

# System and Support

You can configure system and support settings such as clock, timers, energy usage and software updates.

## Using the Time Functions and the Timers

Set the current time and use the timer function.

 >  **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 **Auto** to **Manual**.
- 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.
-  The accuracy of the time information received may differ with the channel and signal.
-  When watching TV by connecting a cable box or satellite box to the HDMI or Component port, you must set the current time manually.

## 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.

## Adjusting the clock for DST and time zone

 >  [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 function may not be supported depending on the model or geographical area.

- [GMT](#)

Selects your time zone.


- [DST](#)

Automatically adjust for Daylight Saving Time (DST).

## Changing the current time

 >  [Settings](#) > [General](#) > [System Manager](#) > [Time](#) > [Clock](#) > [Time Offset](#)

[Time Offset](#) adjusts the time through a network connection.

 This function is available only when [Clock Mode](#) is set to [Auto](#), the TV fails to receive time information through normal broadcast signals, and the TV is connected to the Internet through a local area network.

## 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.

 This function may not be supported in some viewing modes.

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

## 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.

 To use this function, first set the [Clock](#) ( >  [Settings](#) > [General](#) > [System Manager](#) > [Time](#) > [Clock](#)).

# Using the Auto Protection Time and Energy Saving Functions

Set the Auto Protection Time and reduce the TV's energy consumption.

## Setting the Auto Protection Time

 >  **Settings** > **General** > **System Manager** > **Auto Protection Time** [Try Now](#)

Activate a screensaver when your TV displays a still image for two hours or more.

 This function may not be supported in some viewing modes.

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



## Reducing the energy consumption of the TV

 >  **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** [Try Now](#)

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.

 When **Picture Mode** is set to **Standard**, the off condition of the light sensor may differ depending on the model. You can turn off the light sensor only when both **Ambient Light Detection** of the **Eco Solution** function is turned off and **Local Dimming** ( **Settings** > **Picture** > **Expert Settings** > **Local Dimming**) is set to **High** or **Low**.

- **Minimum Backlight** [Try Now](#)

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

 This function is not available when the **Adaptive Brightness** function is turned on.

- **Energy Saving Mode** [Try Now](#)

Adjust the brightness settings to reduce the TV's power consumption.

 This function is not available when the **Adaptive Brightness** function is turned on.

- **Motion Lighting** [Try Now](#)


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

- **Auto Power Off** [Try Now](#)

Automatically turns off the TV to reduce unnecessary power consumption if the TV Controller and the remote control are not used for the set period of time.

# Updating the TV's Software

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

 **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.**

 >  [Settings](#) > [Support](#) > [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 device, 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](#) Try Now

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.

# Audio and Video Functions for the Visually or Hearing Impaired




You can configure the functions for the visually or hearing impaired.

## Running the accessibility functions

 >  [Settings](#) > [General](#) > [Accessibility](#) Try Now

## Running Accessibility Shortcuts

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](#), [Subtitle](#), [High Contrast](#), [Enlarge](#), [Greyscale](#), [Colour Inversion](#), [Learn TV Remote](#), [Menu Learning Screen](#), [Multi-output Audio](#), [Sign Language Zoom](#), [Slow Button Repeat](#), etc.



-  On the standard remote control, press the AD/SUBT. button or press and hold MUTE button.
-  Even if the [Voice Guide](#) is set to **Off** or muted, the voice guide for [Accessibility Shortcuts](#) is enabled.
-  The shortcut menus may not appear depending on the model or geographical area.

## Enabling voice guides for the visually impaired

 >  [Settings](#) > [General](#) > [Accessibility](#) > [Voice Guide Settings](#) Try Now

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 [Internet](#), and in [Search](#).

You can go to [Voice Guide](#) and press the Select button to turn the function on or off.

-  The [Voice Guide](#) is provided in the language that is specified on the TV [Language](#). However, some languages are not supported by [Voice Guide](#) even though they are listed in the TV [Language](#). **English** is always supported.
-  For more information about the TV [Language](#) settings, refer to "[Changing the menu language](#)".

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

You can configure the volume, speed, and pitch of the voice guide.

## Audio Description

 >  [Settings](#) > [General](#) > [Accessibility](#) > [Audio Description Settings](#) Try Now

You can activate an audio guide that provides an audio description of video scenes for the visually impaired. This function is only available with broadcasts that provide this service.

 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.

## White text on black background (high contrast)

 >  [Settings](#) > [General](#) > [Accessibility](#) > [High Contrast](#) Try Now

You can change Smart Hub and setting menu screens to white text on a black background and change the transparent TV menus to opaque automatically so that text can be more easily read.

 If [High Contrast](#) is on, some [Accessibility](#) menus are not available.

## Setting the screen to a black and white tone

 >  [Settings](#) > [General](#) > [Accessibility](#) > [Greyscale](#) Try Now

You can change the colour of the TV screen to a black and white tone to sharpen blurred edges caused by colours.

 If [Greyscale](#) is on, some [Accessibility](#) menus are not available.

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



## Inverting the screen colour

 >  [Settings](#) > [General](#) > [Accessibility](#) > [Colour Inversion](#) Try Now

You can invert the colours of the text and background for the setting menus displayed on the TV screen to make it easier to read them.

 If [Colour Inversion](#) is on, some [Accessibility](#) menus are not available.

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


## Enlarging the font (for the visually impaired)

 >  [Settings](#) > [General](#) > [Accessibility](#) > [Enlarge](#) Try Now

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](#) Try Now

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. Press the  button twice to exit [Learn TV Remote](#).

 This function is only available when [Voice Guide](#) is enabled.

## Learning about the TV menu

 >  [Settings](#) > [General](#) > [Accessibility](#) > [Menu Learning Screen](#) Try Now



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

 This function is only available when [Voice Guide](#) is enabled.

## Watching TV broadcasts with subtitles

 >  [Settings](#) > [General](#) > [Accessibility](#) > [Subtitle Settings](#) Try Now

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

-  This function may not be supported depending on the model or geographical area.
-  This function has no relationship with the features for controlling sub-titles of DVD or Blu-ray players. 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.

## Selecting the broadcasting subtitle language



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

- **Primary Subtitle Language**  
Sets the primary subtitle language.
- **Secondary Subtitle Language**  
Sets the secondary subtitle language.

## 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 headphone at the same time. When this function is active, you can set the volume of the Bluetooth headphone higher than the volume of the TV speaker.

-  This function may not be supported depending on the model or geographical area.
-  When you connect the Bluetooth headphone 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](#)".

## Enlarging the sign language screen for the hearing impaired

 >  [Settings](#) > [General](#) > [Accessibility](#) > [Sign Language Zoom Settings](#) Try Now

You can zoom in the sign language screen when the programme you are watching provides it. First, set [Sign Language Zoom](#) to [On](#), and then select [Edit Sign Language Zoom](#) to change the position and magnification of the sign language screen.

## Configuring the repeat settings for remote control buttons

 >  [Settings](#) > [General](#) > [Accessibility](#) > [Remote Button Repeat Settings](#) Try Now

You can configure the operation speed of the remote control buttons so that they slow down when you continually press and hold them. First, set [Slow Button Repeat](#) to [On](#), and then adjust the operation speed in [Repeat Interval](#).

## Using Other Functions

You can view other functions.


### Changing the menu language

 >  [Settings](#) > [General](#) > [System Manager](#) > [Language](#) Try Now


### Setting up a password

 >  [Settings](#) > [General](#) > [System Manager](#) > [Change PIN](#) Try Now

The PIN input window appears. Enter a PIN. Enter it again to confirm it. The default PIN is "0000" (for France and Italy: "1111").

 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" (for France and Italy: "1111").

On the Samsung Smart Remote: Select VOL button. > Volume Up >  > Volume Down >  > Volume Up > .


On the standard remote control: Select  button. > (+) (Volume Up) > Select RETURN button. > (—) (Volume Down) > Select RETURN button. > (+) (Volume Up) > Select RETURN button.

## Selecting Usage or Retail Mode

 >  **Settings** > **General** > **System Manager** > **Usage Mode** Try Now

You can set the TV for retail environments by setting **Usage Mode** to **Retail Mode**.

 For all other uses, select **Home Mode**.

 Use **Retail Mode** only in a store. With **Retail Mode**, some functions are disabled, and the TV settings automatically reset after a preset amount of time.

## Managing External Devices

 >  **Settings** > **General** > **External Device Manager** > **Device Connection Manager** Try Now

When you connect external devices such as mobile devices or tablets connected to the same network as the TV so you can share content, you can view the list of allowed devices and connected devices.

- **Access Notification**

Set whether to display a notification when an external device such as a mobile device or tablet attempts to connect to the TV.

- **Device List**

Manage a list of external devices registered to the TV.

## Using AirPlay

 >  **Settings** > **General** > **Apple AirPlay Settings**

You can use AirPlay to view content from your iPhone, iPad, or Mac on the TV screen.

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

## Restoring the TV to the factory settings

 >  **Settings** > **General** > **Reset** Try Now

You can restore all TV settings to the factory defaults.

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

 If you skipped some steps in the initial setup, run **Set Up TV** ( >  **Source** > up directional button > **TV** > up directional button > **Set Up TV**), and then configure the settings in the steps you skipped.

 For more information on **Reset**, 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 may not be supported depending on the model or geographical area.

 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 application (the HbbTV Installer Application) 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 geographical area.)

You can use the following functions:

- **HbbTV**: Enable or disable data services.
- **Do Not Track**: Ask apps and services not to track your browsing activity.
- **Private Browsing**: Enable Private Browsing to stop the browser from saving your Internet history.
- **Delete Browsing Data**: Delete all saved Cookies.

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 on HbbTV usually operates only when the TV is connected to an external network. The application may malfunction depending on the network conditions.
- When the HbbTV application is installed and the broadcasting programme supports HbbTV, a red button appears on the screen.
- It is possible to use both Digital Teletext and Traditional Teletext in several limited channels by pressing the TTX/MIX button on the remote control in a toggling manner.

 With the Samsung Smart Remote, long press the  or  button for over 1 second or press the  or  button and then select **TTX/MIX** on the pop-up list.

- When you press the TTX/MIX button once in HbbTV mode, digital TTX mode of HbbTV is activated.
- When you press the TTX/MIX button twice in HbbTV mode, Traditional Teletext mode is activated.

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

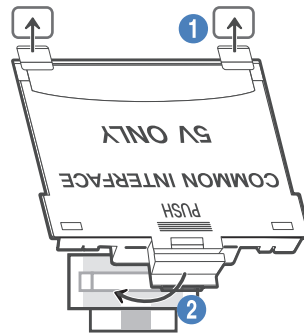
Watches paid channels by inserting your TV Viewing Card (“CI or CI+ Card”) into the COMMON INTERFACE slot.

-  The 2 CI card slots may not be supported depending on the model.
-  Turn the TV off to connect or disconnect a “CI or CI+ Card”.
-  The “CI or CI+ Card” may not supported depending on the model.


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

-  Only for models with Common interface slot.

### Attaching the CI CARD Adapter via COMMON INTERFACE slot

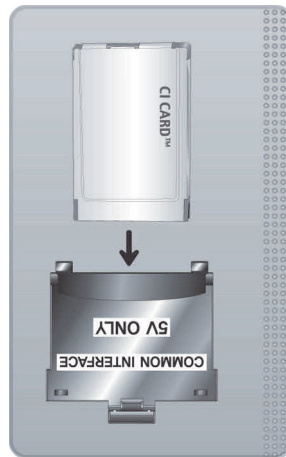


To attach the CI CARD Adapter to the TV, follow these steps:

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

## Connecting the “CI or CI+ Card”

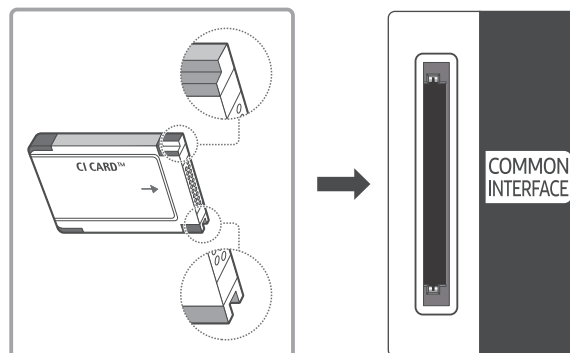
Connect the “CI or CI+ Card” to the COMMON INTERFACE slot as shown in the image below.



## Connecting the “CI or CI+ Card” via COMMON INTERFACE slot

 Only for models with Common interface slot.

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+ 1.4 standard. When Samsung TV display the pop-up message, it may happen due to CI+ 1.4 Version inconsistency. If you have a problem, please contact Samsung Call Centre.

 Your Samsung TV conforms to the CI+ 1.4 standards.

 Where a CI+ Common Interface module is incompatible with Samsung TV then please remove the module and contact the CI+ operator for assistance.


- If you don't insert the “CI or CI+ CARD”, some channels will display the pop-up message.
- The pairing 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 an authorised dealer to find out if “CI or CI+ CARD” is supported in your locality.









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

 Insert the “CI or CI+ CARD” that supports the current aerial settings. If not, the screen may not look normal.




# Teletext Feature

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

-  This function is available only in the channel that supports the teletext service.
-  This function may not be supported depending on the model or geographical area.
-  To enter the Teletext feature,
  - On the Samsung Smart Remote: Press the  or  button and then select **TTX/MIX** on the pop-up list.
  - On the standard remote control: Press the  TTX/MIX button.
-  To exit from the Teletext feature,
  - On the Samsung Smart Remote: Press the **TTX/MIX** button on the pop-up list until a live TV programme appears.
  - On the standard remote control: Press the  TTX/MIX button on the remote control until live TV appears.

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.

-  To change the Teletext page,
  - On the Samsung Smart Remote: Press the numeric button on the virtual numeric pad.
  - On the standard remote control: Press the numeric button.

## On the Samsung Smart Remote



**TTX/MIX (Full TTX / Double TTX / Mix / Live TV):** The teletext mode is activated in the channel that is being watched. Each time you press the TTX/MIX button, the teletext mode changes in the order of **Full TTX** → **Double TTX** → **Mix** → **Live TV**.


- **Full TTX:** The teletext mode appears on the full screen.
- **Double TTX:** The teletext mode appears on the half screen along with the currently viewed channel on the other half.
- **Mix:** The teletext mode appears transparently on the currently viewed channel.
- **Live TV:** It returns to the live TV screen.

**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.

 **Index:** Displays the index (contents) page at any time while you are viewing Teletext.


 **Sub Page:** Displays the available sub-page.


 **List/Flof:** Selects the Teletext mode. 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.


 **Store:** Stores the Teletext pages.

 **Page Up:** Displays the next Teletext page.

 **Page Down:** Displays the previous Teletext page.


 **Reveal/Conceal:** Displays or hides the hidden text (answers to quiz games, for example). To display the normal screen, press it again.

 **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.

 **Cancel:** Shrinks the Teletext display to overlap with the current broadcast. To undo, press it again.

## On the standard remote control

 On the standard remote control, the Teletext function icons are printed on some remote control buttons. To run a Teletext function, find its icon printed on a remote control button, and then press the found button.

 TTX/MIX

**Full TTX / Double TTX / Mix / Live TV:** The teletext mode is activated in the channel that is being watched. Each time you press the  TTX/MIX button, the teletext mode changes in the order of **Full TTX** → **Double TTX** → **Mix** → **Live TV**.

- **Full TTX:** The teletext mode appears on the full screen.
- **Double TTX:** The teletext mode appears on the half screen along with the currently viewed channel on the other half.
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 SETTINGS

**Index:** Displays the index (contents) page at any time while you are viewing Teletext.

 PRE-CH

**Sub Page:** Displays the available sub-page.

 SOURCE

**List/Flof:** Selects the Teletext mode. 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.

 CH LIST

**Store:** Stores the Teletext pages.

 CH ^

**Page Up:** Displays the next Teletext page.

 CH v

**Page Down:** Displays the previous Teletext page.

**INFO**

**Reveal/Conceal:** Displays or hides the hidden text (answers to quiz games, for example). To display the normal screen, press it again.

**AD/SUBT.**

*Depending on the model or geographical area.*

**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.

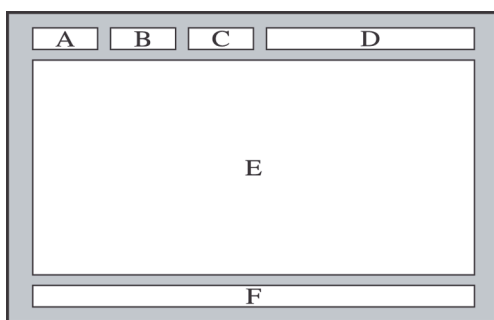
**RETURN**

**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.

**EXIT**

**Cancel:** Shrinks the Teletext display to overlap with the current broadcast. To undo, press it again.

## 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.























## Picture Issues












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





















### Testing the picture

 >  [Settings](#) > [Support](#) > [Self Diagnosis](#) > [Start Picture Test](#) Try Now

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	<p>If your Samsung Television is flickering or dimming sporadically, you may need to disable some of the energy efficiency features.</p> <p>Disable <a href="#">Ambient Light Detection</a>, <a href="#">Energy Saving Mode</a>, or <a href="#">Motion Lighting</a>.</p> <ul style="list-style-type: none"> <li>•  &gt;  <a href="#">Settings</a> &gt; <a href="#">General</a> &gt; <a href="#">Eco Solution</a> &gt; <a href="#">Ambient Light Detection</a></li> <li>•  &gt;  <a href="#">Settings</a> &gt; <a href="#">General</a> &gt; <a href="#">Eco Solution</a> &gt; <a href="#">Energy Saving Mode</a></li> <li>•  &gt;  <a href="#">Settings</a> &gt; <a href="#">General</a> &gt; <a href="#">Eco Solution</a> &gt; <a href="#">Motion Lighting</a></li> </ul>
Component Connections/ Screen Colour	<p>If the colour on your TV screen is not correct or the black and white colours are off, run <a href="#">Start Picture Test</a>.</p> <ul style="list-style-type: none"> <li>•  &gt;  <a href="#">Settings</a> &gt; <a href="#">Support</a> &gt; <a href="#">Self Diagnosis</a> &gt; <a href="#">Start Picture Test</a></li> </ul> <p>If the test results indicate that the problem is not caused by the TV, do the following:</p> <p>When using the One Connect, confirm that its video input connectors are connected to the correct external device video output connectors.</p> <p>When using the component cable, confirm that the green (Y), blue (Pb), and red (Pr) jacks are plugged into their proper connectors.</p> <p>For more information about how to connect an external device, run <a href="#">Connection Guide</a>.</p> <ul style="list-style-type: none"> <li>•  &gt;  <a href="#">Source</a> &gt; <a href="#">Connection Guide</a></li> </ul>
Screen Brightness	<p>If the colours on your Samsung TV are correct but just a little too dark or bright, try adjusting the following settings first.</p> <ul style="list-style-type: none"> <li>•  &gt;  <a href="#">Settings</a> &gt; <a href="#">Picture</a> &gt; <a href="#">Expert Settings</a> &gt; <a href="#">Backlight</a></li> <li>•  &gt;  <a href="#">Settings</a> &gt; <a href="#">Picture</a> &gt; <a href="#">Expert Settings</a> &gt; <a href="#">Contrast</a></li> <li>•  &gt;  <a href="#">Settings</a> &gt; <a href="#">Picture</a> &gt; <a href="#">Expert Settings</a> &gt; <a href="#">Brightness</a></li> <li>•  &gt;  <a href="#">Settings</a> &gt; <a href="#">Picture</a> &gt; <a href="#">Expert Settings</a> &gt; <a href="#">Sharpness</a></li> <li>•  &gt;  <a href="#">Settings</a> &gt; <a href="#">Picture</a> &gt; <a href="#">Expert Settings</a> &gt; <a href="#">Colour</a></li> <li>•  &gt;  <a href="#">Settings</a> &gt; <a href="#">Picture</a> &gt; <a href="#">Expert Settings</a> &gt; <a href="#">Tint (G/R)</a></li> </ul>

The problem	Try this!
Blurring, or Juddering	<p>If you notice blurring or juddering on the screen, use the <a href="#">Auto Motion Plus Settings</a> function to resolve the issue.</p> <ul style="list-style-type: none"> <li>•  &gt;  <a href="#">Settings</a> &gt; <a href="#">Picture</a> &gt; <a href="#">Expert Settings</a> &gt; <a href="#">Auto Motion Plus Settings</a></li> </ul>
Unwanted Powering Off	<p>If your TV appears to turn off by itself, try disabling some of the TV's energy efficiency functions.</p> <p>See if <a href="#">Sleep Timer</a> has been enabled. The <a href="#">Sleep Timer</a> automatically turns the TV off after a specified period of time.</p> <ul style="list-style-type: none"> <li>•  &gt;  <a href="#">Settings</a> &gt; <a href="#">General</a> &gt; <a href="#">System Manager</a> &gt; <a href="#">Time</a> &gt; <a href="#">Sleep Timer</a></li> </ul> <p>If the <a href="#">Sleep Timer</a> has not been enabled, see if <a href="#">Auto Power Off</a> or <a href="#">Off Timer</a> has been enabled and disable it.</p> <ul style="list-style-type: none"> <li>•  &gt;  <a href="#">Settings</a> &gt; <a href="#">General</a> &gt; <a href="#">Eco Solution</a> &gt; <a href="#">Auto Power Off</a></li> <li>•  &gt;  <a href="#">Settings</a> &gt; <a href="#">General</a> &gt; <a href="#">System Manager</a> &gt; <a href="#">Time</a> &gt; <a href="#">Off Timer</a></li> </ul>
Problems Powering On	<p>If you are having problems powering on your TV, there are a number of things to check before calling the service department.</p> <p>Confirm that the TV's power cord is connected correctly at both ends and that the remote control is operating normally.</p> <p>Make sure that the antenna cable or cable TV cable is firmly connected.</p> <p>If you have a cable box or satellite box, confirm that it is plugged in and turned on.</p>
Unable to find a Channel	<p>If your TV is not connected to a cable box or satellite box, run <a href="#">Auto Tuning</a>.</p> <ul style="list-style-type: none"> <li>•  &gt;  <a href="#">Settings</a> &gt; <a href="#">Broadcasting</a> &gt; <a href="#">(Auto Tuning Settings)</a> &gt; <a href="#">Auto Tuning</a></li> </ul> <p> The <a href="#">Auto Tuning Settings</a> may not appear depending on the model or geographical area.</p>
The TV image does not look as good as it did in the store.	<p>Store displays are tuned to a digital UHD channel or HD channel.</p> <p>If you are using analogue cable, upgrade to digital cable.</p> <p>If you use an analogue cable box or satellite box, upgrade to a digital cable box or satellite box and adjust the digital cable box and satellite box's video output resolution to UHD or HD.</p> <p>Be sure to use an HDMI cable to enjoy high quality videos.</p> <p>To connect the TV with your PC, make sure that your PC's graphic card supports UHD resolutions.</p> <p>For more information about the supported UHD resolutions, refer to "<a href="#">Supported Resolutions for UHD Input Signals</a>".</p>
The picture is distorted.	<p>The compression of video content may cause picture distortions, especially in fast moving pictures from sports programmes and action movies.</p> <p>If the signal reception is weak or poor, screen distortion may be visible but it is not a malfunction.</p> <p>Mobile phones used close to the TV (within 1 m) may cause noise on analogue and digital channels.</p>

The problem	Try this!
The colour is wrong or missing.	<p>If you're using a Component connection, make sure that the Component cables are connected to the correct jacks.</p> <p>Incorrect or loose connections may cause colour problems or a blank screen.</p>
The colour is poor or the picture is not bright enough.	<p>Go to <b>Picture</b> and then adjust the <b>Picture Mode</b>, <b>Brightness</b>, <b>Sharpness</b>, and <b>Colour</b> settings.</p> <ul style="list-style-type: none"> <li>•  &gt;  <b>Settings</b> &gt; <b>Picture</b> &gt; <b>Picture Mode</b></li> <li>•  &gt;  <b>Settings</b> &gt; <b>Picture</b> &gt; <b>Expert Settings</b> &gt; <b>Brightness</b></li> <li>•  &gt;  <b>Settings</b> &gt; <b>Picture</b> &gt; <b>Expert Settings</b> &gt; <b>Sharpness</b></li> <li>•  &gt;  <b>Settings</b> &gt; <b>Picture</b> &gt; <b>Expert Settings</b> &gt; <b>Colour</b></li> </ul> <p>See if <b>Energy Saving Mode</b> has been enabled.</p> <ul style="list-style-type: none"> <li>•  &gt;  <b>Settings</b> &gt; <b>General</b> &gt; <b>Eco Solution</b> &gt; <b>Energy Saving Mode</b></li> </ul> <p>Try resetting the picture.</p> <ul style="list-style-type: none"> <li>•  &gt;  <b>Settings</b> &gt; <b>Picture</b> &gt; <b>Expert Settings</b> &gt; <b>Reset Picture</b></li> </ul>
There is a dotted line on the edge of the screen.	<p>Change <b>Picture Size</b> to <b>16:9 Standard</b>.</p> <ul style="list-style-type: none"> <li>•  &gt;  <b>Settings</b> &gt; <b>Picture</b> &gt; <b>Picture Size Settings</b> &gt; <b>Picture Size</b> &gt; <b>16:9 Standard</b></li> </ul>
The picture is black and white.	<p>Use a composite cable when you connect AV equipment to the TV.</p> <p>If you are using the composite cable, connect the video cable (Yellow) to the VIDEO (Yellow / Green) input port.</p> <p>Check whether <b>Greyscale</b> is set to <b>On</b>.</p> <ul style="list-style-type: none"> <li>•  &gt;  <b>Settings</b> &gt; <b>General</b> &gt; <b>Accessibility</b> &gt; <b>Greyscale</b></li> </ul>
The picture won't display in full screen.	<p>HD channels will have black bars on either side of the screen when displaying upscaled SD (4:3) content.</p> <p>Black bars will appear at the top and bottom of the screen when you watch movies that have aspect ratios different from your TV.</p> <p>Adjust the picture size options on your external device or set the TV to full screen.</p> <ul style="list-style-type: none"> <li>•  &gt;  <b>Settings</b> &gt; <b>Picture</b> &gt; <b>Picture Size Settings</b> &gt; <b>Picture Size</b></li> </ul>
The <b>Subtitle</b> function in the TV menu is deactivated.	<p>When an external device is connected with an HDMI or Component cable, the <b>Subtitle</b> function is unavailable. Adjust the subtitle setting on the external device.</p>
Subtitles appear on the TV screen.	<p>Turn off the <b>Subtitle</b> function in <b>Subtitle Settings</b>.</p> <ul style="list-style-type: none"> <li>•  &gt;  <b>Settings</b> &gt; <b>General</b> &gt; <b>Accessibility</b> &gt; <b>Subtitle Settings</b> &gt; <b>Subtitle</b></li> </ul>

 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.







# Sound and Noise Issues

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






## Testing the sound

 >  [Settings](#) > [Support](#) > [Self Diagnosis](#) > [Start Sound Test](#) Try Now

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!
How can I connect an audio device to the TV?	<p>The connection method may differ depending on the audio device.</p> <p>For more information about how to connect an audio device, run <a href="#">Connection Guide</a>.</p> <ul style="list-style-type: none"> <li> &gt;  <a href="#">Source</a> &gt; <a href="#">Connection Guide</a> &gt; <a href="#">Audio Device</a></li> </ul>
There is no sound or the sound is too low at maximum volume.	<p>Check the volume control of your TV, and then check the volume control of the external device (cable box or satellite box, DVD, Blu-ray, etc.) connected to your TV.</p>
The picture is good but there is no sound.	<p>Set <a href="#">Sound Output</a> to <a href="#">TV Speaker</a>.</p> <ul style="list-style-type: none"> <li> &gt;  <a href="#">Settings</a> &gt; <a href="#">Sound</a> &gt; <a href="#">Sound Output</a></li> </ul> <p>If you are using an external device, check the device's audio output option. For example, you may need to change your cable box's audio option to HDMI if the box connected to your TV is using an HDMI cable.</p> <p>To listen to computer sound, connect an external speaker to the computer's audio output connector.</p> <p>If your TV has a headphone jack, make sure there is nothing plugged into it.</p> <p>Reboot the connected device by disconnecting and then reconnecting the device's power cable.</p>
No sound is heard.	<p>Check whether <a href="#">Digital Output Audio Format</a> is set to <a href="#">Dolby Digital+</a>.</p> <p>Set <a href="#">Digital Output Audio Format</a> to <a href="#">Dolby Digital+</a> only when you play Dolby Digital+ (with Atmos) content.</p> <p>If you are using an AV receiver that does not support Dolby Digital+, you will hear no sound when you select <a href="#">Dolby Digital+</a>.</p> <ul style="list-style-type: none"> <li> &gt;  <a href="#">Settings</a> &gt; <a href="#">Sound</a> &gt; <a href="#">Expert Settings</a> &gt; <a href="#">Digital Output Audio Format</a> &gt; <a href="#">Dolby Digital+</a></li> </ul>



The problem	Try this!
<p>The speakers are making an odd sound.</p>	<p>Run <a href="#">Start Sound Test</a>.</p> <ul style="list-style-type: none"> <li>•  &gt;  <a href="#">Settings</a> &gt; <a href="#">Support</a> &gt; <a href="#">Self Diagnosis</a> &gt; <a href="#">Start Sound Test</a></li> </ul> <p>Make sure that the audio cable is connected to the correct audio output connector on the external device.</p> <p>For antenna or cable connections, check the signal information. A low signal level may cause sound distortions.</p>
<p>The sound is interrupted.</p>	<p>The sound may frequently be interrupted when a Bluetooth speaker is used. Make sure that the Bluetooth speaker and the wireless access point are on a straight line, and the Bluetooth speaker is placed as close as possible to the TV.</p> <p>To minimise interruptions, we recommend a wireless access point that uses a 5 GHz frequency.</p> <p>If the problem persists, we recommend that you use a wired connection.</p>
<p>Whenever a function is used on the TV or the channel is changed, the TV voices the activity.</p> <p>The TV explains in voice-over the video scenes displayed on the screen.</p>	<p>Turn off the <a href="#">Voice Guide</a> function in <a href="#">Voice Guide Settings</a>.</p> <ul style="list-style-type: none"> <li>•  &gt;  <a href="#">Settings</a> &gt; <a href="#">General</a> &gt; <a href="#">Accessibility</a> &gt; <a href="#">Voice Guide Settings</a> &gt; <a href="#">Voice Guide</a></li> </ul>
<p>The TV audio is not being played through the AV receiver.</p>	<p>Connect an optical cable to the TV and the AV receiver.</p> <p>ARC enables the TV to output digital sound via the HDMI (ARC) port.</p> <p>However, ARC is only available when the TV is connected to an AV receiver that supports ARC.</p> <p> The HDMI (ARC) port may support eARC in some models.</p>

# Channel and Broadcast Issues

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

The problem	Try this!
<p>“Weak or No Signal” displayed in TV mode/cannot find channel.</p>	<p>Make sure that the external device is connected securely and turned on. Move to <a href="#">Sources</a> to switch to other input sources.</p> <ul style="list-style-type: none"> <li>•  &gt;  <a href="#">Source</a> &gt; <a href="#">Sources</a></li> </ul>
<p>The TV is not receiving all channels.</p>	<p>Confirm that the coaxial cable is securely connected to the TV.</p> <p>Run <a href="#">Reset</a> or <a href="#">Auto Tuning</a>.</p> <ul style="list-style-type: none"> <li>•  &gt;  <a href="#">Settings</a> &gt; <a href="#">General</a> &gt; <a href="#">Reset</a></li> <li>•  &gt;  <a href="#">Settings</a> &gt; <a href="#">Broadcasting</a> &gt; <a href="#">(Auto Tuning Settings)</a> &gt; <a href="#">Auto Tuning</a></li> </ul> <p> The <a href="#">Auto Tuning Settings</a> may not appear depending on the model or geographical area.</p>
<p>There are no subtitles with digital channels.</p>	<p>Go to <a href="#">Subtitle Settings</a> and turn on the <a href="#">Subtitle</a> function, and then change the <a href="#">Subtitle Mode</a>.</p> <ul style="list-style-type: none"> <li>•  &gt;  <a href="#">Settings</a> &gt; <a href="#">General</a> &gt; <a href="#">Accessibility</a> &gt; <a href="#">Subtitle Settings</a></li> </ul> <p>Some channels may not have subtitle data.</p>
<p><a href="#">Broadcasting</a> is deactivated.</p>	<p><a href="#">Broadcasting</a> is only available when <a href="#">Source</a> is set to <a href="#">TV</a>.</p> <p><a href="#">Broadcasting</a> cannot be accessed while you watch TV using a cable box or satellite box.</p> <p><a href="#">Broadcasting</a> cannot be accessed while a recording is in progress or the Timeshift function is running.</p>

# External Device Connectivity Issues

When the TV has difficulties connecting to external devices such as a PC, game console, or mobile device, these steps may help resolve the problem.



The problem	Try this!
The "Mode Not Supported" message appears.	Adjust the output resolution of the external device to a resolution supported by the TV.
The video is OK but there is no audio.	<p>If you are using an HDMI connection, check the audio output setting on your PC.</p> <p>If you are using a DVI to HDMI cable, a separate audio cable is required.</p> <p>To listen to the computer sound, connect external speakers to the audio output connection of the computer.</p>
How can I use Screen Mirroring?	<p>To wirelessly connect the TV to your PC, read the instructions at <a href="#">PC &gt; Screen Sharing (Wireless)</a> in <a href="#">Connection Guide</a>, and then try to connect.</p> <ul style="list-style-type: none"> <li>• <a href="#">Home</a> &gt; <a href="#">Source</a> &gt; <a href="#">Connection Guide</a> &gt; <a href="#">PC</a> &gt; <a href="#">Screen Sharing (Wireless)</a></li> </ul> <p>Confirm that the TV and your PC are connected to the same wireless network.</p> <p>To wirelessly connect the TV to your mobile device, read the instructions at <a href="#">Smartphone &gt; Screen Sharing (Smart View)</a> in <a href="#">Connection Guide</a>, and then try to connect.</p> <ul style="list-style-type: none"> <li>• <a href="#">Home</a> &gt; <a href="#">Source</a> &gt; <a href="#">Connection Guide</a> &gt; <a href="#">Smartphone</a> &gt; <a href="#">Screen Sharing (Smart View)</a></li> </ul> <p>If the TV has difficulties connecting to your PC or mobile device due to surrounding radio interferences, change the frequency of the wireless access band, and then try to connect.</p>
No screen appears when connecting the TV to an external device.	<p>For more information about how to connect an external device, run <a href="#">Connection Guide</a>.</p> <ul style="list-style-type: none"> <li>• <a href="#">Home</a> &gt; <a href="#">Source</a> &gt; <a href="#">Connection Guide</a></li> </ul> <p>Make sure that the external device is connected securely and turned on. Move to <a href="#">Sources</a> to switch to other input sources.</p> <ul style="list-style-type: none"> <li>• <a href="#">Home</a> &gt; <a href="#">Source</a> &gt; <a href="#">Sources</a></li> </ul>

# Network Issues

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









 >  [Settings](#) > [Support](#) > [Self Diagnosis](#) > [Start Smart Hub Connection Test](#) Try Now Try Now



If the TV has trouble with network connection or TV services, check the Smart Hub connection status.

The problem	Try this!
<p>Wireless network connection failed.</p> <p>Unable to connect to a wireless access point.</p>	<p>Make sure that no items that can generate electromagnetic interferences are placed between the TV and the wireless/wired access point.</p> <p>Check if the access point is turned on. If it is on, turn it off, wait 1 or 2 minutes, and then turn it on.</p> <p>Enter the correct password if required.</p> <p>If the wireless connection fails, connect the TV to the access point via a LAN cable.</p> <p>If the TV can connect to the Internet normally via the wired connection, there might be a problem with the access point. In this case, try using a different access point.</p>
<p>Wired network connection failed.</p>	<p>Check if the LAN cable is plugged in on both ends. If it is plugged in, check if the access point is turned on. If it is on, turn it off, wait 1 or 2 minutes, and then turn it on.</p>
<p>Auto IP configuration failed.</p> <p>Unable to connect to the network.</p>	<p>Check if the LAN cable is plugged in on both ends. If it is plugged in, check if the access point is turned on.</p> <p>If the access point is on, turn it off, wait 1 or 2 minutes, and then turn it on.</p> <p>Disconnect and then reconnect the power cable of the TV, or press and hold the power button for 3 seconds.</p>
<p>Connected to a local network, but not to the Internet.</p>	<ol style="list-style-type: none"> <li>1. Check if the Internet LAN cable is connected to the access point's external LAN port.</li> <li>2. Check the DNS setting in <a href="#">IP Settings</a>.             <ul style="list-style-type: none"> <li>–  &gt;  <a href="#">Settings</a> &gt; <a href="#">General</a> &gt; <a href="#">Network</a> &gt; <a href="#">Network Status</a> &gt; <a href="#">IP Settings</a></li> </ul> </li> </ol>
<p>Network setup is completed, but unable to connect to the Internet.</p>	<p>If the problem persists, contact your Internet service provider.</p>

# Anynet+ (HDMI-CEC) Issues





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

The problem	Try this!
What is Anynet+?	<p>You can use the TV's remote control to control external devices that support Anynet+ (HDMI-CEC) and that are connected to the TV via an HDMI cable. For example, if a connected external device supports Anynet+, you can have the connected device turn on or off when you turn the TV on or off.</p>
Anynet+ does not work.	<p>Confirm that the device is an Anynet+ device. The Anynet+ system supports Anynet+ devices only.</p> <p>Check if the power cord of the Anynet+ device is properly connected.</p> <p>Check the cable connections of the Anynet+ device.</p> <p>Go to <a href="#">Anynet+ (HDMI-CEC)</a> and see if <a href="#">Anynet+ (HDMI-CEC)</a> has been set to <b>On</b>.</p> <ul style="list-style-type: none"> <li>•  &gt;  <a href="#">Settings</a> &gt; <a href="#">General</a> &gt; <a href="#">External Device Manager</a> &gt; <a href="#">Anynet+ (HDMI-CEC)</a></li> </ul> <p>Anynet+ may not function when some other functions are active, including Channel Search, Smart Hub, Initial Setup, etc.</p> <p>If you have disconnected and then reconnected the HDMI cable, scan for devices again or turn your TV off and on.</p>
I want to start Anynet+. I also want the connected devices to turn on when the TV is turned on.	<p>Move the focus to the Anynet+ device at  &gt;  <a href="#">Source</a>, press the up directional button to move to <a href="#">Anynet+ (HDMI-CEC)</a>, and then press the Select button.</p> <p>Check if the Anynet+ device is properly connected to the TV, and then select <a href="#">Anynet+ (HDMI-CEC)</a> menu to see if <a href="#">Anynet+ (HDMI-CEC)</a> is set to <b>On</b>.</p> <ul style="list-style-type: none"> <li>•  &gt;  <a href="#">Settings</a> &gt; <a href="#">General</a> &gt; <a href="#">External Device Manager</a> &gt; <a href="#">Anynet+ (HDMI-CEC)</a></li> </ul>
I want to exit Anynet+. I also do not want the connected devices to turn on and off when the TV is turned on or off.	<p>Turn off the <a href="#">Anynet+ (HDMI-CEC)</a> function.</p> <ul style="list-style-type: none"> <li>•  &gt;  <a href="#">Settings</a> &gt; <a href="#">General</a> &gt; <a href="#">External Device Manager</a> &gt; <a href="#">Anynet+ (HDMI-CEC)</a></li> </ul>
The message "Connecting to Anynet+ device..." or "Disconnecting from Anynet+ device" appears on the screen.	<p>You cannot use the remote control when the TV is configuring Anynet+ or switching to the TV viewing screen.</p> <p>Use the remote control after the TV has completed the Anynet+ configuration or has switched to the TV viewing screen.</p>
The Anynet+ device won't play.	<p>You cannot use the play function when <a href="#">Reset</a> is in progress.</p>

The problem	Try this!
The connected device is not displayed.	<p>Check whether the device supports Anynet+.</p> <p>Check whether the HDMI cable is properly connected.</p> <p>Go to <a href="#">Anynet+ (HDMI-CEC)</a> and see if <a href="#">Anynet+ (HDMI-CEC)</a> has been set to <b>On</b>.</p> <ul style="list-style-type: none"> <li>•  &gt;  <a href="#">Settings</a> &gt; <a href="#">General</a> &gt; <a href="#">External Device Manager</a> &gt; <a href="#">Anynet+ (HDMI-CEC)</a></li> </ul> <p>Scan for Anynet+ devices again.</p> <p>Anynet+ devices must be connected to the TV using an HDMI cable. Make sure the device is connected to your TV with an HDMI cable. Some HDMI cables may not support Anynet+.</p> <p>If the connection is terminated because there has been a power failure or the HDMI cable has been disconnected, please scan for the device again.</p>

## Remote Control Issues

When the remote control isn't working, these steps may help resolve the problem.

The problem	Try this!
The remote control does not work.	<p>The connection between the Samsung Smart Remote and the TV may be lost.</p> <p>Point the Samsung Smart Remote at the front of the TV, and then press and hold the  and  buttons simultaneously for 3 seconds or more.</p> <p>Also, if the remote control is not working or slow, the batteries might be low or dead. If this is the case, replace the batteries. Alkaline batteries are recommended for longer battery life.</p>
The remote control batteries run out quickly.	<p>The batteries may be consumed quickly if the remote control is used very frequently or the <a href="#">Voice Wake-up</a> function is turned on.</p> <p>You can extend the battery life by turning off the <a href="#">Voice Wake-up</a> function.</p> <ul style="list-style-type: none"> <li>•  &gt; <a href="#">Explore Now</a> &gt;  <a href="#">Settings</a> &gt; <a href="#">Voice Wake-up</a></li> <li>• The <a href="#">Voice Wake-up</a> function may not be supported depending on the model or geographical area.</li> </ul>

# Recording Issues

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

The problem	Try this!
The Timeshift or recording function cannot be used.	<p>Check if there is a storage device connected to the TV. Recording will automatically stop if the signal becomes too weak.</p> <p>Check the free space on the storage device. The function will not work if there isn't enough storage space on the storage device.</p> <p>Before using the recording function, be sure to read all precautions. For more information, refer to "<a href="#">Before Using the Recording and Timeshift Functions</a>".</p>
Cannot record videos received from an external device or <a href="#">Samsung TV Plus</a> .	The recording function is only available for digital broadcast channels received by the TV. You cannot record videos received from an external device or <a href="#">Samsung TV Plus</a> .
The "Format Device" message appears when the Timeshift or recording function is used.	<p>To use the recording function, the storage device connected to the TV must have been already formatted.</p> <p>Formatting the storage device deletes all data from it, and the storage device is formatted in NTFS.</p>
The recorded files on the TV are not played back on a PC.	The recorded files on the TV can only be played back on the same TV. Those video files cannot be played back on a PC or other TV.

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

# 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?	<p>Languages supported by an app may be different from the TV <a href="#">Language</a> set in the menu.</p> <p>The ability to change the language depends on the app's provider.</p>
My application is not working.	<p>The services of your application are not provided by the TV but by the application service provider.</p> <p>Refer to the Help section on the application service provider's website.</p>

# Media Files





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

The problem	Try this!
Some files are interrupted during playback.	This problem may occur with unsupported files or high-bitrate files. Most files can be played back, but some files may not play smoothly.
Some files can't be played.	Some files that use an unsupported codec may not be played back. Make sure that the codec is supported by the TV. For more information about the supported codecs, refer to " <a href="#">Read Before Playing Photo, Video, or Music Files</a> ".

# Voice Recognition Issues

When the voice recognition or Bixby functions aren't working, these steps may help resolve the problem.

 The **Voice Wake-up** function may not be supported depending on the model or geographical area.







The problem	Try this!
Bixby answers automatically.	The TV may recognise an ambient noise or everyday conversation as a call to Bixby. Turn off the <b>Voice Wake-up</b> function or set the sensitivity to <b>Low</b> . <ul style="list-style-type: none"> <li> &gt; <a href="#">Explore Now</a> &gt;  <a href="#">Settings</a> &gt; <a href="#">Voice Wake-up</a></li> </ul>
I spoke "Hi, Bixby" but Bixby does not answer.	The Samsung Smart Remote may not recognise your voice when it is far away from you, turned upside down, or located in an environment with loud ambient noise. <ul style="list-style-type: none"> <li>Use the Samsung Smart Remote less than 2 feet (1.5 m) with the remote control buttons facing upward. (There is a built-in microphone on the front of the Samsung Smart Remote.)</li> <li>Do not place the Samsung Smart Remote near the TV speaker or an audio speaker.</li> </ul> Turn on the <b>Voice Wake-up</b> function. <ul style="list-style-type: none"> <li> &gt; <a href="#">Explore Now</a> &gt;  <a href="#">Settings</a> &gt; <a href="#">Voice Wake-up</a></li> </ul>

# Other issues

Use these procedures to resolve other issues that may occur in relation to the product.

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 problem	Try this!
The TV smells of plastic.	This smell is normal and will dissipate over time.
The settings are lost after 5 minutes or every time the TV is turned off.	<p>If <b>Usage Mode</b> is set to <b>Retail Mode</b>, the TV's audio and video settings are automatically reset every 5 minutes.</p> <p>Change <b>Usage Mode</b> to <b>Home Mode</b>.</p> <ul style="list-style-type: none"> <li>•  &gt;  <b>Settings</b> &gt; <b>General</b> &gt; <b>System Manager</b> &gt; <b>Usage Mode</b></li> </ul>
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.
PIP is not available.	<p>PIP is available only when an external device is connected with an HDMI or Component cable.</p> <p>Note that the function is unavailable when the Smart Hub is active.</p>
A POP (TV's internal banner ad) appears on the screen.	<p>Change <b>Usage Mode</b> to <b>Home Mode</b>.</p> <ul style="list-style-type: none"> <li>•  &gt;  <b>Settings</b> &gt; <b>General</b> &gt; <b>System Manager</b> &gt; <b>Usage Mode</b></li> </ul>
The TV is making a popping noise.	<p>The expansion and contraction of the TV's outer casing may cause a popping noise. This does not indicate a product malfunction.</p> <p>The TV is safe to use.</p>
The TV is making a humming noise.	<p>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.</p> <p>Your TV has undergone strict quality control procedures that meet our demanding performance and reliability requirements.</p> <p>Some noise coming from the TV is considered normal and is not an acceptable cause for an exchange or refund.</p>
The software update over the Internet has failed.	<p>Check the network connection status.</p> <ul style="list-style-type: none"> <li>•  &gt;  <b>Settings</b> &gt; <b>General</b> &gt; <b>Network</b> &gt; <b>Network Status</b></li> </ul> <p>If the TV is not connected to a network, connect it to a network.</p> <p>The upgrade stops if you already have the latest software version.</p>









# 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 reset functions.

- [Start Picture Test](#)
- [Start Sound Test](#)
- [Signal Information](#)
- [TV Device Manager](#)
- [Start Smart Hub Connection Test](#)
- [Reset Smart Hub](#)

The problem	Try this!
Cannot select <a href="#">Signal Information</a> in <a href="#">Self Diagnosis</a> .	Verify that the current channel is a digital channel. <a href="#">Signal Information</a> is only available for digital channels. <ul style="list-style-type: none"><li>•  &gt;  <a href="#">Settings</a> &gt; <a href="#">Support</a> &gt; <a href="#">Self Diagnosis</a> &gt; <a href="#">Signal Information</a></li></ul>
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. <ul style="list-style-type: none"><li>•  &gt;  <a href="#">Settings</a> &gt; <a href="#">Support</a> &gt; <a href="#">Self Diagnosis</a> &gt; <a href="#">Reset Smart Hub</a></li></ul>
Reset picture	Resets current picture settings to the default settings. <ul style="list-style-type: none"><li>•  &gt;  <a href="#">Settings</a> &gt; <a href="#">Picture</a> &gt; <a href="#">Expert Settings</a> &gt; <a href="#">Reset Picture</a></li></ul>
Reset sound	Resets current sound settings to the default settings. <ul style="list-style-type: none"><li>•  &gt;  <a href="#">Settings</a> &gt; <a href="#">Sound</a> &gt; <a href="#">Expert Settings</a> &gt; <a href="#">Reset Sound</a></li></ul>

# 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.




 You can also start **Remote Management** function by pressing and holding the  button for 5 or more seconds.

## 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. For the standard remote control, press and hold the  (Play) button for 5 or more seconds. Continue holding the button until the customer information pop-up window appears.

## 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, enter the required item, move the focus to **Next**, and then press the Select button. Select **Request Now** > **Send** or **Schedule Appointment** > **Request** > **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 may not be supported depending on the geographical area.

 This function requires an Internet connection.

# 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 may not be supported depending on the model or geographical area.


## Before using the recording and schedule recording functions

 Recording may not be supported depending on the model or geographical area.

- 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.
- If the **Sleep Timer** or **Auto Power Off** has been set, the TV will override these settings, continue to record, and turn off after the recording has ended.
  -  >  **Settings** > **General** > **System Manager** > **Time** > **Sleep Timer**
  -  >  **Settings** > **General** > **Eco Solution** > **Auto Power Off**




## Before using the timeshift function

-  Timeshift may not be supported depending on the model or geographical area.
- 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

Check the 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
	NICAM Dual	Mono, NICAM Dual-1, NICAM Dual-2	NICAM Dual-1

-  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.

- If you want to download new apps using [APPS](#), first sign in to your Samsung account.
- 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 Function


Read this information before using the Internet.

- File download is not supported.
  - The **Internet** function may not be able to access certain websites, including websites operated by certain companies.
  - The TV does not support playback of flash videos.
  - E-commerce for online purchases is not supported.
  - 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 depending on the status of the participating systems.
  - 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 is limited.
  - Web browsing speed will differ with the network environment.
  - Embedded videos in a web page cannot be played at the same time while the PIP (picture-in-picture) function is operating.
-  This function may not be supported depending on the model or geographical area.
- Browsing history is saved from latest to oldest, with the oldest entries being overwritten first.
  - Depending on the types of video/audio codecs supported, you may not be able to play certain HTML5 video and audio files.
  - Video sources from PC-optimised streaming service providers may not play properly on our proprietary **Internet** browser.



# 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.
-  Some of the IEEE 802.11 communication protocols may not be supported depending on the model or geographical area.
- To use wireless Internet, the TV must be connected to a wireless access point or modem. If the wireless access point 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 access point. If the channel set is currently being used by the wireless access point to communicate with 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 access point.

## Wireless security protocols

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

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

In compliance with the 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 access point 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 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 5V1A) 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 (HDD 5V1A) port.
- The TV supports the FAT, exFAT, and NTFS file systems.
- In the media contents list, 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.
- The DivX and DTS codecs are not supported by the Samsung TV models released in 2019.

## Supported subtitles

### Subtitle formats

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

### Video formats with 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 9024
*.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	WMA is supported up to 10 Pro 5.1 channels. WMA lossless audio is not supported.
*.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 (RU8 series or higher, QLED TV, The Serif, The Frame)

 For Q50R model, refer to "Supported video codecs (Q50R model, RU7 series or lower)".

File format	Container	Video codecs	Resolution	Frame rate (fps)	Bitrate (Mbps)	Audio codecs	
*.avi *.mkv *.asf *.wmv *.mp4 *.mov *.3gp *.vro *.mpg *.mpeg *.ts *.tp *.trp *.flv *.vob *.svi *.m2ts *.mts	AVI MKV ASF MP4 3GP MOV FLV VRO VOB PS TS SVAF	H.264 BP/MP/HP	4096 x 2160	4096 x 2160: 30 3840 x 2160: 60	60	Dolby Digital LPCM ADPCM(IMA, MS) AAC HE-AAC WMA Dolby Digital+ MPEG(MP3) MPEG-H AC-4 G.711(A-Law, $\mu$ -Law) OPUS	
		HEVC (H.265 - Main, Main10)		60	80		
		Motion JPEG	3840 x 2160	30	80		
		MVC	1920 x 1080	60	20		
		MPEG4 SP/ASP					
		Window Media Video v9 (VC1)					
		MPEG2					
		MPEG1					
		Microsoft MPEG-4 v1, v2, v3					30
		Window Media Video v7 (WMV1), v8 (WMV2)					
		H.263 Sorrenson					
		VP6					
		*.webm					WebM
VP9 (Profile 0, profile 2 supported)	3840 x 2160		3840 x 2160: 60	80			
*.rmvb	RMVB	RV8/9/10 (RV30/40)	1920 x 1080	60	20	RealAudio 6	

## Supported video codecs (Q50R model, RU7 series or lower)

File format	Container	Video codecs	Resolution	Frame rate (fps)	Bitrate (Mbps)	Audio codecs	
*.avi *.mkv *.asf *.wmv *.mp4 *.mov *.3gp *.vro *.mpg *.mpeg *.ts *.tp *.trp *.flv *.vob *.svi *.m2ts *.mts	AVI MKV ASF MP4 3GP MOV FLV VRO VOB PS TS SVAF	H.264 BP/MP/HP	4096 x 2160	4096 x 2160: 30 3840 x 2160: 60	60	Dolby Digital LPCM ADPCM(IMA, MS) AAC HE-AAC WMA  Dolby Digital+ MPEG(MP3)  MPEG-H AC-4 G.711(A-Law, $\mu$ -Law)  OPUS	
		HEVC (H.265 - Main, Main10)	3840 x 2160	60	80		
		Motion JPEG	3840 x 2160	30	80		
		MVC	1920 x 1080	60	20		
		MPEG4 SP/ASP					
		Window Media Video v9 (VC1)					
		MPEG2					
		MPEG1					
		Microsoft MPEG-4 v1, v2, v3					
		Window Media Video v7 (WMV1), v8 (WMV2)					30
		H.263 Sorrenson					
		VP6					
*.webm	WebM	VP8				1920 x 1080	60
		VP9 (Profile 0, profile 2 supported)	3840 x 2160	3840 x 2160: 60	80		
*.rmvb	RMVB	RV8/9/10 (RV30/40)	1920 x 1080	60	20	RealAudio 6	

## 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 UHD is supported up to Level 5.1, and H.264 FHD is supported up to Level 4.1. (TV does not support FMO / ASO / RS)
- HEVC UHD is supported up to Level 5.1, and HEVC FHD is supported up to Level 4.1.
- VC1 AP L4 is not supported.
- GMC 2 or above is not supported.

## Audio decoders

- WMA is supported up to 10 Pro 5.1 channels.
- WMA1, WMA lossless / Voice are not supported.
- QCELP and AMR NB / WB are not supported.
- Vorbis is supported for up to 5.1 channels.
- Dolby Digital+ is supported for up to 5.1 channels.
- The supported sample rates are 8, 11.025, 12, 16, 22.05, 24, 32, 44.1, and 48 KHz, and differ with the codec.

## Supported video codecs (Q900RB model)

File format	Container	Video codecs	Resolution	Frame rate (fps)	Bitrate (Mbps)	Audio codecs
*.avi *.mkv *.asf *.wmv *.mp4 *.mov *.3gp *.vro *.mpg *.mpeg *.ts *.tp *.trp *.flv *.vob *.svi *.m2ts *.mts	AVI MKV ASF MP4 3GP MOV FLV VRO VOB PS TS SVAF	H.264 BP/MP/HP	4096 x 2160	4096 x 2160: 30 3840 x 2160: 60	60	Dolby Digital LPCM ADPCM(IMA, MS) AAC HE-AAC WMA Dolby Digital+ MPEG(MP3) MPEG-H AC-4 G.711(A-Law, $\mu$ -Law) OPUS
		HEVC (H.265 - Main, Main10)	7680 x 4320	60	100	
		Motion JPEG	3840 x 2160	30	80	
		MVC	1920 x 1080	60	20	
		MPEG4 SP/ASP				
		Window Media Video v9 (VC1)				
		MPEG2				
		MPEG1				
		Microsoft MPEG-4 v1, v2, v3				
		Window Media Video v7 (WMV1), v8 (WMV2)				
		H.263 Sorrenson				
		VP6				
VP8	1920 x 1080	60				20
VP9 (Profile 0, profile 2 supported)	3840 x 2160	3840 x 2160: 60	80			
*.rmvb	RMVB	RV8/9/10 (RV30/40)	1920 x 1080	60	20	RealAudio 6

 Because the specifications are based on the current 8K connectivity and decoding standards, future connectivity, broadcasting, and decoding standards may not be supported. Upgrading for meeting future standards may require purchase of additional devices.

 Some 3rd party standards may not be supported.



## 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 UHD is supported up to Level 5.1, and H.264 FHD is supported up to Level 4.1. (TV does not support FMO / ASO / RS)
- HEVC UHD is supported up to Level 5.1, and HEVC FHD is supported up to Level 4.1.
- HEVC 8K is supported up to Level 6.1.
- VC1 AP L4 is not supported.
- GMC 2 or above is not supported.

## Audio decoders

- WMA is supported up to 10 Pro 5.1 channels.
- WMA1, WMA lossless / Voice are not supported.
- QCELP and AMR NB/WB are not supported.
- Vorbis is supported for up to 5.1 channels.
- Dolby Digital+ is supported for up to 5.1 channels.
- 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** is applied to the current source. The applied **Picture Size** 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
Digital channel (3840 x 2160p @ 24/30 Hz)	16:9 Standard, Custom
Digital channel (3840 x 2160p @ 50/60 Hz)	16:9 Standard, Custom
Digital channel (4096 x 2160p)	16:9 Standard, Custom
HDMI (720p)	16:9 Standard, Custom, 4:3
HDMI (1080i, 1080p)	16:9 Standard, Custom, 4:3
HDMI (3840 x 2160p)	16:9 Standard, Custom
HDMI (4096 x 2160p)	16:9 Standard, Custom
*HDMI (7680 x 4320p)	16:9 Standard, Custom
USB (720p)	16:9 Standard, Custom, 4:3
USB (1080i/p @ 60 Hz)	16:9 Standard, Custom, 4:3
USB (3840 x 2160p @ 24/30 Hz)	16:9 Standard, Custom
USB (3840 x 2160p @ 60 Hz) USB (4096 x 2160p @ 24/30/60 Hz)	16:9 Standard, Custom
*USB (7680 x 4320p @ 24/30/60 Hz)	16:9 Standard, Custom

 \*: This input signal is supported by Q900RB model.

 The input ports for external devices may differ depending on the model and geographical area.

## 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 model. Refer to the lock's user manual for more information.

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

## Supported Resolutions for UHD Input Signals

Check the supported resolution for UHD input signals.

- Resolution: 3840 x 2160p, 4096 x 2160p

### If Input Signal Plus is set to Off

Frame rate (fps)	Colour Depth / Chroma Sampling	RGB 4:4:4	YCbCr 4:4:4	YCbCr 4:2:2	YCbCr 4:2:0
50 / 60	8 bit	-	-	-	0

## If Input Signal Plus is set to On

- For One Connect unsupported models:

Frame rate (fps)	Colour Depth / Chroma Sampling	RGB 4:4:4	YCbCr 4:4:4	YCbCr 4:2:2	YCbCr 4:2:0
50 / 60	8 bit	0	0	0	0
	10 bit	-	-	0	0
	12 bit	-	-	0	0

- For One Connect supported models:

Frame rate (fps)	Colour Depth / Chroma Sampling	RGB 4:4:4	YCbCr 4:4:4	YCbCr 4:2:2	YCbCr 4:2:0
50 / 60	8 bit	0	0	0	0
	10 bit	*0	*0	0	0
	12 bit	-	-	0	0
120	10 bit	-	-	-	*0



\*: These specifications are supported for the HDMI 4 port.

# Resolutions for Input Signals supported by Q900RB model

Check the resolutions for input signals supported by Q900RB model.

## If Input Signal Plus is set to On

- 3840 x 2160

Frame rate (fps)	Colour Depth / Chroma Sampling	RGB 4:4:4	YCbCr 4:4:4	YCbCr 4:2:2	YCbCr 4:2:0
50 / 60	8 bit	0	0	0	0
	10 bit	*0	*0	0	0
	12 bit	-	-	0	0
120	10 bit	*0	*0	*0	*0

 \*: These specifications are supported for the HDMI 4 port.

- 7680 x 4320

Frame rate (fps)	Colour Depth / Chroma Sampling	RGB 4:4:4	YCbCr 4:4:4	YCbCr 4:2:2	YCbCr 4:2:0
24 / 30	8 bit / 10 bit	*0	*0	*0	*0
50 / 60	8 bit / 10 bit	-	-	-	*0

 \*: These specifications are supported for the HDMI 4 port. Use an HDMI cable that supports these specifications.

# Supported Resolutions for FreeSync

Check the supported resolutions for the FreeSync function.

- Settings of FreeSync mode: **Off** / **Ultimate** (48~120 Hz) / **Basic** (90~120 Hz)



The supported FreeSync modes may differ depending on the external device.



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

- For One Connect unsupported models:

Resolution (Dots x lines)	Display format	Horizontal frequency (KHz)	Vertical frequency (Hz)	Clock frequency (MHz)	SCAN
1920 x 1080	120 Hz	135.000	120.000	297.000	progressive
2560 x 1440	120 Hz	150.000	120.000	495.000	progressive


- For One Connect supported models:

Resolution (Dots x lines)	Display format	Horizontal frequency (KHz)	Vertical frequency (Hz)	Clock frequency (MHz)	SCAN
1920 x 1080	120 Hz	135.000	120.000	297.000	progressive
2560 x 1440	120 Hz	150.000	120.000	495.000	progressive
3840 x 2160	60 Hz	135.000	60.000	594.000	progressive
4096 x 2160	60 Hz	135.000	60.000	594.000	progressive

# 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 pages. The TV will automatically adjust to the resolution you choose. Note that the optimal and recommended resolutions are 3840 x 2160 at 60 Hz (UHD model series) and 7680 x 4320 at 60 Hz (Q900RB model). 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.

 The native resolutions are 3840 x 2160 at 60 Hz (UHD model series) and 7680 x 4320 at 60 Hz (Q900RB model) with the **Input Signal Plus** set to **On**. The native resolution is 3840 x 2160 at 30 Hz with the **Input Signal Plus** set to **Off**.

## 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	+ / +
1440 x 900	60 Hz	55.935	59.887	106.500	- / +
1600 x 900	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	+ / +



## VESA CVT

Resolution (Dots x lines)	Display format	Horizontal frequency (KHz)	Vertical frequency (Hz)	Clock frequency (MHz)	Polarity (horizontal / vertical)
2560 x 1440	60 Hz	88.787	59.951	241.500	+ / -
2560 x 1440	120 Hz	192.996	119.998	497.750	+ / -

 The resolution may not be supported depending on the model.

## CTA-861

Resolution (Dots x lines)	Display format	Horizontal frequency (KHz)	Vertical frequency (Hz)	Clock frequency (MHz)	Polarity (horizontal / vertical)
*1920 x 1080	100 Hz	112.500	100.000	297.000	+ / +
*1920 x 1080	120 Hz	135.000	120.003	297.000	+ / +
3840 x 2160	30 Hz	67.500	30.000	297.000	- / -
*3840 x 2160	60 Hz	135.000	60.000	594.000	- / -
*3840 x 2160	100 Hz	225.000	100.000	1188.000	+ / +
*3840 x 2160	120 Hz	270.000	120.000	1188.000	+ / +
4096 x 2160	24 Hz	54.000	24.000	297.000	+ / +
4096 x 2160	25 Hz	56.250	25.000	297.000	+ / +
4096 x 2160	30 Hz	67.500	30.000	297.000	+ / +
*4096 x 2160	50 Hz	112.500	50.000	594.000	+ / +
*4096 x 2160	60 Hz	135.000	60.000	594.000	+ / +
*4096 x 2160	100 Hz	225.000	100.000	1188.000	+ / +
*4096 x 2160	120 Hz	270.000	120.000	1188.000	+ / +
*7680 x 4320	24 Hz	108.000	24.000	1188.000	+ / +
*7680 x 4320	30 Hz	132.000	30.000	1188.000	+ / +
*7680 x 4320	50 Hz	220.000	50.000	2376.000	+ / +
*7680 x 4320	60 Hz	264.000	60.000	2376.000	+ / +

 \*: The resolution may not be supported depending on the model.

# Supported Resolutions for Video Signals

Check the supported resolution for video signals.

## CTA-861

Resolution (Dots x lines)	Display format	Horizontal frequency (KHz)	Vertical frequency (Hz)	Clock frequency (MHz)	Polarity (horizontal / vertical)
720 (1440) x 576i	50 Hz	15.625	50.000	27.000	- / -
720 (1440) x 480i	60 Hz	15.734	59.940	27.000	- / -
720 x 576	50 Hz	31.250	50.000	27.000	- / -
720 x 480	60 Hz	31.469	59.940	27.000	- / -
1280 x 720	50 Hz	37.500	50.000	74.250	+ / +
1280 x 720	60 Hz	45.000	60.000	74.250	+ / +
1920 x 1080i	50 Hz	28.125	50.000	74.250	+ / +
1920 x 1080i	60 Hz	33.750	60.000	74.250	+ / +
1920 x 1080	24 Hz	27.000	24.000	74.250	+ / +
1920 x 1080	25 Hz	28.125	25.000	74.250	+ / +
1920 x 1080	30 Hz	33.750	30.000	74.250	+ / +
1920 x 1080	50 Hz	56.250	50.000	148.500	+ / +
*1920 x 1080	100 Hz	112.500	100.000	297.000	+ / +
*1920 x 1080	120 Hz	135.000	120.003	297.000	+ / +
1920 x 1080	60 Hz	67.500	60.000	148.500	+ / +
3840 x 2160	24 Hz	54.000	24.000	297.000	+ / +
3840 x 2160	25 Hz	56.250	25.000	297.000	+ / +
3840 x 2160	30 Hz	67.500	30.000	297.000	+ / +
*3840 x 2160	50 Hz	112.500	50.000	594.000	+ / +
*3840 x 2160	60 Hz	135.000	60.000	594.000	+ / +
*3840 x 2160	100 Hz	225.000	100.000	1188.000	+ / +
*3840 x 2160	120 Hz	270.000	120.000	1188.000	+ / +

Resolution (Dots x lines)	Display format	Horizontal frequency (KHz)	Vertical frequency (Hz)	Clock frequency (MHz)	Polarity (horizontal / vertical)
4096 x 2160	24 Hz	54.000	24.000	297.000	+ / +
4096 x 2160	25 Hz	56.250	25.000	297.000	+ / +
4096 x 2160	30 Hz	67.500	30.000	297.000	+ / +
*4096 x 2160	50 Hz	112.500	50.000	594.000	+ / +
*4096 x 2160	60 Hz	135.000	60.000	594.000	+ / +
*4096 x 2160	100 Hz	225.000	100.000	1188.000	+ / +
*4096 x 2160	120 Hz	270.000	120.000	1188.000	+ / +
*7680 x 4320	24 Hz	108.000	24.000	1188.000	+ / +
*7680 x 4320	30 Hz	132.000	30.000	1188.000	+ / +
*7680 x 4320	50 Hz	220.000	50.000	2376.000	+ / +
*7680 x 4320	60 Hz	264.000	60.000	2376.000	+ / +

 \*: The resolution may not be supported depending on the model.

## VESA CVT

Resolution (Dots x lines)	Display format	Horizontal frequency (KHz)	Vertical frequency (Hz)	Clock frequency (MHz)	Polarity (horizontal / vertical)
2560 x 1440	60 Hz	88.787	59.951	241.500	+ / -
2560 x 1440	120 Hz	192.996	119.998	497.750	+ / -

 The resolution may not be supported depending on the model.

# Read Before Using Bluetooth Devices

Read this information before using a Bluetooth device.

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

## Restrictions on using Bluetooth

- You can't use Bluetooth devices and the [Wi-Fi Speaker Surround Setup](#) 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, we recommend you use a wired connection.
  - DIGITAL AUDIO OUT (OPTICAL) port
  - HDMI (ARC) port

 The HDMI (ARC) port may support eARC in some models.

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# 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

You can see the description of the buttons on the Samsung Smart Remote.

 The Samsung Smart Remote may not be supported depending on the model or geographical area.












## 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.

## Description of the Samsung Smart Remote

 The images, buttons, and functions of the Samsung Smart Remote may differ with the model or geographical area.





From top to bottom and left to right:

- The  or  button is at the top left.
- There is a small LED(microphone) at the right side of the  or  button, but you cannot find it by touching with hand.
- Below the LED is a round button which is the  button.
- Of the two buttons below the  button on the Samsung Smart Remote that comes with the QLED TV (except for Q50R model) and The Serif, the left one is the  button and the right one the  button.
- Of the two buttons below the  button on the Samsung Smart Remote that comes with the UHD TV or The Frame or Q50R model, the left one is the  button and the right one the  button.

- If you press the  button twice or press the  button while viewing a programme, red, green, yellow, blue, and **More** options appear. Press the Select button. Then the **Record**, **Timeshift**, **Stop** (when Record or Timeshift is running), **Info**, and **Move to the top** (or **Move to the bottom**) options appear.

 Select the **Move to the top** button to move the menu to the top.


 This function may not be supported depending on the geographical area.

- Underneath these two buttons are a round button and a large outer circle button. The round button is the Select button, and the large outer circle button consists of 4 directional buttons (up / down / left / right).
- Underneath the directional button are two buttons on the left and right hand sides and another button at the centre. The one on the left is the  button and the one on the right is the  button. The round button in the middle is the  button.
- If you press the  button while watching a TV programme, the screen you are watching stops and a control bar appears. You can select **Rewind**, **Play**, **Pause**, **Fast Forward**, **Stop Timeshift**, **Record**, **Go to Live TV**, or **Info**. You can press the up directional button to go to the playback screen and check the time that the actual broadcast programme is running and the timeshift time.

 You can use the **Slow Rewind** or **Slow Forward** functions when you select the **Pause** option.

 To use Record or Timeshift, you must connect a USB device.

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

- Underneath the  button are two thin horizontal buttons. These are more protruded than the other buttons on the remote control. 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 the channel or volume.
  - Briefly press the VOL button to mute the sound.
  - Press and hold the VOL button to open the **Accessibility Shortcuts** menu.
  - Briefly press the CH button to open the **Guide**.
  - Press and hold the CH button to open the **Channel List**.

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



# Using the accessibility menu

View how to running the Accessibility menu functions and description of its functions.

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

## Running the Accessibility Shortcuts menu

You can turn on or turn off the accessibility functions such as [Voice Guide](#), [Audio Description](#), [Subtitle](#), [High Contrast](#), [Enlarge](#), [Greyscale](#), [Colour Inversion](#), [Learn TV Remote](#), [Menu Learning Screen](#), [Multi-output Audio](#), [Sign Language Zoom](#), [Slow Button Repeat](#), and you can move to the [Learn TV Remote](#) and [Menu Learning Screen](#) pages.

- Samsung Smart Remote

On the Samsung Smart Remote, there are two thin horizontal rocker buttons next to each other located slightly below the middle of the remote. The one on the left is the volume button. Press and hold the volume button to open the [Accessibility Shortcuts](#) menu.

Even if the [Voice Guide](#) is set to [Off](#) or muted, when you press and hold the volume button, the voice guide for [Accessibility Shortcuts](#) is enabled.

 [Learn TV Remote](#) and [Menu Learning Screen](#) are only available when [Voice Guide](#) is set to [On](#).

- Standard remote control



Press the AD/SUBT. button or press and hold the MUTE button to open the [Accessibility Shortcuts](#) menu.

## Running the Accessibility menu functions using the General menu

 >  **Settings** > **General** > **Accessibility**

You can also go to the **Accessibility** menu from the TV settings menu. This provides more options, for example, to change the speed of Voice Guide.



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

1. Press the  button.
2. Press the left directional button until you reach  **Settings**.
3. Press the Select button to open the TV's **Settings** menu.
4. Press the down directional button to reach **General**, and then press the Select button to open this menu.
5. Use the directional buttons to go to the **Accessibility** menu, and then press the Select button to open this menu.
6. The menu will appear with **Voice Guide Settings** as the first selection. Highlight **Voice Guide Settings**, and then press the Select button.
7. A menu appears with the options to change **Voice Guide** and **Volume, Speed, Pitch**.
8. Select the menu using the directional buttons, and then press the Select button.




## Running the Accessibility menu functions using Bixby

To use Bixby, the TV must be set up and tuned and must be connected to the Internet. You can connect the TV to the Internet during the initial setup or do it later through the settings menu.

There are many commands you can say to control the TV. These can be used together with **Voice Guide** to give you voice input and voice output. You can use the Samsung Smart Remote but the TV must be connected to the Internet.

To speak a command, press and hold the  button (located near the top of the Samsung Smart Remote, directly below the LED power indicator and above the directional button) and 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".
- 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".

## Learning about the Accessibility menu functions

- **Voice Guide Settings**

This function works on every screen on the TV and when turned on verbally tells you what the TV's current settings are and verbally provides details about the programme you are watching. For example, it tells you the selected volume and the current channel and gives you programme information. It also reads out the programme information from the **Guide** screen.

- **Audio Description Settings**

You can activate an audio guide that provides an audio description of video scenes for the visually impaired. This function is only available with broadcasts that provide this service.

- **High Contrast**

To display all menus with an opaque black background and a white font, providing maximum contrast.

- **Greyscale**

You can change the colour of the TV screen to black and white to sharpen blurred edges caused by colours.

 If **Greyscale** is on, some **Accessibility** menus are not available.

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

- **Colour Inversion**

You can invert the colours of the text and background displayed on the TV screen to make it easier to read the text.

 If **Colour Inversion** is on, some **Accessibility** menus are not available.

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

- **Enlarge**

You can enlarge important elements on the menu such as the names of programmes.

- **Learn TV Remote**

Learn the names and functions of the buttons on 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 remote without affecting normal TV operation. Press the button twice to exit **Learn TV Remote**.

- **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.

- **Subtitle Settings**

You can view the subtitle in programmes that provide broadcast subtitles.

- **Multi-output Audio**

You can turn on both the TV speaker and Bluetooth headphone designed for the hearing impaired at the same time. The hearing impaired can then set the volume of their Bluetooth headphone higher than the volume of the TV speaker without affecting the volume of the TV speaker, allowing both the hearing impaired and their families to listen to the TV at comfortable sound levels.



When you connect the Bluetooth headphone to the TV, **Multi-output Audio** is activated.



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

- **Sign Language Zoom Settings**

You can zoom in the sign language screen when the programme you are watching provides it.

- **Remote Button Repeat Settings**

You can configure the operation speed of the remote control buttons so that they slow down when you continually press and hold them.


# Using the TV with Voice Guide on

Turn on Voice Guide that describes the menu options aloud to aid the visually impaired.

## Changing channel

You can change the channel in three of ways. Every time you change channels, the new channel details will be announced. The ways to change the channel are below.



- **Channel List** ( > **Live TV** > **Channel List**)

Press the  button. The Smart Hub home screen appears. Use the left or right directional buttons to move to **Live TV**, press the up directional button to move to the top row, press the right directional button to move to **Channel List**, and then press the Select button. When **Channel List** is displayed, use the up or down directional buttons to move to the desired channel, and then press the Select button.

- CH button



Of the two buttons that protrude from the centre of the Samsung Smart Remote, the right one is the CH button. Push up or pull down the CH button to change the channel. Press the up or down of CH button on the standard remote control to change the channel.

- Number button

Use the  or  button on the Samsung Smart Remote to open the virtual numeric pad, enter a number, and then select **Done**. On the standard remote control, press the numeric buttons to enter a channel number.

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

Use the virtual numeric pad to enter numbers e.g. to enter a channel number or to enter a PIN.

Press the  or  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: Colour pad, TTX/MIX, **1, 2, 3, 4, 5, 6, 7, 8, 9, 0**, -(dash), Delete, **Move to the top** (or **Move to the bottom**)

 The menus may not appear depending on the model or geographical area.

- The top row has one option, **Done**.

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

Use the left and right directional buttons to move along the row, and then press the Select button to choose the numeric pad. When you have finished selecting all the numbers you need (for example, 123), press the up directional button to move to the **Done** option, and then press the Select button to finish.

When entering a channel number, you can enter the number, and then select the **Done** option 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


Point the Samsung Smart Remote at the remote control sensor of the TV, and then move the VOL button up or down to adjust the volume on the TV. Every time you change the volume, the new volume level will be announced.

- Samsung Smart Remote  
Of the two buttons that protrude from the centre of the Samsung Smart Remote, the left one is the VOL button. Push up or pull down the VOL button to change the volume.
- Standard remote control  
Press the up or down of VOL button on the standard remote control to adjust the volume.

## Using programme information

When watching TV, press the Select button to view programme information which appears at the top of the screen. Voice Guide will say programme subtitles or audio descriptions if they are available. To view more detailed programme information, press and hold the Select button. Voice Guide will say more details such as a synopsis of the programme.

Press the left or right directional button to see what you can watch next on the same channel. Press the up or down directional button to move to other channels and see which programmes are currently being broadcast on them.

Press  to go back or close the programme details.

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

# Using the guide


See an overview of each channel's programme lineup.

When you want to know the programme information for each channel while watching a broadcast programme, press the CH button on the Samsung Smart Remote. Use the directional buttons to view the programme information.

 On standard remote control, press the GUIDE button.




 > [Live TV](#) > [Guide](#)

You can see the daily programme schedules for each broadcaster and programme information in the [Guide](#). You can select programmes to schedule for viewing or recording.



You can also open the [Guide](#) using Bixby. Press and hold the  button on your Samsung Smart Remote, and then say "Guide".

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

 The information in the [Guide](#) is for digital channels only. Analogue channels are not supported.




 If the [Clock](#) is not set, the Guide is not provided. Set the [Clock](#) first. ( >  [Settings](#) > [General](#) > [System Manager](#) > [Time](#) > [Clock](#))

If you need to set the clock again, follow the instructions below.

1. Press the  button to open Smart Hub.
2. Press the left directional button to move to  [Settings](#).
3. Press the Select button to open the TV's [Settings](#) menu.
4. Use the up and down directional buttons to move to the [General](#) menu, and then press the Select button.
5. Use the up and down directional buttons to move to the [System Manager](#) menu, and then press the Select button.
6. Select the [Time](#) menu, and then press the Select button.
7. Select the [Clock](#) menu, and then press the Select button.
8. Select the [Clock Mode](#) menu, press the Select button, and then select [Auto](#) or [Manual](#).

 If you select [Manual](#), you can move to the [Date](#) or [Time](#) menu below to set the time.

When you open the **Guide**, a table grid of channels and programmes is displayed. The top row displays **Filter By : All** 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 directional buttons to move between channels and use the left and right directional buttons move to between programmes at different times within a channel. You can also use the  or  button to enter a channel number and go to that channel directly. You can use the  button to move to the programme currently broadcasting.


When you move the focus to a programme, you will hear the detailed information about the selected programme. When you move the focus to a different channel, you will hear the channel name and number, and 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

In the **Guide**, move to the programme currently broadcasting, and then press the Select button to go to live TV on the selected channel and programme.

## Other options in the guide

In the **Guide**, move to a broadcast scheduled programme, and then press the Select button. A pop-up menu listing the functions below appears.

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

 For the programme you are currently watching, press and hold the Select button.

- **Record**

You can record the programme that you are currently watching or a programme on another channel.

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

- **Stop**

You can stop the recording function that is currently running.



- **Edit Recording Time**

You can change the start and end times of scheduled programme recordings.

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

- **Schedule Viewing**

You can schedule the viewing of a broadcast scheduled programme.

- **Schedule Recording**

You can schedule recording of a broadcast scheduled programme.

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

 For more information on [Schedule Recording](#), refer to "[Recording](#)".

- **Cancel Scheduled Viewing / Cancel Scheduled Recording**

You can cancel your scheduled viewings and recordings.

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


- **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 the Select button on the [View Details](#) option. This will open the Details pop-up window for that programme which will display a synopsis. The details pop-up window contains detailed information and the [OK](#) option. After reading the detailed information, press the Select button on the remote control to close the pop-up window.

# Using 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.

 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

You can set up a schedule viewing on two screens.

- **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 the Select button. You can schedule watching the programme by selecting [Schedule Viewing](#).

## Cancelling a scheduled viewing

You have two ways to cancel a scheduled viewing.

- **Cancelling a scheduled viewing from the Guide**

In the [Guide](#) ( > [Live TV](#) > [Guide](#)), move to the programme for which you want to cancel scheduled viewing, and press the Select button. Move to [Cancel Scheduled Viewing](#), and then press the Select button. When a pop-up message asking you to cancel the selected schedule viewing appears, select [Yes](#). The selected scheduled viewing is cancelled and the screen returns to the [Guide](#) screen.


- Cancelling a scheduled viewing from Smart Hub
  1. Press the  button to open Smart Hub, and then press the left or right directional button to move to **Live TV**. Press the up directional button to move to the top row, and then press the left or right directional button to move to **Schedule Manager** or **Recordings**.
  2. Press the Select button to open **Schedule Manager** or **Recordings**.
    -  If the TV supports the **Recordings** function, press the directional buttons to move to **Schedules**.
  3. Use the down directional button to move to the list of programmes scheduled to view.
  4. Use the right directional button to move to the **Delete** option, and then press the Select button to delete the selected item.
    -  The menus may not appear depending on the model or geographical area.



## 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. The Smart Hub home screen appears. Use the left or right directional buttons to move to **Live TV**, press the up directional button to move to the top row, press the right directional button 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 directional buttons to move within the channel list (or use the CH button to go up and down a page at a time). You can also use the  or  button to enter a channel number and go to that channel directly.

Press the right directional button in the **Channel List** to move to the Category list. Use the up and down directional buttons to move within this list. Press the Select button to choose a category you want from the Category list. The Category list contains **All**, **Samsung TV Plus**, **Favourites** and **Terrestrial, Cable**, or **Satellite**. Use the up and down directional buttons to move to a channel you want to view, and then press the Select button.

- **All**
  - Displays the channels that have been automatically searched.

 The channels received to the currently selected **Terrestrial, Cable**, or **Satellite** are displayed.

- **Samsung 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 **Samsung TV Plus**.

- **Favourites**

Displays **Favourites 1** to **Favourites 5**. Use the up and down directional buttons to move between the lists of favourites. Highlight the one you want, and then press the Select button. 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 type. However, **Channel Type** can only be used channels contain the type information.

 This function may not be supported depending on the incoming broadcast signal.

- **Sort**

Sorts the list by **Number** or by **Name**.

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

- **Terrestrial, Cable, or Satellite**



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

 This function may not be supported depending on the incoming broadcast signal.

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

# Recording

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



-  This function may not be supported depending on the model or geographical area.
-  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 directional buttons to move to **Record**. Press the Select button to record the programme. You will be returned to the programme guide. Recording automatically ends at the time when the programme ends.

To stop recording, press the down directional button while the programme being recorded is displayed. The control bar appears. Move the focus to **Stop Recording**, and then press the Select button. When a popup window appears, select **Stop**.

To record a programme that is on later, move to the required programme in the **Guide**, and then press and hold the Select button. You will get a pop-up menu. Use the up and down directional button to move within this menu. Move to the **Schedule Recording**, and then press and hold the Select button. 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 the Select button on the programme. If it is already set to record then the option on the menu will be **Cancel Scheduled Recording**. You can press the Select button to cancel the scheduled recording or just press  button to go back to the programme guide without cancelling the recording.

## Recording the programme you are watching

To display a menu for recording a programme or starting the Timeshift function, press the  button twice or press the  button and then press the Select 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 Timeshift function that is running.
- **Info**  
Displays the details about the programme you are watching.

## Scheduling recording from the programme info window

Press the Select button while viewing a programme to display the programme info window. In the programme info window, use the left and right directional buttons to select a broadcast scheduled programme, and then press the Select button. To schedule a recording for the programme, select **Schedule Recording**.

## Changing the recording time


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

Press the down directional button to display the control bar at the bottom. Press the left or right directional buttons 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 directional buttons 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.

 The maximum recording time differs depending on the capacity of the USB device.

## Viewing recorded programmes

 > [Live TV](#) > [Schedule Manager](#) or [Recordings](#) > [Recordings](#)

Open the Smart Hub by pressing the  button on the remote control. Use the left or right directional button to move the focus to [Live TV](#). Press the up directional button to move to the top row, and then use the left or right directional button to move to [Recordings](#).

To play a programme use the up and down directional buttons to move between programme titles and then you can press the Select button to play the programme or press the right directional button to move to a list of options. Use the up and down directional buttons to move between the options in this list to play the programme, 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 directional buttons to move to the required option and press the Select button.

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

## Deleting a recorded programme

To delete a recorded programme go to the list of [Recordings](#). Use the up and down directional buttons to move to the recording you want to delete.


Press the right directional button to move to a list of 3 options. Press the down directional button to move to the [Delete](#) option and press the Select button.











You will be asked if you want to remove the selected item. Press the left directional button to move to the [Delete](#) button and press the Select button 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 Smart Hub, the TV must be connected to the Internet.
-  Some Smart Hub features may not be supported depending on the service provider, language, or geographical area.
-  Smart Hub service outages can be caused by disruptions in your Internet service.
-  To use Smart Hub, you must agree to the Smart Hub service agreement and the collection and use of personal information. Without giving consent, you cannot use the additional features and services. You can view the entire text of the [Terms & Privacy](#) by navigating to  >  [Settings](#) > [Terms & Privacy](#).
-  If you want to stop using Smart Hub, you can cancel the agreement. To cancel the Smart Hub service agreement, select [Reset Smart Hub](#) ( >  [Settings](#) > [Support](#) > [Self Diagnosis](#) > [Reset Smart Hub](#)).

Press the  button on your remote. This will bring up a display with 2 rows. Try moving the focus to [Live TV](#) or another item on the bottom row. The options on the top row change depending on the item selected in the bottom row.

The buttons to the right of [Live TV](#) provide quick access to apps such as [Netflix](#) and [Prime Video](#).

Use the left and right directional buttons to move between a menu or apps on a row and the up and down directional buttons to move between rows. Press the Select button to access a menu or apps.

When the Smart Hub home screen appears, use the left or right directional button to move the focus to [Live TV](#) or [Samsung TV Plus](#). Press the up directional button to move to the top row. You will be on the [Guide](#) item. The items in this row may include [Guide](#), [Channel List](#), [Schedule Manager](#), [Recordings](#), and others.





## Using the Smart Hub home screen

At the leftmost part of the Smart Hub home screen is the static menu listed below. You can quickly and easily use the listed menu items to access the main TV settings or external devices, search, and apps.

-  **Notification**

You can view a list of notifications for all events that occur on your TV. A notification appears on the screen when a scheduled programme is about to be broadcast or when an event occurs on a registered device.

If you move the focus to **Notification**, and then press the Select button, a notification window appears on the right containing the following functions,  **Delete All** and  **Settings**.

-  **Settings**

When the focus is moved to **Settings**, a list of quick settings icons appears above the top of the menu. You can quickly set frequently used functions by clicking the icons. You can set **e-Manual**, **Intelligent Mode**, **Picture Mode**, **Sound Mode**, **Sound Output**, **Game Mode**, **Audio Language**, **Subtitle**, **PIP**, **Network**, **Picture Size**, **Colour Tone**, **Auto Motion Plus**, **Contrast Enhancer**, **Digital Output Audio Format**, **Colour Space**, and **TV Device Manager**.

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

-  **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**

A Virtual keyboard appears on the screen, and you can search for channels, titles of movies, or apps provided by the Smart Hub service.

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

-  **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](#)".


-  **Ambient Mode**

You can enhance your living space with decorative content that matches the surroundings or view essential real-time information such as weather, time, and news on the TV screen when you are not watching TV.

To enter **Ambient Mode**, press the  button. To return to the TV mode, press the  button. To shut off the TV, press the  button.

If you press the  button when the TV is turned off, the TV turns on in **Ambient Mode**.

 If you use a remote control other than the Samsung Smart Remote, there may be restrictions to entering **Ambient Mode**.

 Because this function is specific to QLED TV (except for Q50R model) and The Serif, it may not be supported depending on the model.

 For more information about the **Ambient Mode**, refer to "[Using the Ambient Mode](#)".

-  **Universal Guide**

**Universal Guide** is an app that allows you to search for and enjoy various content such as TV shows, dramas, and movies in one place. **Universal Guide** can recommend content tailored to your preferences.

 For more information about **Universal Guide**, refer to "[Using the Universal Guide App](#)".

 Images may look blurry depending on the service provider's circumstances.

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

-  **Art**



When you are not watching TV or when the TV is turned off, you can use the **Art** mode function to edit image content such as artworks or photos or to display the content.

 This function is supported only in The Frame.

 For more information, refer to the provided user manual.

# Launching the e-Manual

Open the user manual embedded in your TV.

Press the  button to open Smart Hub, press the left directional button to move to  **Settings**, and then press the Select button.

Use the up and down directional buttons to move to **Support**, and then select **Open e-Manual** to open the e-Manual.



 >  **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 (<http://www.samsung.com>).

 Words in blue (e.g., **Internet**) indicate a menu item.


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

The e-Manual contains a section called "Learn TV Remote" 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. When you are viewing this section of the e-Manual, pressing the buttons on the remote control will not affect the TV. Note that the "Accessibility Guidance" item is only available when **Voice Guide** ( >  **Settings** > **General** > **Accessibility** > **Voice Guide Settings** > **Voice Guide**) is enabled.

# Using Bixby


A guide to using Bixby to control your TV.

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

To use Bixby, press and hold the  button on the Samsung Smart Remote, say a command into the microphone on the remote, and then release the button to run Bixby.

 The existing functional specifications may be changed if Bixby is updated.

## Running Bixby

Press and hold the  button on the Samsung Smart Remote. Bixby is activated in the listening mode, the Bixby icon appears at the bottom of the TV screen. Say a command, and then release the button. The TV provides feedback on how it understands the command, and then performs the commanded task.

 If the TV does not understand the command, try again with more precise pronunciation.

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

 The supported language may differ depending on the geographical area.

 You can find a detailed description of the voice commands at [Explore Bixby](#). Press the  button. The [Explore Now](#) button appears at the bottom of the screen. Press the Select button to go to the [Explore Bixby](#) screen.