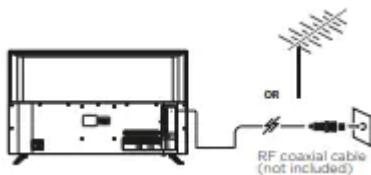


## Connections and setup

### INSTALLATION

#### Antenna

Check to ensure that you have selected the right cables for the ports and that they are connected (External Equipment not included.)



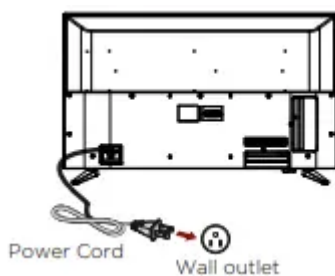
With the tuner built-in you can connect your TV to an antenna and enjoy over-the-air entertainment.



1. When the setup wizard is complete select the Antenna TV icon from the home screen.
2. Follow the on-screen instructions.
3. Whenever you want to watch antenna TV, select the Antenna icon

Plug in and turn on TV

Connect your power cord to the TV, then plug it into the wall outlet. Press the power button on your TV remote control.

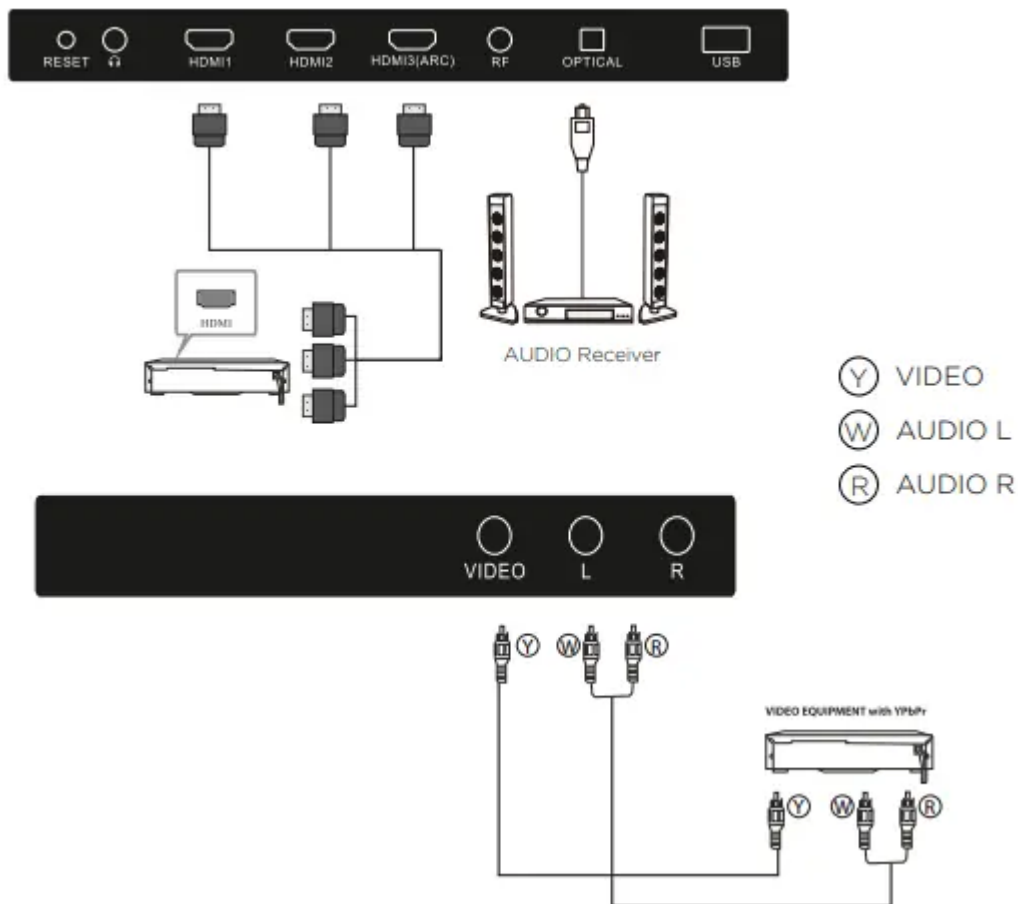


### External Connection

#### AV Equipment

You can use the rear input terminals as follows.

Video Equipment: VCR, Multi Disc Player, DVD Player, Camcorder, Video Game, etc.

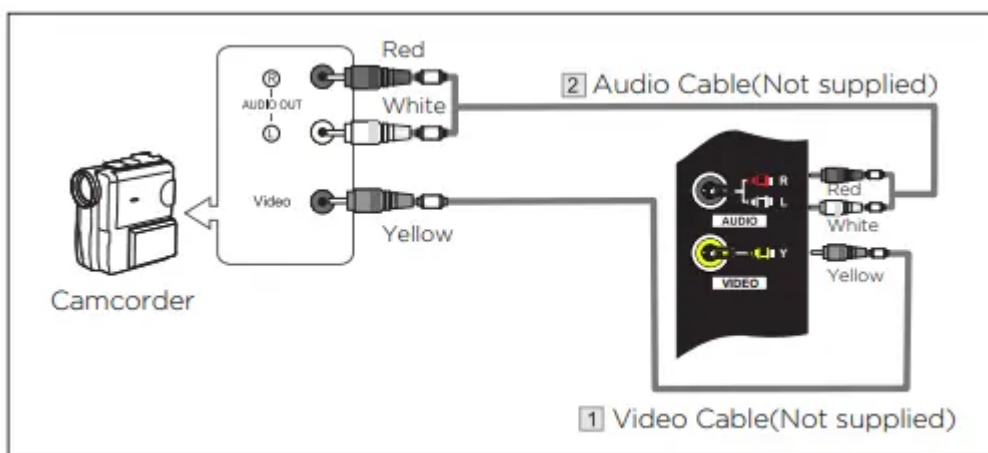


## External Connection

### Connecting a Camcorder

The rear panel jacks on your TV make it easy to connect a camcorder to your TV. They allow you to view the camcorder tapes without using a VCR

When connecting a Camcorder or DVD, match the color of the connection terminal to the cable

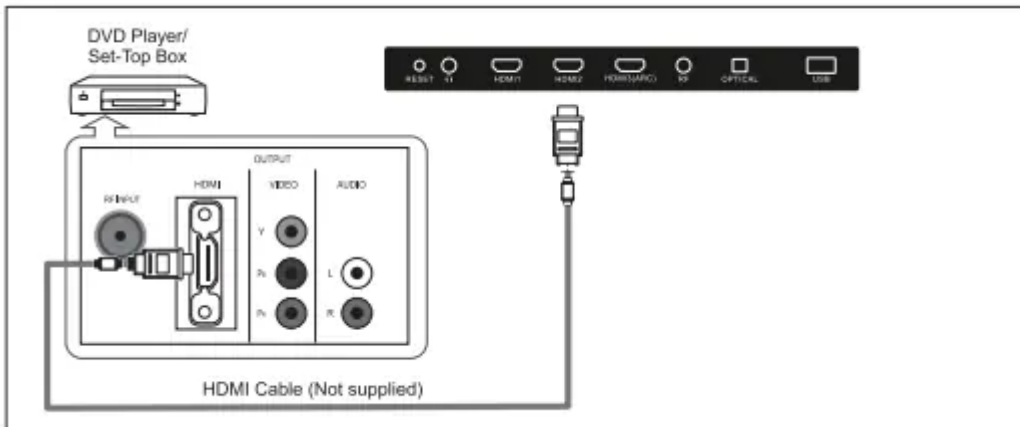


1. Connect a Video Cable between the AV VIDEO in jacks on the TV and the Video out jack on the camcorder.

2. Connect Audio Cables between the AUDIO L and AUDIO R jacks on the TV and the AUDIO out jacks on the camcorder.
3. Connect a Video Cable between the AV VIDEO in jacks on the TV and the Video out jack on the DVD.

### Connecting Digital Audio System

This connection can only be made if there is a HDMI Output connector on the external device



What is HDMI?

HDMI, or high-definition multimedia interface, is a next-generation interface that enables the transmission of digital audio and video signals using a single cable without compression.

Multimedia interface is a more accurate name for it especially because it allows multiple channels of digital audio.

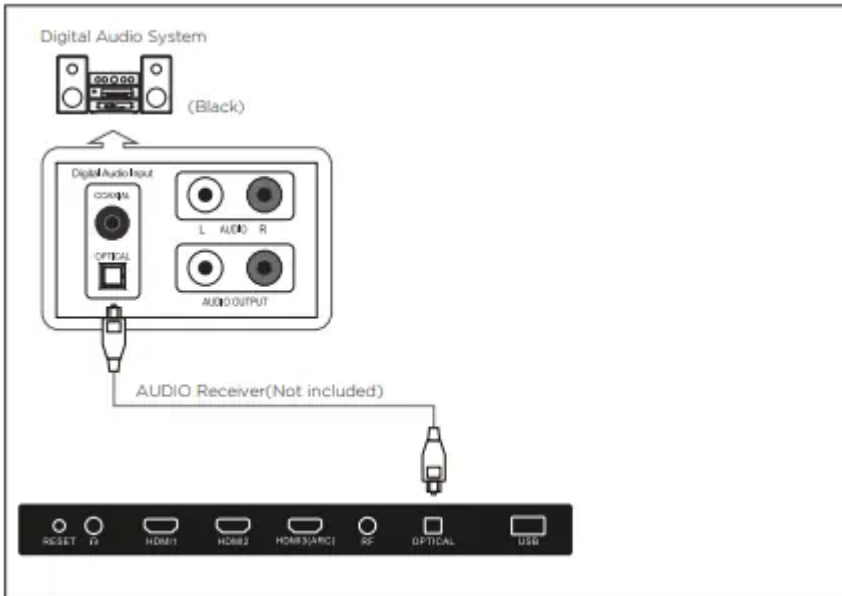
The difference between HDMI and DVI is that the HDMI device is smaller in size, has the HDCP(High Bandwidth Digital Copy Protection) coding feature installed, and supports multi-channel digital audio. Each DVD player/STB has a different back panel configuration.

Connect an HDMI Cable between the HDMI1, HDMI2, HDMI3 connector on the TV and the HDMI connector on the DVD player/Set-Top Box.

### External Connection

#### Connecting PC

The rear panel jacks on your TV make it easy to connect a Digital Audio System to your TV.



5.1 CH audio is possible when the TV is connected to an external device supporting 5.1 CH

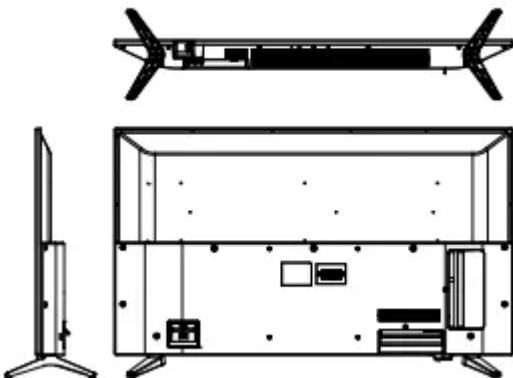
Connect an OPTICAL Cable between the OPTICAL jacks on the TV and the Digital Audio Input jacks on the Digital Audio System. When a Digital Audio System is connected to the OPTICAL terminal: Decrease the gain (volume) of the tv, and adjust the volume level with the Digital Audio System's volume control.

## Wall Mount

### Instruction for Wall Mount

A wall mount kit(purchased separately) would allow you to mount your Westinghouse TV on the wall. For detailed information on installing the wall mount, refer to the instructions provided by the wall mount manufacturer. It is strongly recommended to contact a technician for professional assistance for wall mount installation. Westinghouse is not responsible for any damage to the product or injury to yourself or others resultint from the wall-mounting.

Dimensions for Mounting Hole Pattern



This Westinghouse TV is compatible with a 200mm x 200mm mounting hole pattern.

- 4 pcs of type M6 screws are required for installing the wall mount bracket to your Westinghouse TV.
- Do not use screws that are longer than 8mm. Screws that are too long may cause damage to the inside of the TV set.
- Do not fasten the screws too tight for this may damage the TV or cause the TV to fall, resulting in personal injury. Westinghouse is not liable for these kinds of incidents.
- Do not mount your Westinghouse TV at more than a 15 degree tilt.
- Always use two people to mount the TV to a wall.
- Do not install your Wall Mount Kit while your TV is turned on. It may result in personal injury due to electric shock.

### **Connecting an antenna, cable, or satellite box**

If you are using an antenna, CATV cable without a set-top box, or a cable or satellite box that has only an antenna output, connect a 75-ohm coaxial cable (not provided) from the device to the ANT/CABLE input on the TV.

**Tip:** *If you are using an antenna with a 300-ohm twin-lead cable, you need to use a 300-to- 75 ohm adapter (not provided) to adapt the twin-lead cable to a connection that is compatible with the TV's antenna input.*

**Tip:** *If you receive your TV stations through a set top box from a cable or satellite TV provider, connect it to the TV using the best connection method available. From most to least desirable:*

- HDMI® input – Digital HD and SD video
- AV input – analog SD video
- Antenna input – analog SD video using NTSC

### **Connecting external equipment with a composite AV video cable**

If the best connection available on your device is AV or composite video output, connect it to the TV using a composite AV cable (not provided). Composite AV cables typically have three RCA-type plugs on each end, color coded as follows:

- **Yellow** – Video
- **Red** – Audio, right channel
- **White or black** – Audio, left channel

Connect each plug to the corresponding connector on the device and on the TV.

## Connecting external equipment with an HDMI® cable

If possible, connect your devices using HDMI® cables (not provided). They help to provide the best video quality and also carry audio signals, so that only one cable is needed. For better picture quality, we recommend that you use cables designated as High Speed HDMI® Cables.

Tip: You might need to configure the device to send its signal through its HDMI ® connector.

The connector labeled HDMI IN (ARC) has the additional ability to use the audio return channel to send digital audio to a receiver or sound bar, as explained in Connecting an AV receiver or digital sound bar.

## Connecting an AV receiver or digital sound bar

You can enjoy Dolby Audio™ multichannel sound from your TV if you connect a digital amplifier or sound bar (not provided) in either of two ways:

- Digital optical audio out (S/PDIF) – Connect a TOSLINK optical cable (not provided) from the TV to the Optical input on your receiver or sound bar.
- HDMI® ARC Connect an HDMI® cable (not provided) from the HDMI (ARC) connector to the HDMI® input on your receiver or sound bar. This connection uses the Audio Return Channel (ARC) feature of the HDMI® specification to output sound from the TV to a compatible device. To use this feature, you must configure the TV to enable HDMI® ARC, as explained in Enable HDMI® ARC.

## Connecting headphones or analog sound bar to the TV

You can connect headphones or an analog sound bar (not provided) to the TV's headphone jack.

**Tip:** *Inserting a plug in the headphone jack disables the sound from the TV's built-in speakers.*

**Note:** Select models have an AV Input that looks like a headphone jack. Use the breakout cable (included) to adapt this input to the three RCA-type plugs on your composite cable.

## Connecting headphones to the Roku Enhanced Voice Remote

Select Roku TVs come with the Roku Enhanced Voice Remote. On these models, you can connect headphones to the jack on the left side of the remote.

Tip: Inserting a plug in the remotes headphone jack disable the sound from the TV's built-in speakers or attached receiver or sound bar. The volume and mute controls on the right side of the remote adjust the volume level of the connected headphones.

## Preparing for Internet connectivity

If you want to watch streaming content and take advantage of the cool features of your Roku TV, connect it to the Internet through a wireless modem/router or a wireless access point (not provided). The TV has a built-in wireless LAN adapter.

**Note:** The TV supports only its internal wireless network adapter—it does not support the use of a USB network adapter.

Select 4K models have wired in addition to wireless network connectivity. To use the wired network connection, connect an RJ-45 Ethernet cable (not provided) from the jack on the back of your TV to your network router or switch. The wired connection supports both 10 Base-T and 100 Base-T Ethernet.

## **AC power**

Plug your TV into a power outlet. You can tell that the TV has power because the status indicator lights up when the TV is off.

The topic [Status indicator](#) explains how the status indicator shows what is happening with the TV.

## **Roku remote batteries**

Open the back of your Roku remote and insert the included batteries, observing the proper orientation as indicated in the battery compartment. Reattach the back cover.

## **Roku TV remote**

Use the following information to identify the buttons on your Roku remote.

**Note:** Certain remote buttons and features vary by model. Your remote might not have all buttons or features listed.

- *If your remote has a microphone button just below the purple pad, then you have a Roku Voice Remote.*
- *If your remote has a headphone jack on its left edge, then you have a Roku Enhanced Voice Remote.*

*The Roku voice remotes have additional capabilities as described in the following table.*

## **POWER**

Turns TV on and off.

## **BACK**

- Menu: Goes back to previous menu/screen.
- Home screen tile: Moves highlight back to the Home screen option.
- Watching Antenna TV or a TV input: Returns to Home screen.
- Playing streaming content: Stops playing stream and returns to the previous menu or screen.
- Browsing streaming content: Goes to the previous level in the content tree.

## **HOME**

Immediately returns to the Home screen.

## **PAD**

- **LEFT/RIGHT/UP/DOWN** moves the highlight in the corresponding direction.
- **OK** selects the highlighted option.

While watching TV:

- **UP/DOWN** changes channel.
- **LEFT** displays the Smart Guide<sup>1</sup> (connected mode) or channel list (non-connected mode).
- **LEFT/RIGHT** only on TVs operating in non-connected mode, while in the channel list switches between All Channels and FAVORITE CHANNELS.
- **OK** while in the channel list selects the highlighted channel.

While watching live TV: displays the program information banner.

## **VOICE SEARCH and VOICE COMMANDS**

Only on select models with Roku voice remotes, hold and say the name of a movie, TV show, or actor. Additionally, only in the United States:

- Search for programs by director or genre, including the special genre “free.”
- See search results that include Antenna TV channels.
- Use your voice to start streaming, change a channel, and more.

For more information, go to: [web go.roku](http://web.go.roku)

## **GAME MODE**

Select models. Displays a banner showing the current Game mode or Not available at this time. Subsequent presses toggle Game mode. When On, the TV performs less image processing and has less input lag, producing a better experience with action games. Available only for HDMI and AV inputs.

## **INSTANT REPLAY**

Select models. Streaming programs that support this feature and Antenna TV channels: if Live TV Pause is enabled, jumps back a few seconds with each press and resumes playing.

Broadcast TV: If Live TV Pause is disabled, jumps to previous channel.

When using an on-screen keyboard: Backspaces in the text you are entering.

Smart Guide<sup>1</sup> Returns to the current day and time.

## **SLEEP**

Select models. Displays a banner showing the remaining sleep time, if any, or Sleep timer is off. Subsequent presses cycle among the preset sleep time intervals. Once set, the sleep timer remains in effect regardless of what you are watching.

### **MEDIA PLAYBACK CONTROLS**

Rewind, pause, play, and fast forward streaming content and Antenna TV channels (if Live TV Pause is enabled).

Press REWIND or FAST FORWARD one, two, or three times to control the speed of the operation.

**REWIND** and **FAST FORWARD** also jump backward and forward one screen at a time when viewing long lists, such as when you are browsing Antenna TV shows in the channel list or Smart Guide<sup>1</sup>

### **OPTIONS**

Displays additional options when available. On-screen hints let you know when this button is active.

### or **PRESET CHANNEL SHORTCUT**

Dedicated buttons show the logo of a preset streaming content provider. Dedicated content providers vary by model and region. Pressing a button:

- Displays the streaming channel's main page if you have already added the channel to your Home screen.
- Displays the streaming channel's sign-up page if you have not already added the channel.

### **VOLUME/MUTE**

Located on the right edge of the remote. Increases/decreases volume and mutes the TV sound.

**Note:** If the TV is muted, pressing VOLUME UP unmutes. Pressing VOLUME DOWN does not unmute the sound.



### **HEADPHONE**

Select models with Roku Enhanced Voice Remote. Connect headphones to the jack on the left edge of the remote to listen privately. Plugging in headphones mutes the TV speakers.

### **Panel buttons**

Your TV has a set of panel buttons that perform simple control functions. The TV panel buttons are not a substitute for the remote, as they do not give you access to all TV functions.

Depending on model, your TV model has one of several different panel button designs. Choose the one that applies to your TV from the following list:

- [Single button](#)
- [Three buttons](#)
- [Game-pad style joystick](#)
- [Four buttons](#)
- [Five buttons \(with mute\)](#)
- [Five buttons \(without mute\)](#)
- [Seven buttons](#)

### **Single button**

If your TV has this style of panel button, you can perform the following functions:

- **Turn TV on:** short press.
- **Display the Input List:** short press when TV is on.
- **Select the next input in the Input List:** short press while the TV is showing the Input List.
- **Dismiss the Input List without changing inputs:** no press.
- **Turn TV off:** long press.

Short press = less than two seconds

Long press = more than two seconds

No press: = no press within two seconds

### **Three buttons**

If your TV has this style of panel buttons, you can perform the following functions:

- **Turn TV on:** middle button, short or long press.
- **Volume up:** right button when Input List is not active.
- **Volume down:** left button when Input List is not active.
- **Display Input List:** middle button, short press when TV is on.
- **Highlight next input in the Input List:** right button when Input List is active.
- **Highlight previous input in the Input List:** left button when Input List is active.
- **Select highlighted item in the Input List:** middle button, short press, or no press.
- **Turn TV off:** middle button, long press.

Short press = less than two seconds

Long press = more than two seconds

No press: = no press within four seconds

### **Game-pad style joystick**

If your TV has this style of panel button, you can perform the following functions:

- **Press in:** Toggle between power ON and Standby.
- **Press up or down:** Increase/decrease the volume.
- **Press left or right:** Switch inputs. Each press moves the highlight up or down one item. Pausing for a few moments selects the highlighted item.

### **Four buttons**

If your TV has this style of panel buttons, you can perform the following functions:

- **Power:** Turns the power on and off.
- **Input:** Selects among TV inputs. Each press moves down one item. Pausing for a few moments selects the highlighted item.
- **Volume +:** Increases the volume.
- **Volume -:** Decreases the volume.

### **Five buttons (with mute)**

If your TV has this style of panel buttons, you can perform the following functions. Note that the order of the buttons might vary from model to model. Examine the panel button labels to determine your TV model's layout.

- **Power:** Turns the power on and off.
- **Input:** Selects among TV inputs. Each press moves down one item. Pausing for a few moments selects the highlighted item.
- **Volume +:** Increases the volume.
- **Volume -:** Decreases the volume.
- **Mute:** Mutes and unmutes the sound.

### **Five buttons (without mute)**

If your TV has this style of panel buttons, you can perform the following functions. Note that the order of the buttons might vary from model to model. Examine the panel button labels to determine your TV model's layout.

- **Power:** Turns the power on and off.
- **Input +:** Selects the next TV input. Each press moves down one item. Pausing for a few moments selects the highlighted item.
- **Input -:** Selects the previous TV input. Each press moves up one item. Pausing for a few moments selects the highlighted item.
- **Volume +:** Increases the volume.

- **Volume –**: Decreases the volume.

## Seven buttons

If your TV has this style of panel buttons, you can perform the following functions. Note that the order of the buttons might vary from model to model. Examine the panel button labels to determine your TV model's layout.

- **Input**: Selects among TV inputs. Each press moves down one item. Pressing **Channel +** or **Channel –** moves the highlight up or down. Pausing for a few moments selects the highlighted item.
- **Channel +**: Moves the highlighted item up in the current menu.
- **Channel –**: Moves the highlighted item down in the current menu.
- **Volume +**: Increases the volume.
- **Volume –**: Decreases the volume.
- **Mute**: Mutes and unmutes the sound.
- **Power**: Turns the power on and off.

## Guided Setup

With the preliminaries out of the way, it's time to turn on your TV. As the TV starts for the first time, it leads you through Guided Setup, which configures the TV before you start to use it.

During Guided Setup, you'll:

- Answer a few questions
- Provide network connection information
- Get a software update
- Link your TV to your Roku account.
- Connect devices such as a DVD player, game console, or cable box.

## Starting Guided Setup

To start Guided Setup, press the POWER button on the remote to turn on your TV.

**Note:** *Guided Setup normally runs only once, the first time you turn on your TV. If you need to run Guided Setup again, you'll have to perform a factory reset, as explained in [Factory reset everything](#).*

When you first turn on your TV, it will take a few seconds to get itself ready. You'll notice the following things happening:

1. The status indicator blinks every time the TV is busy doing something; in this case it's powering up and getting ready for you.

2. The power-on screen appears and the status indicator blinks slowly for a few more seconds. The power-on screen shows a brand logo while the TV starts up.
3. After a few seconds, Guided Setup starts.

## Completing Guided Setup

Follow these steps to complete Guided Setup. At this point, you should be seeing the **Language** screen.

1. Only on models that have a Roku voice remote: A few moments after the Let's get started screen appears, Guided Setup starts the pairing process for the voice remote. (You'll know if you have this type of remote because it will have microphone or search button just below the down arrow on the purple pad.) If the voice remote does not pair automatically, follow the instructions on the screen to complete the pairing process.

**Tip:** *On TVs sold in the United States, if you are blind or visually impaired, you can activate Audio Guide, a text-to-speech screen reader to help you navigate the TV's menus and commands. To enable the Audio Guide, press the button on the remote four times in rapid succession. Repeat to disable Audio Guide. (The button is located directly below the directional pad on the right side of the Roku remote.)*

**Note:** If you enabled Audio Guide, choosing any language other than English disables it.

2. Press the **DOWN** arrow on the remote to highlight your preferred language, and then press **OK** or the **RIGHT** arrow.

3. Some models have a country selection screen: If you don't see this screen, skip ahead to the next step. If you see this screen, select your country.

**Note:** If you enabled Audio Guide, choosing any country other than United States disables it.

4. Press **OK** or the **RIGHT** arrow on the remote to go to the next screen:

**Note:** Some models show the title First things first instead of Set up environment.

5. Press **OK** to select Set up for home use. This is the right choice for enjoying your TV at home. It provides energy saving options as well as access to all features of the TV.

**Note:** *Store mode configures the TV for retail display and is not recommended for any other use. In store mode, some features of the TV are missing or limited. To switch from one mode to the other, you have to perform a factory reset as explained in [Factory reset everything](#), and then repeat Guided Setup.*

## Network connection

After you select **Set up for home use**, the TV prompts you to make a network connection. If your TV has both wired and wireless connections, you'll see the following screen.

6. Only models that display the Connect to the Internet screen: Make a selection:

- **Wireless connection** – Highlight Set up new wireless connection and press OK. The TV prompts you through wireless setup. Skip ahead to the next step for help with the process.
- **Wired connection** – Highlight Connect to wired network and press OK. The TV immediately attempts to connect to your wired network, your local network, and then the Internet. Go to Step 9 to continue with Guided Setup.
- **Connect to the Internet later** – If you don't want to connect to the Internet right now, you can skip this step and use the TV to watch Antenna TV channels, play games, and watch DVDs. When you're ready to connect, it's easy. We'll show you how in [Benefits of connecting](#).

**Note:** *If you decide not to connect, Guided Setup skips ahead to setting up the devices that you've connected to your TV. Jump ahead to Connect your devices to complete Guided Setup.*

7. On models that have wireless only, or models with both wired and wireless and you've selected **Wireless**: The TV scans for the wireless networks within range and displays them in order, with the strongest signals first. In addition to your own wireless signal, the TV might pick up signals from your neighbors.

Press the **UP** or **DOWN** arrows to highlight the name of your wireless network, and then press **OK** to select it.

**Note:** *Some networks, such as those often found in dorm rooms, hotels, and other public places, require you to read and agree to terms, enter a code, or provide identifying information before letting you connect to the Internet. If your Roku TV detects that you are connecting to such a network, it prompts you through the connection process using your compatible smartphone or tablet to provide the needed information. For more information, see [Using your TV in a hotel or dorm room](#).*

### Other options

- **Connect to the Internet later** – If you don't want to connect to the Internet right now, you can skip this step and use the TV to watch Antenna TV channels, play games, and watch DVDs. When you're ready to connect, it's easy. We'll show you how in [Benefits of connecting](#).

**Note:** *If you decide not to connect, Guided Setup skips ahead to setting up the devices that you've connected to your TV. Jump ahead to Connect your devices to continue.*

- **Scan again / Scan again to see all networks** – The name of this option depends on the number of wireless networks within range.
  - **Scan again** appears if the list already shows all available wireless networks within range. If you don't see your wireless network name in the list, you might need to adjust the location of your wireless router or the TV, turn on your

router, or make other changes. When everything is ready, select Scan again to see if your network name now appears in the list.

- **Scan again to see all networks** appears if there are more wireless networks than the strongest ones it initially listed. If you don't see your wireless network name in the list, this option displays the complete list. If you still don't see your network name, you might have your router configured to provide wireless service as a private network."

**Note:** *Highlighting either of these options displays an informational panel with the unique media access control (MAC) address of your Roku TV. You will need the MAC address if your wireless router is configured to use MAC address filtering.*

- **Private network** – If your wireless network name is hidden, it won't appear in the list. Select **Private network** to display an on-screen keyboard and use it to enter your network name. Unless you changed the factory-set network name, you can find the name (also called SSID) on a label on the router.

**Tip:** *Wireless networks that are password-protected display a "padlock" icon adjacent to the name. This icon enables you to know that you are going to be prompted to enter a password after you select that network.*

8. Only if you select a password protected wireless network: An on-screen keyboard appears. Use the keyboard to enter the network password.

After you submit your wireless network password, the TV displays progress messages as it connects to your wireless network, your local network, and the Internet.

9. Only if your TV cannot get the correct time zone and current time from your network service provider: Use the **UP** and **DOWN** arrows to highlight your time zone, and then press OK.

**Tip:** *Your TV needs to know the local time zone so that it can correctly display information about the program you are currently watching. If the TV is unable to automatically determine the local time zone, it prompts you to choose your time zone from a list.*

As soon as the TV is able to connect to the Internet, it downloads and installs its first software update, and then restarts.

**Tip:** *Your TV automatically checks for updates periodically. These updates provide new features and improve your overall experience with the TV. After an update, you might notice that some Options have moved, and that there are new options or features. This User Guide describes version 9.1. To determine your current Roku TV software version, go to **Settings > System > About** after you complete Guided Setup. You can download an updated User Guide that matches your Roku TV software version from the Roku TV web site.*

## **Activation**

After the TV restarts, it displays the **Activation** screen:

10. Using a compatible computer, tablet, or smartphone with an Internet connection, go to the web address displayed on the screen and enter the code that appears on your screen.

### **Why do I need a Roku account?**

You need a Roku account for several reasons:

- It links you, your Roku TV, and your other Roku streaming devices to the Roku Channel Store and billing service.
- Streaming content providers know that it's OK to send content you request to your Roku TV.
- Roku can automatically send updates to your device.

You need a Roku account to activate your device and access entertainment across thousands of streaming channels. Linking to a Roku account also activates several advanced features on your TV, such as Guest Mode, the Roku Mobile App, and Live TV Pause, to name just a few. Roku accounts are free, and while a valid credit card number is not required to create your account, providing your credit card information makes renting and purchasing entertainment from the Roku Channel Store fast and convenient.

After you log in or create your Roku account, the link page suggests that you select some streaming channels. After you confirm your selections, the TV gets an acknowledgement, and then adds your preexisting and newly-selected streaming channels to your Roku TV. This process is automatic and takes a few moments—a little longer if you already have a lot of streaming channels to add.

**Tip:** *Streaming channels from all Roku streaming devices associated with your account are synchronized periodically, so that all of your Roku streaming devices have the same set of streaming channels (subject to compatibility with the device).*

### **Connect your devices**

Next, Guided Setup helps you set up the external devices that you want to use with it, such as a cable box, Blu-ray™ player, or game console.

11. Press **OK** or the **RIGHT** arrow to proceed:

12. Connect all the devices you plan to use with your TV, turn them all on, and then select **Everything is plugged in and turned on**. The TV now takes you step by step through each of its inputs and asks what kind of device you have connected. On each input that has a connected and active device, you can see its picture and hear its sound.

13. Press the **UP** or **DOWN** arrows to highlight the label you want to associate with the input. If you are not using the input, select **Nothing**, and the input won't appear on the Home screen.

14. While setting up your devices, rather than using the predefined names and icons, you can set a custom name and icon. To do so, scroll up or down to highlight **Set custom name & icon**, and

then press **OK**. Follow the instructions on the screen to enter a name and select an icon for the input. See Rename inputs for more information.

**Note:** *If you have specified a custom name for an input, you cannot use voice commands to switch to that input. Voice commands can only switch among inputs that use built-in names, such as “AV,” and “Cable Box,” and “DVR.” Voice commands are available only in English language and only in the United States.*

15. Repeat the previous step for each input. You're done with Guided Setup.

**Note:** Some Roku TVs, depending on where you live and other factors, show you an introductory video filled with some great hints and tips. If you're not interested in viewing this video, press on the remote to return to the Roku TV Home screen.

Whenever you press on the remote, the Home screen greets you.

From here, you can explore everything your TV has to offer. Press the arrow keys to move around, and press **OK** to select a highlighted item. We've designed the TV to encourage you to explore, and you can probably figure out most of the capabilities and settings on your own. If you have any questions or difficulties, you can find answers and solutions in this guide.

## Home screen

The following illustrations show typical Home screens, which vary depending on location, connected mode, selected theme, number of TV inputs enabled, and streaming channels and apps added.

**Note:** *A paid subscription or other payments may be required for some channel content. Channel availability is subject to change and varies by country. Not all content is available in countries or regions where Roku® products are sold.*

### Typical connected Home screen

1. Home screen menu—shows options available to you when you are on the Home screen.
2. Highlighted option—press **OK** on the remote to select.
3. TV input tiles—select an input to watch the connected device.
4. Streaming channel and app tiles—select a tile to go to the indicated streaming channel or application.
5. Options hint—press on the remote for options when this symbol is present.
6. Next screen hint—press the **RIGHT** arrow on the remote to see the next screen.

### Typical non-connected Home screen

1. Home screen menu—shows options available to you when you are on the Home screen.
2. Highlighted option—press **OK** on the remote to select.
3. TV input tiles—select an input to watch the connected device.

4. Options hint—press on the remote for options when this symbol is present.
5. Next screen hint—press the RIGHT arrow on the remote to see the next screen.

## Personalize your Home screen

There are many things you can do to personalize your Home screen and make it just right for you and your family:

- *Only in connected mode:* Add streaming channels by using the Streaming Channels menu option to browse the Roku Channel Store.
- *Only in connected mode:* Change the screen theme by going to Settings > Themes to find and pick one to suit your mood.
- *Only in connected mode on U.S. models:* hide Featured Free or hide Movie Store and TV Store.
- Remove a tile by highlighting it and pressing . Then highlight **Remove input** or **Remove channel** and press **OK**.
- Move a tile by highlighting it and pressing . Then highlight **Move input** or **Move channel** and press **OK**. Use the arrows to move the tile, and then press OK to lock it in its new location.
- Rename a TV input tile by highlighting it and pressing . Then highlight **Rename input** and press **OK**. Highlight a new name in the list, and then press OK to assign that name to the tile.

Rather than using the predefined names and icons, you can set a custom name and icon. To do so, scroll up or down to highlight Set custom name & icon, and then press **OK**. Follow the instructions on the screen to enter a name and select an icon for the input.

**Note:** *Note: If you have renamed the inputs, you cannot use voice commands to switch inputs. Voice commands can only switch among inputs that have their original names, such as “AV,” and “HDMI 1.”*

## Benefits of connecting

### Connecting brings out your TV’s full potential!

#### Make any night a movie night

Thousands of movies to choose from, across all major streaming movie channels like Netflix, Crackle, and more<sup>1</sup> You’ll never run out of something new to watch.

#### Get in the groove

Stream endless hours of music from free and subscription-based channels like Deezer and TuneIn. With almost instant access to thousands of music artists, your favorite beats are just as close as your remote.

## Explore your passions

In addition to popular streaming channels like, NHL, Sky News and Google Play, your Roku TV also offers hundreds of streaming channels to fuel your passions—including fitness, cooking, religion, outdoors, International programming and much more.

## Enjoy FREE trials of popular channels

Your Roku TV comes loaded with special offers, including free trials (if eligible) from popular streaming channels like Netflix, Hopster, Acorn TV, and many more. REMEMBER THAT YOU MUST CANCEL BEFORE THE FREE TRIAL ENDS TO AVOID SUBSCRIPTION FEES.

## Take advantage of awesome features

**Powerful, voice-enabled search** helps you find movies and TV shows, actors, or directors across multiple streaming channels. Search results also includes Antenna TV programs airing in your region as well. Voice Search and Antenna TV search results are available only in the United States.

**Smart Guide** is an electronic program guide that is available any time you are watching “over-the-air” TV programs on the Antenna TV input. You can scroll up and down to see all Antenna TV channels you receive. You can scroll left to see the previous 7 days programs, and scroll right to see the upcoming 14 days of programs. If you highlight a show that has a purple asterisk ( ), you can press the to see More Ways to Watch.

And your most-watched channels are automatically grouped into a Favorites section

**More Ways to Watch** (U.S only), gives you recommendations about the show you are watching on the Antenna TV, HDMI, or AV input, gives you options to stream the current show from the beginning, the entire season, or the entire series, and recommends other shows with similar themes. It also uses the shows you watch to display ads that are more relevant to you.

**Live TV Pause** lets you connect a USB drive (not provided) and pause live TV for up to 90 minutes. After pausing, you can play, fast-forward, rewind, and pause again to any point within the rolling 90-minute window.

**Voice commands** let you use your Roku Voice Remote, Roku Enhanced Voice Remote, or the Roku mobile app to change stations, TV inputs, and launch streaming channels, and more. Voice commands are available only in the United States.

**Mobile Private Listening** on the Roku mobile app lets you listen to streaming programs and over-the-air” TV shows from the Antenna TV input on headphones (not provided) plugged into your iOS® or Android™ mobile device.

## What is streaming?

Streaming is viewing or listening to video or audio content that is sent over the Internet, or located on a network-connected media server or on a USB device plugged into the TV’s USB port.

With streaming, you can buy or rent most programs on demand, when it's convenient for you. When streaming, you can play, pause, rewind, and fast forward most of what you are watching. You can also replay the last few seconds again, or turn on closed captions.

**Tip:** *Some content cannot be paused or skipped. For example, if you are viewing live programming or a program that is supported by ads, you might not be allowed to skip the ads.*

Your Roku TV lets you choose from thousands of streaming channels that offer a huge selection of entertainment:

- Unlimited music, live and on-demand
- Tons of live and on-demand sports
- Commercial-free kids programming
- International programming in 22 languages
- 24x7 news and in-depth news commentary

Many streaming channels are free. Some streaming channels, like Google Play, let you purchase or rent the latest movie releases or popular TV series. Some channels such as Netflix or Acorn TV charge a monthly subscription fee and others are available at no additional cost if you subscribe to a companion service through your cable or satellite provider.

If you have an existing subscription to a service like Netflix, you can just sign in with your existing user name and password.

To play streaming content, you add streaming channels to your Home screen. Use the **Streaming Channels** option on the Home screen menu to go to the Roku Channel Store, and then select the streaming channel you want to add. The channel remains on your Home screen unless you remove it, and you can watch it at any time.

For more information on using the Roku Channel Store feature, see [Using the Roku Channel Store](#).

**Note:** *A paid subscription or other payments may be required for some channels. Channel availability is subject to change and varies by country. Not all content is available in countries or regions where Roku® products are sold.*

## **What if I didn't connect my TV?**

What if you went through Guided Setup and chose Connect to the Internet later? No worries. Your Roku TV makes it easy to connect whenever you want. As you move around the Home screen, you will see several places where you can start the connection process. For example:

- Now and then you will see a message appear on the panel to the right of the Home screen offering a Connect Now option. Simply highlight and select the Connect Now option to get started.

- Use the Connect and activate now option in the Settings menu. From the Home screen menu, select Settings, then Network, and then Connect and activate now.
- If you want to start over from the beginning, use the Settings menu to do a Factory reset, and then go through Guided Setup again. This time, choose your home network when prompted.

## Setting up Antenna TV

In addition to the other entertainment possibilities of your Roku TV, you may also want to watch broadcast channels from an antenna or cable TV service connected to the ANT input. On your Roku TV, you watch broadcast TV in much the same way you watch other entertainment choices. You select a tile—in this case, the **Antenna TV** tile—from the Home screen.

The first time you select the **Antenna TV** tile, you have to set up the TV tuner. Setting up the TV tuner scans for active channels and adds them to your Antenna TV channel list.

### Why do I have to set up the TV tuner?

Not everyone needs to use the TV tuner. For example, you might have a set top box provided by a cable or satellite company that receives all of your channels. Most of these set top boxes use an HDMI® connection.

More and more people are watching only streaming TV and do not have a TV antenna or cable/satellite service. If you don't need the TV tuner, you can bypass setting it up and instead remove it from the Home screen as explained in [Remove unwanted tiles](#).

When you set up Antenna TV, the TV scans the signals on its antenna input for channels with a good signal, and adds those to the channel list, skipping dead channels and channels with a very weak signal.

The TV lets you add two analog channels, even if they have no signal, for the purpose of using an older set top box, VCR, or game console that can only output a signal on analog channel 3 or 4. Typically, you'll only need one of these channels, but both are provided to make setup simpler. You can hide the one you don't want as explained in [Edit Antenna TV channel lineup](#).

### How do I set up the TV tuner?

1. Make sure your antenna (not provided) or TV cable is connected to the TV's **ANT/ CABLE** input.
2. On the Home screen, select the Antenna TV tile.
3. Read the simple on-screen instructions, and then select Start finding channels.
4. If prompted, select your time zone. You'll only need to do this if the TV can't figure out your time zone from your Internet connection.

### Why does the TV need my time zone?

The TV needs to know your time zone so that it can correctly display time information about the program you are currently watching.

5. When prompted, select whether to add analog channels 3 and 4. These channels enable you to connect older set top boxes, VCRs, or game consoles.

6. Wait while your TV scans for Antenna TV stations

... and then cable TV channels.

Scanning for channels can take several minutes.

**Tip:** *If you use a set-top box to receive cable TV channels (and don't have your cable connected directly to the TV's **ANT** input), you can save time by skipping the cable TV portion of the channel scan.*

7. When the channel scans finish, the TV shows the number of channels it added.

8. Only in connected mode, you have the option of setting up Live TV Pause. The topic [Pausing Live TV](#) explains how to set up and use this feature. If you don't want to set up Live TV Pause, or if this option is not available to you, select Done to start watching Live TV.

**Tip:** *Repeat the channel scan from time to time to make sure you are receiving all of the latest channels. Broadcasters add and remove channels, move channels to different parts of the spectrum, and change the power levels of their channels periodically. Your antenna reception and picture quality depend on the position of your antenna and on your location relative to the antennas of broadcasters in your area.*

**Note:** *You'll have to repeat the channel scan if you remove and re-add the Antenna TV tile from the Home screen or perform a factory reset. To repeat the channel scan, go to **Settings > TV inputs > Antenna TV > Scan again for channels > Start finding channels**.*

Now, you're ready to watch Antenna TV! While you're watching, try the following tips:

- Press the **UP** and **DOWN** arrows to change channels.
- Press the **LEFT** arrow to display the channel list (non-connected mode) or Smart Guide (connected mode), and then use the **UP** and **DOWN** arrows to select a channel to watch. Or press **REWIND** or **FAST FORWARD** to jump through the channel list or Smart Guide a page at a time.
- Press **OK** to display information about the current program.
- Press to see options for picture and sound settings.
- Only on models that have a Roku voice remote, using English language, hold down or , and then say the name of a movie, TV show, or actor, or, only in the United States, the genre or name of the director. The TV displays the result and the streaming channels that offer the requested content. Only in the United States, the results also include shows on Antenna TV channels.

**Note:** If you do not have a Roku voice remote, you can use the Roku mobile app to search. For more information, see [Getting and using the Roku mobile app](#).

## Using your TV

This section provides information on using the day-to-day features of your TV.

### Status indicator

Your TV has a single status indicator. It goes on and off and blinks in different ways depending on the status of the TV, as shown in the following table:

### Opting in to Smart TV experience (U.S. only)

Only in connected mode in the United States, the first time you select Antenna TV, an HDMI input, or AV input, your TV offers to enable the Smart TV experience. If you decide to enable it at this time, you're all set to enjoy its recommendations and features.

The Smart TV experience uses automatic content recognition (ACR) and other technology to collect information about what you watch through your Antenna TV, and on devices like media players and cable boxes connected to the HDMI or AV inputs. Opting in means that you give permission to analyze the programs you watch for the purpose of making recommendations, as well showing ads that are more relevant to you.

If you decide not to enable the Smart TV experience at this first opportunity, you can enable it later. Or, if you decide you'd rather not use the feature, you can disable it, but be aware that previously collected information is retained and not deleted.

### Disable Smart TV experience

If you decide you want to disable Smart TV experience, follow these steps:

1. From the Home screen, go to **Settings > Privacy > Smart TV experience**.
2. Navigate to the right to highlight **Use info from TV inputs**.
3. Press **OK** on the remote to clear the check box.

### Disable Auto Notifications

If you want to keep the Smart TV experience enabled, but you do not want to see notifications while you are watching shows, you can disable notifications. To do so, follow these steps:

1. From the Home screen, go to **Settings > Privacy > Smart TV experience**.
2. Navigate to the right to highlight **Use info from TV inputs**.
3. Press **DOWN** on the remote to highlight **Enable auto notifications**.
4. Press **OK** on the remote to clear the check box.

**Note:** *These settings do not affect recommendations for More Ways to Watch that you see in the Smart Guide when watching Antenna TV channels. Those recommendations come from the Smart Guide and do not rely on ACR technology.*

## Watching Antenna TV channels

Select the Antenna TV tile in the Home screen. Your TV remembers the last channel you watched and starts with that channel playing.

### Changing channels

To change channels, you can do any of the following:

- Press the **UP** arrow to change to the next higher channel.
- Press the **DOWN** arrow to change to the next lower channel.
- Press the **LEFT** arrow to display the channel list (in non-connected mode) or Smart Guide<sup>1</sup> in connected mode), and then press the arrow keys to select the channel or show you want to watch. Press **REWIND** and **FAST FORWARD** to move through the list one page at a time. When you've highlighted the channel or show you want to watch, press OK. (If you decide you don't want to change channels, press the BACK button).
- Only if Live TV Pause is not enabled, press to jump to the previous channel. Press again to return to the channel you were watching before you pressed .

**Note:** *If the button is not available on your remote, you can use this feature in the Roku mobile app. For more information, see [Getting and using the Roku mobile app](#).*

## Favorite Channels in non-connected mode

You can quickly change from surfing among all channels or only your favorite channels. First, you have to mark one or more channels as your favorites.

**Note:** *In the United States, in connected mode, favorite channels appear at the top of the Smart Guide automatically after several days of watching Antenna TV channels. For details, see [Smart Guide](#).*

### Mark your favorite channels

In non-connected mode, you can make any channel a favorite whenever you're watching Antenna TV channels.

1. Press the **LEFT** arrow to display the channel list. Notice that the words **All channels** appear at the top of the channel list.
2. Scroll up or down to highlight a channel that you want to make a favorite.
3. Press . At this point, you'll see two options:

- **Add to favorites**

- **Back**

4. With **Add to favorites** highlighted, press **OK**. A symbol appears adjacent to the channel to indicate that it is now a favorite.

5. Repeat these steps to add more favorite channels.

### **Surf only your favorite channels**

In non-connected mode, after you've marked one or more channels as favorites, you can switch to your favorite channels whenever you're watching Antenna TV channels.

1. Press the **LEFT** arrow to display the channel list.
2. Press the **LEFT** or **RIGHT** arrow once to switch to **Favorites**. Notice that the word **Favorites** appears at the top of the channel list.
3. Highlight a channel and press **OK** to select one of the channels in the Favorites channel list, or wait a few moments until the channel list disappears.
4. Press the **UP** or **DOWN** arrow to change to the previous or next favorite channel. Each channel you select in this way is a favorite channel. Your channel surfing is limited to favorite channels only.

Your favorite channel list remains in effect even if you turn off or unplug your TV, until you switch back to all channels.

Note that when you press OK to view the program information banner while watching a show, a symbol appears below the channel number.

### **More Ways to Watch (U.S. only)**

Only in connected mode in the United States, More Ways to Watch gives you recommendations on the Antenna TV, HDMI, or AV input. You will automatically get these recommendations in the Smart Guide and in the program information banner for Antenna TV programs. However, before you can get recommendations for shows, you must opt into the Smart TV experience to acknowledge that you want to allow the TV to use automatic content recognition (ACR). See [Opting in to Smart TV experience](#) for details.

#### **Using More Ways to Watch**

As you use More Ways to Watch, be aware that you'll only see suggestions on your TV when all of the following conditions are met:

- Your TV is operating in connected mode in the United States.
- If you are watching shows through and HDMI or AV input, you've enabled **Smart TV experience**. (If you are watching Antenna TV channels, this setting does not matter.)
- The program you're watching contains the information needed to identify it. Note that some programs, such as the daily news, typically do not activate More Ways to Watch.

- At least one participating streaming channel offers the movie or TV show you are watching, or other episodes, or more shows like the one you are watching.

If all of these conditions are met, you can view the suggestions. More Ways to Watch recommendations appear in several places:

- When watching the HDMI and AV inputs, you'll see a **More Ways to Watch** notification in the lower right corner of the screen for a few seconds unless you have disabled **Enable auto notifications**.

**Note:** *After this banner disappears, you can restore the More Ways to Watch prompt by pressing OK.*

- For shows on Antenna TV channels, check the program information banner that appears for a few moments when you change channels or when you press OK while watching a show. If your TV has suggestions, you'll see a More Ways to Watch notification in the banner:
- In the Smart Guide, you can view More Ways to Watch recommendations on any program that shows a purple asterisk next to its title:

Regardless of which **More Ways to Watch** prompt appears, press to see the recommendations. The options you'll see depend on the type of show you're watching and the available ways there are to watch, so you might see any or all of the following:

- **Watch from beginning** – Streaming channels on which the same TV show or movie is available. Generally, this option does not appear on first run programs, because streaming content is not available until a later date.
- **More episodes** – Streaming channels where you can find other episodes of the TV show you are watching. Does not apply to movies.
- **More like this** –TV shows or movies with a similar theme.

**View full description** – Full description of the selected show.

Press the **DOWN** arrow to select an option, and then press the **RIGHT** arrow to select the channel you want to use to watch from the beginning or watch more episodes, or the other TV show or movie with a similar theme.

Assuming you've already added the channel and completed any required sign-in, More Ways to Watch takes you directly to the program in the streaming channel where you can select and watch the program. Otherwise, it prompts you to add the channel and, if you do, then takes you to the show.

### **Getting the most from More Ways to Watch**

- Streaming channels you've already installed appear first in the list of suggestions.
- When you select a streaming channel, you leave the program you are currently watching.

- If you've used the Live TV Pause feature to pause the program, your paused program buffer is deleted. In other words, you cannot return to an Antenna TV channel and resume watching where you left off.

## Using your TV in a hotel or dorm room

Hotels, school dorms, conference facilities, and similar locations with public wireless Internet access often require you to interact with a web page to authenticate your access. These types of networks are called restricted public networks. When you select a network of this type, the TV automatically detects that additional information is needed and prompts you through using another wireless device to supply the requested information.

### About using your TV on a restricted public network

Here are some points to keep in mind when using your TV on a restricted public network:

- Using your Roku TV on a hotel or dorm room network requires wireless availability and a network-connected smartphone, tablet, or computer to authenticate access to your wireless access point.
- You will need your Roku TV remote.
- Some content might be limited or unavailable if you try to connect outside your home country due to geo-filtering.

### Getting your Roku TV on line on a restricted public network

1. Either during Guided Setup or after using the **Settings > Network** menu to set up a new connection, the TV automatically detects that you are connecting to a restricted network and displays the following prompt:

**Tip:** *Your TV can connect to a restricted network only if **Enable 'Device connect'** is selected in **Settings > System > Advanced system settings**. (Device connect is enabled by default, but if you have disabled it, the TV cannot complete the connection.)*

**Note:** *Device connect is not present if the TV is in non-connected mode.*

2. After selecting the correct network, highlight I am at a hotel or college dorm, and then press OK. The TV prompts you to use your smartphone, tablet, or laptop to complete the connection.

3. Use a phone, tablet, or wireless-enabled computer to detect wireless networks. In most cases, you can simply open the device's Wi-Fi Settings or Network Settings screen to start scanning.

**Note:** *The phone, tablet, or computer must be on the same wireless network to which you are connecting the TV.*

4. Connect to the network named on your TV screen. The actual network name varies.

**Note:** *The previous step connects your smartphone, tablet, or computer directly to the TV. No connection charges apply and the connection does not impact your device's data plan.*

5. The wireless connection process prompts you for a password. Enter the password as shown on the TV screen. The actual password varies.
6. Start the web browser on your smartphone, tablet, or computer. When you attempt to open any web page, the restricted connection will prompt you for whatever information it needs. In most cases, you must agree to terms and conditions, provide identifying information, or enter a password, PIN, or room number to proceed. The information requested depends on the organization that controls the wireless connection.
7. After you enter the requested information, the TV automatically proceeds to complete its connection and resumes normal operation.
8. If the TV prompts you to link to your Roku account, use your smartphone, tablet, or computer to complete the pairing operation and activate your Roku TV.

## Adjusting TV settings

You can adjust most picture and sound settings while you are watching a program by pressing to open the **Options** menu. There are some additional picture and sound settings in the **Settings** menu.

In most cases, the changes you make apply only to the input you are using. Antenna TV, the separate HDMI® inputs, and the AV input each have their own settings that the TV remembers when you return to that input. The TV also separately remembers the settings you specify while viewing streaming content.

### Settings menu

Use the **Settings** menu to adjust overall TV settings. Press to go to the Home screen, and then navigate to **Settings > TV picture settings**.

You can adjust the following overall TV picture settings from the Settings screen:

- **TV brightness** – Provide a better viewing experience in darker or brighter rooms. Increases or decreases the TV's general brightness across all TV inputs.

**Note:** This setting is identical to the TV brightness setting you can access in the Options menu while watching a program.

- **HDR notification** – On select models only: Controls whether the TV displays a notification in the upper right corner of the screen for a few seconds when HDR or Dolby Vision content begins to play.
  - **On** – The TV displays a notification when HDR or Dolby Vision content begins to play.
  - **Off** – The TV does not display a notification when HDR or Dolby Vision content begins to play.

**Note:** This setting does not affect the HDR or Dolby Vision notification that always appears in the program information banner. Press OK while watching a show to open the program information banner.

- **Settings per input** – Lists each TV input. Select an input, and then press to display the **Options** menu where you can adjust the input's settings while watching a live picture and listening to the sound from that input.

**Tip:** You don't have to go to the **Settings** menu first—you can display an input's **Options** menu and adjust its settings whenever you are watching the input by pressing .

## Options menu

The Options menu for each TV input provides many settings for controlling the appearance of the picture and the quality of the audio. To view the Options menu, press whenever you are watching a TV input or streaming a video (except when you are viewing the program information banner). The Options menu is a panel that appears over the left side of the screen:

Typical Options menu

To adjust the settings on the **Options** menu, press the **UP** or **DOWN** arrow to highlight a setting, and then press the **LEFT** or **RIGHT** arrow to change the setting. You'll see the changes you make right away in picture appearance or audio quality.

**Tip:** When you highlight a setting, the header text explains the effect of its current value. When you begin to adjust a setting, the other options are hidden so you can see more of the screen. Even though the other settings are hidden, you can move the highlight up or down to adjust the other settings. As soon as you press the UP or DOWN arrow, the other settings become visible again.

## Options menu settings

- **TV brightness** – Affects the overall brightness of the picture. This setting applies across the entire TV; that is, to all TV inputs and is identical to the TV brightness setting under **Settings > TV picture settings**.
- **Picture mode** – Provides picture presets for various viewing preferences. This setting applies to the currently-selected input only.
- **Picture size** – Adjusts the aspect ratio of the picture, enabling you to view a picture in its original format, or zoom or stretch it to fill the screen. The Auto setting has been found to produce the best picture in most cases.
- **Audio effect** – Adjusts the sound quality output from the TV speakers. This setting applies across the entire TV; that is, to all TV inputs. It does not affect the sound quality for headphones, HDMI (ARC), or SPDIF (TOSLINK) connectors.
- **Sleep timer** – Sets a timer that turns off the TV after the specific amount of time. This setting remains in effect even if you stop watching the current input.

- **Closed captioning** – Controls when you see captions. This setting is only offered for Antenna TV, the AV input, and streaming/media player videos. Any set value remains in effect across only these inputs.
  - **Antenna TV** – Set captions to off, always on, on only when the TV sound is muted, or on only during instant replay (when Live TV Pause has been enabled).
  - **AV input** – Set captions to off, always on, or on only when the TV sound is muted.
  - **Streaming video channel or media player** – For streaming content that provides closed captions, set captions to off, always on, on only when the TV sound is muted, or on only during instant replay (for streaming content that supports instant replay). *Note that some streaming channels have other methods for turning captions on and off. In these cases, the Closed captioning option does not appear on the Options menu.*

**Note:** *If the button is not available on your remote, you can use this feature in the Roku mobile app. For more information, see [Getting and using the Roku mobile app](#).*

- **Captioning track** – Only in Canada: Selects which caption track to display when closed captioning is on. This setting remains in effect on all inputs that provide captions.

**Note:** *Only in the United States, the Captioning track setting is located under Accessibility.*

- **SAP** – Selects whether to play a secondary audio program or multichannel television sound, and which choice to play. This setting applies only to Antenna TV on digital channels.
- **Advanced sound settings** – Only on select models: Shows the Advanced sound settings menu.
- **Advanced picture settings** – Shows the Advanced picture settings menu.

**Tip:** *To dismiss the Options menu, just wait a few seconds without pressing any buttons. Or press again to dismiss the menu immediately.*

## Advanced picture settings

The **Advanced picture settings** menu for each TV input provides settings for fine tuning the appearance of the picture. All of the settings in this menu apply only to the currently- selected input.

To use the **Advanced picture settings** menu, first press to display the **Options** menu. Then select **Advanced picture settings**.

Typical Advanced picture settings menu

## Advanced picture settings menu options

- **Picture mode** – Provides picture presets for various viewing preferences. This setting duplicates the one on the Options menu. When you change the Picture mode, other picture settings adjust accordingly. For example, setting the Picture mode to Vivid sets Brightness, Contrast, Sharpness, and other values to produce a very vibrant picture. Setting Picture mode to Movie changes the settings to produce a picture suitable for enjoying movies in a darkened room. If you make changes to the individual picture settings—for example, Contrast, or Sharpness—these settings are saved for the current input and the current picture mode. In this way, you can set HDMI 1 input's Movie picture mode to use different settings than the HDMI 2 input's Movie picture mode and Antenna TV's Movie picture mode. Use Reset picture settings, described below, to return the input's selected picture mode to its original values.
- **Local contrast** – Only on select models: Sets the amount of dimming multiple “local” areas of the screen's backlight intensity. This setting can make dark areas darker without affecting the brightness of light areas. This option is disabled when Game mode is enabled.
- **Dynamic contrast** – Only on select models: Automatically adjusts the backlight level to achieve the optimum contrast and prevent excessive differences between light and dark areas of the screen. This option is disabled when Local dimming/Local contrast is enabled.
- **Backlight** – Adjusts the overall light intensity of the screen.
- **Brightness** – Adjusts the dark level of the picture.
- **Contrast** – Adjusts the white level of the picture.
- **Sharpness** – Adjusts the sharpness of edges in the picture.
- **Color** – Adjusts the saturation of colors in the picture. A setting of 0 removes all color and displays a black and white picture.
- **Tint** – Adjusts the color balance from green to red to obtain accurate colors in the picture.
- **Color temperature** – Adjusts the overall color tones in the picture from Normal to slightly more bluish (Cool) to slightly more reddish (Warm)
- **Action smoothing** – Only on select models: Adjusts the amount of action smoothing applied to the video signal. A higher setting results in more smoothing, but can cause undesirable picture artifacts in certain types of content. Each Picture mode has a different Action smoothing default setting.
- **Natural Cinema** – Only on select models: When enabled, this feature reduces “judder” that is often present when 24 frame-per-second movies are upscaled to 60Hz TV standards. Natural Cinema mode is On by default in Movie and HDR Dark picture modes,

and Off by default in other picture modes. When Natural Cinema mode is On, Action smoothing is turned off and disabled.

- **Action clarity** – Only on select 120Hz models: Reduces blur, especially for fast-moving images such as sports.
- **LED action clarity** – Only on select models: Reduces motion blur caused by LED backlight latency. Enabling this feature inserts black frames between picture frames in a way that improves the clarity of fast movement. It provides an improved viewing experience for video games and sporting events. When LED action clarity is enabled, the Brightness and Dynamic contrast settings are disabled. You can choose settings of Low, Medium, High, or Off to achieve the desired picture quality. Enabling Game mode sets LED action clarity to Medium..
- **Game mode** – Only on HDMI® and AV inputs: Controls whether Game mode is enabled. When **On**, the TV performs less image processing and has less input lag. When **Off**, the TV performs more image processing and has more input lag, which is less desirable for action games.
- **Reset picture settings** – Returns all picture settings for the input's currently-selected **Picture mode** to their original values.

**Tip:** To dismiss the Advanced picture settings menu, just wait a few seconds without pressing any buttons. Or press again to dismiss the menu immediately.

## Searching for something to watch

### How do I search?

You can search by using an on-screen keyboard that you navigate using the arrow keys on your remote, or only in the United States, you can use a Roku voice remote or the Roku mobile app to search with your voice.

#### Keyboard search using the remote

1. Select **Search** on the Home screen menu. The **Search** screen has a keyboard grid and initially displays instructions—a set of icons representing search categories and a list of participating provider tiles.

**Tip:** If you don't see the instructions, navigate to the end of the list of recent searches and select **Clear recent search selections**.

2. Use the arrow keys to navigate the on-screen keyboard, entering a few characters of the search term.

With each additional character you enter, you narrow down the search, making the search results more relevant. You'll often see the results you are seeking after entering only a few letters.

3. When you see the show you are searching for, press the **RIGHT** arrow to highlight it.

## Voice Search from a Roku voice remote

*Only with models that have a Roku Voice Remote or Roku Enhanced Voice Remote:*

1. Press and hold the search button, either or , .
2. Say the name<sup>1</sup> of a movie, TV show, actor, director, or genre (including the special genre, “free”).

*The TV lists the results of your search across many streaming channels and, only in the United States, Antenna TV channels. An icon next to each search result shows the category of the result (movie, TV show, actor).*

**Note:** *For TVs in Canada, voice search is limited to searching for program titles and actors using English spoken commands.*

3. Press the **RIGHT** arrow to move the highlight into the list of search results.
4. Press the **UP** and **DOWN** arrows to scroll through the list of search results to highlight the item you want to view.

## Customizing your TV

There are several things you can do to personalize your TV.

### Add TV inputs

As you use your TV, you might find that you need to add a TV input tile that you did not add during Guided Setup. To add a TV input:

1. From the Home screen menu, navigate to **Settings > TV inputs**. Notice that the list of inputs is divided into two sections: **Inputs being used** and **Inputs not used**.
2. Press the **UP** or **DOWN** arrows to highlight an input in the **Inputs not used** section of the list.
3. Press the **RIGHT** arrow to move the highlight to Set up input.
4. Press **OK** to add the input.
5. Press to return to the Home screen. Notice that the input has been added to the top of the Home screen. If you want to move the input tile to a different position in the grid, see [Rearrange tiles](#).

### Rearrange tiles

When you add a TV input tile, it's added at the top of your Home screen. When you add a new streaming channel, it's added at the bottom of your Home screen.

You can easily rearrange the order of the tiles on the Home screen to suit your viewing preferences. For example, you might want Antenna TV to be the first tile in your Home screen. But

if you mostly watch one streaming channel, you might want its tile to be the first one on your Home screen.

1. From the Home screen, highlight one of the tiles you want to move.
2. Press to display a list of options for the type of tile you selected.
3. Select Move input or Move channel. The list of options disappears and the highlighted tile shows arrows indicating how it can be moved.

**Note:** *A paid subscription or other payments may be required for some channels. Channel availability is subject to change and varies by country. Not all content is available in countries or regions where Roku® products are sold.*

4. Use the arrow keys to move the highlighted tile to its new position. As you move the tile, it pushes other tiles out of its way.
5. Press **OK** to lock the tile into its new position.
6. Repeat these steps to move other tiles until you have arranged your Home screen to your liking.

## Change themes

Only in connected mode, another way to customize your TV is to change its theme. The theme establishes the look and feel of the TV through colors, designs, and fonts. Some themes require payment.

To change the theme, from the Home screen menu navigate to **Settings > Theme > Change theme**. In the **Themes** screen, choose from the following options:

- **My themes** – Highlight a theme, and then press OK to switch to that theme.
- **Get more themes** – Highlight this option at the bottom of the My Themes list, and then press OK to shop for new themes.
- **Custom settings** – Turn Featured themes on or off. When Featured themes is on, the TV automatically switches to featured themes—like certain holiday-inspired themes—for a limited time whenever Roku makes them available, and then switches back to your selected theme when the featured theme expires. When off, the TV uses your selected theme.

## Configure power settings

Power settings let you configure features related to how your TV's power settings work.

### Power on settings

Power on settings tell the TV what to do when you turn on the power. To configure the power on settings, from the Home screen, navigate to **Settings > System > Power > Power on**. Highlight the preferred power on location in the list, and then press **OK**.

## Auto power savings

To help you save energy, your TV can automatically turn itself off after a period of inactivity or a period during which no signal has been detected. It is factory-configured to do both of these things, but you can change these settings if needed.

To configure automatic power off, from the Home screen menu navigate to **Settings > System > Power > Auto power savings**. In the Power settings screen, highlight the following options and press OK to turn them on or off:

- **Reduce power after 15 minutes** – If no video or audio activity and no user interaction occur for 15 minutes, the TV automatically turns off the screen and sound.
- **Turn off after 4 hours** – If no video or audio activity and no user interaction occur for 4 hours, the TV goes into standby mode.

## Standby LED On/Off

Normally, the status indicator is lit whenever the TV is in standby mode. If you prefer the status indicator to not be lit in standby mode, you can turn it off. To do so, from the Home screen, navigate to **Settings > System > Power > Standby LED**, and then select **Off**.

After making this change, the status indicator still performs all other indication functions.

## Fast TV start

Only in connected mode on TV models that are not Energy Star certified, you can enable **Fast TV start**. As you might expect, Fast TV start lets you start watching your TV almost instantly after turning it on. But it also enables other convenient features, such as enabling use of the Roku mobile app and, only in the United States, the ability to turn on and control your TV using voice commands.

Be aware that enabling **Fast TV start** makes your TV use somewhat more power when it is powered off to standby mode.

## Captions preferred language

The Captions preferred language setting lets you select the language in which you want closed captioning to appear, when that language is available. If your preferred language is not available, then captioning reverts to the default language for the program, which usually is English.

Highlight the language you prefer, and then press **OK** to select it.

## Captions style

The Captions style settings let you control how closed captions look when displayed on your TV. Access caption style settings from the Home screen by selecting **Settings > Accessibility > Captions style**. At this point, you can choose among the following options:

- **Text style** – Choose from a list of fonts. As you move the highlight to each font, you can see a sample of the result in an adjacent panel.
- **Text edge effect** – Choose from a list of edge effect styles, such as raised, depressed, and various shadows. As you move the highlight to each effect, you can see a sample of the result in an adjacent panel.
- **Text size** – Choose from a list of sizes. As you move the highlight to each size, you can see a sample of the result in an adjacent panel.
- **Text color** – Choose from a list of colors for the text. As you move the highlight to each color, you can see a sample of the result in an adjacent panel.
- **Text opacity** – Choose from a list of opacity settings for the text. This setting determines how much the area behind the text shows through the text. A value of 100% blocks all of the content behind the text. As you move the highlight to each setting, you can see a sample of the result in an adjacent panel.
- **Background color** – Choose from a list of colors for the background area behind the text. As you move the highlight to each color, you can see a sample of the result in an adjacent panel. Note that you won't see any change unless you set the Background opacity to a value other than Off.
- **Background opacity** - Choose from a list of opacity settings for the background of the caption. This setting determines how much the area behind the caption background shows through the background. A value of 100% blocks all of the content behind the background. As you move the highlight to each setting, you can see a sample of the result in an adjacent panel.
- **Window color** – Choose from a list of colors for the window rectangle surrounding the entire caption. As you move the highlight to each color, you can see a sample of the result in an adjacent panel. Note that you won't see any change unless you set the Window opacity to a value other than Default or Off.
- **Window opacity** – Choose from a list of opacity settings for the window rectangle surrounding the entire caption. This setting determines how much the area behind the caption window shows through the window. A value of 100% blocks all of the content behind the window. As you move the highlight to each setting, you can see a sample of the result in an adjacent panel.

## Audio Guide settings

Audio Guide settings help users who are blind or visually impaired to configure the text- to-speech reader, enabling them to operate their TV more easily. Audio Guide uses voice prompts that speak volume and channel changes, menu options, and setting changes. Access Audio Guide settings from the Home screen by navigating to Settings > Accessibility, and then select from the following options in the Audio Guide section:

- **Audio Guide** – Turn Audio Guide on or off.
- **Speech rate** – Select one of four speeds at which to hear spoken guide information: Slow, Normal, Fast, or Very Fast.
- **Volume** – Select the volume at which to hear spoken guide information, relative to the main TV volume.
- **Shortcut** – Enable or disable the shortcut feature. When enabled (the default), pressing four times in quick succession enables or disables the Audio Guide.

### **What happens when a TV show is blocked?**

After you've set up parental controls, TV shows and movies can be blocked:

- When you change channels and the new channel is playing a program whose rating exceeds your settings.
- When a new show comes on the channel you are watching and its rating exceeds your settings.

When a program is blocked by parental control settings, the TV displays a blocked message:

Whenever this blocked message appears, both the video and audio of the show are blocked, as well as program data that would normally appear in the area at the bottom of the screen.

To watch the blocked program, you need to know the PIN code defined when you enabled parental controls, as explained in [Creating a parental control PIN](#).

1. Press **OK** to select **Unblock** and display a PIN pad.
2. Use the arrow keys to enter your parental control PIN code, and then press **OK** to select **Unblock everything**.

After unblocking shows that have been blocked, all blocking is disabled for two hours or until you turn off the TV.

### **Changing the parental control PIN**

To change your parental control PIN:

1. From the Home screen menu, navigate to **Settings > Parental controls**, and then enter your parental control PIN.
2. In the **Parental controls** screen, highlight **Change PIN**.

3. Move the highlight into the adjacent keypad, and then use the arrow keys and then press **OK** to enter a four-digit code. Then repeat the process to enter the same PIN again, just to make sure you correctly entered the PIN you want to use.

## More settings

This section describes the features and settings of the TV that were not covered in the other parts of this guide.

### Changing Network settings

If needed, you can change your network settings at any time. For example, if you change the name of your wireless network (its SSID) or its password, you will need to change your TV's settings so that it can continue to connect. Also, if you decided not to connect to the Internet in Guided Setup, you can use network settings to connect at a later time.

To change network settings, from the Home screen menu, navigate to Settings > Network, and then press the RIGHT arrow. At this point, you can choose the following options:

- **About** – Lists important information about your current network connection, such as status, connection type, IP addresses, and MAC address. This information is often useful when contacting customer support with connection issues.
- **Check connection** – Select your existing network connection type, and then press OK to start checking the network connection. The TV uses your current network information to reconfirm the wireless or wired network connection to the local network and the Internet connection.
- **Set up connection** – Select a network connection type, and then select the option to set up a new connection. Follow the on-screen instructions to complete the network connection. For help with each of the steps, see Network connection.

**Note:** Some networks, such as those found in dorm rooms, hotels, and other public places, may require you to read and agree to terms, enter a code, or provide identifying information before letting you connect to the Internet. For more information, see [Using your TV in a hotel or dorm room](#).

### Changing ZIP Code

Only in connected mode, your TV needs to know your ZIP Code so that it can display the correct channels and program guide information. It attempts to determine your ZIP Code by using information from your Internet connection; however, the information available from this source is not always accurate. To ensure you have the most accurate program guide information, use the ZIP Code option to enter your correct ZIP Code

. To set your correct ZIP code, from the Home screen menu, navigate to **Settings > System > ZIP Code**, and then pressing the RIGHT arrow. Use the on-screen number pad to select each of the digits of your ZIP Code, and then select OK.

## Changing Time settings

You can change time settings to suit your preferences. You can find the following settings by navigating from the Home screen menu to **Settings > System > Time**:

- **Sleep timer** – Set a time delay after which the TV will automatically shut off. This setting reflects the setting you can make in the Options menu from any TV input, as explained in Options menu settings. Note that the sleep timer setting is not input specific.
- **Time zone** – Select whether to set the time zone automatically or manually, and if set manually, select your current time zone. Typically, a TV connected to the Internet can discover its own time zone automatically, and a TV that is not connected to the Internet must be set manually. Initially, this setting is made when you set up the TV tuner, as explained in Setting up Antenna TV. Correct time zone information is needed to correctly display program data.
- **Clock format** – Select whether to display time in a 12-hour or 24-hour format, or to turn off time display. This setting is available only on TVs that are connected to the Internet. Non-connected TVs do not display the time.

## Restarting the TV

You can restart the TV when necessary. Restarting has the same effect as unplugging the TV power and then plugging it in again.

To restart the TV, navigate to **Settings > System > Power**, and then select System restart. Highlight Restart, and then press **OK** to confirm restart.

While the TV restarts, the screen goes dark for a few seconds, and then displays the startup screen for a few more seconds. When the restart operation completes, the TV displays the activity you selected in [Power on settings](#).

## Resetting the TV

You can choose to reset only the TV picture and audio settings to their original values, or perform a full factory reset to return the TV to the state it was in when you first unpacked and turned it on.

### Reset audio/video settings

To reset only the TV picture and audio settings to their original values, navigate to **Settings > System > Advanced system settings > Factory reset**, and then highlight **Reset TV audio/video settings**. Read the information on the screen to make sure you understand what the reset operation does.

To proceed with the reset operation, press **PLAY/PAUSE** three times in a row.

### **What if I can't access the Factory Reset option?**

It is possible for your TV to get into a state where you cannot access the various menus, including the menu option that lets you perform a factory reset operation. If that happens, you can force the TV to reset by following these steps.

#### **Models with a RESET button**

1. Using a straightened paper clip or ball-point pen, press and hold the recessed RESET button on the TV connector panel.
2. Continue to hold the RESET button for approximately 12 seconds. When the reset cycle completes, the status indicator comes on dim.
3. Release the RESET button. The TV is now powered off.
4. Turn on the TV and proceed through Guided Setup. See Guided Setup.

#### **Models without a RESET button**

1. On the TV panel (not the remote) press and hold down the MUTE and POWER buttons.
2. Unplug the TV power, and then plug it in while continuing to hold down the MUTE and POWER buttons.
3. When you see the startup screen appear on the TV, release the buttons.
4. Turn on the TV and proceed through Guided Setup. See Guided Setup.

### **Network connection reset**

If you want to remove your network connection information without disturbing other settings, navigate from the Home screen to **Settings > System > Advanced systems settings > Network connection reset**, and then select **Reset connection**.

When you select this option, the TV removes your wireless network information, including the name of the connection (its SSID) and your wireless password, if any, and then it restarts. After restarting, your TV retains all of its other settings and its association with your Roku account.

After resetting your network connection, navigate from the Home screen to **Settings > Network > Set up** new connection to continue enjoying all of the benefits of your connected TV.

### **Changing your Roku Channel Store PIN preference**

When you created your Roku account, you were given the opportunity to create a PIN code and to specify when it must be used. If you created a Channel Store PIN and want to change it, or you don't remember your PIN, or if you didn't create a Channel Store +PIN and want to add one, you can easily make these changes.

1. On a computer, tablet, or smartphone, use your web browser to go to [web my.roku](http://web.my.roku) and sign in.

After signing in, the My Account page appears.

2. Under PIN Preference, click Update to open the Choose Your PIN Preferences page.
3. Skip this step if you just want to change your PIN. Otherwise, choose the option your prefer from among those listed:
  - Require a PIN to make purchases or to add any item from the Channel Store.
  - Require a PIN to make purchases.
  - Do not require a PIN to make purchases.
4. If you choose either of the first two options, enter your PIN twice in the appropriate boxes.
5. Click Save Changes to save your changes and return to the My Account page. Note that your current setting is described under PIN Preference.

## Getting system updates

If your TV is operating in connected mode, it will automatically get updates from time to time. You don't need to do anything. But if you are aware that an update is available and you don't want to wait until the TV updates itself, you can manually check for updates.

If your TV is operating in non-connected mode, you can still get updates by using a USB flash drive.

You can download an updated User Guide that matches your TCL Roku TV software version from the Roku web site at: [web.roku.com](http://web.roku.com)

To determine your current TCL Roku TV software version, go to Settings > System > About, and then press OK or navigate to the right.

## Checking for updates on a connected TV

If you're one of those people who has to have the latest, most up-to-date features the moment they are available, you can check for updates as often as you want.

To check for updates, navigate to Settings > System > System update, and then select Check now. The TV responds either with a message saying that your TV is up to date, or with a message saying that an update is available.

Follow the instructions on the screen to install the system update.

**Note:** *Sometimes system updates install new system software, and other times they install new features for streaming channels. Therefore, you won't always see a change in the behavior of your TV after a system update.*

## Other devices

### Screen Mirroring your phone or tablet

Only in connected mode, your TV has a feature called screen mirroring that lets you mirror your compatible smartphone or tablet on your TV. Share videos, photos, web pages, and more from compatible devices.

By default, your TV's screen mirroring mode is set to Prompt. In this mode, when your TV receives a screen mirroring request, it prompts you with the following options, unless you have previously selected Always accept or Always ignore for the device:

- **Always accept** – Always accept mirrored content from the mobile device without additional prompting in the future for this device.
- **Accept** – Accept mirrored content from the mobile device this time only. Prompt again next time this device attempts to mirror content.
- **Ignore** – Do not accept mirrored content from the mobile device at this time. Prompt again next time this device attempts to mirror content.
- **Always ignore** – Never accept mirrored content from this mobile device.

**Note:** You can manage and change the list of devices that are set to Always accept or **Always ignore** by navigating from the Home screen to **Settings > System > Screen mirroring > Screen mirroring devices**.

- If you prefer to always allow all screen mirroring attempts without prompting, go to **Settings > System > Screen mirroring**, and then change the **Screen mirroring mode** to **Always allow**.
- If you prefer to never allow screen mirroring from any device, change the **Screen mirroring mode** to **Never allow**.

### Getting and using the Roku mobile app

Roku makes the Roku mobile app free for compatible iOS® and Android™ mobile devices. The Roku mobile app is an alternative remote for your TCL Roku TV. The Roku mobile app helps you find and add new Roku Channels, more easily search and find something to watch and, only in the United States, even use your voice to search without typing.

### Private Listening on the Roku mobile app

Only on compatible Apple and Android devices, the Roku mobile app enables you to use headphones connected to your device to listen to streaming programs Antenna TV channels. Make sure you have the latest version of the Roku mobile app before using this feature.

## Using a universal remote

In many cases, you can program your cable or satellite universal remote to also control your TV. You will need to have instructions for programming the remote handy. Check with your cable or satellite provider for instructions

### **Warning**

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

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