SAMSUNG

SMART TV
E-Manual

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Picture and Sound

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Using Smart Hub

Learn how to set up Smart Hub and run the functions provided by Smart Hub.

Connecting to the Internet

MENU > More > Network > Network Settings

Connect the TV to the Internet. You can use a wireless connection.

Setting up Smart Hub

Press the 🖐 on the remote control. When you turn on the TV for the first time, you must configure the Smart Hub settings. Follow the instructions on the screen to configure the required settings and complete the setup.
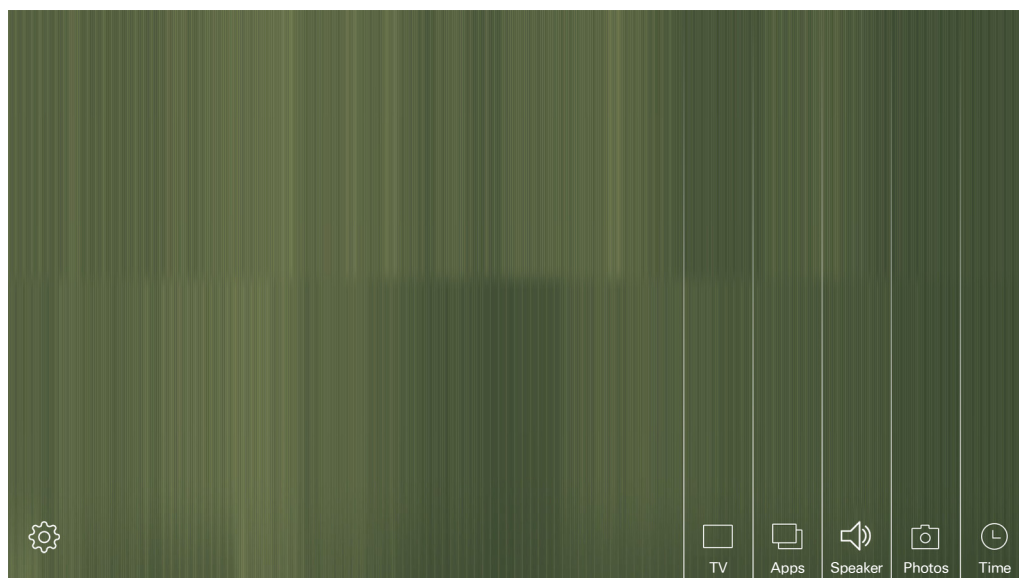
Using Smart Hub

Run multiple functions provided by Smart Hub simultaneously.

🖉   For more information, refer to 'Smart Hub'.

Using the Samsung Smart Remote

Operating the TV with the POINTER button
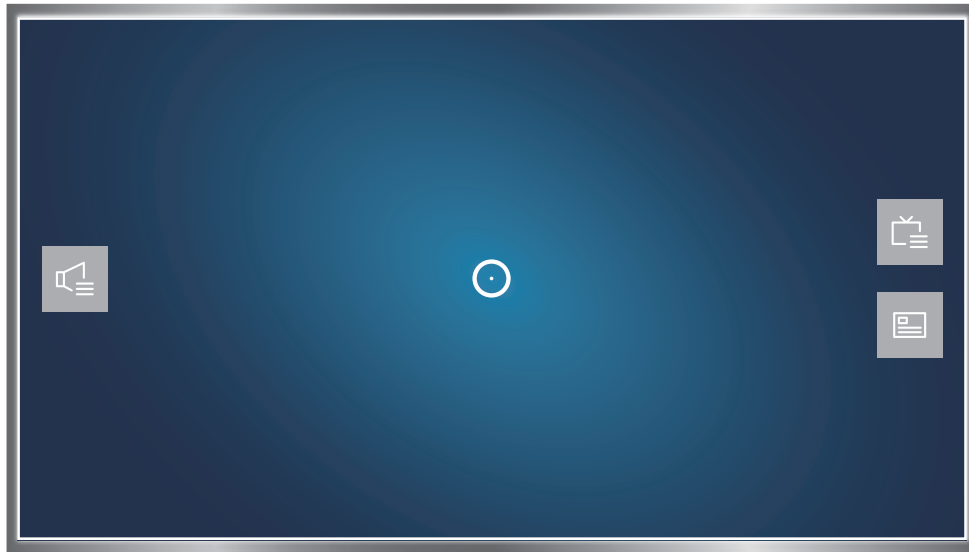
Place a finger on the ⬜ button, and then move the Samsung Smart Remote. The pointer on the screen moves in the direction you moved the Samsung Smart Remote. Move the pointer to one of the following icons on the screen, and then press the ⬜ button.

- 🔊 : Allows you to adjust the volume or select speakers.

- 📺 : Displays the channel list.

- 🗞 : Displays the Electronic Program Guide (EPG).

Setting up the Samsung Smart Remote

MENU > More > System > Smart Control Settings

Configure the Samsung Smart Remote's basic settings.

```
System

        ∧

Smart Security
Universal Remote Setup
Time
Notifications
Device Manager
Smart Control Settings
Eco Solution

        ∨
```
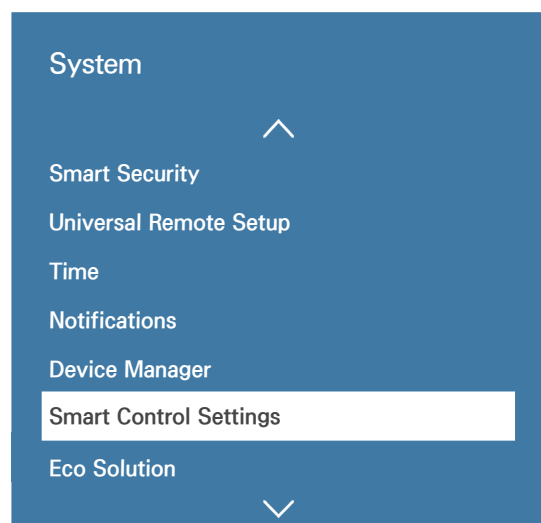
✎ Your TV's menu may differ from the image above, depending on the model.

Pairing the TV to the Samsung Smart Remote

When you turn on the TV for the first time, the Samsung Smart Remote pairs to the TV automatically. To re-pair it to the TV, press the buttons labeled ① and ② below on the Samsung Smart Remote simultaneously for 3 seconds or more.
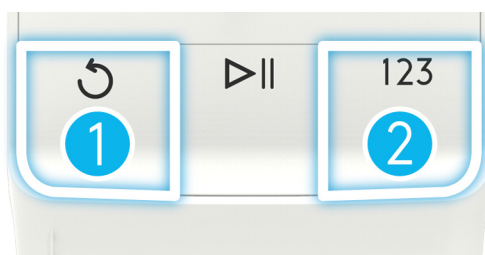
Connecting an Antenna

View broadcasts by connecting an antenna cable to the TV.

Connect a cable from an antenna or cable wall outlet to the ANT IN connector, as shown in the image below.

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

ANT IN
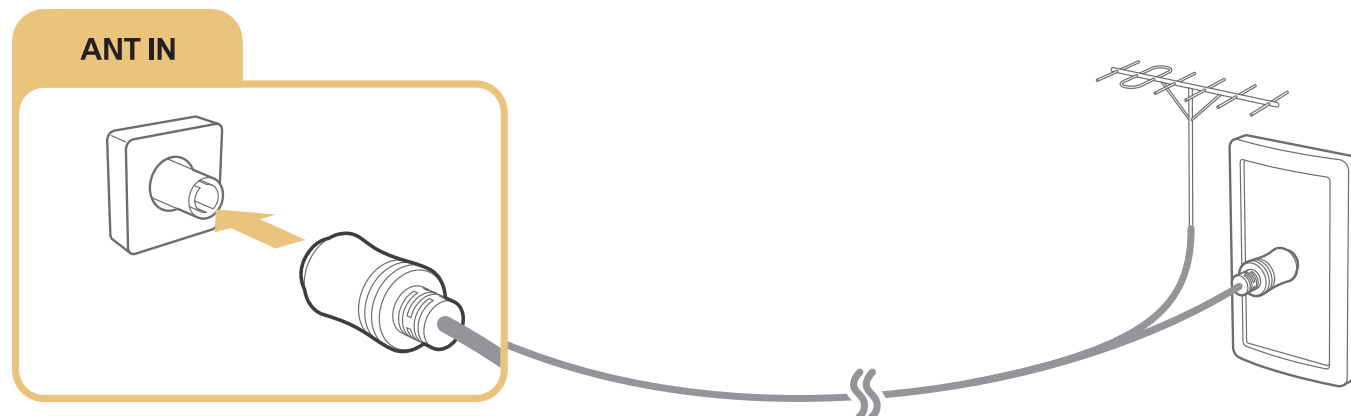
Connecting to the Internet

Connecting the TV to the Internet gives you access to online services and SMART features.

Establishing a wireless Internet connection
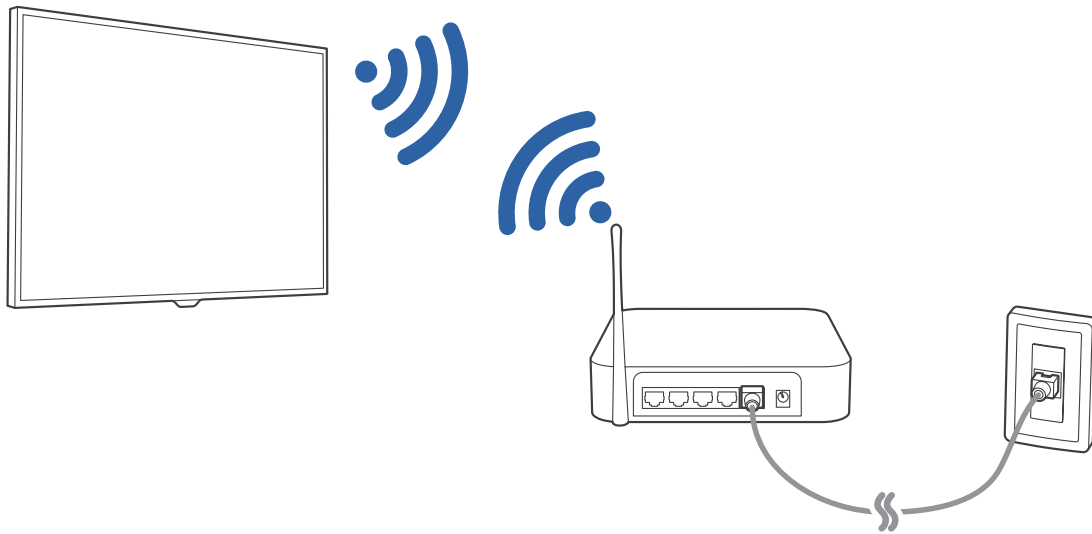
Connecting to a wireless internet network automatically

MENU > More > Network > Network Settings

Make sure that you have the wireless router's SSID (name) and password settings before attempting to connect.

1. The TV automatically displays a list of available wireless networks.

2. Select a network. If the network you want doesn't appear in the list, select **Add Network**, and then enter the network's SSID (name) manually.

3. If your network is security enabled, enter the password. If your network is not security-enabled, the TV will bypass the on-screen keyboard and attempt to connect right away.

Connecting to a wireless internet network with WPS

MENU > More > Network > Network Settings

If the router has a WPS (Wi-Fi protected setup) push button, you can use it to connect the TV to the router automatically.

1. Select **Stop** and then select **WPS(PBC)**.

2. Press the WPS or PBC button on your wireless router within the next two minutes.

3. The TV connects to the network automatically.

Checking the internet connection status

MENU > More > Network > Network Status Try Now

Network

Network Status

Network Settings

Wi-Fi Direct

Multimedia Device Manager

Screen Mirroring

Device Name   [TV] Samsung
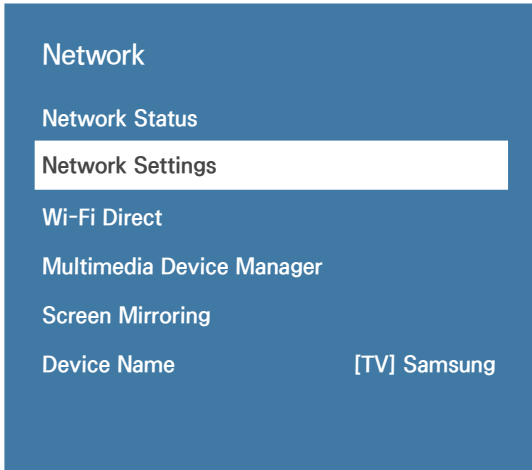
> ✎ Your TV's menu may differ from the image above, depending on the model.

View the current network and Internet status.

Changing the name of the TV on a network

MENU > More > Network > Device Name Try Now

You can change the name for the TV that will appear on mobile devices and laptop computers.

1. Select Device Name from the Network menu.

2. Select a name from the list that appears. Alternatively, select User Input to enter a name manually.

Troubleshooting Internet Connectivity Issues

If you are not able to connect the TV to the Internet, read the information below.

Troubleshooting wireless Internet connectivity issues

Wireless network connection failed

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

Unable to connect to a wireless router

Please check the following:
1. Check if the router is turned on. If it is, turn it off and on again.
2. Enter the correct password if required.

IP auto setting failed

Do the following or configure the **IP Settings** manually.
1. Make sure that the DHCP server is enabled on the router. Then, unplug the router and plug it back in.
2. Enter the correct password if required.
3. If the problem persists, contact your Internet Service Provider.

Unable to connect to the network

Please check the following:
1. Check all **IP Settings**.
2. Enter the correct password if required.
3. If the problem persists, contact your Internet Service Provider.

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**.
3. If the problem persists, contact your Internet Service Provider.

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

If the problem persists, contact your Internet Service Provider.

Connecting Video Devices

View video with the best picture quality by connecting external devices using HDMI cables.

Your TV has HDMI connectors for video input from external devices.

Connecting with an HDMI cable

The following types of HDMI cables are recommended:

- High-Speed HDMI Cable

- High-Speed HDMI Cable with Ethernet

Connect the HDMI cable to the HDMI output connector of the video device and an HDMI input connector of the TV as shown in the image below.
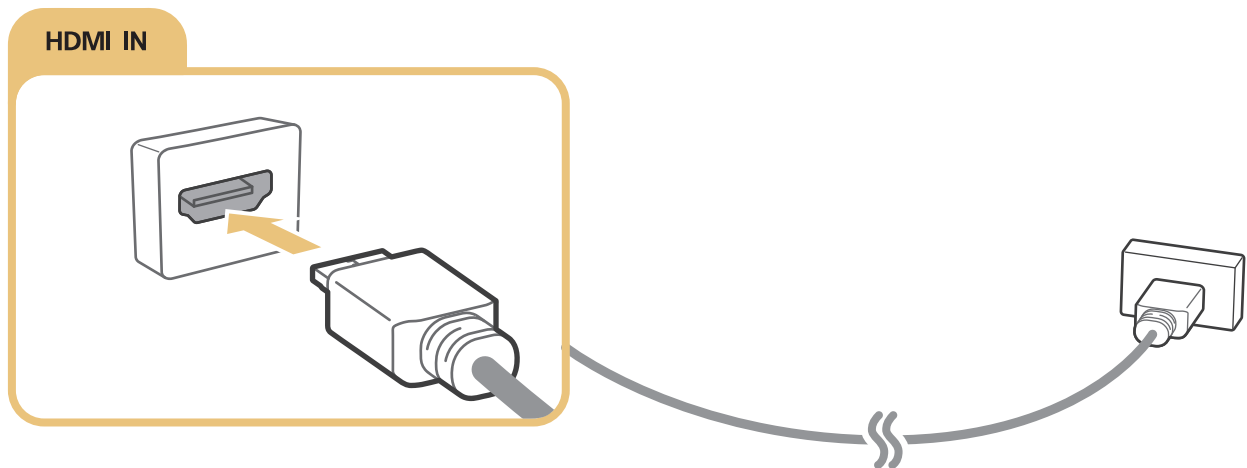
Audio Input and Output Connections

Hear the best sound quality from connected external devices.

Your TV has a variety of connections for audio input from external devices. The connections are listed below.

- HDMI/ARC (Audio Return Channel)

- Digital Audio (Optical)

- Headphones

Connecting with an HDMI (ARC) cable

ARC (Audio Return Channel) lets the TV output digital sound to an audio device and input digital sound from the same audio device through one HDMI cable. ARC is only available through the HDMI (ARC) port and only when the TV is connected to an ARC-enabled AV receiver.

Connect an HDMI cable to the HDMI (ARC) input connector of the TV and the HDMI output connector of the device as shown in the image below.
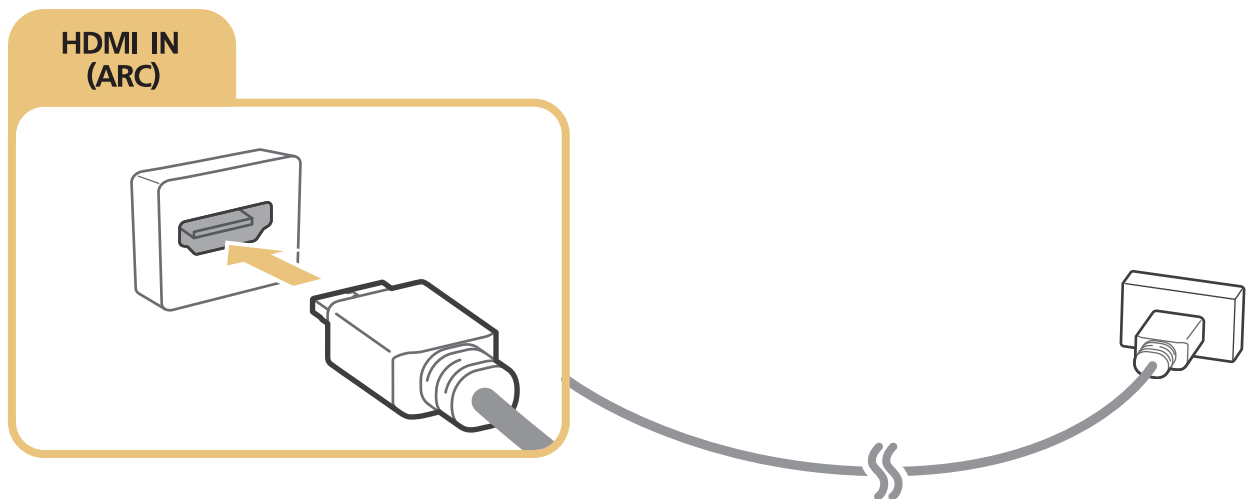
Connecting with a digital audio (optical) cable

You can listen to digital audio by connecting an AV receiver to the TV using a digital audio (optical) cable.

Connect the optical cable to the digital audio output connector of the TV and the digital audio input connector of the receiver as shown in the image below.
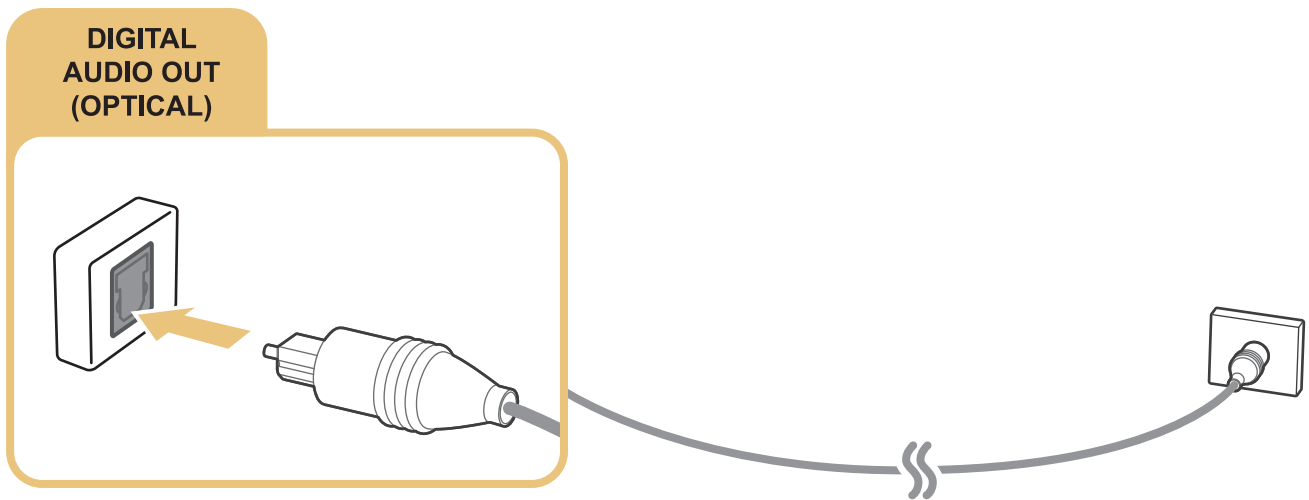
Connecting with headphones

Connect the headphones to the headphone output connector of the TV as shown in the image below.
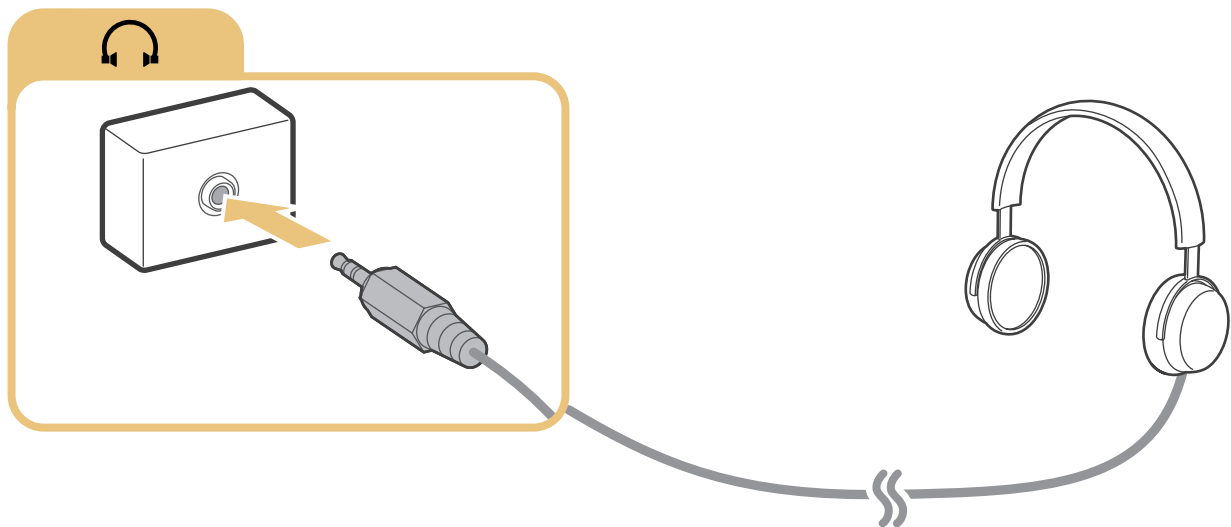
Connecting a Computer

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

The kinds of connections you can make are listed below.

To use the TV as a computer monitor:

- Connect through the HDMI port with an HDMI cable.

- Connect though the HDMI (DVI) port with an HDMI-to-DVI cable.

To view or play the content saved in a computer on the TV:

- Connect through your home network.

Connecting with an HDMI cable

The following types of HDMI cables are recommended:

- High-Speed HDMI Cable

- High-Speed HDMI Cable with Ethernet

Connect the HDMI cable to the HDMI output connector of the computer and the HDMI input connector of the TV as shown in the image below.
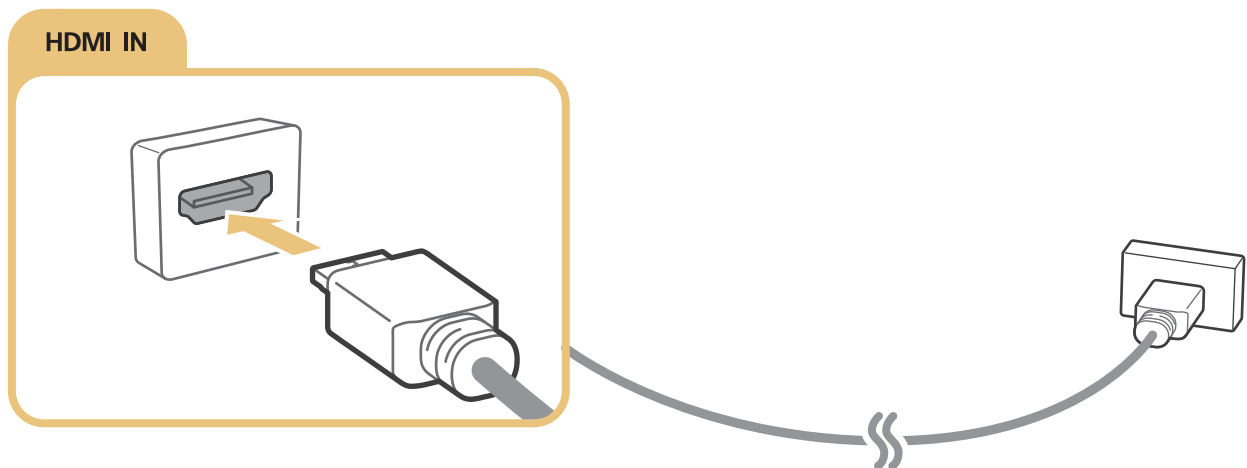
Connecting to a computer with a DVI interface

If the graphics adapter of your computer has a DVI connector and does not have an HDMI connector, connect the computer to the TV with a DVI (Digital Visual Interactive)-to-HDMI cable. Note that the HDMI-to-DVI connection is only supported by the HDMI (DVI) port and does not transmit audio. To listen to the computer sound, connect external speakers to the audio output connector of the computer.

Connect the HDMI-to-DVI cable to the HDMI (DVI) port of TV and the DVI output port of the computer as shown in the image below.

HDMI IN
(DVI)
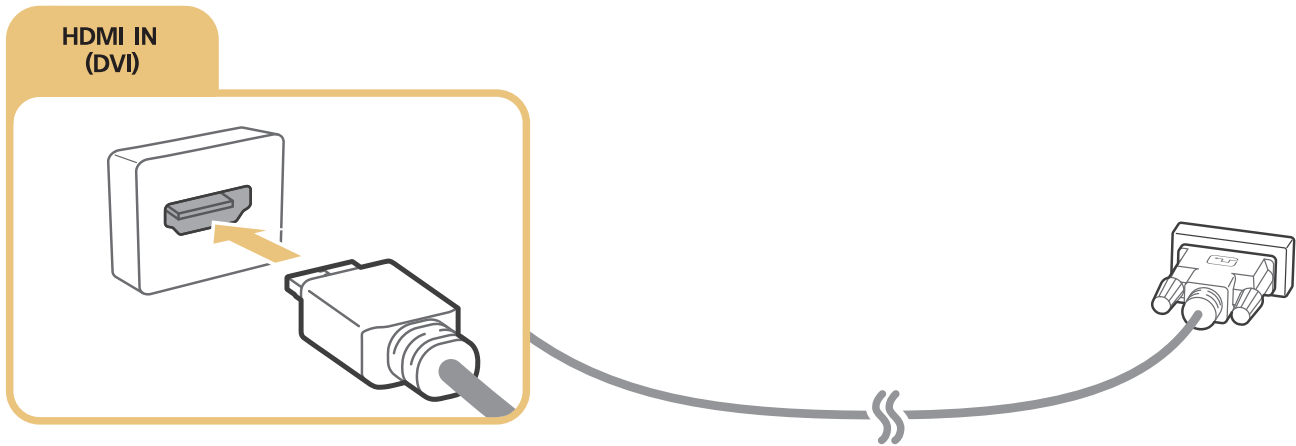
✎ Set **Edit Device Type** to **DVI PC** for a computer connected with a HDMI-to-DVI cable, and **PC** for a computer connected with an HDMI cable. Also, set **Edit Device Type** to **DVI Devices** for an A/V device with a HDMI-to-DVI cable.

Connecting through your home network

You can quickly access and play photo, video, and music files stored on a computer on the TV.

1. Connect the TV and the computer to the same router or AP. Once you connect them to the same router or AP, a home network is configured.

2. On the computer, select [Control Panel] ❯ [Network and Internet] ❯ [Network and Sharing Center] ❯ [Change advanced sharing settings], and select [Choose media streaming options...] to activate media streaming.

3. From the list, set the TV to [Allowed].

Connecting a Mobile Device

You can view the screen of a mobile device after connecting it to the TV or network.

You can connect your smartphone or tablet to the TV or network to watch the screen or content of the mobile device through the TV.

You can connect in three ways:

- **Screen Mirroring**. Lets you watch the screen of the mobile device through the TV using the screen mirroring function.

- **Wi-Fi Direct**. Lets you connect the mobile device directly to the TV without a wireless router.

- **Samsung Smart View**. Lets you connect the mobile device through the Samsung Smart View app.

Using Screen Mirroring

MENU > More > Network > Screen Mirroring Try Now

You can wirelessly connect a mirroring-enabled mobile device to the TV and play the video and audio files stored on the device on the TV. Mirroring refers to the function that plays the video and audio files located on a mobile device on a TV and on the mobile device simultaneously.

Connecting via screen mirroring

1. Launch the Screen Mirroring function on your mobile device. The mobile device searches for available devices to connect to.

2. Select the TV from the list, and then enter the password. The TV automatically allows the connection and the device connects.

3. Select Allow to connect the mobile device.

   ✎ All previously allowed mobile devices will automatically connect without needing approval.

   ✎ If you select Deny, the device cannot connect. To change the connection status of a denied device, Select MENU > More > Network > Multimedia Device Manager, select the device, and then select Allow.

Connecting via screen mirroring by automatically allowing the connection

1. Select Network > Screen Mirroring, You can also start screen mirroring by pressing the SOURCE button on your remote and selecting Screen Mirroring from the list at the top of the screen.

2. Launch the Screen Mirroring function on your mobile device. The mobile device searches for available devices to connect to.

3. Select the TV from the list. The TV automatically allows the connection and the device connects.

   ✎ If the mobile device cannot connect, turn the TV and mobile device off and then on.

Connecting mobile devices without a wireless router (Wi-Fi Direct)

MENU > More > Network > Wi-Fi Direct `Try Now`

You can connect a mobile device with the Wi-Fi Direct feature directly to the TV without using a wireless router or AP. By connecting a mobile device to the TV through Wi-Fi Direct, you can play photo, video, and music files saved on the mobile device on the TV.

1. Enable Wi-Fi Direct on the mobile device, and then run Wi-Fi Direct on the TV. The TV automatically scans for and displays a list of available devices. The TV's name also appears on the mobile device.

2. Select the device from the list to initiate a connection. If a connection request is made by the TV, a permission message appears on the mobile device and vice versa.

3. Allow the connection. The TV and mobile device connect.

 To view a list of the mobile devices that allow or deny a connection, select MENU > More > Network > Multimedia Device Manager.

 When you place a mobile device closer to the TV with Wi-Fi Direct activated, the connection permission confirmation window appears on the bottom left of the screen so that you can easily connect it.

Managing the connection status of previously connected mobile devices

1. Select MENU > More > Network > Multimedia Device Manager. The TV displays a list of devices that have previously connected to the TV or have tried to connect to the TV and been denied. The status of the connection (Allow/Deny) is also displayed.

2. Select connection type or delete the device from the list.

 This function is only available if the devices have previously connected to the TV or have previously attempted to connect and been denied.

Connecting via Samsung Smart View

When you install and then launch Samsung Smart View on a mobile device connected to the TV, you can play the mobile device's multimedia content, such as videos, photos, and music, on the TV. You can also send text messages or control the TV using the mobile device.

 This function is only available on certain models.

Changing the input signal between external devices

Switch between external devices connected to the TV.

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

- **Options**

    Select a connected external device port, and then press the down directional button. The functions that appear in the Options menu can include any of the following:

    🖉 The connector names may vary depending on the product.

    – **Edit Device Type**: Changes the type of the external devices. Select an external device to change.

    – **Edit Name**: You can rename devices connected to the TV to facilitate identifying external sources.

    – **Information**: Displays information about the connected devices.

    – **Anynet+ (HDMI-CEC)**: Displays a list of Anynet+ (HDMI-CEC)-compliant devices that are connected to the TV.

        🖉 This option is only available when **Anynet+ (HDMI-CEC)** is set to **On**.

    – **Remove USB Device**: Lets you remove a USB device connected to the TV safely.

    – **Delete Universal Remote**: Deletes the external device connected to the TV via the Universal Remote function.

        🖉 This function is only available on certain models.

- **Universal Remote Setup**

    You can use your TV remote control to control external devices.

    🖉 This function is only available on certain models.

Connection Notes

Read this section before connecting an external device to the TV.

✎ The number of connectors and their names and locations may vary depending on 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 vary depending on the manufacturer.

Connection notes for HDMI

- Use an HDMI cable with a thickness of 0.55 inches (14 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 ft (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 computer graphics adaptor has a DVI port, use an HDMI-to-DVI cable to connect the computer to the TV.

  ✎ For more information, refer to 'Connecting to a computer with a DVI interface.'

Connection notes for audio devices

- An unusual noise coming from the 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.

- The Sound function may be restricted when you connect headphones to the product.

- Headphone volume and product volume are adjusted separately.

- The earphone jack supports only the 3 conductor tip-ring-sleeve (TRS) type plug.

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.

- Your PC and Smart TV must be connected to each other on the same network.

Connection notes for mobile devices

- To use the Screen Mirroring function, the mobile device must support a mirroring function such as AllShare Cast or Screen Mirroring. To check whether your mobile device supports the mirroring function, please visit the mobile device manufacturer's website.

- To use Wi-Fi Direct, the mobile device must support the Wi-Fi Direct function. Please check if your mobile device supports Wi-Fi Direct.

- To use Samsung Smart View, the mobile device and your Smart TV must be connected to each other through the same network.

- Video or audio may stop intermittently, depending on network conditions.

About the Samsung Smart Remote

Use the Samsung Smart Remote to control the TV more conveniently.

Mute

source   menu

guide

+

vol   ch

smart hub

123

pointer

SAMSUNG

Button	Description
Mute	Press this button to mute the sound temporarily. Press and hold this button to bring up Accessibility Shortcuts that enable or disable the Accessibility menu functions. (MENU > More > System > Accessibility).
SOURCE	Displays and selects the available video sources.
MENU	Displays the menu on the screen.
GUIDE	Launches the Guide (EPG).
⌂	Launches Smart Hub applications.
∧, ∨, <>	Moves the focus and changes the values seen on the TV's menu.
⏎	Selects or runs a focused item. Press and hold this button to launch the Guide while you are watching the TV.
↺	Returns to the previous menu or channel. Press and hold to exit the function currently running on the TV's screen.
▷‖	Controls the content when you are playing movies or music or viewing pictures.
123	Displays numeric buttons, content control button, and other function buttons on the screen so that you can run a function conveniently. ✎ For more information, refer to "Displaying and using the On-Screen Remote."
POINTER	Place a finger on the ◯ button and move the Samsung Smart Remote. The pointer on the screen moves in the direction you moved the Samsung Smart Remote. Press the ◯ button to select or run a focused item. ✎ For more information, refer to "Using the Samsung Smart Remote."

✎ Use the Samsung Smart Remote at a distance of less than 20 ft (6 m) from the screen. The usable distance may differ with the wireless environmental conditions.

✎ The images above may differ depending on the model.

✎ The buttons and functions of the Samsung Smart Remote may differ by model.

Using the Samsung Smart Remote

Control the TV using the Samsung Smart Remote.

Operating the TV with the POINTER button

Place a finger on the ⬭ button and move the Samsung Smart Remote. The pointer on the screen moves in the direction you moved the Samsung Smart Remote. Move the pointer to select an item on the screen.
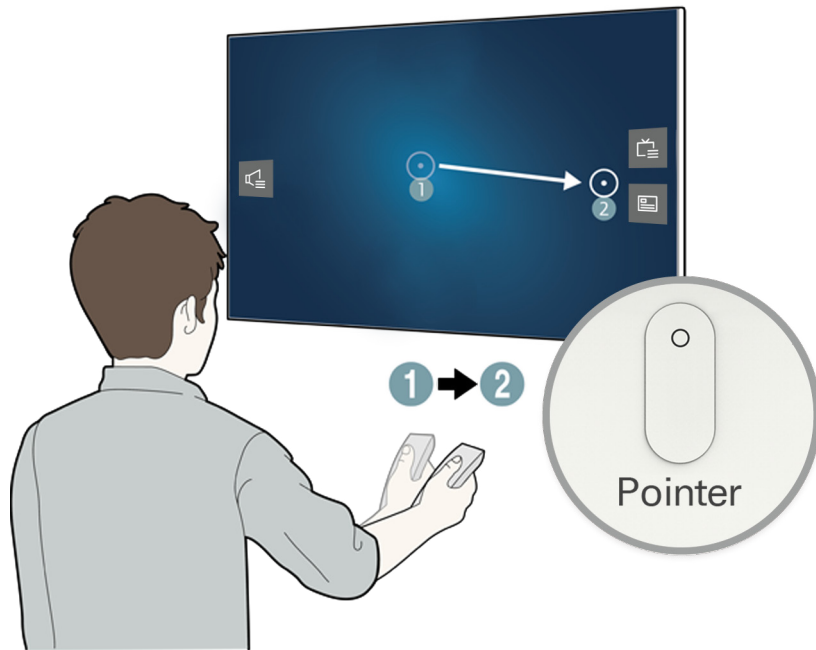
Operating the TV with the directional buttons and the Enter button

Press the directional buttons (up, down, left, and right) to move the pointer, focus, or cursor in the direction you want or change a setting shown on a focused item. Press the ⟵ button to select an item or run a focused item. Press and hold the ⟵ button to view the Guide while watching the TV.

✎ To adjust the pointer speed, select MENU > More > System > Smart Control Settings > Motion Sensitivity. Try Now

Displaying and using the On-Screen Remote

You can display and use the On-Screen Remote on the TV's screen by pressing the 123 button on the Samsung Smart Remote.
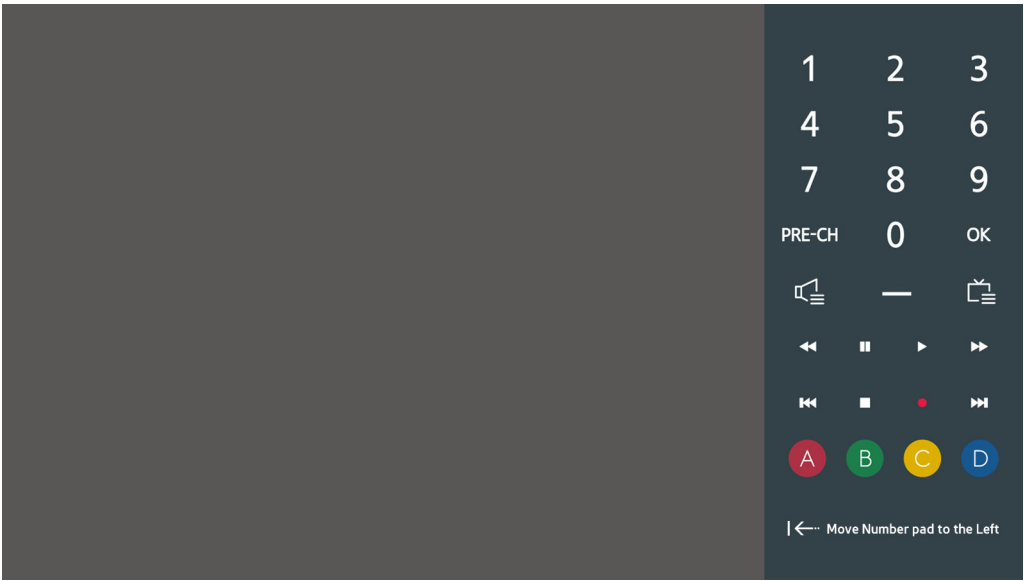
Button	Description
1 2 3 4 5 6 7 8 9 PRE-CH 0 OK	• You can directly enter the channel number to switch to that channel. • PRE-CH: Returns to the previous channel. • OK : Selects or runs a focused item.
◀◀ ⏸ ▶ ▶▶ ◀◀| ■ ● ▶▶|	Lets you control playback when you are playing a video, photo, or music file or watching a recorded program. You can also use the buttons to control the content on an external device.
━	You can use this button to enter digital channels such as 7-1, 11-1.
🔊	Allows you to select the speakers that will play the TV's audio.
📺	Launches the Channel List.

Button	Description
Ⓐ Ⓑ Ⓒ Ⓓ	Use these color buttons to access additional options specific to the feature in use.
Move Number Pad to the Right / Move Number Pad to the Left	Moves the number pad to the left or right.

✎ The On-Screen Remote buttons may vary, depending on the TV model and the TV functions you are using.

Pairing the TV to the Samsung Smart Remote

When you turn on the TV for the first time, the Samsung Smart Remote pairs to the TV automatically. To re-pair it to the TV, press the buttons labelled ① and ② below on the Samsung Smart Remote simultaneously for 3 seconds or more.
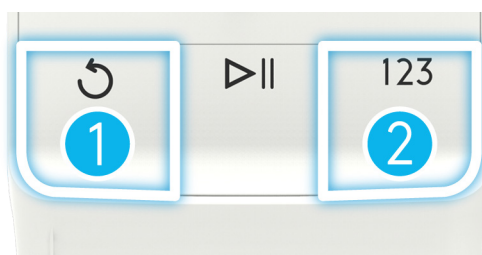
Controlling External Devices with the TV Remote - Using the Universal Remote

The universal remote control feature lets you control external devices connected to the TV.

MENU > More > System > Universal Remote Setup

You can control external devices connected to the TV using the TV's remote control.

✎ You can also use the Anynet+ (HDMI-CEC) function to operate external Samsung devices with your TV's remote control without any additional setup. For more information, refer to 'Using Anynet+ (HDMI-CEC).'

✎ Certain external devices connected to the TV may not support the universal remote feature.

Setting up the universal remote control

1. Connect the device you want to control to the TV using an HDMI cable, and then turn on the external device.

2. Press the SOURCE button on your remote control to bring up the source list screen, follow the directions on the screen to complete the set up and register the device.

✎ If the external device does not respond after being registered, register it again using its model number.

Controlling the TV with a Keyboard

Connecting a keyboard makes it easier to control the TV.

MENU > More > System > Device Manager > Keyboard Settings Try Now

   🖉   Certain models are not compatible with USB HID class keyboards.

Connecting a keyboard

Connecting a USB keyboard

Plug the keyboard cable into the TV's USB port.

Connecting a Bluetooth keyboard

1. Place the Bluetooth keyboard into standby status.

2. Select MENU > More > System > Device Manager > Keyboard Settings > Add Bluetooth Keyboard. The TV automatically scans for available keyboards.

   🖉   If your keyboard is not detected, position the keyboard close to the TV, and then select Refresh. The TV scans for available keyboards again.

3. Select the Bluetooth keyboard from the scan list, and then select Pair and connect. A number appears on the screen.

4. Enter the number using the Bluetooth keyboard. This pairs the Bluetooth keyboard to the TV.

Using the keyboard

You can use the following remote features with the USB or Bluetooth keyboard connected to the TV.

- Arrow Keys (move the focus), Windows Key (displays the TV menu), Enter Key (selects/runs an item), ESC (returns to the previous menu or channel), Number keys (enter numeric values)

- F1 (Ⓐ), F2 (Ⓑ), F3 (Ⓒ), F4 (Ⓓ), F5 (▤), F6 (displays the source list), F7 (displays the channel list), F8 (mute), F9 / F10 (adjust the volume), F11 / F12 (change the channel)

- Page Up / Page Down: On the Web Browser app screen, scroll web pages up/down.

- Press and hold the Enter key: On the Smart Hub screen, navigate to an item, and then press and hold the Enter key to display the context-sensitive menu.

  🖊 The context-sensitive menu may vary depending on the item you selected.

Changing keyboard settings

MENU > More > System > Device Manager > Keyboard Settings > Keyboard Options Try Now

- **Keyboard Language**

  Displays the languages you can use on your keyboard and lets you select a language.

- **Keyboard Type**

  Displays a list of keyboard types and lets you select a type that matches the Keyboard language you selected.

  🖊 The list of keyboard types differs depending on the language you selected under **Keyboard Language**.

- **Switch Input Language**

  Displays a list of keys you can use to toggle between languages and lets you select a key.

Controlling the TV with a Mouse

Connecting a mouse makes it easier to control the TV.

MENU > System > Device Manager > Mouse Settings Try Now

✎ Certain models are not compatible with USB HID class mice.

Connecting a mouse

Connecting a USB mouse

Plug the mouse cable into the TV's USB port.

Connecting a Bluetooth mouse

1. Place the Bluetooth mouse in standby status.

2. MENU > More > System > Device Manager > Mouse Settings > Add Bluetooth Mouse.

3. Select the Bluetooth mouse from the scanned list, and then select Pair and connect. This pairs the Bluetooth mouse to the TV.

Using a mouse

You can use a pointer to control the TV in the same way you use a pointer on a computer.

- **Selecting and running an item**

  Left-click the mouse.

- **Scrolling the TV menu or screen**

  Scroll the mouse wheel up or down.

Changing mouse buttons and pointer speed

MENU > System > Device Manager > Mouse Settings > Mouse Options Try Now

- **Primary Button**

  Select which button (left or right) to use when selecting and running items.

- **Pointer Speed**

  Adjust the movement speed of the pointer.

Entering Text using the On-Screen QWERTY Keypad

Enter text by using the QWERTY keyboard.

Using additional functions

Select {gear icon} on the QWERTY keyboard screen. The following options are available:

- **Recommended text**

  Enables or disables the recommended text feature. The keyboard displays recommended words so that you can enter the text more easily.

- **Reset recommended text data**

  Deletes both the recommended words and the memorized words to clear the list.

- **Predict Next Character (when using direction buttons)**

  Enables or disables the Text Prediction feature.

Smart Hub

Learn about Smart Hub and how to use its basic functions.

🔲 or **MENU** > **More** > **Smart Hub** > **Open Smart Hub** Try Now
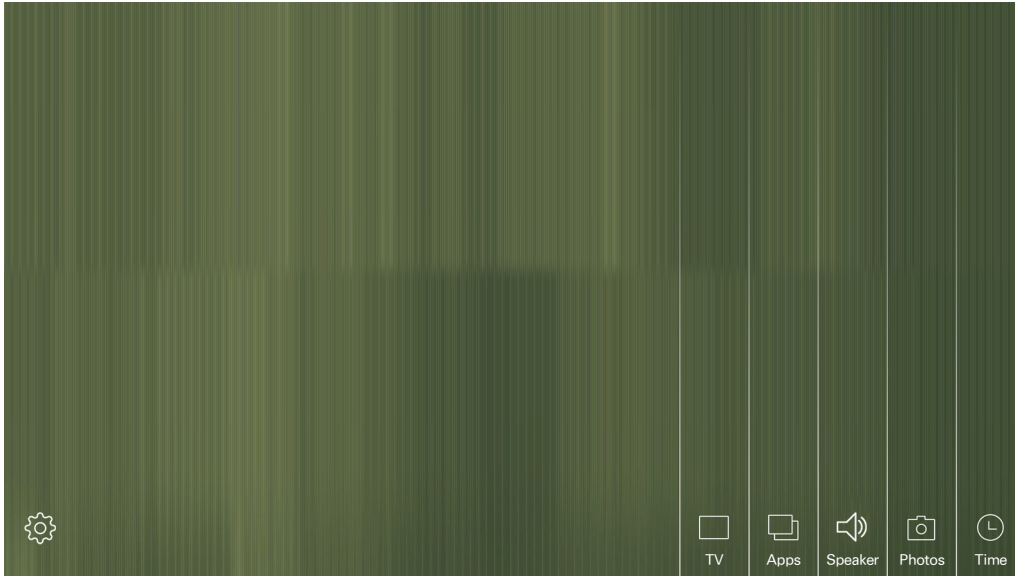
> ✎ Your TV's screen may differ from the image above, depending on the model.

You can surf the web and download apps using Smart Hub. In addition, you can enjoy photo files stored on external storage devices.

Displaying Curtain Mode

Press the 🔲 button, and then curtian mode screen appears. You can use these panels as follows:

> ✎ When the video signal is not perceived, a curtain mode is displayed in monochrome.

- **TV**

  You can exit curtain mode, and then view broadcasts.

- **Apps**

  You can download and play apps.

- **Speaker**

  You can stream songs or play songs saved on your mobile device using Bluetooth.

- **Photos**

  You can play a slideshow using the photos saved on a USB device.

- **Time**

  When you set the TV's clock, you can view the current time on the TV's screen.

- ⚙

    You can set the colour and grid of the curtain mode, and whether or not Smart Hub starts automatically.

Configuring additional functions of curtain mode

Select the ⚙ on the curtian mode screen. The following options are available:

- **Color**

    Allows you to change the color of the curtain mode.

- **Grid**

    Allows you to change the curtain mode's structure which is made up of a series of intersecting vertical, horizontal, and angled straight lines.

- **Auto Start**

    Allows you to set whether or not Smart Hub starts automatically when you turn on the TV.

Launching Smart Hub automatically

MENU > More > Smart Hub > Auto-Start Settings > Smart Hub

You can have Smart Hub start automatically when you turn on the TV.

Testing Smart Hub connections

MENU > More > Support > Self Diagnosis > Smart Hub Connection Test

If Smart Hub is not working, select Smart Hub Connection Test. The Connection Test diagnoses the problem by checking the Internet connection, your ISP, the Samsung server, and the Apps service.

Resetting Smart Hub

MENU > More > Smart Hub > Reset Smart Hub Try Now

You can remove the Samsung accounts saved in the TV and everything linked to them, including apps.

- 🖉 Some of the Smart Hub services are for pay services. To use a for pay service, you must have an account with the service provider or a Samsung account. For more information, refer to 'Using Smart Hub with a Samsung Account.'

- 🖉 Some Smart Hub features may not be available depending on the service provider, language, or region.

- 🖉 Smart Hub service outages can be caused by disruptions in your Internet service.

- 🖉 To use Smart Hub, you must agree to the end user agreement and privacy policy. Otherwise, you will not be able to access the features and services associated with them. You can view the entire text of the **Terms & Policy** by navigating to **Smart Hub** > **Terms & Policy**. If you want to stop using Smart Hub, you can cancel the agreement. Try Now

Using Smart Hub with a Samsung Account

To use Smart Hub, you must have a Samsung account

Creating a Samsung account

MENU > More > Smart Hub > Samsung Account

Some of the Smart Hub services are for pay services. To use a for pay service, you must have an account with the service provider or a Samsung account.

You can create a Samsung account using your email address as your ID.

✎ To create a Samsung account, you must be over 13 years old.

✎ To create a Samsung account, you must agree to the Samsung account end user agreement and privacy policy.

✎ You can also create a Samsung account at http://content.samsung.com. Once you have an account, you can use the same ID on both the TV and the Samsung website.

Signing up for a Samsung account

MENU > More > Smart Hub > Samsung Account > Create Account > Create Samsung Account

You can create a Samsung account by following the on-screen instructions. Once a Samsung account is created, you are automatically signed in to your Samsung account.

✎ If you want to review the Terms and Conditions, select View Details.

✎ If you want your account to be protected, select Profile image selection and password entry (High security) in the field below the password field.

✎ If you want the TV to log you in to your account automatically when you turn the TV on, click Sign me in automatically.

Creating a Samsung account using a Facebook account

MENU > More > Smart Hub > Samsung Account > Create Account > Create Samsung Account with Facebook

Enter your Facebook ID and password, and then follow the on-screen instructions to complete account setup. Once a Samsung account is created, you are automatically signed in to your Samsung account.

✎ Your Samsung account and Facebook account are automatically linked when you create a Samsung account with your Facebook account.

Signing in to a Samsung account

MENU > More > Smart Hub > Samsung Account > Log In

You can automatically sign in to your Samsung account and use the Smart Hub feature.

Registering an existing Samsung account to the TV

If you already have a Samsung account, you can register that account to the TV. Select + > Log In on the Samsung account screen, and then follow the on-screen instructions.

Signing in to a registered Samsung account saved on the TV

If you register a Samsung account, it is saved on the TV. To sign in to a registered Samsung account, just select it on the TV.

✎ To change the sign in method, refer to 'Changing and adding information to a Samsung account.'

Linking your Samsung account to external service accounts

You can automatically log in to external service accounts when you log into your Samsung account by linking your Samsung account to the external service accounts.

✎ To use Link Service Accounts, you must first log into your Samsung account.

Linking or disconnecting a service account

MENU > More > Smart Hub > Samsung Account > Link Service Accounts

- **Linking a service account**

  Select an account from the list and log in to the account by following the on-screen instructions. The service account is linked to the Samsung account.

- **Disconnecting a linked account**

  Select an account from the list, and then unlink the account by following the on-screen instructions.

Changing and adding information to a Samsung account

MENU > More > Smart Hub > Samsung Account > Edit Profile

You can manage your Samsung account. Follow the on-screen instructions to enter your password, and then select Done. The Edit Profile screen will appear automatically.

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

You can perform the following functions on the screen.

- **Change Your Profile Image**

- **Select a Samsung Account sign-in method**

- **Turn auto login on or off**

- **Enter Basic User Information**

- **Subscribe to the Samsung e-Newsletter**

Deleting Samsung accounts from the TV

MENU > More > Smart Hub > Samsung Account > Remove Accounts from TV

You can remove all Samsung account and password information from your TV. The account information for any external accounts linked to the account is also removed from the TV.

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

Using the Apps Panel

Install and enjoy free news, sports, weather, and gaming apps on the TV.

⌂ > Apps > Apps
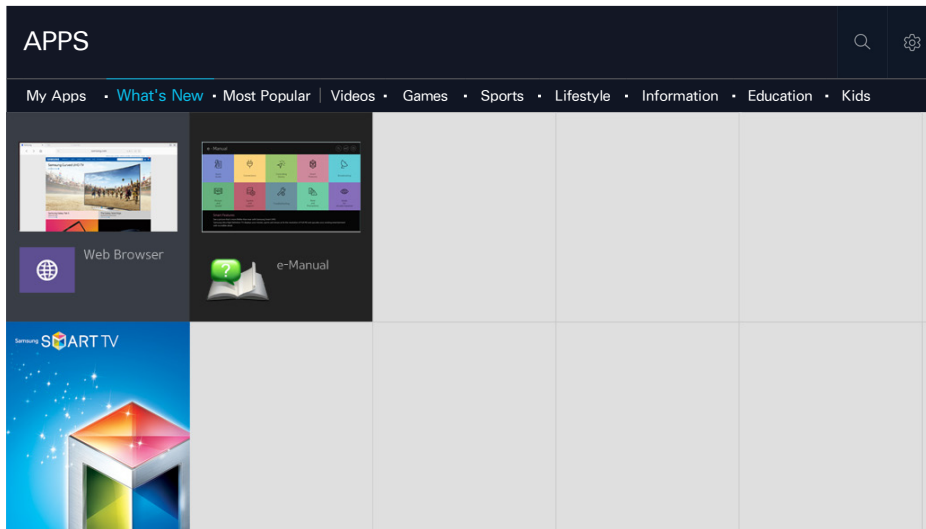
You can enjoy a wide range of content including free news, sports, weather, and games by installing the corresponding apps on your TV. You can download the apps from Smart Hub. On the Apps panel, select +. Select an app displayed on the screen or select a genre category such as Most Popular or What's New on the top of the screen, and then select an app in the genre you selected.

✎ The TV must be connected to the Internet for you to use the Apps service.

✎ When Smart Hub is launched for the first time, the default apps are automatically installed. The default apps may differ by region.

✎ Your TV's screen may differ from the image above, depending on the model.

Managing Games with the pop-up menus

Move the focus to an app in the second row or below, and then press and hold the ⏎ button. The option menu appears displaying the following functions.

- Delete

- Reinstall

- Move

- View Details

✎ The pop-up menu may differ with the app you selected.

Installing an app

Quickly installing apps

1. Select a category on the Apps screen.

2. Move the focus to an app, and then press and hold the ⏎ button. The context-sensitive menu appears.

3. Select Download.

4. The selected app is installed on the TV.

🖊 You can view installed apps on the My Apps screen.

🖊 You can also, install the app from detailed information screen.

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

🖊 You can play an app installed on a USB device only when the USB device is connected to the TV. If the USB device is disconnected during app playing, the app is terminated.

🖊 You cannot play an app installed on the USB device on a PC or another TV.

Launching an app

You can launch an app by selecting an app on the Apps screen.

The icons below appear in the selected apps and indicate the following:

- ⊡ : The app is installed on a USB device.

- 🔒 : The app has a password.

- ⊻ : The app is installed.

- ⬆ : The app has a required update available.

Enabling automatic game updates

MENU > More > Smart Hub > App Auto Update

To update apps automatically, set App Auto Update to On. Apps will be updated automatically when an update becomes available.

Removing an app from the TV

Select an app to remove on the Apps screen, and then press and hold the ⬅ button to confirm it. If you want to remove multiple apps, select all the apps to delete, select ⚙ from the top of the screen, and then select Delete My Apps.

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

Moving apps

Select ⚙ > Move My Apps on the Apps screen. Select an app to move. The 4 directional arrows appear around the app. Move the app to the desired location with the on-screen directional arrows, and then press the ⬅ button.

Locking and unlocking apps

Select the ⚙ > Lock/Unlock My Apps on the Apps screen. The password input screen appears. Enter your password, and then select apps to lock or unlock. When done selecting, select Save. All selected apps are locked or unlocked.

Updating apps

Select ⚙ > Update Apps from the top of the screen on the Apps screen. You can update some apps or all apps.

🖉 This function is only available when My Apps contains an app that needs updating.

Rearranging apps

Select ⚙ on the Apps screen, and then select Sort by to sort the apps by Release Date, Popularity, Title A-Z, or Title Z-A.

🖉 This function is available for all categories except for My Apps, What's New, and Most Popular.

Rating purchased content

You can set the star score by using the left or right directional buttons on the detailed information screen.

Using other app features and functions

MENU > More > Smart Hub > Auto-Start Settings > Channel-Bound Apps & Ticker

You can receive information on TV programs and other relevant services while viewing TV by using an app installed on the TV and linked to a specific channel.

🖉 This function is only available when an app supporting Channel-Bound Apps & Ticker is installed on the TV.

Using the e-Manual

Learn how to use and manage this e-Manual and the Web Browser built into the TV.

Launching the e-Manual

MENU > More > Support > e-Manual

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

1. Select a category from the screen. The content of the selected category appear on the screen.

2. Select an item from the list. The corresponding e-Manual topic appears.

  ✎ 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 of the e-Manual

🔍 (Search): Brings up the search screen. Enter a search term, and then select Done. Select an item from the search results to load the corresponding page.

A-Z (Index): Brings up the index screen. Select a topic from the list to navigate to the relevant page.

🕐 (Recently Viewed Topics): Displays a list of previously read pages. Select a page. The e-Manual jumps to the selected page.

▣ (Try Now): Allows you to access the corresponding menu item and try out the feature right away.

🔗 (Link): Allows you to access the corresponding reference page.

  ✎ The e-Manual cannot be accessed from some menu screens.

Updating the e-Manual to the latest version

Select ⚙ > Update Apps from the top of the screen to update the e-Manual.

Using the Web Browser
Surf the Internet on the TV in the same manner as on a PC.

⌂ > Apps > Web Browser

You can surf the Internet on the TV in the same manner as you would using a PC – even while watching a TV program using PIP. While browsing, select Help to view information about the Internet Web Browser.

- 🖊 For a more convenient web browsing experience, use a keyboard and mouse.

- 🖊 You can scroll the Web Browser page with the 4 directional buttons.

- 🖊 The Web Browser page may differ from that on a PC.

Browsing preferences
Configure the browsing settings for your convenience or to meet you needs. Select ☰ > Settings.

- **General**

  Hides hot spots or menu bars automatically after a period of inactivity or resets all user settings.

  - 🖊 Bookmarks or browsing histories will not be reset.

- **Home Page**

  Sets the homepage that appears when you launch the Web Browser.

- **Search Engine**

  Searches for information using the key words that you entered and displays the resulting web pages.

- **Private & Security**

  Prevents access to inappropriate web pages. Lets you select not to save the browsing history.

- **Blocked pages**

  Blocks or unblocks pages. You can manage a list of pages to block.

- **Approved pages**

  Limits the browser to the web pages you have approved. To use this option, set a password. You can add or remove approved pages.

- **Encoding**

  Lets you set the Encoding to Auto or to an encoding method from a list.

- **About**

  Displays the current version of Web Browser.

Using the Speaker Panel

 ⬆ ❯ **Speaker**

You can play songs saved on your mobile device by using the Bluetooth function.

 🖊 If you re-pair the Samsung Smart Remote to the TV while music is playing, the music currently playing pauses for a moment and then resumes.

Using the Photos Panel

 ⬆ ❯ **Photos**

You can run a slide show on your TV using photos stored on a USB device.

 🖊 On your TV, photos in the JPG and JPEG formats that have been automatically searched can be played using the Photos Panel. Photos in other formats cannot be played using the Photos Panel. To play photos in other formats, use MY CONTENT.

Using the Time Panel

 ⬆ ❯ **Time**

You can display the current time on the screen. Before displaying the current time on the Time panel, select **MENU** ❯ **More** ❯ **System** ❯ **Time** ❯ **Clock** ❯ **Clock Set** to set the clock manually.

Playing Photos, Videos, and Music

Play content saved on external storage devices supported by the TV.

SOURCE 〉 selecting an external storage device ⬭Try Now⬭
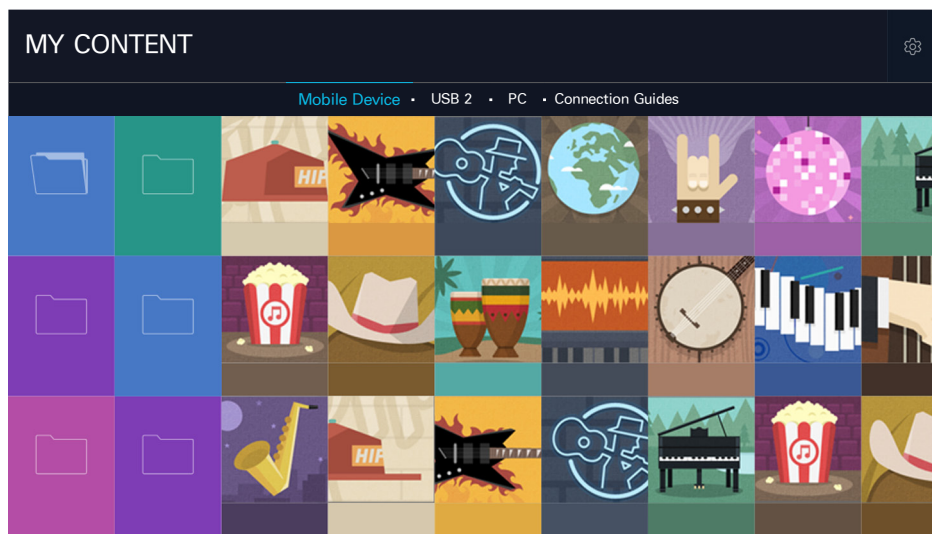
- 🖋 Your TV's screen may differ from the image above, depending on the model.

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

- 🖋 You can view a slideshow with JPG or JPEG format photos automatically in the **Photos** panel.

- 🖋 You can play music files directly in the **Speaker** panel by using Bluetooth.

- 🖋 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 Photos, Videos, or Music.'

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

- 🖋 To connect the TV to a computer, refer to 'Connecting a Computer.'

- 🖋 To connect the TV to a mobile device, refer to 'Connecting a Mobile Device.'

Playing Media Content

Playing media content on your computer or mobile device

1. Press the SOURCE button on the Samsung Smart Remote, and then select a device to play. The media content list of the device appears.

2. Select a media content item from the list. The content is played.

🖊 The content may not be played depending on the encoding type or file format. In addition, several functions may be restricted.

🖊 The content may not play smoothly due to network communication issues. If this occurs, put the content on a USB device, and then connect the device to one of the TV's USB ports.

Playing media content on a USB device

When a device is connected to a USB port, a pop-up message appears. If you select Yes, the media content list of the device appears. Select the name of the connected device in MY CONTENT, and then select a media content item from the list. The content is played.

Functions on the media content list screen

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

- **Filter By**

  Filters the media content to display the type of media you want.

- **Sort By**

  Sorts the content list. The sorting methods change depending on the type of content you have selected.

  🖊 This function is not available when Filter By is set to All.

- **Delete**

  Deletes the recorded media content from the media content list

  🖊 This function is only available when the storage device has recorded media content.

- **Play Selected**

  Plays the selected media content from the media content list.

  🖊 This function is not available when Filter By is set to All.

Buttons and functions available while viewing photos

You can press the ⏎ button while viewing photos to display available options. You can also view the thumbnails of photos saved on the TV while viewing photos.

- **Pause** / **Play**

  Starts or stops a slideshow. Using slideshow, you can play all the photos in a folder one by one.

- **Previous** / **Next**

  Views the previous or next photo.

- **Screen Fit**

  Resizes the photo to full screen.

- **Options**

Function	Description
Slideshow Speed	Sets the slideshow speed.
Slideshow Effects	Applies transition effects to the slide show.
Zoom & Rotate	Zooms in by up to a factor of 4. Rotates the photo.
Background Music	Plays background music while displaying photos. 🖊 The music files must be saved in the same USB device as the photo files. 🖊 When background music plays, the music icon appears on the screen. Using the music icon, you can pause the current music file or play another music file.
Sound Mode	Displays a list of Sound Modes and lets you change the mode. 🖊 This function is available only when background music is playing.
Speaker List	Gives you a choice of which speakers to play the background music through.
Picture Mode	Changes the picture mode.
Information	Displays detailed information about the current photo.

Buttons and functions available while viewing videos

You can press the ⏎ button while viewing videos to display available options. Preview images of the frames at a regular time interval (every minute of running time, for example) are displayed so that you can move to a specific frame easily.

- **Pause** / **Play**

    The following functions are available while the current program is paused. However, while the current program is paused, there is no audio output.

    – **Step**: Allows you to step through the paused video one frame at a time by pressing the ❚❚ button.

    – **Slow Motion**: Allows you to play the video at a slow playback speed (1/8, 1/4, 1/2) by pressing the ▶▶ button.

- **Rewind** / **Fast Forward**

    Rewinds or fast forwards the video. To increase the rewind or fast forward speed up, select the button repeatedly. To restore normal playback speed, press the ▶ button.

- **Previous** / **Next**

    Plays the previous or next video. Press the ◀◀❙ button twice to play the previous video. Press the ❙◀◀ button once to start the current video from the beginning.

    Press the ▶▶❙ button to play the next video.

- **Repeat**

    Plays the current video file repeatedly or all video files in the same folder repeatedly.

● **Options**

Function	Description
Picture Size	Changes the size of the screen. The supported picture sizes differ with the video.
Subtitles	Controls video subtitles. ● **Subtitles**: Turns the subtitles on or off. ● **Language**: Sets the caption language. ● **Sync**: Adjusts the synchronization when the video and the subtitles are not synchronized. ● **Reset Sync**: Resets the subtitle synchronization adjustment to 0. ● **Size**: Changes the font size of the subtitles. ● **Encoding**: Displays a list of encoding languages. Allows you to change the encoding language when subtitles are displayed incorrectly.
Rotate	Rotates the video.
Picture Mode	Changes the picture mode.
Sound Mode	Displays a list of Sound Modes and lets you change the mode.
Speaker List	Gives you a choice of speakers to play the video sound through.
Information	Displays detailed information about the video.

Buttons and functions available while playing music

You can use the following functions when you select a music file.

- **Pause** / **Play**

- **Previous** / **Next**

  Plays the previous or next music file. Press the ⏮ button twice to play the previous music file. Press the ⏮ button once to start the current music file from the beginning.

  Press the ⏭ button to play the next music file.

- **Repeat**

  Plays the current music file repeatedly or all music files in the same folder repeatedly.

- **Shuffle**

  Plays the music files in random order.

- **Speaker List**

  Gives you a choice of speakers to play the music through.

- **Picture Off**

  Plays the music files with the screen off.

Viewing Digital Broadcast Information at a Glance
The Guide provides an overview of each digital channel's program lineup.

Using the guide
MENU > More > Broadcasting > Guide Try Now Try Now

You can check the program schedules and set up a Schedule Viewing from the Guide.

> 🖉 To select the buttons that appear at the bottom of the screen with the Samsung Smart Remote, place a finger on the ⬭ button. A pointer appears on the screen. Move the pointer to a button, and then press the ⬭ button.

> 🖉 The information in the **Guide** is for digital channels only. Analog channels are not supported.

> 🖉 To view the Guide, you must first set the TV's clock (**MENU** > **More** > **System** > **Time** > **Clock**).

To access the Guide functions after launching the Guide, press and hold the ⬚ button on the remote control. A popup window listing the following functions appears:

- **Changing the Channel List**

  Filters the channels displayed in the **Channel Filter** by the following categories: **All**, and **Favorites 1** – **Favorites 5**.

- **Moving to Schecdule Manager screen**

  Displays the **Schedule Manager**.

- **Adding to Favorites list**

  Allows you to set a channel that you select in **Edit Favorite Channels** as a favorite.

- **Viewing detailed program information**

  Displays detailed information about a selected program. The program information may differ with the broadcast signal and may not be available at all for certain programs.

  – Select a current program on another channel, and then select **View Details** to **Watch** the program.

  – Select an upcoming program, and then select **View Details** to set up a **Schedule Viewing**.

  > 🖉 For more information about **Watch** or **Schedule Viewing**, refer to 'Setting Up a Schedule Viewing.'

  > 🖉 You can only view programs scheduled after the current time.

Changing the broadcast signal

MENU > More > Broadcasting > Antenna Try Now

You can choose the appropriate DTV mode for your viewing environment. Select **Air** or **Cable**. **Air** is suitable for homes equipped with a separate, over-the-air antenna. **Cable** is suitable for homes that have subscribed to a local cable-service or satellite-service provider.

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

Checking digital channel signal info and strength

MENU > More > Support > Self Diagnosis > Signal Information Try Now

You can check a digital channel's signal information and strength.

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

 This function is only available for digital channels.

Setting Up a Schedule Viewing

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

The 🕐 appears next to programs that have been configured for a Schedule Viewing.

✎ To set up a Schedule Viewing, you must first set the TV's clock (MENU > More > System > Time > Clock).

Setting Up a Schedule Viewing

Setting up a schedule viewing for a digital channel

- **The Guide Screen**

  On the Guide screen, use your remote control to highlight, and then select a program you would like to view.

- **The Program Info Screen**

  Press the ⬅ button while you are watching the TV. The Program Info window appears.

  Press the left or right directional button to move to a program you would like to view, and then press the ⬅ button. Select 📅 that appears on the Program Info window. The program is scheduled for viewing.

Setting up a schedule viewing for analog channel

MENU > More > Broadcasting > Schedule Manager Try Now

You can set up a scheduled viewing for an analog channel. You need to know the channel, day or days of the week the program is airing, and the time the program is airing.

Editing a schedule viewing

MENU > More > Broadcasting > Schedule Manager

You can edit the time, days, or channel of a schedule viewing.

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

Using the Channel List

Change the channel or check programs on other digital channels.

MENU > More > Broadcasting > Channel List Try Now

To display the Channel List, place a finger on the ⬡ button on the Samsung Smart Remote, and then select the 🖿 icon that appears at the right side of the screen. Using the Channel List, you can change the channel or check programs on other digital channels while watching TV.

The Channel List screen contains the following icons:

– A : An analog channel

– ♥ : A favorite channel

– 🔒 : A locked channel

Press the left directional button. The following functions are available:

- **History**

    Displays a list of channels that you viewed recently.

- **Add a New List**

    Allows you to create a new channel list by adding channels from a favorites list.

    🖉 This option is available only if you have registered one or more channels to at least one favorites list.

- **Added Ch.**

    Displays the selected channel list.

- **Options**

Function	Description
Antenna	Allows you to select Air or Cable as the DTV mode. Air is suitable for homes equipped with separate, over-the-air antennas. Cable is suitable for homes that subscribe to a local cable-service or satellite-service provider. You do not need to use this function if your TV is connected to a cable or satellite box.
Edit Channel Lists	Allows you to rearrange the order of channels in the channel list or remove channels from the channel list.
Edit Channel	Allows you to remove channels from the channel index, restore removed channels, and rename analog channels.
Edit Favorites	Sets favorite channels. 🖉 For more information, refer to 'Creating a Personal Favorites List.'

Registering, Removing, and Editing Channels

Remove channels, restore removed channels, and rename analog channels.

MENU > More > Broadcasting > Edit Channel Try Now

The Edit Channel screen icons indicate the following:

- **A** : An analog channel

- 💗 : A favorite channel

- 🔒 : A locked channel

Registering and removing channels

Removing Registered Channels

You can remove a registered channel from the channel index. Move the highlight to a channel, and then select it to remove it. Repeat to select additional channels. To select all channels, select Options, and then select Select All from the list. You can also select Deselect All. After you have made your selections, select Delete.

Adding back removed channels

You can restore channels to the index of channels by adding them back. Select Options to display a list of options. Select Category from the list, and then select All. To unselect a channel, move the highlight to the channel, and then select it. To select all channels, select Options, and then select Select All from the list. You can also select Deselect All. After you have made your selections, select Add.

Editing registered channels

You can access the following options by selecting Options at the bottom left of the screen. The available options may differ with the broadcast signal.

- **Select All** / **Deselect All**

  Selects or deselects all channels displayed on the Edit Channel screen.

- **Antenna**

  Allows you to select Air or Cable as the DTV mode.

- **Category**

  Displays the channels of a selected category in the list. The channels stored in the TV are grouped into the following categories: All and Added Ch..

- **Edit Favorites**

  Sets favorite channels.

  🖊 For more information, refer to 'Creating a Personal Favorites List.'

- **Rename Channel**

  Renames analog channels. The new name can be up to 5 characters long.

  🖊 This function is only available for analog broadcasts.

- **Information**

  Displays detailed information about the current program.

Using Program Rating Lock

MENU > More > Broadcasting > Program Rating Lock `Try Now`

You can block programs based on their ratings by using Program Rating Lock. This function is useful for controlling what children watch on TV. Program Rating Lock does not block programs originating from external sources, such as Blu-ray players, DVD players, or USB files.

Every time you access Program Rating Lock, you must enter the security PIN. You must also enter this PIN to watch a blocked program. The default PIN is 0000. To change the PIN, go to System > Change PIN.

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

Blocking programs based on their TV Rating

You can block TV programs based on their rating. To block content, select a rating category to lock. All programs at that level and higher are blocked and require the PIN to watch. To unblock a category, select the lock icon. To unblock all the categories in a row, select the lock under ALL.

Categories on the left:

- TV-Y: Young children

- TV-Y7: Children 7 and over

- TV-G: General audience

- TV-PG: Parental guidance

- TV-14: Viewers 14 and over

- TV-MA: Mature audience

Categories on the top:

- ALL: Lock all TV ratings.

- FV: Fantasy violence

- V: Violence

- S: Sexual situations

- L: Adult Language

- D: Sexually Suggestive Dialog

Blocking movies base on their Movie Rating (MPAA)

You can block movies based on their MPAA rating. This rating system applies to all material 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 films 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

You can block programs based on their **Canadian English Rating**. This 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 which may not be suitable for viewers under the age of 14

- **18+**: Adult programming

Blocking programs based on their Canadian French Rating

You can block programs based on their Canadian French Rating. This 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

You can block programs based on their Downloadable U.S. Rating. This 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.

Watching blocked / restricted programs

To watch a blocked program, enter the PIN when requested.

When initially showing a restricted program or movie, the screen is blank because the Program Rating Lock blocks it. Enter the PIN to unblock the program when a message appears requesting the code.

Creating a Personal Favorites List
Designate frequently watched channels as favorite channels.

Favorite channels are highlighted in the **Edit Channel** and **Channel List** screens with the ♥ symbol. You can create up to 5 favorite channel lists.

Registering channels as favorites

MENU > **More** > **Broadcasting** > **Edit Favorites**

You can register multiple channels as favorites at the same time

1. Select the channels that you want to add to your Favorites list(s) from the list in the screen.

2. Select **Change Fav.** on the screen.

3. Select **Add** on the screen. The TV adds the channels you selected to the Favorites list you chose.

Viewing and selecting channels on Favorites lists only

MENU > **More** > **Broadcasting** > **Channel List**

You can flip through only the Favorite list channels and select a channel using the channel up/down buttons.

1. Press the left directional button, and then select a favorites list from **Favorites 1** to **Favorites 5**.

2. Highlight a channel from the selected Favorites list using the channel up/down buttons, and then select it. The channel changes.

🖉 A Favorites list can be selected only if it contains at least one favorite channel.

Editing a Favorites List

MENU > More > Broadcasting > Edit Favorites

Rename and edit Favorites lists.

Using the Edit Favorites screen menu items

You can access the following options by selecting Options on the Edit Favorites screen.

- **Select All** / **Deselect All**

  Selects or deselects all channels saved on the TV.

- **Copy to Favorites**

  Copies channels from one favorite channels list to another.

  - This option is available only if you have registered one or more channels to at least one Favorites list.

  - For more information, refer to 'Copying channels from one favorites list to another.'

- **Rename Favorites**

  Renames an existing favorite channels list.

  - This option is available only if you have registered one or more channels to at least one Favorites list.

  - For more information, refer to 'Renaming a favorites list.'

- **Antenna**

  Allows you to select Air or Cable.

- **Edit Channel**

  Allows you to manage the channels saved on the TV.

  - For more information, refer to 'Registering, Removing, and Editing Channels.'

Removing channels from a favorites list

Select **Edit Favorites**. Select **Change Fav.** to move to the favorites list that has the channels you want to remove. Select the channels, and then select **Delete**.

Rearranging a favorites list

Select **Edit Favorites**. Select **Change Fav.** to move to the favorites list that has the channels you want to rearrange. Select the channels, and then select **Change Order**. The Change Order highlight appears. Press the up/down arrow buttons to indicate the new location for the channels. Press the Enter button to set the channels into their new location.

Renaming a favorites list

Select **Options** 〉 **Rename Favorites**. Select the favorites list you want to rename. Enter a new name using the on-screen keyboard that appears, and then select Done. Select **OK**.

Copying channels from one favorites list to another

Select **Edit Favorites**. Select **Change Fav.** to move to the source favorites list, and then select the channels to copy. Select **Options** 〉 **Copy to Favorites**. Select the destination favorites list, and then select **OK**. Select **OK** again.

🖊 **Copy to Favorites** is only available if there are channels in at least one favorites list.

TV-Viewing Support Functions

View the broadcasts more comfortably.

Showing captions

MENU > More > System > Accessibility > Caption Try Now

You can watch TV broadcasts with captions. Press and hold the 🔲 button on the Samsung Smart Remote to turn the **Caption** function on or off.

> 🖉 Captions are not displayed by programs that do not support captions.

Enabling captions

Set **Caption** to **On** in the **Caption** menu (**MENU** > **More** > **System** > **Accessibility** > **Caption**).

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

Selecting the caption language

MENU > More > System > Accessibility > Caption > Caption Mode

Select the caption mode in the list. The Caption Mode lists may differ by the broadcasts.

- **Default** / **CC1** ~ **CC4** / **Text1** ~ **Text4**

  (Analog channels only) Operates in either analog TV channel mode or when a signal is supplied from an external device to the TV. (Depending on the broadcast signal, the analog caption function may or may not work with digital channels.)

- **Default** / **Service1** ~ **Service6** / **CC1** ~ **CC4** / **Text1** ~ **Text4**

  (Digital channels only) Works with digital channels. Service1 - Service6 may not be available in digital caption mode depending on the broadcast.

Changing the font color, caption size, and font opacity

You can change the font color, background color, and size settings.

Select **MENU** > **More** > **System** > **Accessibility** > **Caption** > **Digital Caption Options** to change a value in the following caption settings:

- **Size**

  Changes the font size. **Size** is not supported by analog channels.

- **Font Style**

  Changes the font style for the subtitles.

- **Font Color**

  Changes the font color.

- **Background Color**

  Changes the caption's background color.

- **Window Color**

  Selects the color of the digital caption window.

- **Font Opacity**

  Changes the caption's opacity.

- **Background Opacity**

  Changes the background's opacity.

- **Window Opacity**

  Adjusts the transparency level of the digital caption window.

- **Edge Type**

  Selects the outline type for the digital captions.

- **Edge Color**

  Selects the color outline for the digital captions.

- **Return to Default**

  Restores all caption display options to the **Default** setting. The **Default** setting applies the TV station's transmitted settings to the captions.

  🖊 The foreground and background color and opacity settings cannot be the same.

Enabling the audio guide for the visually impaired

MENU > More > System > Accessibility > Video Description

You can activate the audio guide for the visually impaired. This function is only available with broadcasts that provide this service. Press and hold the ◁ button on the Samsung Smart Remote to turn Video Description function on or off.

Scanning for available channels

MENU > More > Broadcasting > Auto Program Try Now

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

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

- 🖉 If the TV has saved channels, Auto Program deletes the existing list, and then saves the newly scanned channels.

Selecting the broadcast audio language

MENU > More > Broadcasting > Audio Options Try Now

You can select the TV's audio language. This is the language you will hear while watching TV, if the language is included in the broadcast signal. Audio Options functions differently for analog and digital channels.

Selecting the Broadcast Audio Language for Digital Broadcasts

- **Selecting a Language** Try Now

  Select Audio Options > Preferred Language, and then select a language. Digital programs are automatically played in the language you selected if the language is included in the broadcast signal. If the language you selected is not included in the broadcast signal, the TV will use the default audio language broadcast by the TV station.

Selecting the Broadcast Audio Language and Other Options for Analog Broadcasts

- **Listening to Multi-Track Sound** `Try Now`

  Select **Audio Options** ❯ **Multi-Track Sound**. Configure the audio for the current broadcast. **Multi-Track Sound** can be set to mono or stereo, depending on the broadcast signal or program. This option is automatically set to mono if the broadcast signal or program does not support stereo.

Fine-tuning analog broadcasts

MENU ❯ More ❯ Broadcasting ❯ Channel Settings ❯ Fine Tune `Try Now`

When analog pictures become shaky and full of noise, fine-tune the signal to clear up the picture.

🖉   This function is only available for analog broadcasts.

Removing pay channels

MENU ❯ More ❯ Broadcasting ❯ Channel Settings ❯ Clear Scrambled Channel

Auto Program scans and indexes all channels, both free and pay respectively. You can remove all scrambled pay channels from the channel list with **Clear Scrambled Channel**.

Adjusting the Picture Quality

Improve your viewing experience by adjusting the picture quality.

Choosing a picture mode

MENU > More > Picture > Picture Mode `Try Now`

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

- **Dynamic**

  Makes the picture clearer when the ambient lighting is so bright that it makes the picture difficult to see.

- **Standard**

  Is the default mode suitable for most environments.

- **Natural**

  Reduces eye strain.

- **Movie**

  Darkens the screen, reduces glare, and relieves eye fatigue. Use this mode while viewing the TV in a darkened room or watching a movie.

- **Entertain**

  Sharpens images for a more dynamic viewing experience.

  🖉 You can select this option only when the Input source is set to PC.

  🖉 When a PC is connected to the TV, but the **Entertain** mode is not available, set **Edit Device Type** to **DVI PC** or **PC**.

🖉 You can also quickly access this function by pressing the **MENU** button.

Adjusting the picture quality

MENU > More > Picture > Backlight, Contrast, Brightness, Sharpness, Color or Tint (G/R)

You can adjust the following picture quality settings manually for each combination of input source and picture mode.

First select Picture Mode to adjust picture quality, then set the following options:

- **Backlight** `Try Now`

  Adjusts the brightness of individual pixels. Decrease the brightness of the backlight to reduce power consumption.

- **Contrast** `Try Now`

  Adjusts the screen contrast.

- **Brightness** `Try Now`

  Adjusts the overall brightness.

- **Sharpness** `Try Now`

  Sharpens or dulls the edges of objects.

- **Color** `Try Now`

  Adjusts the overall color saturation.

- **Tint (G/R)** `Try Now`

  Adjusts the ratio of green to red. Increase the green value to saturate the greens and the red value to saturate the reds.

- 🖊 The TV saves the adjusted values for the current input source and picture mode. These values remain in effect each time you select the same input source and picture mode.

- 🖊 The Color and Tint (G/R) settings cannot be adjusted when the TV is connected to a computer via an HDMI-to-DVI cable.

Applying the current picture settings to other input sources

MENU > More > Picture > Apply Picture Mode `Try Now`

You can apply the picture quality settings to the current source and other input sources.

- **All Sources**

  Applies the settings to all external devices connected to the TV.

- **Current Source**

  Applies the settings to the current source only.

Adjusting advanced settings

MENU > More > Picture > Advanced Settings `Try Now`

You can fine-tune how images are displayed on the TV screen for the Standard and Movie picture modes.

🖉 **Advanced Settings** is only available when **Picture Mode** is set to **Standard** or **Movie**.

🖉 When the TV is connected to a computer via an HDMI-to-DIV cable, only **White Balance** and **Gamma** are available.

- **Dynamic Contrast** `Try Now`

  Automatically adjusts the screen contrast for an optimal contrast setting.

- **Black Tone** `Try Now`

  Adjusts the black color depth.

- **Flesh Tone** `Try Now`

  Darkens or lightens skin tones.

- **RGB Only Mode** `Try Now`

  Adjusts the red, green, and blue levels individually.

- **Color Space** `Try Now`

  Adjusts the range of colors that can be displayed on the screen.

  – **Auto**: automatically adjusts the color space to match the input signal.

  – **Native**: applies a range of colors that is wider than the input signal.

  – **Custom**: Allows you to adjust the color space manually. Select **Color**, and then change its **Red**, **Green**, and **Blue** saturations. **Reset** allows you to restore the default values for **Color Space**.

    🖉 You can configure the **Color** function only when **Color Space** is set to **Custom**.

- **White Balance** `Try Now`

  Adjusts the color temperature of the picture to make white objects look white and the overall picture appear natural.

  2 Point: Allows you to adjust red, green, and blue luminosity with the offset menu and brightness with the gain menu. **Reset** allows you to restore the default values.

  10 Point: Divides red, green, and blue into 10 sections each, and allows you to modify the white balance by adjusting the brightness of each section. **Level** allows you to select the section to adjust.

    🖉 You can use the **10 Point** function only when **Picture Mode** is set to **Movie**. This function may not be supported by some external devices.

- **Gamma** `Try Now`

  Adjusts the primary color intensity.

Adjusting picture options

MENU > More > Picture > Picture Options `Try Now`

You can adjust the picture options to optimize your viewing experience.

Select a picture mode, and then adjust the picture options.

- **Color Tone** `Try Now`

    Adjusts the color tone. The color tone you select is stored in the TV's memory. When you change the current picture mode, the stored color tone is applied to the new picture mode automatically.

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

    🖉 **Color Tone** is only available when the TV is connected to a computer via an HDMI-to-DVI cable.

- **Digital Clean View** `Try Now`

    Reduces static and ghosting caused by a weak signal. When you select **Auto Visualization**, the TV displays the signal strength on the bottom of the screen. Green indicates the best possible signal.

    🖉 This function is available for analog channels only.

- **MPEG Noise Filter** `Try Now`

    Reduces MPEG noise and improves video quality.

- **HDMI Black Level** `Try Now`

    Compensates for effects caused by a low black level, such as low contrasts and dull colors.

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

- **Film Mode** `Try Now`

    Optimizes the picture quality for movies.

    🖋 This function is only available when the input signal is TV or HDMI (1080i).

- **HDMI UHD Color**

    If an external UHD player is connected to the TV, follow these steps to convert the TV's HDMI connector to a mode optimized for UHD 50P/60P signals.

    🖋 For the UN40LS001 series models, each HDMI connection can be individually optimized for **HDMI UHD Color**. When you connect the TV to the external device that supports only UHD 24 or 30 Hz frequency or any FHD frequency, the **HDMI UHD Color** function may not be available. In this case, set **HDMI UHD Color** to **Off**.

    🖋 If you set the HDMI connection to **On**, the TV turns off and then on automatically.

    🖋 The HDMI connection with **HDMI UHD Color** set to **Off** supports up to UHD 50P/60P 4:2:0 input signals, while the HDMI connection with **HDMI UHD Color** set to **On** supports up to UHD 50P/60P 4:4:4 and 4:2:2 input signals. For more information, refer to 'Supported Resolutions for Video Signals.'

- **Auto Motion Plus**

    Removes blurring and judder from scenes with rapid movement. If you select **Custom**, you can configure **Blur Reduction** and **Judder Reduction** manually and set **LED Clear Motion** to **On** for a sharper LED image. To return to the default settings, select **Reset**.

    🖋 This function is only available on certain models.

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

Picture Support Functions

Check the picture support functions.

Viewing a picture-in-picture (PIP)

MENU > More > Picture > PIP (Try Now)

While viewing video from an external device such as a Blu-ray player on the main screen, you can watch a TV broadcast in a picture-in-picture (PIP) window.

- **PIP**

    Activates/deactivates PIP. Selects the input source for the **PIP** window.

- **Antenna**

    Selects **Air** or **Cable** as the digital channel mode.

- **Channel**

    Selects the PIP channel.

- **Size**

    Sets the PIP window size.

- **Position**

    Sets the PIP window position.

- **Select Sound**

    Selects the audio source. To adjust the connected audio device's volume, you must use the Sound Share function or connect the audio source to the TV's HDMI (ARC) port.

🖉 PIP cannot be used while **Smart Hub** is running.

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

🖉 The PIP function is only available under the following conditions: 1) The main screen's source is an HDMI connection. 2) The input resolution is less than FHD (Full HD). The PIP window supports digital channels only and does not support UHD channels.

Changing the picture size and position

Changing the picture size

MENU > More > Picture > Picture Size > Picture Size `Try Now`

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

- **16:9**

  Sets the picture size to the 16:9 wide screen format.

- **Zoom**

  Magnifies 16:9 pictures vertically. A magnified picture can be moved up and down.

- **Custom**

  Magnifies or shrinks 16:9 pictures vertically and/or horizontally. A magnified or shrunk picture can be moved left, right, up, and down.

- **4:3**

  Sets the picture size to the basic 4:3 mode.

⚠ **Do not watch your TV in 4:3 mode for extended periods of time. This action can cause the black bars, which appear at the top, bottom, left, and right sides of the screen in 4:3 mode to "burn-in" and appear as temporary or permanent after images on the screen. This damage to the screen is not covered by your warranty.**

🖊 You can also quickly access this function by pressing the MENU button.

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

Fitting the picture to the screen

MENU > More > Picture > Picture Size > Fit to Screen

You can configure the TV so that the full picture fits the screen in the size you have chosen without any cutoff.

🖉 This function is not available depending on the **Picture Size**.

Adjusting the picture position

MENU > More > Picture > Picture Size > Zoom/Position (Try Now)

You can adjust the picture position.

🖉 This function is only available when **Picture Size** is set to **Zoom** or **Custom**. However, you cannot change the picture position when the TV is tuned to a digital channel and **Picture Size** is set to **Custom**.

Listening to audio only (Picture Off)

MENU > More > Picture > Picture Off (Try Now)

You can turn off the screen and play only audio through the speakers. To turn the screen back on, press any button other than the Power and Volume buttons.

Resetting the picture mode settings

MENU > More > Picture > Reset Picture (Try Now)

You can reset the current picture mode to its factory defaults. This action does not affect the settings of other picture modes.

Adjusting the Sound Quality

Change the Sound Mode and adjust Sound Effects.

Choosing a sound mode

MENU > More > Sound > Sound Mode Try Now

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

- **Standard**

  Is the default mode suitable for most environments.

- **Music**

  Emphasizes music instead of voices.

- **Movie**

  Provides the best sound for movies.

- **Clear Voice**

  Emphasizes voices.

- **Amplify**

  Increases the overall intensity of high-frequency sound to help hearing-impaired listeners.

🖉 You can also quickly access this function by pressing the **MENU** button.

Applying sound effects

MENU > More > Sound > Sound Effect (Try Now)

You can apply sound effects to alter how the TV emits sound.

- **Virtual Surround** (Try Now)

   Produces sound that makes you feel like you are sitting in a movie theater or concert hall.

- **Dialog Clarity** (Try Now)

   Increases voice intensity to make dialog clearer.

- **Headphone Surround**

   Experience home theater-like surround sound through your headphones.

   🖉 This function is only available on certain models.

- **Balance** (Try Now)

   Allows you to adjust the sound settings of the left and right speakers for a better sound balance. To restore the defaults, select **Reset**.

- **Equalizer** (Try Now)

   Allows you to adjust the loudness of specific frequency ranges to control the richness of the sound. To restore the defaults, select **Reset**.

🖉 This function is only available when **Sound Mode** is set to **Standard**.

🖉 This function is not available when you are listening to audio through external speakers.

Using the Sound Support Functions

Selecting speakers

123 > ◁ or **MENU** > **More** > **Sound** > **Speaker List** `Try Now`

You can select which speakers the TV uses for audio output. When you connect multiple Samsung Multiroom speakers to the TV, you can select some or all of the Samsung Multiroom speakers by number or location. You can can also use Bluetooth devices for audio output.

✎ When **Speaker List** is set so that sound comes from external speakers only, the Volume buttons and mute mode and some **Sound** functions are disabled.

✎ The sound quality may be affected by the condition of your wireless network.

✎ The Multiroom speaker option is only available when at least one Samsung Multiroom compatible speaker is connected to the TV.

✎ Multiroom speakers are disconnected when you activate **Screen Mirroring**.

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

✎ For more information about the Multiroom function, refer to the Samsung web site. (www.samsung.com > SUPPORT > Firmware Manuals & Downloads)

Listening to TV sound through a Samsung Bluetooth audio device

MENU > **More** > **Sound** > **Additional Settings** > **TV SoundConnect**

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

- **Add New Device**

  Adds a new device to the list of paired devices. If **Add New Device** is set to **Off**, the connection signals from new devices are ignored.

- **Samsung Audio Device List**

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

✎ This function is only available on certain models.

✎ Bluetooth is a short-distance wireless communication protocol allowing information exchange between connected mobile phones, laptops, earphones and headphones with Bluetooth compatible devices. Before using a Bluetooth device, refer to 'Read Before Using Bluetooth Devices.'

✎ You can't use Bluetooth devices, TV SoundConnect, and the Surround feature simultaneously.

Listening to the TV through Bluetooth devices

MENU > More > Sound > Additional Settings > Bluetooth Audio

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

- **Bluetooth Audio Devices**

  Displays a list of Bluetooth devices that can be paired with the TV. Select a Bluetooth device to display its menu options. From this menu, you can activate/deactivate (i.e., pair/unpair) the Bluetooth device or remove it from the list.

- **Multi-output Audio**

  Allows you to listen to audio through the TV's speakers and the connected bluetooth devices simultaneously.

- This function is only available on certain models.

- When **Multi-Link Screen** is terminated, any Bluetooth device connection is disconnected.

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

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

- Before using a Bluetooth device, refer to 'Read Before Using Bluetooth Devices.'

Configuring additional functions

MENU > More > Sound > Additional Settings Try Now

You can personalize the sound quality by adjusting the following settings:

- **HDMI Audio Input Format**

  Sets the format of the audio input signal so that it is suitable for the external device connected to the TV's HDMI port.

- **Audio Format** Try Now

  Selects the digital audio output (S/PDIF) format. The available formats are dependent on the input source.

- **Audio Delay** Try Now

  Helps correct timing mismatches between the audio and video tracks when you are watching TV and listening to audio through a digital audio device. You can adjust the delay by up to 250 ms.

- **Dolby Digital Comp** Try Now

  Sets the Dolby Digital compression mode.

- **HD Audio**

  Provides the TV sound resampled at HD audio quality.

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

  - 🖉 Some S/PDIF receivers may not be compatible. For incompatible receivers, deactivate **HD Audio** mode and use normal audio mode instead.

  - 🖉 Some external audio players connected via HDMI, Bluetooth, or Wi-Fi networks are not able to play HD audio signals.

- **Auto Volume** `Try Now`

  Automatically adjusts the TV's volume level when you change channels, video sources, or content so that the volume level remains the same for all sources. **Auto Volume** can modify the volume up to 12 db to equalize the sound. **Normal** applies a normal level of volume adjustment and **Night** applies a slightly lower volume level. This option is ideal for late-night TV viewing.

  - 🖉 If you want to use the volume control of a connected source device to control the sound, deactivate **Auto Volume**. When you use **Auto Volume** with a source device, the device's volume control may not function properly.

Specifying the TV's installation type

MENU > More > Sound > Additional Settings > TV Installation Type

You can specify the TV's installation type, either **No Stand** or **Stand**, to optimize the TV's sound automatically.

Resetting all sound settings

MENU > More > Sound > Reset Sound `Try Now`

Resets all sound settings to the factory defaults.

Setting the Time and Using the Timer
Set the TV's clock, sleep timer, and on/off timer.

Setting the current time

MENU > More > System > Time > Clock (Try Now)

You can set the clock manually or automatically. Once the clock is set, you can view the current time on the TV anytime. Press the ⏎ button on the Samsung Smart Remote.

✎ The clock must be reset every time the power is disconnected.

Setting the clock using digital broadcast info

MENU > More > System > Time > Clock > Clock Mode (Try Now)

You can have the TV automatically download time information from a digital channel and set the current time. To activate this function, set Clock Mode to Auto.

✎ This function works only when the TV's antenna jack is connected to either an antenna or a cable output and is receiving digital broadcasts.

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

✎ If the TV is connected to a cable or satellite box through HDMI connectors, you must set the current time manually.

If the clock is wrong in auto mode...

MENU > More > System > Time > Clock > Time Offset (Try Now)

You can offset the clock in 1-hour increments by as much as -/+ 12 hours if the TV fails to display the correct automatically set time.

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

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

Setting the clock manually

MENU > More > System > Time > Clock > Clock Set (Try Now)

You can set the clock manually. Set Clock Mode to Manual, and then input the present date and time.

Time Zone: Select your time zone.

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

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

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

Using the timers

Using the sleep timer

MENU > More > System > Time > Sleep Timer Try Now

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

You can set the timer in 30 minute increments for up to 3 hours.

✎ You can also quickly access this function by pressing the MENU button.

Turning on the TV using the on timer

MENU > More > System > Time > On Timer Try Now

You can set On Timer to have the TV turn on automatically at a specific time. You can set up to three separate configurations: On Timer 1, 2, and 3. On Timer is only available when Clock has already been set.

- **Setup**

  Select Off, Everyday, Mon~Fri, Sat~Sun, or Manual. If you select Manual, you can highlight and select the specific days that you want On Timer to turn on the TV.

- **Time**

  Sets the time that the TV turns on automatically. See 'Setting the clock manually' under Setting the Time for time setting instructions.

- **Volume**

  Specify the volume the TV will set itself to when it turns on.

- **Source**

  From the list, select a signal source for the TV to use when it turns on. If you want to play content saved on a USB device or content from an HDMI or Component source, such as a DVD player, Blue-ray player, or set-top box, connect the device to the TV before you start On Timer setup. For On Timer to function, you must keep the device connected to the TV.

- **Antenna**

  Allows you to select a broadcast signal source, Air or Cable, when Source is set to TV.

- **Channel**

  Allows you to select a channel when Source is set to TV.

- **Music / Photo**

  Allows you to specify a USB device folder containing music files in the music field and/or a folder containing photos in the photo field when Source is set to USB. If you select both a folder that contains music files and a folder that contains photo files, the TV plays the music files and displays the photos at the same time.

  - If the folder that you choose has sub-folders, you can select a sub-folder in the same fashion.

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

  - Folders with long names cannot be selected.

  - Make sure to use different folder names for multiple USB devices.

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

Turning off the TV using the off timer

MENU > More > System > Time > Off Timer (Try Now)

You can set Off Timer to turn off the TV automatically at a specified time.

You can set up three separate configurations: Off Timer 1, 2 and 3. Off Timer is only available when Clock has already been set.

- **Settings**

  Select Off, Everyday, Mon~Fri, Sat~Sun, or Manual. If you select Manual, you can select each specific day.

- **Time**

  Sets the time that the TV turns off automatically.

Using the Screen Burn Protection and Energy Saving Functions

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

Preventing screen burn

MENU > More > System > Auto Protection Time `Try Now`

Still images can leave burned-in after-images if left on the screen for a long period of time. You can use the Screen Burn Protection function to protect the screen from burn-in.

Select a time setting from the list. If a still image is shown on the screen for longer than the time that you selected, the TV automatically activates the Screen Burn Protection function.

Reducing the energy consumption of the TV

MENU > More > System > Eco Solution `Try Now`

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

- **Energy Saving** `Try Now`

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

- **Eco Sensor** `Try Now`

  Automatically adjusts the brightness level of the TV, according to the ambient light level, to reduce power consumption. If Eco Sensor has adjusted the screen's brightness level, you can select the **Min. Backlight** to manually adjust the minimum screen brightness. If the **Backlight** value in the **Picture** menu is changed while the **Eco Sensor** is running, **Eco Sensor** will be turned off.

- **No Signal Power Off** `Try Now`

  Select a length of time from the list. If no signal has been received for the duration you specified, the TV automatically cuts off the power to reduce power consumption.

- **Auto Power Off** `Try Now`

  Automatically turns off the TV to prevent overheating when the TV remains on for the specified period of time without any user input.

- **Motion Lighting**

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

  🖉 This feature is only available when the **Picture Mode** is set to **Standard**.

  🖉 This function is deactivated when you adjust a picture quality setting, such as **Contrast** and **Brightness**.

Using Anynet+ (HDMI-CEC)

Connect external devices to the TV and then control them with the TV's remote control.

Anynet+ (HDMI-CEC) lets you use the TV's remote control to control all connected external devices that support HDMI-CEC. Note that Anynet+ (HDMI-CEC) only works with the TV's remote control.

Setting up Anynet+ (HDMI-CEC)

MENU > More > System > Anynet+ (HDMI-CEC) Try Now

- **Anynet+ (HDMI-CEC)** Try Now

  You can enable or disable Anynet+ (HDMI-CEC). Set to Off to disable all Anynet+ related features. Set to On to enable all Anynet+ related features.

- **Auto Turn Off** Try Now

  When set to Yes, Anynet+ compatible external devices turn off when the TV is turned off.

  🖉 This function is not supported by some Anynet+ compatible devices.

- **Device search** Try Now

  Automatically searches for and identifies Anynet+ (HDMI-CEC) compatible external devices that are connected to the TV.

Using Anynet+ (HDMI-CEC)

Viewing Anynet+ (HDMI-CEC)-compliant devices

After connecting external devices to the TV, select Device search (MENU > More > System > Anynet+ (HDMI-CEC) > Device search). The TV displays a list of Anynet+ (HDMI-CEC)-compliant devices that you can set up as Anynet+ (HDMI-CEC)-enabled devices (i.e., devices that can be controlled with the TV's remote control).

To set up an Anynet+ (HDMI-CEC)-compliant device as an Anynet+ (HDMI-CEC)-enabled device, you must select it on the Source screen. Follow the instructions in the next section.

🖉 If an external device is set up as both an Anynet+ enabled device (i.e., a device that can be controlled with the TV's remote control) and a Universal Remote-enabled device (i.e., a device that can be controlled with the Universal Remote), it can be only controlled with the Universal Remote.

Setting up as an Anynet+ (HDMI-CEC)-enabled device

You can access the device's menu with the TV's remote control once control of the device has switched over to the TV and the TV's remote control.

1. Press the SOURCE button. The Source screen appears. Select a connected device, and then press the down directional button.

2. Select Anynet+ (HDMI-CEC). The selected device is set up as an Anynet+ (HDMI-CEC)-enabled device. The following menu options are available.

    🖊 The menu options displayed on the menu may differ by external device.

- ● Anynet+ (HDMI-CEC)

    Sets up the selected device as an Anynet+ (HDMI-CEC)-enabled device, and then displays a list of all external devices connected to the TV. If you select an external device in the list, it is used as the input source. If you select View TV, the TV exits Anynet+ (HDMI-CEC) so that you can watch regular TV without interference from any external device.

Read before connecting an Anynet+ (HDMI-CEC)

🖊 You can configure the TV's universal remote control to control third-party cable boxes, Blu-ray players, and home theaters that do not support HDMI-CEC. For more information, refer to 'Controlling External Devices with the TV Remote – Using the Universal Remote.'

🖊 Anynet+ cannot be used to control external devices that do not support HDMI-CEC.

🖊 Anynet+ devices must be connected to the TV with an HDMI cable. Note that some HDMI cables may not support Anynet+ (HDMI-CEC).

🖊 The TV remote control may not work under certain circumstances. If this occurs, select the Anynet+ device again.

🖊 Anynet+ (HDMI-CEC) works only with external devices that support HDMI-CEC and only when those devices are either in standby mode or turned on.

🖊 Anynet+ (HDMI-CEC) can control up to 12 compatible external devices (up to 3 of the same type) except for home theaters. Anynet+ (HDMI-CEC) can control only one home theater system.

🖊 To listen to 5.1-channel audio from an external device, connect the device to the TV via an HDMI cable and connect the home theater system directly to the TV's digital audio output connector.

Updating the TV's Software

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

MENU > More > Support > Software Update (Try Now)

You can view your TV's software version and update it if necessary.

Updating the TV's software to the latest version

MENU > More > Support > Software Update > Update now (Try Now)

You can update your TV's software by downloading the update from the Internet directly to your TV or copying the update from a USB device that contains it to your TV.

- ✎ This function requires an Internet connection.

- ✎ Save the update package in the USB device's top-level folder. Otherwise, the TV will not be able to locate the update package.

- ⚠ **DO NOT turn off the TV's power until the update is complete. The TV will turn off and on automatically after completing the software update. All video and audio settings return to the default settings after a software update.**

Updating the TV automatically

MENU > More > Support > Software Update > Auto Update (Try Now)

If the TV is connected to the Internet, you can have the TV's software update itself automatically while you are watching the TV. When the background update is completed, it is applied the next time the TV is used.

- ✎ This function may take a longer time if a different networking function is running concurrently.

- ✎ This function requires an Internet connection.

- ✎ If you agree to the Smart Hub terms and conditions, Auto Update is set to On automatically. If you do not want the TV's software to update itself automatically, set Auto Update to Off.

Protecting the TV from Hacking and Malicious Code

Protect the TV from hacking and malicious code.

MENU > More > System > Smart Security

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

Checking the TV and connected storage for malicious code

MENU > More > System > Smart Security > Scan

You can scan the TV and connected media to detect the presence of malicious code. If there is no malicious code detected, a notification window appears on the screen.

If malicious code is detected...

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

1. Select all the malicious code to quarantine.

2. Select Isolate. These options relocate the selected malicious code to the Isolated List.

   🖉 The Isolated List displays all quarantined malicious code.

Configuring additional functions

MENU > More > System > Smart Security > Settings

You can scan your TV for viruses or activate additional security functions, for example, the network security function.

- Antivirus

  Monitors the TV in real-time to prevent viruses from infecting the TV.

- Network Security

  Protects the TV from hacking to minimize leaks of private information.

- Camera

  Permits the cameras connected to the TV to be used.

- Microphone

  Permits the microphones connected to the TV to be used.

- Auto Scan

  Makes the TV automatically scan itself and any connected storage media when it is turned on.

- Auto Isolate

  Adds malicious codes found during the scanning process to the Isolated List automatically.

Using Other Functions

Use various minor functions, such as setting a password, enabling game mode, and restoring to factory settings.

Running the accessibility functions quickly

You can use the **Accessibility Shortcuts** menu to quickly run the accessibility functions for the impaired. Press and hold the ⊠ button on the Samsung Smart Remote. The **Accessibility Shortcuts** menu displays the **Voice Guide**, **Video Description**, **Caption**, **Menu Transparency**, **High Contrast**, **Enlarge**, **Learn Remote Control**, and **Multi-output Audio** menu options.

🖉 Some functions listed in the **Accessibility Shortcuts** menu are not available in specific countries.

🖉 Even if **Voice Guide** is set to **Off** or the Mute mode is activated, you can run the **Voice Guide** function from the **Accessibility Shortcuts** menu.

Enabling voice guides for the visually impaired

MENU/123 ❯ More ❯ System ❯ Accessibility ❯ Voice Guide

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

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

🖉 If **Voice Guide** is set to **On**, the Samsung Smart Remote's motion sensor does not work. To use the motion sensitivity sensor, set **Voice Guide** to **Off**.

Changing the volume, speed, and pitch of the voice guide

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

- **Volume**

  Changes the Voice Guide's volume level.

- **Speed**

  Changes the Voice Guide's tempo.

- **Pitch**

  Tunes the pitch of the Voice Guide.

White text on black background (high contrast)

MENU > More > System > Accessibility > High Contrast

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

Adjusting the menu transparency

MENU > More > System > Accessibility > Menu Transparency Try Now

You can adjust the menu's transparency.

> 🖉 Setting High Contrast (MENU > More > System > Accessibility > High Contrast) to On automatically switches the menu display mode to opaque. You cannot manually change the Menu Transparency settings.

Enlarging font (for the visually impaired)

MENU > More > System > Accessibility > Enlarge Try Now

You can make the font on the screen larger. To activate this function, set Enlarge to On.

Learning about the remote control (for the visually impaired)

MENU > More > System > Accessibility > Learn Remote Control

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

> 🖉 This function is only available in the U.S.A. and Canada.

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

MENU > More > System > Accessibility > Multi-output Audio

With this function active, you can listen to the TV's audio through the TV's speaker and through a Bluetooth device at the same time. When you adjust the TV's volume, you can set the volume of the Bluetooth device separately so that it is louder than the volume of the TV's speakers.

> 🖉 This function is only available on certain models.

> 🖉 You can also access this function by selecting MENU > More > Sound > Additional Settings > Bluetooth Audio > Multi-output Audio.

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

Changing the menu language

MENU > More > System > Menu Language `Try Now`

You can use this function to change the menu language. Choose a language from the list.

Setting up a password

MENU > More > System > Change PIN `Try Now`

You can set a Personal Identification Number (PIN) to lock channels, reset the TV, and change TV settings.

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

✎ If you forget your PIN, you can reset it with your remote control. With the TV turned on, press the following buttons on the remote control in the order shown to reset the PIN to 0000: ⊄ > + > ↻ > − > ↻ > + > ↻

Checking Notifications

MENU > More > System > Notifications `Try Now`

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

✎ To delete all notifications, select **Delete All**.

✎ To check the SMART TV's service notifications in a Web Browser, select **Service Notice**.

Enabling game mode

MENU > More > System > General > Game Mode `Try Now`

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

✎ Game mode is not available for normal TV viewing.

✎ The screen may shake somewhat.

✎ **Picture Mode** and **Sound Mode** are switched to **Game** automatically.

✎ To use a different external device, first disconnect the game console and disable **Game Mode**.

Richer colors and superior picture quality (BD Wise)

MENU > More > System > General > BD Wise Try Now

You can enhance colors and picture quality when you connect a Samsung DVD player, Blu-ray player, or home theater system that supports BD Wise using an HDMI cable. When BD Wise is enabled, it automatically optimizes the TV's resolution.

   🖉   This function is only available when the external device is connected via an HDMI cable.

Enabling/Disabling sound feedback

MENU > More > System > General > Sound Feedback Try Now

You can use Sound Feedback to get audio cues as you navigate through menus and select menu options.

Locking/Unlocking the Control Stick

MENU > More > System > General > Panel Lock Try Now

You can lock and unlock the front panel buttons (menu, channel, and volume) of the TV and the control stick on the back of the TV.

Showing/Hiding the Samsung logo while booting

MENU > More > System > General > Boot Logo Try Now

You can enable or disable the Samsung logo display that appears when the TV starts up.

   🖉   This function is not available when Samsung Instant On is set to On.

Enabling the TV to boot faster

MENU > More > System > General > Samsung Instant On

You can set Samsung Instant On to On so that the TV boots up faster.

   🖉   To save the history of the apps that you have used in the TV, set Samsung Instant On to On.

   🖉   When turned on, the Samsung Instant On function will continue to work as long as the TV has power. If you disconnect and then reconnect the power cord, or there is a power failure, and you then turn on the TV, this function does not work and must be reset.

   🖉   Even if the Samsung Instant On function is On, power consumption while the TV is turned off meets the standby power consumption specification presented on the product label.

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

MENU > More > System > DivX® Video On Demand

You can watch DivX DRM protected movies on the TV only if it is registered as a DivX-certified device.

1. Select System > DivX® Video On Demand. A window with a registration code appears on the screen.

2. Visit the DivX website on a computer and click [Register Your Device] under [Support] from the top menu.

3. Enter the registration code shown on the TV's screen in the [Enter your registration code] field.

4. Enter the TV's name in the [Name your device] field, and then click [NEXT].

5. Click [DOWNLOAD], and save the [device_name.divx] file.

6. Transfer the [device_name.divx] file from the computer onto a USB device, and then plug the USB device into the TV.

7. Play the [device_name.divx] file on the TV to register the TV as a DivX-certified device.

🖉 Digital Rights Management (DRM) functions as a technical security mechanism to protect the content provider's copyright.

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

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

Restoring the TV to the factory settings

MENU > More > Support > Self Diagnosis > Reset Try Now

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

1. Select Reset. The security PIN entry window appears.

2. Enter the security PIN, and then select Yes. All settings are then reset. The TV turns off and on again automatically and displays the initial setup screen.

🖉 For more information about initial setup, refer to the user manual included with the TV.

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

MENU > More > Support > Use Mode Try Now

You can turn the TV into a display model for retail environments by setting Use Mode to Store Demo.

🖉 For all other uses, select Home Use.

🖉 With Store Demo, some functions are disabled, and the TV automatically resets itself after a preset amount of time.

Getting support through Remote Management

Get support directly from Samsung when you need help diagnosing your TV.

MENU > More > Support > Remote Management Try Now

You can use this feature to let Samsung Electronics diagnose your TV remotely when you need assistance with your TV.

You will need to read and agree to the service agreement before using this feature.

🖉 This feature is only available when your TV is connected to the Internet.

What is Remote Support?

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

- **Diagnose** your TV

- **Adjust the TV settings** for you

- Perform a factory reset on your TV

- Install recommended **firmware updates**

How does Remote Support Work?

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

1. Call the Samsung Contact Center, and then ask for remote support.

2. Open the menu on your TV, and then go to the Support section.

3. Select Remote Management, then read and agree to the service agreements. When the PIN screen appears, provide the PIN number to the agent.

4. The agent will then access your TV.

Finding the contact information for service

MENU > More > Support > Contact Samsung

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

🖉 To view the Open Source License, press the **123** button on the Samsung Smart Remote, and then select the Ⓐ button.

Requesting service

MENU > More > Support > Request Support

You can request service when you encounter a problem with the TV. Select the item matching the problem that you encountered, and then select Send.

🖉 This function is only available when you agree to the service agreement.

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
MENU > More > Support > 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. The Picture Test displays a high definition test picture you can examine for flaws or faults.

The problem	Try this!
Flickering and Dimming	If your Samsung Television is flickering or dimming sporadically, you may need to disable some of the energy efficiency features. Disable Energy Saving (MENU > More > System > Eco Solution > Energy Saving) or Eco Sensor (MENU > More > System > Eco Solution > Eco Sensor).
Screen Brightness	If the colors on your Samsung TV are correct but just a little too dark or bright, try adjusting the following settings first. • Go to the Picture menu and adjust the Backlight, Contrast, Brightness, Sharpness, Color, and Tint (G/R) settings.
Auto Motion Plus/Blur	If you notice ghosting or blurring on the screen, use the Auto Motion Plus function (MENU > More > Picture > Picture Options > Auto Motion Plus) to resolve the issue.
Unwanted Powering Off	If your Samsung TV appears to turn off by itself, try disabling some of the TV's energy efficiency functions. See if Sleep Timer (MENU > More > System > Time > Sleep Timer) has been enabled. The Sleep Timer automatically turns the TV off after a specified period of time. If the Sleep Timer has not been enabled, see if No Signal Power Off (MENU > More > System > Eco Solution > No Signal Power Off) or Auto Power Off (MENU > More > System > Eco Solution > Auto Power Off) has been enabled and disable them.
Problems Powering On	If you are having problems powering on your Samsung television, there are a number of things to check before calling service. 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/satellite box, confirm that it is plugged in and turned on.
Unable to find a Channel	If your TV is not connected to a cable box or satellite box, run Setup (MENU > More > System > Setup) or Auto Program (MENU > More > Broadcasting > Auto Program).

The problem	Try this!
The TV image does not look as good as it did in the store.	Store displays are all tuned to digital, HD (high definition) channels. If you have an analog cable or satellite box, upgrade to a digital cable or satellite box. Use HDMI cable to deliver HD (high definition) picture quality. Many HD channels are upscaled from SD (Standard Definition) content. Look for a channel that is broadcasting true HD content. • Cable or satellite subscribers: Try HD channels from the channel lineup. • Air or cable antenna connection: Try HD channels after running the Auto Program function. Adjust the cable or satellite box's video output resolution to 1080i or 720p.
The picture is distorted.	The compression of video content may cause picture distortions, especially in fast moving pictures from sports programs and action movies. A weak or bad quality signal can cause picture distortions. This is not an issue with the TV. Mobile phones used close to the TV (within 3 ft/1 m) may cause noise in analog and digital channels.
The color is poor or the picture is not bright enough.	Go to the Picture menu and then adjust the Picture Mode, Brightness, Sharpness, and Color settings. See if Energy Saving (MENU > More > System > Eco Solution > Energy Saving) has been enabled. Try resetting the picture. (MENU > More > Picture > Picture Reset)
There is a dotted line on the edge of the screen.	Change Picture Size to 16:9. Change the cable or satellite box resolution.

🖉 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
MENU > More > Support > Self Diagnosis > Sound Test Try Now

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.

The problem	Try this!
There is no sound or the sound is too low at maximum volume.	Check the volume control of the device (cable/satellite box, DVD, Blu-ray, etc.) connected to your TV.
The picture is good but there is no sound.	Set 123 > to TV Speaker. If you are using an external device, check the device's audio output option. (For example, you may need to change your cable or satellite 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.
The speakers are making an odd sound.	Make sure that the audio cable is connected to the correct audio output connector on the external device. For antenna or cable connections, check the signal information. A low signal level may cause sound distortions. Run Sound Test (MENU > More > Support > Self Diagnosis > Sound Test).

There Is a Problem with the Broadcast
When the TV has difficulties receiving broadcasts, these steps may help resolve the problem.

The problem	Try this!
The TV is not receiving all channels.	If your TV is not connected to a cable box or satellite box: ● Confirm that the coaxial cable is securely connected to the TV. ● If you are using an antenna, verify it is positioned correctly and all the connections are secure. ● Run Setup (System > Setup) or Auto Program (Broadcasting > Auto Program).
There are no captions with digital channels.	Go to Caption (MENU > More > System > Accessibility > Caption) and change the Caption Mode. Some channels may not have caption data.
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.

My Computer Won't Connect

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

The problem	Try this!
The "Mode Not Supported" message appears.	Set your PC's output resolution so it matches a resolution supported by the TV.
The video is OK but there is no audio.	If you are using an HDMI connection, check the audio output setting on your PC. If you are using an HDMI-to-DVI cable, a separate audio cable is required.

I Can't Connect to the Internet

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

The problem	Try this!
The wireless network connection failed.	Confirm your wireless modem/router is on and connected to the Internet.
The software update over the Internet has failed.	Check the network connection status. If the TV is not connected to a network, connect to a network. The upgrade stops if you already have the latest software version.

Anynet+ (HDMI-CEC) Isn't Working

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

The problem	Try this!
Anynet+ does not work.	Confirm that the device is an Anynet+ device. The Anynet+ system supports Anynet+ devices only. Check if the power cord of the Anynet+ device is properly connected. Check the cable connections of the Anynet+ device. Go to Anynet+ (HDMI-CEC) (MENU > More > System > Anynet+ (HDMI-CEC)) and see if Anynet+ (HDMI-CEC) has been set to On. Check whether the TV remote control is in TV mode. Check whether the remote control is Anynet+ compatible. Anynet+ may not function when some other functions are active, including Channel Search, Smart Hub, Plug & Play, etc. If you have disconnected and then reconnected the HDMI cable, scan for devices again or turn your TV off and on.
I want to start Anynet+.	Check if the Anynet+ device is properly connected to the TV, and then select the Anynet+ (HDMI-CEC) (MENU > More > System > Anynet+ (HDMI-CEC)) menu to see if Anynet+ (HDMI-CEC) is set to On.
I want to exit Anynet+.	Select View TV from the Anynet+ menu. Select a non-Anynet+ device from the Source list.
The message "Connecting to Anynet+ device..." or "Disconnecting from Anynet+ device" appears on the screen.	You cannot use the remote control when the TV is configuring Anynet+ or switching to a viewing mode. Use the remote control after the TV has completed the Anynet+ configuration or has switched to a viewing mode.
The Anynet+ device won't play.	You cannot use the play function when Setup is in progress.
The connected device is not displayed.	Check whether the device supports Anynet+. Check whether the HDMI cable is properly connected. Go to Anynet+ (HDMI-CEC) (MENU > More > System > Anynet+ (HDMI-CEC)) and see if Anynet+ (HDMI-CEC) has been set to On. Scan for Anynet+ devices again. Anynet+ devices must be connected to the TV using an HDMI cable. Make sure the device is connected to your TV with an HDMI cable. Some HDMI cables may not support Anynet+. If the connection is terminated because there has been a power failure or the HDMI cable has been disconnected, please scan for the device again.
The TV audio is not being played through the receiver.	Connect an optical cable to the TV and the receiver. ARC enables the TV to output digital sound via the HDMI (ARC) port. However, ARC is only available when the TV is connected to an audio receiver that supports ARC.

I Have Trouble Launching/Using Apps

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

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

My File Won't Play

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

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

I Want to Reset the TV

Use these steps to reset the TV.

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

Other Issues

Use these procedures to resolve other issues which may occur.

The problem	Try this!
The TV is hot.	Watching TV for an extended period of time causes the panel to generate heat. The heat from the panel is dissipated through internal vents running along the top of the TV. The bottom, however, may feel hot to the touch after extended use. Children watching TV need constant adult supervision to prevent them from touching the TV. This heat, however, is not a defect and does not affect the TV's functionality.
The picture won't display in full screen.	HD channels will have black bars on either side of the screen when displaying upscaled SD (4:3) content. Black bars will appear at the top and bottom of the screen when you watch movies that have aspect ratios different from your TV. Adjust the picture size options on your external device or set the TV to full screen.
The "Mode Not Supported" message appears.	The output resolution of the attached device is not supported by the TV. Check the TV's supported resolutions and adjust the external device's output resolution accordingly.
The Captions item in the TV menu is grayed out.	You cannot select the Caption menu if you have selected a source connected to the TV via HDMI cable. To view captions, turn on the external device's caption function.
The TV smells of plastic.	This smell is normal and will dissipate over time.
The Signal Information option under Self Diagnosis isn't activated.	Verify that the current channel is a digital channel. Signal Information is only available for digital channels.
The TV is tilted to the side.	Remove the base stand from the TV and reassemble it.

The problem	Try this!
The Broadcasting option has been deactivated.	Broadcasting is only available when the Source is set to TV. The Broadcasting menu cannot be accessed while you watch TV using a cable box or satellite receiver.
The settings are lost after 5 minutes or every time the TV is turned off.	If the Use Mode is set to Store Demo, the TV's audio and video settings are automatically reset every 5 minutes. Change the Use Mode (MENU > More > Support > Use Mode) to Home Use.
There is an intermittent loss of audio or video.	Check the cable connections and reconnect them. Loss of audio or video can be caused by using overly rigid or thick cables. Make sure the cables are flexible enough for long term use. If you are mounting the TV on a wall, we recommend using cables with 90-degree connectors.
There are small particles on the TV's bezel.	This is part of the product's design and is not a defect.
The PIP menu is not available.	PIP functionality is only available when you are viewing video from an HDMI source on the main screen.
A POP (TV's internal banner ad) appears on the screen.	Change the Use Mode (MENU > More > Support > Use Mode) to Home Use.
The TV is making a popping noise.	The expansion and contraction of the TV's outer casing may cause a popping noise. This does not indicate a product malfunction. The TV is safe to use.
The TV is making a humming noise.	Your TV utilizes high-speed switching circuits and high levels of electrical current. 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.

Supported Resolutions for each of UHD Input Signals

Check the resolution of the input signal UHD.

- Resolution: 3840x2160p, 4096x2160p

  ✎ The HDMI connection with **HDMI UHD Color** set to **Off** supports up to UHD 50P/60P 4:2:0 input signals, while the HDMI connector with **HDMI UHD Color** set to **On** supports up to UHD 50P/60P 4:4:4 and 4:2:2 input signals.

If HDMI UHD Color is set to Off

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

If HDMI UHD Color is set to On

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

Read Before Using Apps

Read this information before using Apps.

- Due to the product characteristics featured on Samsung Smart Hub, as well as limitations in available content, certain features, applications, and services may not be available on all devices or in all territories. Some Smart Hub features may also require additional peripheral devices or membership fees. Visit http://www.samsung.com for more information on specific device information and content availability. Services and content availability are subject to change without prior notice.

- Samsung Electronics takes no legal responsibility whatsoever for any interruption of app services caused by the service provider for any reason.

- Application services may be provided in English only and available content may differ with the geographical area.

- For more information about applications, visit the applicable service provider's website.

- An unstable Internet connection may cause delays or interruptions. In addition, applications may terminate automatically depending on the network environment. If this occurs, check your Internet connection and try again.

- Application services and updates may become unavailable.

- Application content is subject to change by the service provider without prior notice.

- Specific services may differ with the version of the application installed on the TV.

- An application's functionality may change in future versions of the application. If this occurs, run the application's tutorial or visit the service provider's website.

- Depending on the service provider's policies, certain applications may not support multitasking.

Read Before Using the Web Browser

Read this information before using the Web Browser.

- Select **Web Browser**. The browsing screen may differ from the one on your computer.

- The Web Browser is not compatible with Java applications.

- You can download the supported types of files, such as videos, mp3 files, and images, but you cannot download files that are not supported by the TV. If you attempt to download an unsupported file, you will receive an error message instead.

- The Web Browser may not be able to access certain websites.

- Flash player is not supported.

- E-commerce for online purchases is not supported.

- With websites that have scrollable windows, scrolling a window can result in corrupted characters.

- ActiveX is not supported.

- Only a limited number of fonts are supported. Certain symbols and characters may not be displayed properly.

- The response to remote commands and the resulting on-screen display may be delayed while a webpage is loading.

- Loading a webpage may be delayed or suspended completely with certain operating systems.

- The copy and paste operations are not supported.

- When composing an email or a simple message, certain functions such as the font size and color selection may not be available.

- There is a limit to the number of bookmarks and the size of the log file that can be saved.

- The number of windows that can be opened concurrently differs with the search conditions and the TV model.

- The web browsing speed will differ with the network environment.

- The Web Browser supports .mp3 audio files only.

- If the **Clock** (**MENU** > **More** > **System** > **Time** > **Clock**) has not been set, the browsing history will not be saved.

- The browsing history is saved from latest to oldest, with the oldest entries being overwritten first.

- Depending on the types of video/audio codecs supported, it might not be possible to play certain video and audio files while playing Flash content.

- Video sources from PC-optimized streaming service providers may not play properly on our proprietary Web Browser.

- Using the on- screen QWERTY keypad automatically disables PIP (except when you are entering a URL).

Read Before Playing Photos, Videos, or Music

Read this information before playing content saved on external devices.

Limitations on use of photos, videos, and music

- The TV supports MSC (Mass Storage Class) USB devices only. MSC is a class designation for mass storage devices. Types of MSC devices include external hard drives, flash card readers, and digital cameras. (USB hubs are not supported.) These kinds of devices must be connected directly to the TV's USB port. The TV may not be able to recognize the USB device or read the files on the device if it is connected to the TV via a USB extension cable. Do not disconnect the USB device while transferring files.

- When connecting an external hard drive, use the USB (HDD) port. We recommend that you use an external hard drive with its own power adapter.

- Certain digital cameras and audio devices may not be compatible with the TV.

- If there are multiple USB devices connected to the TV, the TV might not be able to recognize some or all the devices. USB devices that use high-power input should be connect to the USB [5V, 1A] port.

- The TV supports the FAT, exFAT, and NTFS file systems.

- After sorting files in the Folder view mode, the TV can display up to 1,000 files per folder. If the USB device contains more than 8,000 files and folders, however, some files and folders might not be accessible.

- The PTP (pier to pier) connection mode is available only for digital cameras. If you connect a smartphone or tablet to the TV using PTP mode, the TV will not recognize it.

- The USB 3.0 type is not supported.

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

- Certain files are not supported on all models.

Supported external subtitles

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

Supported internal subtitles

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

Supported image formats and resolutions

File extension	Format	Resolution
*.jpg *.jpeg	JPEG	15360x8640
*.png	PNG	4096x4096
*.bmp	BMP	4096x4096
*.mpo	MPO	15360x8640

Supported music formats and codecs

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

Supported video codecs

File format	Container	Video codecs	Resolution	Frame rate (fps)	Bitrate (Mbps)	Audio codecs
*.avi *.mkv *.asf *.wmv *.mp4 *.mov *.3gp *.vro *.mpg *.mpeg *.ts *.tp *.trp *.mov *.flv *.vob *.svi *.m2ts *.mts *.divx	AVI MKV ASF MP4 3GP MOV FLV VRO VOB PS TS SVAF	H.264 BP/MP/HP	4096x2160	4096X2160: 24 3840X2160: 30	40	Dolby Digital LPCM ADPCM(IMA, MS) AAC HE-AAC WMA Dolby Digital Plus MPEG(MP3) DTS(Core, LBR) G.711(A-Law, μ-Law)
		HEVC (H.265 - Main, Main10, Main4:2:2 10)		60	80	
		Motion JPEG	3840x2160	30	80	
		MVC	1920x1080	60	20	
		DivX 3.11 / 4 / 5 / 6				
		MPEG4 SP/ASP				
		Window Media Video v9(VC1)				
		MPEG2				
		MPEG1				
		Microsoft MPEG-4 v1, v2, v3		30		
		Window Media Video v7(WMV1) ,v8(WMV2)				
		H.263 Sorrenson				
		VP6				
*.webm	WebM	VP8	1920x1080	60		Vorbis
		VP9	4096x2160	4096X2160: 24 3840X2160: 30		

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.

- The HEVC codec is only available in MKV/MP4/TS containers.

Video decoders

- H.264 FHD is supported up to Level 4.1. FMO/ASO/RS are not supported.

- H.264 UHD is supported up to Level 5.1.

- HEVC FHD is supported up to Level 4.1, and HEVC UHD is supported up to Level 5.1.

- VC1 AP L4 is not supported.

- For all video codecs excluding WMV v7, v8, MSMPEG4 v3, MVC, and VP6:

  Below 1280x720: 60 frame max

  Above 1280x720: 30 frame max

- GMC 2 or above is not supported.

- Supports SVAF Top/Bottom. Side by Side, and Left/Right view sequence type (2ES) only.

- Supports BD MVC specs only.

Audio decoders

- WMA 10 Pro supports up to 5.1 channels. Supports up to the M2 profile. WMA lossless audio is not supported.

- QCELP and AMR NB/WB are not supported.

- Vorbis is supported for up to 5.1 channels.

- Dolby Digital Plus is supported for up to 5.1 channels.

- The DTS LBR codec is only available for MKV / MP4 /TS containers.

- The supported sample rates are:

  - 8, 11.025, 12, 16, 22.05, 24, 32, 44.1, and 48 KHz, and differ by the codec.

Read After Installing the TV

Read this information after installing the TV.

Picture sizes and input signals

The Picture Size setting is applied to the current source. The applied Picture Size will remain in effect whenever you select that source unless you change it.

✎ Because of the design of the TV, part of the screen may be hidden by the frame.

Input signal	Picture size
Digital channel (720p, 1080i, 1080p)	16:9, Zoom, Custom, 4:3
Digital channel (3840x2160p)	16:9, Zoom, Custom
Digital channel (4096x2160p)	16:9, Zoom, Custom
HDMI (720p)	16:9, Zoom, Custom, 4:3
HDMI (1080i, 1080p)	16:9, Zoom, Custom, 4:3
HDMI (3840x2160p)	16:9, Zoom, Custom
HDMI (4096x2160p)	16:9, Zoom, Custom

Read before setting up a wireless Internet connection

Precautions for wireless Internet

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

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

- To use wireless Internet, the TV must be connected to a wireless router or modem. If the wireless router supports DHCP, the TV can use a DHCP or a static IP address to connect to the wireless network.

- Select a channel that is not currently in use for the wireless router. If the channel set for the wireless router is currently being used by another device, the result is usually interference and/or a communications failure.

- Most wireless networks have an optional security system. To enable a wireless network's security system, you need to create a password using characters and numbers. This password is then needed to connect to a security-enabled AP.

Wireless security protocols

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

- Authentication Modes: WEP, WPAPSK, WPA2PSK

- Encryption Types: WEP, TKIP, AES

In compliance with the newest Wi-Fi certification specifications, Samsung TVs do not support WEP or TKIP security encryption in networks running in the 802.11n mode.

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

Read Before Connecting a Computer (Supported Resolutions)

Check these Supported Resolutions before connecting a computer to the TV.

✎ Because of the design of the TV, part of the screen may be hidden by the frame.

When you connect your TV to a computer, set the computer's video card to one of the standard resolutions listed in the tables below or on the next page. The TV will automatically adjust to the resolution you choose. Note that the optimal and recommended resolution is 3840 x 2160 at 60 Hz. Choosing a resolution not included in the tables can result in a blank screen or just the power indicator turning on. Refer to the user manual of your graphics card for compatible resolutions.

IBM

Resolution (Dots x lines)	Display format	Horizontal frequency (KHz)	Vertical frequency (Hz)	Clock frequency (MHz)	Polarity (horizontal / vertical)
720x400	70 Hz	31.469	70.087	28.322	– / +

MAC

Resolution (Dots x lines)	Display format	Horizontal frequency (KHz)	Vertical frequency (Hz)	Clock frequency (MHz)	Polarity (horizontal / vertical)
640x480	67 Hz	35.000	66.667	30.240	– / –
832x624	75 Hz	49.726	74.551	57.284	– / –
1152x870	75 Hz	68.681	75.062	100.000	– / –

VESA DMT

Resolution (Dots x lines)	Display format	Horizontal frequency (KHz)	Vertical frequency (Hz)	Clock frequency (MHz)	Polarity (horizontal / vertical)
640x480	60 Hz	31.469	59.940	25.175	- / -
640x480	72 Hz	37.861	72.809	31.500	- / -
640x480	75 Hz	37.500	75.000	31.500	- / -
800x600	60 Hz	37.879	60.317	40.000	+ / +
800x600	72 Hz	48.077	72.188	50.000	+ / +
800x600	75 Hz	46.875	75.000	49.500	+ / +
1024x768	60 Hz	48.363	60.004	65.000	- / -
1024x768	70 Hz	56.476	70.069	75.000	- / -
1024x768	75 Hz	60.023	75.029	78.750	+ / +
1152x864	75 Hz	67.500	75.000	108.000	+ / +
1280x720	60 Hz	45.000	60.000	74.250	+ / +
1280x800	60 Hz	49.702	59.810	83.500	- / +
1280x1024	60 Hz	63.981	60.020	108.000	+ / +
1280x1024	75 Hz	79.976	75.025	135.000	+ / +
1366x768	60 Hz	47.712	59.790	85.500	+ / +
1440x900	60 Hz	55.935	59.887	106.500	- / +
1600x900RB	60 Hz	60.000	60.000	108.000	+ / +
1680x1050	60 Hz	65.290	59.954	146.250	- / +
1920x1080	60 Hz	67.500	60.000	148.500	+ / +

Supported Resolutions for Video Signals

Because of the design of the TV, part of the screen may be hidden by the frame.

CEA-861

Resolution (Dots x lines)	Display format	Horizontal frequency (KHz)	Vertical frequency (Hz)	Clock frequency (MHz)	Polarity (horizontal / vertical)
720(1440)x576i	50Hz	15.625	50.000	27.000	- / -
720(1440)x480i	60 Hz	15.734	59.940	27.000	- / -
720x576	50Hz	31.250	50.000	27.000	- / -
720x480	60 Hz	31.469	59.940	27.000	- / -
1280x720	50Hz	37.500	50.000	74.250	+ / +
1280x720	60 Hz	45.000	60.000	74.250	+ / +
1920x1080i	50Hz	28.125	50.000	74.250	+ / +
1920x1080i	60 Hz	33.750	60.000	74.250	+ / +
1920x1080	24Hz	27.000	24.000	74.250	+ / +
1920x1080	25Hz	28.125	25.000	74.250	+ / +
1920x1080	30Hz	33.750	30.000	74.250	+ / +
1920x1080	50Hz	56.250	50.000	148.500	+ / +
1920x1080	60 Hz	67.500	60.000	148.500	+ / +
3840x2160	24Hz	54.000	24.000	297.000	+ / +
3840x2160	25Hz	56.250	25.000	297.000	+ / +
3840x2160	30Hz	67.500	30.000	297.000	+ / +
*3840x2160	50Hz	112.500	50.000	594.000	+ / +
*3840x2160	60 Hz	135.000	60.000	594.000	+ / +
4096x2160	24Hz	54.000	24.000	297.000	+ / +
4096x2160	25Hz	56.250	25.000	297.000	+ / +
4096x2160	30Hz	67.500	30.000	297.000	+ / +
*4096x2160	50Hz	112.500	50.000	594.000	+ / +
*4096x2160	60 Hz	135.000	60.000	594.000	+ / +

Read Before Using Bluetooth Devices

Read this information before using a Bluetooth device.

Restrictions on using Bluetooth

- The Samsung Bluetooth Speaker function is only available for devices supporting TV SoundConnect.

- You can't use Bluetooth devices, TV SoundConnect, and the Surround feature simultaneously.

- Compatibility issues may occur, depending on the Bluetooth device. (A Mobile exclusive headphone may not be available, depending on the environment.)

- Lip-sync errors may occur.

- The TV and Bluetooth device may disconnect, depending on the distance between them.

- A Bluetooth device may hum or malfunction:

   – When a part of your body is in contact with the receiving/transmitting system of the Bluetooth device or the TV.

   – When the device is subject to electrical variation from obstructions caused by a wall, corner, or office partitioning.

   – When the device is exposed to electrical interference from same frequency-band devices including medical equipment, microwave ovens, and wireless LANs.

- If the problem persists, try connecting the device using the digital optical port or the HDMI (ARC) port.

License

DIVX HD

This DivX Certified® device has passed rigorous testing to ensure it plays DivX® video.
To play purchased DivX movies, first register your device at vod.divx.com. Find your registration code in the DivX VOD section of your device setup menu.
DivX Certified® to play DivX® video up to HD 1080p, including premium content.
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Covered by one or more of the following U.S. patents: 7,295,673; 7,460,668; 7,515,710; 7,519,274.
This device supports DivX Plus Streaming® for enjoying HD movies and TV shows with advanced features (multi-language subtitles, multiple audio tracks, chapters, smooth FF/RW, etc.) streamed to your device.

dts Premium Sound | 5.1

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Designed with **UEI** TECHNOLOGY

Glossary

- **480i / 480p / 720p / 1080i / 1080p**

Generally refers to the number of effective scanning lines that determines the screen's resolution. There are two scanning methods: interlaced and progressive.

- Scanning

    Sequential projection of pixels to form images. The higher the number of pixels, the clearer and more vivid the images.

- Progressive

    A sequential scanning method that scans every line, one after another.

- Interlaced

    A staggered scanning method that scans every other line until the end of the screen and then fills in the remaining lines.

Example) If the number of horizontal scan lines is 480i

Scans 240 lines from start to finish and then scans the remaining 240 lines for a total of 480 lines.

* General differences between 480i and 480p are as follows:

	480i	480p
Horizontal frequency	15.75Khz	31.5Khz
FPS	30	60
Lines on Screen	480	480

- **ARC (Audio Return Channel)**

ARC lets the TV output digital sound to an audio device and input digital sound from the same audio device through one HDMI cable. However, ARC is only available through the HDMI (ARC) port and only when the TV is connected to an ARC-enabled AV receiver.

- **DVI (Digital Visual Interface)**

Connecting the TV's DVI connector to a computer's DVI connector via an HDMI-to-DVI cable lets you use the TV as a computer monitor. However, HDMI-to-DVI cables deliver video signals only. You must connect a set of speakers to the computer using a separate cable to hear the computer's audio.

- **HDMI (High Definition Multimedia Interface)**

  HDMI is a method of transmitting both video and audio signals via a single cable.

- **Dynamic versus Static IP Addresses**

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

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

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

- **Bluetooth**

  Bluetooth is a short-distance wireless communication protocol allowing information exchange between connected mobile phones, laptops, earphones and headphones with Bluetooth-compatible devices. It is mostly used for low-power wireless connections within a distance of 32.8 ft.