons that allow you to carry out functions such as recording, schedule viewing, timeshift (where you can pause live TV). This synopsis cannot currently be interrupted, so you will need to listen it in its entirety. Use the left and right arrow buttons to move between the buttons, and then press Select when you have reached the one you want. You can also press ↩ to go back or go directly to live TV.

Using the guide

See an overview of each channel's programme lineup.

> Live TV > Guide

You can see the daily programme schedules for each broadcaster and programme information in the Guide. You can also use the Guide to select programmes to watch and to schedule programmes to record.

In the Guide, you can see only the TV programmes scheduled after the current time.

You can also open the Guide using Voice Interaction. Press and hold the button on your Samsung Smart Remote, and then say the command "**guide**".

This function is not available on certain models in specific geographical areas.

The information in the Guide is for digital channels only. Analogue channels are not supported.

To view the Guide, you must first set the TV's clock (> Settings > General > System Manager > Time > Clock).

The clock should have been set to automatic when the TV was installed. If you need to set the clock again, follow the instructions below.

1. Press the button to open Smart Hub.
2. Press the left arrow until you reach Settings.
3. Press Select to open the main menu.
4. Use the up and down arrows to move through this menu until you reach General, and then press Select.
5. Again, use the up and down arrows to move through this menu until you reach System Manager, and then press Select.
6. Again, use the up and down arrow buttons to reach Time, and then press Select.
7. Move to Clock, and then press Select. Move to the Clock Mode item, and then press Select.
8. Move to the Auto setting, and then press Select. Alternatively you can select Manual, and then use the menu to set the time.

When you open the Guide, a table grid of channels and programmes is displayed. The top row shows Channel Filter being displayed then the day and times. Each row has a channel name on the left and programmes on that channel on the right.

In the Guide, use the up and down arrow buttons to move between channels and the left and right buttons to move between programmes within a channel. You can also use the 123 button to enter a channel number and go to that channel directly (Use the number buttons directly on the standard remote control). You can use the ⏯ button to go to the current time.

If you are using the standard remote control, you will be able to move backwards and forwards 24 hours through the programme guide by using the ⏪ and ⏩ buttons.

When you move the focus to a programme, you will hear the programme title, start/end time, and synopsis. You will also hear if the Audio Description and Subtitles are available for the programme. When you move the focus to a different channel, you will hear the channel name and number, and then the programme details. If you move to a different day, you will hear the day announced for the first programme you reach on that day. The day is not repeated, so if you are not sure what the day is, you can move forwards and backwards 24 hours and then the day will be announced.

To view a programme on now

Move to a programme that is currently broadcasting, and then press Select to go to live TV on the channel and programme you selected in the guide.

Other options in the guide

After moving to a desired programme, press and hold the Select button on the remote control. A pop-up window listing the following functions appears.

Use the up and down arrow buttons to move within this menu, and then press Select to choose an item. Press ↩ to close the menu and go back to the Guide.

- Scheduled viewing

  After selecting Schedule Viewing, you can schedule viewing for a broadcast scheduled programme.

- Scheduled recording

  After selecting Schedule Recording, you can schedule recording for a broadcast scheduled programme.

  For more information on Schedule Recording, refer to "Recording Programmes."

- Detailed information

  After selecting View Details, you can see the detailed information on the selected programme. The information may differ with the broadcast signal. If the information is not provided with the programme, nothing appears.

  Press Select on the View Details option. This will open the Details page for that programme which will display a synopsis. To close this page, press the Select button.

- Displaying Record & Schedule Manager

  After selecting Schedule Manager, you can see the Recording & Schedule Manager screen.

  When you have scheduled a programme to record or view, an icon will be shown next to the programme title in the Guide denoting if the programme is scheduled to view or record (these icons are different visually). Voice Guide will not speak this information. To find out if a programme is scheduled to record or view, press and hold the Select button. The option in the menu will be Cancel schedule instead of schedule viewing or schedule recording. Press ↩ to go back to the Guide without changing the setting.

Displaying your favourite channels:

If you have set up favourite channels, you will be able to filter the Guide, so that only those channels are shown. This makes it easier to find programmes you want.

To display your favourites list, move to the current time (press the ⏯ button) and then press the left arrow to move to the list of channels. Use the up arrow to move up the list until you reach the Channel Filter button. Press Select to bring up a list of options. Use the up and down arrows to move between the categories in the list. Highlight the option you want, for example, Favourites 1, and then press Select. The Guide will then show the information for only those channels.

When you have set a filter in the Guide, it will remain when you close and re-open the Guide. If you find that you don't have the channels you think you should, it is a good idea to check the category, and then select "All" which will display all tuned channels.

Setting Up a Schedule Viewing

Configure the TV to show a specific channel or programme at a specific time and date.

The icon appears next to programmes that have been configured for a schedule viewing.

Setting up a schedule viewing for a channel

- The Guide Screen

  On the Guide screen, select a programme you would like to view, and then press and hold the Select button. Select Schedule Viewing on the pop-up menu that appears.

- The Programme Info Screen

  Press the Select button while watching the TV. The Programme Info window appears. Select a broadcast scheduled programme by using the left or right directional buttons, and then press and hold the Select button. You can schedule watching the programme by selecting Schedule Viewing.

Cancelling a schedule viewing

> Live TV > Schedule Manager or Recordings > Schedules > Delete

You can cancel a scheduled viewing via the programme guide or Smart Hub.

From the programme guide, move to the programme, and then press and hold Select. Move to the Cancel schedule option, and then press Select. You will return to the programme guide with the scheduled viewing removed.

To use Smart Hub, press the button to open Smart Hub, press the up arrow to move to the top row and the right arrow to move to Schedule Manager. Press Select to open Schedule Manager. Press the up arrow to reach the top menu which has two buttons Recordings and Schedules. Press the left or right arrows to highlight Scheduled, and then press Select. Use the down arrow to move to the list of programmes scheduled to view. Move to the programme you want, and then press the right arrow to move to a list of options. Use the up and down arrows to move between these options until you reach the Delete button. Press the Select button to remove the scheduled viewing.

Using the Channel List

See how to list the channels available on your TV.

> Live TV > Channel List

Using Channel List, you can change the channel or check programmes on other digital channels while watching TV.

Press the button on the remote to open Smart Hub, press the left or right arrows to move to Live TV, press the up arrow to move to the top row, press the right arrow to move to Channel List, and then press the Select button. This shows a list of the channels and the programme currently on. The focus will be on the channel you are currently watching, showing channel name, channel number, and programme title.

Use the up and down arrows to move within the channel list (or use the channel rocker button to go up and down a page at a time). You can also use the 123 button to enter a channel number and go to that channel directly (Use the number buttons directly on the standard remote control).

Pressing the right arrow takes you to the category list. Use the up and down arrows to move within this list. Press Select to choose an option. You will open a second list. Use the up and down arrows to move between the items in the list. Press Select to choose one.

- All Channels

  Displays the channels that have been automatically searched.

- Favourites

  Displays Favourites Lists 1 to 5. Use the up and down arrows to move between the lists of favourites. Highlight the one you want, and then press Select. The channel list will now show only the channels in this list.

- Channel Type

  Sorts the list so that it includes channels of a selected genre only. However, Channel Type can only be used with channels that contain genre information. Use the up and down arrows to move within the list of genres (or TV, radio, data). Highlight the genre you want, and then press Select. The channel list will now show only the channels in this genre.

- Sort

  Sorts the list by Channel Number or by Name.

  This option is only available on digital channels and may not always be available.

- Aerial

  Allows you to choose between Terrestrial, Cable, and Satellite.

  This option is only available on certain models in specific geographical areas.

Creating a Personal Favourites List

Designate frequently watched channels as favourite channels.

Favourite channels are highlighted in the Edit Channel and All screens with the symbol ♥.

There is currently no feedback with Voice Guide for this.

Registering channels as favourites

Home > Live TV > Channel List

1. Press the right directional button on your remote control.
2. Select Favourites.
3. Select a desired favourites list.
4. Move to Edit Favourites.
5. Select a channel to add to the favourites list
6. Press Select. The selected channel is added to the favourites list.

To add channels to a favourites list - Detail

1. Open the Channel List.
2. Press the right arrow to move to the category list.
3. Use the up and down arrow buttons to move to Favourites, and then press Select. You will see Favourites Lists 1 to 5. The five lists let you set up different lists of favourites.
4. Use the up and down arrow buttons to move to the list you want, and then press Select.
5. Use the up and down arrow buttons to move between channels. When you reach a channel you want as a favourite, press Select. This will select the channel and put a check in the checkbox.
6. When you have selected all the channels you want, press the right arrow button.
7. On the next screen, highlight Add to Favourites, and then press Select. The selected channels are added to the Favourites List.

Deleting channels from a favourites list – Detail

1. Open the Channel List.
2. Press the right arrow to move to the category list.
3. Use the up and down arrow buttons to move to Favourites, and then press Select. You will see Favourites Lists 1 to 5.
4. Use the up and down arrow buttons to move to the list you want, and then press Select.
5. Use the up arrow buttons to move to Edit Favourites, and then press Select.
6. Use the right arrow button to move to Favourites, move to the channel to remove, and then press Select. Repeat for other channels to remove.
7. Press the left arrow button to move to the Add to Favourites / Remove from Favourites buttons.
8. Highlight Remove from Favourites, and then press Select to remove the selected channels from the Favourites List.
9. Press the right arrow button.
10. On the next screen, highlight the Exit button, and then press Select.

Viewing and selecting channels on favourites lists only

Live TV > Channel List

1. Open the channel list by pressing the **Channel List** button
2. Press the right directional button on your remote control. Use the up and down arrow buttons to move within the list.
3. Highlight Favourites, and then press Select.
4. Use the up and down arrow buttons to move within the list. Select the desired list among five favourites lists on the screen. The channels in the selected favourites list appear.

A list of channels appears only if the favourite list you selected contains channels.

Recording

Recording a programme to an external hard drive connected via USB.

When you have set a programme to record an icon appears next to the programme title in the guide or channel list or when viewing further information.

- This function is only available on certain models in specific geographical areas.
- Read all precautions before using the recording feature. For more information, refer to "Before Using the Recording and Timeshift Functions."

Using the instant and schedule recording options from the guide screen:

To record a programme that is on now, open the programme guide, move to the programme and then press and hold the Select button. You will get a pop-up menu. Use the up and down arrow buttons to move to Record. Press select to record the programme. You will be returned to the programme guide. The ● icon is shown next to the programme title. To find out if the programme is set to record or to stop the recording press and hold the Select button the menu is displayed and there is now a Stop option instead of a Record option. Press select on Stop to stop the recording or press button to go back to the programme guide without stopping the recording.

To record a programme that is on later, move to the required programme in the guide and press select. You will get a pop-up menu. Use the up and down arrows to move within this menu. Move to the Schedule Recording option and press Select. You will hear a message saying the programme has been set to record and then you will return to the programme guide.

The icon is placed visually against the programme title to show it is set to record. To find out if a programme is set to record or to cancel a scheduled recording press select on the programme. If it is already set to record then the option on the menu will be Cancel Scheduled Recording. You can press select to cancel the scheduled recording or just press button to go back to the programme guide without cancelling the recording.

Using the Instant and Schedule Recording options from programme info window

To display a menu for recording a programme or starting the Timeshift function, press the button while watching the programme. You can select the following functions on the menu:

- Record: Immediately starts to record the programme you are watching.
- Timeshift: Starts the Timeshift function.
- Stop: Stops the recording or the Tiemshift function that is running.
- Info: Displays the details about the programme you ware watching.

This function is not available on certain models in specific geographical areas.

Recording a programme you are currently watching directly from live TV

If you want to record a programme you are currently watching you can also just press the record button on the standard remote control. This will tell you that the programme is recording and how long it will record for (the default is until the end of the programme).

Changing the recording time

When recording a live programme you can specify how long you want to record for.

Press the button on the remote, press the left or right arrows to move to Edit Recording Time, and then press the Select button. A slider scale appears and you will hear the recording time currently set. Use the left and right arrows to change the time, and then press the Select button. You will hear a menu that gives information about the recording time. To return to the programme you are watching, press the button on the remote, or press the left or right arrows to move to Go to Live TV and then press the Select button.

Viewing recorded programmes

> Live TV > Schedule Manager or Recordings > Record

Open the Smart Hub by pressing the button on the remote control. You will be on the Live TV option. Press the up arrow to move to the row above, you will move to the Guide option.

Press the right arrow to move to Recordings and press select. This will open the Recording & Schedule Manager screen - showing Recordings and Schedules. The focus is placed on the first Recordings.

To play a programme use the up and down arrows to move between programme titles and then you can press select to play the programme or press the right arrow button to move to a list of 3 options. Use the up and down arrows to move between the options in this list to play the programme, remove (or delete) it or view the programme details.

Select the Play option to play the programme. The programme will start. If you have watched part of this programme before you will get a pop-up menu on screen allowing you to Play (from start), Resume (from where you left off) or Cancel. Use the left and right arrow buttons to move to the required option and press select.

This function is only available on certain models in specific geographical areas.

Deleting a recorded programme

To delete a recorded programme go to the list of Recordings (see viewing recorded programmes). Use the up and down arrow buttons to move to the recording you want to delete.

Press the right arrow button to move to a list of 3 options. Press the down arrow to move to the Delete option and press select.

You will be asked if you want to remove the selected item. Press the left arrow to move to the Delete button and press select to delete the programme title. The programme will be deleted and you will return to the list of Recordings.

Using Smart Hub

Learn how to open Smart Hub to access apps, games, movies, and more.

Smart Hub

After pressing the button on your remote control, you can surf the web and download apps with Smart Hub.

- Some Smart Hub services are for pay services. To use a for pay service, you must have an account with the service provider or a Samsung account. For more information, refer to "Using a Samsung account."
- To use this feature, the TV must be connected to the Internet.
- Some Smart Hub features may not be available depending on the service provider, language, or region.
- Smart Hub service outages can be caused by disruptions to your Internet service.
- You can view the entire text of the Terms and Privacy Policy by navigating to > Settings > Support > Terms and Privacy Policy.
- To cancel the Smart Hub service agreement though it is a required one, select Reset (> Settings > Support > Self Diagnosis > Reset), and then press the right directional button at the Smart Hub Terms & Conditions, Privacy Policy step.

Press the button on your remote. This will bring up a display with 2 rows. The focus will be on Live TV on the bottom row. The options on the top row change depending on the item selected in the bottom row.

The bottom row contains 4 buttons to the left of Live TV. These are:

- Search – to search for data about channels, programmes, movie titles, and apps in Smart Hub.
- Source – to select an external device connected to the TV
- Settings – a quick settings menu appears on the top row. You can quickly set frequently used functions.
- Apps - You can enjoy a wide range of content including news, sports, weather, and games by installing the corresponding apps on your TV.

The buttons to the right of the Live TV option provide quick access to apps such as **Netflix** and **Amazon**. Currently, many of these apps are not accessible with Voice Guide.

Use the left and right arrow buttons to move between options on a row and the up and down arrows to move between rows. Press Select to access an option.

When you open Smart Hub, you will be on Live TV. Press the up arrow to move to the top row. You will be on the Guide button. The items in this row are:

- Guide –select to open the programme guide
- Channel List – select to open the channel list
- To the right of the Channel List button, you will find a list of recently viewed channels. Highlight one of the channels in the list, and then press Select to go quickly to that channel.

Displaying the Home Screen in the Smart Hub

On the Home Screen, you can easily run apps you have used previously or frequently. The apps can also be moved on or deleted from the screen.

The Smart Hub has 2 rows. When it opens, the focus is on Live TV on the bottom row. The options on the top row change depending on the item selected in the bottom row. Use the up and down arrows to move between the rows and the left/right arrow buttons to move within a row.

The bottom row contains 4 buttons to the left of Live TV. These are Settings, Source, Search, and Apps:

- Settings

  When the focus is moved to the icon, a list of quick settings icons appears above the top of the menu. You can quickly set frequently used functions by clicking the icons.

  – Picture Mode

  You can select the picture mode that provides the best viewing experience.

  – Sound Mode

  You can select a sound mode to optimise your listening experience.

- Sound Output

  You can select which speakers the TV uses for audio output.

- Sound Mirroring

  You can listen to audio sound on a mobile device through the TV speaker.

  This function is not available on certain models in specific geographical areas.

- Audio Language

  You can select a audio language.

  This function is not available on certain models in specific geographical areas.

- Subtitle

  Turns the subtitles on or off.

  The actual name may differ with the geographical area. (**Subtitle** or **Caption**)

- Sleep Timer

  You can automatically shut off the TV after a pre-set period of time.

- Network

  You can view the current network and Internet status.

- Source

  You can select an external device connected to the TV.

  For more information, refer to "Switching between external devices connected to the TV."

- Search

  You can search the apps or games in Smart Hub services. The search option brings up an on-screen keyboard laid out as a qwerty keyboard with the focus on the number1.

- Apps - You can enjoy a wide range of content including news, sports, weather, and games by installing the corresponding apps on your TV.

  To use this feature, the TV must be connected to the Internet. For more information, refer to "Using the Apps Service."

Using the e-Manual

Open the user manual embedded in your TV.

Launching the e-Manual

Press the menu button on the standard remote control to open the menu. Alternatively, press the button to open Smart Hub, press the left arrow until you reach settings, and then press Select.

Use the up and down arrows to move within this menu. Move to the Support option, select the e-Manual option, and then press Select to open it.

> Settings > Support > Open e-Manual

You can view the embedded e-Manual containing information about your TV's key features.

- Alternatively, you can download a copy of the e-Manual from Samsung's website.
- Words in blue (e.g., Picture Mode) indicate a menu item.

The e-Manual contains 2 rows of buttons. Use the up and down arrows to move between rows and the left and right arrows to move within a row. Press Select to open the section you want to read.

The e-Manual contains a section called "**Learn about your Remote Control**" in the **Accessibility Guidance** (at the right corner of the screen). This is particularly useful for people who cannot easily see the buttons on the control or who are not clear what each button does. In this section the buttons on the remote control will not affect the TV.

Using Voice Interaction

A Guide to using Voice Interaction to control your TV.

To use Voice Interaction, your TV must be connected to the Internet and you must use the microphone on your Samsung Smart Remote.

Voice Interaction lets you speak commands to control the TV, for example, to change the channel or display the programme guide. This is not the same as Voice Guide which provides speech output from the TV that says what is displayed on screen. Voice Guide is useful for people who cannot see or read the menu items on screen.

To use Voice Interaction, you press the button on the remote, say a command, such as "**Guide**", into the microphone on your Samsung Smart Remote.

This function may not be supported depending on the model or geographical region.

Running Voice Interaction

Press and hold the button on the Samsung Smart Remote. The TV will respond, saying "Speak now". Say the command you want, and then release the button. The TV will provide feedback about what it has understood, and then carry out the action.

If the TV cannot identify the command, try again with more precise pronunciation.

This function may not be supported depending on the model or geographical region.

Some useful commands are:

- **Voice Guide on/off** – turns the speech output on/off
- **Audio description on/off** – turns audio description on/off
- **Channel [number]** – changes to that channel e.g. channel 1
- **Guide** – opens the programme guide
- **Channel list** – opens the channel list
- **Volume up/down** – changes the volume up/down

You can also search for videos on YouTube. Press and hold the button, and then say a phrase for example, “**songs by [name]**”. This will bring up a list of video clips of songs by that artist.

Voice Guide will voice a lot of information about the video. It is not yet possible to interrupt this and it will run over the first few seconds of the video.

If you say a command which is not recognised, the TV will often try a search. Press to return to TV.