

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.

-> Source -> Connection Guide

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.

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.

Connecting to the Internet

You can get access to the Internet through your TV. -> Settings -> General -> Network -> Open Network Settings

Connect to an available network.

Establishing a wired Internet connection: . -> Settings -> General -> Network -> Open Network Settings -> Wired

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

- Use a CAT 7 (*STP type) cable for the connection. * Shielded Twist Pair "
- The TV will not be able to connect to the Internet if your network speed is below 10 Mbps.

Establishing a wireless Internet connection

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

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

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.

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 configure specifically for a Samsung TV and if your Wi-Fi network is password protected.
- This function may not be supported depending on the model.

Troubleshooting Internet Connectivity Issues

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

Troubleshooting Internet connectivity issues Try Now

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

No network cable found

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

Wireless network connection failed

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

Unable to connect to a wireless router

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

IP auto setting failed

1. Configure the settings in IP Settings.
 - -> Settings -> General -> Network -> Status -> IP Settings
2. Make sure that the DHCP server is enabled on the router, and then unplug the router and plug it back in.
3. Reset the router if required.
 - For wireless connection, enter the correct password if required.

Unable to connect to the network

1. Check all IP Settings.
 - -> Settings -> General -> Network -> Status -> IP Settings
2. After checking the DHCP server status (must be active) on the router, remove the LAN cable, and then connect it again.
 - For wireless connection, enter the correct password if required.

Connected to a local network, but not to the Internet

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

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

- If the problem persists, contact your Internet Service Provider.

Connecting Video Devices

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

Connecting with an HDMI cable

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

- A Component connection lets you enjoy video resolutions up to 1080p. To watch video from most DVD and Blu-ray players, use the Component connection.
- Review the illustration below, and then connect Component IN and AV IN on the TV to Component OUT on the external device by using the provided component and AV adaptors. Make sure to connect the same color connectors together. (blue to blue, yellow to yellow, etc.)

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

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

- Through the AV connection, you can enjoy video resolution up to 480i.
- Review the illustration below, and then connect AV IN on the TV to AV OUT on the external device by using the provided composite cable and AV adapter. When connecting the cables, be sure to match the colors of the cables to the colors of the ports.

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

Audio Input and Output Connections

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

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

- Connecting with an HDMI (ARC) cable
- Connecting with a digital audio (optical) cable

Connecting through a wireless network

- You can connect the TV to a Samsung audio device that supports the Wi-Fi function through your wireless network. The two devices must be connected to the same network. For more information about how to connect and use a Samsung audio device that supports the Wi-Fi function, refer to its user manual.

Connecting Bluetooth Devices

- For more information about how to connect and use external speakers, refer to the Connection Guide (-> Source -> Connection Guide -> Audio Device -> Bluetooth) and to the speakers' user manuals.
- This function may not be supported depending on the model or geographical area.

Connecting a Computer

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

Connecting through the HDMI port — Screen sharing (HDMI)

When you have connected a PC, go to -> Source, and then select the PC icon from the external device icon list. For more information about the port settings, refer to "Editing the name and icon of an external device."

Connecting Your Mobile Device

Connect your mobile device to the TV on the same network to control the TV with the mobile device or enjoy the content of the mobile device on the TV.

Use the SmartThings app on your mobile device to quickly and easily connect to the TV and control its main settings. In addition, you can remotely check and control the statuses of various devices such as Samsung smart devices, home appliances, and speakers registered to the server.

- Make sure that your TV supports SmartThings. You can check this with the Supported Devices menu in the SmartThings app.
- To use the SmartThings app, you must be signed in to your Samsung account on the TV.
- This function may not be supported depending on the TV model or mobile device.
- The supported functions may differ depending on the version of the SmartThings app.

You can install the SmartThings app from App Store or Google Play Store.

Connecting to the TV via the SmartThings app

1. Turn on the TV.
2. Start the SmartThings app on your mobile device.
3. Tap Add Device on the dashboard of the SmartThings app. Connectable TVs are searched for.
4. From the search results, select the model of your TV.
5. Enter the PIN number displayed on the TV screen.

Once the TV is registered with your Samsung account, you can use the SmartThings app to control the TV.

- If your TV is not found on your mobile device, turn both of them off and on, and then try again.
- If you have more than one TV, you can easily select the TV you want by setting different TV names at -> Settings -> General -> System Manager -> Device Name.

Bidirectionally mirroring your TV and mobile device using the SmartThings app

Bidirectional mirroring refers to either outputting the screen and sound of a mobile device on a TV or outputting the screen and sound of a TV on a mobile device. You can use the SmartThings app to enjoy the screen and sound of the TV on your mobile device or to play the screen and sound of your mobile device on the TV.

Start the SmartThings app on your mobile device. Tap your TV from the dashboard or device. You can use the following functions:

- You can enjoy the screen and sound of the mobile device on your TV.
 - After you connect a mobile device that supports screen mirroring to your TV, you can use screen mirroring to enjoy the screen and sound of the mobile device on your TV wirelessly and play the video, audio, or photo files currently playing on the mobile device on your TV.
- You can enjoy TV screen and sound on your mobile device.
- You can only listen to the TV sound on your mobile device.
 - You can add a new device through the SmartThings app on your mobile phone. Please refer to the user guide in the SmartThings app for more details.
 - This function may not be supported depending on the TV model or mobile device.
 - The supported functions may differ depending on the version of the SmartThings app.
 - If your TV is not found on your mobile device, turn both of them off and on, and then try again.
 - If you have multiple TVs, assign a different name to each TV in -> Settings -> General -> System Manager -> Device Name. to make selection easy

Managing Mobile Devices

-> Settings -> General -> External -> Device Manager -> Device Connect Manager Try Now

- Access Notification: Set whether to display a notification when a mobile device attempts to connect to the TV.
- Device List View, edit, or remove a list of mobile devices registered to the TV.

Switching between external devices connected to the TV

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

Changing the input signal

- -> Source

- When you select a connected external device on the Source screen, the output of the selected device is displayed on the TV's screen.
 - On the standard remote control, press the SOURCE button.
 - To control a device (Blu-ray player, game console, etc.) that supports universal remote control with the TV's remote control, connect the device to an HDMI port on the TV, and then turn on the device. You can switch to the output of the device automatically or you can configure universal remote control for the device automatically. To configure the device for universal remote control automatically, point the TV's remote control at the device.
 - 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

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

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.

- Connection Guide: Displays device connection instructions.

- Universal Remote: Lets you register external devices to your Samsung Smart Remote 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 the Samsung Smart Remote - Using the Universal Remote."

Connection Notes

When connecting an external device, note the following:

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

Connection notes for HDMI

- The following types of HDMI cables are recommended:
 - High-Speed HDMI Cable
 - High-Speed HDMI Cable with Ethernet
- Use an HDMI cable with a thickness of 0.66 inches (17 mm) or less.
- Using a non-certified HDMI cable may result in a blank screen or a connection error.
- Some HDMI cables and devices may not be compatible with the TV due to different HDMI specifications.
- This TV does not support HDMI Ethernet Channel. Ethernet is a Local Area Network (LAN) built with coaxial cables 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 ports instead. If your PC does not support HDMI video out, connect your PC with an HDMI-DVI cable.
- For One Connect supported models, 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 this power sync mode, the TV continues to detect and connect external devices via HDMI cable. This function can be deactivated by removing HDMI cable of connected device.

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)."
- As long as file sharing is activated, unauthorized access may occur. When you do not need to access data, disable file sharing.
- 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.
- 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 function, 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.
- 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.

Smart Features

You can enjoy various apps with Smart Hub.

Smart Hub

View descriptions of Smart Hub's basic functions. From Smart Hub, you can use the Internet search function, install and use various apps, view photos and videos, or listen to music stored on external storage devices, and perform more functions.

- Some Smart Hub services are paid services.
- To use Smart Hub, the TV must be connected to the Internet.
- Some Smart Hub features may not be 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. Try Now
- 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 -> Device Care -> Self Diagnosis -> Reset Smart Hub).

Displaying the Home Screen

Press the button.

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

1. Notification

You can view a list of notifications for all events that occur on your TV. A notification appears on the screen when it is time to view a scheduled program 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 and the following functions are available:

- Delete All: You can delete all your notifications.

- Settings
 - You can select services you want to be notified about.
 - When you select Allow sound, notifications are displayed with a notification sound.

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

- Picture Mode: You can select the picture mode that provides the best viewing experience. To change the picture mode, press the Select button. To make fine adjustments, press the up directional button, and then select Picture Setup.
- Sound Mode: You can select a sound mode to optimize your listening experience. To change the sound mode, press the Select button. To make fine adjustments, press the up directional button, and then select Equalizer Setup.
- Sound Output: You can select which speakers the TV uses for audio output. To change the audio output, press the Select button. To connect to a Bluetooth speaker, press the up directional button, and then select Bluetooth Speaker List. Connecting Bluetooth speaker may not be supported depending on the model or geographical area.
- Game Mode: You can set the Game Mode to optimize the TV screen for better gaming performance. To turn Game Mode on or off, press the Select button. To set the detailed options, press the up directional button, and then select Go to Game Mode Settings. For more information, refer to "Setting the Viewing Environment for External Devices." This function is only available when an external input source is being used.
- Caption: You can watch TV broadcasts with captions. To activate or deactivate the Caption function, press the Select button. To run Accessibility Shortcuts, press the up directional button, and then select Accessibility Shortcuts.
- Sleep Timer: You can turn off the TV automatically at a specific time. To change the sleep time, press the Select button. To set the specific time at which the TV turns off automatically, press the up directional button, and then select Set Up Off Timer.
- Network: You can view the current network and Internet status. Press the up directional button, and then select Network Status or Network Settings.
- Pressing Settings displays all setting menus available.
- This function may not be supported depending on the model or geographical area.

3. Source

- You can select an external device connected to the TV. For more information, refer to "Switching between external devices connected to the TV."

4. Search: You can search for channels, programs, movie titles, and apps from Smart Hub. To use this feature, the TV must be connected to the Internet. This function may not be supported depending on the model.

5. Apps: You can enjoy a wide range of contents, 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."

6. Ambient Mode: In Ambient Mode, you can view beautiful screens, various visual information, and notifications. 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 a QLED TV-specific function, it may not be supported depending on the model.
- For more information about the Ambient Mode, refer to "Using the Ambient Mode."

7. 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 and notify you of new drama series.

- For more information about the 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, photos, or to display the content.

- This function is supported only in The Frame.
- For more information, refer to "Using Art Mode."

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

8 Moving an item on the Home Screen

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

9 Removing an item on the Home Screen

- Move the focus to the app you want to delete, press the down directional button on the remote control, and then select Remove. The selected app is deleted.
- You can add the apps you want to use often to the Home Screen using APPS. To add your favorite apps to the Home Screen, refer to "Managing purchased or installed apps."

Launching Smart Hub automatically

- -> Settings -> General -> Smart Features -> Autorun Smart Hub Try Now
- When you set Autorun Smart Hub to on, the TV displays the Home Screen automatically when you turn the TV on. You can turn this function on or off. Press the Select button at the current menu.

Launching the last used app automatically

- -> Settings -> General -> Smart Features -> Autorun Last App Try Now
- If Autorun Last App is set to on, the last used app is automatically run when you turn on the TV. You can turn this function on or off. Press the Select button at the current menu. This function may not be supported depending on the app. This function may not be supported depending on the model.

Testing Smart Hub connections

- -> Settings -> Support -> Device Care -> Self Diagnosis -> Smart Hub Connection Test Try Now

Resetting Smart Hub

-> Settings -> Support -> Device Care -> Self Diagnosis -> Reset Smart Hub Try Now

- You can reset the Smart Hub settings. To reset Smart Hub, enter the PIN. The default PIN is "0000." You can set the PIN in-> Settings General System Manager Change PIN.
- Change PIN may not be supported depending on the model or geographical area.

Using a Samsung account

Create and manage your own Samsung account. -> Settings -> General -> System Manager -> Samsung Account Try Now

Creating and managing your Samsung account

- You can view the entire text of the Terms & Policy in -> Settings -> General -> System Manager -> Samsung Account -> My Account -> Terms & Conditions, Privacy Policy after logging in to your Samsung account.

- You can also create a Samsung account at <http://account.samsung.com>. Once you have an account, you can use the same ID on both the TV and the Samsung website.
- Add Account appears or not, depending on whether you are logged in to your Samsung account.

Creating a new account -> Settings -> General -> System Manager -> Samsung Account -> Create Account. To create a new Samsung account, follow the instructions on the screen.

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

Creating a Samsung account using a PayPal account

- -> Settings -> General -> System Manager -> Samsung Account -> (Add Account) -> Create with PayPal
- This function may not be supported depending on the model or geographical area.

Using Ambient Mode

Learn about the functions available in Ambient Mode.

-> Ambient Mode: In Ambient Mode, you can view beautiful screens, various visual information, and notifications. 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 a QLED TV-specific function, it may not be supported depending on the model.
- To activate the and menus, first select a content item in Ambient Mode.

Screen states related to Ambient Mode

- Ambient Mode
 - In Ambient Mode, you can set up and enjoy visual information and design. In this state, less power is consumed and brightness is automatically adjusted by the illuminance sensor.
- Getting dark state
 - In Ambient Mode, the TV screen changes automatically according to the surroundings. When the surroundings get dark, the TV screen becomes darker.

When the surroundings get bright before the TV screen turns completely black or when the remote control or the Bixby function is operated, the TV screen returns to Ambient Mode.

- You can change the auto brightness setting for Ambient Mode by using in the Ambient Mode browser screen.
 - In this state, the TV can activate voice guides and process voice commands.
- Black screen state In Ambient Mode, if the surroundings get to a specific level of darkness, the TV turns soft-off. To turn the screen back on in Ambient Mode, press the button on the remote control.
 - You can change the auto brightness setting for Ambient Mode by using in the Ambient Mode browser screen.
 - In this state, the TV cannot activate voice guides and process voice commands.
 - TV off state To enter Ambient Mode when the TV is turned off, press the button on the remote control. To enter TV mode when the TV is turned off, press the button. In TV mode, you can watch broadcasts or enjoy the content on the external connected devices.

Changing the content and settings for Ambient Mode

- The image on your TV may differ from the image above depending on the model and geographical area.
- When you press the or button in Ambient Mode, the Ambient Mode browser screen appears. In the Ambient Mode browser screen, you can select content and change the Ambient Mode settings.

Setting up the content for Ambient Mode

The Ambient Mode browser screen displays content at the top and categories at the bottom. Use the left or right directional buttons in the content list at the top to move the focus to content you want, and then press the Select button. The selected content is played in Ambient Mode.

In the future, more content that you can set up in the Ambient Mode browser will be provided.

You can select the following categories and content:

- Décor: Allows you to select beautiful screens.
- Info: Provides information such as weather, news headlines, and more.
 - This function may not be supported depending on the geographical area.

- **Photo:** Allows you to set a picture stored in your mobile device as the wallpaper of the Ambient Mode screen. You can configure special layouts using your photos.
 - To save photos from your mobile device to the TV and import them in Ambient Mode, use the SmartThings app on your mobile device.

Setting up the Ambient Mode details: In the Ambient Mode browser screen, move the focus to , and then press the Select button. You can change the following settings:

- **Brightness:** Adjusts the screen brightness for Ambient Mode.
- **Color Tone:** Adjusts the colors of the screen for Ambient Mode.
- **Auto Brightness:** 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 according to the ambient light level.
 - This function may not be supported depending on the model.
- **Ambient Off Timer:** Sets the time that the Ambient Mode screen turns off automatically.
 - If there is no remote control input for the set time, the screen goes off. To turn the screen back on in Ambient Mode, press the button on the remote control.

Changing the background color of Ambient Mode

- To change the background color of Ambient Mode, move the focus to in the Ambient Mode browser screen, and then press the Select button. You can change the background color or pattern. Move the focus to a color or pattern you want, and then press the Select button.
 - Take a picture of a wall using the SmartThings app on your mobile device to set it as the background of Ambient Mode. This function may have a delay in image transmission and optimization depending on the network conditions.

Using the Apps Service

Download and run various apps from Smart Hub.

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

- To use this feature, the TV must be connected to the Internet.
- When Smart Hub is launched for the first time, the default apps are automatically installed. The default apps may differ depending on the model or geographical area.

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. If you want to download new apps using Apps, first sign in to your Samsung account.

2. App Search: You can search for available apps.

3. Settings: You can manage the installed apps

Installing and running an app

Installing an app

1. Move to the app you want to install, and then press the Select button. The detailed information screen appears.

2. Select Install. When the installation is complete, the Open menu appears.

3. Select Open to run the app immediately.

- You can view installed apps on the Settings screen.
- If the TV's internal memory is insufficient, you can install some specific apps on a USB device.
- You can run an app installed on a USB device only when the USB device is connected to the TV. If the USB device is disconnected while an app is running, the app is terminated.
- You cannot run an app installed on a USB device on a PC or another TV.

Launching an app: You can run the app desired from Downloaded App. The icons below appear within the selected app's icon and indicate the following:

- : The app is installed on a USB device.
- : The app has a password.
- : The app needs to be updated.
- : The app supports the mirroring function.

Managing purchased or installed apps

Select Settings on Apps. You can manage installed apps.

1. Removing an app

1. Select an app to delete.

2. Select Delete.

3. The selected app is deleted.

- Ensure that the related app data is also removed when you remove an app.
- Standard apps cannot be uninstalled.

2. Adding apps to the Home Screen

1. Select an app to add.

2. Select Add to Home.

3. After the Home Screen appears, move the selected app to the desired location.

4. Press the Select button.
5. The selected app is added to the Home Screen.

3.Locking and unlocking apps

1. Select an app to lock or unlock.
2. Select Lock/Unlock.
3. The selected app is locked or unlocked. To lock or unlock an app, enter the PIN. The default PIN is "0000." You can set the PIN in -> Settings -> General -> System Manager -> Change PIN. Change PIN may not be supported depending on the model or geographical area.

4.Moving apps

1. Select an app to move.
2. Select Move.
3. Move the app to the desired location.
4. Press the Select button.
5. The selected app is moved. This function may not be supported depending on the model or geographical area.

5.Reinstalling an app

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

6.Checking the app information details

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

7.Automatically updating apps To automatically update the installed apps, set Auto Update to ON. Automatic update is enabled only when the TV is connected to the Internet.

Rating apps: You can rate an app on the detailed information screen

Using the e-Manual

Control and read the manual embedded in your TV.

Launching the e-Manual

-> Settings -> Support -> Open e-Manual

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

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

Using the buttons in the e-Manual

1. (Search): Select an item from the search results to load the corresponding page.
2. A - Z (Index) Select a keyword to navigate to the relevant page. This function may not be supported depending on the model or geographical area.
3. (Recently Viewed Topics): Select a topic from the list of recently viewed topics.
4. (Try Now): Allows you to access the corresponding menu item and try out the feature right away.
5. (Link): Access an underlined topic referred to on an e-Manual page immediately.

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.

Getting Support

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

Getting support through Remote Management

- -> Settings -> Support -> Remote Management Try Now
- After consenting to our service agreement, you can use Remote Management to access Remote Support and have a Samsung service technician diagnose your TV, correct problems, and update your TV's software remotely via the web. You can also turn Remote Management on and off.
 - You can also start this function by pressing and holding the button for 5 or more seconds.
 - This function requires an Internet connection.

What is Remote Support? Samsung Remote Support service offers you one-on-one support with a Samsung Technician who can remotely:

- Diagnose your TV
- Adjust the TV settings for you
- Perform a factory reset on your TV
- Install recommended firmware updates

How does Remote Support Work? You can easily get Samsung Remote Support service for your TV:

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

Finding the contact information for service

- -> Settings -> Support -> About This TV Try Now
- You can view the address of the Samsung website, the call center phone number, your TV's model number, your TV's software version, Open Source License 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 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 -> Device Care -> Request Support Try Now
- You can request service when you encounter a problem with the TV. Select the item matching the problem that you encountered, 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 Center 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.

Diagnosing TV operational issues

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

-> Settings -> Support -> Device Care -> Self Diagnosis Try Now

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

- Start Picture Test
- Start Sound Test
- Signal Information
- Start Smart Hub Connection Test
- Reset Smart Hub
- Reset

There Is a Problem with the Picture

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

Testing the picture: -> 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 definition picture you can examine for flaws or faults.

1. Flickering and Dimming

If your TV is flickering or dimming sporadically, you may need to disable some of the energy saving efficiency features.

Disable Brightness Optimization, Brightness Reduction, Motion Lighting, or Contrast Enhancer.

- -> Settings -> General -> Eco Solution -> Ambient Light Detection
- -> Settings -> General -> Eco Solution -> Power Saving Mode
- -> Settings -> General -> Eco Solution -> Motion Lighting

2. 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. -> 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:
 - Confirm that the video input connectors are connected to the correct external device video output connectors.
 - Check the other connections as well. If the TV is connected to an external device via a component cable, confirm that the Pb, Pr, and Y jacks are plugged into their proper connectors.

3. Screen Brightness

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

- -> Settings -> Picture -> Expert Settings -> Backlight
- -> Settings -> Picture -> Expert Settings -> Contrast
- -> Settings -> Picture -> Expert Settings -> Brightness
- -> Settings -> Picture -> Expert Settings -> Sharpness
- -> Settings -> Picture -> Expert Settings -> Color
- -> Settings -> Picture -> Expert Settings -> Tint (G/R)

4. Blurring, or Juddering:

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

5. Unwanted Powering Off

If your TV appears to turn off by itself, try disabling some of the TV's energy ls efficiency functions. See if Sleep Timer has been enabled. The Sleep Timer automatically turns the TV off after a specified period of time.

- -> Settings -> General -> System Manager -> Time -> Sleep Timer

If the Sleep Timer has not been enabled, see if Auto Power Off or Off Timer has been enabled and disable it.

- -> Settings -> General -> Power and Energy Saving -> Auto Power Off
- -> Settings -> General -> System Manager -> Time -> Off Timer

6. Problems Powering On

- If you are having problems powering on your TV, there are a number of things to check before calling the service department.
- Confirm that the TV's power cord is connected correctly at both ends and that the remote control is operating normally.
- Make sure that the antenna cable or cable TV cable is firmly connected.
- If you have a cable box or satellite box, confirm that it is plugged in and turned on.

7. Unable to find a Channel

- If your TV is not connected to a cable box or satellite box, run Auto Program. -> Settings -> Broadcasting -> Auto Program

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

- Store displays are tuned to a digital HD channel.

- If you have an analog cable box or satellite box, upgrade to a digital cable box or satellite box. Use HDMI or Component cables to deliver HD (high definition) picture quality.
- Many HD channels are upscaled from SD (Standard Definition) content. Look for a channel that is broadcasting HD content.
 - Cable/Satellite Subscribers: Try HD channels from the channel lineup.
 - Air/Cable Antenna Connection: Try HD channels after running the Auto Program function
 - -> Settings -> Broadcasting -> Auto Program
- Adjust the cable box or satellite box's video output resolution to 1080i or 720p

9. 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.

10. 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.

11. 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 -> Eco Solution -> Eco Solution

Try resetting the picture.

- -> Settings -> Picture -> Expert Settings -> Reset Picture

12. There is a dotted line on the edge of the screen

- Change Picture Size to 16:9 Standard. -> Settings -> Picture -> Picture Size Settings

13. The picture is black and white

- If you are using AV or analog equipment, disconnect the adapter from the Component (Blue) input port on the TV and connect it to the AV (Yellow) input port.
 - The Component or AV input port may not be provided depending on the model or geographical area.
- Check whether Grayscale is set to On. -> Settings -> General -> Accessibility -> Grayscale

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 strength or refer to the external device's user manual.

I Can't Hear the Sound Clearly

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

Testing the sound

-> Settings -> Support -> Device Care -> Self Diagnosis -> Sound Test. If the TV plays the Sound Test melody without distortion, there may be a problem with an external device or the broadcast signal's strength.

1. There is no sound or the sound is too low at maximum volume

- 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.

2. The picture is good but there is no sound.

- Set Sound Output to TV Speaker. -> Settings -> Sound -> Sound Output
- If you are using an external device, check the device's audio output option.
- For example, you may need to change your cable box's audio option to HDMI if the box connected to your TV is using an HDMI cable.
- To listen to computer sound, connect an external speaker to the computer's audio output connector.
- If your TV has a headphone jack, make sure there is nothing plugged into it.
- Reboot the connected device by disconnecting and then reconnecting the device's power cable.

3. No sound is heard.

- Check whether the Digital Output Audio Format is set to Dolby Digital+.

- If you are using a receiver that does not support Dolby Digital Plus, you will hear no sound when you select Dolby Digital+. -> Settings -> Sound -> Expert Settings -> Digital Output Audio Format -> Dolby Digital+

4. The speakers are making an odd sound.

- Run Sound Test. -> Settings -> Support -> Self Diagnosis -> Start Sound Test
- Make sure that the audio cable is connected to the correct audio output connector on the external device.
- For antenna or cable connections, check the signal information. A low signal level may cause sound distortions.

There Is a Problem with the Broadcast

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

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

- Make sure the antenna cable is connected securely to the TV. Select Source to confirm that the correct input source has been selected-> Source
- If the TV is not connected to a cable box or satellite box, run Auto Program to search for channels -> Settings -> Broadcasting -> Auto Program

2. The TV is not receiving all channels.

- Confirm that the coaxial cable is securely connected to the TV.
- Run Reset or Auto Program.
 - -> Settings -> General -> Start Setup.
 - -> Settings -> Broadcasting -> Auto Program

3. The captions are not provided on a digital channel.

- Go to Caption Settings and change the Caption Mode. -> Settings -> General -> Accessibility -> Caption Settings -> Caption Mode
- Some channels may not have caption data.

4. The picture is distorted.

- The compression of the video content may cause picture distortions.
- This is especially true with fast moving pictures from sports programs and action movies.
- A weak signal can cause picture distortions. This is not a problem with the TV.

5. The picture quality is low.

- Select high definition (HD) channels or programs.

My Computer / Game Console Won't Connect

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

1. The "Mode Not Supported" message appears.
 - Set output resolution of your PC or game console so it matches a resolution supported by the TV.
2. The video is OK but there is no audio.
 - If you are using an HDMI connection, check the audio output setting on your PC.
 - If you are using an HDMI-to-DVI cable, a separate audio cable is required.
 - Note that the HDMI-to-DVI connection is only supported by the HDMI (DVI) port and this port does not transmit audio.
 - To listen to the computer sound, connect external speakers to the audio output connection of the computer.

The TV Won't Connect to the Internet

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

1. The TV cannot connect to your network or apps (for Internet compatible models only).
 - Make sure the TV has a network connection. -> Settings -> General -> Network -> Network Status
 - Contact your Internet service provider.
2. The wireless network connection failed.
 - Confirm your wireless modem/router is on and connected to the Internet.
3. The wireless network signal is too weak.
 - Position your wireless router, modem router, or access point in a central location.
 - Avoid putting it in a corner.
 - Use a wireless repeater to get an instant boost in your wireless signal strength.
 - Place the repeater halfway between your wireless router and your TV.

The Schedule Recording/Timeshift Function Isn't Working

- When Timeshift or Schedule recording aren't working, these steps may help resolve the problem.
- Schedule Recording cannot be used.
 - Check if there is a USB device connected to the TV.
 - Recording will automatically stop if the signal becomes too weak.

- Check the free space on the USB device.
- The function will not work if there isn't enough storage space on the USB device.
- This function is not available in the U.S.A. and Canada.
- This function may not be supported depending on the model or geographical area

Anynet+ (HDMI-CEC) Isn't Working

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

1. Anynet+ does not work.

- Confirm that the device is an Anynet+ device. The Anynet+ system supports Anynet+ devices only.
- Check if the power cord of the Anynet+ device is properly connected.
- Check the cable connections of the Anynet+ device.
- Go to Anynet+ (HDMI-CEC) and see if Anynet+ (HDMI-CEC) has been set to On. -> Settings -> General -> External Device Manager -> Anynet+ (HDMI-CEC)
- Anynet+ (HDMI-CEC) Anynet+ may not function when some other functions are active, including Channel Search, Smart Hub, Initial Setup, etc.
- If you have disconnected and then reconnected the HDMI cable, scan for devices again or turn your TV off and on.

2. I want to start Anynet+. I also want the connected devices to turn on when the TV is turned on.

- Move the focus to the Anynet+ device at -> Source, press the up directional button to move to Anynet+ (HDMI-CEC), and then press the Select button.
- Check if the Anynet+ device is properly connected to the TV, and then select Anynet+ (HDMI-CEC) menu to see if Anynet+ (HDMI-CEC) is set to On. -> Settings -> General -> External Device -> Manager Anynet+ (HDMI-CEC)

3. I want to exit Anynet+..

- Set Anynet+ (HDMI-CEC) to Off. -> Settings -> General -> External Device Manager -> Anynet+ (HDMI-CEC)

4. The message "Connecting to Anynet+ device..." or "Disconnecting from Anynet+ device" appears on the screen.

- You cannot use the remote control when the TV is configuring Anynet+ or switching to the TV viewing screen.
- Use the remote control after the TV has completed the Anynet+ configuring or has switched to the TV viewing screen.

5. The Anynet+ device won't play.

- You cannot use the play function when Start Setup is in progress.

6. The connected device is not displayed.

- Check whether the device supports Anynet+.
- 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+.
- Check whether the HDMI cable is properly connected.
- Go to Anynet+ (HDMI-CEC) and see if Anynet+ (HDMI-CEC) has been set to On. -> Settings -> General -> External Device Manager -> Anynet+ (HDMI-CEC)
- Scan for Anynet+ devices again.
- 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.

7. The TV audio is not being played through the AV receiver.

- Make sure that the AV receiver is connected to the TV's HDMI (ARC) port with an HDMI cable.
- Confirm that the AV receiver is HDMI (ARC) compatible.
- If the AV receiver is not HDMI (ARC) compatible, connect the TV and the AV receiver with an optical cable.

I Have Trouble Launching/Using Apps

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

1. I launched an app, but it's in English. How can I change the language?

- Languages supported by the app may be different from the user interface language.
- The ability to change the language depends on the service provider.

2. My application is not working.

- Check with the service provider.
- Refer to the Help section on the application service provider's website.

My File Won't Play

When files don't play, this may help resolve the problem.

- Some files can't be played.
 - This problem may occur with high-bitrate files.

- Most files can be played back, but you might experience problems with high-bitrate files.

I Want to Reset the TV

Initialize the settings to factory defaults.

1. Reset Settings

- -> Settings -> Support -> Self Diagnosis -> Reset: Resets Picture, Sound, Broadcasting, and all other settings, except for the network settings, to the default settings.

2. Reset Smart Hub

- -> Settings -> Support -> Self Diagnosis -> Reset Smart Hub: Resets all Smart Hub settings to their factory defaults and deletes all information related to Samsung accounts, linked service accounts, Smart Hub service agreements, and Smart Hub applications.

3. Reset Picture

- -> Settings -> Picture -> Expert Settings -> Reset Picture: Resets current picture settings to the default settings.

4. Reset Sound

- -> Settings -> Sound -> Expert Settings -> Reset Sound: Resets current sound settings to the default settings.

Other issues

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

1. 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.

2. 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. -> Settings -> Picture-> Picture Size Settings -> Picture Size
3. The "Mode Not Supported" message appears.
 - The output resolution of the attached device is not supported by the TV.
 - Check the TV's supported resolutions and adjust the external device's output resolution accordingly
 4. The Captions item in the TV is grayed out.
 - 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.
 5. The TV smells of plastic.
 - This smell is normal and will dissipate over time.
 6. Signal Information under Self Diagnosis isn't activated.
 - Verify that the current channel is a digital channel. Signal Information is only available for digital channels. -> Settings -> Support -> Self Diagnosis -> Signal Information
 7. The TV is tilted to the side.
 - Remove the base stand from the TV and reassemble it.
 8. The stand is wobbly or crooked.
 - Make sure the indicator arrows on the stand and stand holder are properly aligned.
 9. The remote control and/or voice control does not work.
 - The TV ships with protective stickers covering some of the sensors. Make sure all of the stickers have been removed.
 10. The Broadcasting function has been deactivated.
 - Broadcasting is only available when the Source is set to TV.
 - Broadcasting cannot be accessed while you watch TV using a cable box or satellite box.
 - Broadcasting cannot be accessed while a recording is in progress or the Timeshift function is running.
 11. PIP is not available.
 - PIP is available only when an external device is connected with an HDMI or Component cable.
 - Note that the function is unavailable when Smart Hub is active.
 - This function may not be supported depending on the model or geographical area

12. The settings are lost after 5 minutes or every time the TV is turned off.

- If Usage Mode is set to Retail Mode, the TV's audio and video settings are automatically reset every 5 minutes.
- Change Usage Mode to Home Mode.
 - -> Settings -> General -> System Manager -> Usage Mode

13. A POP (TV's internal banner ad) appears on the screen.

- Change Usage Mode to Home Mode. -> Settings -> General -> System Manager -> Usage Mode

14. The TV is making a popping noise.

- The expansion and contraction of the TV's outer casing may cause a popping noise.
- This does not indicate a product malfunction.
- The TV is safe to use

15. The TV is making a humming noise.

- Your TV utilizes high-speed switching circuits and high levels of electrical current. Depending on the TV's brightness level, the TV may seem slightly noisier than a conventional TV.
- Your TV has undergone strict quality control procedures that meet our demanding performance and reliability requirements.
- Some noise coming from the TV is considered normal and is not an acceptable cause for an exchange or refund.

16. The software update over the Internet has failed.

- Check the network connection status. -> Settings -> General -> Network -> Network Status
- If the TV is not connected to a network, connect it to a network.
- The upgrade stops if you already have the latest software version.

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.