

Guide

Learn how to use various features.

Connections

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


Connection Guide

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




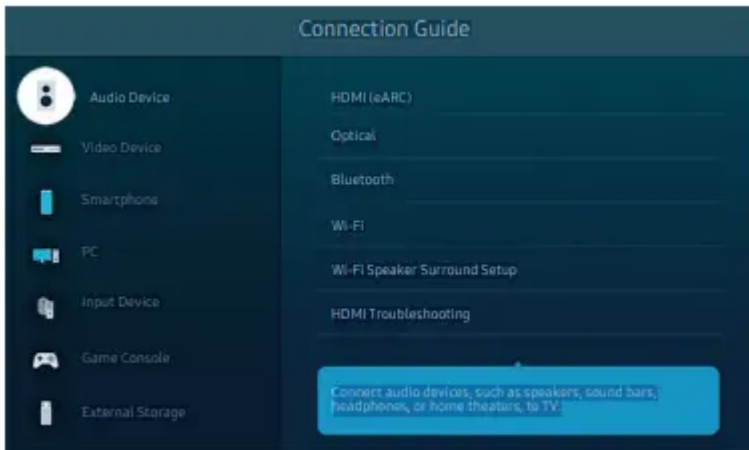
It shows you how to connect various external devices, such as video devices, game consoles, and PCs using pictures. If you select the connection method and an external device, the connection details appear.

- Audio Device: HDMI (eARC), Optical, Bluetooth, Wi-Fi, Wi-Fi Speaker Surround Setup
- Video Device: HDMI
- Smartphone: Screen Sharing (Smart View), SmartThings, Apple AirPlay, NFC on TV, Tap View
- PC: HDMI, Screen Sharing (Wireless), Apple AirPlay
- Input Device: Remote Control, Keyboard, Mouse, USB Gamepad, USB Camera, Bluetooth Device
- Game Console: HDMI
- External Storage: USB Flash Drive, Hard Disk Drive (HDD)

 The connection method and available external devices may differ depending on the model.

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

 Using HDMI Troubleshooting, you can check the connection to HDMI cable and external devices (takes approximately 2 minutes).



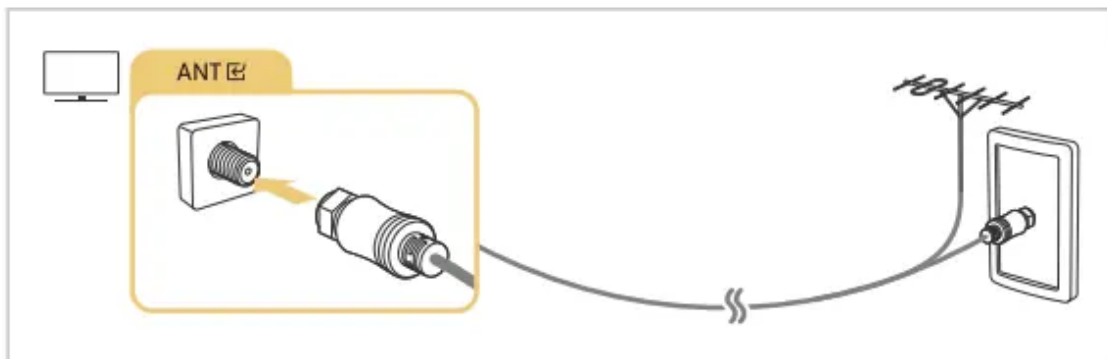
The image on your TV may differ from the image above depending on the model and geographical area

Connecting an Antenna

You can connect a coaxial cable to your TV.

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

The port on your TV may differ from the following fields depending on the product model and region.



Connecting to the Internet

You can get access to the Internet through your TV.

 >  **Settings** > **General** > **Network** > **Open Network Settings** [Try Now](#)

Configure network settings to connect to an available network.

Establishing a wired Internet connection

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

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

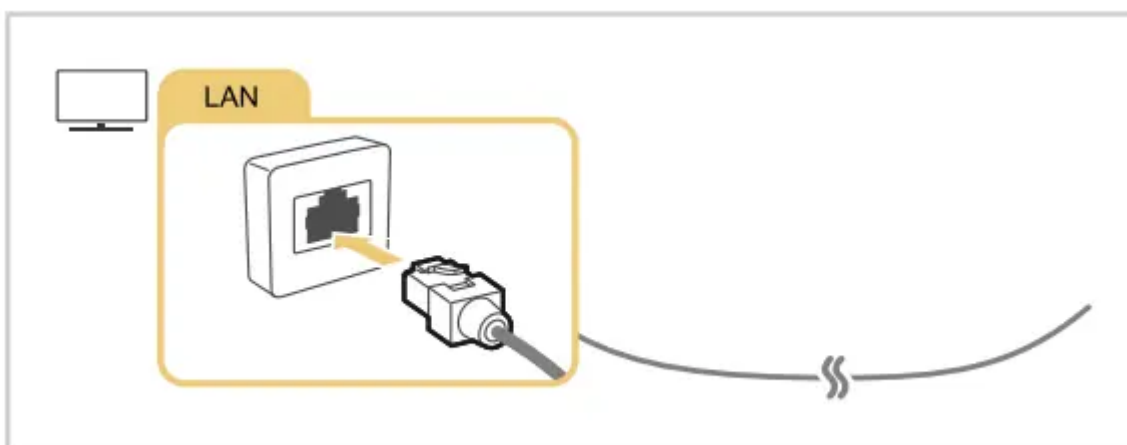
✎ If the TV does not automatically connect to the network, refer to "Network Issues" in "Troubleshooting."


✎ To connect a LAN cable, use a CAT 7 (*STP type) cable for the connection. (100/10 Mbps) * Shielded Twisted Pair

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

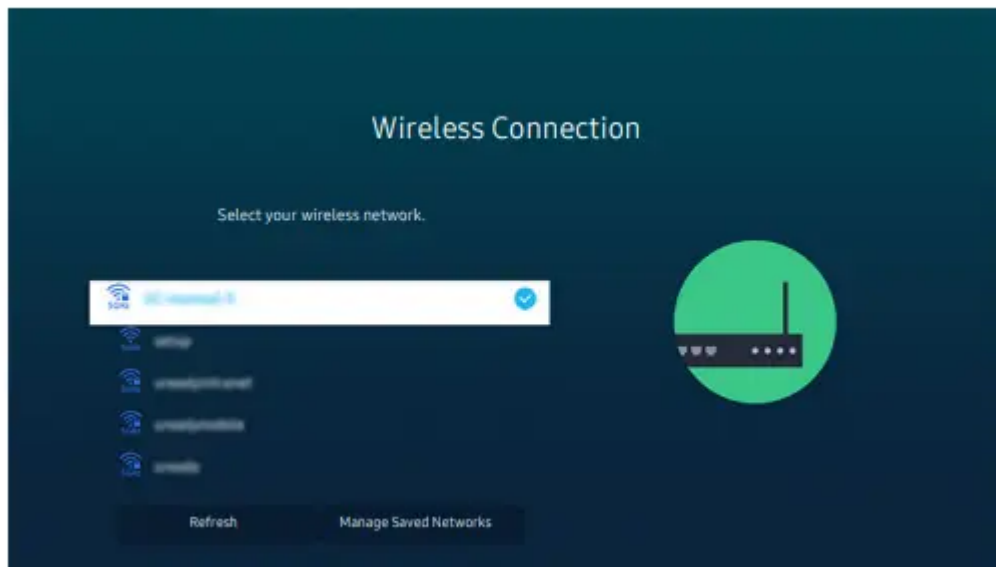
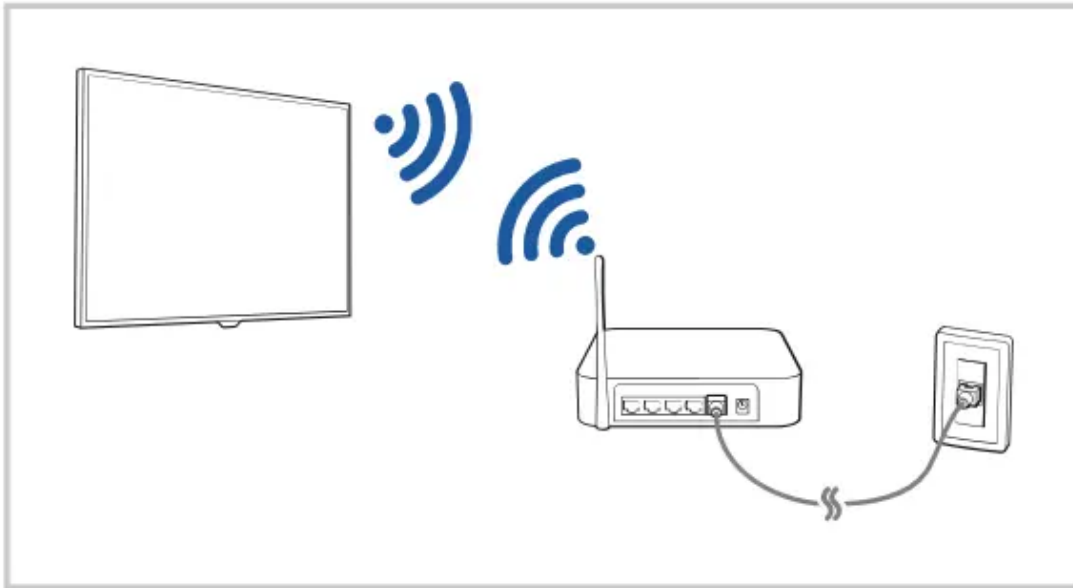
✎ This function may not be supported depending on the model.

Establishing a wireless Internet connection



Make sure that you have the wireless access point's name (SSID) and password settings before attempting to connect. The network name (SSID) and security key are available on the wireless access point's  screen. See the wireless access point's user manual for more information.

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



- ✎ The image on your TV may differ from the image above depending on the model and geographical area.
- ✎ If no wireless access point is found, select Add Network at the bottom of the list and enter the network name (SSID).
- ✎ If your wireless access point has a WPS or PBC button, select Use WPS at the bottom of the list, and then push the WPS or PBC button on your access point within 2 minutes.
- ✎ The TV will connect automatically.
- ✎ To view or delete previously connected network names (SSIDs), move the focus to Manage Saved Networks, and then press the Select button.

 To disconnect Wi-Fi, select [Disconnect in](#)  > [Settings](#) > [General](#) > [Network](#) > [Network Status](#).

Checking the Internet connection status

 > [Settings](#) > [General](#) > [Network](#) > [Network Status](#) 

View the current network and Internet status.

Resetting Your Network


 > [Settings](#) > [General](#) > [Network](#) > [Reset Network](#) 

Restore the network settings to the factory default.

Turning on the TV with a mobile device

 > [Settings](#) > [General](#) > [Network](#) > [Expert Settings](#) > [Power On with Mobile](#)

You can turn on the TV using a mobile device connected to the same network as the TV.


 This function is available with a mobile device connected to the TV through the SmartThings app or the Apple AirPlay function. Apple AirPlay may not be supported depending on the model or geographical area.

Connecting an IP control device to the TV

 > [Settings](#) > [General](#) > [Network](#) > [Expert Settings](#) > [IP Remote](#)

You can connect an IP control device to the TV remotely to manage your IP device.

 To use this function, Power On with Mobile must be turned on.

 Turning this feature on may allow other IP control devices to control your TV. We recommend turning this feature on only if an authorized third-party custom controller is installed and [Wi-Fi is turned on](#) for a Samsung TV and if your Wi-Fi network is password protected.

 This function may not be supported depending on the model.

Allowing to connect a wireless network

 > [Settings](#) > [General](#) > [Network](#) > [Expert Settings](#) > [Wi-Fi](#)

You can enable the connection to Wi-Fi.

 To connect a wireless network, the function must be active

Changing the name of the TV

 > [Settings](#) > [General](#) > [System Manager](#) > [Device Name](#) 


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

Screen Sharing (Smart View) with your Mobile Device

You can watch the screen of your mobile device on the TV screen through Smart View, Tap View or Multi View.

For information on how to share the screen with your mobile device, refer to Source Connection Guide Smartphone Screen Sharing (Smart View).

- To turn off Screen Sharing (Smart View), disconnect the mobile device or press the button on the remote control.
- Using the Smart View menu on your mobile device, you can change the settings such as aspect ratio.
- Use AirPlay if you are an iPhone or iPad user. For more information, refer to Source Connection Guide Smartphone Apple AirPlay.

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


- The screen sharing function (Smart View/Apple AirPlay) on your mobile device appears on Multi View of the TV (or the screen on your mobile device).

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

Using Tap View

By tapping the mobile device on your TV, you can watch Multi View or mobile device's screen through the TV screen.

 This function may not be supported depending on the model.


 This function is available in Samsung mobile devices with Android 8.1 or higher.

1 Enable Tap View on your mobile device.


 For more information about **RFI** refer to 'Enabling Tap View'.


2 Turn on the screen of your mobile device.


3 Tap your mobile device on the TV. The TV screen switches to Multi View or mobile device's screen.


 When you perform Tap View in Ambient Mode feature or Art mode (only in The Frame models), only the mobile device's screen appears on the TV.

4 Watch Multi View or mobile device's screen on the TV screen.

 The displayed TV screen may differ depending on the model.


 This function enables mirroring (Smart View) by detecting vibrations generated when you tap the mobile device on the TV.

 Be sure to tap away from the TV screen and bezel corners. It may scratch or break the TV or mobile device screen.

 We recommend using your mobile device with the cover in place and lightly tap it on any external edge of the TV.

Enabling Tap View

Enable Tap View in the SmartThings app.

 Depending on the SmartThings app version, you may need to register the TV with your mobile device.

 This function may not be supported depending on the model.

1. Launch the SmartThings app on your mobile device.
2. Select Settings (☰ > ⚙️) in SmartThings app on your mobile device.
3. Set Tap View to on.





 Upon connection for the first time, select Allow on a pop-up window of the TV.

Connection Cables for External Devices

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

| Cable name | Image | Description |
|--------------------------|---|--|
| HDMI to HDMI |  | <p>Each cable simultaneously transmits digital video and audio signals from an external device to the HDMI port on the TV.</p> <p>Cables are divided into various types according to the types of input or output ports on external devices.</p> |
| HDMI to MINI HDMI |  | |
| HDMI to Micro HDMI |  | |
| HDMI to USB Type-C |  | |
| HDMI to DisplayPort |  | |
| Mini DisplayPort to HDMI |  | |



| Cable name | Image | Description |
|-------------|--|--|
| DVI to HDMI |  | DVI to HDMI cables can transmit only digital video signals and not audio signals. We recommend that you use HDMI to HDMI cables. |
| Optical |  | Optical cables are used to transmit audio signals to external speakers with low signal loss. Optical cables can't transmit video signals. |
| Component |  | Component cables transmit analogue signals. The video signal is separated and transmitted to the red, green, and blue terminals to provide HD (1080i) pictures. The audio signal is transmitted to the red and white terminals. |
| Composite |  | Composite cables transmit analogue signals. The video signal is transmitted to the yellow terminal, and the audio signal is transmitted to the red and white terminals. |

Available connection cables may differ depending on the model or geographical area

Switching between external devices connected to the TV

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

 >  [Source](#)

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

To control a device (Blu-ray player, game console, etc.) that supports universal remote control with the TV's remote control, connect the device to an HDMI port on the TV, and then turn on the device. The output displayed on the TV is automatically switched to the output of the device or you can use the universal remote control for the device automatically. For more information, refer to "Controlling External Devices with a Samsung Remote Control - Using the Universal Remote."

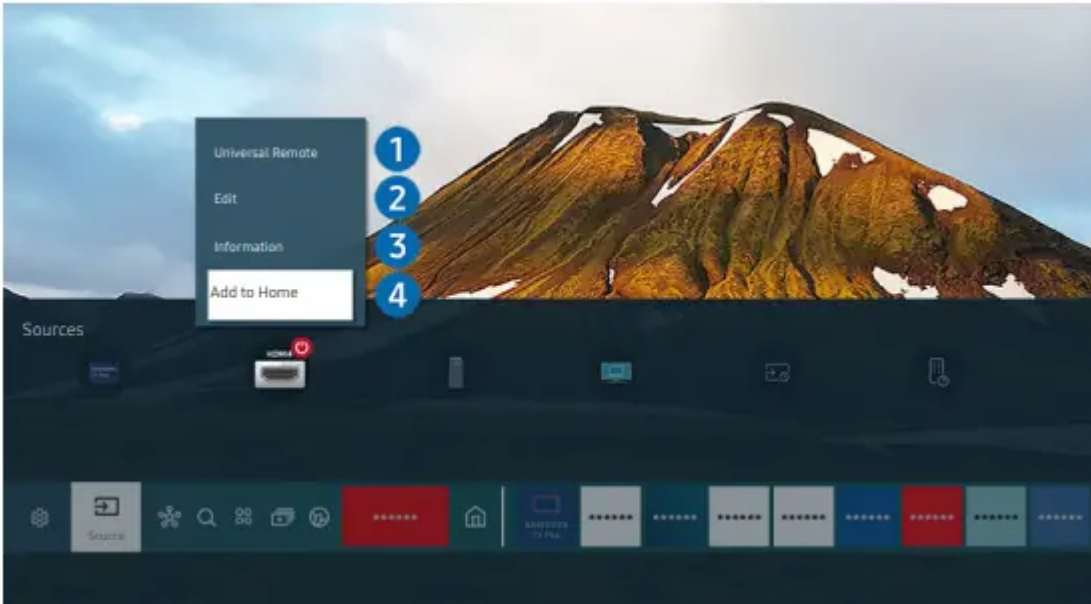
When a USB device is connected to the USB port, a pop-up message appears that lets you switch easily to the media content listed on the device.

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

Editing the name and icon of an external device

 >  [Source](#)

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



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

1. Move the focus to a connected external device.
2. Press the up directional button.

The following functions become available: Available functions may differ depending on the port type.

1. Universal Remote

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

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

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

2. Edit

You can rename the input ports and change the device icons.

3. Information

You can view detailed information about an external device.


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

Using additional functions

You can use the following features on the Source screen.


- PC on TV

Use the TV to access your PC via remote PC or Screen Sharing (Wireless).

 For more information, refer to "Using PC on TV."

- Connection Guide

Displays device connection instructions.

 For more information, refer to "Connection Guide."

- Remote Key Guide


You can view how to use the remote control.

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

- Universal Remote


Lets you register external devices to your Samsung remote control and control them using the Remote.


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

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

Connection Notes

When connecting an external device, note the following:

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

 The number of external device connectors, and their names and locations may differ with the manufacturer

Connection notes for HDMI

- The following types of HDMI cables are recommended:
 - High Speed HDMI Cable
 - High Speed HDMI Cable with Ethernet
 - Premium High Speed HDMI Cable
 - Premium High Speed HDMI Cable with Ethernet
 - Ultra High Speed HDMI Cable
- Use an HDMI cable with a thickness of 0.66 inches (17 mm) or less.

- Using a non-certified HDMI cable may result a blank screen or a connection error.
- Some HDMI cables and devices may not be compatible with the TV due to different HDMI specifications.
- This TV does not support HDMI Ethernet Channel. Ethernet is a Local Area Network (LAN) built with coaxial cables standardized by the IEEE.
- Use a cable shorter than 10 feet (3 m) to get the best UHD viewing quality.
- Many computer graphics adaptors do not have HDMI ports, but have DVI or DisplayPort ports instead. If your PC does not support HDMI video out, connect your PC with a DVI to HDMI or HDMI to DisplayPort cable.
- When the TV is connected to an external device, such as a DVD/BD player or a set-top box via HDMI, power sync mode will be automatically activated. In the power sync mode, the TV continues to detect and connect external devices via HDMI cable. This function can be deactivated by removing the HDMI cable of the connected device.

 This function may not be supported depending on the model.


Connection notes for audio devices

- For better audio quality, it is good to use an AV receiver.
- If you connect an external audio device using an optical cable, the Sound Output setting automatically changes to the connected device. However, to make this happen, you must turn on the external audio device before connecting the optical cable. To manually change the Sound Output setting, do one of the following

 This function may not be supported depending on the model.

– Use the Quick Settings screen to change to the connected device: Use the Select button to select Optical on the Sound Output menu. (Settings up directional button Sound Output).

– Use the Settings screen to change to the connected device: Select Optical on the Sound Output menu. (Settings Sound Sound Output).

 Refer to the sound bar's user manual when connecting it to the TV.

- An unusual noise coming from a connected audio device while you are using it, may indicate a problem with the audio device itself. If this occurs, ask for assistance from the audio device's manufacturer.
- Digital audio is only available with 5.1 channel broadcasts.

Connection notes for computers

- For the resolutions supported by the TV, refer to "Read Before Connecting a Computer (Supported Resolutions)."

- If you want to connect your PC and TV wirelessly, both of them must be connected to each other on the same network.
- When sharing content with other network-based devices, such as those in an IP (Internet Protocol) storage system, sharing may not be supported due to the network's configuration, quality, or functionality, for example, if the network has an NAS (Network-Attached Storage) device.

Connection notes for mobile devices

- To use the Smart View function, the mobile device must support a mirroring function, such as Screen Mirroring or Smart View. To check whether your mobile device supports the mirroring function, refer to the mobile device's user manual.
- The Screen Sharing (Smart View) feature may not operate smoothly in a 2.4 GHz environment. For better experience, 5.0 GHz is recommended. 5 GHz may not be available depending on the model.
- To use Wi-Fi Direct, the mobile device must support the Wi-Fi Direct function. To check whether your mobile device supports Wi-Fi Direct, refer to the mobile device's user manual.
- The mobile device and your Smart TV must be connected to each other on the same network.
- Use AirPlay if you are an iPhone or iPad user. For more information, refer to Source Connection Guide Smartphone Apple AirPlay.

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

- The video or audio may stop intermittently, depending on network conditions.
- When sharing content with other network-based devices, such as those in an IP (Internet Protocol) storage system, sharing may not be supported due to the network's configuration, quality, or functionality, for example, if the network has an NAS (Network-Attached Storage) device.


Remote Control and Peripherals

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


About the Samsung Smart Remote (QLED TV/AU9 Series or higher/The Frame)

Learn about the buttons on the Samsung Smart Remote.




 (Power)

Press to turn the TV on or off. For The Frame model, When watching TV, press to switch to Art mode. In Art mode, press to switch to watching TV. Press and hold to turn off the TV completely.


 (Voice Assistant)


Runs Voice Assistant. Press and hold the button, say a command, and then release the button to run Voice Assistant

 (Color - Number button)

Each time you press this button, the colored buttons window and the virtual numeric pad are displayed alternately.

- Use this button to access additional options that are specific to the feature in use.
- Press to bring up the virtual numeric pad on the screen. Use the numeric keypad to enter numeric values. Select numbers and then select Done to enter a numeric value. Use to change the channel, enter a PIN, ZIP code and etc.

 If the Color Button appears with a number strip on the screen, select the Color Button and then select a 9XLSRfir color by using the directional button (up, down, left, right). Use this to access additional options that are 9XLSRfir to the feature in use.

 (Multi View)

Press the button to directly enter the Multi View function.

1 Directional button
(up, down, left, right)

Use to navigate the menu or move the focus to highlight items on the Home Screen.

2 Select

Selects or runs a focused item. When pressed while you are watching a broadcast program, detailed program information appears.


 (Return)

Press to return to the previous menu. When pressed for 1 second or more, the running function is terminated. When pressed while you are watching a program, the previous channel appears.

 (Smart Hub)


Press to return to the Home Screen.

For The Frame model, Press in Art mode to switch to TV mode.

 (Play/pause)

When pressed, the playback controls appear. Using these controls, you can control the media content that is playing.

To use Game Bar, press and hold the button in Game Mode.

 Game Bar may not be supported depending on the model or geographical area

+/- (Volume)

Move the button up or down to adjust the volume. To mute the sound, press the button. When pressed for 1 second or more, the Accessibility Shortcuts appears.

^/∨ (Channel)

Move the button up or down to change the channel. To see the Guide screen, press the button. Press and hold the button up or down to quickly change the channel.

3 (Launch app button)

Launch the app indicated by the button.

Use the Samsung Smart Remote less than 20 feet (6 m) from the TV. The usable distance may vary with the wireless environmental conditions.



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

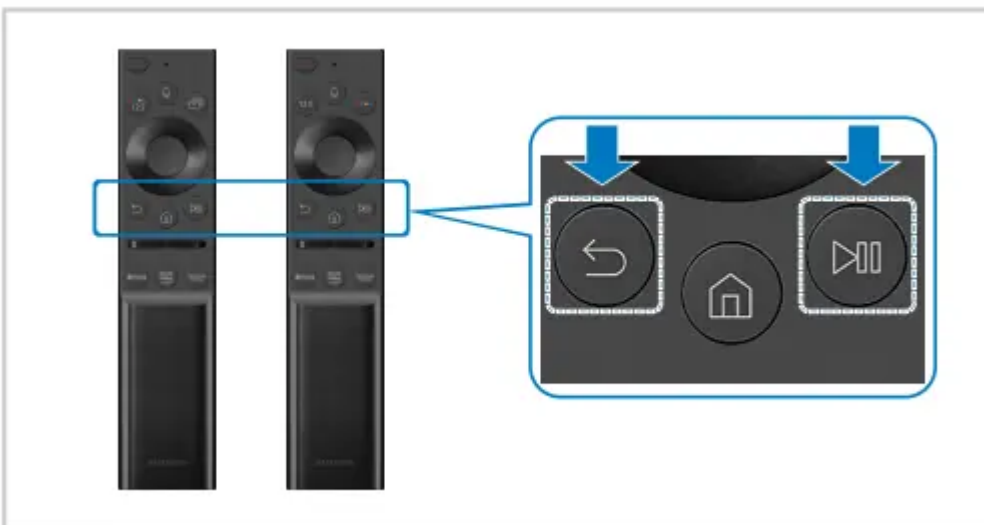
To use the Samsung Smart Remote to control a compatible external device that does not support HDMI-CEC (Anynet+), you must use a universal remote control for the device. For more information, refer to "Controlling External Devices with a Samsung Remote Control - Using the Universal Remote."


To use the Samsung Smart Remote to control a compatible external device that does support HDMI-CEC (Anynet+), connect the device to an HDMI port on the TV using an HDMI cable. For more information, refer to "Using Anynet+ (HDMI-CEC)."


Connecting the Samsung Smart Remote to the TV


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

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









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

 For more information about the Samsung Smart Remote, refer to "About the Samsung Smart Remote (QLED TV/AU9 Series or higher/The Frame)."

 For more information about the Samsung Smart Remote that comes with AU8 Series, refer to "About the Samsung Smart Remote (AU8 Series) ."

Using the keyboard and mouse

| Button | Description |
|-----------------------|---|
| Directional keys | Use to navigate the menu, or move the focus to highlight items on the Home Screen. |
| Windows key | Displays the TV settings |
| Enter key | Selects or runs a focused item |
| ESC key | Returns to the previous screen |
| F1 / F2 / F3 / F4 key | Color buttons —  /  /  /  |
| F5 key | Displays the Home Screen |
| F6 key | Displays the Source screen |
| F7 key | Displays the Channel List |
| F8 key | Mutes the sound |
| F9 / F10 key | Adjusts the volume |
| F11 / F12 key | Changes the channel |
| Page Up / Page Down | Scrolls a web page displayed by the Internet app. |
| Left-click | Available only in the Internet app. You can click a menu or link to start a function as you do on a PC. |
| Right-click | Available only in the Internet app. You can use the following functions:  The options displayed in the menu may differ depending on the selected item. <ul style="list-style-type: none">• Open• Open Link in New Tab• Enable Scroll Mode |

 The key operation may differ depending on some apps or the keyboard.

Setting up the input devices

 >  [Settings](#) > [General](#) > [External Device Manager](#) > [Input Device Manager](#)

• Keyboard Settings

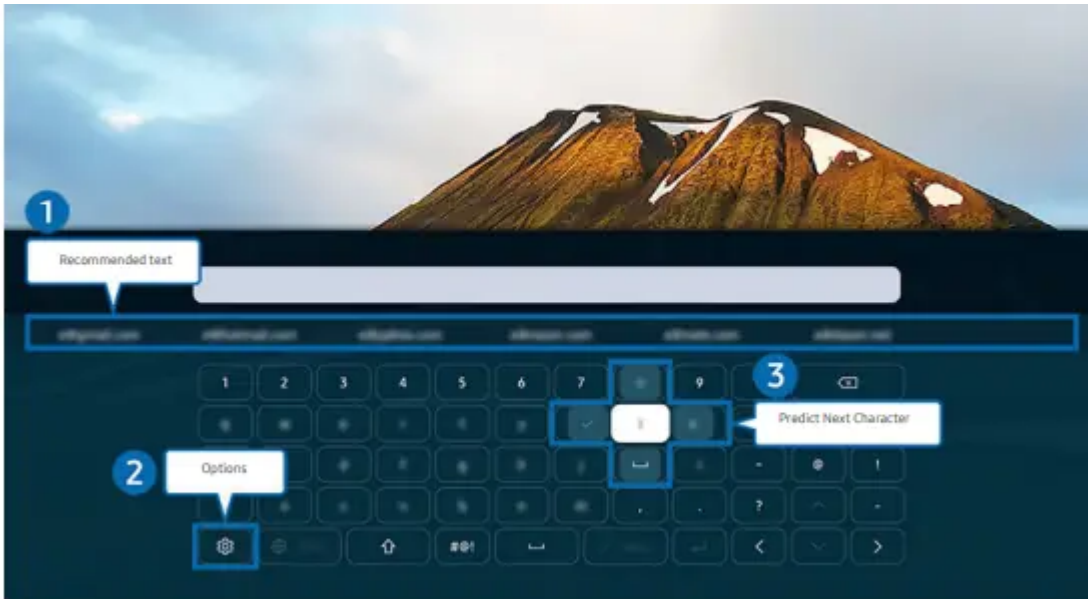
You can set up the keyboard with the Keyboard Language and Keyboard Type functions.

• Mouse Settings

You can set up the mouse with the Primary Button and Pointer Speed functions.

Entering Text using the On-Screen Virtual Keyboard

Use the virtual keyboard to enter text on your TV.



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

1. Recommended text

When you type a word you want to use as a search term, this function displays related suggestions from which you can choose one.

2. Options Select on the virtual keyboard screen. The following options are available:

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


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

3. Predict Next Character Each time you type a character on the virtual keyboard, the next characters predicted to be typed are displayed. You can use the directional buttons on the remote control to select one.

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


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

Changes the auto brightness setting for Ambient Mode.

 When this function is set to Off, the brightness level of the TV screen is not automatically adjusted in response to the surrounding light level.

- Sleep After

Sets the time when the Ambient Mode screen turns off automatically.

 If there is no remote control input for the set time, the screen goes off.

- Screen Settings

You can adjust the settings such as content brightness, saturation, and color tone.

- Brightness

Adjusts the brightness of the content.

- Saturation

Adjusts the saturation of the content.

- Color Tone

Adjusts the colors of the content.

- Red Tone / Green Tone / Blue Tone

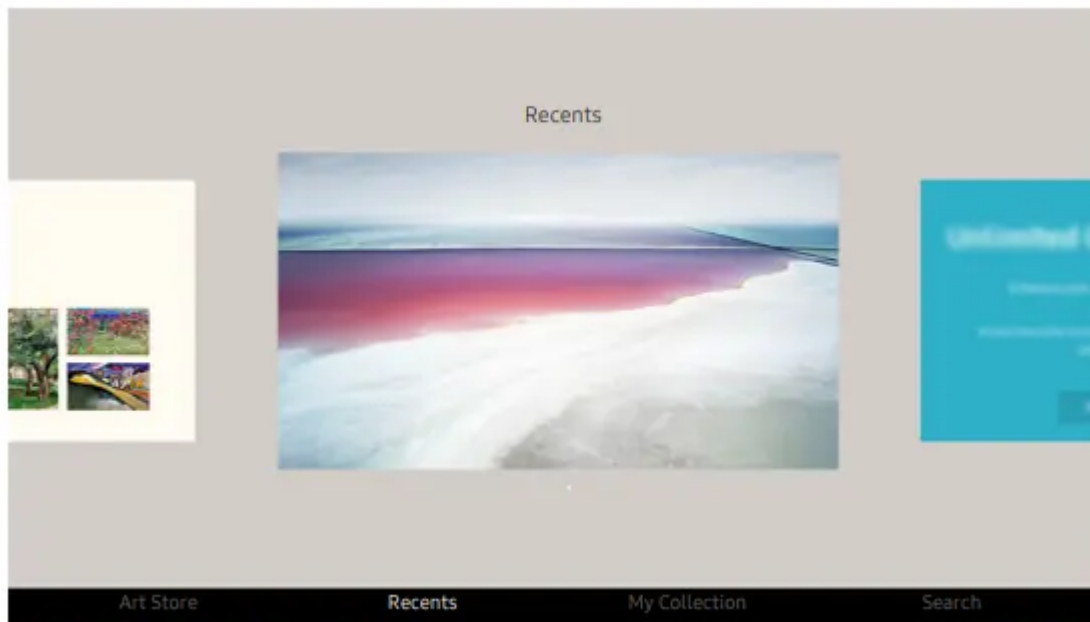
Adjusts the red, green, blue contrast.

- Reset All Photos

Resets the photos imported from your mobile device or Samsung Cloud.

 This function may not be supported depending on the model.

Viewing images



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

To view an image in Art mode, select one of the menus below. To switch to the sub menu where you can select images, press the Select button, one of the four directional buttons, or button in Art mode. Then, use the directional buttons on the remote control to move to desired image, and then press the Select button. Set appears at the bottom of the selected image, and you can view the selected image in Art mode.

While viewing images in Art Mode, you can view the detailed information about the images by pressing the down directional button on the remote control.

- Art Store

You can go to Art Store to purchase various images.

The Art Store may not appear depending on the network connection status.


To purchase or appreciate images, first log in with your Samsung Account.

- Recents

You can manipulate the last selected images.


- My Collection

You can view a list of artworks and photos that you set as Favorite in Favorites. You can also select the desired ones among the images saved on an external storage device or a mobile device and save them in My Photos.

 Using the SmartThings app, you can save photos on your mobile device.

- Search

You can conveniently find the artworks by searching the artist, artwork name and etc.

 This function only allows you to search terms in English.

- News & Events

You can find the informations about the recent news or events.

Viewing images by time


1. Use the directional buttons on the remote control to move to My Collection.
2. Use the directional buttons to move to Favorites or My Photos.

To view the images on the mobile device connected via the USB or SmartThings app, select the desired images on the connected device and then save them into My Photos.

3. Use the directional buttons on the remote control select the Start Slideshow or Start Slideshow (Random).
4. Use the directional buttons on the remote control to select the time interval at which images are to be switched, and then press the Select button.

Import images from an external storage device

1. Connect an external storage device that contains images to the TV.
2. Use the directional buttons on the remote control to move to My Collection, and then move to the connected external storage device.
3. Use the directional buttons on the remote control to move to an image, and then press the Select button.

 You can select multiple images.

4. Use the directional buttons on the remote control to move to Save to My Photos at the bottom of the screen, and then press the Select button.
5. The selected image or images are saved in My Photos.

 Recommended resolutions: 3840 x 2160 (1920p)


Remove images from My Collection

You can remove the saved images from My Collection.

1. Use the directional buttons on the remote control to move to My Collection.
2. Use the directional buttons on the remote control to move to Favorites or My Photos.

3. Use the directional buttons on the remote control to move to Remove, and then press the Select button.

4. Use the directional buttons on the remote control to move to an image, and then press the Select button.


 You can select multiple images.

5. Use the directional buttons on the remote control to move to Remove Selected at the bottom of the screen, and then press the Select button.

Buying images from Art Store


1. Use the directional buttons on the remote control to move to Art Store.

2. Use the directional buttons on the remote control to move to a topic, and press the Select button. You can select any subtopics or images on the screen.

 The entry path may differ by each topic.

3. Use the directional buttons on the remote control to move to an image, and press the Select button.

4. Use the directional buttons on the remote control to move to Details at the bottom of the screen, and then select Acquire Artwork.

 Displays Get Trial Membership or Free Trial if you have not joined The Art Store Membership.

5. Use the directional buttons on the remote control to select payment methods, and then press the Select button.

6. Follow the on-screen instructions to procedure payment.

Subscribing to The Art Store Membership

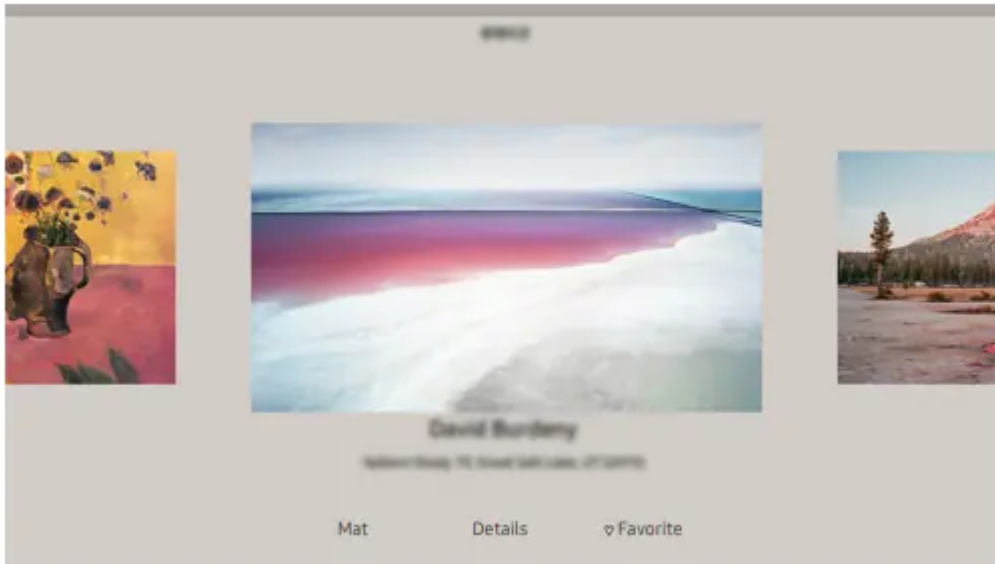
When you subscribe to The Art Store Membership, you can use Art Store unlimitedly and enjoy various art works by replacing them with new ones according to your preferences.


1. Use the directional buttons on the remote control to move to Art Store.

2. Use the directional buttons on the remote control to move to Membership.

3. Follow the on-screen instructions to enter your membership information.

Setting the style of the selected image



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


Use the directional buttons on the remote control to move to an image you want. You can use the following menu:

- Details

You can find more information about the image.

- Photo Filter

You can apply the selected filter's effect to the image according to your preferences.


 This function is only available for saved images on My Photos.

- Mat

You can apply various border styles and colors to the image according to your preferences.

- Favorite

You can set (or not set) an image that you prefer as a favorite item by pressing the Select button on the remote control. You can view a list of items set as your favorites in My Collection Favorites.

 Favorite: Not set as a favorite.

 Favorite: Set as a favorite.

Setting up Art mode

In Art mode, use the directional buttons on the remote control to move to the Settings menu item at the bottom of the screen. You can adjust the following functions:

- **Brightness**

Use the directional buttons on the remote control to move to Modify at the bottom of the screen, and then press the Select button. In the next screen, adjust the picture brightness. After selecting the desired settings, press the Select button on the remote control.

- **Color Tone**

Use the directional buttons on the remote control to move to Modify at the bottom of the screen, and then press the Select button. In the next screen, adjust the color of your displayed artwork. After selecting the desired settings, press the Select button on the remote control.

- **Sleep After**

If no motion is detected around the TV for the set time, the TV turns off automatically. Use the directional buttons on the remote control to move to the bottom items. After selecting the desired time, press the Select button on the remote control.

 Sleep After may not be supported depending on the model or geographical area

- **Motion Detector**

The sensitivity of the motion detector function can be adjusted. Use the directional buttons on the remote control to move to the bottom items. After selecting the desired sensitivity, press the Select button on the remote control.

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


- **Night Mode**


When this function is turned on, the TV turns off automatically if no light is detected around the TV. Use the directional buttons on the remote control to move to the bottom items, and then turn this function on or off.

Using Art mode with the SmartThings app

Once you have installed the SmartThings app on your mobile device, you can use the following functions:


You can download the SmartThings app from Google Play Store, Samsung Apps, or the App Store.

 The features or terminology may vary depending on the version of the SmartThings app.


 On tablet devices, Art mode features may not be supported by the SmartThings app.

- Selecting images.
- Subscribing to The Art Store Membership.
- Creating Collage: Combine multiple images into one image.
- Applying border styles and colors to images.
- Setting the brightness for Art mode.

- **Setting Sleep After:** When no motion is detected for the time specified in Art mode, the TV turns off automatically.

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

- **Setting Motion Detector Sensitivity:** Set the sensor sensitivity so that the TV turns on automatically when motion is detected in Art mode.

 Motion Detector Sensitivity may not be supported depending on the model or geographical area.

- **Setting Night Mode:** Set The Frame to turn off automatically if no light is detected in the room.

Precautions when using Art mode

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

- The motion sensor is located at the bottom of the TV. Do not block the sensor at the front of the TV. The motion sensor as well as the brightness and color tone of the screen can be affected.

- Art mode uses algorithms to minimize image burn-in that can be caused by displaying still images on the screen for long periods of time.

- The performance of the sensor may vary depending on the TV installation and operating environment.

- The screen brightness and color tone may be affected depending on the color of the floor on which the TV stands.

- In an environment where special light sources other than standard light sources (halogen, fluorescent) are used, the sensor's motion recognition performance may vary depending on the positions, types, and number of the light sources.

- If the area around the TV is too dark or bright, the screen brightness may be limited or the sensor may not work normally.

- If the TV is installed too high or too low, the sensor may not work normally.


- The motion sensor may sense motion from a flashing LED, a pet, a car moving outside the window, or other occurrence and start operating.

Using PC on TV

Use the TV to access your PC via Screen Sharing (Wireless), Remote PC or Cloud Service.

 >  [Source](#) > [PC on TV](#)

You can use the TV to access your PC via Screen Sharing (Wireless), Remote PC ,or Cloud Service.

 For easy computer use, connect a keyboard and a mouse to your TV in advance.

Using Screen Sharing (Wireless)

Follow the instructions on the screen to adjust the PC settings and wirelessly connect the TV to the PC.

 This function is only available for PCs that support wireless screen sharing.

- Connection via Windows OS is available in Windows 10.
- Connection via Mac OS is available in AirPlay.


Using PC on TV - Easy Connection

You can easily use remote access function after installing PC on TV - Easy Connection on your PC.

Follow the instructions on the screen to download and install the PC on TV - Easy Connection PC app. Then you can easily connect a remote PC.

1. Download the PC on TV - Easy Connection PC app from smsng.co/PConTV and then install it on your PC.
2. Log in with the same Samsung Account for both TV and PC.
3. When the PC is turned on and connected via the network, PC on TV's Home screen displays the PC.


 The PC on TV - Easy Connection PC app is available in Windows 10.

 Depending on the network environment including the firewall, router type, and wireless signal strength, connection problems may occur, such as low speed, disconnection, or limited connection.

Connecting a Remote PC

 >  [Source](#) > [PC on TV](#) > [Remote PC](#) [Try Now](#)

Provides Remote Desktop Connection (RDP) for remotely connecting to a PC running on Windows and Virtual Network Computing (VNC) for a PC running on Mac. To remotely connect to a PC, you must enter the IP address of the remote PC or select a saved X0-fils. Enter a correct username and password and select a correct protocol. If there is any computer that can be accessed via the same network, the found IP and protocol are displayed.

 To register a frequently used PC, move the focus to Manage User t0-fils, and then press the Select button. When a popup window appears, select Add, and then enter the PC information.

When your PC enters in power saving mode, connection is not available.

It is recommended to cancel the power saving mode. It is recommended to connect the wired network because the screen or sound may be interrupted depending on the network condition.

1. Adjusts your computer's settings to use the PC on TV function.

Connection to Windows via the RDP protocol is available in Windows 10 Professional or higher.

Remote connection to a PC running on Mac via the VNC protocol is only supported for Mac OS X 10.5 or later.

• Windows OS:

1) Right-click the My Computer icon on Desktop or Windows Explorer and then click Properties.

2) Click Advanced System Settings. The System Properties window appears.

3) Click the Remote tab and then select the Allow Remote Assistance connections to this computer.

• Mac OS:

1) Select Menu System Preferences and then click Sharing.

2) Select the Screen Sharing and Remote Login check box.

3) Run the resolution changing app downloaded from App Store and then change the resolution to 1440 x 900 or lower.

If you do not change the resolution in Mac OS, the previous image may appear while connecting a remote computer.

2. Enter the required settings for connecting the computer remotely.

Connect to Remote PC

Make sure the Windows PC or Mac is on and the remote access option is allowed.

Manage User Profiles

- 1 PC/Profile
- 2 Username
- 3 Protocol
- 4 Password

IP address or profile

Enter a username

RDP (for Windows users)

Enter a password

Remember my credentials (PC/Profile, Username, Protocol and Password)

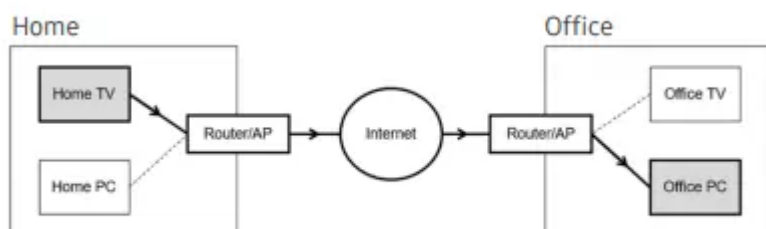
Connect Cancel Help

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

1.PC/ Profile

Enter the IP address or X0-fils of the PC you want to connect to.

- In case of Windows, when the computer to connect is within the same network (router/AP), run "cmd" command in Settings Network and Internet View Network properties or in Start Run, and then run "ipconfig" to check the IPv4 address of the computer.
- In case of Mac, you can check the IP address in Settings Remote Access.
- When the TV and computer are not within the same network, it is required to know the public IP and configure the router and AP. Check whether the router connected to the computer supports port forwarding. When the company provides additional security features such as firewall, seek help from a security officer.



2.Username Enter the Username of the computer. How to check the Username:

- Windows OS: Control Panel User Account Control
- Mac OS: System Preferences Users & Groups

3.Protocol Select the Protocol for the computer's OS. (Windows: RDP, Mac: VNC)

4.Password Enter the password for the login account.

For use of PIN, do not enter PIN but the 9Xlsřfils3 password of the computer.

Playing Multimedia Content on a Remote PC

When you move the mouse cursor to the top of the screen after accessing a remote computer, the top bar appears. When the sharing folder icon is clicked in the top bar, the folders shared on Windows or Mac OS appear. You can play back any media content in a folder.

For more information, refer to "Playing pictures/video/music."


To use this function, the folder sharing option on the computer to access must have been enabled as shown below:


- **Windows OS:**

1. Run Windows Explorer and then move to the folder to share.
2. Right-click the folder and then click Properties.
3. After the Properties window appears, click the Sharing tab and then click Advanced Sharing.
4. After the Advanced Sharing window appears, select the Share this folder check box.

• **Mac OS:**

1. Select Menu System Preferences and then click Sharing.
2. Select the File Sharing check box.
3. To add a folder to share, click the Add+ button at the bottom.
4. Select a folder and then click Add+.

 It is recommended to connect the wired network because the screen or sound may be interrupted depending on the network condition.

 When playing a video files via a remote computer, the screen or sound breaking may be encountered.

Using Samsung DeX


Samsung DeX can be connected from the TV via wireless network.

When the mobile device does not appear on the screen, select Mobile Connection Guide and then follow the screen instructions. Some models may not be searched when connecting the TV from a mobile device through Samsung DeX. In this case, access the DeX Guide on the screen in which you can perform connection by following the screen instructions.

 This function is available only on mobile devices that support the wireless Samsung DeX.

Using Microsoft 365


You can read or create a document after accessing the Microsoft 365 website.


 Run the browser in full-screen mode.

 URL modifications is impossible in the Microsoft 365 page.

Adding the Cloud Service

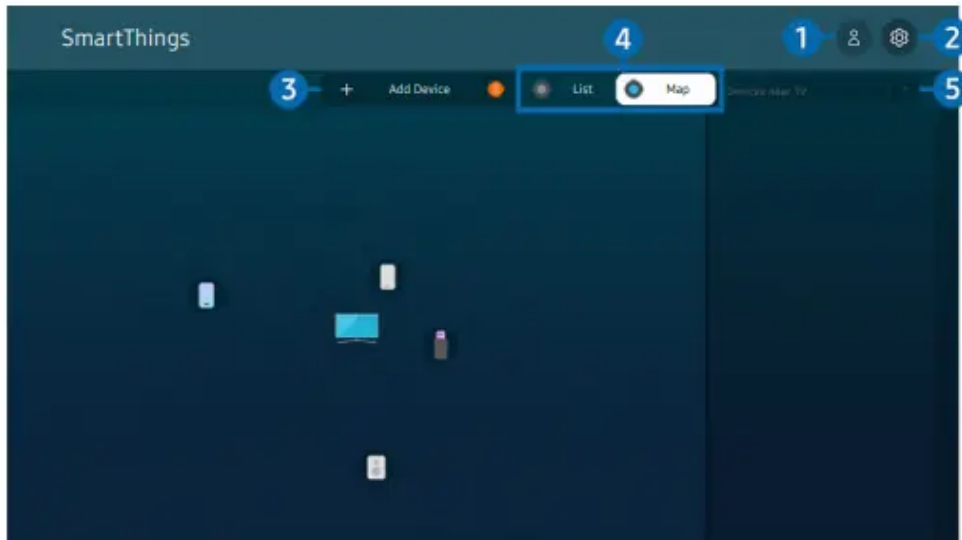
Select the Add Cloud Service icon. Use the bookmarking function of the browser, you can add or delete the cloud service link to or from PC on TV.

 To add the cloud service, you must be signed in to your Samsung account.

 The number of cloud services that can be added to PC on TV is limited.

SmartThings screen layout


🏠 > SmartThings



The image on your TV may differ from the image above depending on the model and geographical area. 1.

1 Samsung Account

Go to the Samsung Account screen to create a new account or sign out of your account.

 If you are signed out of your Samsung Account, select Sign In to sign in.

2. Settings

You can  the SmartThings settings.


3.Add Device

Displays the list of devices that can be registered on your TV. You can register any by selecting a device.

4.List / Map

Displays the detected devices in a map or list.

5.Device list category

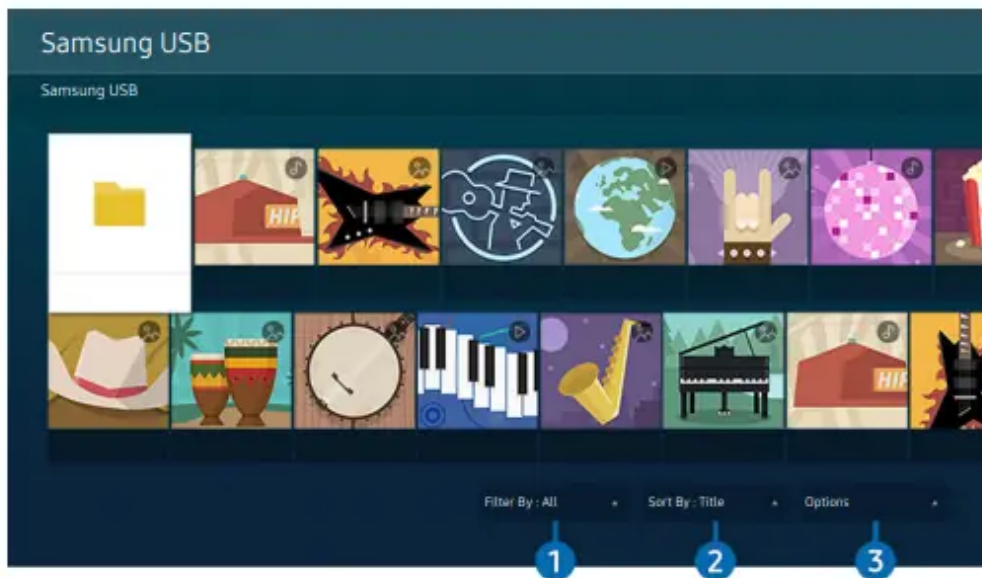
 Available options may differ depending on the device.

- Place Displays all places connected via the SmartThings app.
- Devices near TV Displays all the detected devices that can be connected and controlled. You can run the control options after selecting a desired device. Available options may differ depending on the device.

Playing pictures/video/music

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

Source > Connected Device [Try Now](#)



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

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

You cannot play media content if the content or the storage device is not supported by the TV. For more information, refer to "Read Before Playing Photo, Video, or Music Files."

Backup important files before connecting a USB device. Samsung is not responsible for damaged or lost files.

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

1. Filter By

Filters the media content by type of media.

2. Sort By


Sorts the content list.

This function may not be supported depending on the type of external device.

3. Options

Deletes or plays the selected media content in the media content list. When you select Refresh, the content list is reloaded. You can delete only the recorded content.


To delete content, change the Filter By option to Recorded.


 Recorded may not be supported depending on the geographical area

Playing multimedia content on a PC or mobile device

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

The selected content is played.

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

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


Listening to your mobile device sound through the TV speaker using Sound Mirroring

Enjoy listening to music in your living space. Visualizations are generated on your TV that alter and respond to the frequency of your music.

1. Search for and connect to your TV from the (Bluetooth) device list on your mobile device.
2. Select media content to play on your mobile device.

The selected media is played through the TV speaker.


This function may not be supported depending on the model.

 In some models, the image of the played content may differ depending on the mode.

 If the TV and the sound bar are connected wirelessly, the operation may be restricted.

Buttons and functions available while playing multimedia content

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

 The provided buttons and functions may not be supported depending on the model or geographical area.

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

- Pause, Play
 - Pauses or plays the multimedia content.
- Jump Backward, Jump Forward
 - Press the up directional button to move the focus to the playback control bar, and then select the left or right directional button in the playback control bar to move backward or forward by 10 seconds in the video.


- Move to a specific playback section, move up the focus on the playback bar, and then select one of the five thumbnails.


 This function may not be supported depending on the file format.


- Stop
 - Stop the contents being played.
- Previous / Next
 - Displays the previous or the next multimedia content file.
- 360 Mode


Provides a 360-degree view for videos and photos.

 This function may not be supported depending on the file format.

 Video files using the mjpeg codec do not support a 360-degree view.

 When a video or photo does not support a 360-degree view, applying 360 rotation to it may cause the screen to look distorted.

 Videos may be interrupted if 360 rotation is applied during double speed playback.


 Videos that support a 360-degree view may be interrupted if 360 rotation is simultaneously applied with other functions during playback.

 This function may not be supported for some resolutions.

 This function may not be supported depending on the model.


Using Bixby


Set Voice Assistant to Bixby. Speak into the microphone on your Samsung Smart Remote or TV to control your TV.

 This function is available only if Voice Assistant is set to Bixby

 >  [Settings](#) > [General](#) > [Voice](#) > [Voice Assistant](#)

 Bixby is available only when the TV is connected to the Internet.


 To use Bixby, you must register and sign in to your Samsung account. Some functions may not be supported if you are not signed in to your Samsung account.

 Bixby only supports some languages, and the supported functions may differ depending on the geographical area.

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

Starting Bixby with voice

You can immediately start a conversation with Bixby by saying "Hi, Bixby." Say "Hi, Bixby", and the Bixby icon at the bottom of the TV screen is activated in Listen mode. Continue speaking.

 For best results, you need to be within 10 feet (3-4 m) of your TV. For more information, refer to "Voice Assistant Issues"


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

Setting the Super Ultra Wide Game View


Set your PC Screen resolution to match the selected Screen Ratio in the Game Bar before activating the Super Ultra


Wide Game.

 Check if the game supports Ultra Wide resolution (21:9 or 32:9).

 If you set the resolution on your PC for the first time, you can change the Screen Ratio through the Game Bar on your TV.

| Game Bar Screen Ratio | Resolution set in PC |
|-----------------------|----------------------|
| 21:9 | 3840 x 1600 (60 Hz) |
| | 2560 x 1080 (60 Hz) |
| | 2560 x 1080 (120 Hz) |
| 32:9 | 3840 x 1080 (60 Hz) |
| | 3840 x 1080 (120 Hz) |

 The supportable resolutions may differ depending on the model or HDMI port connected to the PC.

 After setting the resolution, check if the PC's Window or Mac screen changes when you change the Screen Ratio on the Game Bar of your TV.

 This function may not be supported depending on the OS or device.

While you are playing a game, the screen ratio cannot be changed. Before running a game, first select the desired screen ratio on the Game Bar.

Troubleshooting of the game screen and audio problems

After changing the Screen Ratio on the Game Bar, if the game screen and sound are not output properly, try to solve the problems as shown below.

- Check to see if the game supports Ultra Wide or your PC supports the Ultra Wide resolution.

- Restart the game after exiting it.
- Select the same resolution as that of the Game Bar.
- When the Screen Ratio changes properly, the screen appears as shown below.



Using the instant and schedule recording options from the Guide screen

- Instant Recording



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

- Schedule Recording

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

Using the instant and schedule recording options while watching a program

- Instant Recording

If you select Record after pressing the  button twice, and then press  the Select button or after pressing the button once while watching a broadcast, recording starts.

Schedule Recording

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

Read Before Playing Photo, Video, or Music Files

Read this information before playing media content.

Limitations to the use of photo, video, and music files Try Now

- The TV supports Mass Storage Class (MSC) 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 recognize 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 5V 1A) port. We recommend that you use an external hard drive with its own power adapter.

USB (HDD 5V 1A) port is supported by some models.

- 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 recognize some or all the devices. USB devices that use high-power input should be connect to the USB (HDD 5V 1A) port. USB (HDD 5V 1A) port is supported by some models.
- 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 2021.

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 16/24 Bit, 48/96/192 kHz, 5.1 channel |
| *.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 (QLED TV except for Q6*A and Q5*A Series/The Frame)

| File format | Container | Video codecs | Resolution | Frame rate (fps) | Bitrate (Mbps) | Audio codecs |
|-------------|---|---|--------------------------------------|------------------|----------------|--|
| *.avi | AVI MKV ASF MP4 3GP MOV FLV VRO VOB PS TS SVAF | H.264 BP/MP/HP | 4096 x 2160 | 4096 x 2160: 30 | 60 | Dolby Digital LPCM ADPCM(IMA, MS) AAC HE-AAC WMA Dolby Digital+ MPEG(MP3) AC-4 G.711(A-Law, μ -Law) OPUS |
| *.mkv | | | | 3840 x 2160: 60 | | |
| *.asf | | | | 1920 x 1080: 120 | | |
| *.wmv | | HEVC (H.265 - Main, Main10) | 4096 x 2160 | 4096 x 2160: 60 | 80 | |
| *.mp4 | | | 3840 x 2160: 120 | | | |
| *.mov | | Motion JPEG | 3840 x 2160 | 30 | 80 | |
| *.3gp | | MVC | 1920 x 1080 | 60 | | |
| *.vro | | MPEG4 SP/ASP | | | | |
| *.mpg | | Window Media Video v9 (VC1) | | | | |
| *.mpeg | | MPEG2 | | | | |
| *.ts | | MPEG1 | | | | |
| *.tp | | Microsoft MPEG-4 v1, v2, v3 | | | | |
| *.trp | | Window Media Video v7 (WMV1), v8 (WMV2) | | | 30 | |
| *.flv | | | | | | |
| *.vob | | H.263 Sorrenson | | | | |
| *.svi | | VP6 | | | | |
| *.m2ts | | AV1 | 3840 x 2160 | 60 | 40 | |
| *.mts | | VP8 | 1920 x 1080 | 60 | | |
| *.webm | | WebM | VP9 (Profile 0, profile 2 supported) | 3840 x 2160 | 60 | |
| | AV1 | | 3840 x 2160 | 60 | | |
| | AV1 | | 3840 x 2160 | 60 | | |
| *.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 4.2 (TV does not support FMO / ASO / RS).
- HEVC UHD is supported up to Level 5.2, and HEVC FHD is supported up to Level 4.1 (QLED TV except for Q6*A and Q5*A Series/The Frame).
- 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, M2 profile.
- 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 Resolutions for FreeSync (VRR)

Check the supported resolutions for the FreeSync (VRR) signal.

When Game Mode is set to On or Auto, the FreeSync (VRR) function is activated.

- FreeSync (VRR) is supported only in the following models:
 - For QLED TV (except for Q6*A/Q5*A series and 50Q8*A model)
 - For AU9 Series (supported only 1920 x 1080 resolution)
 - For The Frame (55LS03A, 65LS03A, 75LS03A)

| 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 | 120 Hz | 270.000 | 120.000 | 1188.000 | progressive |
| 4096 x 2160 | 120 Hz | 270.000 | 120.000 | 1188.000 | progressive |
| * 7680 x 4320 | 60 Hz | 264.000 | 60.000 | 2376.000 | progressive |

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

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 (eARC) port

Blocking movies based on their Motion Picture Association of America (MPAA) rating

The Movie Rating (MPAA) system applies to all materials with supplied ratings in the U.S.A.

From the MPAA:

“The Motion Picture Association of America (MPAA) has implemented a rating system that provides parents or guardians with advanced information on which ~~it~~ are appropriate for children.” Select a lock beside one of the rating categories to block that category and all higher categories. To unblock a category, select the lock icon.

- G: General audience (no restrictions).
- PG: Parental guidance suggested.
- PG-13: Parents strongly cautioned.
- R: Restricted. Children under 17 should be accompanied by an adult.
- NC-17: No children under age 17.
- X: Adults only.
- NR: Not rated.

Blocking programs based on their Canadian English Rating

The Canadian English Rating system applies to all rated material viewed on English-Canadian TV channels. Select a lock beside one of the rating categories to block that category and all higher categories. To unblock a category, select the lock icon.

- C: Programming intended for children under age 8.

- C8+: Programming generally considered acceptable for children 8 years and over to watch on their own.
 - G: General programming, suitable for all audiences.
 - PG: Parental Guidance.
- 14+: Programming containing themes or content that may not be suitable for viewers under the age of 14.
- 18+: Adult programming.

Blocking programs based on their Canadian French Rating

The Canadian French Rating system applies to all rated material viewed on French-Canadian TV channels. Select a lock beside one of the rating categories to block that category and all higher categories. To unblock a category, select the lock icon.

- G: General.
- 8 ans+: Programming acceptable for children 8 years and over to watch on their own.
- 13 ans+: Programming that may not be suitable for children under the age of 13.
- 16 ans+: Programming not suitable for children under the age of 16.
- 18 ans+: Programming restricted to adults.

Blocking Programs based on their Downloadable U.S. Rating

The Downloadable U.S. Rating system only applies to material originating from US DTV channels. Parental restriction information is automatically downloaded while you watch DTV channels. This download may take several seconds. If the information is unavailable from the broadcasting station, the Downloadable U.S. Rating menu is deactivated.

Parental restriction levels differ with the broadcasting station. The default menu name and the Downloadable U.S. Rating name changes depending on the downloaded information. Even when the on-screen display is set to another language, the Downloadable U.S. Rating menu appears only in English.

Select a lock beside one of the rating categories to block that category and all higher categories. To unblock a category, select the lock icon.

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, view the FAQ section or contact the Samsung Call Center.

Picture Issues

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

Testing the picture

[Home](#) > [Settings](#) > [Support](#) > [Device Care](#) > [Self Diagnosis](#) > [Picture Test](#) [Try Now](#)

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

Component Connections and Screen Color

If the color on your TV screen is not correct or the black and white colors are off, run Picture Test.

- [Home](#) > [Settings](#) > [Support](#) > [Device Care](#) > [Self Diagnosis](#) > [Picture Test](#)

If the test results indicate that the problem is not caused by the TV, do the following:

When using the One Connect Box, confirm that its video input connectors are connected to the correct external device video output connectors.

When using the component cable, confirm that the green (Y), blue (Pb), and red (Pr) jacks are plugged into their proper connectors.


For more information about how to connect an external device, run Connection Guide

- [Home](#) > [Source](#) > [Connection Guide](#)

Screen Brightness

If the screen appears too dim, try changing the settings under Reset Picture or disabling Brightness Optimization.

- [Home](#) > [Settings](#) > [Picture](#) > [Expert Settings](#) > [Reset Picture](#)
- [Home](#) > [Settings](#) > [General](#) > [Power and Energy Saving](#) > [Brightness Optimization](#)

If the colors on your TV are correct but just a little too dark or bright, try adjusting the following settings 

- [Home](#) > [Settings](#) > [Picture](#) > [Expert Settings](#) > [Contrast](#)
- [Home](#) > [Settings](#) > [Picture](#) > [Expert Settings](#) > [Brightness](#)
- [Home](#) > [Settings](#) > [Picture](#) > [Expert Settings](#) > [Sharpness](#)
- [Home](#) > [Settings](#) > [Picture](#) > [Expert Settings](#) > [Color](#)
- [Home](#) > [Settings](#) > [Picture](#) > [Expert Settings](#) > [Tint \(G/R\)](#)

Blurring, or Juddering

If you notice blurring or juddering on the screen, use the Picture Clarity Settings function to resolve the issue.

- [Home](#) > [Settings](#) > [Picture](#) > [Expert Settings](#) > [Picture Clarity Settings](#)

The TV image does not look as good as it did in the store

Store displays are tuned to a digital UHD channel or HD channel.

Change the output resolution of your devices, such as digital broadcast receiver, IPTV, and set-top box to UHD or HD.


Be sure to use an HDMI cable to enjoy high quality videos.


-  >  Source > [Connection Guide](#) > [Video Device](#) > [HDMI](#)

To connect the TV with your PC, make sure that your PC's graphic card supports UHD resolutions.

For more information about the supported UHD resolutions, refer to "Supported Resolutions for UHD Input Signals."

For more information about the supported 8K resolutions, refer to "Resolutions for Input Signals supported by QN7**A series or higher."

 Make sure that the set-top box or cable box supports the content or broadcast for UHD and set the resolution. For more information, contact your service provider.

 When using a Samsung TV Plus channel, check the network connection. When the network speed is slow, the app may not work or the image quality may be poor.

The picture is distorted

The compression of video content may cause picture distortions, especially in fast moving pictures from sports programs and action movies.

If the signal reception is weak or poor, screen distortion may be visible but it is not a malfunction.

Mobile phones used close to the TV (within 3.2 ft) may cause noise on analog and digital channels.

The color is wrong or missing

If you're using a Component connection, make sure that the Component cables are connected to the correct jacks.

Incorrect or loose connections may cause color problems or a blank screen.

The color is poor or the picture is not bright enough

Go to Picture and then adjust the Picture Mode, Brightness, Sharpness, and Color settings.

-  >  Settings > [Picture](#) > [Picture Mode](#)
-  >  Settings > [Picture](#) > [Expert Settings](#) > [Brightness](#)
-  >  Settings > [Picture](#) > [Expert Settings](#) > [Sharpness](#)
-  >  Settings > [Picture](#) > [Expert Settings](#) > [Color](#)

See if Brightness Reduction has been enabled.

-  >  Settings > [General](#) > [Power and Energy Saving](#) > [Brightness Reduction](#)

Try resetting the picture.

- [Home](#) > [Settings](#) > [Picture](#) > [Expert Settings](#) > [Reset Picture](#)

There is a dotted line on the edge of the screen

Change Picture Size to 1:1, Standard.

- [Home](#) > [Settings](#) > [Picture](#) > [Picture Size Settings](#)

Change the output resolution of your external device.

The picture is black and white

Check whether Grayscale is set to On

- [Home](#) > [Settings](#) > [General](#) > [Accessibility](#) > [Grayscale](#)

The picture won't display in full screen

HD channels will have black bars on either side of the screen when displaying upscaled SD (4:3) content.

Black bars will appear at the top and bottom of the screen when you watch movies that have aspect ratios different from your TV.

Adjust the picture size options on your external device or set the TV to full screen.

- [Home](#) > [Settings](#) > [Picture](#) > [Picture Size Settings](#) > [Picture Size](#)

The Caption function in the TV menu is deactivated

When an external device is connected with an HDMI or Component cable, the Caption function is unavailable. Adjust the caption setting on the external device.

Captions appear on the TV screen

Turn off the Caption function in Caption Settings.

- [Home](#) > [Settings](#) > [General](#) > [Accessibility](#) > [Caption Settings](#) > [Caption](#)

The HDR of the connected external device turns off

Expand the reception range of the corresponding HDMI input signal in Input Signal Plus.

- [Home](#) > [Settings](#) > [General](#) > [External Device Manager](#) > [Input Signal Plus](#)

The TV remains on or does not turn on automatically.


If the surrounding area is too dark or bright, the motion sensor may not work normally. The performance of the motion sensor may be affected by the installation environment (height, tilt, obstacles). If the clothes you wear or your skin color is similar to the surrounding shading, the motion sensor may not work properly.


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


The TV responds to all visual changes around it (lights, displays, dogs, out-of-window changes, and other occurrences). You can adjust the response level by adjusting the sensitivity of the motion detector.

-  >  Art > Settings > Motion Detector

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

 If the test picture does not appear or there is noise or distortion, the TV may have a problem. Contact Samsung's Call Center 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 Information or refer to the external device's user manual.

"Weak or No Signal" displayed in TV mode or cannot find channel.

Make sure that the external device is connected securely and turned on. Move to Sources to switch to other input sources.

-  >  Source > Sources

When using a set-top box or cable box, check the broadcast signals or the network that is connected to the external device.

The captions are not provided on a digital channel.

When watching channels with the antenna cable connected, run Caption Settings.

-  >  Settings > General > Accessibility > Caption Settings

Some channels may not have caption data.

When watching a channel on an external device such as a set-top box and cable box, turn on the caption function on the device. For more information, contact your service provider.

Broadcasting is deactivated.

Broadcasting is only available when Source is set to TV.

Broadcasting cannot be accessed while you watch TV using a cable box or satellite box.

Broadcasting cannot be accessed while a recording is in progress or the Timeshift function is running.

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.

If you are using an HDMI connection, check the audio output setting on your PC.

If you are using a DVI to HDMI cable, a separate audio cable is required.

To listen to the computer sound, connect external speakers to the audio output connection of the computer.

No screen appears when connecting the TV to an external device.

For more information about how to connect an external device, run Connection Guide.

-  >  [Source](#) > [Connection Guide](#)

Make sure that the external device is connected securely and turned on. Move to Sources to switch to other input sources.

-  >  [Source](#) > [Sources](#)

Using HDMI Troubleshooting, you can check the connection to HDMI cable and external devices (takes approximately 2 minutes).

-  >  [Source](#) > [Connection Guide](#) > [Video Device](#) > [HDMI Troubleshooting](#)

When using a set-top box or cable box, check the broadcast signals or the network that is connected to the external device.

I want to connect to a Bluetooth speaker.

For more information on how to connect a Bluetooth speaker, see Audio Device Bluetooth in Connection Guide.

-  >  [Source](#) > [Connection Guide](#) > [Audio Device](#) > [Bluetooth](#)

The PC screen does not appear or it flickers

When the PC screen does not appear or the PC is not recognized, check the power supply of the PC and then reconnect the HDMI cable between the PC and TV. When the symptom persists, check that the PC is in Sleep mode and then set Input Signal Plus to On.

-  >  [Settings](#) > [General](#) > [External Device Manager](#) > [Input Signal Plus](#)

When the set resolution is not matched, it may cause a blank or flicker screen. For the PC supported resolution, see "Read Before Connecting a Computer (Supported Resolutions)."

Warning

This content is compiled from multiple sources and is provided for reference purposes only. It may not be complete or fully applicable to all situations. If you are unable to resolve your issue, please contact the product manufacturer or an authorized service provider for official support.

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