



**SAMSUNG**

# E-MANUAL

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Model \_\_\_\_\_ Serial No. \_\_\_\_\_

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# Viewing the e-Manual

The embedded e-Manual contains information about your TV's key features.

This TV has a built-in user guide. To read it, use one of the following methods:





- Open the **Support** menu and choose **e-Manual (Troubleshooting)**.
- Press the **MORE** button on the Smart Touch Control to display control buttons on the screen. Flick the Touch Pad until **e-Manual** appears and select it.

 Words in blue refer to screen menu options and words in light blue refer to remote panel buttons.

 A printable version of this guide is also available at [www.samsung.com/support](http://www.samsung.com/support).

## Scrolling a Page


To scroll a page, use one of the following methods:


- Press the  or  button on the scroll bar at the right edge of the screen.
- Drag or flick up or down the line on either the left or right edge of the touch pad.
- Place the focus on the  or  button at the right edge of the screen, drag or flick up or down on the touch pad.

## Using the Top Icons



Use the **Back**, **Forward**, and **Opened pages** icons on the top left of the screen to navigate through pages. These icons are available when two or more pages are passed.

## Returning to the Home Page



To return to the home page, select the **A** button on the virtual remote panel or select  on the top right of the screen.

 To select a letter button (**A**, **B**, **C**, **D**), press the **MORE** button on the Smart Touch Control to display to display the virtual remote panel on the TV screen. Flick the Touch Pad until the Playback Control Panel appears, select the **A** button, and then press the Touch Pad.


## Searching the Index

Select the  button on the virtual remote panel or select  on the top right of the screen to display the index. Select a term to display the page containing the term.


## Searching Pages

Select the  button on the virtual remote panel or select  on the top right of the screen, and enter search criteria. Select a page from the list of search results to display it.

## Closing the e-Manual


To close the e-Manual, press and hold the RETURN button or select  at the upper-right corner of the screen.

## Jumping to a Menu Item

To directly jump to the menu item that is described in the current section, select . It is possible to jump from a menu item directly to the related section in the e-Manual. On the screen menu, press the MORE button on the Smart Touch Control and then select **e-Manual** on the virtual remote panel that appears on the screen.

 This feature may not be available, depending on the menu.

## Updating the e-Manual

Press the  button and select **Apps**, and then select **More Apps**. The e-manual can be updated in the same way with an application update.

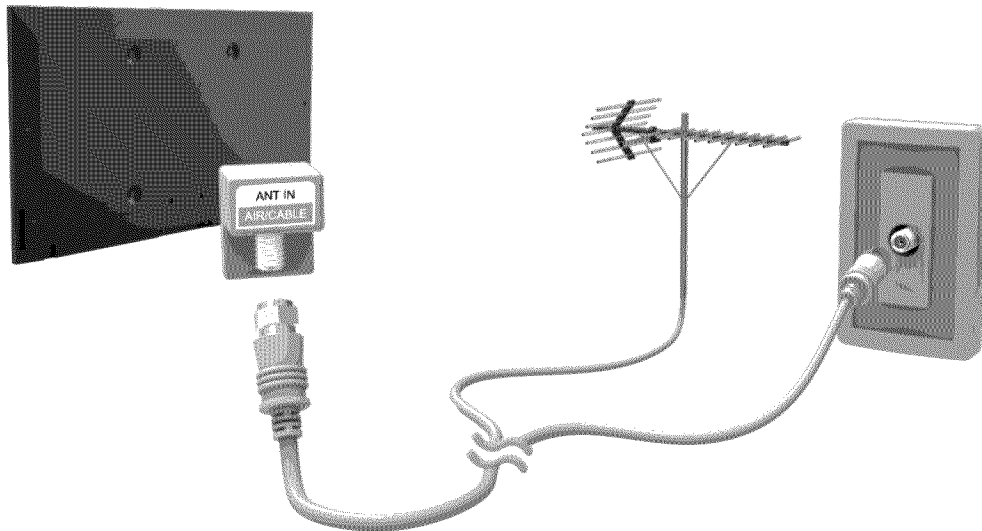
On the **More Apps** screen, select **Update Apps**, and then select e-Manual from the list. The e-Manual starts updating to the latest version. However, **Update Apps** appears on the screen only when the update is required.

# Antenna Connection

Refer to the diagram and connect the antenna cable to the antenna input connector. Make sure that you do not bend the cable. The number of connectors and their names and locations may vary depending on the model.

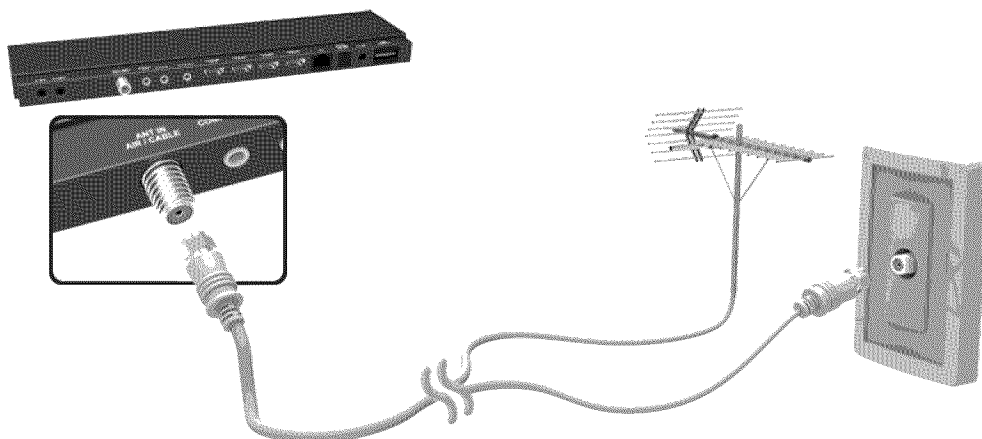
Connect the correct antenna cable for your viewing environment (over-the-air or cable broadcasting). However, an antenna connection is not necessary if you are using a cable box or satellite receiver.

## For the LED 7450/7500, 8000 and PDP 8500 series models



The displayed image may differ depending on the model.

## For the S9 models



The displayed image may differ depending on the model.

# Video Device Connections

This TV has a wide range of connectors for video input from video devices such as Blu-ray players, DVD players, camcorders and gaming consoles. Below is a list of featured connectors shown in descending order of picture quality.

- HDMI
- Component
- AV

Connect the video device to the TV via an HDMI connector for the best picture quality. If the device does not have an HDMI connector, try a component connector to get the next best possible picture quality.

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

When connecting an external device, refer to the device's operating manual. The number of external device connectors and their names and locations may vary depending on the manufacturer.



# HDMI Connection

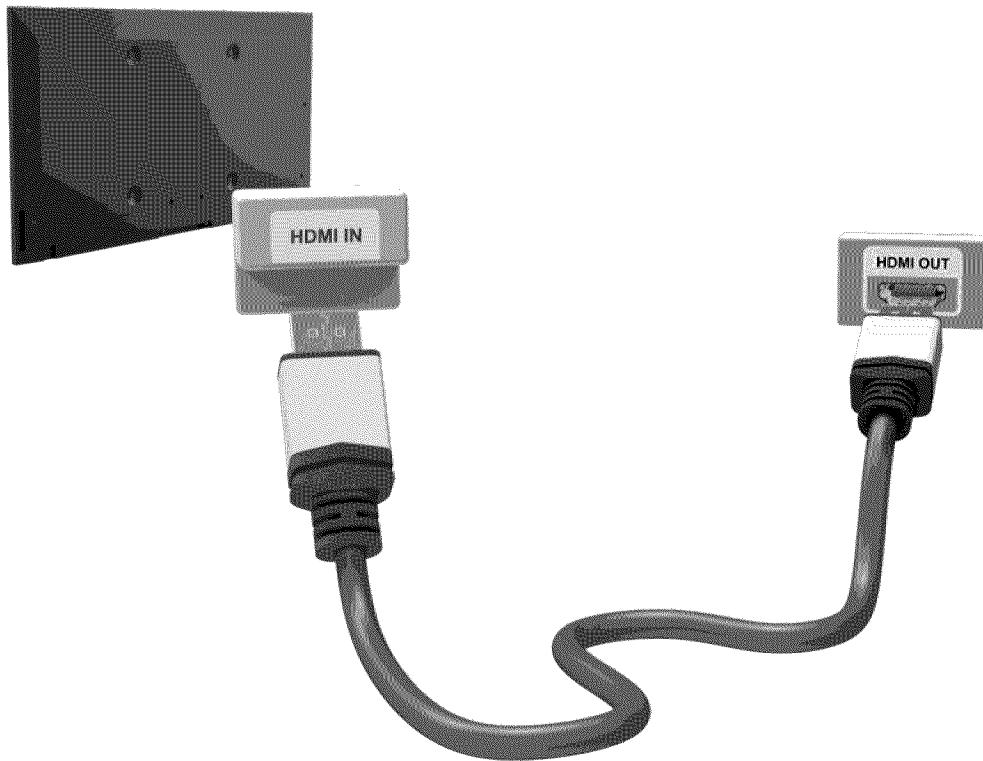
## For the LED 7450/7500, 8000 and PDP 8500 series models

Refer to the diagram and connect the HDMI cable to the video device's HDMI output connector and the TV's HDMI input connector. One of the following HDMI cable types is recommended:

- High-Speed HDMI Cable
- High-Speed HDMI Cable with Ethernet

Use an HDMI cable with a thickness of 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 the HDMI Ethernet Channel.



The displayed image may differ depending on the model.





## For the S9 models

Refer to the diagram and connect the HDMI cable to the video device's HDMI output connector and the One Connect HDMI input connector. One of the following HDMI cable types is recommended:

- High-Speed HDMI Cable
- High-Speed HDMI Cable with Ethernet

Use an HDMI cable with a thickness of 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 the HDMI Ethernet Channel.

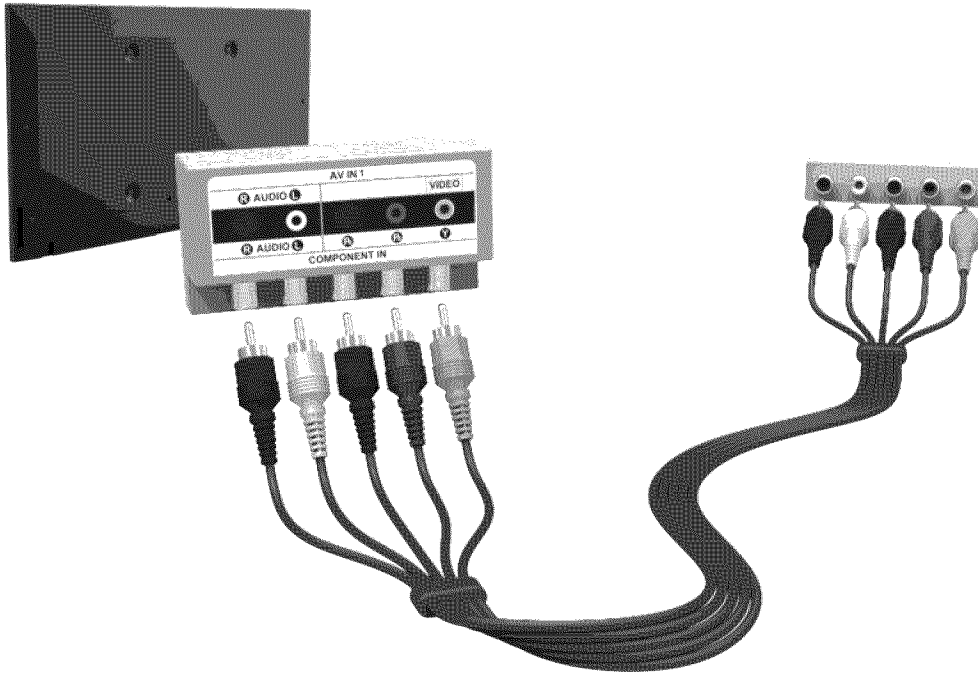


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# Component Connection

## For the LED 7450/7500 series models

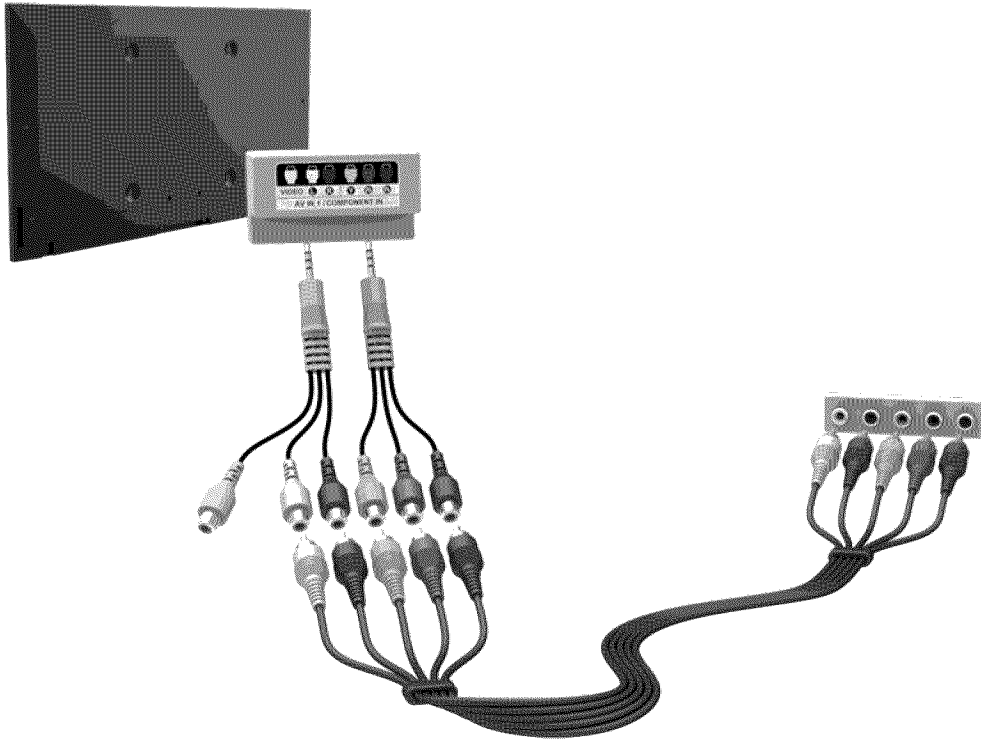
Refer to the diagram and connect the TV's component video and audio input connectors to the external device's component video and audio output connectors using a component cable, so that the connectors of the same color connect to each other, as shown in the figure.



The displayed image may differ depending on the model.

## For the LED 8000 and PDP 8500 series models

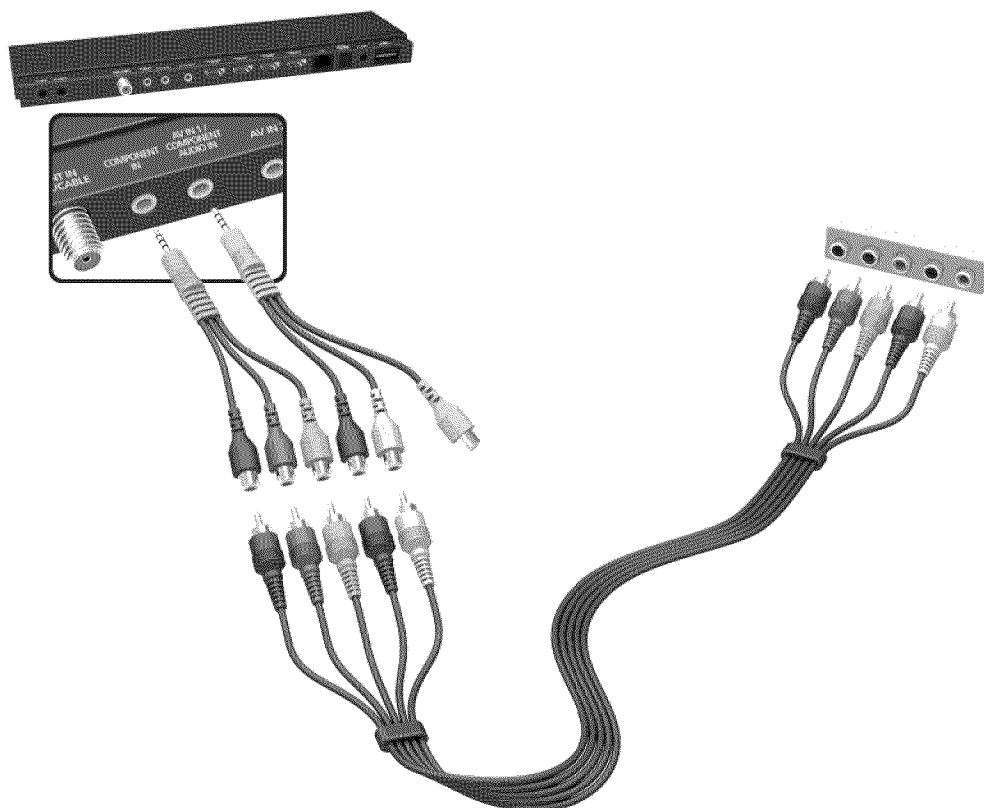
Refer to the diagram and connect the connect a component cable to the provided two jack to-RCA extension cables, so that the connectors of the same color connect to each other. Plug the two jacks into the TV's component video and audio input connectors, and plug the five connectors on the other end into the external device's component video and audio output connectors, as shown in the figure.



The displayed image may differ depending on the model.

## For the S9 models

Refer to the diagram and connect the component video and audio cables to the component adapter (accessory) and to the One Connect component input connectors. Make sure the cable colors match the connector colors.



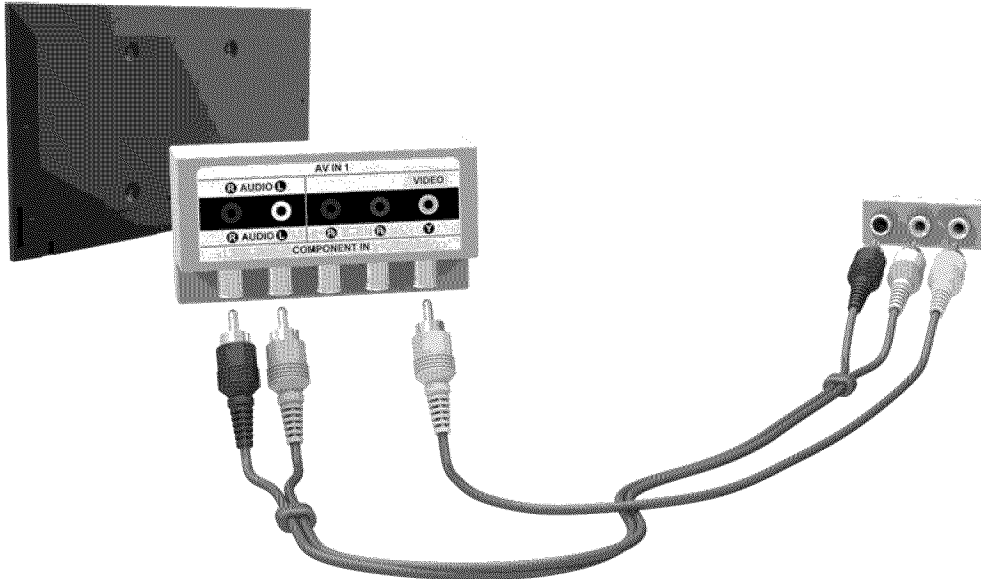
The displayed image may differ depending on the model.

# AV Connection

## For the LED 7450/7500 series models

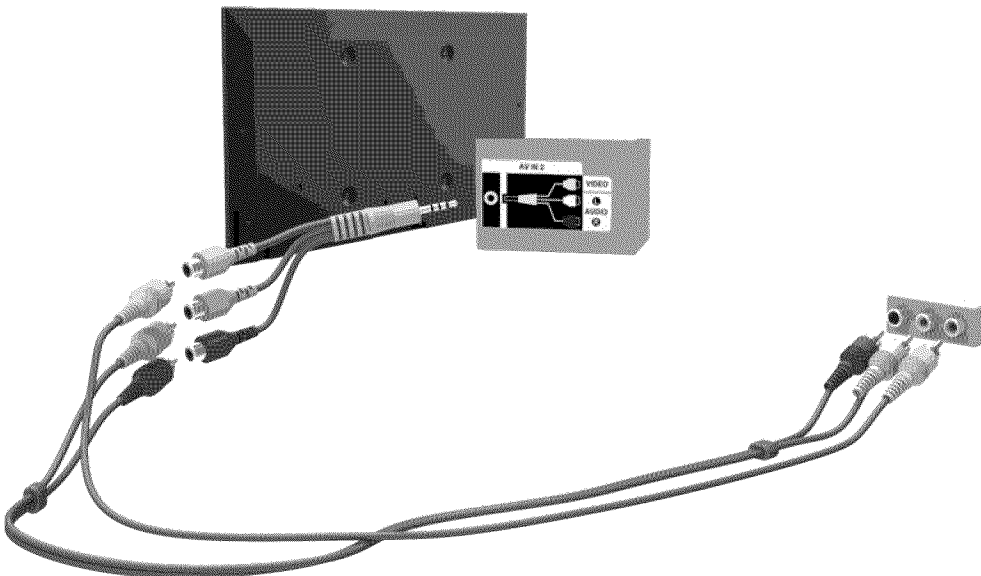
Refer to the diagram and connect the AV cable to the TV's external input connectors and the device's AV output connectors.

If you are using the TV's external input 1 connectors, connect the video cable to the Y connector.



The displayed image may differ depending on the model.

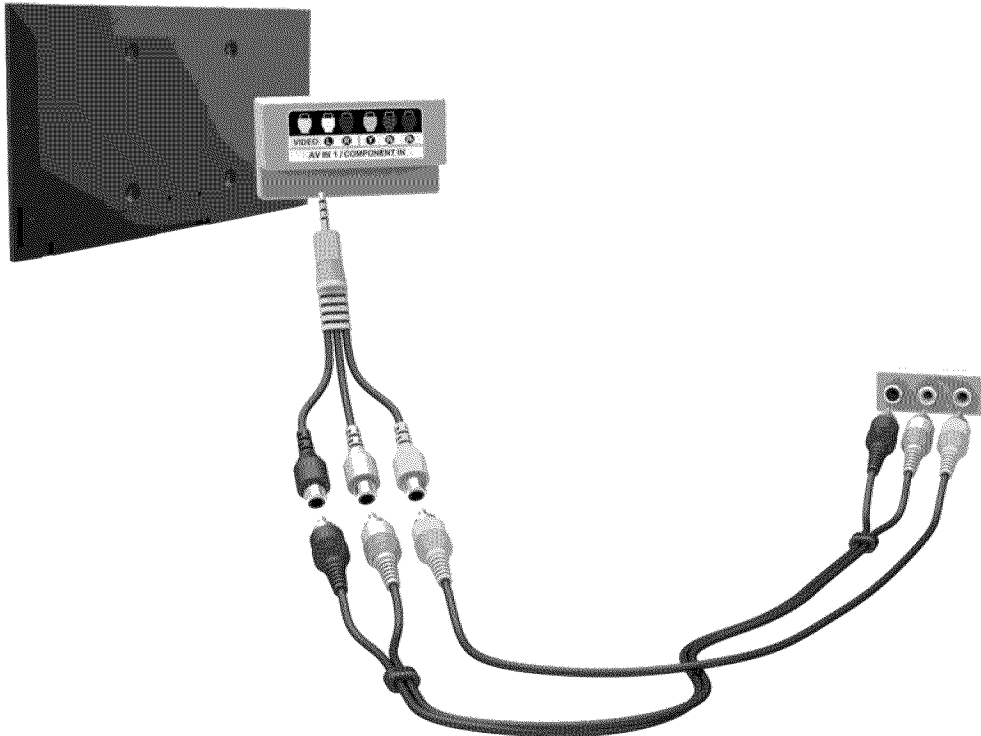
If the TV's external input 2 connectors are being used, use the enclosed AV connection adapter.



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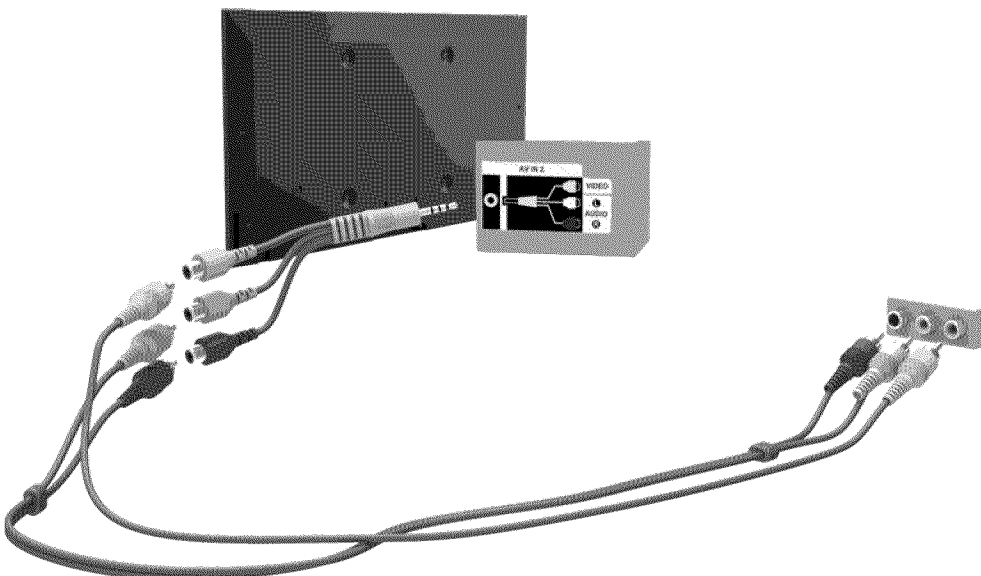
## For the LED 8000 and PDP 8500 series models

Connect a composite cable to the provided jack-to-RCA extension cable, so that the connectors of the same color connect to each other. Plug the jack into the TV's composite video and audio input connector, and plug the three connectors on the other end into the external device's composite video and audio output connectors, as shown in the figure.



The displayed image may differ depending on the model.

AV IN 2 is supported in LED 8000 Series only.



The displayed image may differ depending on the model.

## For the S9 models

Refer to the diagram and connect the video and audio cables to the A/V adapter (included) and the adapter to One Connect's external input 1 or 2 connector.



The displayed image may differ depending on the model.

# Audio Device Connections

This TV has a wide range of connectors for audio input from devices such as amplifiers, Blu-ray players and DVD players. For better audio quality, it is a good idea to use an AV receiver.

- Digital Audio (Optical)
- Audio
- ARC (Audio Return Channel)

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

When connecting an external device, refer to the device's operating manual. The number of external device connectors and their names and locations may vary depending on the manufacturer.

## Digital Audio (Optical) Connection

Connecting the device using an optical cable does not automatically turn off the TV speakers. To turn off the TV speakers, open the **Speaker Select** (**Sound > Speaker Settings > Speaker Select**) menu, then set **External Speaker**.

Adjust the audio device's volume using its remote panel.

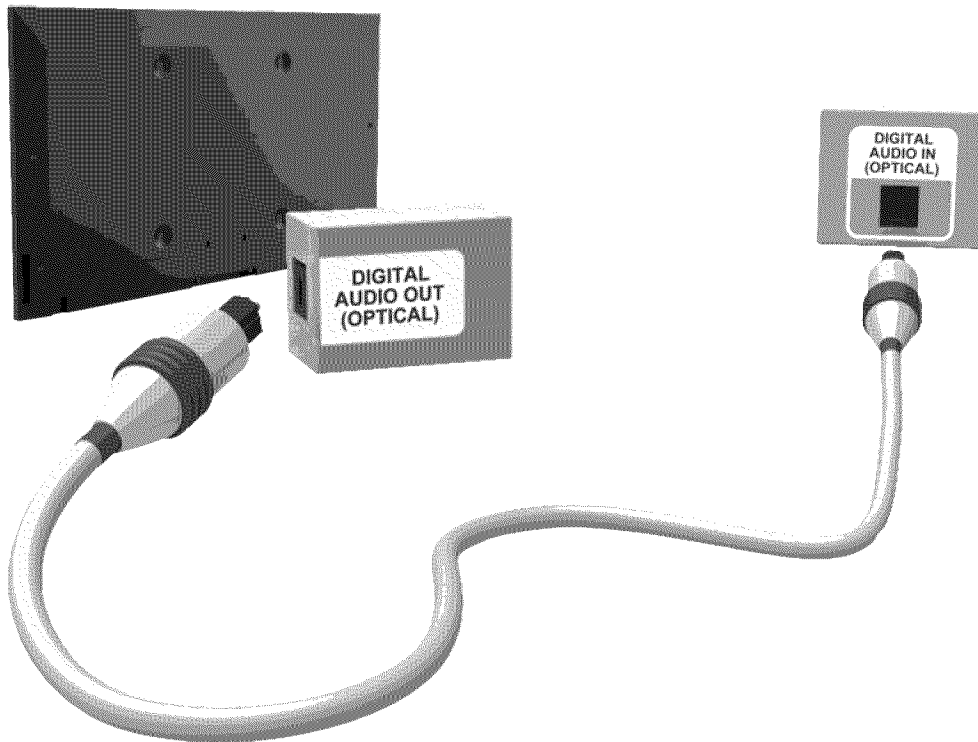
An unusual noise coming from the audio device while it is being used may indicate a problem with the audio device itself. If this is the case, ask for assistance from the audio device manufacturer.

5.1-channel audio for digital channels is only available with broadcasts that support 5.1-channel audio.



## For the LED 7450/7500, 8000 and PDP 8500 series models

Refer to the diagram and connect the optical cable to the TV's digital audio output connector and the device's digital audio input connector.



The displayed image may differ depending on the model.

## For the S9 models

Refer to the diagram and connect the optical cable to the One Connect digital audio output connector and the device's digital audio input connector.

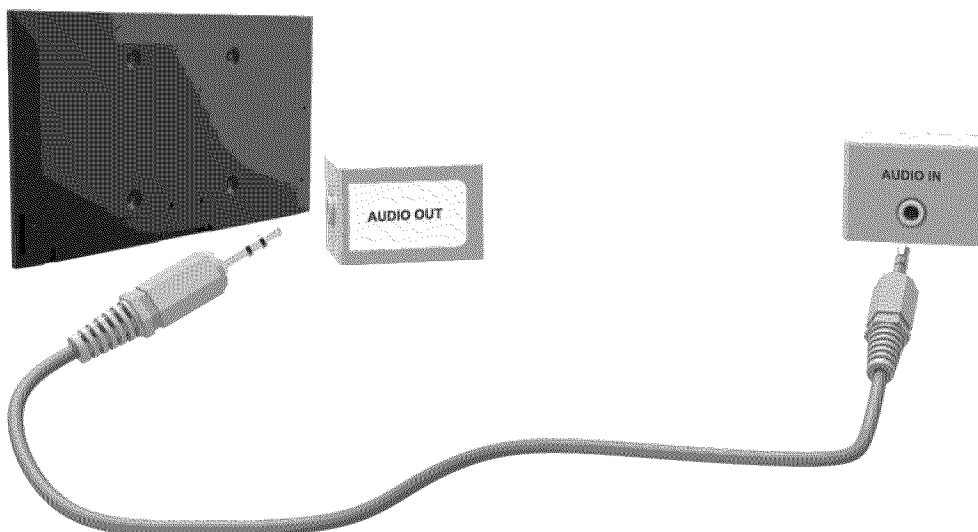


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# Audio Output Connection

## For the LED 7450/7500, 8000 series models

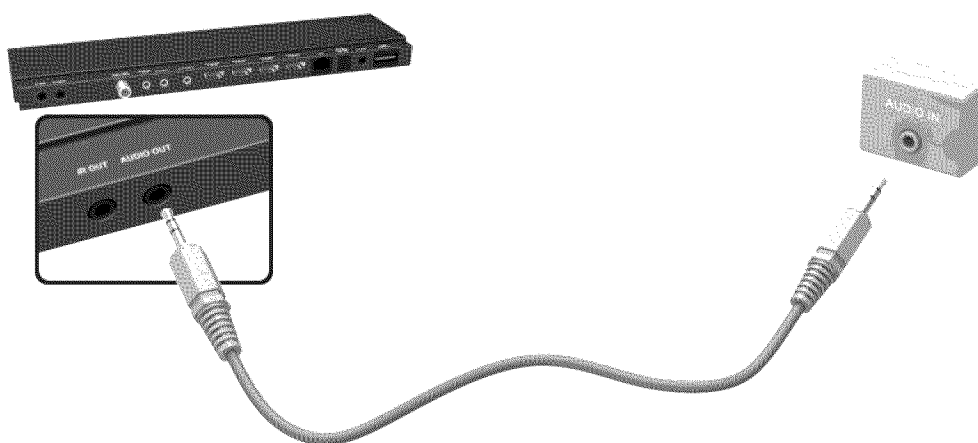
Refer to the diagram and connect the audio cable to the TV's audio output connector and the device's audio input connector.



The displayed image may differ depending on the model.

## For the S9 models

Refer to the diagram and connect the audio cable to the One Connect audio output connector and the device's audio input connector.




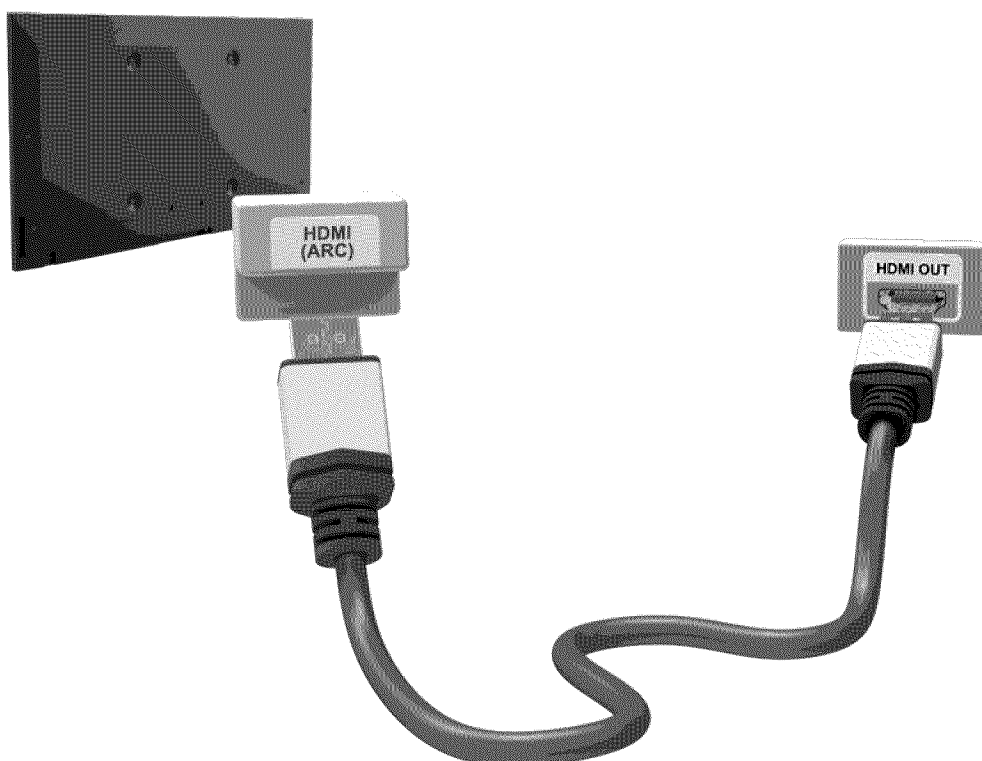
The displayed image may differ depending on the model.

# ARC (Audio Return Channel)

## For the LED 7450/7500, 8000 and PDP 8500 series models

This TV supports 3D and ARC (Audio Return Channel) functions via an HDMI cable. ARC enables digital sound to be output using just an 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. Connect the HDMI cable to the TV's HDMI (ARC) connector and the device's HDMI output connector.


 Certain functions such as the Smart Hub may not be available if **3D Auto View** is set to **On** while **Source** is in HDMI mode. In this case, set **3D Auto View** or **3D Mode** to **Off**.



The displayed image may differ depending on the model.

## For the S9 models

This TV supports 3D and ARC (Audio Return Channel) functions via an HDMI cable. ARC enables digital sound to be output using just an HDMI cable. However, ARC is only available through the HDMI (ARC) port and only when the One Connect is connected to an ARC-enabled AV receiver. Connect the HDMI cable to the One Connect HDMI (ARC) connector and the device's HDMI output connector.

 Certain functions such as the Smart Hub may not be available if **3D Auto View** is set to **On** while **Source** is in HDMI mode. In this case, set **3D Auto View** or **3D Mode** to **Off**.



The displayed image may differ depending on the model.

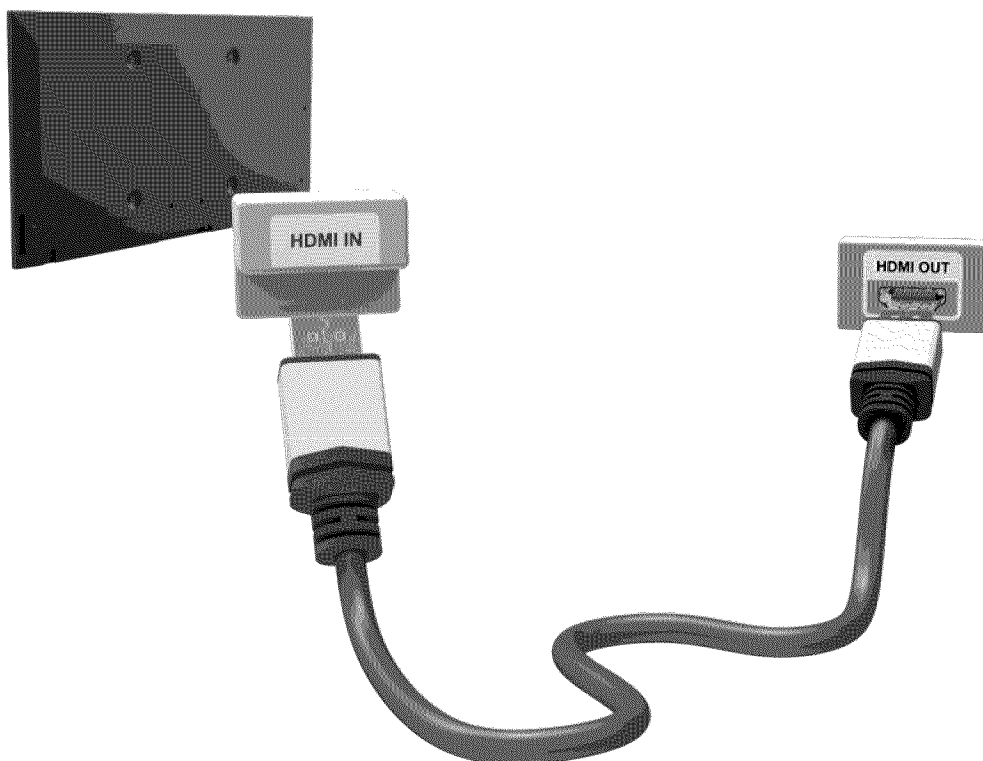
# Computer Connection

This TV supports the HDMI/DVI port for connect the computer. Not all computers are HDMI-enabled. In this case, use an HDMI-to-DVI cable to connect the computer to the TV. Refer to the "Display Resolution" for information on the resolution settings supported to the TV.

## HDMI Connection

For the LED 7450/7500, 8000 and PDP 8500 series models

Refer to the diagram and connect the HDMI cable to the TV's HDMI input port and the computer's HDMI output port.



The displayed image may differ depending on the model.

## For the S9 models

Refer to the diagram and connect the HDMI cable to the One Connect HDMI input port and the computer's HDMI output port.



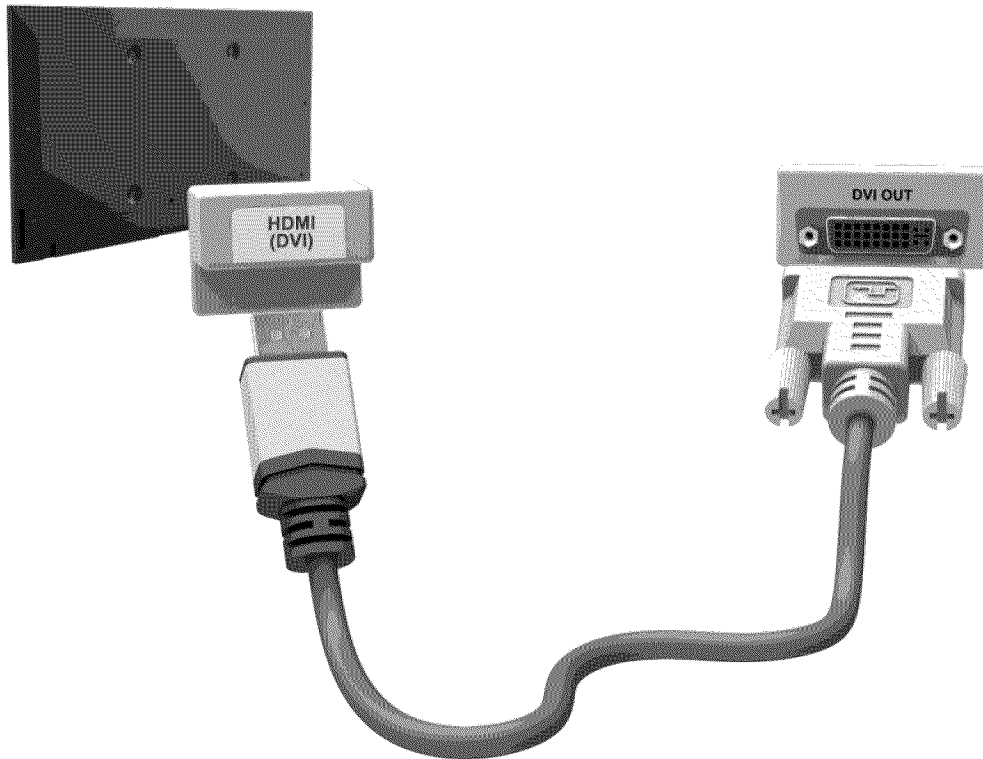
The displayed image may differ depending on the model.

## HDMI-to-DVI Connection

For the LED 7450/7500, 8000 and PDP 8500 series models

Refer to the diagram and connect the HDMI-to-DVI cable to the TV's HDMI (DVI) port and the computer's DVI output port. The HDMI-to-DVI connection is available through the HDMI (DVI) port only.

DVI cannot carry audio. To listen to the computer sound, connect the external speaker to the computer's audio output connector.

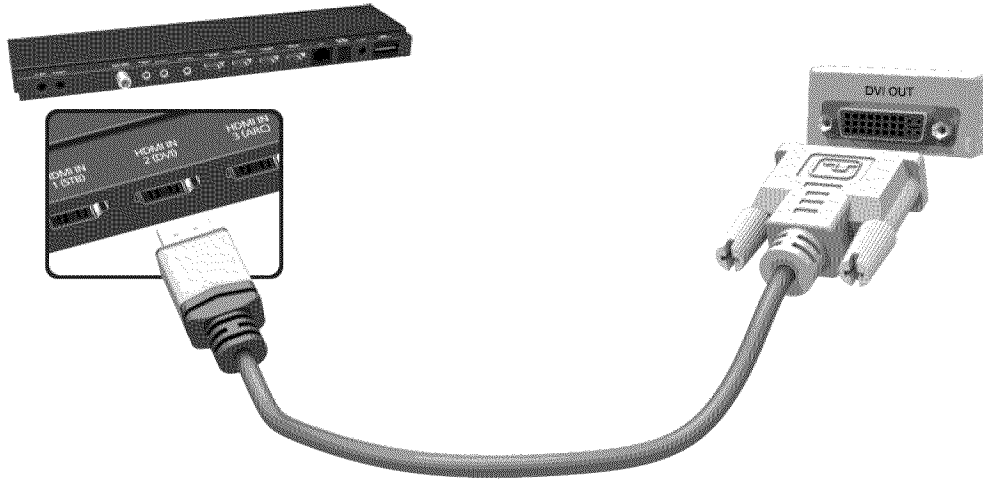


The displayed image may differ depending on the model.

## For the S9 models

Refer to the diagram and connect the HDMI-to-DVI cable to the One Connect HDMI (DVI) port and the computer's DVI output port. The HDMI-to-DVI connection is available through the HDMI (DVI) port only.

DVI cannot carry audio. To listen to the computer sound, connect the external speaker to the computer's audio output connector.





The displayed image may differ depending on the model.



# Smartphone Connection

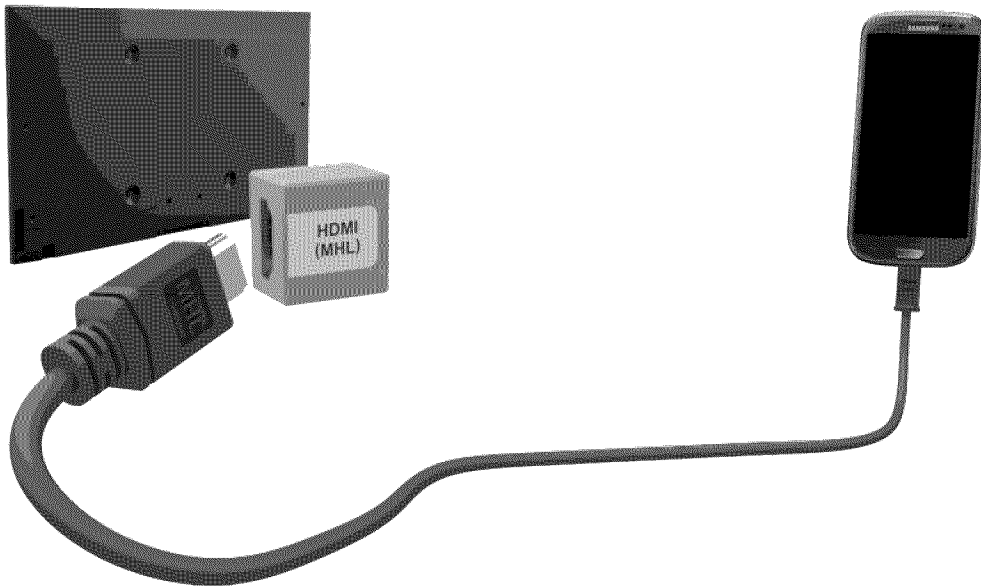
This TV supports MHL (Mobile High-definition Link) via an MHL cable. MHL makes it possible to enjoy video, image, and audio files from mobile devices on your TV. However, MHL is only available through the TV's HDMI (MHL) port and only when used in conjunction with an MHL-enabled mobile device.

For information on configuring MHL on your mobile device, refer to the device's User Manual.

-  Connecting the MHL-to-HDMI cable automatically switches **Picture Size** to **Screen Fit**. This setting will not change automatically if you are using an HDMI adapter. In this case, change the setting manually in the menu.
-  If you are using an HDMI adapter, the TV recognizes the signal as an HDMI signal and may respond differently than it would to an MHL-to-HDMI cable connection.

## For the LED 7450/7500, 8000 and PDP 8500 series models

Refer to the diagram and connect the MHL cable to the TV's HDMI (MHL) connector and the mobile device's USB port.



The displayed image may differ depending on the model.

## For the S9 models

Refer to the diagram and connect the MHL cable to One Connect's HDMI (MHL) connector and the mobile device's USB port.



The displayed image may differ depending on the model.

# Switching Between Video Sources

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

For example, to switch to a game console connected to the second HDMI connector, press the **SOURCE** button. From the **Source** list, select **HDMI2**. The connector names may vary depending on the product.

Select **Tools** at the upper-right corner of the **Source** screen to access the following functions.

- **Edit Name:** You can rename devices connected to the TV to more easily identify external sources.

With a computer connected to the TV's HDMI (DVI) port via an HDMI cable, for example, you can change **Edit Name** to **PC**.

With a computer connected to the TV's HDMI (DVI) port via an HDMI-to-DVI cable, for example, you can change **Edit Name** to **DVI PC**.

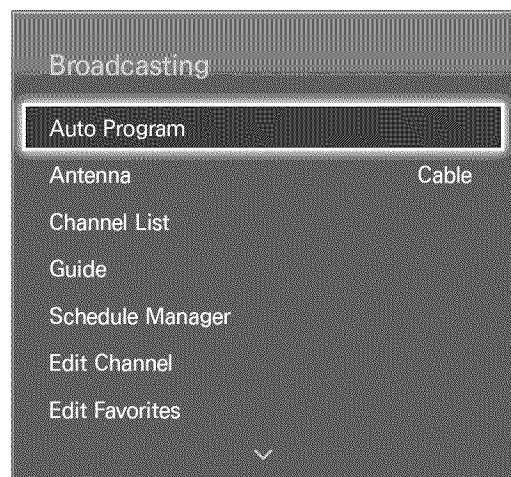
With an AV device connected to the TV's HDMI (DVI) port via an HDMI-to-DVI cable, for example, you can change **Edit Name** to **DVI Devices**.

- **Information:** View detailed information about the connected devices.
- **Refresh:** Select this if a connected device does not appear in the list. If the list does not show the device after selecting **Refresh**, check the status of the TV-to-device connection.
- **Remove USB:** Remove the USB device from the list safely. This function is only available when the USB device selected.

To add a new external device to control it with the Smart Touch Control, press the **SOURCE** button and select **Universal Remote Setup** on the top right of the screen. Using the universal remote control, users can control external devices connected to the TV, such as a set-top box, Blu-ray player, and AV receiver. For details, see "Universal Remote Setup".

# Programming

Scan and index available channels.



 The displayed image may differ depending on the model.

You can also remove channels from the index, restore removed channels and designate favorite channels for a more convenient TV viewing experience. Programming is not necessary if you are connected to a cable or satellite receiver.

## Auto Program

Screen Menu > **Broadcasting** > **Auto Program** [Try Now](#)

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

1. To start, navigate to **Broadcasting** and select **Auto Program**.
2. Select **Start** when prompted with a message. This initiates the Auto Program function. The process can take up to 30 minutes to complete. If Starting the Auto Program function when there is an existing index of channels overwrites the previous index.

## Remove Scrambled Channels

Screen Menu > **Broadcasting** > **Channel Settings** > **Clear Scrambled Channel** [Try Now](#)

Remove scrambled channels (ex: pay-per-view channels) from channel list. To remove scrambled channels, run this function. This function is enabled only for cable TVs when at least one digital channel is available.




# Channel Management

Screen Menu > Broadcasting > Edit Channel [Try Now](#) [Try Now](#)



 The displayed image may differ depending on the model.

Remove channels from the index, restore removed channels, and rename analog channels. The **Edit Channel** screen icons indicate the following:


-  : An analog channel
-  : A favorite channel
-  : A locked channel

From the **Edit Channel** screen, select the virtual remote panel's **TOOLS** button to access the following options:

- **Antenna:** Choose between **Cable** and **Air**.
- **Category:** The TV's channel index is divided into different categories such as **All**, **Added Ch.**, **Recently Viewed** and **Mostly Viewed**. Choose a category.
- **Edit Favorites:** You can designate frequently watched channels as favorites. For details, see "Favorite Channels".
- **Information:** View detailed information about the current program.


## Remove Channels

Remove registered channels from the index. Removing channels appearing in the **Recently Viewed** or **Mostly Viewed** list clears the channels from the list only and does not remove them from the index.

1. From the screen, select the channels you wish to remove. Unselect channels by choosing them again.
2. Select the  button on the virtual remote panel. The selected channel(s) will be deleted.

## Restore Removed Channels

Restore removed channels. Removed channels are displayed in gray on the **All** list. In addition, the **Add** option is only available for removed channels.

1. Select the virtual remote panel's **TOOLS** button to display the list. Select **Category** and then select **All**.
2. From the **All** list, select the channels you wish to restore. Unselect channels by choosing them again.
3. Select the  button on the virtual remote panel. The selected channel(s) will be added.

## Program Rating Lock

Screen Menu > **Broadcasting** > **Program Rating Lock**

The **Program Rating Lock** blocks programs with ratings higher than those desired. This is useful for controlling what children watch on TV. This will not function for programs originating from external sources, such as DVD players or USB files.

This PIN is required to watch a blocked program.

The **Program Rating Lock** is available only in TV mode.

### Blocking Programs Using the TV Rating

To block content, select a rating entry 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 based on Movie Rating (MPAA)

Block movies based on their MPAA rating. This applies to all material with supplied ratings in the USA.

### 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 Based on Canadian English Rating

Block material based on its English Canadian rating. This 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 Based on Canadian French Rating

Block material based on its French Canadian rating. This 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 Based on Downloadable U.S. Rating

Block material based on its **Downloadable U.S. Rating**. This rating system only applies to material originating from US DTV channels.

Parental restriction information is automatically downloaded while watching 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 depending on the broadcasting station, and 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.

## Rename Analog Channels

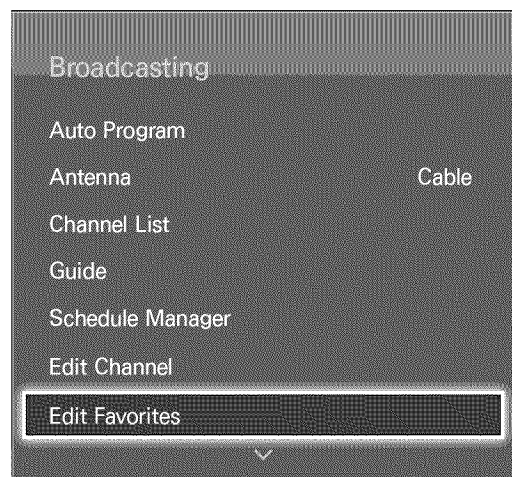
Select an analog channel from the **Edit Channel** screen and then select the virtual remote panel's **TOOLS** button to display a list of options. Select **Rename Channel** from the list.


You can now rename the selected channel. The new name can be up to 5 characters long.



# Favorite Channels

Screen Menu > Broadcasting > Edit Favorites [Try Now](#)



 The displayed image may differ depending on the model.

You can designate frequently watched channels as favorites. The channels assigned as a favorite are displayed with the ♥ symbol on the **Edit Channel** and channel list screens. You can create up to 5 favorite channel lists. You can also rename and edit favorite channel lists.

From the **Edit Favorites** screen, select the virtual remote panel's **TOOLS** button to access the following options:

- **Antenna:** Choose between **Cable** and **Air**.
- **Edit Channel:** You can manage the channels saved on the TV. For details, see "Channel Management".
- **Information:** View detailed information about the current program.

## Add Favorite Channels

Add a channel to a favorite channels list.

1. Select the **A** button on the virtual remote panel to bring up the channel list containing the channels you wish to add and then select the channels. However, the **A** button is available only when the **Recently Viewed** or **Mostly Viewed** channel list has one or more channel entries.
2. Select the **B** button on the virtual remote panel to bring up a favorite channels list and then select the **C** button to add the selected channels.

## Remove Favorite Channels

Remove channels from a favorite channels list.

1. Select the **B** button on the virtual remote panel to bring up a favorite channels list and then select the channels you wish to remove.
2. Select the **C** button on the virtual remote panel, to remove the channels from the list.

## Rearrange the Favorite Channels List

Rearrange the order of the channels in a Favorite Channels List.

1. Select the **B** button on the virtual remote panel to bring up the favorite channels list and select the channel you wish to move.
2. Select the **A** button on the virtual remote panel to rearrange the order of the selected channel. Press the touch pad to finish.

## Rename a Favorite Channel List

Rename an existing favorite channels list.

1. Select the virtual remote panel's **TOOLS** button to display the list. Select **Rename Favorites** from the list.
2. Rename the list in the popup window. The new name can be up to 20 characters long.

## Copy a Favorite Channels List

Copy channels from one favorite channels list to another.

1. Select the **B** button on the virtual remote panel to bring up a Favorite Channels List and select the channels you wish to copy.
2. Select the virtual remote panel's **TOOLS** button to display the list. Select **Copy to Favorites** from the list, and then select the Favorite Channels List(s) you wish to copy to. This copies over the channels to the selected Favorite Channels List(s).

# Network Configuration

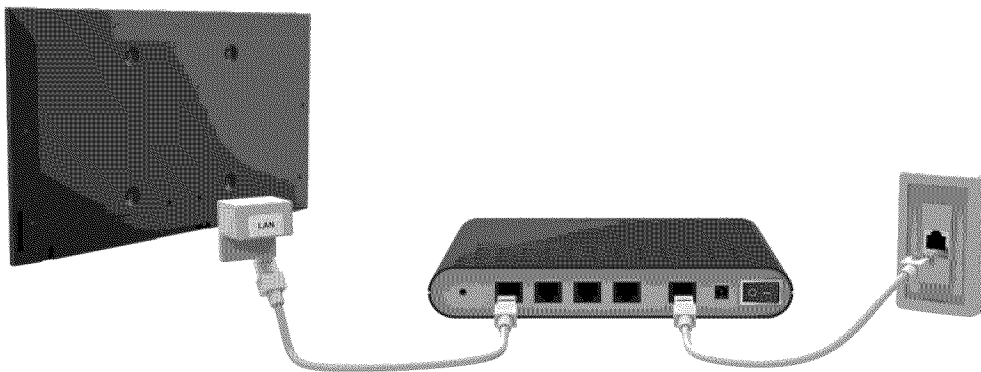
Connecting the TV to a network gives you access to online services such as the Smart Hub as well as software updates.

## Wired Network

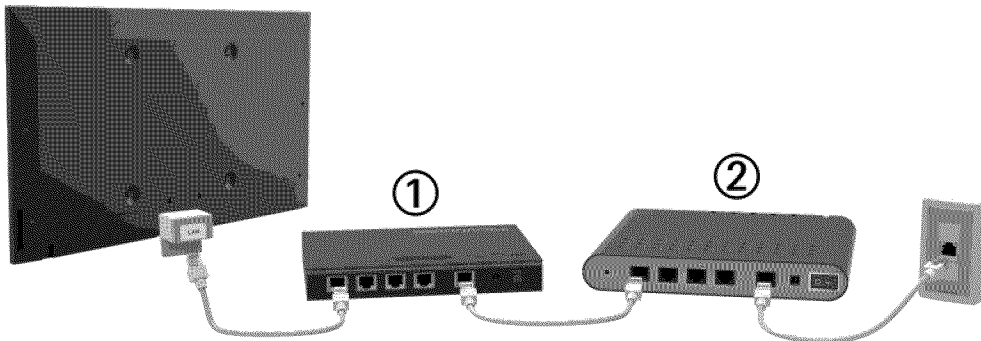
For the LED 7450/7500, 8000 and PDP 8500 series models

There are three ways to connect the TV to a Local Area Network (LAN).

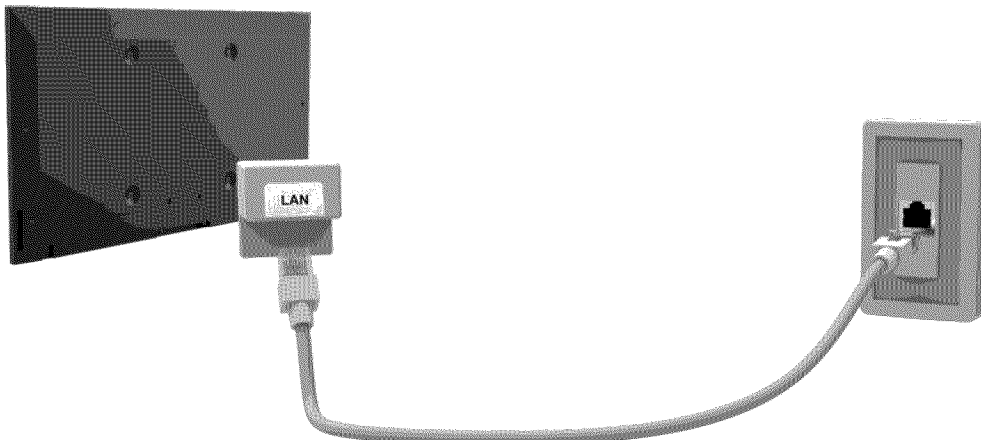
- External Modem



- ① IP Router + ② External Modem



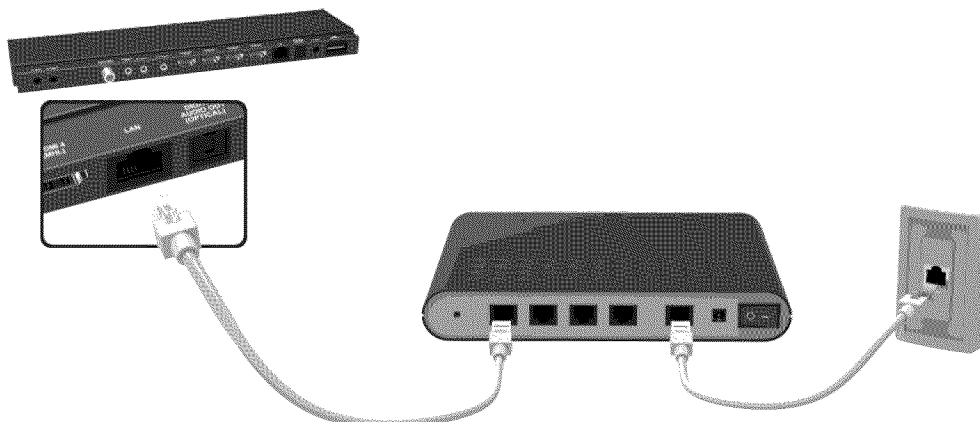
- Wall-mounted LAN Outlet



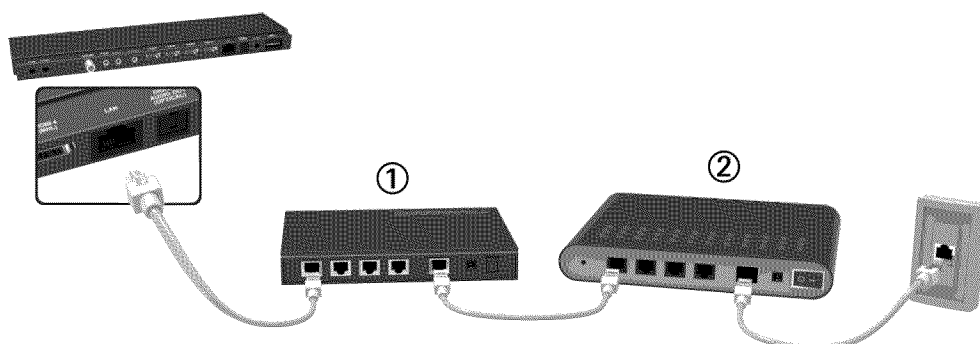
## For the S9 models

There are three ways to connect the TV to a Local Area Network (LAN).

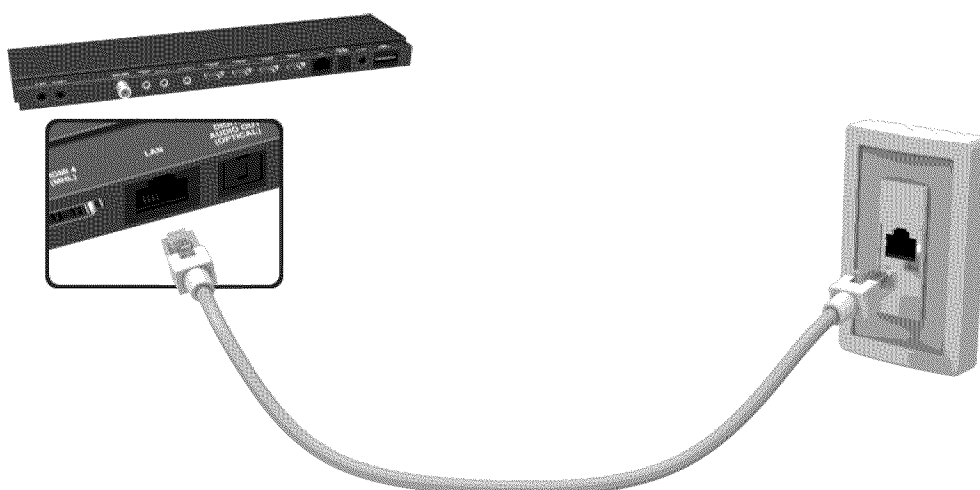
- External Modem



- ① IP Router + ② External Modem



- Wall-mounted LAN Outlet



# Wireless Network

Connect the TV to the Internet using a standard router or modem.



## Wireless Network Precautions

- This TV supports the IEEE 802.11a/b/g /n communication protocols. Samsung recommends using IEEE 802.11n. Otherwise when you play video over a network connection, the video may not play smoothly.
- To use a wireless network, the TV must be connected to a wireless router or modem. If the wireless router supports DHCP, the TV can use a DHCP or static IP address to connect to the wireless network.
- Select a channel that is not currently in use for the wireless router. If the channel set for the wireless router is currently being used by another device, the result is usually interference and/or a communications failure.
- Most wireless networks have an optional security system. To enable a wireless network's security system, you need to create a security key using characters and numbers. This security key is then needed to connect to the wireless network.

## Network Security Protocols

The TV only supports the following wireless network security protocols and is unable to connect to non-certified wireless routers:

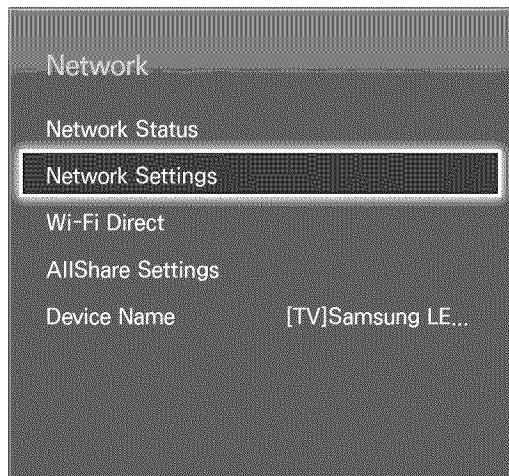
- Authentication Modes: WEP, WPAPSK, WPA2PSK
- Encryption Types: WEP, TKIP, AES

If the wireless router has been set to Pure High-throughput (Greenfield) 802.11n mode and the Encryption Type to WEP or TKIP, Samsung TVs will not support the connection in compliance with the new Wi-Fi certification specifications.

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

# Wired Network Setup

Screen Menu > Network > Network Settings [Try Now](#)



 The displayed image may differ depending on the model.

## Automatic Wired Network Setup

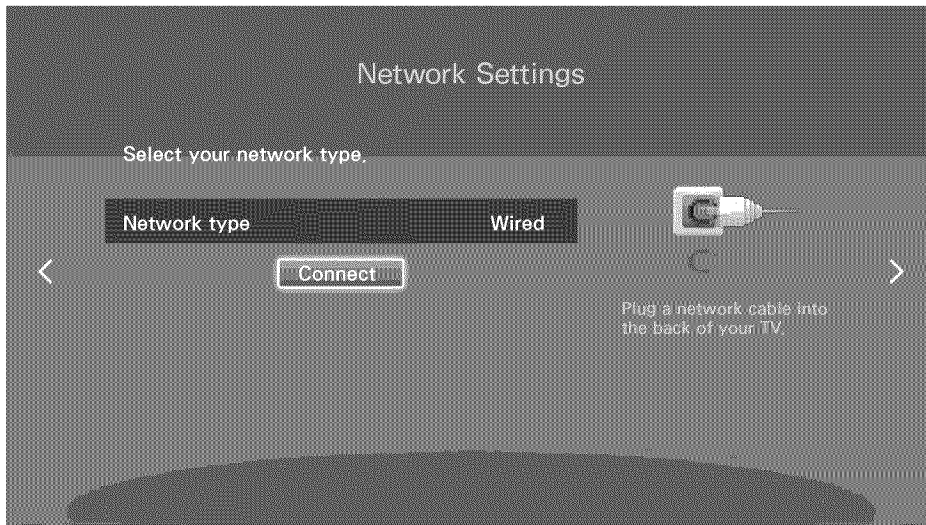
The TV's wired network connection is automatically configured when it is connected to a network that supports DHCP.

1. Set **Network type** to **Wired** and then select **Connect**.
2. The TV attempts to connect to the network. A confirmation message is then shown once a connection is established. Select **OK** to proceed. If the attempt fails, try again or connect manually.

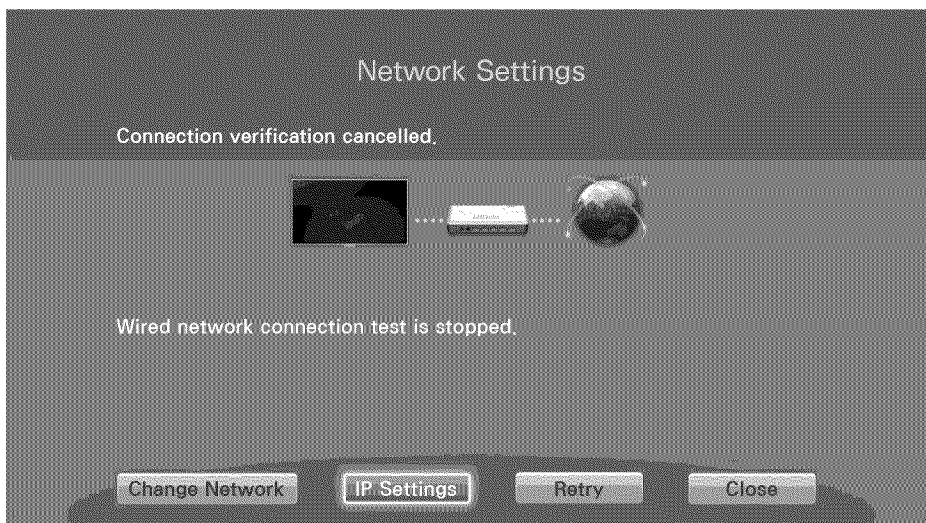
## Manual Wired Network Setup

If the network requires a static IP address, enter the IP address, subnet mask, gateway and DNS values to connect to the network manually. To get the IP address, subnet mask, gateway and DNS values, contact your Internet Service Provider (ISP). Refer to the "Dynamic versus Static IP Addresses" for more information.

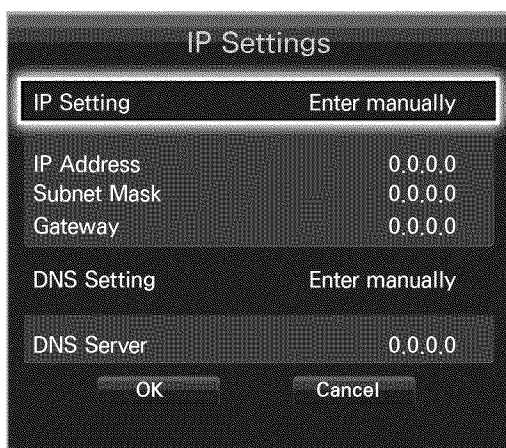
1. Set Network type to Wired and then select Connect.



2. Select Stop when the TV attempts to connect to the network. Once the network connection has been interrupted, select IP Settings.



3. From the IP Settings screen, set IP Setting to Enter manually, enter IP Address, Subnet Mask, Gateway, and the DNS Server values, and then select OK.



4. The TV attempts to connect to the network again using the specified settings. A confirmation message is then shown once a connection is established. Select OK to proceed.

## Failed Wired Connection

### No network cable found [Try Now](#) [Try Now](#)

Make sure the network cable is plugged in. If it is connected, make sure the router is turned on. If it is on, try turning it off and on again.

### IP auto setting failed [Try Now](#)

Perform the following or set the IP address manually from **IP Settings**.

1. Ensure that the DHCP server is enabled on the router and reset the router.
2. If this does not work, contact your Internet Service Provider for more information.

### Unable to connect to the network [Try Now](#)

Check the following:

1. Check the **IP Settings** settings.
2. Ensure that the DHCP server is enabled on the router and unplug and then plug the router back in.
3. If this does not work, contact your Internet Service Provider for more information.

### Connected to a local network, but not to the Internet [Try Now](#)

1. Make sure that the Internet LAN cable is connected to the router's external LAN port.
2. Check the DNS settings under **IP Settings**.
3. If the problem persists, contact your Internet Service Provider.

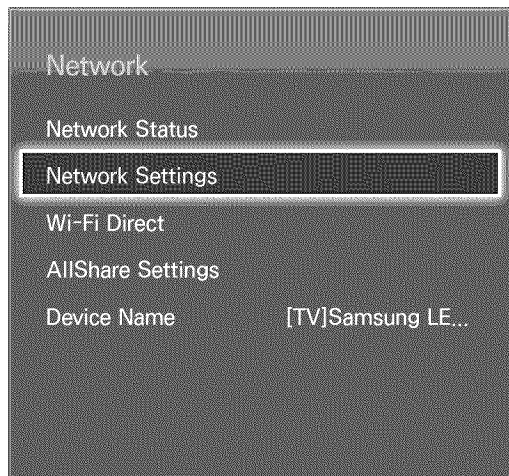
### Network setup complete, but unable to connect to the Internet [Try Now](#)

If the problem persists, contact your Internet Service Provider.



# Wireless Network Setup

Screen Menu > Network > Network Settings



 The displayed image may differ depending on the model.

## Automatic Wireless Network Setup

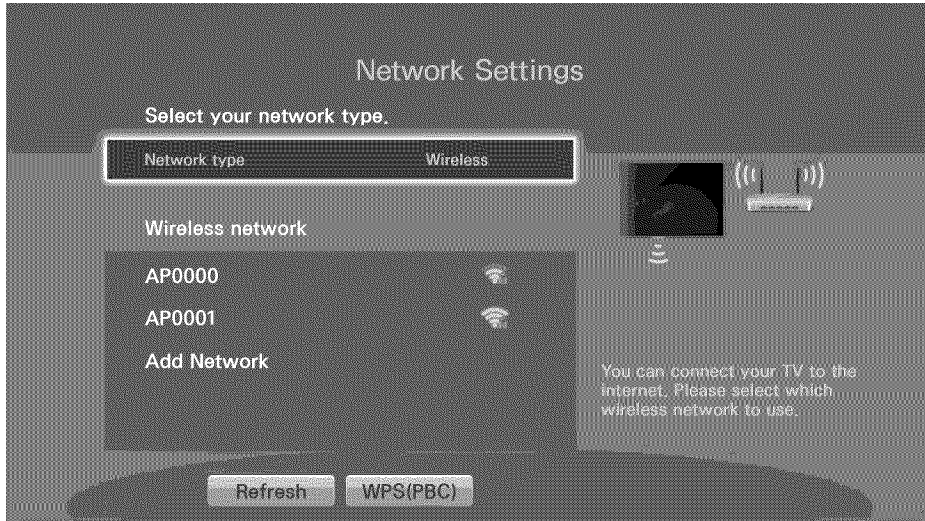
Connect the TV to the Internet via a wireless router. Check the wireless router's SSID and security key settings before attempting to connect. The security key can be found on the wireless router's configuration screen.

1. Setting **Network type** to **Wireless** automatically displays a list of available wireless networks.
2. Select the network (SSID) you wish to connect to. If the desired wireless router doesn't appear in the list, select **Add Network** and enter the network's SSID manually.
3. Enter the security key and select **Done**. If the selected network is not security-enabled, the TV will attempt a connection right away.
4. The TV attempts to connect to the network. A confirmation message is then shown once a connection is established. Select **OK** to proceed. If the attempt fails, try again or connect manually.

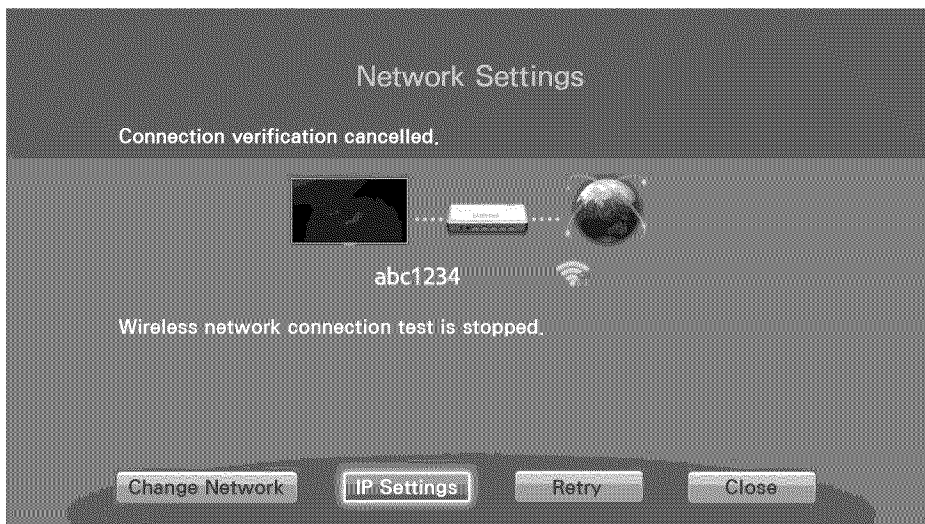
# Manual Wireless Network Setup

If the network requires a static IP address, enter the IP address, subnet mask, gateway and DNS values to connect to the network manually. To get the IP address, subnet mask, gateway and DNS values, contact your Internet Service Provider (ISP). Refer to the "Dynamic versus Static IP Addresses" for more information.

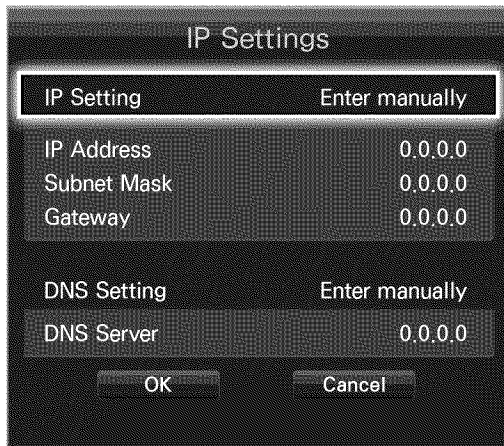
1. Setting **Network type** to **Wireless** automatically displays a list of available wireless networks.



2. Select the network (SSID) you wish to connect to. If the desired wireless router doesn't appear in the list, select **Add Network** and enter the network's SSID manually.
3. Enter the security key and select **Done**. If the selected network is not security-enabled, the TV will attempt a connection right away.
4. Select **Stop** when the TV attempts to connect to the network. Once the network connection has been interrupted, select **IP Settings**.



5. From the IP Settings screen, set IP Setting to Enter manually, enter IP Address, Subnet Mask, Gateway, and the DNS Server values, and then select OK.



IP Settings	
IP Setting	Enter manually
IP Address	0.0.0.0
Subnet Mask	0.0.0.0
Gateway	0.0.0.0
DNS Setting	Enter manually
DNS Server	0.0.0.0
OK Cancel	

6. The TV attempts to connect to the network again using the specified settings. A confirmation message is then shown once a connection is established. Select OK to proceed.

## Using the WPS Button

If the router has a WPS push button, you can use it to connect the TV to the router automatically. WPS automatically configures the SSID and WPA key settings.

1. Setting **Network type** to **Wireless** automatically displays a list of available wireless networks.
2. Select **WPS(PBC)** and then press the router's WPS button within two minutes.
3. The TV automatically acquires the SSID and security key settings and connects to the network. A confirmation message is then shown once a connection is established. Select **OK** to proceed.

## Failed Wireless Connection

Wireless network connection failed, or no wireless router selected. [Try Now](#) [Try Now](#)

Go to **Network Settings** and select the correct router.

Unable to connect to a wireless router [Try Now](#) [Try Now](#)

Check the following:

1. Check that the router is turned on, and if it is, turn it off and on again.
2. Enter the correct security key if required.

IP auto setting failed [Try Now](#)

Perform the following or set the IP address manually from **IP Settings**.

1. Make sure that the DHCP server is enabled on the router and unplug and plug the router back in.
2. Enter the correct security key if required.
3. If this does not work, contact your Internet Service Provider for more information.

Unable to connect to the network [Try Now](#)

Check the following:

1. Check the **IP Settings** settings.
2. Enter the correct security key if required.
3. If this does not work, contact your Internet Service Provider for more information.

## Connected to a local network, but not to the Internet [Try Now](#)

1. Make sure that the Internet LAN cable is connected to the router's external LAN port.
2. Check the DNS settings under **IP Settings**.
3. If the problem persists, contact your Internet Service Provider.

## Network setup complete, but unable to connect to the Internet [Try Now](#)

If the problem persists, contact your Internet Service Provider.

## Dynamic versus Static IP Addresses

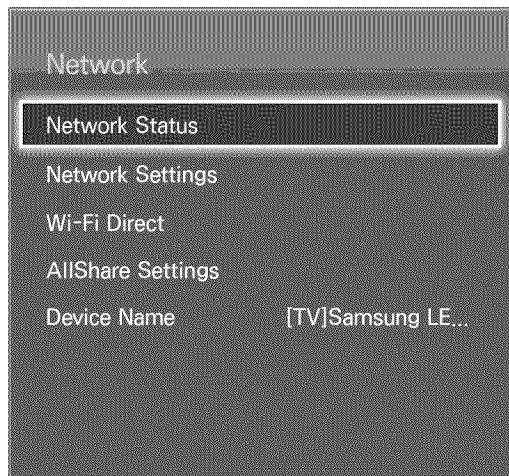
If the network requires a dynamic IP address, use an ADSL modem or router that supports the Dynamic Host Configuration Protocol (DHCP). Modems and routers that support DHCP automatically provide the IP address, subnet mask, gateway and DNS values the TV needs to access the Internet, so they do not have 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.

# Checking the Network Status

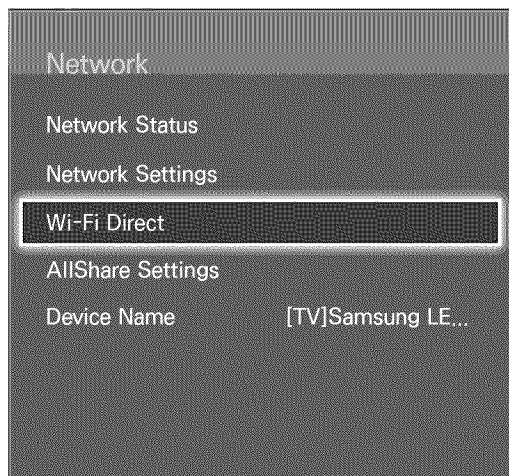
Screen Menu > Network > Network Status [Try Now](#)



 The displayed image may differ depending on the model.

View the current network and Internet status.

## Mobile Device Connection



 The displayed image may differ depending on the model.

You can either directly connect a mobile device to the TV with no need for a wireless router or connect them on the same network to play media files from the mobile device on the TV.

## Wi-Fi Direct

Screen Menu > Network > Wi-Fi Direct [Try Now](#)

Connect a mobile device that supports Wi-Fi Direct to the TV without using a wireless router.

1. Enable Wi-Fi Direct on the mobile device and then launch **Wi-Fi Direct**. 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. Accept the request to connect the mobile device to the TV.

## AllShare Settings

Screen Menu > Network > AllShare Settings

This TV can play media files from computers or other DLNA-enabled devices connected to the TV via a network. For details, see "Using Networked External Storage Devices".

In addition, this TV can be used as a display for mobile devices, including smartphones and tablets. For details, see "Screen Mirroring".

## Rename the TV

Screen Menu > Network > Device Name [Try Now](#)

Assign a unique name for your TV. The assigned name appears on the external devices connected to the TV via the network.

# Smart Touch Control

The Smart Touch Control makes it easier and more convenient to use the TV. For example, you can use the remote panel's built-in touch pad to move the focus and make selections as you would on a computer using a mouse. In addition, you can use the virtual remote panel displayed on the screen to change channels, play media files, and access favorites.

## Inserting the Batteries (AAA X 2)

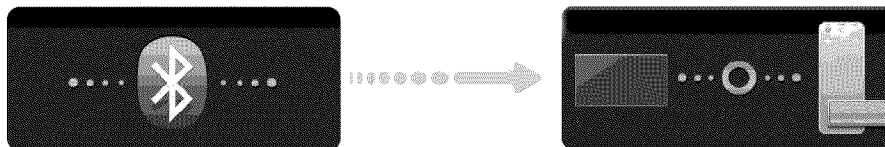


1. Slightly lift the battery cover by pulling the strap or using a plastic card (e.g. a credit card). Next, pull on the cover's notch with a fingernail to remove the cover completely.
2. Insert 2 AAA batteries, making sure to align the positive and negative ends correctly.
3. Align the battery cover with the back of the remote panel and press down along the edges until it is cleanly attached to the remote panel.

## Connecting to the TV

In order to operate the TV using a Smart Touch Control, you must first pair it to the TV via Bluetooth. However, the Smart Touch Control is only available for the paired Samsung TV.

1. To turn on the TV, point the Smart Touch Control at the remote panel receiver of the TV and press the TV button. The remote panel receiver's location may vary depending on the model.
2. A Bluetooth icon will appear at the bottom left of the screen as shown below. The TV will then attempt to connect to the Smart Touch Control automatically.



<Attempting to connect and completion icons>



## Reconnecting the Smart Touch Control

If you need to reestablish the connection between the TV and the Smart Touch Control, press the pairing button at the back of the Smart Touch Control.

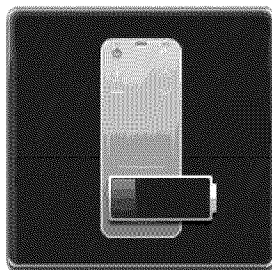


<The Smart Touch Control's pairing button>

The pairing button can be accessed by removing the Smart Touch Control's battery cover. Pressing the pairing button automatically reestablishes the connection between the control and the TV.

## Battery Low Alarm

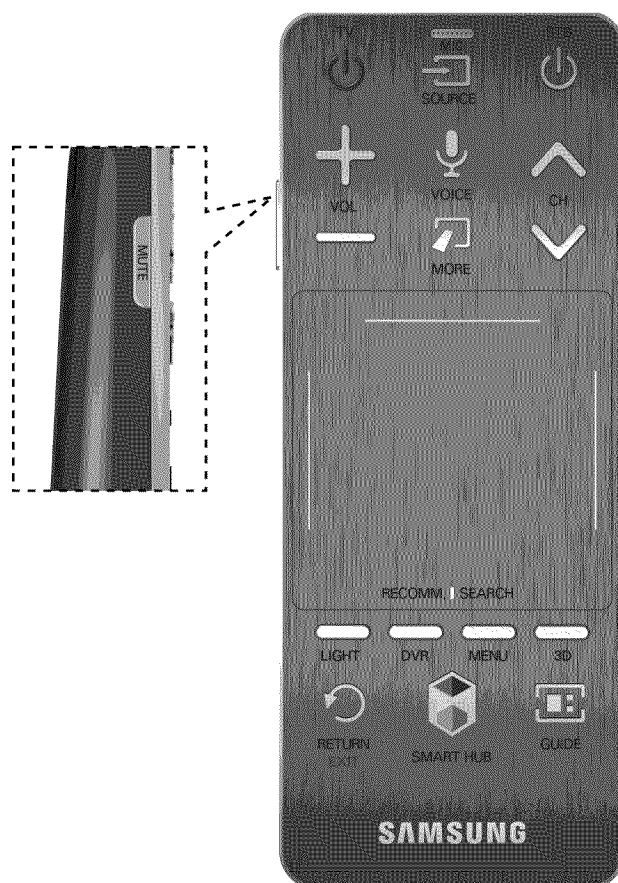
If the battery becomes low while using the Smart Touch Control, the following alarm window blinks and appears at the bottom of the left screen. If the alarm window pops up, replace the batteries of the Smart Touch Control. Use alkaline batteries for longer usage.



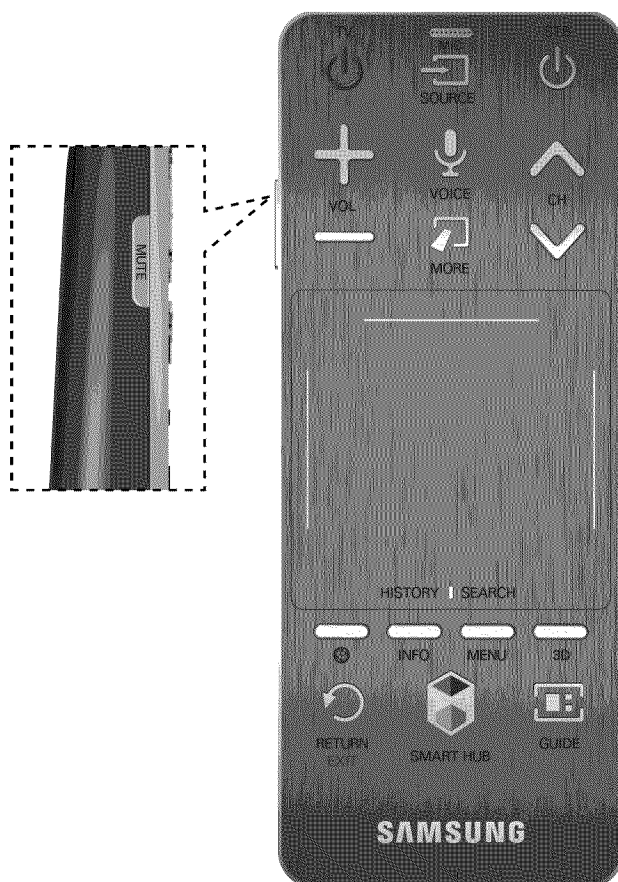
<Low battery alarm window>


# Buttons and Descriptions

<For U.S.A. and Canada>



<For the other countries>



Buttons	Descriptions
TV	Turns the TV on/off.
SOURCE	Changes the source.
STB	Turn on and off the satellite or cable set-top box connected to the TV. For this, the Smart Touch Control must be configured as a universal remote control. Refer to "Universal Remote Setup" for more information.
VOL	Adjusts the volume.
VOICE	Run Voice Recognition. To speak a voice command, press and hold the <b>VOICE</b> button and say a voice command. Refer to "Voice Recognition" for more information.
MUTE	Turns the TV sound on/off.
CH	Changes the channel.
MORE	Displays the virtual remote panel on the screen. The virtual remote panel consists of a number panel, a playback remote panel, and a quick access panel. Use the touch pad to select numbers and buttons. Refer to "Virtual Remote Control" for more information.
Touch pad	Drag your finger on the touch pad as you would on the touch pad of a laptop to move the focus displayed on the screen. To select item, press the touch pad. Refer to "Using the touch pad" for more information.
RETURN / EXIT	Returns to the previous menu.
SMART HUB	Launch Smart Hub. While an application is running, pressing the <b>SMART HUB</b> button terminates the application. Refer to "Smart Hub" for more information.
GUIDE	Check the digital channel broadcasting schedule. Refer to "Guide" for more information.
LIGHT	(for U.S.A. and Canada) Turn on the backlight for the buttons. The backlight lasts for only a few seconds. Turns the remote panel light on or off. When on, the buttons become illuminated for a moment when pressed. (Using the remote panel with this button set to On will reduce the battery usage time.)
DVR	(for U.S.A. and Canada) This button is only available when the Smart Touch Control is configured to function as a universal remote control to control a set-top box. Run DVR (Digital Video Recording) in set-top box.
MENU	Opens the OSD.
3D	Turns the 3D image on or off. Refer to "3D TV" for more information.
	(for the other countries) Enable Sports Mode for the optimal sports viewing experience.
INFO	(for the other countries) Displays information on the TV screen.

## Special Functions

Press and hold the following Smart Touch Control buttons to access various special functions.

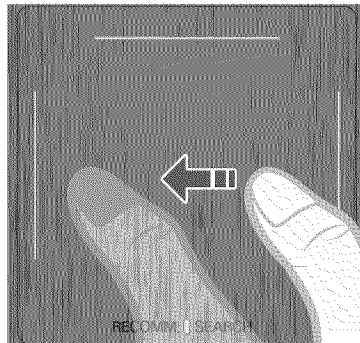
Buttons	Descriptions
Touch pad	Press and hold the touch pad while watching TV to display CH List on the screen. In addition, you can press and hold the touch pad for 2 seconds or more while an application is running to access the application's hidden features. (Not available with all applications.)
RETURN	Press and hold this button to quit the current process or app.
MORE	Press and hold the touch pad to select a desired function (e.g. e-Manual, TOOLS, INFO, etc.) easily.

# Using the touch pad

Use the touch pad to perform various commands. Navigate to Tutorial (System > Device Manager > Smart Touch Control Settings > Tutorial) to view an on-screen guide to using the Smart Touch Control. [Try Now](#)

## Dragging

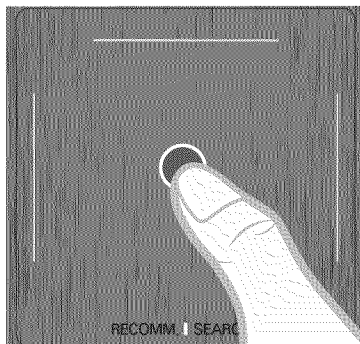
Drag on the touch pad in the desired direction. Move the focus or the pointer in the direction the finger is dragging.



<The button's name may vary, depending on the country.>

## Pressing

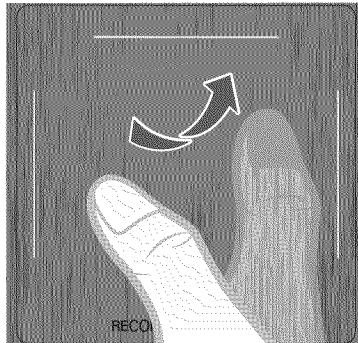
Press the touch pad. This selects the focused item.



<The button's name may vary, depending on the country.>

## Flicking

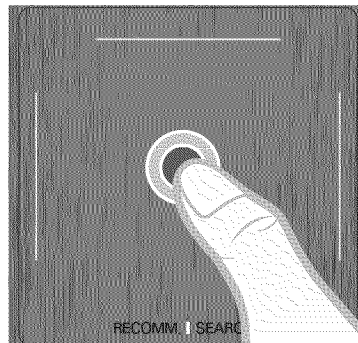
Flick on the touch pad in the desired direction. This moves the focus or scrolls the screen based on the direction and speed of the flick.



<The button's name may vary, depending on the country.>

## Pressing and Holding

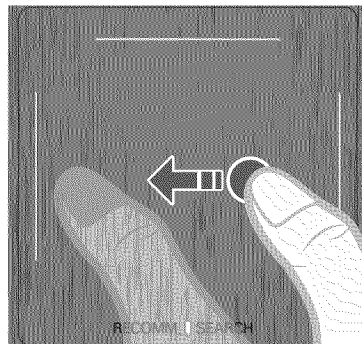
Press and hold the touch pad while watching TV to display **CH List** on the screen. In addition, you can press and hold the touch pad for 2 seconds or more while an application is running to access the application's hidden features. (Not available with all applications.)



<The button's name may vary, depending on the country.>

## Pressing and Dragging

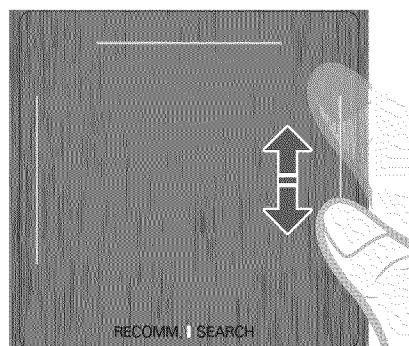
Press on the touch pad, drag and release. This moves the selected web item in a webpage or your current location on a map.



<The button's name may vary, depending on the country.>

## Scrolling Up/Down

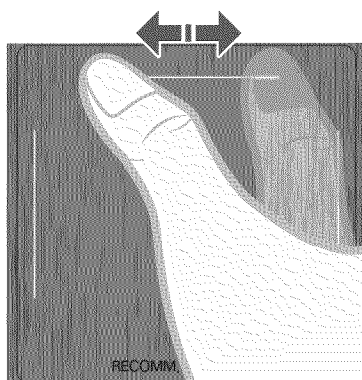
Scroll up/down the line on either the left or right edge of the touch pad. This scrolls a webpage or a list up/down. This scrolling feature easily accommodates both right-handed and left-handed users.



<The button's name may vary, depending on the country.>

## Scrolling Left/Right

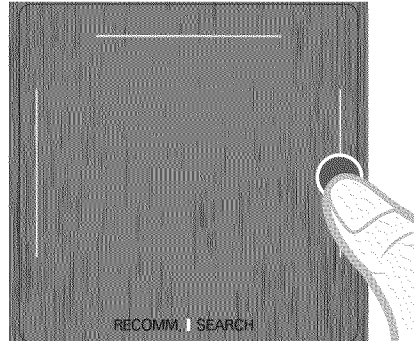
Move your finger horizontally on the projected line at the top of the touch pad. You can horizontally scroll a horizontal list or the Smart Hub panel.



<The button's name may vary, depending on the country.>

## Changing Channels by Entering Numbers

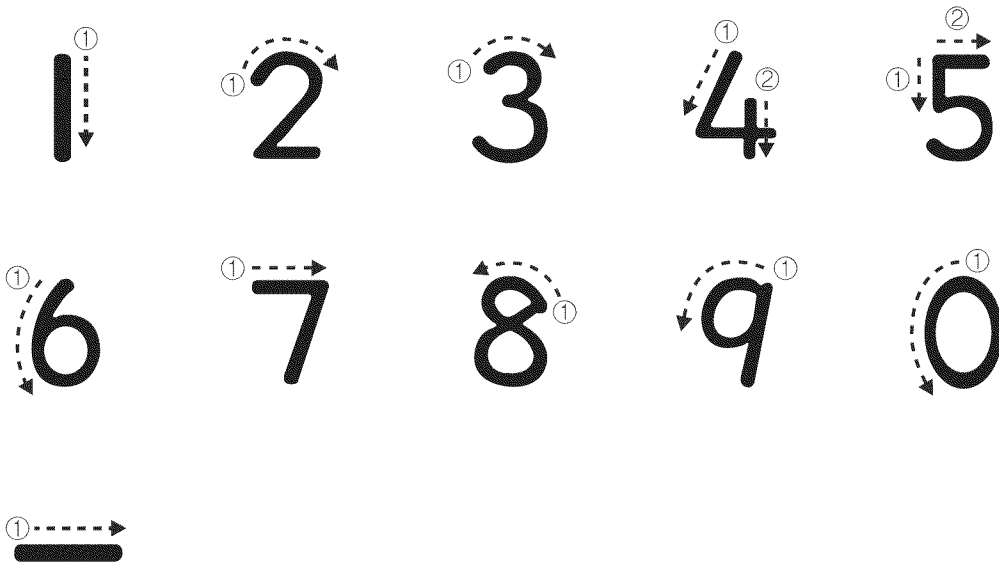
While watching TV, tap on the protruding line on the left or right edge of the touch pad to bring up the numerical input window on the screen. Use your finger to enter the number for the channel you want to watch. The recognized number is displayed on the screen and the TV switches to the corresponding channel. However, the number you have entered may not be recognized properly by the TV. Refer to the guide below to ensure that your numerical entries are recognized accurately.



<The button's name may vary, depending on the country.>

### Numerical Input Guide

Refer to the diagrams below when entering numerical values. The TV may not recognize your entries if you do not follow the sequences shown below.



## Adjusting the Touch pad

Screen Menu > System > Device Manager > Smart Touch Control Settings > Touch Sensitivity  

Users can adjust the sensitivity of the Smart Touch Control's touch pad. Set Touch Sensitivity to adjust sensitivity and make it more convenient to use.



## Show Status and Notification Banner

Press the **MORE** button on the Smart Touch Control and then select **STATUS** on the virtual remote panel to display the status and notification banner at the top of the screen. Refer to the "Status and Notification" for more information.

## Recommended

**This functions is only available on U.S.A. and Canada.**

Press the **RECOMM. / SEARCH** and then select **Recommended** from the list displayed at the bottom of the screen. This shows the current/scheduled program and application recommendations.

Select a program that is currently airing to jump to the corresponding channel or a program that is scheduled to air to set up a Schedule Viewing setting. Refer to the "Scheduled Recommended Program Info" for more information.

Select an application to launch. Samsung Apps will launch if the selected application is not installed on the TV. Refer to the "Samsung Apps" for more information.

## History

**For U.S.A. and Canada**

Press the **RECOMM. / SEARCH** and then select **History** from the list displayed at the bottom of the screen. This displays an interactive list of recently accessed channels, media content and applications.

**For the other countries**

Press the **HISTORY / SEARCH** and then select **History** from the list displayed at the bottom of the screen. This displays an interactive list of recently accessed channels, media content and applications.

## Deleting History Data

Screen Menu > **Smart Features** > **Remove viewing history** > **History**

You can delete the history information about recently viewed channels, content and applications.

## Searching

**For U.S.A. and Canada**

Press the **RECOMM. / SEARCH** button on the Smart Touch Control. The list appears at the bottom of the screen. Press the **RECOMM. / SEARCH** button again. The keypad will appear on the screen. Enter search criteria to search not only many apps and their contents on the TV but also the Web. For more information, refer to "Searching".

**For the other countries**

Press the **HISTORY / SEARCH** button. The list appears at the bottom of the screen. Press the **HISTORY / SEARCH** button again. The keypad will appear on the screen. Enter search criteria to search not only many apps and their contents on the TV but also the Web. For more information, refer to "Searching".

# Virtual Remote Control

Press the **MORE** button to display the virtual remote panel on the screen. The virtual remote panel consists of a number panel, a playback remote panel, and a quick access panel. Use the touch pad to select numbers and buttons. Press and hold this button. A quick access panel of virtual remote panel appears. You can select screen buttons easily.

## Changing the Virtual Remote Control Panel

Choose the number panel, playback control panel, or quick access panel as the panel to be shown on the screen.

Use the touch pad to keep moving the focus left or right. The panel changes when the focus is moved beyond the leftmost or rightmost edge.

Use left/right scroll function on the touch pad to change the panel easily.

## Change a position of the Virtual Remote Panel

Press the **MORE** button on the Smart Touch Control. The virtual remote panel appears on the screen, press and hold the touch pad for one second. Users can change a position of the virtual remote panel of the screen.

## Using the Number Panel

Use the number panel to enter numbers on a keypad screen or webpage or to change the channel while watching TV. Changing the channel using the number pad leaves a record, allowing you to easily return to previous channels.

## Using the Playback Control Panel

Use the playback control panel to pause, rewind, fast forward, skip to the next file, and much more while enjoying media content.

## Using the Quick Access Panel

Quickly access the **INFO**, **TOOLS** and **e-Manual** buttons. However, the availability of buttons may vary depending on the operating mode of the Smart Touch Control (with the TV only, as a universal remote, etc.).

## Adjusting the virtual remote panel

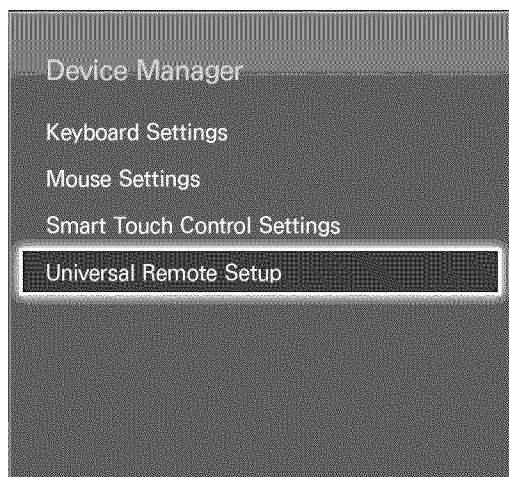
Screen Menu > System > Device Manager > Smart Touch Control Settings > Onscreen Remote Size

 Try Now

You can resize the virtual remote panel. If the virtual remote panel buttons are too small, enlarge the remote panel window before using the virtual remote panel.

# Universal Remote Setup

Screen Menu > System > Device Manager > Universal Remote Setup [Try Now](#)

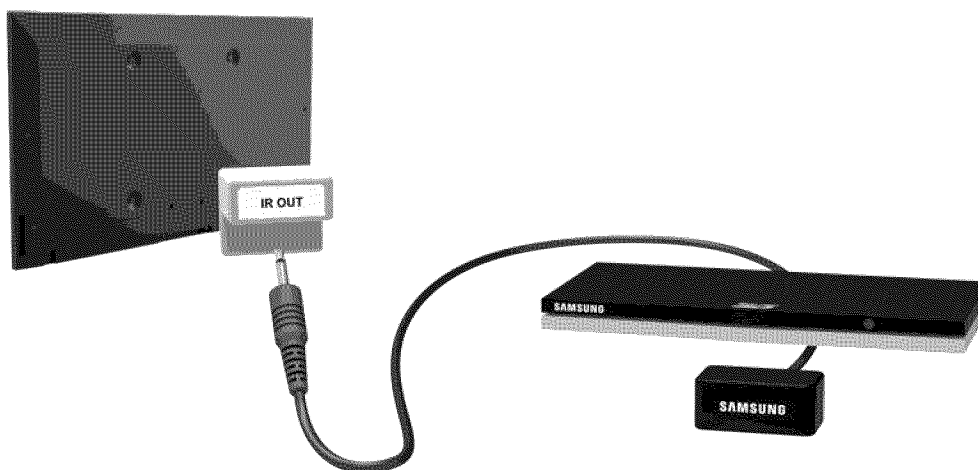


 The displayed image may differ depending on the model.

This TV has a universal remote control feature that lets you control cable boxes, Blu-ray players, home theaters, and other third-party external devices connected to the TV using the TV's remote panel. You can also use the Anynet+ (HDMI-CEC) function to operate Samsung external devices with your TV's remote panel without any additional setup. For more information, refer to "Anynet+ (HDMI-CEC)".

## Connecting the IR Extender

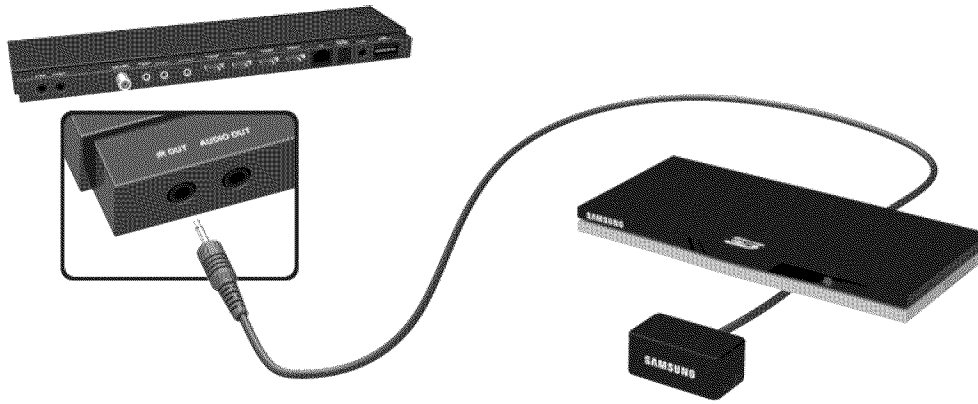
For the LED 7450/7500, 8000 and PDP 8500 series models



Plug the cable into the TV IR connector and then point the transmitter at the other end of the cable towards the external device's remote panel receiver. However, there can't be any obstacles between the IR extension cable and the external device. The presence of an obstacle will interfere with the transmission of the remote panel signal.

 The color and design of the IR Extender may vary depending on the model.

For the S9 models



Plug the cable into the One Connect IR connector and then point the transmitter at the other end of the cable towards the external device's remote panel receiver. However, there can't be any obstacles between the IR extension cable and the external device. The presence of an obstacle will interfere with the transmission of the remote panel signal.

 The color and design of the IR Extender may vary depending on the model.

## Add the External Device

1. Turn on the external device you wish to set up universal remote function for and then press the **SOURCE** button to bring up the **Source** screen.
2. Select **Universal Remote Setup** from the top of the screen. This initiates the universal remote setup process.
3. Follow the on-screen instruction and set up the universal remote control. If it does not work, set up the remote control by entering the model number manually.

## Using the Universal Remote Control

By configuring the universal remote control feature for a connector to which an external device is already connected, you can use the Smart Touch Control as a universal remote control simply by sending the input signals to the corresponding connector.

## Registered External Device Management

Universal Remote Setup screen, select a registered external device.

- **Source Setup:** Change the TV's input connector that the external device is connected to.
- **Synced Power off:** Configure the external device to turn off when the TV is turned off.
- **Rename:** Rename the registered external device (up to 15 characters long).
- **Delete:** Remove the registered external device.


# Entering Text using the Onscreen Keypad

An onscreen keypad appears when you need to enter text (entering the network password, logging into your Samsung account, etc.), allowing you to enter text using your remote panel.

## Entering Text using the QWERTY Keypad

Use the QWERTY keypad as you would a normal keyboard. Simply select the letters you want to enter them.

## Additional Features

Select the  icon from the keypad to access the following features:

- **Language:** Select a language from the list.
- **Recommended text:** Enable/disable the Recommended Text feature. Enabling the Recommended Text feature displays word recommendations based on the entered characters. To enter the word "Internet", for example, all you have to do is enter "In" and select the word "Internet" from the list of recommended words.
- **Predict Next Letter:** Enable/disable the Text Prediction feature. Enabling the Text Prediction feature eliminates the need to find and select individual character keys. However, this feature is limited to words that have previously been added to the dictionary. To enter the word "Internet", for example, select "I". A predicted word will then appear next to the I key. Simply select the predicted word to enter "Internet".

# SMART Interaction

This TV features SMART Interaction, which recognizes a user's voice, actions, and face to enable TV operations without the use of a remote panel. SMART Interaction makes it possible to configure settings and access features with ease. It takes approximately 15 seconds for voice and motion recognition to come online after turning on the TV.

## Precautions

### Face Recognition

This product saves thumbnail images of users' faces for use during the Face Login. Logging into the Smart Hub via face recognition may be less secure than logging in using an ID and password.

### TV Camera Use

Under some circumstances and under certain legal conditions, the use/misuse of the TV camera may result in legal liability. There may be obligations under local privacy laws regarding the protection of individuals concerning personal data and on the free movement of such data, and possibly other laws including criminal laws, regulating camera surveillance both in the workplace and elsewhere.

By using the TV camera, users agree that it will not be used (i) in locations where cameras are generally prohibited (such as bathrooms, locker rooms or changing rooms), (ii) in any manner that will result in an invasion of a person's privacy or (iii) in violation of any applicable laws, regulations or statutes.

If you are using a camera, first check the back for a sticker.

Remove the sticker cover before adjusting the TV camera angle.

When you are no longer using the camera, rotate the lens downward and secure it in place. This prevents any inadvertent or unintentional camera operation.

## Motion Control

Motion Control works by using the camera, so the user must be within the camera's recognition range. The camera's recognition range varies depending on the ambient light level and other factors. Run **Motion Control Environment Test** before using Motion Control to determine the camera's recognition range. User may experience physical fatigue when using Motion Control for extended periods.

## Voice Recognition

For the best Voice Recognition experience, we recommend that you use a Smart Touch Control.

Voice Recognition is not available in all languages, dialects or regions. The performance varies depending on the language chosen, voice volume and ambient noise levels in the surrounding area.

Perform a **Voice Recognition Environment Test** prior to using Voice Recognition to test the level and clarity and the ambient sound of the surrounding area.

Voice Text Input requires the user's agreement with any third-party app's voice privacy policy and to provide Samsung with the user's MAC address and other private information.

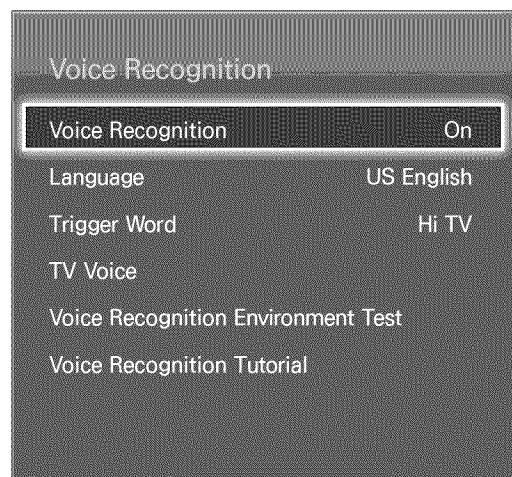
Voice Text Input lets users enter text using voice commands instead of a mouse, keyboard or remote panel. This feature is particularly useful for searching, browsing the web, and using applications that require text input.

You must agree to the following privacy notices before using Interactive Voice Recognition:

- Voice Recognition Privacy Notice, Nuance Privacy Notice

# Voice Recognition

Screen Menu > Smart Features > Voice Recognition [Try Now](#)



 The displayed image may differ depending on the model.

Voice Recognition lets you access and remote specific functions of the TV using voice commands. For the accurate recognition of voice commands, pronounce words and phrases clearly in the language selected in **Language**. The TV's clock has to be set before you use Voice Recognition. Set the **Clock** (**System** > **Time** > **Clock**).

Voice Recognition can be used in the following ways:

- Using the TV's built-in microphone (from a distance)
- Using the **VOICE** button (up close)

Ambient noise can interfere with voice recognition. If this is the case, press the **VOICE** button and then say the command word/phrase 0.3ft to 0.4ft away from the microphone on the Smart Touch Control. Commands may not be recognized if you speak too softly or loudly. The optimal volume is approximately 75~80dB.

## Operating Environment

Voice Recognition and the Turn TV On voice command should be used within 13.1ft of the TV.

Perform a **Voice Recognition Environment Test** prior to using Voice Recognition to test the level and clarity and the ambient sound of the surrounding area. Ambient noise can cause Voice Recognition to malfunction. (Suitable Ambient Noise Level: Less than 40 dB, \*40 dB - the sound at library or residential area in the daytime.) Visit the Samsung website for a list of standard voice commands.

The voice recognition rate varies depending on the volume/tone, pronunciation, and ambient environment (TV sound and ambient noise).



## Voice Recognition Environment Test

Screen Menu > Smart Features > Voice Recognition > Voice Recognition Environment Test [Try Now](#)

This test determines how well Voice Recognition will work in the TV's current environment. This test must be performed before using Voice Recognition to make sure it functions properly.

1. Run the Voice Recognition Environment Test and stand within 13.1ft of the TV.
2. Select **Start** to measure the ambient noise. If the ambient noise level is suitable, the test will proceed to the next step. If this part of the test fails, remain quiet and try again.
3. This part of the test measures the volume and clarity of the user's voice. A command will appear on the TV's screen. Say the command loud and clear within 30 seconds. If the TV successfully recognizes the user's voice, the test proceeds to the next step. If this part of the test fails, try again.
4. To measure the level of echo in the surrounding area. If the echo level is suitable, the Voice Recognition Environment Test will end.

## Enabling Voice Recognition

Press the **VOICE** button to run Voice Recognition. Say a command. You can use Voice Recognition to operate the TV. [Try Now](#)

If Voice Recognition is not working, check to see if **Voice Recognition (Smart Features > Voice Recognition)** has been enabled. To use Voice Recognition, **Voice Recognition** must be set to **On**.

 While Voice Recognition is activated, the TV can turn on automatically due to an environmental input.

## Voice Recognition Tutorial

Screen Menu > Smart Features > Voice Recognition > Voice Recognition Tutorial [Try Now](#)

This lets you familiarize yourself with the basics of using Voice Recognition. Run **Voice Recognition Tutorial** or activate Voice Recognition and then say "Guide me".

## Basic Voice Recognition Use

You can use the following commands anytime while Voice Recognition is active:

- **Moving the Focus:** Say "Focus Left", "Focus Right", "Focus Up", or "Focus Down" to move the focus. However, these commands can only be used in situations when the focus can be moved.
- **Select Item:** Say "Select".
- **Available Voice Commands:** Say "Guide me". A list of basic voice commands available in the current state is shown.
- **All Voice Commands:** Say "Guide me" and then "Show All" to display a complete list of voice commands by category. Say the name of a category.

Only preset voice commands are recognized. Available voice commands may vary, depending on the software version.

## Voice Recognition Settings

Screen Menu > Smart Features > Voice Recognition

- **Language:** Select a language for Voice Recognition. [Try Now](#)
- **Trigger Word:** Designate certain commands as trigger words. Saying a trigger word activates Voice Recognition. To turn on the TV using a voice command, say "Trigger Word + Power ON". (Example: "Hi TV, Power ON") [Try Now](#)
- **TV Voice:** Enable/disable the TV's voice responses to your Voice Recognition commands and choose between a male and female voice. This function is not supported depending on the region.

## Interactive Voice Recognition Commands

Interactive Voice Recognition allows you to set up a Schedule Viewing access VODs, search and launch applications, and execute various other commands without having to remember specific commands or keywords. Saying "Turn off the TV in 30 minutes," for example, instructs the TV to turn off after 30 minutes (Sleep Timer).

Activate Interactive Voice Recognition and say a command. See the examples below:

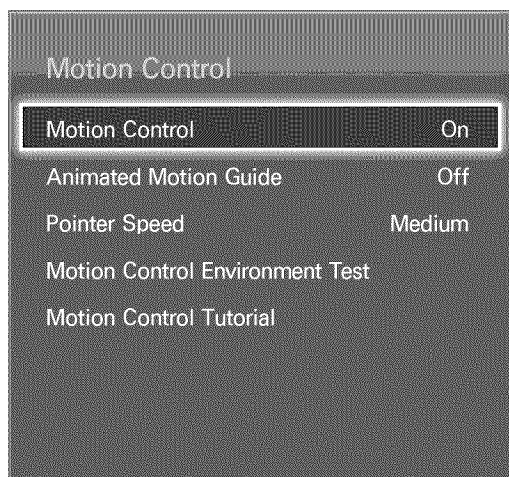
- When you don't know which channel a specific program is on:  
"Play <program title>."
- When you need information about a specific genre:  
"Which \*(genre name) shows are on today?"
- When you want to watch a program featuring a specific actor or directed by a specific director:  
"Please look up programs featuring \*(cast member). / Find me works directed by \*(director name)."
- When you want to find out more information about the program you are watching:  
"Who are the cast members in this program? / "What's the title of this program?"
- When you want program recommendations:  
"Please recommend something to watch this evening." / "Are there any shows worth watching today?"
- When you want to operate the TV:  
"Adjust the volume to ten." / "Change to channel \*"

## Deactivating Voice Recognition

To deactivate Voice Recognition, say "Close Voice Recognition".

# Motion Control

Screen Menu > Smart Features > Motion Control [Try Now](#)



 The displayed image may differ depending on the model.

Use Motion Control to change the channel, adjust the volume, move the pointer, and control other TV functions.

Some applications may not support Motion Control.

## Operating Environment

Make sure that the TV camera is extended before using motion controls.

Users should be located between 4.9ft and 13.1ft from the camera. The actual recognition range may vary depending on the camera angle and other factors.

Motion Control relies on the TV camera and therefore will not function if the camera is pointed up or down. Adjust the camera angle using the wheel on the back of the camera. Do not point the camera directly at the sun or any other light source or obstruct its view.

In order for the camera to recognize movement, the user has to stand out from the background.

The appropriate ambient brightness is between 50 to 500 lux. (ex: 100 Lux: bathroom, 400 Lux: living room)

Avoid direct sunlight when using Motion Control.

Run **Motion Control Environment Test** to assess the camera's recognition range before using Motion Control.

# Motion Control Environment Test

Screen Menu > Smart Features > Motion Control > Motion Control Environment Test

Run this test before using Motion Control to ensure proper functionality.

1. Run **Motion Control Environment Test** and select Start within 4.9ft and 13.1ft of the TV. If light reflects on the TV screen, user can be difficult to use **Motion Control**.
2. Adjust the camera angle so that you appear inside the square displayed on the screen. Once you have finished adjusting the camera angle, wave one hand slowly from left to right. Spread your hand out with the palm facing the TV. An arrow cursor appears on the screen when the TV recognizes the action. If recognition fails, try again.

# Motion Control Tutorial

Screen Menu > Smart Features > Motion Control > Motion Control Tutorial

Run Motion Control and follow the instructions. This lets you familiarize yourself with the basics of using Motion Control.

# Motion Control Activation

Screen Menu > Smart Features > Motion Control > Motion Control 

Raise your hand with the palm facing the TV. Hold it for a moment and slowly wave your hand from side to side three or four times. When your hand is successfully recognized, the Motion Control is activated and a pointer is displayed on the screen.

-  Dropping your hand out of the range of the TV camera deactivates Motion Control. Raise your hand within 3 seconds to reactivate it.

## Using the Basic Motion Controls

Available motion commands may vary, depending on what the TV is currently doing.

The following basic motion control commands are available:

- **Pointing Navigation:** This action moves the cursor to the desired position.
- **Run / Select:** Make a fist to select an option or execute a command. Keeping your fist clenched is like holding down a remote panel button.
- **Return:** Make a circle with your hand in the counterclockwise direction to return to the previous menu.
- **Turning over screens:** Hold one palm vertical, and swing to the left or right to change the Smart Hub screens.
- **Zoom in / Zoom out:** Clench two fists, and make the gap between them wider or narrower. Use these actions with webpages, maps, or photos.
- **Rotate:** Clench two fists, and rotate them clockwise or anticlockwise as if turning a steering wheel. Use these actions with photos.
- **Like:** Without activating the Motion Control, raise and hold your thumb for 2 seconds. This automatically adds Facebook's "Like" option. However, This motion is available only on the Facebook.
- **Pan:** While zoomed into the photo, make a fist and then move it left/right/up/down to pan.
- **Scrolling a web page:** While viewing a web page, make a fist and then move it up/down to scroll the page up/down.

## Motion Control Options

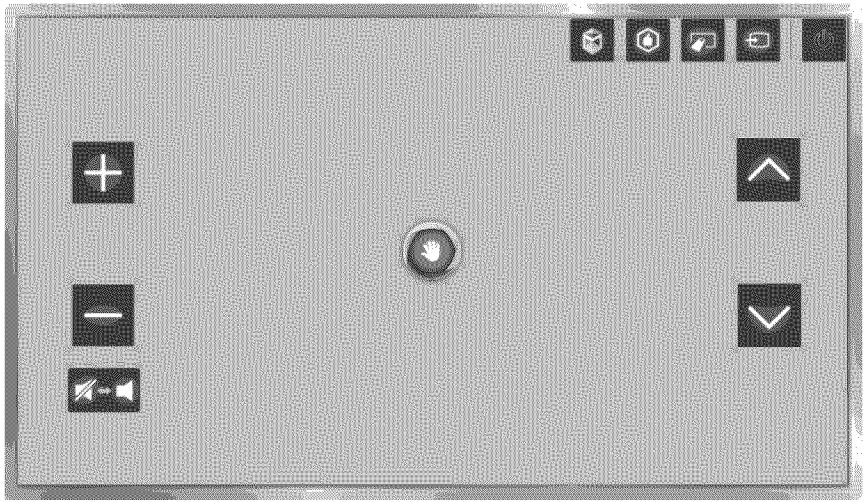
Screen Menu > Smart Features > Motion Control

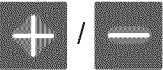







- **Animated Motion Guide:** Displays an animated guide when user motion is detected.
- **Pointer Speed:** Set the speed of the pointer used in Motion Control.

# Motion Control Screen

## The Screen Composition while Viewing TV

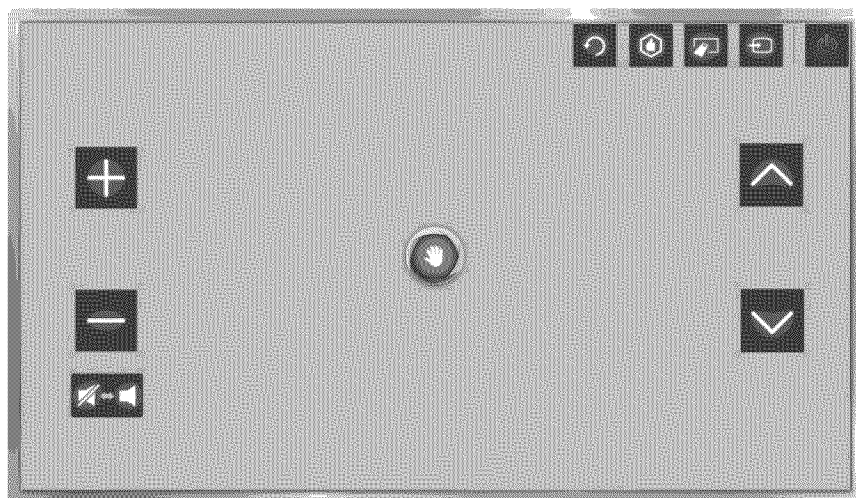
Launching Motion Control while watching TV displays the following icons on the screen:

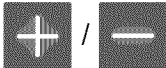









Screen Icons	Explanation
	Adjust the volume.
	Turns the TV sound on/off.
	Changes the channel.
	Check the recommended program information and air times. Select a program from the list to view detailed information about that program. For more information, refer to "Scheduled Recommended Program Info".
	Launch Smart Hub.
	Enter a channel number using the number panel to jump to the channel. Use the playback remote panel with the on-screen color buttons to remote a media file that is currently playing.
	Change the source.
	Turn off the TV.

## The Smart Hub Screen Composition

Launching Motion Control while using Smart Hub displays the following icons on the screen:

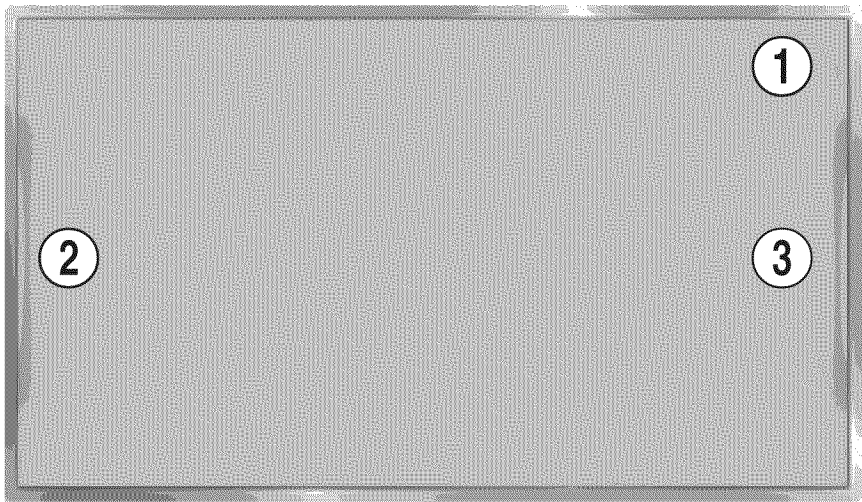












Screen Icons	Explanation
	Adjust the volume. This function is only available on the On TV.
	Turns the TV sound on/off. This function is only available on the On TV.
	Changes the channel. This function is only available on the On TV.
	Returns to the previous menu.
	Check the recommended program information and air times. Select a program from the list to view detailed information about that program. For more information, refer to "Scheduled Recommended Program Info".
	Displays the virtual remote panel on screen. Refer to the "Virtual Remote Control" for more information.
	Change the source.
	Turn off the TV.



# Retrieving Icons on the Screen

When using Motion Control with Smart Hub, the icons will disappear automatically after two seconds of inactivity. To retrieve the icons, move the pointer to one of the three edges shown below (marked in blue) and then hold it there for 1 second. The icons will reappear on the screen.



Screen Icons	Explanation
①	 /  /  /  / 
②	 /  / 
③	 / 

# Face Recognition

Users can register their faces and log into their Smart Hub accounts through Face Recognition. One face may be registered per account. Depending on the ambient brightness level and the user's skin tone, the TV may have difficulty recognizing the user's face.

## Operating Environment

Users should be located between 4.9ft and 13.1ft from the camera. The actual recognition range may vary depending on the camera angle and other factors.

The appropriate ambient brightness is between 50 to 500 lux. (100 Lux: bathroom, 400 Lux: living room)

Face Recognition can recognize up to 5 different users at a time.

The TV may have difficulty recognizing twins and people with similar faces as two different individuals.





Note the following when using Face Recognition:

- Do not cover your face with a hat, a pair of sunglasses, or your hair.
- The user's entire face must be visible to the camera. Avoid shadows over your face. Shadows prevent the camera from recognizing your face accurately.
- Keep your expression as neutral as possible. In addition, keep your mouth closed but at the same time as neutral as possible.
- User's facial expression when logging into your Samsung account must be the same as the facial expression during the registration process.

# Face Registration


Users can register their faces to the Smart Hub accounts. Create a new account if you do not already have one. Refer to the "Creating a Samsung Account" section for details.

## Face Registration from the Smart Hub account information screen


-  Log into Smart Hub first.
- 1. Open the **Smart Features > Samsung Account > Edit Profile** menu, and select **Register Face**.
- 2. Read the instruction, select **OK**, and then enter the password for the Samsung account.
- 3. Select **Take Picture**, and the user's face appears on the screen. Keep the face to be completely in the red dotted frame. The face is successfully registered when the frame turns green. If it fails, select **Retry**.
  -  The user's entire face must be visible to the camera. Avoid shadows over your face. Shadows prevent the camera from recognizing your face accurately.
  -  Keep your expression as neutral as possible. In addition, keep your mouth closed but at the same time as neutral as possible.
  -  It is better to select the checkbox beside **I want to enter password as well for increased security** for higher security. With the checkbox selected, the user must enter the password when logging in using face recognition.
- 4. Select **Save** to finish.

## Face Registration for the Smart Hub account using face recognition

1. From the Smart Hub login window, select **Face recognition**, and then select **Start**. The TV automatically recognizes the user's face.
2. Select a face to register from the list, and then select **Register Face** in the popup window.
3. Read the instruction from the popup window, select **OK**, and then select the account from the list. However, a user account appears in the list if the TV has a record of the user's account and the user is logged in.
4. Enter the password for the Samsung account. To make face recognition more accurate, scan the user's face again.
5. Select **Take Picture**. The user's face appears on the screen. Keep the face completely within the red round. The face is successfully registered when the round turns green. Select **OK** to proceed.


 The user's entire face must be visible to the camera. Avoid shadows over your face. Shadows prevent the camera from recognizing your face accurately.

 Keep your expression as neutral as possible. In addition, keep your mouth closed but at the same time as neutral as possible.


 It is better to select the checkbox beside **I want to enter password as well for increased security** for higher security. With the checkbox selected, the user must enter the password when logging in using face recognition.

## Face Recognition Login

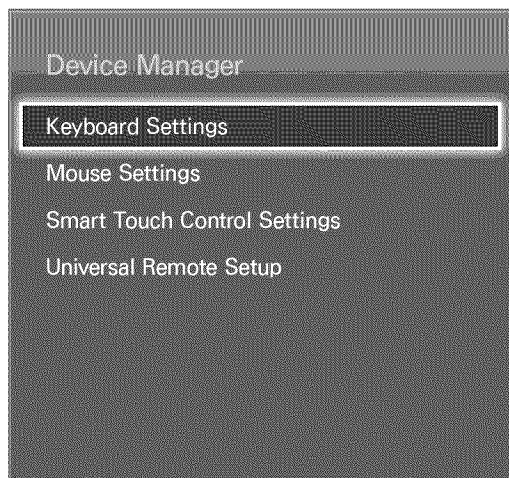
Select **Face recognition**, and then select **Start** from the login window. The TV automatically recognizes a user's face. If recognition fails, try again. If the password entry option has been enabled under **Edit Profile**, you need to enter your password as well in order to log into the Smart Hub.

 The user's entire face must be visible to the camera. Avoid shadows over your face. Shadows prevent the camera from recognizing your face accurately.

 Keep your expression as neutral as possible. In addition, keep your mouth closed but at the same time as neutral as possible.

 Once recognition succeeds, the TV logs into the Smart Hub automatically. If the TV recognizes two or more registered faces, a list of corresponding accounts appears. Select the appropriate account. Recognition of an unregistered face prompts a warning.

# Using Peripheral Devices



 The displayed image may differ depending on the model.

This TV can be controlled with a keyboard and a mouse instead of a remote panel.

These peripheral devices make it easier and more convenient to use the TV.

Certain models do not support USB HID class keyboards and mice.

## Keyboard Connection







Screen Menu > System > Device Manager > Keyboard Settings [Try Now](#)

Connect a keyboard to the TV for easier text entry. To use a USB keyboard, plug the keyboard cable into the TV's USB port. With a Bluetooth keyboard, pair it using the TV's Bluetooth function.

- **Select Keyboard:** Designate which keyboard to use. Only one keyboard can be used at a time. [Try Now](#)
- **Add Bluetooth Keyboard:** View a list of Bluetooth keyboards within range. Select the keyboard you wish to use.
- **Keyboard Options:** Configure the language, type and other basic keyboard settings. [Try Now](#)

## Keyboard Use

Use the following keyboard keys to remote the TV.



- Arrows key (Moves the focus), Windows () , Menu (TOOLS), Enter (Selects and activates), ESC (RETURN), Numbers (Numbers)
- F1 () , F2 () , F3 () , F4 () , F5 () , F6 (SOURCE button), F7 (CH LIST button), F8 (MUTE button), F9/F10 (Volume Remote), F11/F12 (Change Channel)
- **Page Up / Down:** Scroll a webpage up or down.

# Mouse Connection

Screen Menu > System > Device Manager > Mouse Settings 

Connect a mouse to the TV and right-click on the mouse to bring up the **Go To** screen. You can then use the screen menu, Smart Hub, and other TV functions using the mouse as you would on a computer.

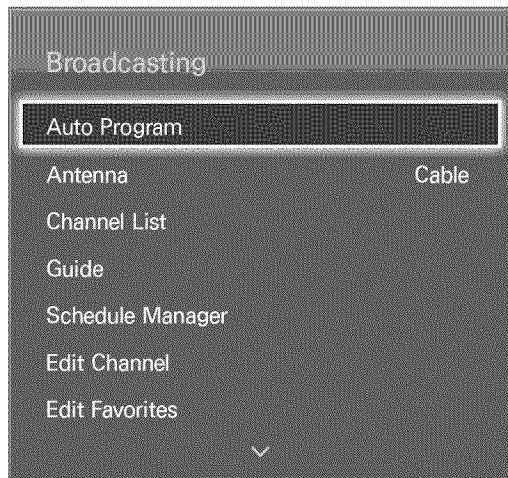
To use a USB mouse, plug the mouse cord into the TV's USB port. To use a Bluetooth mouse, pair it using the TV's Bluetooth function.

- **Select Mouse:** Designate which mouse to use. Only one mouse may be used at a time. 
- **Add Bluetooth Mouse:** View a list of Bluetooth mice within range. Select the mouse you wish to use.
- **Mouse Options:** Configure button assignments, pointer speed and other basic mouse settings. 

## Mouse Use

- **Left Button:** Selects and activates.
- **Right Button:** Brings up the **Go To** screen, which includes options such as Power Off, Screen Menu, Smart Hub, and Tools.
- **Mouse wheel:** Scroll a webpage up or down.

# TV Viewing



 The displayed image may differ depending on the model.

Use this feature to view the program guide and program information more easily. However, these features are not available when viewing TV using a cable box or satellite receiver.

## Program Info

Select the virtual remote panel's **INFO** button while watching TV to view information about the current program.

However, Program Info is only available with digital channels. In order to use the Program Info, you must first set the TV's clock. To set the clock, navigate to **Clock** (**System** > **Time** > **Clock**). The Program Info may vary depending on the type of incoming signal and may not be available at all for certain programs.

Drag left/right on the touch pad to check out other programs or press the touch pad to set up a **Schedule Viewing** setting for the selected program.

Refer to the "Schedule Viewing" section for more information about **Schedule Viewing** settings.

## Change the Broadcast Signal

Screen Menu > **Broadcasting** > **Antenna** 

Choose an antenna to receive digital broadcast signals from.

# Guide


Screen Menu > Broadcasting > Guide  

View each digital channel's programming schedule. Check the programming schedules and even setup a **Schedule Viewing**. Press the **GUIDE** button to launch the guide.


## Change Channels

Select a channel from **Guide** to jump to that channel right away.


## Change Category

Select the  button on the virtual remote panel to change the desired category.

## Quick Navigation

Select the  button on the virtual remote panel. A popup window will open. Dragging left or right on the touch pad moves the focus two hours back or forward, enabling faster browsing of the programming schedule. However, the focus cannot be on a time prior to the current time.

## Schedule Viewing

Select a program that hasn't aired yet and then the virtual remote panel's **INFO** button to display the detailed information screen. Select **Schedule Viewing** from the detailed information screen to set up a **Schedule Viewing**. **Schedule Viewing** is only available for programs that haven't aired yet. Select the  button on the virtual remote panel and navigate to the **Schedule Manager** screen to view a list of reserved programs.

## Checking the Program Info

Highlight a program and select the **INFO** button on the virtual remote panel. This displays detailed information about the highlighted program. The Program Info may vary depending on the type of incoming signal and may not be available at all for certain programs.







# Channel List

Screen Menu > Broadcasting > Channel List 

Launch **CH List** while watching TV to change channels or to check what's on other channels. Press and hold the touch pad. This launches **CH List**.

The Channel List screen icons indicate the following:

-  : An analog channel
-  : A favorite channel
-  : A Schedule Viewing reserved channel
-  : A locked channel

## Change Channels

Select a channel to jump to it right away. To quickly scroll through the list, use the channel up/down buttons. The focus moves up and down the list in one page.

## Genre

Drag left on the touch pad and then select **Genre**. Select a desired TV channel genre.

On the **Added Ch.** list, it is possible to filter channels by genre, if the channels contain proper genre information.

## Change the Broadcast Signal

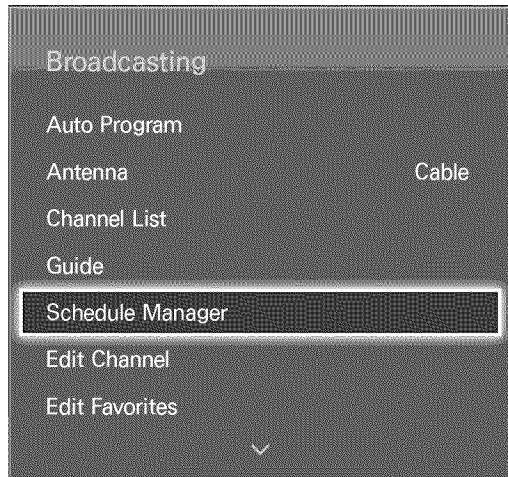
Drag right on the touch pad and then select **Air** or **Cable**. This will change the signal source immediately.


## Change the Channel List

Drag right on the touch pad and then switch to the **Added Ch.** or **Favorites** list. However, the **Favorites** list can only be selected if it contains at least one favorite channel. If no favorite channel was previously added, select **Edit Favorites** and add channels from the **Edit Favorites** screen.


# Schedule Viewing

Screen Menu > Broadcasting > Schedule Manager [Try Now](#)



 The displayed image may differ depending on the model.

Configure the TV to show a specific channel or program at a specific time and date. Before scheduling TV watching, make sure that the date and time is set properly under the **System > Time > Clock** menu.

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

## Digital Channel Schedule Viewing

Schedule Viewing for programs on digital channels can be set up through the following two options:

- Guide
- Program Info

## Guide

From **Guide**, select a program you wish to view.

## Program Info

Select the virtual remote panel's **INFO** button to display information about the current program. From the program information screen, drag left/right on the touch pad or press left/right button on the remote panel to select a program that has not yet aired and set up a **Schedule Viewing** for it.

## Analog Channel Schedule Viewing

The Schedule Viewing function for programs on analog channels can be set up by specifying the time and date.

1. Run **Schedule Manager** and then select **Schedule**.
2. Specify that program's **Antenna**, **Channel**, **Repeat**, and **Start Time** and then select, **OK** to finish.

## Cancel a Schedule Viewing

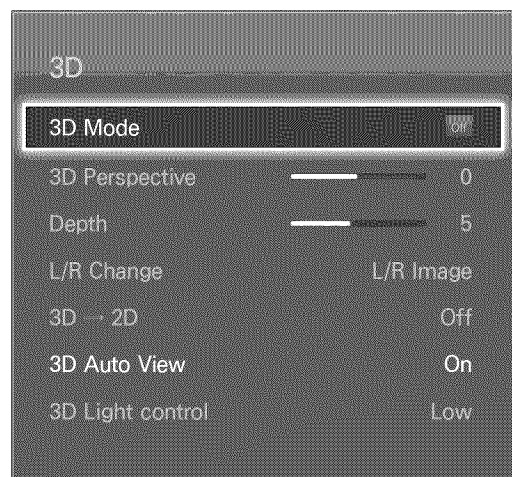
To cancel a Schedule Viewing for a specific program, select the program from the **Schedule Manager** screen. A popup menu will appear. Select **Delete** to cancel.

## Edit Schedule List

Select an entry from the **Schedule Manager** screen and then select **Edit** from the popup menu. Edit the settings of the selected entry.

# 3D TV

Screen Menu > Picture > 3D [Try Now](#)



 The displayed image may differ depending on the model.

This TV is 3D-enabled. For the best 3D viewing experience, users must wear Samsung's 3D Active Glasses.

The ideal viewing distance is three times or more the height of the screen. We also recommend sitting with your eyes level with the screen.

## Precautions

Carefully read the health and safety information concerning 3D viewing before viewing the TV in 3D. Refer to the "3D Precautions", for more information.

## Restrictions


There are several restrictions when using 3D TV:

- Running the Smart Hub automatically deactivates 3D viewing.
- PIP cannot be used.
- Certain **Picture** options are disabled.
- IR Type Samsung 3D Active Glasses and third-party 3D glasses are not supported.









## Tips





- The left and right 3D images may initially overlap when the TV is turned on. It takes a moment for the display to optimize and the overlapping to go away.
- The 3D Active Glasses may not work properly if there is another 3D product or electronic device turned on near the glasses or TV. If there is a problem, keep other electronic devices as far away as possible from the 3D Active Glasses.
- Whether or not 3D video is displayed in true HD is usually determined by the quality of the content.


# Activating 3D Mode

Screen Menu > Picture > 3D > 3D Mode 

Choose a 3D mode according to the input signal. Available 3D modes may vary depending on the input signal. Some 3D contents may differ preferred 3D mode. In this case, change the desired 3D mode for watching. Select a 3D mode from the available 3D modes depending on the input signal. Available 3D modes may vary depending on the input signal.

-  Off: Deactivates 3D viewing.
-  Normal: Converts normal images to 3D images. Some formats do not support this mode.
-  L/R: Splits a single image into left and right overlapping images to create the 3D effect.
-  T/B: Splits a single image into top and bottom overlapping images to create the 3D effect.
-  Horizontal Line: Switches between left and right images one horizontal line at a time. This mode is not supported on the UHD S9 Series models.
-  Vertical Line: Switches between left and right images one vertical line at a time. This mode is not supported on the UHD S9 Series models.
-  Pixel: Switches between left and right images one pixel at a time. This mode is not supported on the UHD S9 Series models.
-  Frame: Switches between left and right images one frame at a time. This mode is not supported on the UHD S9 Series models.





  (Horizontal Line),  (Vertical Line), and  (Pixel) can only be selected when the computer's resolution is set to 1920x1080 or the computer is connected to the TV via an HDMI-DVI cable.

  (Frame) can only be selected when the computer's resolution is set to 1920x1080 and the frequency to 60Hz.

Resolutions supported by the TV may vary, depending on the 3D mode. For details, see "Supported 3D Resolutions".

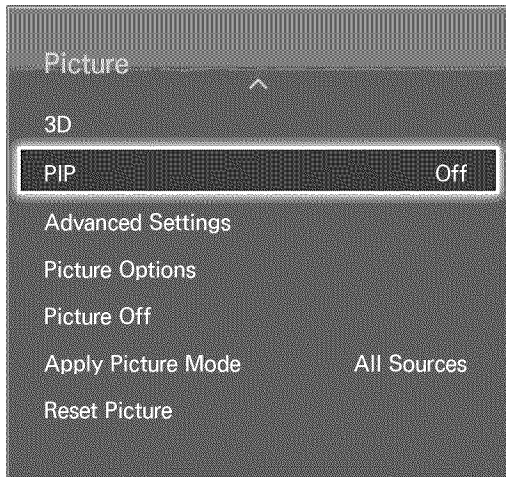
## Setting 3D Effects


There are several adjustments that can be made to make 3D content more enjoyable.

- **3D Perspective:** Adjusts the 3D perspective. [Try Now](#)
- **Depth:** Adjusts the 3D depth. This option cannot be used if 3D mode is set to  (L/R) or  (T/B). [Try Now](#)
- **L/R Change:** Swaps the left and right pictures. [Try Now](#)
- **3D → 2D:** Converts 3D images to normal images. This function is not available if 3D mode is set to  (Normal) or  (Off). [Try Now](#)
- **3D Auto View:** Setting **3D Auto View** to On switches the TV to 3D automatically. Setting **3D Auto View** to **Message Notice** brings up a message screen when the TV receives a 3D signal. If some applications are running, The TV can not switch 3D. In this case, close the application and then watch the 3D. This function is available for LED 7450/7500, 8000 series models only.
- **3D Light control:** Adjust the brightness of 3D images. If the screen is too dark, select **High**. This function is available for LED 7450/7500, 8000 series models only.

# PIP

Screen Menu > Picture > PIP [Try Now](#)




 The displayed image may differ depending on the model.

Display video from an external device on the main screen and the TV as a picture-in-picture. For example, you can display a Blu-ray movie on the main screen and simultaneously watch TV as a picture-in-picture. PIP is not available while the Smart Hub or 3D TV is active. Turning off the TV while PIP is active automatically deactivates PIP.

- **PIP:** Activates/deactivates PIP.
- **Antenna:** Select either **Air** or **Cable** as the input source for the sub-picture screen.
- **Channel:** Selects the PIP sub-picture channel.
- **Size:** Selects the PIP sub-picture size.
- **Position:** Selects the PIP sub-picture position.
- **Sound Select:** Selects the audio source.


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

 To enjoy PIP, the main screen's source must be Component or HDMI and the input resolution must be less than FHD. The subscreen supports digital channels only.



# Analog Screen Calibration



 The displayed image may differ depending on the model.

Analog pictures can become shaky and full of noise. If this happens, you can fine tune the signal and/or reduce noise to clear up the picture.

## Fine Tune

Screen Menu > **Broadcasting** > **Channel Settings** > **Fine Tune** [Try Now](#)

Clear up shaky pictures. Fine tune the pictures until they are clear and then select **Save** or **Close**. Select **Reset** to reset the Fine Tune operation. This option is only available for analog broadcasts.